

**Inter-War, Inter-Service Friction on the North-West Frontier of India  
and its Impact on the Development and Application of  
Royal Air Force Doctrine**

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A thesis submitted to the  
University of Birmingham  
for the degree of  
DOCTOR OF PHILOSOPHY

School of History and Cultures  
College of Arts and Law  
University of Birmingham  
June 2017

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## ***ABSTRACT***

India's North-West Frontier was the one area where the British Raj could suffer a knockout blow from either external Russian invasion or internal revolt. Frontier defence was amongst the greatest burdens during India's inter-War financial austerity. Despite the RAF's operational and financial efficacy in 1920s Iraq, air control was never implemented on the Frontier and air power's potential was never fully exploited. Instead, aircraft were employed to enhance the Army's traditional battlefield capabilities, resulting in efficient tactical co-ordination during the 1930s Waziristan campaign - the RAF's most operationally-active pre-War theatre.

To address why air power was constrained on the Frontier, this Thesis examines the inter-War relationship between the Armies in India and the RAF and its impact on the development and application of RAF doctrine.

It concludes that the conservatively-natured Indian Armies were slow to recognise the conceptual shift required to fully exploit air power. This entrenchment was reinforced by inter-Service rivalry and the threat of aircraft replacing land forces with a concomitant loss of political standing. The enduring high-level internecine conflict resulted in the squandering of both resources and the opportunity to test independent, 'strategic' air power theory prior to the Second World War. Its legacy impacted on Army-RAF relations into the War.

## ***DEDICATION***

To my wife and children, for their forbearance

## **ACKNOWLEDGEMENTS**

I am indebted to many people for their support during the research for this Thesis. My thanks go to my inspirational, erstwhile navigator, Air Chief Marshal Sir Stu Peach, for sparking my interest in air power. I am extremely grateful for the Portal Fellowship granted by the Chief of the Air Staff, Air Chief Marshal Sir Glenn Torpy, and am beholden for the support of the RAF Directors of Defence Studies and their staff over the last few years, particularly Air Commodore Neville Parton and Ms Jane Curtis.

I would like to thank the staffs of the various archives I was allowed access to, including the India Office Records in the British Library and The National Archives, particularly Harriet Pilcher in the Records Copying Department. I am grateful for the prompt help of the Librarians at the Royal United Services Institute, Laura Dimmock and Tony Pilmer, Justin Saddington at the National Army Museum, Lynn Gamma at the Air Force Historical Research Agency, Seb Cox and his staff at the RAF Air Historical Branch, Peter Elliott and the staff of the RAF Museum's Department of Research and Information Services, John Hodgson at the John Rylands Library, and the staff of Christ Church Library, including their photographer, Alina Nachescu and their talented archivist, Elizabeth Piper. I would like to extend my deepest appreciation to two custodians in particular. Mr Chris Hobson, formerly the Head of Library Services at the UK Defence Academy, has been unfailingly responsive and helpful with my long list of requests. Similarly, I have benefitted from the extraordinary knowledge and goodwill of Squadron Leader (Retd) Rana Chhina, the Secretary of the United Service Institution of India's Centre for Armed Forces Historical Research, who has provided me with records that would otherwise have been beyond my grasp. No research would have been possible without the endless enthusiasm of these professionals.

I would like to acknowledge the friendship, support and advice of my colleagues, particularly Dr David Jordan, Dr Gary Sheffield, Dr Chris Tripodi, Dr Tim Moreman, Dr Robert Owen, Clive Richards, Wing Commander (Retd) 'Jeff' Jefford and Brigadier Andrew Roe.

My greatest thanks go to my supervisor, Dr Peter Gray, and my family. They have all shown the utmost patience and have been the most vital elements of my studies.

## **CONTENTS**

<b>Abstract</b>	ii
<b>Dedication</b>	iii
<b>Acknowledgements</b>	iv
<b>Contents</b>	v
<b>List of Figures</b>	xi
<b>List of Abbreviations</b>	xii
<b>Glossary</b>	xiv
<b>Chapter 1    <i>Introduction</i></b>	1
Introduction	1
Literature Review	3
Research Questions	13
Methodology and Structure	15
Sources	18
<b>Chapter 2    <i>Political and Cultural Context</i></b>	31
Introduction	31
The Importance of India	31
British Grand Strategy	32
NWF Administrative History	35
Topography	41
Cultural Aspects	41
Cross-Cultural Communication	48
British NWF Policy	53
The Close Border Policy – 1838 to 1879	55
The Forward Policy – 1879 to 1901	57
1897 Uprisings	58
The Modified Close Border Policy – 1899 to 1919	59
Modified Forward Policy – 1923-47	61
Anglo-Afghan Relations	68
The Causes of Violence	69

<b>Chapter 3</b>	<b><i>RAF Tactics and Doctrine, 1918-1922</i></b>	<b>74</b>
	Introduction	74
	The Nature of Doctrine	75
	Air Power Doctrine	80
	Early RAF Doctrine	82
	CD22 – Operations Manual	90
	RAF Staff College	99
	Conclusion	103
<b>Chapter 4</b>	<b><i>RAF Tactics and Doctrine, 1922-28</i></b>	<b>105</b>
	Introduction	105
	Minor Doctrinal Publications	105
	AP1300 - RAF War Manual, 1928	137
	Conclusion	147
<b>Chapter 5</b>	<b><i>RAF Tactics and Doctrine, 1928-39</i></b>	<b>150</b>
	Introduction	150
	Minor Doctrinal Publications	150
	Combined Frontier Manual	203
	Conclusion	210
<b>Chapter 6</b>	<b><i>A Brief History of the RAF on the NWF</i></b>	<b>212</b>
	Introduction	212
	Early Indian Aviation	213
	First World War	214
	Post-FWW Aviation	216
	Third Afghan War	218
	Waziristan, 1919-1920	220
	Budgetary Issues	221
	1922 Salmond Review	223
	1922-1924	226
	Pink's War, 1925	227
	Mohmand Disturbance, 1927	234
	Comparison of Pink's War and Mohmand Disturbance	235
	Kabul Airlift, 1928/29	236
	Trenchard's 1929 'Swansong'	238
	1929 Red Shirt-Inspired Incursions	240
	Chitral Relief, 1932	247

	Upper Mohmands Operation, 1933	249
	Bajaur Operations, 1933	251
	Loe Agra Campaign, 1935	252
	Mohmand Campaign, 1935	253
	Improving In-Theatre Relations, 1935	256
	Waziristan 1936-1939 – The Fakir of Ipi	259
	Pre-War Modernisation in Financial Austerity	279
	Looming War	292
	Conclusion	293
<b>Chapter 7</b>	<b><i>‘Control and Constraints’ - Challenges to the Application of Air Power</i></b>	<b>298</b>
	Introduction	298
	The Control of Air Power	299
	Army vs RAF Decision-Making Speed	303
	Inter-Service Hierarchy, Trust and Resentment	304
	Army Reluctance to Publicise RAF Exploits	314
	Personalities and Relationships	315
	Moral Objections to the Use of Air Power	329
	Tribal Resentment	335
	Public Pressure	337
	Diplomatic Pressures	339
	Gestation of the Combined Frontier Manual	342
<b>Chapter 8</b>	<b><i>Implications and Conclusions</i></b>	<b>351</b>
	Implications	351
	NWF Influence on Strategic Bombing Policy	351
	British Expeditionary Force, 1940	382
	Conclusions	383
<b>Annex 1</b>	<b>Definitions</b>	<b>399</b>
	Air Blockade	399
	Air Control	400
	Air Policing	400
	Air Substitution	401
	Guerrilla Warfare	401
	Imperial Policing	401
	Insurgency and Counter-Insurgency	402



	Insurrection, Rebellion and Uprisings	403
	Irregular Warfare	403
	Proscriptive Air Action	404
	Small Wars	405
	Subversion	406
	Terrorism	407
<b>Annex 2</b>	<b><i>Weapon Expenditure of Various NWF Operations, Waziristan, 1932-1939</i></b>	409
	Chitral Relief, 1932 - Destructive Phase	409
	Chitral Relief, 1932 - Harassment Phase	409
	Second Khaisora Operation - December 1936	410
	Punitive Destruction of Arsal Kot - 1936/37	410
	Wana Column Support - February 1937	411
	Third Khaisora Operation - April 1937	411
	Punitive Bombing of Bhitanni Villages - June 1937	412
	Punitive Bombing of Razin - July 1937	412
	Army Co-operation by 3(Indian) Wing - September 1937	413
	Madda Khel Punitive Bombing - March 1938	413
	Dargai Sar Emergency Air Support - April 1938	414
	Madda Khel Punitive Air Proscription - May 1938	414
	Punitive Action against Madda Khel Villages - August 1938	415
	Punitive Destruction of Tamora - January 1939	415
	Punitive Air Proscription of Karesta Algad - January to June 1939	416
	Madda Khel Air Blockade - February to April 1939	417
	Tori Khel Punitive Air Proscription - October 38 to May 39	417
	Razmak Road Proscription - July 1939	418
	Proscription of Fakir of Ipi at Kharre - August 1939	418
	Proscription of Fakir of Ipi at Kharre - September 1939	419
<b>Annex 3</b>	<b>Transcript from 'Birds of Prey' TV Documentary - NWF Excerpts</b>	420
<b>Annex 4</b>	<b>RAF Staff College Pre-Course Reading List, 1933</b>	422
<b>Annex 5</b>	<b>RAF Staff College Small Wars Syllabus, 1922-1938</b>	423
<b>Annex 6</b>	<b>Classification of Targets - AP1300</b>	430

<b>Annex 7</b>	<b>Key Personality Biographies</b>	431
	Bottomley, Air Chief Marshal Sir Norman	431
	Burt-Andrews, Air Commodore C B E	432
	Capel, Air Vice-Marshal A J	433
	Chamier, Air Commodore Sir John	434
	Champion de Crespigny, Air Vice-Marshal Hugh	435
	Darvall, Air Marshal Sir Lawrence ‘Johnny’	436
	Ellington, Marshal of the RAF Sir Edward	437
	Embry, Air Chief Marshal Sir Basil	438
	Game, Air Vice-Marshal Sir Philip	439
	Harris, Marshal of the RAF Sir Arthur	440
	Joubert de la Ferte, Air Chief Marshal Sir Philip	441
	Kingston-McClaghry, Air Vice-Marshal E J	442
	Ludlow-Hewitt, Air Chief Marshal Sir Edgar	443
	McEwen, Air Vice-Marshal Sir Norman	444
	Muspratt, General Sir Sydney Frederick	445
	Peck, Air Marshal Sir Richard	446
	Pirie, Air Chief Marshal Sir George	447
	Salmond, Marshal of the RAF Sir John	448
	Salmond, Air Chief Marshal Sir W Geoffrey H	449
	Slessor, Marshal of the RAF Sir John	450
	Steel, Air Chief Marshal Sir John	451
	Vesey, General (Air Vice-Marshal) Sir Ivo	452
	Webb-Bowen, Air Vice-Marshal Sir Tom	453
	Wilson, General Sir Roger	454
<b>Annex 8</b>	<b><i>Ground-to-Air ‘Direction Arrow’</i></b>	455
<b>Annex 9</b>	<b><i>Development of Army Staff College Mountain Warfare Exercise Air Comments</i></b>	456
<b>Annex 10</b>	<b><i>Pink’s War Operational Statistics – March-April 1925</i></b>	457
<b>Annex 11</b>	<b><i>Examinations of the Constitution of the RAF as a Separate Service Between 1917 and 1929</i></b>	458
<b>Annex 12</b>	<b><i>Madda Khel Warning Notice, February 1939</i></b>	459
<b>Annex 13</b>	<b><i>Extracts from 1928 Instructions Regarding the Employment of Aeroplanes on the North-West Frontier of India</i></b>	460

<b>Annex 14</b>	<b><i>Extracts from 1931 Provisional Instructions Regarding the Control of Operations including the Employment of Air Forces on the North-West Frontier of India</i></b>	<b>462</b>
<b>Annex 15</b>	<b><i>RAF India Monthly Summary Statistics - Waziristan Operations – 1937-39</i></b>	<b>465</b>
<b>Annex 16</b>	<b><i>Air Staff Analysis of Possible Forms of ‘Frightfulness’ – 1922</i></b>	<b>466</b>
<b>Annex 17</b>	<b><i>Correspondence to India Office from the Public Regarding Policy (Including Air Action) – 1935 to 1938</i></b>	<b>469</b>
<b>Annex 18</b>	<b><i>British Expeditionary Force 1* Career Backgrounds</i></b>	<b>472</b>
<b>Annex 19</b>	<b><i>Chiefs of the Air Staff – Air Control and Military Experience</i></b>	<b>482</b>
<b>Annex 20</b>	<b><i>Air Officer Commanding-in-Chief, Bomber Command – Air Control and Military Experience</i></b>	<b>483</b>
<b>Annex 21</b>	<b><i>Air Officer Commanding, RAF India – Air Control and Military Experience</i></b>	<b>484</b>
<b>Annex 22</b>	<b><i>Geographical Distribution of Military Airfields in India, 1918-1939</i></b>	<b>485</b>
<b>Annex 23</b>	<b><i>RAF Stations and Squadrons in India, 1920-1938</i></b>	<b>486</b>
<b>Annex 24</b>	<b><i>RAF Stations, Airfields, Squadrons and Detachments on NWF, 1914-1939</i></b>	<b>487</b>
<b>Annex 25</b>	<b><i>Senior Appointments, 1914-1940</i></b>	<b>489</b>
	<b>Bibliography</b>	<b>490</b>

## ***LIST OF FIGURES***

<b>Figure 1</b>	<b>Editors of NWF Official Histories, 1920-40</b>	<b>22</b>
<b>Figure 2</b>	<b>Tribal locations of the Pathans</b>	<b>38</b>
<b>Figure 3</b>	<b>NWFP Political Districts and Agencies</b>	<b>40</b>
<b>Figure 4</b>	<b>NWFP river systems</b>	<b>42</b>
<b>Figure 5</b>	<b>NWFP topography</b>	<b>43</b>
<b>Figure 6</b>	<b>Remnants of the Army by Lady Elizabeth Butler</b>	<b>50</b>
<b>Figure 7</b>	<b>Qualities of an Army officer</b>	<b>50</b>
<b>Figure 8</b>	<b><i>Flying</i> magazine front cover, 1938</b>	<b>51</b>
<b>Figure 9</b>	<b>Man-made Lines of Communication</b>	<b>64</b>
<b>Figure 10</b>	<b>Letter from Nawab of Dir</b>	<b>71</b>
<b>Figure 11</b>	<b>Robertson's neo-Clausewitzian framework of inter-War doctrinal development</b>	<b>80</b>
<b>Figure 12</b>	<b>ASM19 comparison of Air and Army tactics and their intended effect</b>	<b>110</b>
<b>Figure 13</b>	<b>Shahur Tangi article, <i>Life</i> magazine (May 1937)</b>	<b>265</b>
<b>Figure 14</b>	<b>Waziristan Area Operations, 1936</b>	<b>296</b>
<b>Figure 15</b>	<b>Waziristan Air Operations, 1936-38</b>	<b>297</b>
<b>Figure 16</b>	<b>Battle damage report, Waziristan, 1930</b>	<b>337</b>
<b>Figure 17</b>	<b>India Office correspondence from members of the public regarding policy (including air action) on the NWF, 1935-39</b>	<b>338</b>

## ***LIST OF ABBREVIATIONS***

AC	Army Co-operation
ACF	Armed Civil Forces
ACM	Air Chief Marshal
Air Cdre	Air Commodore
AM	Air Marshal
AOC	Air Officer Commanding
AOC-in-C	Air Officer Commanding-in-Chief
AOC(India)	Air Officer Commanding, RAF India
AP	Air Publication
ARK	Abdur Rahman Khel, an aggressive division of the Mahsud tribe
AS(I)M	Air Staff (India) Memorandum
ASM	Air Staff Memorandum
AVM	Air Vice-Marshal
BEF	1940 British Expeditionary Force
BIB	Baby Incendiary Bomb
BTF	Bomber Transport Flight
Capt	Captain
CAS	Chief of the Air Staff
CFS	Central Flying School
CGS(India)	Chief of the General Staff, India
CID	Committee of Imperial Defence
CIGS	Chief of the Imperial General Staff
C-in-C	Commander-in-Chief
C-in-C(India)	C-in-C, India
CIMR	Committee of Indian Military Requirements
Col	Colonel
COSC	Chiefs of Staff Committee
COS	Chief of Staff
CSBS	Course Setting Bomb Sight
DCAS	Deputy Chief of the Air Staff
DD	Deputy Director
DS	Directing Staff
Flt Lt	Flight Lieutenant
Fol	Fakir of Ipi
FTS	Flying Training School
FWW	First World War
GOC	General Officer Commanding
GOC-in-C	GOC-in-Chief

Gol	Government of India
Gp Capt	Group Captain
GS	General Staff
GS(India)	General Staff, India
HMG	His Majesty's Government
HQ	Headquarters
HQ RAF(India)	Headquarters Royal Air Force, India
IAF	Indian Air Force
IGS	Imperial General Staff
IO	India Office
IPS	Indian Political Service
<i>JRUSI</i>	Journal of the Royal United Service Institution
<i>JUSII</i>	Journal of the United Service Institution of India
Lt Col	Lieutenant Colonel
Lt Gen	Lieutenant General
Maj	Major
MOD	Ministry of Defence
NWF	North-West Frontier
NWFI	North-West Frontier of India
NWFP	North-West Frontier Province
OC	Officer Commanding
PIF	Punjab Irregular Force
PM	Prime Minister
PUS	Permanent Under Secretary of State
QFI	Qualified Flying Instructor
RAF	Royal Air Force
RAF(India)	Royal Air Force, India
<i>RAFQ</i>	Royal Air Force Quarterly
RFC	Royal Flying Corps
RNAS	Royal Naval Air Service
RUSI	Royal United Service Institution
SAA	Small Arms Ammunition
SABS	Stabilised Automatic Bomb Sight
SASO	Senior Air Staff Officer
SoS	Secretary of State
Sqn Ldr	Squadron Leader
US	United States
USII	United Service Institution of India
Wg Cdr	Wing Commander
WO	War Office

## GLOSSARY

<i>amir</i>	ruler or king
<i>badal</i>	tribal reciprocal retribution
<i>fakir</i>	charismatic, wandering <i>mullahs</i> viewed as miracle workers
gooly chit	a 'blood chit' carried by aircrew offering a reward for the unharmed return of the bearer
<i>haji</i>	a Muslim who has completed the Hajj to Mecca, often a wealthy elder
<i>hamsaya</i>	an outlaw sheltered by a tribal leader under <i>Pashtunwali</i>
<i>Jazailchis</i>	tribal soldiers maintained by tribal leaders to protect the Khyber Pass, funded by the GoI. They evolved into the Khyber Rifles.
<i>ji had</i>	Islamic holy war, within the context of this Thesis
<i>jirga</i>	male tribal assembly or council used to settle disputes by consensus
<i>khan</i>	title given to local rulers in central Asia
<i>Khassadars</i>	non-uniformed tribal police, equipped by the local tribes.
<i>khel</i>	sub-tribal Pathan division
<i>kot</i>	walled village
<i>lashkar</i>	armed tribal force
<i>lashkar-walas</i>	member of a <i>lashkar</i>
<i>maliks</i>	democratically elected tribal village leader
<i>melmastia</i>	tribal hospitality
military	relating to soldiers, soldiery and land forces
<i>mujahideen</i>	jihadi
<i>mullah</i>	religious leader who takes prayers
<i>nikat</i>	law of tribal division
<i>nang</i>	hill tribesmen; also means 'honour'
<i>nanawatai</i>	<i>Pashtunwali</i> code of giving sanctuary to renegades
<i>nullah</i>	ravine
<i>Pashtunwali</i>	traditional Pathan code of honour
'Piffers'	colloquial name for the Punjab Irregular Force (PIF)
picquet	forward, often fortified, observation position (sometimes 'picket')
<i>pir</i>	saint or elder who guides his followers
Politicals	political officers of the Foreign and Political Department of the Government of India (which became the Indian Political Service in 1937)
<i>qalang</i>	tribes who occupied the plains and were taxed
<i>sharm</i>	tribal shame
<i>tarburwali</i>	rivalry between patrilineal male cousins with connotations of 'enemy'

## CHAPTER 1 – INTRODUCTION

*'The North-west Frontier Province remains one of the most fascinating areas and memories of the British Empire. Myth, legend and reality overlap here and one is not sure where one stops and the other begins. The Frontier was where careers, including those of Indian Viceroy and British Prime Ministers, could be made and unmade'*<sup>1</sup>

### INTRODUCTION

The North-West Frontier (NWF) of India, described by India's High Commissioner in 1938 as 'the most important land frontier in the Empire', was an area of vital importance to the British Empire.<sup>2</sup> It formed the border between British India and Afghanistan, the trade route historically taken by repetitive historical invasions from the north-west. The British fixated on Frontier problems, be them the threat of conventional Russian invasion (the 'major' threat), or irregular warfare by the indigenous Pathan tribesmen of the mountainous, unadministered, Frontier zone (the 'minor' threat).<sup>3</sup> As Marsh observed in 2009:

Generations of British officers believed that this was the one place in India where the British could suffer a "knockout blow" from either external invasion or internal revolt.<sup>4</sup>

The Frontier mountains lacked natural resources, reducing the trans-border tribes to poverty and forcing them to raid the fertile Punjab plains. This, combined with the tribes' fiercely independent nature and the prevalence of rifles, led to outbursts of violence. In the aftermath of the tribal uprisings following the 1919 Third Afghan War, the Indian Armies garrisoned the unadministered Frontier area and instigated a programme of road building into the tribal heartlands, at significant

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<sup>1</sup> Akbar S Ahmed, "An Aspect of the Colonial Encounter in the North-West Frontier Province", *Asian Affairs* 9, no. 3 (1978): 320.

<sup>2</sup> CAB 21/1079, Major-General Sir Sydney Muspratt, *India Defence Problems: Transcript of Broadcast by High Commissioner of India to the UK on 16 May 1938, prepared by Military Secretary, India Office*, 25 April 1938.

<sup>3</sup> The archaic term 'Pathan', rather than 'Pashtuns' is used throughout this Thesis to describe the Pashto-speaking people of the region, as this is the term used in the primary sources of the period.

<sup>4</sup> Brandon D. Marsh, "Ramparts of Empire: India's North-West Frontier and British Imperialism, 1919-1947" (University of Texas at Austin, 2009), vii.



financial expense, to subdue further violence.

Following the end of the First World War (FWW), the fledgling Royal Air Force (RAF) was searching for an independent role to secure its autonomy and avoid potential re-absorption into its parent Services. The Air Staff swiftly developed a scheme that would become known as 'air control' whereby the Air Ministry assumed responsibility for the internal security of a region.<sup>5</sup> This involved troops being largely substituted by aircraft, with significant concomitant savings. Following the 1921 Cairo Conference, air control was implemented in Iraq and, in 1922, all British and local forces were placed under the command of Air Vice-Marshal Sir John 'Jack' Salmond.<sup>6</sup> The Chief of the Imperial General Staff (CIGS) doubted that Iraq could be run by 'Hot Air, Aeroplanes & Arabs'.<sup>7</sup> Nevertheless, the cost of garrisoning Iraq dropped from £20-million in 1922 to under £2-million in 1928.<sup>8</sup> Aden, Transjordan and Palestine followed this model thereafter. With the exception of Palestine, air control was deemed largely successful in the inter-War period.<sup>9</sup>

Despite the withdrawal of Indian Army units from Iraq, the post-War trade slump and exchange rate crash placed India in financial crisis. Defence consumed over 51% of India's 1920-21 budget, largely on the NWF, a trend that continued until the Second World War.<sup>10</sup> Yet, despite the RAF's apparent operational and financial efficacy in Iraq, air control was never implemented on the NWF, despite the Air Ministry's

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<sup>5</sup> This definition of the term 'air control' is used throughout this Thesis. A list of definitions is provided at [Annex 1](#).

<sup>6</sup> See H Montgomery Hyde, *British Air Policy Between the Wars, 1918-1939* (London: William Heinemann, 1976), 91-95.

<sup>7</sup> Keith Jeffery, *Field Marshal Sir Henry Wilson: A Political Soldier* (Oxford: Oxford University Press, 2006), 251.

<sup>8</sup> D J P Waldie, "Relations Between the Army and the Royal Air Force, 1918-1939" (Unpublished PhD Thesis, King's College London (University of London), 1980), 205.

<sup>9</sup> The Air Ministry never claimed to be able to control Palestine from the air. Air control was imposed as an convenience, piggy-backing on the RAF's administrative structures already established to support air control in Transjordan, with the Air Ministry acting as the Colonial Office's agent. See the analysis in Chapter 5.

<sup>10</sup> B R Tomlinson, *The Political Economy of the Raj, 1914-1947: The Economics of Decolonization in India* (London: The Macmillan Press Ltd, 1979), 109; Marsh, "Ramparts of Empire", 37-38.

persistent petitioning. Furthermore, India's Commander-in-Chief (C-in-C(India)) shied away from independent RAF action, preferring to use air power to support the Army.

This study examines the nature of the inter-War relationship between the Armies of India and the RAF and its impact on the development and application of RAF doctrine. It strives to answer the question of why, when air control in Iraq had resulted in demonstrable financial economies by the late 1920s, was air power's maximum potential not implemented on the Frontier, given India's extreme austere financial position?

The ethics of Imperialism are addressed in their contemporary context and are not judged by today's standards. The interesting subject of 'Indianisation' and the formation of the Indian Air Force (IAF) are not addressed, as they fall outwith the core research question. Similarly, irregular warfare and tactics are not described in great detail as these have recently been addressed by other doctoral studies; they are only examined where they generated inter-Service friction or impacted on doctrine.<sup>11</sup>

## LITERATURE REVIEW

An overview of the extant research highlights the need for closer examination of the nature of inter-Service friction in India and its implications. Looking first at the political-military interface, Montgomery Hyde's expansive 1976 work examined the 1928/9 Kabul evacuation and Trenchard's 1929 Frontier air control scheme, but was otherwise 'light' on India.<sup>12</sup> In 1980, Bond provided an overview of British and Indian military policy and the issues of late-1930s modernisation, although the air aspects were secondary and somewhat inaccurate.<sup>13</sup> This, in conjunction with Tomlinson's

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<sup>11</sup> See, in particular, Coningham's work, as discussed in the Literature Review (Simon Coningham, "Divided We Fall: Continuity or Discontinuity in Close Air Support, 1919-39" (Unpublished PhD Thesis, King's College London, 2009)).

<sup>12</sup> Hyde, *British Air Policy Between the Wars*.

<sup>13</sup> Brian Bond, *British Military Policy between the Two World Wars* (Oxford: Oxford University Press, 1980).

1979 *Political Economy of the Raj*, exposed the financial constraints that shaped NWF policy.<sup>14</sup> Unfortunately, while Powers' bold 1976 study of inter-War air strategy examined air control, Indian references were almost absent.<sup>15</sup> Smith's 1984 work examined the external factors that influenced the Air Ministry between the Wars, but its high-level approach, again, largely circumvented India.<sup>16</sup> Ferris' 1989 study advanced that Britain could only afford to modernise one Service in the early 1920s and that the economy of air control in Iraq prevailed; this ultimately led to strategic bombing forces while Army modernisation remained largely unfunded.<sup>17</sup> This was an interesting perspective in the context of this Thesis, given India's financial austerity. While Biddle's 2002 *Rhetoric and Reality* did not mention India, it is nevertheless a critical work in collating the RAF's development of strategic bombing as a coercive tool.<sup>18</sup>

There are many popular NWF historical narratives, the more recent ones pitched from the Afghan perspective. These paint a vivid picture of Frontier land conflict, but even D S Richards (an ex-RAF navigator) rarely mentioned air power.<sup>19</sup> A few more analytical authors have used the NWF as case studies for wider themes such as insurgency.<sup>20</sup>

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<sup>14</sup> Tomlinson, *The Political Economy of the Raj*.

<sup>15</sup> Barry D Powers, *Strategy Without Slide-Rule: British Air Strategy, 1914-1939* (London: Holmes and Meiers, 1976).

<sup>16</sup> Malcom Smith, *British Air Strategy Between the Wars* (Oxford: Clarendon Press, 1984).

<sup>17</sup> John Robert Ferris, *The Evolution of British Strategic Policy, 1919-1926* (Basingstoke: MacMillan Press, 1989), 63-64.

<sup>18</sup> Tami Davis Biddle, *Rhetoric and Reality in Air Warfare: The Evolution of British and American Ideas about Strategic Bombing, 1914-1945* (Princeton: Princeton University Press, 2002).

<sup>19</sup> For example: Michael Barthorp, *The North-West Frontier: British India and Afghanistan: A Pictorial History, 1839-1947* (Poole: Blandford Press, 1982); Gregory Fremont-Barnes, *The Anglo-Afghan Wars, 1839-1919* (Oxford: Osprey, 2009); Matt M Matthews, *An Ever Present Danger: A Concise History of British Military Operations on the North-West Frontier, 1849-1947* (Fort Leavenworth: Combat Studies Institute Press, 2010); D S Richards, *The Savage Frontier: A History of the Anglo-Afghan Wars* (London: MacMillan, 1990); Victoria Schofield, *Afghan Frontier: At the Crossroads of Conflict* (London: Taurus, 2003); Jules Stewart, *The Savage Border: The Story of the North-West Frontier* (Stroud: Sutton Publishing, 2007).

<sup>20</sup> See, for example, Major Eric H Haas, *Operations at the Border: Efforts to Disrupt Insurgent Safe-Havens*, Art of War Papers (Fort Leavenworth: Combat Studies Institute Press, 2011);

Most Indian Army academic studies recognise air power's Frontier role, at least within the confines of the battlefield. In 1968, Major-General Elliott provided a soldier's perspective on the causes of conflict which, although not recognising the coercive nature of air blockades, was well researched and objective about air power.<sup>21</sup> Moreman's 1997 thesis and subsequent works set the scholarly benchmark which, while concentrating on land operations, increasingly described RAF Frontier warfare, focusing on tactical support for the Army.<sup>22</sup> Johnson's 2015 edited collation provided two germane NWF air power studies.<sup>23</sup> Coningham's discussion on air-ground cooperation in Waziristan during 1936-37; and Richards' comprehensive analysis of early Indian aviation and the creation of the Indian Air Force, a subject he has published widely on.<sup>24</sup>

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David M Hart, *Banditry in Islam: Case Studies from Morocco, Algeria and the Pakistan North West Frontier*, Menas Studies in Continuity and Change in the Middle East & North Africa (Wisbech: Middle East & North African Studies Press, 1987).

<sup>21</sup> Major General J G Elliott, *The Frontier, 1839-1947: The Story of the North-West Frontier of India* (London: Cassell, 1968).

<sup>22</sup> T R Moreman, "Passing it On: The Army in India and the Development of Frontier Warfare, 1849-1947" (PhD Thesis, King's College, University of London, 1995); ———, "'Small Wars' and 'Imperial Policing': The British Army and the Theory and Practice of Colonial Warfare in the British Empire, 1919-1939", *The Journal of Strategic Studies* 19, no. 4 (1996); ———, *The Army in India and the Development of Frontier Warfare, 1849-1947* (Basingstoke: MacMillan Press, 1998); ———, "'Watch and Ward': The Army in India and the North-West Frontier, 1920-1939" in *Guardians of Empire: The Armed Forces of the Colonial Powers, C. 1700-1964*, ed. David Killingray and David Omissi (Manchester: Manchester University Press, 1999); ———, "'The Greatest Training Ground in the World': The Army in India and the North-West Frontier, 1901-1947" in *A Military History of India and South Asia: From the East India Company to the Nuclear Era*, ed. Daniel P Marston and Chandar S Sundram (Westport: Praeger Security International, 2007); ———, "Passing it On: The Army in India and Frontier Warfare, 1914-39" in *War and Society in Colonial India*, ed. Kaushik Roy (New Delhi: Oxford University Press, 2010); ———, "Development of Frontier Warfare 1914-39", King-Emperor.com, <http://www.king-emperor.com/Frontier%20Warfare%201914-1939.html> (accessed 9 May 2014).

<sup>23</sup> Rob Johnson, ed. *The British Indian Army: Virtue and Necessity* (Newcastle upon Tyne: Cambridge Scholars, 2014). Robson's previous Frontier book dedicated just a single page to the role of air power (see ———, *The Afghan Way of War: Culture and Pragmatism: A Critical History* (London: Hurst & Co, 2011), 199-200).

<sup>24</sup> Simon Coningham, "Air-Ground Cooperation between the RAF and the Indian Army in Waziristan 1936-37" in *The British Indian Army: Virtue and Necessity*, ed. Rob Johnson (Newcastle upon Tyne: Cambridge Scholars, 2014); Clive Richards, "First Into the Indian Skies: The Indian Army, Military Aviation and the Creation of the Indian Air Force, 1910-1932" in *The British Indian Army: Virtue and Necessity*, ed. Rob Johnson (Newcastle upon Tyne: Cambridge Scholars, 2014). Richards' previous works include: ———, "Origins of Military Aviation in India and the Creation of the Indian Air Force, 1910-1932, Part One: The Origins of Military Aviation in India, 1901-1918", *Royal Air Force Air Power Review* 10, no. 3 (2007); ———

Andrew Roe, an experienced British Army infantry officer, has published prolifically on the NWF, initially on Frontier governance and the Fakir of Ipi (Fol), but progressively focusing on air power. His *Air Power Review* articles have examined Pink's War, the Kabul airlift and the perils of air operations, as well as analyses of aviation's role in guerrilla warfare and army co-operation (AC) in 1930s Waziristan; these were published as a compendium in 2015.<sup>25</sup> His articles, which largely concerned tactical and theatre-level air power, demonstrated an incisive understanding of air-land operations. These texts, by essentially land-centric authors, are invaluable in providing the soldier's view of NWF air power, mitigating against a myopic air-centric approach to this study.

The study of Imperialism exposes the broader context of this Thesis. Headrick's 2010 *Power Over Peoples* analysed technology's role in Western colonialism and the indigenous response. He dedicated two chapters to air control, one proposing that aircraft kept the colonial dream alive at minimal cost, and the second, less convincing and simplistic, air control's decline. Headrick suggested that air power's inability to discriminate between insurgents and civilians, and its faceless destruction, inspired sympathy and supporters for insurgencies. While Headrick's worldwide review

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—, "Origins of Military Aviation in India and the Creation of the Indian Air Force, 1910-1932, Part Two", *Royal Air Force Air Power Review* 11, no. 1 (2008); and —, "Substitution or Subordination? The Employment of Air Power over Afghanistan and the North-West Frontier, 1910-1939", *Journal of the Royal Air Force Historical Society*, no. 48 (2010).

<sup>25</sup> Major Andrew M Roe, "British Governance of the North-West Frontier (1919-1947): A Blueprint for Contemporary Afghanistan?" (US Army Command and General Staff College, 2005); Andrew M Roe, *Waging War in Waziristan - The British Struggle in the Land of Bin Laden, 1849-1947* (Kansas: University Press of Kansas, 2010); —, "'Pink's War' – Applying the Principles of Air Control to Waziristan, 9 March to 1 May 1925", *RAF Air Power Review* 13, no. 3 (2010); Lieutenant Colonel Andrew M Roe, "Aviation and Guerrilla War: Proposals for 'Air Control' of the North-West Frontier of India", *RAF Air Power Review* 14, no. 1 (2011); —, "'Good God, Sir, Are You Hurt?': The Realities and Perils of Operating over India's Troublesome North-West Frontier", *RAF Air Power Review* 14, no. 3 (2011); —, "Evacuation by Air: The All-But-Forgotten Kabul Airlift of 1928-29", *RAF Air Power Review* 15, no. 1 (2012); Colonel Andrew M Roe, "The Troublesome 1930s: General Unrest, Intense Activity and Close Cooperation", *RAF Air Power Review* 16, no. 2 (2013); Andrew M Roe, Brian Cloughley, and Lester W Grau, *From Fabric Wings to Supersonic Fighters and Drones: A History of Military Aviation on Both Sides of the North-West Frontier* (Solihull: Helion & Company Ltd, 2015).

circumvented India, it highlighted the question of why the Raj, all-but-crippled by the cost of maintaining its NWF armies, dismissed the economies of air control. Roy's 2010 *War and Society in Colonial India* examined the dynamic between the military and Indian colonial society.<sup>26</sup> Roy dismissed aerial warfare because the inter-War air forces were 'miniscule', highlighting a misconception of air power's significance in the historiography.<sup>27</sup> Simpson's 2010 *Human Rights and the End of Empire* examined air power as a mechanism of repression and the blurring of martial law and aggressive policing.<sup>28</sup> Despite this refreshing approach, Simpson's argument assumed that all air action was punitive and unable to bring malefactors to trial, unaware that the Air Ministry's preferred method, the air blockade, was a minimum-force tactic to coerce belligerents into compliance. Marsh's 2009 thesis and 2015 book examined the inter-War dynamic between the British and Pathans, set against the background of rising Indian nationalism.<sup>29</sup>

Several books examine NWF campaigns. Barthorp's *Afghan Wars* was a popularist but pictorially enriching work.<sup>30</sup> Robson's scholarly narrative of the Third Afghan War and subsequent 1920 Waziristan campaign included a three-page reflection on air power.<sup>31</sup> Warren's 2000 book described air power's involvement during the Fol's 1936-37 revolt, but his detailed monograph was light on analysis.<sup>32</sup> Roe provided the most detailed analysis of air action in his 2010 *Waging War in*

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<sup>26</sup> Kaushik Roy, ed. *War and Society in Colonial India*, Second ed., Themes in Indian History (New Delhi: Oxford University Press, 2010).

<sup>27</sup> Ibid., 358.

<sup>28</sup> A W Brian Simpson, *Human Rights and the End of Empire: Britain and the Genesis of the European Convention* (Oxford: Oxford University Press, 2001), 71-75.

<sup>29</sup> Marsh, "Ramparts of Empire" and Brandon D. Marsh, *Ramparts of Empire: British Imperialism and India's Afghan Frontier, 1918-1948* (Basingstoke: Palgrave Macmillan, 2015). See also ———, "The North-West Frontier and the Crisis of Empire: Post-War India and the Debate over Waziristan, 1919-1923", *British Scholar* 1 (2009).

<sup>30</sup> Michael Barthorp, *Afghan Wars and the North-West Frontier, 1839-1947* (London: Cassell & Co, 2002).

<sup>31</sup> Brian Robson, *Crisis on the Frontier: The Third Afghan War and the Campaign in Waziristan 1919-20* (Stroud: Spellmount, 2007).

<sup>32</sup> Alan Warren, *Waziristan, the Faqir of Ipi, and the Indian Army: The North West Frontier Revolt of 1936-37* (Oxford: Oxford University Press, 2000).

*Waziristan* and 2011 "Aviation and Guerrilla War".<sup>33</sup> However, covering the period 1849-1947 left him insufficient space for a full examination of independent air operations or Army-RAF friction.

The RAF tried, but failed, to implement air control on the NWF, so its study is germane. The modern debate opened with Beaumont's 1979 study of inter-War British air policing, proposing that asymmetric colonial operations distorted the RAF's development of the necessary bombing doctrine for the subsequent conventional warfare against Germany.<sup>34</sup> In 1981, Major-General Lunt provided a personal recount of how public opinion constrained air control in 1950/60s Aden.<sup>35</sup> Cox's 1985 *Splendid Training Ground* emphasised how air control's success in Iraq elevated the importance of bombing, concluding that 'the extent to which this may have influenced strategic doctrine during the Second World War is perhaps worthy of further attention'.<sup>36</sup> This was reinforced by Townsend's excellently researched and insightful 1986 essay on the strategic debate over air control.<sup>37</sup> In 1989, Towle published a worldwide review of air power in unconventional warfare, including a summary of the NWF.<sup>38</sup> Rising US Air force interest in policing generated Hoffman's 1989 RAND study, *British Air Power in Peripheral Conflict*, which included a three-page synopsis of the NWF. Hoffman highlighted the RAF's strategic failure to gain responsibility for any region under threat of major conflict despite its economy and tactical successes. Furthermore, peripheral conflict stifled the development of air defence tactics and

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<sup>33</sup> Roe, *Waging War in Waziristan* and ———, "Aviation and Guerrilla War".

<sup>34</sup> Roger A Beaumont, "A New Lease on Empire: Air Policing, 1919-1939", *Aerospace Historian* 26, no. 2 (1979).

<sup>35</sup> Major General James D Lunt, "Air Control: Another Myth?", *JRUSI* 126, no. 4 (1981).

<sup>36</sup> Jafna L Cox, "A Splendid Training Ground: The Importance to the Royal Air Force of its Role in Iraq, 1919-32", *The Journal of Imperial and Commonwealth History* 13, no. 2 (1985).

<sup>37</sup> Charles Townshend, "Civilization and 'Frightfulness': Air Control in the Middle East Between the Wars" in *Warfare Diplomacy and Politics: Essays in Honour of A.J.P. Taylor*, ed. Chris Wrigley (London: Hamish Hamilton, 1986).

<sup>38</sup> Philip A Towle, *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare, 1918-1988* (London: Brassey's, 1989).

weapon and navigation techniques.<sup>39</sup> Omissi's comprehensive 1990 *Air Power and Colonial Control* remains the standard reference work.<sup>40</sup> One of the few weak areas was his focus on the physical, rather than psychological, effect of bombing; another was his Imperial, rather than air power, focus. Despite dedicating only three pages to India, he acknowledged the sub-continent's central importance to Imperial defence. Omissi's timing was perfect; the perceived success of air power in the 1991 Gulf War, Balkans crisis and associated no-fly zones generated a flourish of articles debating air policing, especially in the US.<sup>41</sup> Corum, a US Army Reservist, has prolifically articulated the counter-arguments to air policing; his secondary-source reviews have

<sup>39</sup> Bruce Hoffman, *British Air Power in Peripheral Conflict, 1919-1976* (RAND, 1989), 21-24, 33-35.

<sup>40</sup> David E Omissi, *Air Power and Colonial Control: The Royal Air Force 1919-1939* (Manchester: Manchester University Press, 1990). Omissi focused a little more on India in his 2004 presentation to the Lawrence Society: ———, "The Royal Air Force in Iraq and India in the 1920s", *The Journal of the T E Lawrence Society* XIII, no. 2 (2004).

<sup>41</sup> See, for example, in chronological order: Major Michael A Longoria, "A Historical View of Air Policing Doctrine: Lessons from the British Experience Between the Wars, 1919-1939" (School of Advanced Airpower Studies, USAF Air University, 1992); Wing Commander B M B Canavan, "The Development of Air Control Doctrine, 1918 to 1939" (USAF Air University, 1993); Captain David W Parsons, "British Air Control: A Model for the Application of Air Power in Low-Intensity Conflict?", *Airpower Journal* (1994); Major Tony R Mullis, "The Limits of Air Control: The RAF Experience in Aden, 1926-67" (USAF Air University, 1997); Major Michael E Tallent, "Air Occupation: An Environmental Impact Study" (USAF Air University, 1997); Major Michael J Petersen, "Wood, Fabric, and Wire: Insights from the Biplanes Era, 1919-1936 Forward", *Chronicles Online Journal* (1998?), <http://www.airpower.maxwell.af.mil/airchronicles/coj/cc/biplane.html>; Richard F Walker, "Facing the Future: A Doctrine for Air Control in Limited Conflicts" (School of Advanced Airpower Studies, USAF Air University, 1998); Air Marshal Sir Timothy Garden, "Air Power and the New Imperialism - 2002 Royal Aeronautical Society Sopwith Lecture", *The UK Defence Forum* (2002), <http://www.ukdf.org.uk/assets/downloads/assets/writings/articles/2002/020701raes.html>; Wing Commander A J C Walters, "Air Control: Past, Present, Future?", *RAF Air Power Review* 8, no. 4 (2011); ———, "Air Control: Past, Present, Future?", *RAF Air Power Review* 8, no. 4 (2005); Major Robert O Cioppa, "Airpower in Small Wars: Back to the Future" (USAF Air University, 2006); Priya Satia, "The Defense of Inhumanity: Air Control and the British Idea of Arabia", *The American Historical Review* 111, no. 1 (2006); Wing Commander David F Haines, "British Airpower and Counterinsurgency - Learning from the Past, Fighting Today and Preparing for the Future" (USAF Air University, 2007); David Hall, "Ruling the Empire out of the Central Blue: The Royal Air Force and Counter-Insurgency (COIN) Operations in the Inter-War Period", *RAF Air Power Review* 10, no. 2 (2007); Air Chief Marshal Sir Glenn Torpy, "Counter-Insurgency: Echoes from the Past", *JRUSI* 152, no. 5 (2007); Major John M Boehm, "Air Policing": A Modern Interpretation: A Historical Perspective on Airpower's Role in the Transition Between War and Peace" (USAF Air University, 2008); Lieutenant Colonel John E Murphy, "Air Policing", *Air University Monograph* (2009); Andrew Mumford, "Unnecessary or unsung? The utilisation of airpower in Britain's colonial counterinsurgencies", *Small Wars & Insurgencies* 20, no. 3 (2009).



included cursory Indian references.<sup>42</sup> Corum claimed the proponents of independent air action have misread history, advocating instead air power's role as a land-force multiplier.<sup>43</sup> However, Hoffman, Omissi and Corum all overly-focused on offensive air power, rather than its wider application. Gray provided a pragmatic sense of proportion in 2001, placing air control within its contemporary Imperial context and warning against dogmatic debate. Importantly for this Thesis, he noted that the linkage between air control and the RAF's subsequent strategic bombing policy had not been proven.<sup>44</sup> The RAF Air Historical Branch's 2011 pamphlet on inter-War RAF small wars drew some useful conclusions, but did not address India.<sup>45</sup>

There are surprisingly few books on the RAF's inter-War history. Bowyer dedicated 42% of the theatre-specific chapters of his 1918-1938 review to the NWF, underlining the Frontier's significance. Descriptive and well-researched, Bowyer's lack of references nevertheless frustrates corroboration and further research.<sup>46</sup> Nevertheless, being written in 1988, he probably benefitted from interviews with participants. Renfrew's 2015 *Wings of Empire* covered a similar landscape, with a broader social aspect.<sup>47</sup> However, Renfrew's journalistic approach lacked academic rigour, with shallow, misleading analysis and inaccurate referencing; disappointingly,

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<sup>42</sup> Corum's publications relevant to this Thesis include: James S Corum, "The Myth of Air Control: Reassessing the History", *Aerospace Power Journal* (2000)/———, "Air Control: Reassessing the History", *The RAF Air Power Review* 4, no. 2 (2001); James S Corum and Wray R Johnson, *Airpower in Small Wars: Fighting Insurgents and Terrorists* (Lawrence: University Press of Kansas, 2003); James S Corum, "The RAF in Imperial Defence, 1919-1956" in *Imperial Defence: The Old World Order 1856-1956*, ed. Greg Kennedy (London: Routledge, 2008).

<sup>43</sup> See Corum, "The Myth of Air Control": 74-75.

<sup>44</sup> Peter W Gray, "The Myths of Air Control and the Realities of Imperial Policing", *Royal Air Force Air Power Review* 4, no. 2 (2001), also published as ———, "The Myths of Air Control and the Realities of Imperial Policing", *Aerospace Power Journal* XV, no. 3 (2001).

<sup>45</sup> Sebastian Ritchie, *The RAF, Small Wars and Insurgencies in the Middle East, 1919-1939* (Air Historical Branch, 2011). The Historical Branch's subsequent pamphlet covering later colonial operations built on this inter-War review and is of background interest. See ———, *The RAF, Small Wars and Insurgencies: Later Colonial Operations, 1945-1975* (RAF Air Historical Branch, 2011).

<sup>46</sup> Chaz Bowyer, *RAF Operations 1918-1938* (London: William Kimber, 1988).

<sup>47</sup> Barry Renfrew, *Wings of Empire: The Forgotten Wars of the Royal Air Force, 1919-1939* (Stroud: The History Press, 2015).

Renfrew added little to the debate.

Several doctoral theses are relevant to this study. Waldie's 1980 study of inter-War Army-RAF relations included an analysis of India; he blamed the Air Staff's constant advocacy of substitution for poor RAF-Army relations. He noted the incompatibility of air and land tactics but identified increasing air-land co-ordination during the late 1930s.<sup>48</sup> Waldie concluded by highlighting the danger of doctrinal theories that were unsupported by practical evidence.<sup>49</sup> Parton's 2009 thesis remains the benchmark study on the evolution of inter-War RAF doctrine. Although India fell outside Parton's scope, the influence of air control is closely examined.<sup>50</sup> Coningham's studies of inter-War close air support are also germane.<sup>51</sup> Indeed, this Thesis' scope was deliberately pitched at the theatre/strategic level to deconflict with, and compliment, Coningham's thesis. His work included several case studies, including Waziristan, where he concluded that the strategic differences between the RAF and Indian Army did not inhibit the development of 'outstanding' close support.<sup>52</sup> Coningham identified the key role of communication, but his selective examples did not fully expose the enduring tactical-level friction in Waziristan. Furthermore, his scope precluded a full examination of the Service politics behind the NWF tactics. Powell's 2014 thesis extended the air support theme into the Second World War with

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<sup>48</sup> As described in later Chapters, air action tended to disperse tribesmen, whereas the Army required the enemy to amass to maximise their susceptibility to Western firepower.

<sup>49</sup> Waldie, "Relations Between the Army and RAF, 1918-39".

<sup>50</sup> Air Commodore Neville Parton, "The Evolution and Impact of Royal Air Force Doctrine: 1919-1939" (Unpublished PhD Thesis, University of Cambridge, 2009).

<sup>51</sup> Coningham, "Divided We Fall: Continuity or Discontinuity in Close Air Support, 1919-39"; Simon Coningham, "Air/ground cooperation in Iraqi Kurdistan in 1923", in *British Commission for Military History Summer Conference 2011 - War in the Air in the 20th Century* (British Commission for Military History, 2011); ———, "Air/Ground Cooperation between the RAF and the Indian Army in Waziristan 1936-37", in *British Commission for Military History Summer Conference 2012 - Indian Armies* (Keble College Oxford: British Commission for Military History, 2012); ———, "The Battle of Amiens: Air-Ground Co-operation and its Implications for Imperial Policing" in *Changing War: The British Army, the Hundred Days Campaign and the Birth of the Royal Air Force, 1918*, ed. Gary Sheffield and Peter Gray (London: Bloomsbury, 2013); Coningham, "Air-Ground Cooperation between the RAF and the Indian Army in Waziristan 1936-37".

<sup>52</sup> Coningham, "Air/Ground Cooperation between the RAF and the Indian Army in Waziristan 1936-37", 4, 7.

his analysis of the Battle of France and subsequent creation of Army Co-operation Command.<sup>53</sup>

One theme that became evident during the research for this Thesis was India's influence on RAF doctrine immediately prior to the Second World War. There are several detailed accounts which deal with the development of the RAF's inter-War bombing policy, including Webster and Frankland's official history of the strategic air offensive against Germany, Terraine's *tour de force* of the RAF's role throughout the Second World War and Biddle's more recent and wider-looking *Rhetoric and Reality in Air Warfare*.<sup>54</sup> However, these books do not examine the influence of air control. The same is true for descriptive studies of the strategic bombing campaign by Falconer, Longmate and Messenger. Interestingly, revisionist authors have tended to look deeper at the root causes of Bomber Command's pre-War predicament in an attempt to counter accepted norms; while their presentation of evidence can be selective, works such as 'Dizzy' Allen's 1972 *The Legacy of Lord Trenchard* and Baughen's more recent *The Rise of the Bomber* delve into areas passed over by other authors.<sup>55</sup> Reflective, analytical books such as Saundby's *Air Bombardment* are also instructive.<sup>56</sup> There have been several relatively recent studies of the psychological

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<sup>53</sup> Matthew Lee Powell, "Army Co-operation Command and Tactical Air Power Development in Britain, 1940-1943: The Role of Army Co-operation Command in Army Air Support" (Unpublished PhD Thesis, University of Birmingham, 2013). See also ———, "'The RAF Must Fly the Flag': The British Army's Interpretation of Tactical Air Power during the Battle of France, 1940", *University of Sussex Journal of Contemporary History*, no. 16 (2015).

<sup>54</sup> Sir Charles Webster and Noble Frankland, *The Strategic Air Offensive Against Germany, 1939-1945*, 4 vols., vol. I: Preparation (Uckfield: Naval & Military Press, 1961); John Terraine, *The Right of the Line: The Role of the RAF in World War Two* (Barnsley: Pen & Sword Military, 2010); Biddle, *Rhetoric and Reality*. Webster and Frankland's excellent work is an embellished version of the RAF's Air Historical Branch narrative, AIR 41-39, RAF Air Historical Branch, *RAF Narrative: The RAF in the Bombing Offensive Against Germany: Volume I: Pre-War Evolution of Bomber Command, 1917 to 1939* 1948 and AIR 41-40, ———, *RAF Narrative: The RAF in the Bombing Offensive Against Germany: Volume II: Restrictive Bombing, September 1939 to May 1941* 1948.

<sup>55</sup> Wing Commander Hubert R Allen, *The Legacy of Lord Trenchard* (London: Cassell, 1972). Allen's work was republished more recently as ———, *British Bombing Policy During the Second World War* (Fonthill Media, 2016).

<sup>56</sup> Air Marshal Sir Robert Saundby, *Air Bombardment: The Story of its Development* (London: Chatto & Windus, 1961).

and societal impact of aerial bombardment of civilian populations by Grayzel, Holman and Saint-Amour which are of value in providing context of the anticipated effectiveness and concomitant fear of the bomber, with a US Army Air Force perspective having been previously provided by Davis in 1991.<sup>57</sup> Additionally, Wakelam's study of Bomber Command's Operational Research Section reveals how Bomber Command developed into a learning organisation and overcame the challenges it faced through the application of science.<sup>58</sup>

India was the most operationally active and contentious RAF theatre in the immediate pre-Second World War era.<sup>59</sup> Nevertheless, despite the post-Gulf War air control debate, previous NWF studies have focused on the efficacy of tactical air support, largely sidelining the policy clashes that generated inter-Service friction. Similarly, independent air action on the Frontier has never been analysed with a practitioner's professional understanding; the question of why air control, with its concomitant savings, was never implemented in a theatre suffering acute financial austerity has never been examined in detail. Furthermore, there is a gap in the literature concerning the influence of the RAF's NWF activity on subsequent RAF doctrine and bombing strategy.

## RESEARCH QUESTIONS

There are several subsidiary questions that need to be addressed to derive why air power's maximum potential was not implemented on the Frontier. The Thesis hinges

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<sup>57</sup> Susan S Grayzel, *At Home and Under Fire: Air Raids and Culture in Britain from the Great War to the Blitz* (Cambridge: Cambridge University Press, 2012); Brett Holman, *The Next War in the Air: Britain's Fear of the Bomber, 1908–1941* (Abingdon: Ashgate Publishing, 2014); Paul K Saint-Amour, *Tense Future: Modernism, Total War, Encyclopedic Form* (Oxford: Oxford University Press, 2015); Richard G Davis, "Operation 'Thunderclap': The US Army Air Forces and the Bombing of Berlin", *The Journal of Strategic Studies* 14, no. 1 (1991).

<sup>58</sup> Randall Wakelam, *The Science of Bombing: Operational Research in RAF Bomber Command* (Toronto: University of Toronto Press, 2009).

<sup>59</sup> See [Annex 2](#) for a description of the weapon expenditure during the 1932-39 Waziristan campaign.

on understanding the nature of the relationship between the 'Army' and 'RAF' on the NWF. However, the landscape was a mosaic of different stakeholder groups. Understanding the different objectives and perspectives of the India Office (IO), War Office (WO), Air Ministry and their Secretaries-of-State (SoS) in London, and, in India, the Viceroy, Indian Political Service (IPS) 'Politicals', C-in-C(India), Indian General Staff (GS(India)) and Air Staff(India), is key to revealing the dynamics between them. Service ethos, traditions, individual personalities and their previous experiences also contributed to different standpoints. This needs to be underpinned by an awareness of the issues that generated Frontier policies.

Doctrine is important because it articulates an organisation's core beliefs. So, what was the RAF's capstone small wars doctrine and how did it develop? Given RAF(India)'s insular command and control arrangements, was Air Ministry doctrine applied on the NWF, or was local air doctrine developed to support in-theatre tactics? Furthermore, given the scale of Frontier operations, which tactics worked and was this experience fed back into core RAF doctrine? Several commentators, including The National Archives' website, have asserted that air control formed the basis for elements of the RAF's subsequent strategic bombing doctrine.<sup>60</sup> But did Frontier air action support this hypothesis in light of Gray's warning that this linkage is unproven?<sup>61</sup> And did the 'baggage' of inter-Service conflict on the Frontier have implications outside India; if so, what were they?

An important characteristic of a fighting Service is its ability to swiftly adjust to changing circumstances, so an analysis of the Army and RAF's adaptability is revealing, as is an understanding of who generated the momentum for change.

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<sup>60</sup> See, for example: Biddle, *Rhetoric and Reality*, 83; Renfrew, *Wings of Empire*, 253; The National Archives, "Imperial Defence and Inter-Service Rivalries", <http://www.nationalarchives.gov.uk/cabinetpapers/themes/imperial-defence-inter-service-rivalries.htm> (accessed 12 April 2016).

<sup>61</sup> Gray, "The Myths of Air Control and the Realities of Imperial Policing", also published as —, "The Myths of Air Control".

Military action is normally constrained by various circumstantial factors which drive the characteristics of the conflict. What were the constraints on Frontier warfare perceived by each stakeholder group and how applicable were these factors in other theatres?

## METHODOLOGY AND STRUCTURE

This study is inevitably archival-based, given the historical subject matter. However, the approach strives to follow Sir Michael Howard's advice of 'width', 'depth' and 'context'.<sup>62</sup> The separation of fact from Frontier myth is challenging: on one side was the airmen's intuitive, 'matter of faith' belief in the effectiveness of air action's morale effect;<sup>63</sup> on the other, the Indian officer corps' cautious, inflexible approach to novel technology during an enduring conflict. As C-in-C(India) told AOC(India) privately in 1931: 'We shall naturally never agree on the degree to which you Air people think the Air Force are capable of assuming control of the North-West Frontier'.<sup>64</sup> Some 'myths' were firmly-held and influential. As Elliott noted in 1968, inter-Service rivalry 'invariably results in both sides over-stating their case and being reluctant to see much merit in the arguments of the other'.<sup>65</sup> Omissi concurred: 'Both sides in the debate tended to interpret the operational evidence to suit their prejudices', while Powers expanded: 'Both sides... argued from insufficient evidence'.<sup>66</sup> The challenge is exacerbated by the airmen's lack of previous experience to base their doctrine on, against the Army's generations of Frontier experience; in contrast, as Robertson

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<sup>62</sup> Professor Sir Michael Howard, "The Use and Abuse of Military History", *JRUSI* 138, no. 1 (1993).

<sup>63</sup> See, for example, Marshal of the RAF Sir John Slessor, *The Central Blue: Recollections and Reflections of Marshal of the Royal Air Force Sir John Slessor* (London: Cassell, 1956), 204.

<sup>64</sup> AIR 8/110, Field Marshal Sir Philip Chetwode, *Letter from Commander-in-Chief, India, to Air Officer Commanding, India*, 9 June 1931, 1.

<sup>65</sup> Elliott, *The Frontier, 1839-1947: The Story of the North-West Frontier of India*, 119.

<sup>66</sup> Omissi, *Air Power and Colonial Control*, 47; Powers, *Strategy Without Slide-Rule: British Air Strategy, 1914-1939*, 174.

contended, the RAF merely had a policy supported by a theory.<sup>67</sup> Overall, establishing the facts is challenging, especially when the Pathan archive is all-but nonexistent. The subjective nature of the archival evidence can make discerning the true effectiveness of a tactic challenging. However, this discord was symptomatic of inter-Service friction, so is of interest to this Thesis in itself. Fortunately, identifying the facts of the inter-Service debates, and determining the connections of cause and effect, is more straightforward.

Several potential approaches could be used to address the research questions. The chosen structure examines the development of RAF inter-War small wars and army co-operation doctrine and compares this with the application of air action on the NWF during the same period. Comparing the theory with its implementation allows the challenges of applying effective air power on the Frontier to be distilled. Following this, the wider implications are examined. This methodology is delivered in seven subsequent chapters.

Chapter 2 lays the Thesis' bedrock by analysing the NWF's political and cultural context. It analyses India's Imperial importance, the imposition of British administration, the regional topography and tribal culture, before describing the history of Frontier policy, Afghan-British relations and the causes of tribal violence.

The next three Chapters analyse the inter-War development of RAF small war and army co-operation doctrine. The three periods align with the publication of the RAF's capstone doctrine manuals. Chapter 3 describes the nature of doctrine before analysing the RAF's doctrinal development from the FWW up to the publication of the *RAF Operations Manual*, 'CD22', in 1922. Chapter 4 addresses the doctrinal debate in both Britain and India from 1922 to the publication of *The RAF War Manual*, 'AP1300', in 1928. Chapter 5 examines the continuing small wars debate up to 1939

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<sup>67</sup> Scot Robertson, *The Development of RAF Strategic Bombing Doctrine, 1919-1939* (Westport: Praeger, 1995).

and the publication of the *Combined Frontier Manual*. The second edition of *AP1300*, published in 1940, is beyond the scope of this Thesis as it was published after the end of the period under consideration; although of interest to subsequent warfare, this second edition had no influence on NWF air power during this period.

Chapter 6 examines the implementation of NWF air power up to 1939. Although not intended to be a comprehensive history, it is written as a chronological narrative to reveal the continuum's ebb and flow and avoid the trap of 'cherry-picking' events to reinforce a particular viewpoint. For example, while Coningham described late-1930s NWF air support as 'outstanding', the Air Staff described it in 1937 as 'co-operation in the narrowest sense'.<sup>68</sup>

Having examined theory and execution, Chapter 7 distils the points of friction, examining command and control, decision-making, inter-Service hierarchy and mistrust, moral issues, tribal resentment, the influence of peace movements, and diplomatic issues. The development of the *Combined Tactics Manual* is used as a case study to illustrate some of the sources of friction.

Chapter 8 extrapolates the themes and trends previously identified and examines the influence and implications of the NWF on inter-Service co-ordination, and the RAF's bombing strategy, during the Second World War. In particular, the claims of other commentators and accepted generalisations are examined in light of the previous Chapters' detailed examination of events. Some of these implications are subsidiary to the Thesis' core themes and are worthy of further examination. Finally, the strings of this study's various themes are pulled together in the conclusion.

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<sup>68</sup> Compare Coningham, "Air/Ground Cooperation between the RAF and the Indian Army in Waziristan 1936-37", 4, 7, with AIR 8/529, Air Staff, *Untitled Paper*, July 1937, 3.



## SOURCES

The National Archives are a primary source for this Thesis, especially the Air Ministry (AIR) and Cabinet Office (CAB) files. The WO and other London-based defence committee archives are somewhat thin on Indian issues because India's military responsibilities were largely vested with C-in-C(India), with India's defence issues handled more akin to a self-governing dominion than a colony. As a result, the IO papers, retained in the IO Records held in the British Library, are a rich source, the 'Military' and 'Political and Secret' files being particularly relevant. Nonetheless, discussions concerning Indian defence issues were occasionally raised to Cabinet level whose conclusions and papers are in CAB 23 and 24. The Cabinet's Committee on India and the India Round Table Conference, however, rarely touched on defence issues.<sup>69</sup> The minutes of the full Committee of Imperial Defence (CID) mainly focused on India's interaction with other Imperial theatres, such as Hong Kong, Singapore and the Middle East, as well as noting the conclusions of the CID's subordinate committees which occasionally touched on Indian issues.<sup>70</sup> Of more relevance to this Thesis are the D-series papers and memoranda on the defence of India prepared for the CID, archived in CAB 6. In contrast, the remit of the CID's Overseas Defence Committee (whose papers are in CAB 7 to 11) did not extend to India due to the sub-continent's constitutional position. The CID's Defence of India Sub-Committee was established in 1927 to consider the Russian threat to India rather than India's internal defence issues; this London-based Sub-Committee's papers in CAB 16/83 to 16/85 reveal a useful perspective, since India generally developed its Afghan war plans

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<sup>69</sup> The Cabinet's Committee on India reports, meetings and memoranda are in CAB 27/519 to 27/521, while the India Round Table Conference papers are in CAB 27/469 and 27/470.

<sup>70</sup> The full CID was chaired by the Prime Minister and its membership included Ministers and the Service Chiefs of Staff. Their minutes are in CAB 2.

independently from the CID.<sup>71</sup> The CID's Chief of Staff Sub-Committee (COSC) papers in CAB 53 rarely covered Indian defence issues during the early era covered by this Thesis due to India's largely independent position; the COSC did occasionally discuss the Defence of India Sub-Committee's papers on Afghanistan and, from 1937, 'Indian defence questions' became a recurrent agenda item from the perspective of India's wider role in Imperial defence. This led to the establishment of the Committee on the Defence of India in 1938 to consider India's position against the background of looming world war; the Defence of India Committee papers are in CAB 27/653 and 27/654. Unsurprisingly, given the COSC's skirting of Indian issues, the papers of the CID's Joint Planning Committee (which supported the COSC) in CAB 55 only addressed the use of Indian military assets in other Imperial theatres and matters such as the protection of Indian sea routes. Indeed, in the late 1930s the WO actively impeded the Joint Planning Committee involvement in Indian issues for fear of highlighting the Royal Indian Navy's tiny allotment of India's defence budget<sup>72</sup>

Doctrine manuals, their underpinning policy papers, and interim supporting publications, such as Air Staff Memoranda (ASMs), as well as implementing orders, all survive to varying degrees. Unfortunately, the HQ RAF(India) internal files have not survived and were probably destroyed in what the Secretary of United Services Institute of India (USII)'s Centre for Armed Forces Historical Research described as 'the unsettled period of independence and partition'.<sup>73</sup> The personal papers of protagonists reveal another perspective on the official files, although where copies exist in both archives, The National Archive references have been used.<sup>74</sup>

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<sup>71</sup> The CID's Defence of India Sub-Committee was suspended on the outbreak of World War II, although it appears to have stopped meeting in 1932, with most Indian issues being subsequently dealt with directly by papers submitted to the COSC.

<sup>72</sup> This is discussed in Chapter 7.

<sup>73</sup> Squadron Leader Rana T S Chhina, *Chhina to author*, Email, 14 June 2013.

<sup>74</sup> See, for example, the papers of Sir Hugh Trenchard, Sir John Salmond, Sir Norman Bottomley and Squadron Leader John Sowrey (held by the RAF Museum), Sir John Salmond's papers (in The National Archives), and Sir Henry Rawlinson (dispersed across various

The Army Staff College 'Camberley Red' lecture notes are a particularly rich source. Written and delivered by experienced British officers recently returned from India, or by students who had served in India, they reveal the tactics taught to the rising officer corps (mostly senior captains and junior majors) prior to their deployment as company commanders.<sup>75</sup> Produced for the consumption of the students alone, they are unencumbered by the requirements of wider acceptability and reflect how the Army was trained to operate on the Frontier. The Directing Staff amplifying notes are a particularly valuable source.

The NWF *Official Histories* provide a detailed account of tactical operations.<sup>76</sup> Other authors have downplayed their utility due to their limited political perspective, lack of analysis and because they were published before the unrest had been resolved.<sup>77</sup> However, comparing the *Official Histories* with Air Officer Commanding, RAF India (AOC(India))'s *Monthly Summaries* reveals differing perspectives, as do the Air Staff's comments appended to AOC(India)'s *Summaries*. Overall, the *Histories* are inconsistent with their coverage of the RAF's contribution, at times all-but ignoring RAF activity, whilst elsewhere appearing remarkably objective. The authorship of the *Histories* is therefore key, but has hitherto been unclear. The Indian Ministry of

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archives, but conveniently compiled by the Army Records Society in: Mark Jacobsen, *Rawlinson in India* (Stroud: Sutton Publishing, 2002)).

<sup>75</sup> Bertram H Matheson, for example, was a local-rank Lieutenant Colonel on the Staff College staff for two years from January 1928; he served as a 21-year-old second lieutenant in the Indian Army from 1911 in the 12<sup>th</sup> Frontier Force Regiment, deploying to Palestine with the 1/54<sup>th</sup> Sikhs where he was awarded the Military Cross for leading his Company against a Turkish machine gun in 1918. He served as an instructor in the Small Arms School at Rawalpindi before serving at Army HQ immediately before his posting to Camberley. See Army Lists and Australian War Memorial, 2012, "Honours and Awards - Bertram Heylyn Matheson", <http://www.awm.gov.au/collection/records/awm28/2/awm28-2-430part2-0035.pdf> (accessed 8 August 2012).

<sup>76</sup> See *The Third Afghan War 1919: Official Account*, (Calcutta: General Staff Branch, Army Headquarters, India, 1926); *Operations in Waziristan, 1919-1920*, (Delhi: General Staff Branch, Army Headquarters, India, 1923); "Official History of Operations on the N.W. Frontier of India 1920-35", (Delhi: Manager of Publications Government of India Press, 1945); "Official History of Operations on the N. W. Frontier of India 1936-37", (Delhi: Manager of Publications, 1943).

<sup>77</sup> Roe, *Waging War in Waziristan*, 9; Warren, *Waziristan, the Faqir of Ipi, and the Indian Army*, xxvii-xxviii.

Defence (MOD) archives reveal that the GS(India) established an Official Historian in February 1939 to compile the *Official Histories*.<sup>78</sup> Piecing together the evidence from the *Indian Army Lists*, the first Historian was almost certainly Lieutenant-Colonel H H R Deane, a retired Indian infantry officer who had served as a Political Agent in 1914 and was the son of a NWFP Commissioner.<sup>79</sup> He was replaced in December 1940 by Brigadier C M S Manners, another retired infantry officer who had commanded an Indian brigade area.<sup>80</sup> Manners retired in February 1942 and was replaced by Colonel W E H Condon in August.<sup>81</sup> Figure 1 maps the Official Historians against the *Official Histories*. From this, and the textual analysis in subsequent Chapters, it becomes apparent that Condon was more objective and inclusive concerning the RAF's contribution. In July 1945, the Combined Inter-Services Historical Section (India) was formed with a staff of nine officers, including an RAF squadron leader and an IAF flight lieutenant, increasing to twenty-six officers by 1946.<sup>82</sup>

Various RAF reference books and squadron histories provide invaluable compendia of archival data which bind together the mosaic of other works.<sup>83</sup> The

<sup>78</sup> Indian MOD History Division File No. 6345/7/CIHS (2901/H), 1943-45, 'I B', *Review of the Work of the Official Historian, General Staff, on Histories of Operations on the North West Frontier*, 14 December 1943(?).

<sup>79</sup> Initially, the Official Historian was not directly identified in the *Indian Army Lists*, but is instead listed under the Department of Military Operations and Intelligence as being 'On Special Duty'. The Indian archives only name the subsequent incumbents (Manners and Condon), but the 1939 *Indian Army List* depicts Deane as a 'Special Appointment' from 31 January 1939, so it is assumed he was the first incumbent. Deane was an infantry officer in the 64<sup>th</sup> Pioneers/Madras Pioneers and his father was Lieutenant-Colonel Sir Harold Deane, Commissioner, NWFP, 1901-1908. See: *The Indian Army List, July 1939*, (Defence Department, Government of India, 1939); Lieutenant Colonel H F Murland, *BAILLIE-KI-PALTAN: Being a History of the 2nd Battalion, Madras Pioneers 1759-1930* (Naval & Military Press, 2015), 553.

<sup>80</sup> 'I B', *Review of the Work of the Official Historian*, 1; *The Indian Army List, July 1939*, 12, 23, 55-57, 473.

<sup>81</sup> 'I B', *Review of the Work of the Official Historian*, 1.

<sup>82</sup> *The Indian Army List, July 1946*, (Defence Department, Government of India, 1946), 30; *The Indian Army List, October 1946*, (Defence Department, Government of India, 1946), 29-30.

<sup>83</sup> Useful sources include: Wing Commander C G Jefford, *RAF Squadrons: A Comprehensive Record of the Movement and Equipment of all RAF Squadrons and their Antecedents since 1912* (Shrewsbury: Airlife), Philip J R Moyes, *Bomber Squadrons of the R.A.F. and Their Aircraft* (London: MacDonald, 1964); John D R Rawlings, *Fighter Squadrons of the R.A.F. and Their Aircraft* (Abingdon: Purnell Book Services, 1969); Henry Probert, *High Commanders of*

Volume	Part	Editor	Published
1920-35	I 1920 to start of 1930 Red Shirt Movement	Col W E H Condon	1945
	II Red Shirt Rebellion; 1933 Mohmand & Bajaur Operations	Col W E H Condon	
	III 1935 Loe Agra and Mohmand Campaigns	Lt Col H H R Deane/ Brig S M S Manners	
1936-37	-	Lt Col H H R Deane/ Brig S M S Manners	1943
1938-40	-	Col W E H Condon	Unpublished <sup>84</sup>

Figure 1: Editors of NWF Official Histories, 1920-40<sup>85</sup>

official dispatches published in the *London Gazette* are straightforward recounts of military activity. However, disputes between the RAF and C-in-C(India) over whether air operations should be ‘*Gazetted*’ reveal further inter-Service friction.

Much of the internecine inter-Service warfare was conducted on the pages of the *USII Journal (JUSII)*; many Frontier practitioners held its pages as vital ground, making it a rich source of contemporary debate and tit-for-tat articles.<sup>86</sup>

Unsurprisingly, opinions generally divided along Service lines and often challenged extant policy, something *JUSII* editors encouraged to promote ‘interesting discussion’.<sup>87</sup> “Mouse” described the *JUSII* debates thus:

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*the Royal Air Force* (Norwich: The Stationery Office, 1991); Wing Commander Ian M Philpott, *The Royal Air Force: An Encyclopedia of the Inter-War Years: Volume 1: 'The Trenchard Years', 1918-1929* (Barnsley: Pen and Sword Aviation, 2005); ———, *The Royal Air Force: An Encyclopedia of the Inter-War Years: Volume II: Rearmament, 1930-39* (Barnsley: Pen and Sword Aviation, 2008); Squadron Leader Tony Fairbairn, *Action Stations Overseas* (Sparkford: Patrick Stephens, 1991). Squadron histories include: Norman L R Franks, *First in the Indian Skies* (Lincoln: Life Publications, 1981); *The History of No 31 Squadron Royal Flying Corps and Royal Air Force in the East from its Formation in 1915 to 1950*, (Uckfield and London: Naval and Military Press and The Imperial War Museum, 2004).

<sup>84</sup> The 1938-40 *Official History* was written and approved, but then kept back from printing by the Director of Military Operations, Major-General Mallaby, as the campaign had not concluded. However, there is no evidence that it was ever published. See ‘I B’, *Review of the Work of the Official Historian*, 2.

<sup>85</sup> Derived from: *Ibid.*; *The Indian Army List*, July 1939, 6.

<sup>86</sup> For example, one of Slessor’s first publications was his rebuttal of Major Cherry’s 1925 article that recommended AC squadrons be manned by gunners and the squadrons ‘penny packeted’ to individual artillery units. See: Major R G Cherry, “The Royal Air Force and Army Co-operation”, *JUSII* LV, no. 241 (1925); Squadron Leader J C Slessor, “RAF and Army Co-operation - The Other Point of View”, *JUSII* LVI, no. 243 (1926).

<sup>87</sup> See Cherry, “The RAF and Army Co-operation”: 32; “Editorial”, *JUSII* LV, no. 241 (1925).

In this welter of wise and foolish opinions there is tremendous collision of thought, and arguments are put forward by one side categorically in opposition to equally well-sustained arguments by another side.<sup>88</sup>

The authors' backgrounds are important in understanding their perspectives.

However, controversial *JUSII* authors often hid behind pseudonyms.<sup>89</sup> Although the records of the authors' identities have not survived, their pseudonyms sometimes provide some intimation of their background.<sup>90</sup> The use of pseudonyms in itself is interesting. It may not just have been that the individual authors were protecting their careers; the Services may also have been using individuals to publish contentious narratives that could not be voiced officially.<sup>91</sup> As a controversial subject, air power, and army co-operation in particular, featured frequently.<sup>92</sup> Other common topics included: NWF policy;<sup>93</sup> mountain warfare;<sup>94</sup> Army modernisation; and accounts of

<sup>88</sup> "Mouse", "Babu Tactics", *JUSII* LXI, no. 262 (1931): 60.

<sup>89</sup> Examples include: 'Adastral', 'ALLO', 'Constabeel', 'Light infantry', 'Mouse', 'Rational View', 'Shpagwishtama' and 'Spingirai'.

<sup>90</sup> Squadron Leader Rana T S Chhina, *Chhina to Author*, Email, 12 January 2015.

<sup>91</sup> For example, in 1938 Colonel Francis Toker wrote an article in *JUSII* under the pseudonym 'Aispex' on the direct request of Deputy CGS(India). See Moreman, *The Army in India*, 170-171.

<sup>92</sup> Army Co-operation articles included: "Adastral", "The Royal Air Force and Army Co-operation", *JUSII* LVI, no. 242 (1926); "A.I.L.O.", "Close Support by Aircraft on the North West Frontier", *JUSII* LXX, no. 298 (1940); Cherry, "The RAF and Army Co-operation"; Squadron Leader E J Hodsoll, "The Development of Co-operation Between Aircraft and Tanks", *JUSII* LV, no. 241 (1925); ———, "Royal Air Force Co-operation with the Army: A Lecture Delivered at the Army Headquarters Staff College Course, 1926", *JUSII* LVII, no. 247 (1927); Captain D McK Kennely, "Close Support of Infantry. An Infantry Officer's Point of View", *JUSII* LXI, no. 265 (1931); 'Mouldy', "Co-operation Between the Army and the RAF", *JUSII* LXIV, no. 276 (1934); Slessor, "RAF and Army Co-operation - The Other Point of View"; Flight Lieutenant R L Stevenson, "The Army Co-operation Squadron", *JUSII* LV, no. 240 (1925); Major E J Strover, "An Army Air Arm", *JRUSI* LVIII, no. 251 (1928).

Other relevant *JUSII* air power articles include: "Constabeel", "Aircraft and Internal Security in India", *JUSII* LXI, no. 263 (1931); Flight Lieutenant W F Dickson, "The Development of the Heavy Transport Aeroplane", *JUSII* (1930); Squadron Leader E J Hodsoll, "Aircraft and Anti-Aircraft Defence", *JUSII* LVI, no. 243 (1926); ———, "Some Notes on Air Matters Affecting India", *JUSII* LVIII, no. 252 (1928); and its response, Major R J Wilkinson, "Some Notes on Air Matters Affecting India", *JUSII* LIX, no. 254 (1929).

<sup>93</sup> For example: B Bromhead, "The Future of the Tribal Areas", *JUSII* LXIX, no. 301 (1940); Major W E Maxwell, "North-West Frontier Policies", *JUSII* LXIX, no. 297 (1939); "Mouse", "The So-Called Forward Policy", *JUSII* LXIII, no. 272 (1933); Lieutenant-Colonel F C Simpson, "Review of N W Frontier Policy from 1849 to 1939", *JUSII* LXXIV, no. 314 (1944); ———, "Review of N W Frontier Policy from 1849 to 1939: 1900-1923", *JUSII* LXXIV, no. 316 (1944); ———, "Review of N W Frontier Policy from 1849 to 1939: 1938-1939", *JUSII* LXXIV, no. 317 (1944).

operations.

The Air Ministry, IO and WO used the Royal United Service Institution (RUSI) in London as a public venue to air their opinions throughout the period.<sup>95</sup> Their lectures, recorded in the Institute's *Journal (JRUSI)*, are another rich source; the post-lecture questioning by the audience could be especially revealing.<sup>96</sup> From 1920, *JRUSI* contained 'RAF Notes' which described events in each overseas Command, including India. These *Notes* illustrated the ebb and flow of NWF operations, but their exact provenance is unclear. However, RUSI's 1924 Journal Committee minutes record that the Air Ministry had 'kindly promised the co-operation of their staff', while the 1926 minutes record the Air Ministry's continued 'active support'.<sup>97</sup> Nonetheless, the late-1930s Air Ministry minutes commenting on AOC(India)'s *Monthly General Summaries* were stamped 'Extracts made to Air Power notes'.<sup>98</sup> Therefore, it appears that the Air Staff were using *JRUSI* as a conduit to publicise their standpoint via both selective lectures and the *RAF Notes*.

The RAF Staff College's annual journal, *The Hawk*, launched in 1928, contained only a single article on the NWF.<sup>99</sup> The *RAF Quarterly (RAFQ)*, marketed by a private

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<sup>94</sup> Articles included: Major L V S Blacker, "Modernized Mountain Warfare", *JUSI* LXI, no. 262 (1931); and Major C M H Wingfield, "Mountain Warfare", *JUSI* LXIX, no. 297 (1939).

<sup>95</sup> See, for example, the context of Bottomley's November 1939 RUSI presentation on the NWF described in Chapter 5.

<sup>96</sup> Pertinent lectures and articles included, in chronological order: Group Captain Amyas E Borton, "The Use of Aircraft in Small Wars", *JRUSI* LXV (1920); Wing Commander John A Chamier, "The Use of the Air Force for Replacing Military Garrisons", *JRUSI* LXVI, no. 462 (1921); Air Marshal Sir John Salmond, "The Air Force in Iraq", *JRUSI* LXX, no. 479 (1925); Captain John Bagot Glubb, "Air and Ground Forces in Punitive Expeditions", *JRUSI* LXXI, no. 484 (1926); Wing Commander R H Peck, "Aircraft in Small Wars", *JRUSI* LXXIII, no. 491 (1928); Major-General Sir Sydney Muspratt, "The North-West Frontier of India", *JRUSI* LXXVII, no. 507 (1932); Field Marshal Sir Philip Chetwode, "The Army in India", *JRUSI* LXXXII, no. 525 (1937); Air Commodore C F A Portal, "Air Force Co-operation in Policing the Empire", *JRUSI* LXXXII, no. 526 (1937); Sir Ralph Griffith, "The Frontier Policy of the Government of India", *JRUSI* LXXXIII, no. 531 (1938); Air Commodore Norman H Bottomley, "The Work of the Royal Air Force on the North-West Frontier", *JRUSI* LXXXIV, no. 535 (1939).

<sup>97</sup> Tony Pilmer, *RUSI Librarian to Author*, Email, 10 May 2013.

<sup>98</sup> See, for example, the minute covering: AIR 5/1337, AOC RAF India, *RAF India Monthly General Summary of Work No 250: September 1939*.

<sup>99</sup> Flight Lieutenant Moore described his experience during 1920 on 31 Squadron supporting the Army against the Mahsuds. See Flight Lieutenant M Moore, "The Mahsud Operations, 1920 (No. 31 Squadron)", *The Hawk* 1, no. 1 (1928).

company from 1930 with the Air Ministry's semi-official sanction, is slightly more useful.<sup>100</sup> It published a wide variety of articles, an increasing proportion by Staff College graduates during the 1930s. From its first edition, it contained '*Air Notes*' similar to the *JRUSI RAF Notes*. Indeed, although the two publications were published at different intervals, both sets of *Notes* are almost identical and clearly derived from the same source. Aviation publications such as *Flight* and *Aeroplane* also published useful NWF articles.

This study demonstrates the pivotal importance of personality. As such, biographies and memoirs provide an invaluable insight into the core beliefs of key characters and their inter-personal relationships. Autobiographies and hagiographies can reflect embellished perspectives, but are nevertheless useful in providing context if treated with care.<sup>101</sup> For example, in his solemn *Bomber Offensive*, Harris succinctly summed up the RAF's Frontier frustrations as:

a bitter reminder of what happens when air forces... are put under the control of another and older service and subordinated to the uses of previously existing weapons.<sup>102</sup>

Even light-hearted memoirs can be revealing; David Lee described his Pathan bearer's sporting pastime of shooting at aircraft, but not their pilots, when on leave.<sup>103</sup> Biographies are useful in understanding the officers that designed inter-War policies and doctrine.<sup>104</sup> RAF operations in undeveloped countries featured in the formative

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<sup>100</sup> An excellent analysis of the *RAFQ* is provided by Parton, "RAF Doctrine". Burge, who had been Trenchard's Personal Assistant (as described in Chapter 4), became the editor on retirement.

<sup>101</sup> The following autobiographies are valuable in this respect: Air Chief Marshal Sir Basil Embry, *Mission Completed* (London: Methuen & Co, 1957); Marshal of the RAF Sir Arthur Harris, *Bomber Offensive* (London: Collins, 1947); David Lee, *Never Stop the Engine when it's Hot* (London: Thomas Harmsworth Publishing, 1983); Saundby, *Air Bombardment*; Slessor, *The Central Blue*; Viscount Templewood, *Empire of the Air: The Advent of the Air Age 1922-1929* (London: Collins, 1957).

<sup>102</sup> Harris, *Bomber Offensive*, 19.

<sup>103</sup> Lee, *Never Stop the Engine when it's Hot*, 313-314.

<sup>104</sup> For example, Anne Baker, *From Biplane to Spitfire: The Life of Air Chief Marshal Sir Geoffrey Salmond KCB KCMG DSO* (Barnsley: Leo Cooper, 2003); Andrew Boyle, *Trenchard: Man of Vision* (London: Collins, 1962); John Laffin, *Swifter than Eagles: a biography of Marshal*



careers of many key RAF officers, including every post-Trenchard Chief of the Air Staff (CAS), (bar Tedder), until 1955, and every AOC-in-C Bomber Command until 1947, so India probably influenced their subsequent policies.<sup>105</sup> IPS officers rarely made public speeches, but memoirs, biographies and private papers partially mitigate these hiatuses;<sup>106</sup> several retired into academia or authored Frontier histories.<sup>107</sup> Lieutenant-Colonel C E Bruce published prolifically on specific inter-War Frontier policy dilemmas.<sup>108</sup> Mallam's memoirs describing his still-born 1940s NWF development plan provide an insight into what might have been.<sup>109</sup> More recent analyses of NWF policy include: Chenevix Trench's tale of the IPS; Beattie's 2002 thesis on Waziristan's segmentary tribal systems and how religion shaped their relations with the GoI; and Tripodi's 2011 comprehensive analysis on the Politics

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of the R.A.F. *Sir John Salmond* (Edinburgh: William Blackwood & Sons, 1964); Norman Macmillan, *Sir Sefton Brancker* (William Heinemann, 1935).

<sup>105</sup> See [Annexes 19](#) and [20](#). The following biographies are useful in understanding key Second World War air power personalities: Vincent Orange, *Slessor: Bomber Champion. The Life of Marshal of the RAF Sir John Slessor, GCB, DSO, MC* (London: Grub Street, 2006); ———, *Churchill and His Airmen: Relationships, Intrigue and Policy Making 1914-1945* (London: Grub Street, 2013); Henry Probert, *Bomber Harris: His Life and Times* (London: Greenhill Books, 2001); Denis Richards, *Portal of Hungerford: The Life of Marshal of the Royal Air Force Viscount Portal of Hungerford KG, GCB, OM, DSO, MC* (London: Heinemann, 1977); Dudley Saward, *'Bomber' Harris* (London: Sphere Books, 1984).

<sup>106</sup> For example: Lord George Curzon, *Lord Curzon in India: Being a Selection from his Speeches as Viceroy & Governor-General of India 1898-1905* (London: Macmillan and Co, 1906); David Dilks, *Curzon in India*, vol. 2. Frustration (London: Rupert Hart-Davis, 1970); P Woodruff, *The Men who Ruled India*, vol. 2, The Guardians (London: Jonathan Cape, 1954). Allen's *Plain Tales from the Raj*, a collection of interviews from the BBC radio series of the same name, provided everyday perspectives from the last British survivors of the Raj, from nurses to Field Marshal Auchinleck and 'Spike' Milligan to Sir Olaf Caroe. See Charles Allen, *Plain Tales from the Raj: Images of British India in the Twentieth Century* (London: Andre Deutsch, 1975).

<sup>107</sup> For example: William Barton, *India's North-West Frontier* (London: John Murray, 1939); R I Bruce, *The Forward Policy and its Results: or Thirty-Five Years' Work amongst the Tribes on our North-West Frontier of India* (London: Longmans, Green & Co, 1900); Olaf K Caroe, *The Pathans - 550 BC - AD 1957* (London: MacMillan & Co Ltd, 1958); Colonel Sir Robert Warburton, *Eighteen Years in the Khyber, 1879-1898* (London: John Murray, 1900).

<sup>108</sup> C E Bruce (Richard Bruce's son) published widely, including: Lieutenant Colonel Charles E Bruce, "The Sandeman Policy as Applied to Tribal Problems of To-day", *Journal of The Royal Central Asian Society* 19, no. 1 (1932); ———, *Waziristan, 1936-1937: The Problems of the North-West Frontiers of India and their Solutions* (Aldershot: Gale & Polden Ltd, 1938); ———, "The Indian Frontier Problem", *Asiatic Review* 35 (1939).

<sup>109</sup> Leslie Mallam and Diana Day, *Frogs in the Well* (Kinloss: Librario, 2010). Mallam's development plan was previously published in 1946: see Lieutenant Colonel G L Mallam, "The N-W Frontier Problem", *JUSII* LXXVI, no. 324 (1946).

and their mechanisms of tribal control.<sup>110</sup> These sources pay little more than lip service to air power's role, but they are nonetheless important as the RAF strove to be a politically, rather than Army-controlled, instrument of tribal control.

Unsurprising, given the number of troops deployed on the NWF, a rich array of autobiographies provide the soldier's view of the RAF's utility and their relationship with airmen.<sup>111</sup> The challenges of Frontier land warfare are well illustrated in autobiographies such as Baines' *Officer Boy*, Chenevix Trench's *Frontier Scouts* and Prendergast's *Prender's Progress*.<sup>112</sup> Overviews are provided in 'popular' narratives such as Allen's *Soldier Sahibs*, Holmes' *Sahib* and Stewart's *The Khyber Rifles*, while Heathcote's *The Military in British India* places the conflicts associated with British rule in a local context.<sup>113</sup>

Analysing the influence of India on the RAF's subsequent doctrine, and in particular the strategic bombing campaign, requires a broad set of sources. At the political-military interface are the Prime Minister's (PREM) papers in the National Archives, supplemented by the personal papers of Portal and Harris at Christ Church College and the RAF Museum respectively, while Hansard's records of Parliamentary

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<sup>110</sup> Charles Chenevix Trench, *Viceroy's Agent* (London: Jonathan Cape, 1987); Hugh Beattie, *Imperial Frontier: Tribe and State in Waziristan* (Richmond: Curzon Press, 2002); Christian Tripodi, *Edge of Empire: The British Political Officer and the Tribal Administration of the North-West Frontier, 1877-1947* (Farnham: Ashgate Publishing, 2011).

<sup>111</sup> See, for example, Frank Leeson, *Frontier Legion: With the Khassadars of North Waziristan* (Ferring: The Leeson Archive, 2003); John Masters, *Bugles and a Tiger: A Personal Adventure* (London: Michael Joseph, 1956); G Moore, *Just as Good as the Rest: a British Battalion in the Faqir of Ipi's War, Indian NWF, 1936-37* (Huntingdon: Published privately by the author, 1981).

<sup>112</sup> Frank Baines, *Officer Boy* (London: Eyre & Spottiswoode, 1971); Charles Chenevix Trench, *The Frontier Scouts* (Oxford: Oxford University Press, 1986). Chenevix Trench also published a book on the Indian Army based partially on his experience; see: ———, *The Indian Army and the King's Enemies, 1900-1947* (Thame and Hudson, 1988); John Prendergast, *Prender's Progress: A Soldier in India, 1931-1947* (London: Cassell, 1979).

<sup>113</sup> Charles Allen, *Soldier Sahibs: The Men Who Made the North-West Frontier* (London: Abacus, 2001); Richard Holmes, *Sahib: the British Soldier in India, 1750-1914* (London: Harper Press, 2006); Jules Stewart, *The Khyber Rifles: From the British Raj to al Qaeda* (Stroud: Sutton Publishing, 2005); T A Heathcote, *The Military in British India: The Development of British Land Forces in South Asia, 1600-1947* (Manchester: Manchester University Press, 1995).

debates provides context.<sup>114</sup> Although Harris' own account passes fleetingly over his own pre-Bomber Command career, Saward and Probert reveal a little more of his professional development.<sup>115</sup> The RAF Air Historical Branch's narrative of the bombing offensive against Germany provides an authoritative account of the conduct of the campaign (the first two volumes being most relevant to this Thesis), while the US Air Force Historical Research Agency archives reveals the subsequent North American military perspective.<sup>116</sup> The RAF Historical Society seminars on the history of RAF navigation (1996), training (1999) and unguided weapons (2009) provide compendia concerning several of the factors that contributed to Bomber Command's predicament in 1939.<sup>117</sup> Jefford's detailed study of RAF observers and navigators, combined with Richardson's autobiography, provide rich material covering the development of the RAF's navigational capability.<sup>118</sup> The Air Historical Branch's 1952 narrative on RAF armament and Black's articles (originally written for the Bomber Command Association newsletters), combined with the RAF Museum's archive of aircraft manuals, give good technical descriptions of the development of RAF bomb sights.<sup>119</sup> NWF aircrew training and standard bombing techniques are more difficult to

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<sup>114</sup> At the time of writing, the Portal Papers were being re-indexed using a new naming convention. In this Thesis, the files containing the Prime Minister's minutes from October 1940 to December 1941 use the new naming reference, while all other papers use the original nomenclature.

<sup>115</sup> Harris, *Bomber Offensive*; Saward, *'Bomber' Harris*; Probert, *Bomber Harris: His Life and Times*.

<sup>116</sup> The five volumes of the Air Historical Branch narratives are in AIR 41/39 to AIR 41/43.

<sup>117</sup> Wing Commander C G Jefford, ed. *A History of Navigation in the Royal Air Force: RAF Historical Seminar at the RAF Museum, Hendon, 21 October 1996*, vol. 17A (RAF Historical Society, 1996); ———, ed. *Training in Peace for War - The Offensive*, vol. 20 (RAF Historical Society, 1999); ———, ed. *Unguided Weapons: RAF Museum, Hendon, 22 October 2008*, vol. 45 (RAF Historical Society, 2008); AIR 10/7477 RAF Air Historical Branch, *Armament: Volume 1: Bombs and Bombing Equipment (SD719)* 1952.

<sup>118</sup> Wing Commander C G Jefford, *Observers and Navigators and other Non-Pilot Aircrew in the RFC, RNAS and RAF*, Revised 2nd ed. (London: Grub Street, 2014); Group Captain F C 'Dickie' Richardson, *Man is Not Lost: The Log of a Pioneer RAF Pilot/Navigator 1933-1946* (Shrewsbury: AirLife, 1997).

<sup>119</sup> RAF Air Historical Branch, *SD719*; Henry Black, 2001, "Major Bomb Sights Used in WW2 By RAF Bomber Command", The Lancaster & Manchester Bomber Archive, [http://www.lancaster-archive.com/bc\\_maiorbombsights.htm](http://www.lancaster-archive.com/bc_maiorbombsights.htm) (accessed 17 December 2016); ———, 2001, "The T1-Bomb Sight Story", The Lancaster & Manchester Bomber Archive, [http://www.lancaster-archive.com/bc\\_t1bombsight.htm](http://www.lancaster-archive.com/bc_t1bombsight.htm) (accessed 17 December 2016).

discern, but a picture can be built from AOC(India)'s monthly summaries and biographies. MacBean and Hogben's comprehensive book, *Bombs Gone*, based on the Air Historical Branch's armament narrative, are helpful in understanding the RAF's inter-War weapon development, enriched by Huskinson's autobiography.<sup>120</sup> The Thesis supplements these sources with interviews with Bomber Command veterans to provide the practitioner's perspective.

The Pathan viewpoint is challenging to discern. Warren warned that tribal folklore, handed down through the generations, despite near illiteracy, becomes inaccurate.<sup>121</sup> The Fol's reported use of persuasive hyperbole to unite the tribes generated folklore that emphasised unity, which is misrepresentative given Waziristan's segmentary tribal system.<sup>122</sup> Omissi analysed the indigenous reaction to air policing, highlighting that the archive records indigenous reaction as it was perceived by Europeans.<sup>123</sup> Notwithstanding this, the current inaccessibility of the NWF severely limits examining the Pathan narrative. Interviews compiled for a 1996 TV production are one of the few examples of Pathan primary evidence.<sup>124</sup>

Finally, the business world provides some interesting theories about simultaneous cooperation and competition between an organisation's functional areas. For example, Luo, Slotegraff and Pan coined the term 'coopetition' to describe cross-departmental rivalry over scarce resources combined with concurrent collaboration over common interests, often at multiple organisational levels. They concluded that competition is not always harmful and can promote overall performance. Importantly, inter-departmental rivalry is normal, especially when

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<sup>120</sup> Wing Commander John A MacBean and Major Arthur S Hogben, *Bombs Gone: The Development and Use of British Air-Dropped Weapons from 1912 to the Present Day* (Wellingborough: Patrick Stephens, 1990); Air Commodore P Huskinson, *Vision Ahead* (London: Werner Laurie, 1949).

<sup>121</sup> Warren, *Waziristan, the Faqir of Ipi, and the Indian Army*, xxix-xxx.

<sup>122</sup> Ibid., xxx. Some examples of the Fol's exaggerations are provided in Chapter 2.

<sup>123</sup> Omissi, *Air Power and Colonial Control*, 108.

<sup>124</sup> George Case, "Birds of Death", (UK: Channel 4, 1996). Excerpts from NWF tribesmen are at [Annex 3](#).

budgets are lean.<sup>125</sup>

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<sup>125</sup> Xueming Luo, Rebecca J Slotegraaf, and Xing Pan, "Cross-Functional "Coopetition": The Simultaneous Role of Cooperation and Competition Within Firms", *Journal of Marketing* 70, no. 2 (2006).

## **CHAPTER 2 – POLITICAL AND CULTURAL CONTEXT**

### **INTRODUCTION**

The NWF represented a natural geographic boundary to the British Raj. A barren, mountainous chain rising up from the fertile Indus plain, it also marked a cultural, political and economic boundary. This discontinuity generated long-lasting unrest that erupted in pulses of extreme violence. As a frontier, it was of critical strategic importance to those wary of external aggression, described as 'Britain's "dominating problem" in South Asia'.<sup>1</sup> However, as a remote buffer zone, it was sometimes a peripheral issue to be tolerated at minimum cost, despite being 'India's only vulnerable frontier'.<sup>2</sup> Nonetheless, some have attributed the unrest to Imperial overreach and weakness, indicative that the British Empire's 'territorial sweep failed to translate into actual strength'.<sup>3</sup> This Chapter aims to explain the factors that caused and sustained the irregular warfare along the Frontier.

### **THE IMPORTANCE OF INDIA**

The 1933 Army Staff College notes described India as the 'vital cornerstone of the British Empire'. The sub-continent was a major source of raw materials and the world's largest importer of British goods.<sup>4</sup> It was also an Imperial status symbol and a vital line of communication to the Far East.<sup>5</sup> Its large population was a source of bureaucrats for administering the Empire.

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<sup>1</sup> Brandon D. Marsh, "Ramparts of Empire: India's North-West Frontier and British Imperialism, 1919-1947" (University of Texas at Austin, 2009), 1.

<sup>2</sup> C C Davies, *The Problem of the North-West Frontier, 1890-1908: With a Survey of Policy since 1849* (London: Cambridge University Press, 1932), 2.

<sup>3</sup> Marsh, "The North-West Frontier and the Crisis of Empire: Post-War India and the Debate over Waziristan, 1919-1923": 197.

<sup>4</sup> In 1925, India was the fifth largest trading nation in the world.

<sup>5</sup> Army Staff College, Camberley, "India I - Country and People", *Senior Division Directing Staff Lecture Notes Vol II* (1933).

Imperial values of 'Christianity and commerce' collided on the Frontier.<sup>6</sup> Taxing NWF tribesmen was of little benefit due to their low income and the Frontier's lack of natural resources. Nor were the tribesmen a significant source of conscripts for the Indian Army.<sup>7</sup> As a result, the Frontier tribes were tolerated rather than embraced, and British policy attempted to contain unrest at minimal cost. Nonetheless, Victorian Imperialist benevolent values remained a factor. The Viceroy remarked in 1939 that 'our policy of gradual and peaceful penetration... should steadily continue in order that we may help these fine people to become more humanized and civilized'.<sup>8</sup>

### **BRITISH GRAND STRATEGY**

The NWF signified the Raj's high tide mark during the 'Great Game' between the expanding empires of St Petersburg and London over the domination of Central Asia. Wary of potential confrontation along a shared common border, these expanding empires purposefully left a buffer zone between them – a hiatus that became Afghanistan. An old Afghan legend illustrates the point:

When Allah had made the rest of the world, He saw that there was a lot of rubbish left over... He collected them all together and threw them down on the earth. That was Afghanistan.<sup>9</sup>

The Frontier's mountain passes remained strategically important, not just as India's main supply routes from the west, but also to allow the rapid passage of troops to

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<sup>6</sup> The evangelical African missionary David Livingstone used the term 'Christianity and commerce' to describe the Victorians' Imperial purpose. See Fidelis Nkomazana, "Livingstone's ideas of Christianity, commerce and civilization", *Pula: Botswana Journal of African Studies* 12, no. 1 & 2 (1998).

<sup>7</sup> In 1933 there were only 5600 NWF tribesmen in the 158,200-strong Indian Army. See Army Staff College, Camberley, "India II - The Army in India", *Senior Division Directing Staff Lecture Notes Vol II* (1933).

<sup>8</sup> Preface to Barton, *India's North-West Frontier*, xii.

<sup>9</sup> Ahmed Rashid, *Taliban: The Story of the Afghan Warlords* (London: Pan Macmillan, 2001), 7.

counter any Russian advance.<sup>10</sup>

Frontier strategy balanced three interconnected issues: the Great Game with Russia; Afghan intrigue; and tribal unrest. Imperial grand strategy was periodically preoccupied with potential Russian advances against India via Afghanistan.<sup>11</sup> Britain went to extreme lengths to ensure that Afghanistan remained within its sphere of influence (and outside Russia's), including the 1838 First Afghan War and the 1878 Second Afghan War; the latter is germane to this thesis as it set the context for the 1919 Third Afghan War. Unlike the First, the Second Afghan War ended in the attainment of all British objectives. The Treaty of Gandamak ensured a pro-British Amir and British control of Afghan foreign policy, trans-border districts and strategic mountain passes. In return for 'perpetual peace and friendship', the Amir received guaranteed British support against foreign invasion and an annual stipend.<sup>12</sup> As late as 1926, Russia's forcible occupation of an Afghan island on the Russian-Afghan border generated Cabinet concern over Russia's expansionist intent, during which the UK Government observed that 'The Air forces[sic] in India are dangerously small'.<sup>13</sup> However, by 1937, Slessor, then Air Staff's Deputy Director of Plans, wrote that although India's defence plans were 'absolutely grotesque... I see no chance of any war with either Afghanistan or Russia in Central Asia for years to come'.<sup>14</sup>

Preoccupation with the Great Game was periodically overshadowed by Afghan

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<sup>10</sup> Army Staff College, Camberley, "Mountain Warfare I - The North-West Frontier of India and its Problems", *Senior Division Directing Staff Lecture Notes* Vol II (1933).

<sup>11</sup> Not everyone recognised the Russian threat; in 1877, Perry observed: 'A Russian statesman would laugh at one in the face if the possibility was suggested of their occupying Afghanistan' (see IOR/L/PS/18/A17, Sir E Perry, *Memo commenting on 'Political Despatch to India No 119'*, 1 August 1877).

<sup>12</sup> Khyber.ORG, "Treaty of Gandamak, 1879", <http://www.khyber.org/pashtohistory/treaties/gandamaktreaty.shtml> (accessed 5 January 2012).

<sup>13</sup> CAB 23/53/19, *Cabinet Conclusion 49 (26) 8: Afghanistan*, 30 July 1926, 10. See also: CAB 24/180/15, Earl of Birkenhead, *Cabinet Paper 246(26): Afghanistan*, 17 June 1926, CAB 6/5, ———, *Afghanistan (CID 142-D)*, 17 June 1926, CAB 6/5, CID Chiefs of Staff Sub-Committee, *Afghanistan (CID 143-D)*, 12 July 1926; and CAB 6/5, ———, *Afghanistan - Second (Interim) Report (CID 145-D)*, 29 July 1926, 8.

<sup>14</sup> AIR 2/2627, Group Captain J C Slessor, *Minute, Deputy Director Plans to Squadron Leader L Darvall*, 1 July 1937.



intrigues to destabilise British administration by encouraging cross-border tribal unrest.<sup>15</sup> The GoI endeavoured to minimise the Amir's influence over what was once his domain - the NWF. The view that the Afghan Government encouraged tribal unrest was an enduring theme.<sup>16</sup> The importance of tribal control, described as 'the greatest small war problem in the British Empire', was summed up at a RUSI lecture in 1928: '[the tribes] are always giving us trouble in peace-time, and... we want to secure our communications behind us if we go to war beyond the Indian Frontier'.<sup>17</sup> Mindful of the 1857 Indian Mutiny, Frontier tribal dissent was an unwelcome distraction of both men and money. The appetite of successive Governments for balancing risk against cost defined Frontier policy. According to Tripodi, the Indian Government secured 'its strategic priorities despite a frequently dysfunctional Frontier policy that nonetheless served to provide a relatively effective response to the problem of the tribes and the wider complexities associated with the preservation of British rule in India'.<sup>18</sup>

The Armies of the Raj faced a range of diverse roles. Their primary purpose was to defend against external aggression by Russia and to help maintain internal peace. However, there was considerable contemporary debate over their competing tasks.<sup>19</sup> A controversial subsidiary role was to despatch expeditionary forces (paid for by the GoI) for use anywhere in the Empire.<sup>20</sup> In peacetime, the Army's NWF

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<sup>15</sup> Roe, *Waging War in Waziristan*, 2; Tripodi, *Edge of Empire*, 19; Marsh, "Ramparts of Empire", 45.

<sup>16</sup> The Governor, NWFP, wrote in 1933 that 'These tribes were heavily subsidized by the Afghan Government who regarded them as their first line of offence or defence in the event of major trouble with us'. See IOR/L/PS/12/3171, His Excellency Sir Ralph Griffith, *Note by His Excellency Sir Ralph Griffith, KCSI, CIE, Governor of the North-West Frontier Province*, 28 June 1933.

<sup>17</sup> Colonel Rowan Robinson, commenting in Peck, "Aircraft in Small Wars": 546.

<sup>18</sup> Tripodi, *Edge of Empire*, 20.

<sup>19</sup> For example, on arrival as Commander-in-Chief in 1902, Kitchener recommended that the Armies should be deployed to counter the Russian threat rather than internal unrest, something which the Viceroy had to counter and 'steer him into more orthodox channels'. See Dicks, *Curzon in India*, 20.

<sup>20</sup> As late as 1936, Slessor described the British Army's two biggest commitments as 'the defence of India and the provision of a field force for a major war in Europe' (see Wing

‘covering troops’ protected the Frontier while bolstering the internal security forces when required. This broad remit resulted in conflicting priorities and a lack of focus, described at the time as a ‘problem without parallel in the Dominions’.<sup>21</sup>

## NWF ADMINISTRATIVE HISTORY

Before the British arrived, the Sikhs had crossed the River Indus and occupied the territory up to the Afghan mountains, subjugating the tribes on the plains. Sikh rule involved collecting revenue by military force with no attempt to administer, engendering a culture of suppression and hatred of outsiders while reinforcing Pathan nationalism.<sup>22</sup> The British were generally welcomed when they succeeded the Sikhs and annexed the Punjab in 1849. The Sikhs had never occupied the mountains, and the Pathan tribesmen maintained an aggressively independent stance. British advances halted short of the mountains along the ‘Old Sikh Line’ which was renamed the ‘Administrative Border’. Prior to the Treaty of Gandamak, the Afghan Amir, who claimed suzerainty over the mountain tribesmen, held advanced posts almost on this border, holding the vital ground of the Khyber Pass and Kurram Valley.<sup>23</sup>

Nonetheless, tribes regularly crossed the Administrative Border to raid the agricultural

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Commander J C Slessor, "Gold Medal Essay (Military), 1936", *JRUSI* LXXXIII, no. 527 (1937): 463). In 1922, a sub-committee of the Committee for Imperial Defence had expressed the view that, except in the gravest emergency, the Indian Army should only be employed outside India after consultation with the GoI, and then at London's expense. However, during the 1930s, India's financial crisis led the GoI to progressively accepted joint responsibility for Imperial defence from Egypt to Malaya in return for British funding to modernise the Indian Army (see Tomlinson, *The Political Economy of the Raj*, 116-117, 138-141). For a summary of the prolonged inter-War struggle between the British and Indian governments over the duties of the Indian Army, see: Elisabeth Mariko Leake, "British India versus the British Empire: The Indian Army and an Impasse in Imperial Defence, circa 1919–39", *Modern Asian Studies* 48, no. 1 (2014). See also CAB 16/83, Earl of Birkenhead, *Committee of Imperial Defence: Defence of India: First Report of Sub-Committee (CID 158-D)*, 12 December 1927, 15 and CAB 16/6, War Office, *Committee of Imperial Defence: Defence of India: Questions of Maintaining Reserves in England (CID 190-D)*, 31 May 1935.

<sup>21</sup> Army Staff College, "India II - The Army in India".

<sup>22</sup> Barton, *India's North-West Frontier*, 56.

<sup>23</sup> William Barton, "The Problems of Law and Order under a Responsible Government in the North-West Frontier Province", *Journal of The Royal Central Asian Society* 19, no. 1 (1932): 9. The Amir's true influence over the mountain tribesmen is a matter of debate (see Roe, *Waging War in Waziristan*, 3).

Punjab plains.<sup>24</sup> Afghan attempts to impose authority over the tribes antagonised the IO, who frequently responded militarily; between 1857 and 1895 there were 35 punitive expeditions across the Administrative Border.<sup>25</sup>

The successes of the Second Afghan War allowed the British to gradually project their influence into the mountains after 1879. The 'trans-border' territory was progressively annexed into the political agencies of Malakand, Khyber, the Kurram Valley, North and South Waziristan. The need for a strategy that simultaneously maintained Britain's influence over Afghanistan, whilst limiting Afghan meddling across the Administrative Border, required the British to formally delineate the respective spheres of influence in the trans-border region.<sup>26</sup>

Several frontier lines were considered. Those wary of the 1842 retreat from Kabul favoured a withdrawal to the River Indus. Despite the support of the Viceroy, this was rejected because of the potential loss of prestige, and because the Indus plain was unsuitable for basing European troops.<sup>27</sup> The second line was the 'Old Sikh Line' which corresponded to the Administrative Boundary. However, this was deemed indefensible by C-in-C(India), Lord Roberts, being over a thousand miles long, requiring enormous road building, and facing a mountain range inhabited by 'thousands of warlike men'. A third option, never seriously considered, was the 'scientific border' which ran on the Afghan side of the mountains and was designed to meet a Russian invasion on the most favourable terrain.<sup>28</sup> The final decision was based on tribal control, rather than countering a Russian threat. The tribal area was divided in half to bring the raiding tribes formally under British jurisdiction. The

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<sup>24</sup> One contemporary commentator compared the NWF with the Welsh March during Romano-British times in terms of geography as well as economic and cultural contrast. See Major J G O Whitehead, "The Welsh March and the N-W.F.P.", *JUSII* LXIV, no. 277.

<sup>25</sup> Quoted in IOR/L/PS/18/A130, W Lee-Warner, *Memorandum on Frontier Affairs*, 11th October 1897.

<sup>26</sup> Christian Tripodi, *Tripodi to Author*, Email, 16 June 2011.

<sup>27</sup> Lord Lawrence was Viceroy of India from 1864 to 1869.

<sup>28</sup> For an in-depth discussion, see Davies, *The Problem of the North-West Frontier, 1890-1908*, 3-17.

resulting Durand Line was begrudgingly signed by the Amir in 1893 who agreed to cease interference in Swat, Bajaur, Chitral, Wazir and Daur; the British similarly withdrew from Birmal on the Afghan side of the Line.<sup>29</sup> As a result, 2.5 million tribesmen became nominal Crown citizens.<sup>30</sup> The Durand Line followed topographic watersheds and, despite being accused of disregarded ethnic considerations, generally follows Pathan tribal boundaries.<sup>31</sup> One notable exception was the Mohmands where the Line, unlike elsewhere, was not physically demarcated on the ground due to the extreme terrain, leading to subsequent difficulties.<sup>32</sup> Barton described this 'storm centre' of unrest as being 'open to political penetration from Afghanistan' and making 'any real control of the tribe almost impossible'.<sup>33</sup> Conversely, the Amir was able to criticise the British for being unable to control their tribes, who raided Afghanistan from British territory.<sup>34</sup> Initially, the trans-border region fell under the jurisdiction of the Punjab, where it was considered a peripheral issue.<sup>35</sup> In 1901 the Viceroy, Lord Curzon, created the North-West Frontier Province (NWFP) between the River Indus and the Durand Line.<sup>36</sup> The new province was headed by a Chief Commissioner who reported directly to the GoI without an elected assembly. The agricultural plain between the Indus and the Administrative Border was divided into five settled 'districts', each run by a Commissioner.<sup>37</sup> These districts were fully administrated, with taxes, courts and police forces.

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<sup>29</sup> Caroe, *The Pathans*, 463.

<sup>30</sup> Roe, *Waging War in Waziristan*, 3.

<sup>31</sup> See [Figure 2](#). For examples of accusations, see: Ibid. and Army Staff College, "Mountain Warfare I - The North-West Frontier of India and its Problems". Likewise, the GoI stated that 'Neither the international frontier between India and Afghanistan nor the administrative border of British India are, in any sense, racial or tribal boundaries' (AIR 23/5370, India Defence Department, *Frontier Warfare - India (Army and Royal Air Force)* 1938, 6).

<sup>32</sup> Caroe, *The Pathans*, 463-464.

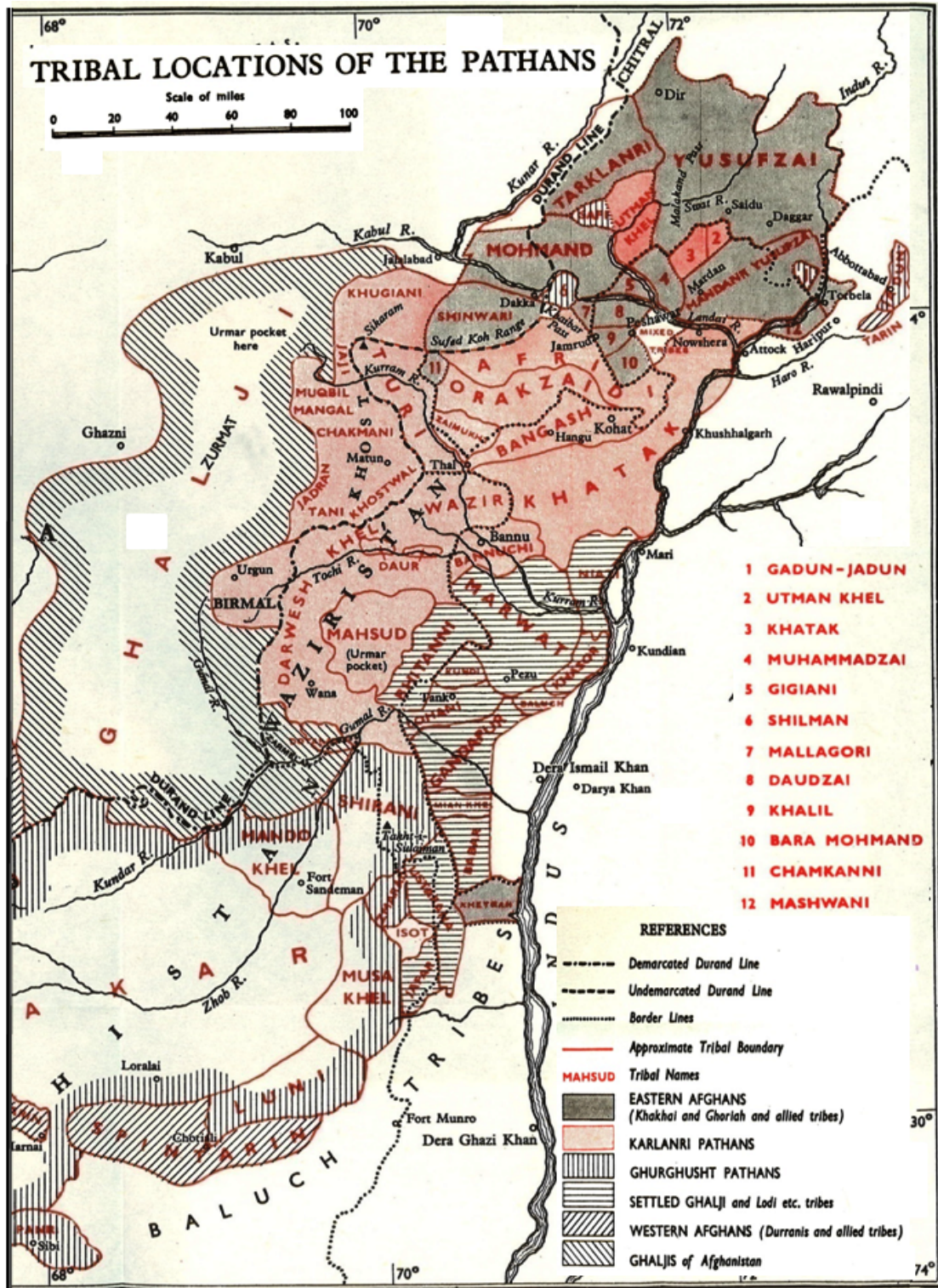
<sup>33</sup> Barton, *India's North-West Frontier*, 65-66.

<sup>34</sup> Tripodi, *Edge of Empire*, 74.

<sup>35</sup> Davies, *The Problem of the North-West Frontier, 1890-1908*, 107-109.

<sup>36</sup> See [Figure 3](#).

<sup>37</sup> Dera Ismail Khan, Bannu, Kohat, Peshawar and Hazara.



From Caroe, *The Pathans - 550 BC - AD 1957*

Figure 2: Tribal Locations of the Pathans

The mountainous area between the Administrative Border and the Durand Line was divided into seven loosely-controlled 'agencies', namely Wana and Tochi (formally South and North Waziristan respectively), Kurram, Khyber, Chitral, Swat and Dir. Each agency was headed by a Resident, supported by a Political Agent. These agencies were unadministered; there was no police force and little attempt to enforce law and order outside the Army cantonments and along the roads. Instead, the Political Agent acted as a referee, settling disputes between the tribes.

The 1879 Treaty of Gandamak resulted in almost 40 years of relatively good relations between India and Afghanistan. However, in 1919, the concatenation of Turco-German pressure, perceived post-war British weakness, rising Indian civil unrest and nationalism following the Amritsar massacre, and the need for a distraction during an Afghan succession power struggle, caused the new Amir, Amanullah, to invade India.<sup>38</sup> The Afghan Army, supported by Frontier tribesmen, occupied the Khyber Pass at the beginning of May. Despite the Indian Army's depletion and war weariness following the FWW, the Afghan forces were swiftly ejected and parts of Afghanistan temporarily occupied. Despite this tactical success, the Treaty of Rawalpindi granted Afghanistan control over its own foreign policy and, thereby, independence from Britain. However, the Bolshevik revolution and the Red/White civil war meant that the Russian threat to India was ebbing.

In 1931, a re-organisation of the NWFP resulted in the Chief Commissioner being replaced by a Governor with an elected legislative council lead by a Chief Minister.<sup>39</sup> This construct endured until partition in 1947.

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<sup>38</sup> See Robson, *Crisis on the Frontier*, 9-18 for an overview of the Afghan reasoning for going to war.

<sup>39</sup> IOR/L/MIL/7/16944, Collection 403/118, Enclosure 4, *Annual summaries of chief events on North West Frontier tribal territory 1919-1932*, 1933, 1.



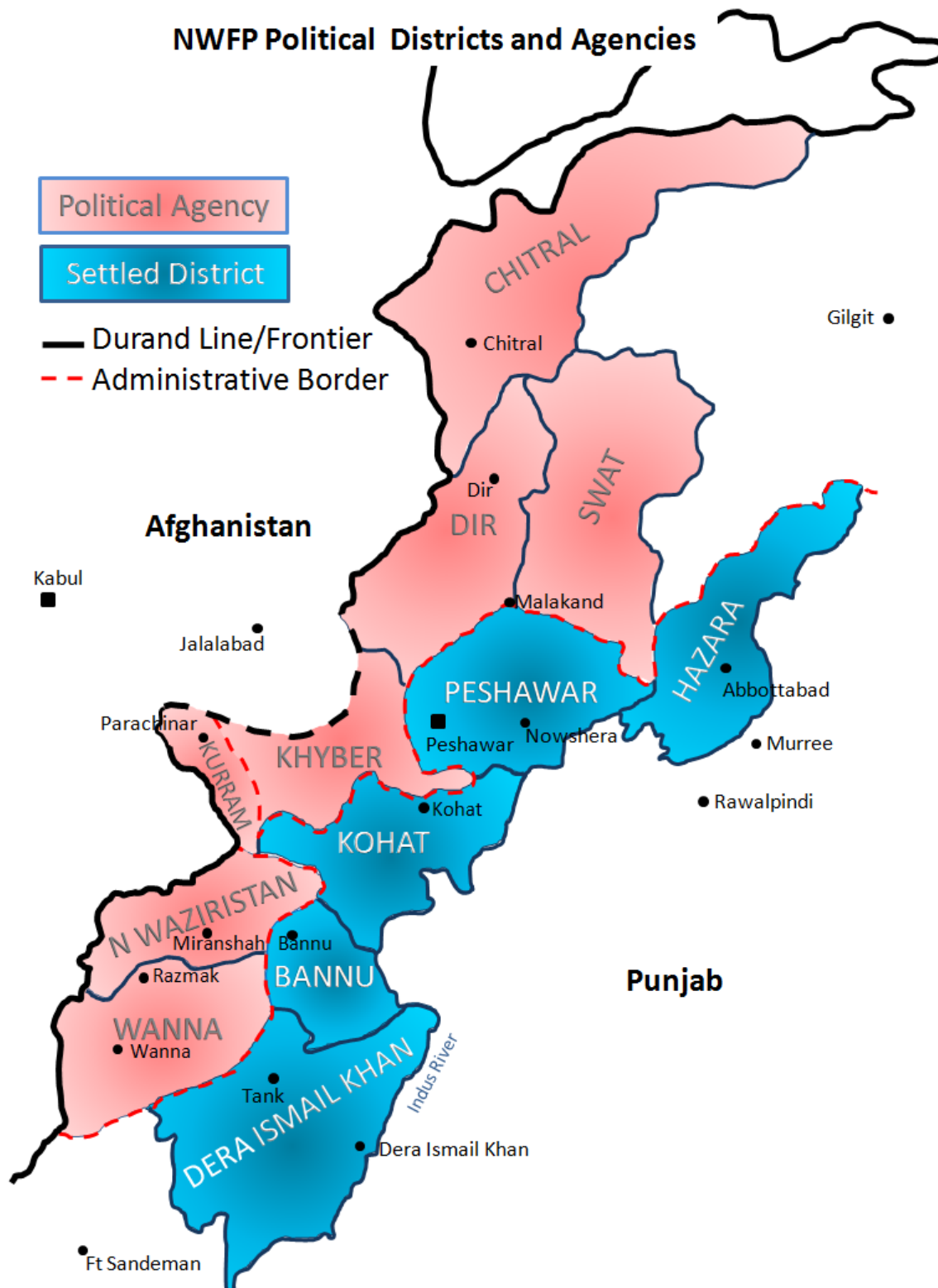


Figure 3

## TOPOGRAPHY

The NWF forms the transition between Central Asia's highlands and Indian's plains. The 408-mile-long Frontier of inaccessible mountains forms the Hindu Kush's eastern foothills. To the north lie the Himalayan foothills; to the south, Baluchistan's arid plains. The wide, fertile Indus plains bound the Frontier's eastern boundary.<sup>40</sup>

Deep-cut valleys dominate the Frontier, their watersheds demarcating the British political boundaries.<sup>41</sup> East-west rivers form the strategic mountain passes that link India with Central Asia – the Khyber, Kurram, Tochi and Gomal Passes.<sup>42</sup>

Aridness dominated the region.<sup>43</sup> Although Bruce described Waziristan as 'forest clad, with green "mergs" and mountain glens', the region suffered acute deforestation and overgrazing, creating barren, waterless expanses.<sup>44</sup> Deforestation resulted from the demand for firewood by tribes and troops, and its use in constructing tribal roofs. Wood became invaluable and roof timbers were highly prized.<sup>45</sup> The dry, continental climate generated a wide diurnal and annual temperature variation from 38°C in May to sub-freezing temperatures in winter.<sup>46</sup>

## CULTURAL ASPECTS

As Davies noted, 'Environment has definitely shaped the national character of the frontier tribesman. It has produced a race of men who are the most expert guerrilla fighters in the world'.<sup>47</sup> In winter, snowfall often incarcerated the tribes within their own valleys, resulting in distinct localised tribal characteristics and independence from

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<sup>40</sup> David Dichter, *The North-West Frontier of West Pakistan: A Study in Regional Geography* (Oxford: Clarendon Press, 1967), 7.

<sup>41</sup> See [Figure 4](#).

<sup>42</sup> See [Figure 9](#).

<sup>43</sup> Dichter, *The North-West Frontier of West Pakistan*, 10-12.

<sup>44</sup> Bruce, "The Sandeman Policy as Applied to Tribal Problems of To-day": 46.

<sup>45</sup> Camberley Army Staff College, "Mountain Staff Tour, DS Notes on Exercise No 3", *Senior Division Directing Staff Lecture Notes* (1923).

<sup>46</sup> Dichter, *The North-West Frontier of West Pakistan*, 10-14.

<sup>47</sup> Davies, *The Problem of the North-West Frontier, 1890-1908*, 179.





Figure 4

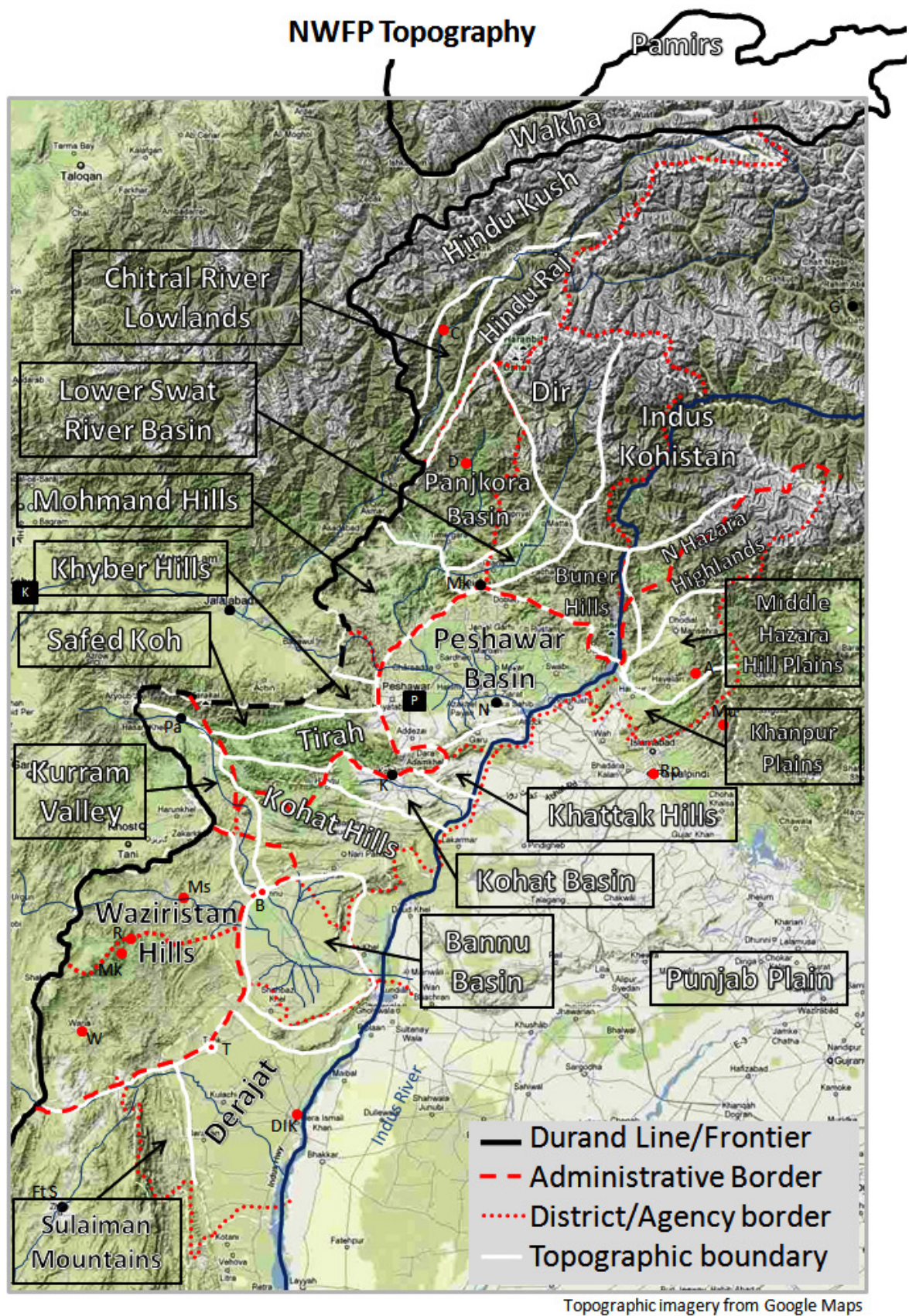


Figure 5



each other; the Waziris and Afridis in particular were strongly democratic and their leaders had only limited control over them.<sup>48</sup> Individual tribes cherished autonomy and defied any external authority.<sup>49</sup>

Outwith a few cultivable areas, the Frontier was harsh and unforgiving.<sup>50</sup> The tribes survived on a near subsistence diet.<sup>51</sup> Livestock ownership exceeded what the barren land could support, contributing to deforestation. Due to the lack of resources, hill tribes habitually raided the caravans transiting the passes and plundered the fertile agricultural plains across the Administrative Border for money, livestock, goods and hostages.<sup>52</sup>

Tribal diversity was apparent at several levels. The hill, or *nang*, tribesmen were distinct from the *qalang* tribes of the plains. *Nang* tribes lacked structure or central leadership and survived on subsistence agriculture. *Qalang*, or taxed, tribesmen were more hierarchical and organised, producing surplus agricultural products which could be traded.<sup>53</sup> The latter submitted more readily to external administration, while the former strongly resisted it. On a larger scale, there was contrast between the hierarchical Baluchis to the south and the tribes of the NWF, which led to the need for diverse policies in different areas, as explained later.<sup>54</sup>

*Pashtunwali* (Pathan honour) formed an important aspect of *nang* tribal culture.<sup>55</sup> This drove tribal reaction to the British and endures today.<sup>56</sup> This pre-

<sup>48</sup> Bruce, *The Forward Policy and its Results*, 168.

<sup>49</sup> Dichter, *The North-West Frontier of West Pakistan*, 1-3.

<sup>50</sup> Moore, *Just as Good as the Rest*, 39.

<sup>51</sup> Roe, *Waging War in Waziristan*, 19.

<sup>52</sup> Ibid., 20-21.

<sup>53</sup> A Pathan proverb says: 'Honour (*nang*) ate up the mountains; taxes (*qalang*) ate up the plains'. See Barnett R Rubin, *The Fragmentation of Afghanistan: State Formation and Collapse in the International System* (Yale University Press, 2002), 28.

<sup>54</sup> See, for example, Christian Tripodi, "'Good for one but not the other': The 'Sandeman System' of Pacification as Applied to Baluchistan and the North-West Frontier, 1877-1947", *The Journal of Military History* 73, no. 3 (2009).

<sup>55</sup> Beattie, *Imperial Frontier*, 7-8.

<sup>56</sup> The Tribal Analysis Center concluded that 'the average tribesman looks more to *Pashtunwali* than Shari'a as a guide. See, "Pashtun Tribal Dynamics", 2009, Tribal Analysis Center, [www.tribalanalysiscenter.com](http://www.tribalanalysiscenter.com) (accessed 9 January 2012).

Islamic tradition compelled Pathans to adhere to three specific behaviours: hospitality (*melmastia*); sanctuary for renegades (*nanawatai*); and retribution (*badal*) for any affront to the family, no matter how long it took.<sup>57</sup> Rivalry between patrilineal parallel male cousins (*tarburwali*) often resulted in enduring intra-tribal tension.<sup>58</sup> Other elements of *Pashtunwali* were the autonomy of tribal men and the temporary nature of the headmen (*maliks*). Breaking *Pashtunwali* would bring shame (*sharm*) onto the individual and his associates. Whilst open to local interpretation, the code applied at every level of society, both within and between tribes, and played a role in decision-making, justice and tolerance. Whilst it was largely responsible for enduring inter-tribal conflict, it was also the Pathan-wide set of rules which governed and moderated behaviour. *Pashtunwali* is of particular importance to this thesis: in Western civilisations, the population's behaviour is constrained and influenced by laws passed by the government and enforced by the police; on the NWF, *Pashtunwali* provided a similar effect on the behaviour of the fiercely independent and disparate tribes. As will be described later, RAF doctrine during this period was largely based on generating 'moral effect' to coerce the population to change its behaviour. Controlling tribal behaviour was a contest between two coercive effects: the RAF's moral effect on one hand; and a mixture of *Pashtunwali* and religion on the other. Therefore, any lessons about moral effect learnt on the NWF could only be reliably applied to other regions and cultures if the constraining influence of *Pashtunwali* was broadly similar to the governing mechanisms of the enemy leadership. To pose a germane example, did *Pashtunwali* control the NWF tribes to the same degree as the Nazi regime controlled the German population?

The British took care not to dishonour a particular tribe to avoid their long-term resentment as well as unrest in adjacent tribes from a sense of shared humiliation.

<sup>57</sup> Barthorp, *The North-West Frontier: British India and Afghanistan: A Pictorial History, 1839-1947*, 12.

<sup>58</sup> Beattie, *Imperial Frontier*, 8, 10.

This explains why, for example, the British rarely tried to capture renegades, such as the Fol, while being sheltered under the principle of *nanawatai* by tribes within British territory.<sup>59</sup> Similarly, ‘outlaws’ who fled into tribal areas often became the ‘*hamsaya*’ (guest) of the headman; the outlaw would often be compelled to conduct raiding on behalf of the tribe in return.<sup>60</sup> The headman, if confronted by the authorities, could excuse himself by claiming that *Pashtunwali* compelled him to offer sanctuary.

*Nang* tribal structure, or its absence, was problematic for the British. Violence tended to be orchestrated at a low level, resulting in a mosaic of behaviours. Unlike the Baluchi tribes to the south, there was little institutionalised, hereditary leadership amongst the central NWF tribes. Tribal *maliks* had to demonstrate their continued worthiness and could be democratically replaced at short notice, their authority being dependent on the continued support of their tribesmen; overall, the *maliks* ‘influenced’ rather than ‘controlled’ their tribesmen. In many tribes the *malik*’s main role was to orchestrate public assemblies (*jirgas*). *Jirgas* were used to resolve intra and inter-tribal disputes and were very democratic, the assembled tribesmen being seated in a circle to demonstrate equality. Small *jirgas* were often conducted without a leader. At larger multi-clan *jirgas*, the *maliks* (sometimes numbering over a hundred) would be seated at the front while their tribesmen sat behind. Voting was rare; instead, issues were discussed and negotiated until agreement was reached, the final consensus being binding and final. In an attempt to administer *nang* tribes, the British tried to influence both the *maliks* and *jirgas*.<sup>61</sup>

However, Pathans often paid more heed to religious leaders than their *maliks*; the *maliks* were elected by egalitarian vote, whereas the religious leaders were deemed to be ordained by God. Pathans were all Islamic, one of the few unifying cultural factors. This endowed religious leaders with pan-tribal influence. In

<sup>59</sup> Christian Tripodi, Interview, 18 July 2011.

<sup>60</sup> Bruce, *Waziristan, 1936-1937*, 46.

<sup>61</sup> Roe, *Waging War in Waziristan*, 46-48.

Waziristan there were several types of Islamic clerics who competed against the *maliks* (and Gol), for tribal influence, although they acquired authority in different ways. *Mullahs* were routine domestic tribal preachers who ran the local mosques; they could preach *jihad* against outsiders, albeit not always successfully, and occasionally organised armed tribal forces called *lashkars*. *Fakirs* (charismatic, wandering *mullahs* viewed as miracle workers) were perhaps the most influential religious leaders, living austere lives and often moving between tribes under the unified protection of *Pashtunwali*.<sup>62</sup> One initially professed that aircraft could be brought down by flashing mirrors at them.<sup>63</sup> The Fol, understanding that leaflets were normally dropped before bombing raids, cunningly convinced his followers that he could turn bombs into paper.<sup>64</sup> Temple provided a contemporary British perspective of the 'priest ridden' tribes and their religious leaders, describing that they were: 'as ignorant as they are bigoted; and use their influence simply for preaching crusades against unbelievers, and inculcate the doctrine of rapine and bloodshed against the defenceless people of the plain'.<sup>65</sup> The Gol had little success in influencing these clerics.

Tribal villages, or *kots*, usually consisted of square houses of unbaked bricks, earth and straw huddled in flat areas and surrounded by cultivable ground. These buildings were often surrounded by thick, high walls to protect the inhabitants and their livestock, who lived in close proximity. Houses were normally single-roomed, small and squalid, with inadequate sanitation. Their highly sought-after timber roof

<sup>62</sup> Ibid., 48-51. See also Beattie, *Imperial Frontier*, 8-9.

<sup>63</sup> Norman L R Franks, *First in the Indian Skies* (The RAF Collection, 1981), 13.

<sup>64</sup> 'When the rustle of falling leaflets [ ] replaced the expected explosions, the hillmen knelt in awe about the Fakir of Ipi, praising Allah'. See "Bombs Turned into Paper": Fakir of Ipi Gains Prestige", *The Courier-Mail*, 30 April 1937. See also: Milan Hauner, "One Man against the Empire: The Faqir of Ipi and the British in Central Asia on the Eve of and during the Second World War", *Journal of Contemporary History* 16, no. 1: 191.

<sup>65</sup> T H Thornton, *Colonel Sir Robert Sandeman - His Life and Works on our Indian Frontier* (London: John Murray, 1895), 13.

beams were specifically targeted by punitive Army expeditions.<sup>66</sup> The only furniture was normally beds made of rough wood. Tents and caves were also used as dwellings. The larger villages were normally surrounded by thirty-foot fortified watch towers, the number of which reflected the village's status.<sup>67</sup>

Rifles were a significant status symbol within the tribesmen's warrior ethos and the ability to muster significant numbers secured a village's independence. Some were locally manufactured, but higher quality weapons were illegally imported from Afghanistan or stolen from the British. The GoI often imposed fines in the form of rifles. Modern rifles and smokeless ammunition allowed tribesmen to employ long-ranged harassing fire and ambushes, frustrating Imperial troops who were often unable to close with the tribesmen and inflict a decisive traditional victory.<sup>68</sup>

### **Cross-Cultural Communication**

The failure of effective communication between the supposedly governed and the would-be governors of the NWF has received relatively little academic scrutiny. Examining the self-image of the belligerents is complicated by the overlap between myth, legend and reality; as Terraine warned:

legend and war are inseparable and little harm results; whereas myth, embodying some popular idea, may have some mischievous motive which by concealing the truth may lead to false conclusions.<sup>69</sup>

Authors like Kipling popularised Pathan characters such as Mahboob Ali in *Kim*. The Victorian epitome of daring colonial agents and soldiers on the fringes of Pax Britannica, often making the ultimate sacrifice for Queen and country, was not without grounding in reality. British national culture was imbued with images such as the sole

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<sup>66</sup> Army Staff College, "Mountain Staff Tour, DS Notes on Exercise No 3".

<sup>67</sup> Roe, *Waging War in Waziristan*, 35-37.

<sup>68</sup> See Ibid., 23-31 for an excellent summary of the role of rifles.

<sup>69</sup> John Terraine, *The Smoke and the Fire: Myths and Anti-myths of War, 1861-1945* (London: Sidgwick and Jackson, 1980).

survivor of the First Afghan War disaster entering the gates of Jalalabad, immortalised by Lady Butler.<sup>70</sup> Thornton posited that public schools and juvenile literature of the era entrenched values that the ruling elite deemed worthy, with a particular emphasis on encouraging young men to serve the Empire, not just Britain.<sup>71</sup> Historically, Parliament, fearing the potential political power of the Army, had populated the Army's officer corps with gentlemen from their own social strata to secure their empathy. Sport was the class's natural pastime and so military ethos became aligned with sport and 'fairness'. Indeed, British cinema was unusual in that, rather than demonising the enemy, they were instead portrayed as sporting opponents; as, for example, demonstrated by the tribesmen 'saluting' their British opponents at the end of the film *Zulu*.<sup>72</sup> As the British Army was largely successful, there was little incentive to change, and these norms became 'sticky' and endured, all the more so since the Army attracted men who bought into this ethos and perpetuated the behaviour.<sup>73</sup> Thornton remarked that gentlemanly behaviour percolated down the Army's social strata, although Mockaitis caveated that when oversight by the officers was absent, the rank and file, recruited from the lowest levels of British society, could act savagely.<sup>74</sup>

The British developed the concept of the 'noble Pathan savage', possibly due to their respect for the tribesmen's martial skill and the British desire to project their own social norms on their enemy. An air power example of this was *Biggles* author, W E

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<sup>70</sup> See [Figure 6](#).

<sup>71</sup> For example, the front cover of the August 1938 edition of *Flying* magazine (at [Figure 8](#)) romanticised the challenge of Frontier flying (see Captain W E Johns, "Thunder over the Frontier", *Flying*, 20 August 1938).

<sup>72</sup> Rod Thornton, "The Role of Victorian Values in British Army Tactics, Techniques and Procedures" (paper presented at the 'Butcher and Bolt' or 'Hearts and Minds' conference, Senate House, London, 15 September 2011). The British sporting attitude during these small wars is in contrast to, for example, the American policy of the demonisation of the Japanese (see, for example, L M Cullen, *A History of Japan, 1582-1941: Internal and External Worlds* (Cambridge: Cambridge University Press, 2003), 285).

<sup>73</sup> Thornton, "The Role of Victorian Values in British Army Tactics, Techniques and Procedures".

<sup>74</sup> *Ibid.*, comments by Mockaitis during the post-presentation question and answer session.





**Remnants of an Army by Lady Elizabeth Butler**

A depiction of Dr William Brydon, an assistant surgeon in the Bengal Army, arriving at the gates of Jalalabad. He was originally thought to be the sole survivor of the 16,000-strong army and followers who retreated from Kabul during the First Afghan War.

Figure 6

### **Qualities of an Army Officer**

An officer should be comely, spritely and above all else, confident in his own dress and bearing. He should, where possible, eat a small piece of meat each morning with molasses and beans. He should air himself gracefully when under fire and never place himself in a position of difficulty when being shot at. He should eat his meals comfortably and ahead of his soldiers, for it is he whom is more important tactically on the battlefield and therefore he who should be well nourished. His hair should be well groomed and if possible he should adorn a moustache or similar facial adornment. When speaking to his soldiers he should appear unnerved and aloof and give direction without in any way involving himself personally in the execution of arduous or un-officerlike duties. He should smoke thin panatelas except when in the company of ladies where he should take only a small gin mixed with lemon tea. He should be an ardent and erudite gentleman and woo the ladies both in the formal environment and in the bedroom where he should excel himself beyond the ordinary soldier with his virulent love making prowess.

Lieutenant General Hubert Worthington  
Commander-in-Chief  
5th Royal Indian Mountain Division Bombay  
12 December 1907

Figure 7



Figure 8 - *Flying* magazine front cover, 1938

Johns', 1938 boys' aviation magazine article on the NWF, which described recalcitrant hill tribesmen as 'dusky gentlemen' for whom conflict offered 'both business and pleasure' - 'very good fellows' who 'have occasionally expressed their displeasure with their knives on sundry prisoners' but whom also displayed 'a degree of chivalry

seldom encountered in countries so-called civilised'. Johns concluded that 'hillsmen are, and have always been, better men than plainsmen'.<sup>75</sup> In one of the few cultural studies of the region, Ahmed remarked that the bearing of the tall, blond, blue-eyed Afridis 'helped create and perpetuate romantic theories of Greek origin'.<sup>76</sup> However, the somewhat subjective nature of Ahmed's study is revealed by comments such as: 'Even the sordid business of bombing tribesmen was cast in a "sportsman-like" mould and a proper "warning notice" issued before air-raids. Otherwise it simply would not be cricket'.<sup>77</sup> Woodruff provided another viewpoint: 'although there was always the chance of a bullet and often a great deal of discomfort... everyone liked the Pathan, his courage and his sense of humour'.<sup>78</sup>

The Pathan record is far sparser.<sup>79</sup> Ahmed claims that the Pathans did not share the romanticised British view of conflict.<sup>80</sup> Nonetheless, many sources mention the tribesmen's view of harassing the British for 'sport'; this is unsurprising given the status of rifle ownership in Pathan society. Bowyer provided some insight when describing how, following a 1920s campaign, tribesmen applied to the GoI for the award of the British India General Service Medal for their role in training the 'King-Emperor's army', only to be bemused when this was refused.<sup>81</sup> Tripodi noted that the term *tarburwali* ('cousin rivalry') also means 'enemy', while Allen recorded how a Political Agent was sniped at by Mahsud tribesmen the night after he had dined with

<sup>75</sup> Johns, "Thunder over the Frontier", 6.

<sup>76</sup> Ahmed, "An Aspect of the Colonial Encounter in the North-West Frontier Province": 323.

<sup>77</sup> Ibid.: 324.

<sup>78</sup> Woodruff, *The Men who Ruled India*, 292.

<sup>79</sup> One of the few direct Pathan sources was the 1996 television production '*Birds of Death*' which interviewed tribesmen who had experienced aerial bombing over 50 years previously. A transcript is at Annex 3. While this source provides interesting childhood perspectives, it is not helpful in assessing the effectiveness of air action, as the tribal leaders who were the targets of aerial coercion had died prior to the recording. See Case, "Birds of Death", also published online at: George Case, 1996, "Birds of Death", Channel 4, <https://www.youtube.com/watch?v=Y4g5pFggpVQ> (accessed 26 April 2016).

<sup>80</sup> Ahmed, "An Aspect of the Colonial Encounter in the North-West Frontier Province": 322.

<sup>81</sup> Bowyer, *RAF Operations 1918-1938*, 157-158.



them.<sup>82</sup> This illustrates the Pathan cultural dynamic between bonding and belligerence. The Tribal Analysis Center concluded that 'these aggressive tribes developed cultural characteristics that valued courage, manly vigor, and warlike attitudes that combined with religious piety to create a hierarchy'.<sup>83</sup> Overall, it is apparent that the British and Pathans conceptualised 'sport' differently.

Despite the supposedly 'sporting' nature of the Pathan-British relationship, the British concept of ethics was in its infancy at the turn of the century. During an early discussion on ethics, Herbert expounded in 1898 that 'a code of ethics in warfare could obtain only between nations of an equal, or tolerably equal, state of civilization'.<sup>84</sup> However, Herbert's concept of a 'code' revolved around a mutual agreed set of standards. This required interaction to agree upon the code, which was largely absent on the NWF; the Close Border policy of non-interference resulted in minimal interaction and communication with the tribes, despite the Gol's use of Political Agents to indirectly administer them. Ahmed argued that the British allowed the tribal areas to function largely uninterrupted and left the tribes largely untouched.<sup>85</sup> Overall, the policy of non-interference led to a lack of communication and understanding between the cultures which was ultimately unhelpful.

## BRITISH NWF POLICY

Frontier policy is important to this Thesis, as some approaches nested more comfortably with air power than others. The problems on the NWF stemmed from the conflict between the tribes' intrinsic lack of utility to the Gol and the region's strategic geographic importance. This manifested itself by the existence of two borders – the international Durand Line and the self-imposed 'Administrative Border' delineating

<sup>82</sup> Tripodi, *Edge of Empire*, 162; Allen, *Plain Tales from the Raj: Images of British India in the Twentieth Century*, 171.

<sup>83</sup> "Pashtun Tribal Dynamics".

<sup>84</sup> Captain W V Herbert, "The Ethics of Warfare", *JRUSI* XLII, no. 247 (1898): 1032.

<sup>85</sup> Ahmed, "An Aspect of the Colonial Encounter in the North-West Frontier Province": 325.

‘British India’ from the tribal areas. Grand strategy dictated the ebb and flow of British Frontier policy which, in turn, dictated the method of tribal administration.<sup>86</sup>

The historiography of the NWF has tended to focus on Waziristan, the storm centre of resistance against British authority and the focus of much of British efforts, especially in the late 1930s. It more recently became the centre of attention as the refuge of terrorists such as Osama bin Laden. However, Waziristan constituted only a small part of the NWF; outside this region, despite equally demanding topography and hardened tribes, comparatively little unrest occurred, as Tripodi pointed out:

The systems designed to facilitate interactions, the political arrangements, the financial inducements, the forging of common interests and the threat of military action – all combined to generate a largely stable environment.<sup>87</sup>

Even in Waziristan, the weekly intelligence reports and annual summaries indicate a generally stable situation interrupted by sporadic violent events.<sup>88</sup> Despite its reputation, it is largely incorrect to view the NWF as an area of continuous unrest and policy failure.

British NWF policy was not uniform or monolithic, but rather a patchwork designed to address the context of particular tribes. Davies opined that ‘Owing to geographical, ethological, and political reasons, a policy, which was completely successful on one part of the frontier, was entirely unsuited to another area’.<sup>89</sup> Nonetheless, Lord Curzon, as Viceroy in 1901, considered ‘the creation and pursuit of a ‘sound Frontier Policy... from Chitral on the North to the Gomul Valley on the South’ to be his most important reform.<sup>90</sup> British policy-makers were not consistently in accord; Ledwidge highlighted the frequent ‘fierce controversies concerning policy and

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<sup>86</sup> Tripodi, *Edge of Empire*, 18.

<sup>87</sup> *Ibid.*, 14-15.

<sup>88</sup> IOR/L/MIL/7/16944, *Annual Summaries of Chief Events on North West Frontier Tribal Territory 1919-1932*.

<sup>89</sup> Davies, *The Problem of the North-West Frontier, 1890-1908*, 18.

<sup>90</sup> Curzon's budget speech, March 27 1901, in Curzon, *Lord Curzon in India*, 415-416.

strategy' within the 120-odd 'Political's of the GoI's Foreign and Political Department.<sup>91</sup> According to Mallam, viewpoints were often aligned between the IPS's 30% 'Heaven Born' Indian Civil Servants and the 70% ex-military Political's.<sup>92</sup> Furthermore, the IPS had to deal with an often 'surly if not actively hostile military', some of whom viewed the Political's as 'traitors'.<sup>93</sup> One of the themes of this study is to analyse the context of the NWF to discern which policy worked, on whom and why, and the effectiveness of air power's contribution.

### **The Close Border Policy – 1838 to 1879: 'Burn and Scuttle', 'Butcher and Bolt', or 'Harry and Hurry'**

British policy varied between two extremes: the Close Border and Forward policies. The Close Border policy involved minimal interference with the tribes, while the Forward policy meant garrisoning and administering the area. The East India's initial expansionist policy was, *de facto*, a Forward policy. However, as a result of the disastrous 1838-42 First Afghan War, a Close Border policy was adopted between the 1849 annexation of the Punjab and the 1878 Second Afghan War. The rule of British law was used to consolidate the land east of the Administrative Border, but the tribal areas to the west were largely left to themselves. In reality, there were few other options due to the combination of a lack of both British resources and political will. The regular tribal raids across the Administrative Border required frequent brigade-strength punitive expeditions to exact retribution. The Punjab Irregular Force (PIF), consisting of British-led Indian infantry and cavalry regiments, was created in 1849 to secure the local border. The 'Piffers' fell under the control of the Board of

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<sup>91</sup> The Foreign and Political Department was renamed the IPS in 1937. For a good description of the role of the Political's, see: James Onley, *The Arabian Frontier of the British Raj: Merchants, Rulers, and the British in the Nineteenth-Century Gulf* (Oxford: Oxford University Press, 2007), Chapter 2.6 - The Indian Political Service (IPS) 1764-1947.

<sup>92</sup> Mallam and Day, *Frogs in the Well*, 124.

<sup>93</sup> Frank Ledwidge, "Review of Tripodi, 'Edge of Empire'", *JRUSI* 156, no. 5 (2011): 107; Marsh, "Ramparts of Empire", 44.

Administration of the Punjab, allowing the Board to swiftly react against local tribal violence without having to consult the Indian Army authorities.<sup>94</sup> The PIF proved to be more effective on the Frontier than the regular Indian Army.<sup>95</sup>

The Close Border policy was heavily condemned for treating the symptoms of unrest rather than the cause. Richard Bruce was particularly critical because, although the border was 'closed' and impervious to the British, with no troops being allowed to cross it except during 'burn and scuttle' expeditions, it was 'open' to tribesmen who raided the settled districts.<sup>96</sup> His son, Charles, agreed, commenting on tribal control techniques thus:

**Fines**, which, if paid at all, were generally paid by the most respectable and law-abiding section of the tribe.

**Blockades**, which kept the laborious, hard-working portion of the tribesmen from going about their lawful occasions.

**Expeditions**, where the villages of the wretched people were burnt to the ground, their women, children, and flocks turned out on to the hillside. Eventually the troops retired, leaving behind them a legacy of hatred and contempt. A policy which made a desert and called it peace. A policy "neither dignified, becoming to a Great Power, humane, nor even economical".<sup>97</sup>

Rawlinson, writing in 1877, took a wider view on the Close Border policy:

the senseless and irritating policy that we have [ ] pursued in holding aloof from all connection with the mountain tribes, has been one series of mischievous and even dangerous blundering' [and if we had been] 'arbitrating in cases of disputes between the clans, employing the tribesmen as patrols, introducing agricultural improvements, encouraging trade, and generally pushing the arts of industry into the mountains, we should I believe, at the present day, have had a settled and contented peasantry along the whole Punjab border, instead of hungry and restless marauders.'<sup>98</sup>

<sup>94</sup> Moreman, *The Army in India*, 5-6.

<sup>95</sup> Ibid., 22; The PIF's effectiveness led to the adoption of the irregular system throughout the Indian Army in 1865, when the PIF was simultaneously renamed the Punjab Frontier Force, See ———, *The Army in India*, 27.

<sup>96</sup> Bruce, *The Forward Policy and its Results*, 14.

<sup>97</sup> ———, "The Sandeman Policy as Applied to Tribal Problems of To-day": 48.

<sup>98</sup> IOR/L/PS/18/A17, Sir Henry Rawlinson, *Political Despatch to India*, No. 119, 29th November 1877.

### The Forward Policy – 1879 to 1901

Disraeli's 1874 Conservative government reappraised the Russian threat and adopted a Forward Policy towards Afghanistan, Baluchistan and the tribal areas. Although the ensuing military intervention to secure Afghanistan – the 1878 Second Afghan War – was temporary, Indian rule of law was progressively established over the tribal areas between 1879 and 1901.<sup>99</sup> This was achieved by garrisoning 10,000 troops and associated road-building to allow them to rapidly deploy forward to counter Russian aggression.<sup>100</sup> Nonetheless, physical occupation was limited to specific 'protected areas'. The strategically important Khyber Pass was occupied from the outset and approachable tribal leaders paid allowances to maintain *jazailchis* (which became the Khyber Rifles) to protect the Pass.<sup>101</sup>

Under the Forward Policy, Waziristan was administered via the 'maliki system'. Tribal leaders, or *maliks*, were paid allowances in return for raising tribal levies and regulating tribal behaviour. This approach had been successfully implemented in Baluchistan to the south by Sandeman, who leveraged existing tribal leadership structures, binding the tribes to the Government by way of paid service, backed up by the threat of force.<sup>102</sup> It translated less well, however, when applied by Sandeman's protégé, Richard Bruce, in Waziristan. The Baluchis were highly hierarchical prior to the British arrival, giving Sandeman a functioning framework upon which to apply his tenets of occupation, authority and latent violence. The Wazirs were more democratic and anarchic; their strong commitment to *nikat* (tribal division) left them unwilling to succumb to outside control.<sup>103</sup> The British had to identify local influential *maliks* and, at times, invented them. As Caroe mocked: "Let there be maliks... and maliks there

<sup>99</sup> Tripodi, *Edge of Empire*, 16-17.

<sup>100</sup> Roe, *Waging War in Waziristan*, 84.

<sup>101</sup> Tripodi, *Edge of Empire*, 72-74.

<sup>102</sup> Ibid., 57-58.

<sup>103</sup> Barton, *India's North-West Frontier*, 214.



were'.<sup>104</sup> Allowances were paid to individual *maliks*, rather than the tribe, who the democratic majority of the tribe often ignored. Additionally, Bruce was constrained by a lack of British physical presence outside the protected areas, which some tribesmen interpreted as a lack of commitment to their welfare, undermining British legitimacy.<sup>105</sup> Local deference to this 'indirect rule' was symbolised by the murder of four arbitrarily-assigned pro-British *maliks* in 1893.<sup>106</sup> Caroe summed up aptly: 'no empire of which we have any record has ever succeeded in making subjects of the tribes of Waziristan'.<sup>107</sup>

### 1897 Uprisings

While Richard Bruce struggled to control Waziristan, fears of Russian encroachment through the Pamir mountains resulted in the Forward Policy being expanded across Chitral, Dir and Swat, coalescing into the Malakand political agency in 1895. Nonetheless, in 1897, the tribes from Malakand in the north through to Quetta in the south rose against the British. Barton attributed the cause to an 'unprovoked attack on a British force' by a Mahsud clan;<sup>108</sup> Davies suggested that the intrusive Forward Policy itself, especially the building of roads deep into tribal territory, combined with religious fanaticism and Afghan intrigues, were causal factors.<sup>109</sup> Johnson offered that the tribes feared permanent British occupation and the loss of their way of life, along with increased Islamic confidence after Turks defeated the Greek Christians.<sup>110</sup>

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<sup>104</sup> Caroe, *The Pathans*, 398.

<sup>105</sup> Tripodi, *Edge of Empire*, 78-79. See also Bruce, *The Forward Policy and its Results*, 248.

<sup>106</sup> 'Indirect rule' was a phrase coined by Caroe. See Caroe, *The Pathans*, 398.

<sup>107</sup> Ibid., 390. For excellent overviews of the Maliki system see Tripodi, *Edge of Empire*, 75-84 and Roe, *Waging War in Waziristan*, 87-90. Contemporary viewpoints are provided by Davies, *The Problem of the North-West Frontier, 1890-1908* and Richard Bruce, *The Forward Policy and its Results*.

<sup>108</sup> Barton, *India's North-West Frontier*, 216.

<sup>109</sup> Davies, *The Problem of the North-West Frontier, 1890-1908*, 91-95.

<sup>110</sup> Robert A Johnson, 2009, "The 1897 Revolt and Tirah Valley Operations from the Pashtun Perspective", Tribal Analysis Center, <http://www.tribalanalysiscenter.com/PDF->

Tripodi concluded that the uprisings were unco-ordinated and motivated by opportunism.<sup>111</sup> The uprisings took two years to subdue by punitive columns, raising several concerns: tribal dissent had continued despite military action; the cost of military action was crippling; the misconception that only individual tribes would cause trouble at any one time was shattered; fanatical religious '*mullahs*' could rapidly spread dissent; and the uprising highlighted policy differences between the Armies in India and the IPS. In short, establishing fortified garrisons in tribal areas had proven antagonistic while providing fixed targets for the tribes to vent their anger. Their presence had not maintained law and order without substantial reinforcement. The Forward Policy required re-evaluation.<sup>112</sup>

### **The Modified Close Border Policy – 1899 to 1919**

On appointment as Viceroy in 1899, Lord Curzon instigated a 'Modified Close Border Policy' to address military, administrative and financial issues. He summed this up in 1904 thus:

Withdrawal of British forces from advanced positions, employment of tribal forces in defence of tribal territory, concentration of British forces in British territory behind them as a safeguard and a support, improvement of communications in the rear.<sup>113</sup>

Curzon subsequently explained his logic:

abandoning old and stale controversies, we have hit upon a policy in India that is both forward and backward - forward in so far as we hold up to our treaty frontier, neither minimising nor shirking our obligations; backward in so far as we do not court a policy of expansion or adventure, but depend rather on a policy of co-operation and conciliation than one of coercion or subjugation of the tribes.<sup>114</sup>

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[TAC/The%201897%20Revolt%20and%20Tirah%20Valley%20Operations.pdf](#) (accessed 19 January 2011).

<sup>111</sup> Tripodi, *Edge of Empire*, 86.

<sup>112</sup> Ibid., 88-89.

<sup>113</sup> Curzon's budget speech, 30 March 1904, in Curzon, *Lord Curzon in India*, 429.

<sup>114</sup> Curzon's Freedom of the City of London Speech, 1904, in Ibid., 43.

According to Tripodi, Curzon sympathised with Sandeman's Baluchistan policy and distrusted Frontier militarisation. Troops were replaced with Government-funded tribal levies to buy the tribes' allegiance.<sup>115</sup> The tribal Agencies between the Administrative Border and the Durand Line were left unadministered, bar strategic passes, leaving Political Agents to liaise with the tribes.<sup>116</sup> Curzon recognised the tribal areas' special circumstances and the Punjab Government's inability to manage them. Curzon reflected in 1907:

My own policy in India was to respect the internal independence of these tribes, and to find in their self-interest and employment as Frontier Militia a guarantee both for the security of our inner or administrative borders and also for the tranquillity of the border zone itself.<sup>117</sup>

His establishment of the NWFP in 1901 resulted in widespread peace and wide acclaim;<sup>118</sup> during Curzon's time as Viceroy there were no major expeditions and only £248,000 was spent on punitive frontier measures.<sup>119</sup> This was in no small part due to the neutral stance taken by the Afghan Amir, Habibullah.

In 1919, the three-month-long Third Afghan War ended Curzon's peace. In sympathy with the new Afghan Amir's incursion across the Durand Line, the Khyber Rifles and most Waziristan Militias largely deserted, partially because their British officers were ordered to abandon their men, while the Tochi Wazir tribesmen revolted.<sup>120</sup> Control of Waziristan was briefly lost, but regained.

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<sup>115</sup> Tripodi, *Edge of Empire*, 94-95. Tribal levies included the North Waziristan, South Waziristan and Kurram Militias.

<sup>116</sup> Curzon's ideas appear to be based on Lord Hamilton's 1898 appreciation to his predecessor as Viceroy (IOR/L/PS/10/46, *Military Operations on the North-West Frontier of India*, No C8713, March 1898).

<sup>117</sup> Lord Curzon of Kedleston, 1907, "Text of the 1907 Romanes Lecture on the subject of Frontiers", [www.dur.ac.uk/resources/ibru/resources/links/curzon.pdf](http://www.dur.ac.uk/resources/ibru/resources/links/curzon.pdf) (accessed 30 November 2011).

<sup>118</sup> The Rt Hon The Earl of Ronaldshay, *The Life of Lord Curzon: Being the Authorized Biography of George Nathaniel Marquess Curzon of Kedleston, K.G.*, vol. 2: Viceroy of India (London: Ernest Benn Ltd, 1928), 132-136. Following Curzon's retirement and 1919, there were only two, brief, punitive expeditions ('Wilcox's Weekend Wars' in 1908).

<sup>119</sup> Barton, *India's North-West Frontier*, 72.

<sup>120</sup> Tripodi, *Edge of Empire*, 133.

A new NWF policy was required that balanced the need for security within British territory (especially Waziristan) with the maintenance of a mutually-agreeable Anglo-Afghan relationship, including limiting the border tribes' interference in Afghan politics.<sup>121</sup> The latter was complicated by diplomatic uncertainty over Afghanistan's new sovereign status following the Third Afghan War. Marsh contended that, confronted by this surging nationalism, the Gol sealed off the NWF from the rest of India until partition.<sup>122</sup>

### **Modified Forward Policy – 1923-47: 'Watch and Ward' or 'Razmak Policy'**

'Afghan wars become serious only when they are over; ...they were apt to produce an after-crop of tribal unrest, sedulously fostered by a Kabul government'; so wrote the penultimate Governor of the NWFP.<sup>123</sup> The tribal uprisings that followed the Third Afghan War lasted, on and off, until 1921. The Viceroy telegraphed that 'with the improved aeroplanes now at our disposal, [an] aerial campaign will have considerable effect and may possibly ensure submission'.<sup>124</sup> However, the tribes were ultimately subdued by garrisoning two brigade groups across the Administrative Border (one at Wana in South Waziristan and one at Razmak in North Waziristan) and two more just east of the Administrative Border at Bannu and Tank.<sup>125</sup> Tripodi illustrated the questions that confronted the British:

how had it been so easy to mobilize tribal opinion against the British? Did the government's influence and the relationships built over decades between

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<sup>121</sup> Ibid., 131.

<sup>122</sup> Marsh, "Ramparts of Empire", vii.

<sup>123</sup> Caroe, *The Pathans*, 397. This is an enduring regional theme, judging by the aftermath of the 1979 Russian and 2003 US invasions. Given the de-centralised, patchwork nature of Afghan's feudal society and the fiercely independent nature of individual tribes, it is perhaps not surprising that state-wide strategic matters are not settled by conventional force-on-force combat operations focused predominantly on major cities. As a result, the imposition of new forms of central governance are unlikely to be widely accepted due to the region's de-centralised character.

<sup>124</sup> CAB 6/4, Lord Chelmsford, *Telegram, Viceroy to India Office (Appendix in CID 116-D)*, 6 October 1919, 3.

<sup>125</sup> Tripodi, *Edge of Empire*, 133.

Politicals and tribes count for nothing? And how had the system of tribal defence – the militias – which had comprised the basis of British policy for so long and which had been implemented in the face of widespread doubts as to the loyalty of the tribesmen, collapse so quickly and so comprehensively in the face of the attack? Furthermore, if the tribes could not be trusted, what form should any new policy take[?].<sup>126</sup>

The solution – the Modified Forward Policy - was a contentious compromise; those who called for the evacuation of Waziristan were over-ruled. Although expensive, it was hoped that future economies could be made by using the RAF.<sup>127</sup> Direct rule would not be applied over the tribes and regular Army patrols into tribal territory would be avoided. However, the centrally-positioned Razmak garrison could quickly switch from 'watching' to deploying an all-arms mobile column ('Razcol') for any length of time, enabled by a new, costly network of roads.<sup>128</sup> Primary schools were built adjacent to military posts and healthcare was introduced. However, hospitals were often overcrowded, and Barton highlighted the dearth of jobs for educated young tribesmen, who became disaffected and vulnerable to political agitators.<sup>129</sup> Roads were very much a double edged sword; while they enabled trade and were 'the great carriers of civilisation' for some, Charles Bruce opined that the tribes perceived them as facilitating the movement of troops; as such, roads increased tribal unrest: 'if we stand content with the roads and fail to develop the country and its resources for the benefit of the tribes, we shall be failing in our mission'.<sup>130</sup> Barthorp more recently acknowledged that the policy, supported by air power, gradually constrained the

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<sup>126</sup> Ibid., 132.

<sup>127</sup> See Marsh, "Ramparts of Empire", 41-48. With defence already consuming 59% of Indian central expenditure, the Viceroy's Finance Member campaigned for the evacuation of Waziristan because India was on the verge of bankruptcy and garrisoning the tribal agencies was unaffordable. This ultimately led to his dismissal (see ———, "Ramparts of Empire", 37-42).

<sup>128</sup> Brigadier D E Taunton in Moore, *Just as Good as the Rest*, 3. The road network is shown at [Figure 9](#).

<sup>129</sup> See: Bruce, "The Indian Frontier Problem": 504; William Barton, "Waziristan and the Frontier Policy", *Fortnightly Review* 142 (1937): 200.

<sup>130</sup> J Coatman, *Years of Destiny: India 1926-1932* (London: Jonathan Cape, 1932), 130; Bruce, *Waziristan, 1936-1937*.

Mahsud and Wazir tribesmen, but was ultimately preventative rather than curative.<sup>131</sup>

Despite initial concerns that the Razmak garrison gave the Army undue influence in NWF policy decision-making, control of Waziristan was handed back to the Resident by 1924.

The disagreement over 'Forward' versus 'Close Border' policy is well illustrated by the conflicting ideas of two Chief Commissioners of the NWFP, Sir George Roos-Keppel (1918-19) and Sir John Maffey (1921-23). Roos-Keppel was a supporter of complete occupation and administration to the Durand Line.<sup>132</sup> Maffey, in contrast, was incensed by the imposition of the 'Razmak policy', opining that the garrison was both antagonistic and vulnerable, while the roads would need protecting.<sup>133</sup> He emphasised that Afghanistan, rather than the NWF, should be the focus of attention and that the Army should be banned from the tribal areas, the Administrative Border defended, and the RAF employed to control the tribes and punish any incursions.<sup>134</sup> Maffey's paper was even more reliant on air power than Salmond's simultaneously-published Report on the RAF in India;<sup>135</sup> the two had toured the NWF together and probably exchanged ideas.<sup>136</sup> It is likely that those favouring a 'close border' policy would be receptive to leveraging air power's characteristic of reach and speed of response to control the tribes, while 'forward' policy proponents would be more likely to employ air power in a supporting role to ground forces. 'Pink's War', when the RAF was permitted to counter a 1925 Mahsud uprising independently from Army support, will be examined later. However, within the context of examining extreme

<sup>131</sup> Barthorp, *The North-West Frontier: British India and Afghanistan: A Pictorial History, 1839-1947*, 162.

<sup>132</sup> 10 August 1919 Roos-Keppel to Viceroy, "Papers of Field Marshal Sir Arthur Barrett", quoted in Robson, *Crisis on the Frontier*, 237-238.

<sup>133</sup> Roe, *Waging War in Waziristan*, 96. See also Tripodi, *Edge of Empire*, 138-140.

<sup>134</sup> Sir John Maffey, "Unsolicited views on an unsolved Problem, 2 August 1922", *Salmond Papers, RAF Museum, B2609* (1922).

<sup>135</sup> AIR 8/46, E1, Air Vice-Marshal Sir J M Salmond, *Report by Air Vice Marshal Sir John Salmond on the Royal Air Force in India*, August 1922. See Chapter 6. Salmond's biography is at [Annex 7](#).

<sup>136</sup> Robson, *Crisis on the Frontier*, 239-240.

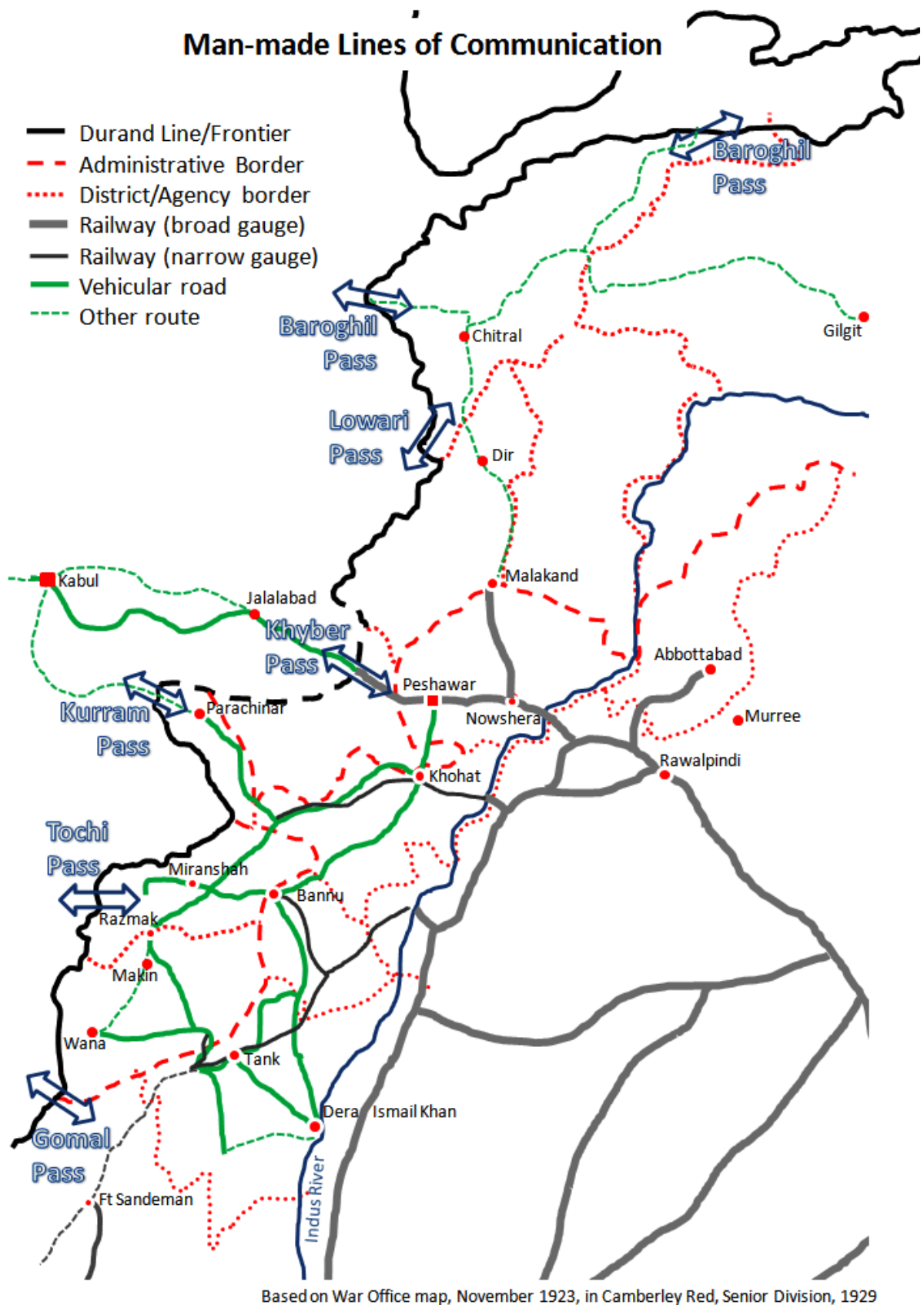


Figure 9

‘forward’ and ‘close border’ policies, it is germane to note that Robson considered Pink’s War to have been ‘entirely successful’ and that ‘a policy of air control in Waziristan stood a substantial chance of being effective’.<sup>137</sup>

The new Modified Forward Policy also required a new method of enforcement: ‘control from within’.<sup>138</sup> To compliment the Army’s ‘watch and ward’ garrisons, Armed Civil Forces (ACFs) were established under the political officers. Charles Bruce described the policy as being ‘built on the foundations of the Sandeman policy... supporting the tribal headmen in carrying out their primary duties of maintaining law and order within their own tribes’.<sup>139</sup> In 1920, the hiatus left by the deserting Khyber Rifles was filled by the *Khassadar* system. This was a relatively well-paid, but ragged, non-uniformed tribal police force, equipped by the local tribes. Its aim was to remove the burden of day-to-day policing from the Army and instil self-responsibility on tribes.<sup>140</sup> However, the *Khassadars* were not trusted by the Army (and, lacking uniforms, were often indistinguishable from the protagonists). As Woodruff recorded: ‘The Khassadars were servants of the tribe, not of the Government’.<sup>141</sup> Furthermore, the fear of starting personal blood feuds made many *Khassadars* avoid conflict with other tribesmen. Nevertheless, Pettigrew summed up that the system:

removed some of the poverty from the tribes, and gave them something to lose and thereby some incentive to keep out of trouble, and to keep trouble out of their areas.<sup>142</sup>

The final element of the ACF was the Transfrontier Corps, which comprised the Tochi, South Waziristan and Kurram Scouts. These were formed in 1922 from the North and South Waziristan Militias (who had been disbanded following their desertion during the

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<sup>137</sup> Ibid., 241, 245.

<sup>138</sup> Bruce, *Waziristan, 1936-1937*, 4.

<sup>139</sup> Ibid.

<sup>140</sup> IOR/L/PS/10/951, *Waziristan 1921-23, Part 1. Legislative Assembly Debate Vol III, No 49, Imperial Secretariat, 5 March 1923.*

<sup>141</sup> Woodruff, *The Men who Ruled India*, 291.

<sup>142</sup> Colonel H R C Pettigrew, *Frontier Scouts* (Selsey: privately printed, 1964), 21.



Third Afghan War) and the Kurram Militia (which had remained loyal).<sup>143</sup> Officered by the Indian Army, recruits were drawn predominantly from the settled districts to guard against future desertions. One of the Scouts' main roles was to supervise the *Khassadars*.<sup>144</sup>

The British had to avoid applying so much force that it escalated the situation. Under certain circumstances, the tribes were able to muster large numbers of fighting men and Scouts could become rapidly outnumbered. Withdrawal risked loss of credibility, while standing their ground would require reinforcement by the regular Army. However, the relief columns could be interpreted as punitive expeditions, resulting in the rapid mustering of even larger numbers of tribesmen. This could result in a relatively minor issue escalating out of proportion and becoming disproportionately expensive. Furthermore, tribesmen often deliberately provoked the British by employing terrorist techniques and desecrating casualties to induce an emotive over-reaction that, again, would undermine the Gol's legitimacy and reinforce Pathan nationalism.<sup>145</sup> Attempts to arrest individual agitators, such as the Fol, risked a similar dilemma. At times during 1936-37, 61,000 troops and six RAF squadrons were involved in countering his *lashkars*.<sup>146</sup> Yet, when identified as sheltering with a tribe, intelligence on his whereabouts was often not actioned due to risk of insulting the host tribe's sense of *nanawatai*; this dishonour would require the tribe to resist and protect the renegade, if only to avoid loss of prestige in the eyes of other tribes. Again, Army columns risked generating a violent reaction from the surrounding tribes who, despite not necessarily supporting the renegade, objected to the intrusion of 'foreign' troops. This played into the Fakir's hands, who could publicise that he had

<sup>143</sup> For a description on the disbandment of the Khyber Rifles, see Stewart, *The Khyber Rifles*.

<sup>144</sup> See Roe, *Waging War in Waziristan*, 115-122, for a good overview of the Scouts. For a more in-depth narrative, see Trench, *The Frontier Scouts*.

<sup>145</sup> For a description of core terrorist tactics to provoke a state over-reaction that undermines their legitimacy, see: Tom Parker, "It's a Trap: Provoking an Overreaction is Terrorism 101", *JRUSI* 160, no. 3 (2015).

<sup>146</sup> Moreman, *The Army in India*, 163.

united disparate tribes against the British.<sup>147</sup> Overall, the cost of punitive action (and the concomitant escalation of violence) could outweigh the benefits, and the British often had to 'take it on the chin'. However, during the later 1930s, the bomber's speed, reach and relative invulnerability were harnessed to harass the Fakir, coercing him to relocate and exposing his vulnerability to his hosts. This was not always willingly accepted by the Army who would feel compelled into a show of force to avoid a loss of credibility. Nonetheless, the RAF's constant engagement with Ipi gradually eroded his influence.<sup>148</sup>

Later commentators have reflected that, throughout the period, there was little British appetite to amalgamate the tribal agencies and settled districts and that institutional paralysis and military brutality fed tribal nationalism.<sup>149</sup> In 1944, Mallam, the NWFP's Chief Secretary, opined that road-building and garrisoning was causing the breakdown of the tribal system, resulting in anarchy rather than civilisation. He promoted just, progressive tribal self-government under indirect rule.<sup>150</sup> This was rejected by the Governor, Caroe.<sup>151</sup> Instead, he developed a £7-million, five-year NWFP economic and educational development plan to establish uniform living standards throughout the Province.<sup>152</sup> This was approved six months before Indian partition but not progressed by the Pakistan Government.<sup>153</sup> Instead, Pakistan adopted the recommendations of Taker's 1944 Frontier Commission, withdrawing all regular forces from the tribal agencies under the aptly-named Operation CURZON.<sup>154</sup>

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<sup>147</sup> See, for example, IOR/L/PS/12/3192, *Political Department Weekly Summary No 46*, 1936.

<sup>148</sup> See Chapter 6.

<sup>149</sup> Denis Judd, *A British Tale of Indian and Foreign Service: The Memoirs of Sir Ian Scott* (London: Radcliffe Press, 1999), 86; Marsh, "Ramparts of Empire", viii.

<sup>150</sup> Mallam, "The NWF Problem". See also Marsh, "Ramparts of Empire", 238-240. The disorder caused by the collapse of the tribal system emphasises the importance of tribal infrastructure in the regional stability required as a result of weak, centralised governance from Kabul.

<sup>151</sup> Mallam and Day, *Frogs in the Well*, 217-219.

<sup>152</sup> Ibid., 217, 221-224.

<sup>153</sup> Ibid., 224, 233.

<sup>154</sup> Lieutenant Colonel H E M Cotton, "Operation Curzon - The Evacuation of Waziristan", *The Royal Engineers Journal* 62 (1948). The Frontier Commission was chaired by Major General

Maffey wrote: 'It has taken a long time for sense to prevail'.<sup>155</sup> Thereafter, security was provided by irregular forces backed by the Pakistan Air Force until the events of 9/11 changed the paradigm.<sup>156</sup>

### Anglo-Afghan Relations

British grand strategy towards Afghanistan centred on balancing the requirement to maintain Afghanistan within Britain's sphere of influence (in order to counter the perceived Russian threat) while minimising the Amir's influence in British territory. This was complicated by the trans-border tribes' relations with both Afghan and Indian Governments. The policy element of strategy has received relatively little scholarly attention.

It is widely accepted that the Afghan Amir was reluctant to recognise the demarcation of British and Afghan territory, but was persuaded by Sir Mortimer Durand's protracted negotiations and the promise of increased subsidies and the right to freely import weapons.<sup>157</sup> While Richard Bruce simply recorded that the negotiations 'proceeded successfully', Tripodi commented that the extension of British control up to the Durand Line raised the possibility of 'collisions' with the Amir who considered all Pathans to be Afghan, even if they lived in British territory.<sup>158</sup> However, contemporary sources indicate that some tribes 'wished to have no connection whatsoever with Kabul, but that all their relations should be with the British

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Francis Taker, with Air Commodore Edgar Kingston-McCloughry as the air member (see IOR/L/PS/12/3266, *Taker Frontier Committee Report*, July 1945, with good descriptions by: Tripodi, *Edge of Empire*, 214-217; Marsh, "Ramparts of Empire", 228, 235-236). Kingston-McCloughry's biography is at [Annex 7](#).

<sup>155</sup> Marsh, "Ramparts of Empire", 248.

<sup>156</sup> Renfrew, *Wings of Empire*, 250; Warren, *Waziristan, the Faqir of Ipi, and the Indian Army*, 263.

<sup>157</sup> See, for example, Roe, *Waging War in Waziristan*, 84-85.

<sup>158</sup> Tripodi, *Edge of Empire*, 103.

Government’, whilst others welcomed the British.<sup>159</sup> Nonetheless, the British had to avoid an overbearing attitude and restrain the application of force towards the tribes; although not actively pro-British, the Afghan Government could have fallen and been replaced by a pro-Russian opposition if the Afghan population perceived their Government to have abandoned responsibility for the Pathans within British demarcated territory. For example, King Amanullah’s 1920s European reforms were rejected by the *mullahs*, resulting in widespread rebellion that required the evacuation of the British legation from Kabul by the RAF in 1929.<sup>160</sup> Furthermore, the Afghans recognised as early as the 1930s that the British would eventually leave India and did not want to secede Islamic Pathan tribes to Hindu India.<sup>161</sup> Thus, as Beattie highlighted:

the perception of British tribal policy in this period as involving direct dealings with the tribes without any reference to Kabul needs to be revised. On several occasions the GOI did actually co-operate with the Amir in an attempt to deal with frontier problems.<sup>162</sup>

Overall, in pursuing grand strategy, British policy had to balance the conflicting requirements of minimising Afghan influence within British territory without undermining the authority of the Afghan Government.

## THE CAUSES OF VIOLENCE

Many of the NWF’s political agencies acquiesced, *prima facie*, to British rule, as demonstrated in [Figure 10](#). Nonetheless, understanding the causes of violence is key to understanding the effectiveness of the strategy used to control it. In 1939, the Gol stated that the main causes of the need for military operations against the tribesmen

<sup>159</sup> See Bruce, *The Forward Policy and its Results*, 254, referring to the Dherwesh-Khel and Dauri tribes near the Tochi Pass around 1892; and *Ibid.*, 72-74.

<sup>160</sup> See Anne Baker and Sir Ronald Ivelaw-Chapman, *Wings Over Kabul: The First Airlift* (London: William Kimber, 1975) and Chapter 6.

<sup>161</sup> Tripodi, *Tripodi Interview*, 18 July 2011.

<sup>162</sup> Beattie, *Imperial Frontier*, 224.

were fourfold: first,

‘The tribesmen’s desire for loot and their addiction to inter-tribal feuds [which] have made it habitual ... to raid their neighbours on both sides of the administrative border’;

second,

the failure of the tribesmen to fulfil an obligation given to the political authorities, such as... not to harbour outlaws or to refrain from interference with the traffic on a recognised route;

third, ‘transgression by the tribes either as a result of religious fervour or of a desire to profit by a disturbed situation in the settled districts’; and fourth, ‘the need for establishing in persistently disaffected tracts permanent military garrisons’.<sup>163</sup>

Competition for limited resources and the ensuing warrior ethos meant that conflict was a normal part of Pathan conflict resolution. As such, violence was used by a variety of distinct groups, manifesting itself in a number of ways, and caused by a variety of factors: actors ranged from foreign governments, through the various tribal levels, to individuals; manifestations ranged from inter-state wars, through uprisings and *lashkars*, to low-level crime; and causes ranged from political (e.g., Afghanistan’s desire to control its own foreign policy), to religion, culture, competition over resources, and individual greed. It is therefore useful to broadly examine the complex causes and motivators of violence.

One intangible is the extent to which opportunistic tribesmen turned to violence because it was ‘accepted practice’, or because individuals or tribal groups felt compelled to act violently due to group dynamics or peer pressure, exaggerated by local cultural factors such as *Pashtunwali*. Similarly, many of the tribes regarded the Afghan Amir as their spiritual leader, leaving the trans-border tribes, in particular, vulnerable to his influence.

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<sup>163</sup> Defence Department, *Frontier Warfare - India (Army and Royal Air Force)*, 14.

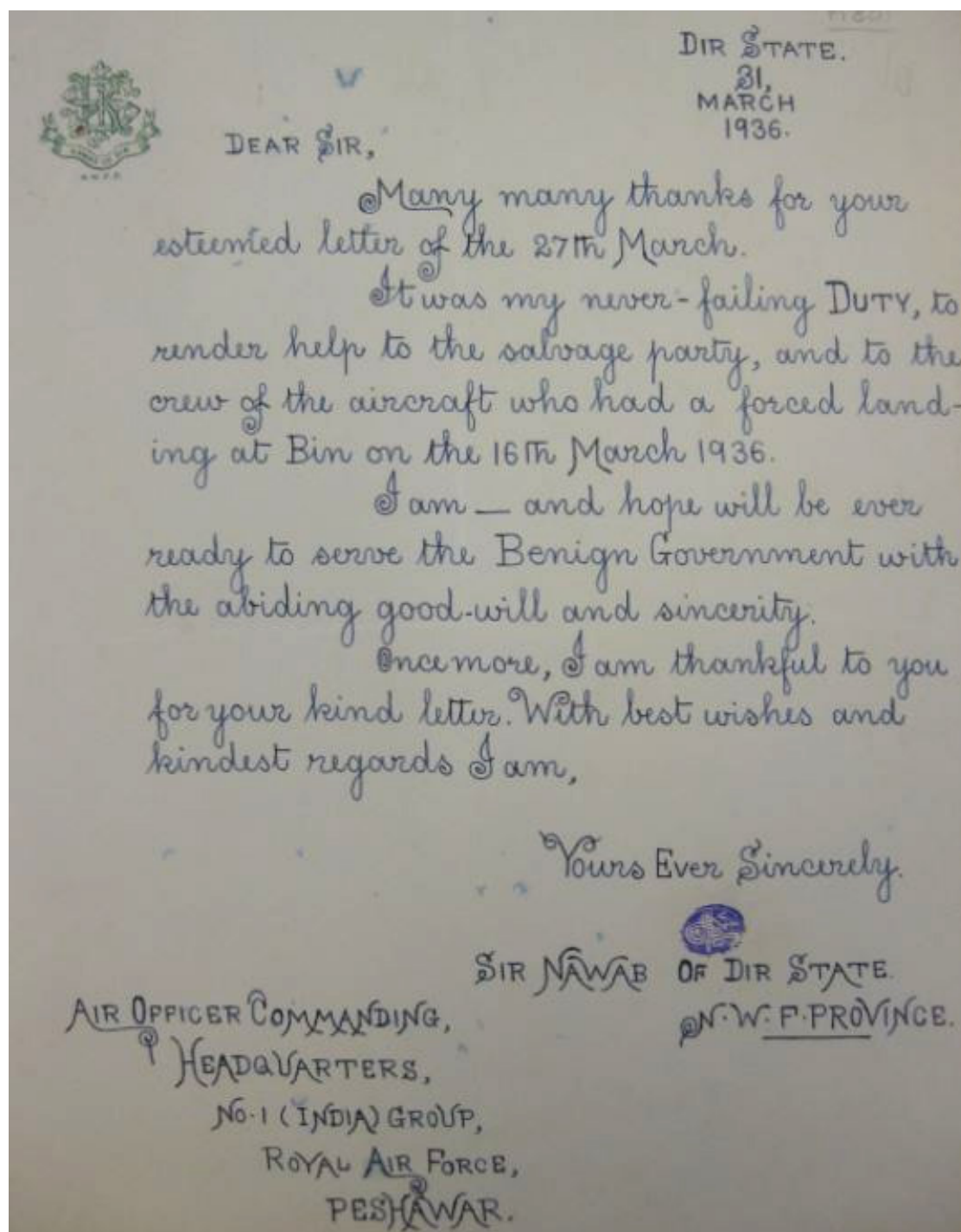


Figure 10 – Letter from Nawab of Dir to Group Captain Bottomley following the Nawab's assistance to the injured crew of an aircraft forced down after encountering severe snow storms which had frozen-up its air intake<sup>164</sup>

<sup>164</sup> Bottomley Papers, A801, Nawab of Dir, *Letter, Nawab of Dir to Officer Commanding, No 1(Indian) Group*, 31 March 1936; AIR 5/1335, AOC RAF India, *RAF India Monthly General Summary of Work No 208: March 1936*, 3.

The rallying call of *jihad* in ‘the fanatical preachings of the *mullahs*’ could unify otherwise disparate tribes.<sup>165</sup> Warburton recorded his questioning of rebellious Afridi tribesmen during the 1897 ‘Khyber Debacle’:

what made you come down?’ ‘The Mullahs brought us down.’ ‘Why did you obey the Mullahs, and why did you not turn them out of your country?’ ‘They were too powerful for us.’ ‘Had you any real grievance against the British Government?’ ‘No, we had not.’ ‘Then why did you attack the posts?’ ‘The Mullahs forced us.’<sup>166</sup>

However, it would be simplistic to view this in isolation; as Tripodi pointed out, there was often a variety of underlying latent motives for discontent amongst various tribes that could be catalysed by religious rhetoric.<sup>167</sup> Conversely, tribes often stood aside from neighbouring conflict with the GoI if it was against their best interest. Idris recently argued that *mullahs* used Islam as a common rallying cause to raise *lashkars* against real or perceived occupation by un-Islamic regimes. The influence, status and wealth of the *mullahs* increased during conflicts, but they were generally incapable of restoring peace afterwards. Conversely, while the influence of the tribal elites expanded in peacetime, they became sidelined during decision-making when a *mullah* united a tribe for a religious cause.<sup>168</sup>

Competition for limited resources in the tribal areas, and the relatively bountiful lands across the Administrative Border, have commonly been quoted as a cause of criminal violence. As Charles Bruce recorded of his interview with the raider Khonia Khel:

“Sahib,” he said, “I have three wives and five strapping sons like myself, and several sisters with large families. You have stopped me raiding... There has

<sup>165</sup> Barton, *India's North-West Frontier*, 67.

<sup>166</sup> Warburton, *Eighteen Years in the Khyber, 1879-1898*, 298.

<sup>167</sup> Tripodi, *Edge of Empire*, 156.

<sup>168</sup> Khan Idris, “Jirgas: The Pashtun Way of Conflict Resolution”, Tribal Analysis Center, <http://www.tribalanalysiscenter.com/Book-Jirgas%20Khan/Jirgas%20The%20Pashtun%20Way%20of%20Conflict%20Resolution.html> (accessed 30 October 2011).

been no rain and so no grazing for my flocks. How, then, am I to live?".<sup>169</sup>

The British focused on poverty as the cause of raiding, possibly because of its resonance with their self-image of altruism. However, Dichter described many of the Agencies as being relatively fertile. Additionally, a 1945 Frontier Committee Report analysed the significant amount of money spent by the tribesmen on fortifying their *kots* and on acquiring rifles.<sup>170</sup> Therefore, it is not clear that poverty was the most significant cause of violence.

Raiding also took place for political reasons and to settle tribal disputes. Beattie stated that some factional indigenous leaders of the British administration encouraged tribesmen into raiding to discredit their opponents, adding that the tribes' independent ethos and martial values also played a part.<sup>171</sup> Tripodi observed that tribal leaders were often adept at currying favour and playing one side off against another:

A malik might encourage hostile elements in his area to open fire on the PA or local troops, and then promise to resolve the situation. In this way, he would bolster his reputation as a dependable pillar of the community. It might also pay powerful maliks to turn hostile to the British for a period. Although a malik might lose his allowances from the PA he could no doubt secure some of remuneration from the Afghans... If able to create enough trouble, the British would no doubt bribe him to come back into the political fold.<sup>172</sup>

According to Marsh, supporters of the Close Border policy held that violence often stemmed from the antagonistic garrisoning of tribal territory and 'soldiers looking for glory or a spot of action' to further their professional ambitions.<sup>173</sup>

So, overall, the causes of violence were rarely simple or mono-causal. The British faced a considerable challenge in understanding the complexity of the NWF and its opportunistic hill tribes, and in deriving policies that both secured the border from external threats and contained local unrest at minimum expenditure.

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<sup>169</sup> Bruce, *Waziristan, 1936-1937*, 13.

<sup>170</sup> *Tuker Frontier Committee Report*.

<sup>171</sup> Beattie, *Imperial Frontier*, 216.

<sup>172</sup> Tripodi, *Edge of Empire*, 163.

<sup>173</sup> Marsh, "Ramparts of Empire", 44.



## **CHAPTER 3 – RAF TACTICS AND DOCTRINE, 1918-1922**

### **INTRODUCTION**

Inter-War RAF tactics and doctrine were influenced by a variety of often contradictory factors to serve the requirements of diverse interest groups. From 1922, the Air Ministry controlled both the doctrine and the units required to support 'air control' in Iraq, Aden and Transjordan. In contrast, RAF units in India fell constitutionally under the direct command and financial control of C-in-C(India), the *de facto* Minister of Defence, who could implement air power as he wished.<sup>1</sup> This was a ramification of Churchill's 1919 decision that India, rather than Britain, should pay for its squadrons.<sup>2</sup> As a result, the Air Ministry had no direct control and relatively little influence over India. Thus, while the Air Ministry was developing air control doctrine to maximise air power's utility, in India, some C-in-C(India)s actively campaigned to minimise the employment of independent air power. The conflicting interests of the Air Ministry, WO, IO, IPS Politicals, C-in-C(India) and AOC(India) affected the development of appropriate in-theatre doctrine, with disagreements often leading to stalemate.<sup>3</sup> A frequently-articulated reservation of the Armies in India about the expansion of air power was that it was 'untested'.<sup>4</sup> Therefore, although air control was never imposed in India, its development and effectiveness in other theatres is important. However, in many regions under air control, Britain's mandate was limited in time; air power formed part of a low-cost exit strategy intended to progressively handover responsibility to indigenous forces. In contrast, the 'peaceful penetration' of the

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<sup>1</sup> Even as late as 1939, the British Cabinet could not resolve this issue. See CAB 23/100, *Cabinet Conclusion 34 (39) 3: INDIA: The Defence of*, 28 June 1939, 11. The constitutional position of the forces in India is described in: CAB 24/278/22, *Committee of Imperial Defence Chiefs of Staff Sub-Committee Report 737: The Defence of India, Appendix B to Annex No. 2: Memorandum on the Constitutional Position of the Defence Forces in India*, 1938.

<sup>2</sup> See Chapter 3. India also paid for most of the costs of British Army units in India.

<sup>3</sup> This is examined in Chapter 7.

<sup>4</sup> See, for example, IOR/L/MIL/PS/12/3171, Field Marshal Sir Philip Chetwode, *Letter from His Excellency the Commander-in-Chief, to the Secretary to the Government of India*, 1 July 1931, 1.

NWF's Modified Forward Policy required an increase, rather than decrease, in contact with, and commitment to, the local population. Thus, the strategic contexts were different.

## THE NATURE OF DOCTRINE

'Doctrine suffers from being a term that may be loaded with many meanings depending on the background and views of the reader'.<sup>5</sup> So wrote Neville Parton in his thesis on the evolution of inter-War RAF doctrine. Doctrine's role has developed over time. Early Army 'doctrine', such as Hamley's *The Operations of War*,<sup>6</sup> simply described military engagements, leaving the reader to distil his own conclusions. By the time the first RAF doctrine was published, military doctrine had become more prescriptive. Doctrine's oft-quoted dictionary definition of 'that which is taught' may seem trite, but rings true: doctrine formed the basis of much of the military staff colleges' syllabi and suggests a prescriptive approach. NATO's current definition describes doctrine as 'fundamental principles by which the military forces guide their actions in support of objectives. It is authoritative but requires judgement in application'.<sup>7</sup> Thus, doctrine encapsulates the core beliefs and principles with which the majority of the organisation would concur. The second theme of NATO's definition is equally important; doctrine provides guidance rather than rules, requiring the commander to assess the circumstances prior to selecting the most appropriate advice from the doctrine. The theme of core principles is enduring. The British Army Staff College's Chief Instructor wrote in the 1920s that 'the central idea of an army is known as doctrine'.<sup>8</sup> Latawski highlighted doctrine's inherent tensions in providing a cohesive, common approach to the enduring nature of a military organisation while

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<sup>5</sup> Parton, "RAF Doctrine", 6.

<sup>6</sup> Sir Edward B Hamley, *The Operations of War: Explained and Illustrated*, Fifth ed. (Edinburgh: Blackwood and Sons, 1900).

<sup>7</sup> NATO Standardization Agency, *NATO Glossary of Terms and Definitions*, AAP-6 (2012).

<sup>8</sup> J F C Fuller, *The Foundations of the Science of War* (London: Hutchinson, 1926), 254.

remaining broad enough to deal with its changing characteristics over time and topography:<sup>9</sup>

the danger of a doctrine is that it is apt to ossify into a dogma, and be seized upon by mental emasculates who lack virility of judgement, and who are only too grateful to rest assured that their actions, however inept, find justification in a book...<sup>10</sup>

Understanding the purpose and context within which doctrine develops is key to understanding its role. One way of analysing doctrine is to examine who wrote it and who were the intended readers; as Carr observed, ‘Study the historian before you begin to study the facts’.<sup>11</sup> Doctrine is aimed at particular audiences for specific, and often discrete, reasons. The most obvious group is the relevant servicemen, where doctrine articulates the endorsed method of applying military force, providing members of the organisation with an approved ‘party line’ to communicate to ‘outsiders’. For a junior armed Service facing the threat of re-absorption by its parent forces, the consistent articulation of a well-reasoned doctrinal justification for the RAF’s continued independence was vital. For other Services, doctrine provided a vehicle to exchange methodologies and gain a common understanding to enable interoperability. Another important external audience is the politicians.<sup>12</sup> Once officially endorsed, doctrine can be used to justify specific military roles and the force structures necessary to deliver them. It was via this route that air control became accepted in Iraq, Aden, Palestine and Transjordan in the 1920s – a doctrinal view generated by the Air Ministry, accepted by the politicians (for largely financial motives) and whose implementation required an increased number of squadrons, thereby bolstering the status of the RAF.

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<sup>9</sup> P Latawski, *The Inherent Tensions in Military Doctrine*, Sandhurst Occasional Paper No 5 (Camberley: Royal Military Academy Sandhurst, 2011), 12.

<sup>10</sup> Fuller, *The Foundations of the Science of War*.

<sup>11</sup> E H Carr, *What is History?*, Second ed. (Basingstoke: Palgrave, 1986), 17.

<sup>12</sup> For a germane discussion of the tensions between the theory and implementation of warfare, see: Sir Julian Stafford Corbett, *Some Principles of Maritime Strategy* (Naval Institute Press, 1988).

Doctrine can also be viewed in terms of the levels of war. Strategic doctrine, at the interface between the politicians and the military, is now viewed as encompassing a collaborative, joint approach between the Armed Services.<sup>13</sup> At the other extreme are single-Service 'tactics, techniques and procedures'. In the period under consideration, however, politicians interfaced with each Service separately. Doctrine was articulated independently by each Service. These Service capstone publications were not designed to focus solely at the strategic level and often delved down into tactical detail. Theatre-specific doctrine, describing how joint campaigns were to be conducted, was published in India in several publications. While the Army published single-Service tactical publications such as the *Drill Book*, evidence of RAF tactical doctrine in India is somewhat sparser. However, as the internal files of HQ RAF(India) have not survived, it is possible that more formal aerial doctrine was produced than is now apparent.<sup>14</sup>

Parton described the linking between doctrine and time as 'a nexus between the past, present and future', with doctrine codifying lessons from the past and placing them in a contemporary framework while allowing the principles to develop as a result of technological improvements or societal expectations.<sup>15</sup> This highlights the doctrinal challenges faced by any fledgling force, including the early RAF, emerging from the FWW while searching for a future role in a period of military downsizing. Doctrine can also reflect the political aspirations of an armed force, skewing the analysis and interpretation of past experiences. Traditionally, doctrine should develop from the analysis of a Service's past experiences, i.e. an 'upwards' feedback through the tactical, operational and strategic levels. However, emotion and political aspirations

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<sup>13</sup> Chief of the Defence Staff, *British Defence Doctrine (Joint Doctrine Publication 0-01)*, 4th ed. (Swindon: The Development, Concepts and Doctrine Centre, 2011).

<sup>14</sup> The HQ RAF(India) files were probably destroyed in what the Secretary of USII's Centre for Armed Forces Historical Research has described as 'the unsettled period of independence and partition' (see Chhina, *Chhina to Walters*, 14 June 2013).

<sup>15</sup> Parton, "RAF Doctrine", 6.

can bias this analysis. Additionally, without significant previous aerial warfare to analyse, early RAF doctrine had to rely on fragile, untested theories. Extrapolating these unverified doctrinal theories to predict future developments could result in increasingly risky conclusions. Conversely, reliance on purely historical evidence can, according to Alderson, result in 'perfect but rearward-looking analysis'.<sup>16</sup> Further tensions can exist in the development of doctrine between this 'bottom up' evidence-based approach and the 'top down' emphasis on political aspirations. These tensions reflected the varying roles of doctrine at the strategic and tactical levels during the period under examination. At the lower levels, field commanders needed tactics to address immediate local problems. At the strategic level, however, the day-to-day issues were different. The Air Staff had to wrestle with broad problems such as maintaining public opinion, managing inter-Service accord, and justifying force structures. Thus, while the RAF at times found itself in conflict with the Army over conceptual and force structure issues, at other times, both AOC(India) and C-in-C(India) found themselves in accord over local issues, but at odds with the Air Ministry and IO's more theoretical, political approach to doctrine, as will be discussed later. Further tensions were generated by the conflict between a higher HQ's desire for conformity and standardisation across a world-wide force, and the local commander's desire to employ his initiative to swiftly address the varying requirements resulting from local conditions. Thus, as will be examined later, the RAF at times struggled to apply a consistent doctrine across the various Commands in Aden, Iraq, Transjordan and India. Command and control arrangements also produced doctrinal tensions. From the outset, RAF(India) units were funded by the GoI and fell under the constitutional control of the Viceroy and the IO, removing the Air Ministry from any

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<sup>16</sup> Alexander Alderson, "The British Approach to COIN and Stabilisation: A Retrospective on Developments since 2001", *JRUSI* 157, no. 4 (2012): 66.

direct control and leading to two decades of inter-Service conflict.<sup>17</sup> Thus, RAF officers in India found themselves employing in-theatre tactics that often contradicted the Air Ministry's doctrine, as described later. This generated significant tensions which tested the officers' loyalty to both their Indian (Army) command chain and their parent Service. Furthermore, the Air Staff in London were reticent to endorse theatre-specific tactics from India if this unnecessarily constrained their worldwide core doctrine. All these factors will be examined later.

For these aforementioned reasons, doctrinal publications cannot be used as an unquestionable representation of the way a Service applied military force in the field. Its analysis can, however, provide a very useful contextual insight into some of the tensions that these forces operated under.

Since armed forces exist within a dynamic environment, it is vital that their doctrine evolves to match the changing situation. Therefore, an organisation must be able to recognise the current contextual environment and adapt its doctrinal methods to achieve the current policy aims. This is a vital process both in peacetime (to prepare for, and deter, possible conflict) and in wartime (to adapt to rapidly changing circumstances). During conflict, the ability to learn and adapt more swiftly than the opponent can be critical to success. In 1995, Robertson published a neo-Clausewitzian analysis of the RAF's inter-War strategic bombing doctrine, concluding that the RAF took a subjective approach rather than employ critical analysis of its previous and ongoing experiences. Robertson devised the model at [Figure 11](#) to describe how this process should have worked.<sup>18</sup> Although his framework is dated (in that it depicts a linear, rather than iterative, process, and the terminology does not nest comfortably with current practice, for example), it is useful in illustrating the utility of an objective, defined learning methodology.

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<sup>17</sup> House of Commons, Parliamentary Debates, *Pay of the Air Force*, Vol. 123, 15 December 1919, col 131.

<sup>18</sup> Robertson, *The Development of RAF Strategic Bombing Doctrine*.

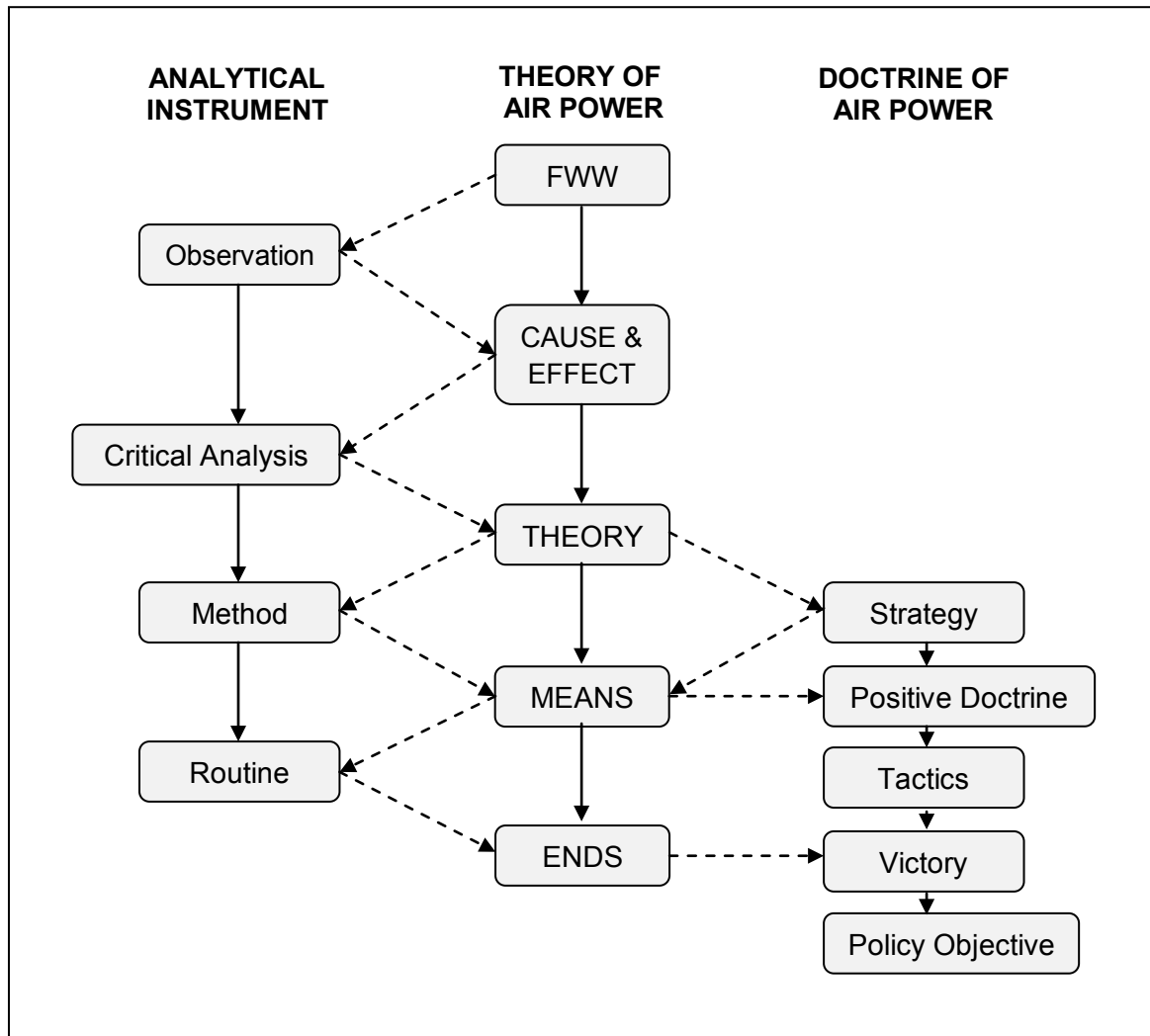


Figure 11 – Robertson's neo-Clausewitzian framework of inter-War doctrinal development

### AIR POWER DOCTRINE

During the period under examination, aerial doctrine was promulgated via a variety of means. The highest level of doctrine was published by the Air Ministry for use around the Empire, namely the *Operations Manual, RAF* ('CD22'), published in July 1922 and replaced in 1928 by *The RAF War Manual* ('AP1300'). The second edition of AP1300 was written in 1938 and published in 1940. These major publications were supported and modified by more frequently published ASMs; none were released to the public. Instead, the RAF's 'message' was made public by means such as presentations by RAF officers at RUSI and recorded in the Institute's Journal as well as, from 1930

onwards, the *RAFQ*. These discursive articles ranged from articulations of contemporary doctrine, through presentations by AOCs from around the Empire describing ‘current practice’, to speculative predictions of future development, sometimes sponsored by RUSI competitions. Some authors were prolific, publishing compendia of their articles as books.<sup>19</sup> The contribution by retired officers, such as Liddell Hart, both in newspaper articles and books, was also significant. These unofficial publications were a form of ‘derived doctrine’, based on the core beliefs enshrined in the higher doctrinal manuals, but modified by experience in the field or by personal opinion, often describing how air power could be implemented in the future.<sup>20</sup> The RAF Staff College, Andover, also played a significant role in the development and dissemination of aerial doctrine, not only by educating RAF (and some Royal Navy and British Army) officers and providing them with a coherent ‘party line’, but also by publishing the best students’ lectures in *Air Publications* and, from 1928 onwards, in the College’s annual journal, *The Hawk*.<sup>21</sup>

Indian-specific aerial doctrine seems to have developed slowly, probably due to the tensions between the Air Ministry and the Armies in India. One of the first surviving documents was *Employment of Aircraft on the North-West Frontier of India*, published with the approval of the GoI in 1924.<sup>22</sup> Although not strictly ‘doctrine’, from 1928 onwards the GoI’s Army Department regulated the application of air power via the pamphlet *Instructions Regarding the Employment of Aeroplanes on the North-*

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<sup>19</sup> For example, Edgar Kingston-McCloughry published eight of his articles (including ‘Policing by Air’ and ‘Wings Over India’) as a book, namely Squadron Leader Edgar J Kingston-McCloughry, *Winged Warfare: Air Problems of Peace and War* (London: Jonathan Cape, 1937). This trend endures. Andrew Roe published five articles on NWF air power in the RAF’s *Air Power Review* journal between 2008 and 2013, which later formed the mainstay of his book, Roe, Cloughley, and Grau, *From Fabric Wings to Supersonic Fighters and Drones*.

<sup>20</sup> The roots of the term “derived doctrine” lie in theology. See, for example, “The Trap of ‘Derived Doctrine’, Not Found in Scripture”, 2009, BibleForums.org, <http://bibleforums.org/showthread.php/158097-The-trap-of-derived-doctrine-not-found-in-scripture> (accessed 6 January 2014).

<sup>21</sup> The part played by the RAF Staff College is examined at the end of this Chapter.

<sup>22</sup> AIR 5/1328, Air Staff, *Employment of Aircraft on the North-West Frontier of India*, 1 March 1924. This is discussed in Chapter 4.



*West Frontier of India* (and its subsequent permutations<sup>23</sup>) which replaced the previous system of Army HQ letters. These 'rules of engagement' were anecdotally known as the '*Grey Book*'.<sup>24</sup> It is not clear how long the 1924 *Instructions* remained extant, but they were probably usurped by the *Grey Book*. One of the only subsequent in-theatre RAF publications was a single *Air Staff (India) Memo*.<sup>25</sup> However, this was only published as late as 1935 and replaced in 1938 by a draft version of the joint Army-RAF '*Combined Frontier Operations Manual*', which also replaced the *Grey Book*.<sup>26</sup>

## EARLY RAF DOCTRINE

On the verge of its founding, the RAF inherited the Royal Flying Corps (RFC) 'formal' doctrine, namely the 1916 *Training Manual, Royal Flying Corps, Part II*.<sup>27</sup> This contained chapters on reconnaissance, artillery co-operation, fighting in the air, attack of ground targets and photography. Although not officially withdrawn, this *Training Manual* appears to have been rapidly superseded by a series of publications, the most significant of which from a NWF perspective was *Fighting in the Air*, first published in 1917.<sup>28</sup> This stressed that 'the aeroplane is essentially a weapon of attack and not of defence', and emphasised aggressive air patrolling and bombing to force the enemy onto the defensive.<sup>29</sup> It formally introduced what would become an enduring doctrinal

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<sup>23</sup> See Chapter 7 – The Control of Airpower.

<sup>24</sup> IOR/L/PS/12/3260, India Office Political (External) Department, *Use of Aeroplanes for Tribal Control (Grey Book)*.

<sup>25</sup> AIR 9/12 Enclosure 104, *Air Staff (India) Memo No. 1: Tactical Methods of Conducting Air Operations Against Tribes on the North-West Frontier of India*, April 1935.

<sup>26</sup> See AIR 9/12 E106, Group Captain J C Slessor, *Letter - D D Plans to Private Secretary to Secretary of State for Air (Notes on Police Bombing on the N W Frontier)*, 18 June 1938. The '*Combined Frontier Operations Manual*' was the local name for: AIR 23/5370, India Defence Department, *Frontier Warfare - India (Army and Royal Air Force)* 1939. Its gestation is described in Chapter 7.

<sup>27</sup> AIR 1/530/16/12/84, General Headquarters, *Training Manual, Royal Flying Corps, Part I* 1916.

<sup>28</sup> General Staff, *Fighting in the Air* (1918).

<sup>29</sup> *Ibid.*, 2.

theme: 'The moral effect produced by an aeroplane is out of all proportion to the material damage which it can inflict', drawing an analogy with cavalry action.<sup>30</sup>

Trenchard had first introduced this concept in his 1919 despatch on the Independent Air Force.<sup>31</sup> In his thesis, Parton highlighted that *Fighting in the Air* placed relatively little emphasis on army co-operation:

Almost as important as the content was what was excluded; virtually no mention was made of either artillery spotting or reconnaissance, which had been the backbone of the Corps' work for the preceding three years.<sup>32</sup>

Indeed, its title is somewhat revealing – "Fighting in the Air" rather than "Fighting from the Air". There was little of tactical relevance to NWF operations, although this is hardly surprising given the context of 1918. Thus, there was a consistent reduction of emphasis on support of the Army from the 1916 RFC *Training Manual*, through the 1917 first edition of *Fighting in the Air* to the 1918 second edition. At the RAF's birth, all doctrine was focused on major conflict rather than 'small wars'.

The context surrounding the RAF's emergence from the FWW is important in understanding subsequent doctrinal development. While all three Services faced a rapid post-war downsizing and severe financial austerity, the fledgling RAF faced additional challenges. The most significant of these was that the Royal Navy and Army viewed the 1918 amalgamation of the Royal Naval Air Service (RNAS) and RFC into the RAF as a wartime expedient that was neither necessary nor affordable in the financially impoverished peacetime environment. Thus, the RAF had to demonstrate its utility and cost effectiveness as an independent Service to ensure its continued existence. Churchill, the first Secretary of State for the Air Force, left Parliament in no

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<sup>30</sup> Ibid., 1.

<sup>31</sup> 'the moral effect of bombing stands undoubtedly to the material effect in a proportion of 20 to 1'. Major-General H Trenchard, "Despatch from Commander, Independent Force, Royal Air Force", *Tenth Supplement to The London Gazette*, 31 December 1918, 135. For further extrapolation of this concept, see Biddle, *Rhetoric and Reality*, 79-80.

<sup>32</sup> Parton, "RAF Doctrine", 45.

doubt of his intentions during the 1919 Air Estimate debate;<sup>33</sup> when questioned if he could foresee a return to a small RFC and a small RNAS over and above a separate Air Force, Churchill simply replied 'No'.<sup>34</sup> Cognisant of the need for the RAF to remain relevant and to provide a cost-effective solution to contemporary issues, Churchill announced that 'The first duty of the Royal Air Force is to garrison the British Empire'. Of the twenty-four-and-a-half fighting squadrons which Trenchard proposed, nineteen would be abroad, with the cost of the eight Indian squadrons borne by India.<sup>35</sup> Churchill continued: 'we have to find the necessary air garrisons to defend the British Empire, to create a permanent independent Air Force'.<sup>36</sup> Nonetheless, he was aware of the need for the RAF to cooperate with the Royal Navy and British Army, adding that:

if the Air Force is to be independent of the other two Services it must also be interdependent upon them. It must be so organised as to fit naturally and easily in peace or war into a combined organisation of defence. It must be that for its own sake, in the interests of the other Services and in the general interests.<sup>37</sup>

Given the fragile circumstances that the RAF found itself in following the end of the FWW, there was an urgent need for a clear, widely-understood doctrine to explain the advantages of an independent air force. The hiatus resulting from the time required to develop a major doctrinal publication was filled by a series of minor Confidential Documents (CDs). *CD19*, produced in September 1920, covered four discrete but connected subjects, namely: 'obligations of the Air Force; the value of Egypt to the RAF; air defence and suggested lines of development for Dominion Air Forces; and arguments for and against a separate Air Force'.<sup>38</sup> It described the

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<sup>33</sup> The title that only lasted a year before becoming 'Secretary of State for Air'.

<sup>34</sup> House of Commons, Parliamentary Debates, *Pay of the Air Force*, Vol. 123, 15 December 1919, col 102.

<sup>35</sup> *Ibid.*, col 137, 131.

<sup>36</sup> *Pay of the Air Force*, col 139.

<sup>37</sup> *Pay of the Air Force*, col 140.

<sup>38</sup> AIR 5/166, Air Ministry, *CD 19: Memoranda: Obligations of the Air Force; Value of Egypt to the R.A.F; Air defence and suggested lines of development for Dominion Air Forces; Some arguments for and against a separate Air Force*, June 1921.

RAF's short term obligations as being to co-operate 'intimately' with the Navy and Army as a priority over 'independent Air Force obligations', albeit with the caveat that, in the event of a threat from a Continental power, an independent air force would be required to defend the UK.<sup>39</sup> In contrast, however, the second theme in *CD19* emphasised that the main role of the RAF was air defence, with naval and army co-operation as an auxiliary task.<sup>40</sup> *CD18*, published in March 1921, was aimed at 'all officers of and above the rank of Squadron Leader', articulating the substitution of naval and land forces by air power. Interestingly, given the difficulties in developing doctrine for new technologies discussed previously, *CD18* recognised that the RAF had had 'little opportunity for testing the efficacy and comparative cheapness of the Air Force' but posited that Mesopotamia could offer the opportunity to test the theory.<sup>41</sup> Like *CD19*, *CD21*, published in July 1921, was a compendium of several themes, the third of which advocated the efficacy of air power to police Mesopotamia.<sup>42</sup> Thus, in terms of trends, over the space of a few months, the Air Staff's views of the RAF's responsibilities had developed from a role of predominantly supporting the naval and land forces to aspiring to replacing them. Indeed, *CD21* explained that:

Great as was the development of air power in the war on the western front, it was mainly concerned with aerial action against enemy aircraft and co-operation with other air arms in action in which land and sea forces were the predominant partner. In more distant theatres, however, such as Palestine, Mesopotamia and East Africa the war has proved that the air has capabilities of its own.<sup>43</sup>

In fact, the Air Staff had previously presented *CD21*'s Mesopotamian article, *The Power of the Air Force and the Application of this Power to Hold and Police*

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<sup>39</sup> Ibid., 3.

<sup>40</sup> Ibid., 6.

<sup>41</sup> AIR 5/165, ———, *CD 18: The Future of the Air Force in National and Imperial Defence*, March 1921.

<sup>42</sup> AIR 5/168, ———, *CD 21: Memoranda: The Co-operation by Aircraft with Coastal Batteries; The Power of the Air Force and the Application of this Power to Hold and Police Mesopotamia; Aircraft and the Army*, June 1921.

<sup>43</sup> Ibid., 3. This is an important, revealing statement, as the orthodoxy reads that it was FWW European air power demonstrations which led air power advocates to champion independent action. See also: Daniel R Headrick, *Power over Peoples: Technology, Environments, and Western Imperialism, 1400 to the Present* (Princeton: Princeton University Press 2012), 313.

*Mesopotamia*, to the Cabinet in March 1920.<sup>44</sup> So, rather than a developing trend, it would appear that by 1920 the Air Staff had already formulated a range of concepts which it then published to various audiences at various times to support themes it perceived would reinforce the RAF's continued existence as an independent Service. Nonetheless, this early doctrinal development was fast by current standards, probably because there were less stakeholders to deliberate over its formulation.

There were also two lectures by experienced RAF pilots published in the *JRUSI* worthy of note during this period. The first was Group Captain Borton's "The Use of Aircraft in Small Wars" in February 1920.<sup>45</sup> In his introduction, Borton ascertained that the capability of aircraft was increasing rapidly and that 'if I should venture to forecast future and as yet unproven possibilities, it must be remembered that the accomplished fact of to-day would have been regarded by the majority six years ago as the ravings of a monomaniac'.<sup>46</sup> This hints that he recognised the challenge of developing doctrine without the advantage of experience and that at least some influential and experienced RAF officers were confident that the rapid development of aircraft technology during the FWW would continue in the austere post-War years and bridge the gap between aspiration and reality.<sup>47</sup> Borton stated, for example, that the Army's objection that air operations could never be decisive without occupying the enemy's territory 'will be undoubtably overcome'.<sup>48</sup> He described how, in large, sparsely populated areas, the primary duty of aircraft was to locate enemy concentrations deep inside hostile territory. Aerial photography and surveying in poorly mapped theatres were also essential enablers. The bombing and machine-gunning of the enemy's

<sup>44</sup> AIR 1/426/15/260/3, *Mesopotamia: Preliminary Scheme for RAF Control*, 1920.

<sup>45</sup> Borton, "The Use of Aircraft in Small Wars". Borton was a former Black Watch officer who joined the RFC in 1913, commanding the RFC's Palestine Brigade during the First World War and becoming Officer Commanding RAF, Iraq, in 1921 prior to Sir John Salmond.

<sup>46</sup> *Ibid.*: 311.

<sup>47</sup> This philosophy was not unique to the RAF. Italo Balbo, the 'father' of the Italian Reggia Aeronautica, noted in his diary in 1922: 'idealistic and realistic. Aviation is the synthesis of these elements' (quoted in Peter Haining, *The Chianti Raiders: The Extraordinary Story of the Italian Air Force in the Battle of Britain* (London: Robson Books 2005), 35).

<sup>48</sup> Borton, "The Use of Aircraft in Small Wars": 316.

lines of communications in narrow valleys, and the bombing of wells, was emphasised. Borton disputed that the moral effect of aircraft diminished with exposure, claiming that, in fact, it increased as the enemy gained experience in the capabilities of air power. Borton also cited evidence from Africa, Mesopotamia and the Indian Frontier, that fortified villages and crops could be destroyed far more swiftly, and with far less casualties, than a military expedition.<sup>49</sup> The ability of aircraft to resupply isolated troops, by either using landing grounds or by dropping supplies, was also mentioned, along with the employment of aircraft in assisting local authorities to prevent outbreaks of violence before the need for active operations. Borton also mentioned the possibility of employing aircraft as ambulances. By coincidence, in the post-lecture question period, an ex-Indian cavalry officer in the audience extolled 'the immense benefit of aerial reconnaissance on the north-west frontier of India', recounting his experience of 'blindfold' operations where 'we did not know what was going on around the corner; we did not know whether the next view would reveal an immense valley or an impassable obstacle of hills and cliffs'.<sup>50</sup> Many of Borton's themes and phrases would be reflected in the Air Staff's Mesopotamia paper presented to the Cabinet a month after his RUSI presentation, which indicates that he may have been associated with the development of this doctrine, despite being on the staff of the Technical School at RAF Halton at the time.<sup>51</sup>

The second RUSI lecture was Chamier's January 1921 "The Use of the Air Force for Replacing Military Garrisons". Chamier was a stalwart of the Air Staff's Directorate of Operations and Intelligence (the Directorate responsible for producing doctrine), having been posted there in 1919 and promoted to Deputy Director in

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<sup>49</sup> When examining historical themes within this Thesis, the term 'military' is used in its historical context to denote soldiery or land forces, rather than its more recent definition referring to all armed forces.

<sup>50</sup> Borton, "The Use of Aircraft in Small Wars": 318.

<sup>51</sup> *Mesopotamia: Preliminary Scheme for RAF Control; The Monthly Air Force List*, (London: HMSO, 1920), 58.

1921.<sup>52</sup> He would therefore have been intimately involved with the development of RAF doctrine. The lecture was set against the background of financial austerity and the savings that the RAF could achieve, drawing on recent experiences from Waziristan, Somaliland and Mesopotamia. It was also one of the first times that the term 'air control' was mentioned in a public forum. Chamier compared the Army method of garrisoning overseas territories with how the RAF could attain the same ends, but at lower cost in casualties and funding. For example, by virtue of their ubiquity, aircraft could 'fly the flag' over vast areas so that 'the native, in his ignorance... thinks that he alone is being observed, and this adds to the moral effect'.<sup>53</sup> Aircraft could also be used to support the civil administration, rapidly transporting officials to remote areas to 'nip disturbance in the bud', or be swiftly summoned by wireless during face-to-face negotiations to demonstrate the power available to the political officers. Chamier explained that Mesopotamian military garrisons could be halved in number and cost, but reinforced when necessary by a central reserve of troops deployed by air. He continued that Army commanders only partially appreciated the potential of air power and shied away from new capabilities that they did not fully understand. He noted that the Army 'naturally will want things done their own way, and in so thinking will consequently decide upon what they know about and what is, incidentally, the more expensive method'.<sup>54</sup> In particular, Chamier warned against the Army's propensity to divide air power into 'penny packets' for two significant reasons: firstly, diverse airfields induced logistical inefficiencies by increasing the number of skilled technicians, workshops and supply chains required; and more importantly, because air power produced the most pronounced moral effect

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<sup>52</sup> Chamier, "The Use of the Air Force for Replacing Military Garrisons"; *The Monthly Air Force List*, (London: HMSO, 1919), 14; *The Monthly Air Force List*, (London: HMSO, 1921), 14. Chamier had been an officer in the 33<sup>rd</sup> Punjabi Regiment before joining the RFC. In February 1923, Chamier became Chief of Staff at HQ RAF India. In retirement, he became a prolific contributor to the letters pages of various newspapers. His full biography is at [Annex 7](#).

<sup>53</sup> Chamier, "The Use of the Air Force for Replacing Military Garrisons": 207.

<sup>54</sup> *Ibid.*: 209.

when concentrated, rather than spread thinly over a number of objectives. Chamier emphasised the need for an 'air minded' approach to air power which should be controlled by a single commander: 'The root idea of the employment of aircraft is to maintain a concentrated Central Air Force'.<sup>55</sup> These tenets of 'centralised control', articulated so early in the life of the RAF, would be familiar to any current air strategist and continue to be a point of debate, especially in the context of COIN, between the Services.<sup>56</sup> Chamier also addressed the way in which air power could achieve the same reputation (or 'tradition of prestige', in his vernacular) as the Army within the native community to 'impress them with awe':

the Air Force must, if called upon to administer punishment, do it with all its might and in the proper manner. One objective must be selected – preferably the most inaccessible village of the most prominent tribe which it is desired to punish... The attack with bombs and machine guns must be relentless and unrelenting and carried on continuously by day and night, on houses, inhabitants, crops and cattle... No news travels like bad news.<sup>57</sup>

Chamier acknowledged the apparent brutality (described by an Army officer in the audience as 'rather the hun method'), but offered that the short, sharp application of lethal force would rapidly achieve tribal submission, generating a rapidly-spread reputation which would deter future transgression and would be economical in terms of money and lives in comparison to similar punishment delivered by military expeditions.<sup>58</sup> Nonetheless, the lecture accepted the limitations of air power, noting that, in highly-civilized countries, 'aircraft can be of little use in reducing the number of troops that can be employed. They can merely be used for purposes of close co-operation with the military forces'.<sup>59</sup> Thus, airmen recognised as early as 1921 that air power would have to support land forces in developed societies.

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<sup>55</sup> Ibid.: 211.

<sup>56</sup> See, for example: Torpy, "Counter-Insurgency: Echoes from the Past".

<sup>57</sup> Chamier, "The Use of the Air Force for Replacing Military Garrisons": 209-210.

<sup>58</sup> Ibid.: 213.

<sup>59</sup> Ibid.: 211.



These two RUSI presentations are equally important, yet approach air power from different perspectives. Borton focused largely on how aircraft could deliver local, tactical, physical effect more efficiently than the Army (perhaps not surprisingly for a seasoned aviator). In contrast, Chamier's perspective nested predominantly at the theatre level, using air power to deliver regional, rather than local, cognitive 'moral' effect, and reflecting the Air Ministry policy aspirations for substituting aircraft for troops on economic grounds. Even at this early stage of doctrinal development, both presentations displayed kernels of enduring themes: the optimistic belief that doctrine could be developed ahead of current practicalities on the assumption that continued technological development would provide an answer; the use of long-range air power to shape the battlefield ahead of land forces; the efficiency of aircraft at delivering overwhelming firepower for coercive effect; the use of aerial resupply and medical evacuation; the importance of aerial reconnaissance; the need to control air power centrally for theatre-level effect; air power's dependence on logistical support; and its inappropriateness in built-up areas. One theme that would prove to be transcendent, however, was Chamier's willingness to openly state that lethal force could be employed indiscriminantly against civilian targets to achieve coercive effects, as will be examined later.

## **CD22 – OPERATIONS MANUAL**

The RAF's first significant doctrinal publication, *CD22, Operations Manual*, was published in July 1922 after a year's gestation by the Air Staff.<sup>60</sup> However, of its eleven chapters, the first six were adapted from the Army's Field Service Regulations, while Chapter VIII (*Co-operation of Aircraft with the Royal Navy*) was similarly based

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<sup>60</sup> Air Council, *CD 22: Operations Manual, Royal Air Force* (London: Air Ministry, 1922). The two officers responsible for drafting the publication were Flight Lieutenant C J Mackay and, to a lesser extent, Squadron Leader E L Tomkinson. See Parton, "RAF Doctrine", 70-71, for more detail.

on RN Confidential Air Orders and Chapter X (*Combined Operations*) appears to have been based on an early draft of the *Manual of Combined Naval, Military and Air Operations*. This left only Chapter VII (*Aerial Operations and Aerial Fighting*), Chapter IX (*Co-operation of Aircraft with the Army*) and Chapter XI (*Aircraft in Warfare Against an Uncivilised Enemy*) as reflecting RAF-derived doctrine.<sup>61</sup>

At first glance, a reader might assume that the main chapter of relevance to the NWF would be Chapter XI (*Aircraft in Warfare Against an Uncivilised Enemy*). However, in the mid-1930s, India planned to dedicate 75% of the available squadrons to an independent striking force against Kabul if war broke out with Afghanistan, with the remaining 25% being allocated to army co-operation duties.<sup>62</sup> In this context, the chapters on *Aerial Operations and Aerial Fighting* and *Co-operation of Aircraft with the Army* become more relevant.

CD22's Chapter VII – '*Aerial Operations and Aerial Fighting*' started by categorising all aerial operations into either 'independent operations' or 'operations of units attached to other services'. Independent operations comprised either the destruction of the enemy aerial forces or attacks on ground targets which would influence the course of the war, but with the main objective being the destruction of the enemy air force on the ground.<sup>63</sup> There was a strong emphasis on the need for a ruthless and unrelenting offensive to gain the initiative and generate a moral effect 'out of all proportion to the damage, in itself considerable, which it can inflict'.<sup>64</sup> The chapter provided a detailed description of the most effective type of bombs to use

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<sup>61</sup> The Air Council acknowledged that CD22's first six chapters were from Field Service Regulations (General Staff, *Field Service Regulations 1914, Part II: Organization and Administration* (London: War Office, 1914)). See: Air Council, CD 22, 1. The borrowed chapters were: Ch I - *Principles of War*; Ch II - *Policy and Plans*; Ch III - *Fighting Troops and their Characteristics*; Ch IV - *Movement by Sea, Land and Air*; Ch V - *Quarters*; and Ch VI - *Operation-Orders and Reports in the Field*.

<sup>62</sup> IOR/L/MIL/17/14/21/4, Air Staff (India), *Pink Plan - Plan of Operations in the Event of War with Afghanistan: Part XI - Royal Air Force* 1933, 5. See also Chapter 8.

<sup>63</sup> Air Council, CD 22, 54.

<sup>64</sup> *Ibid.*, 62-63.

against a variety of targets and the required fuse settings.<sup>65</sup> Several themes from the 1918 *Fighting in the Air* pamphlet survived almost unchanged, such as 'The duty of bombing aircraft is to reach their objective, to drop their bombs on it, and only to fight in the execution of their duty'.<sup>66</sup>

CD22's Chapter IX – '*Co-operation of Aircraft with the Army*' – opened with the statement that 'Generous co-operation is one of the foundations of success in war', followed by the caveat that:

All other Royal Air Force formations, however engaged, should realise that they have a very definite connection with those of the co-operating units in the field, the efforts of all being co-ordinated towards one object, namely, the defeat of the enemy's armed forces.<sup>67</sup>

Thus, the importance of supporting the Army was viewed within the shared higher objective of victory, thereby avoiding a statement of RAF subservience. According to Parton, there was considerable disagreement between the Air Staff and Army Council. Whilst agreement over tactical detail was readily reached, accord over higher policy, strategy and command relationships was only attained by avoiding reference to it.<sup>68</sup> This theme was also reflected in India.<sup>69</sup> Chapter IX classified the duties of Air Force units allotted to the army in the field as: protection; reconnaissance; artillery co-operation; bombing; pursuit; fighting in the air and against ground targets; tank co-operation; and 'other assistance to troops'. Several of the tactics described were germane to the NWF. For example, in the 'protection' role, aircraft could be employed to co-operate with troops covering the advance of a mobile force, or assist a rear-guard during a retirement by attacking the enemy with bombs and machine gun fire, although 'Their primary duty is to locate any impending attack, and report its position

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<sup>65</sup> Ibid., 58-59.

<sup>66</sup> See General Staff, *Fighting in the Air*, 15 and Air Council, *CD 22*, 56.

<sup>67</sup> Air Council, *CD 22*, 87.

<sup>68</sup> Parton, "RAF Doctrine", 88-89.

<sup>69</sup> This is described in Chapter 7.

by wireless'.<sup>70</sup> 'Co-operation with Artillery' emphasised that accurate artillery fire was dependent on good observation which in many instances can only be obtained from the air. However, although the doctrine covered artillery co-operation in stationary, semi-stationary and moving warfare, the emphasis was on locating and reporting hostile batteries and is of little relevance to the NWF.<sup>71</sup> More germane was the acknowledgement in the 'bombing' paragraphs that the Air Force units placed at the disposal of the C-in-C might contain long-range bombing squadrons to support friendly offensives or target enemy communications during hostile offensives. This is important, as C-in-Cs could expect to determine the objectives for air attack, leaving the Air Force commander to decide on the size of the force and the weight and type of bombs to be used. Additionally, it was acknowledged that sustained day and night bombing not only inflicted material damage, but had a marked effect on the morale of enemy troops.<sup>72</sup> The section on 'pursuit' recognised the utility of air power in preventing a defeated enemy from re-organising his force by means of vigorous air attack against already wearied enemy troops.<sup>73</sup> The doctrine also recognised that supremacy in the air not only enabled the other army co-operation roles to achieve a high degree of efficiency by minimising enemy interference, but also played an important part in maintaining a high standard of friendly morale while adversely affecting the enemy to a corresponding degree.<sup>74</sup> Under 'other assistance to troops', *CD22* described how aircraft could be used to resupply isolated troops with food, ammunition and water, although it warned that the large number of aircraft required would detract from the resources available for other roles.<sup>75</sup> Aerial resupply of punitive ground expeditions would become a subject of considerable debate on the

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<sup>70</sup> Air Council, *CD 22*, 89, 91-92.

<sup>71</sup> *Ibid.*, 98-103.

<sup>72</sup> *Ibid.*, 103-104.

<sup>73</sup> *Ibid.*, 104-105.

<sup>74</sup> *Ibid.*, 105-106.

<sup>75</sup> *Ibid.*, 107.

NWF as the increasing deployment of modern, ammunition-intensive weapons, such as machine guns, increased the Army's logistic burden, as described later.

CD22's Chapter XI – '*Aircraft in Warfare against an Uncivilised Enemy*' – would at first glance appear to be the articulation of a completely new role for the RAF. In fact, many of the sentiments already had lineage, being traceable back through CD21 to the previously-mentioned 1920 Cabinet paper and the early RUSI presentations.<sup>76</sup> Indeed, the same phrases can be found in almost all this clutch of publications. Thus, the chapter was written primarily within the context of the aspiration of the RAF to replace the army in the Imperial policing of Iraq, and the need to demonstrate that the RAF had a recognised, endorsed doctrine to support this role. Nonetheless, there was much of relevance to the NWF. The chapter's opening words are revealing:

'The role of aircraft in operations of this nature will be a major one, though it is unlikely that they will be in a position to undertake a campaign entirely independent of military assistance'.

Thus, it forecasted the importance of this form of aerial warfare without offering a single Service 'silver bullet' solution and nesting it within the context of joint operations. Nevertheless, the inference was that land forces would support the RAF, rather than *vice versa*. The chapter also addressed the sceptics' argument that there was no practical experience to base this role on by stating that the nature of campaigns against 'savages' demands that 'the normal application of the principles of regular warfare be considerably modified... as experience has shown to be necessary'. By 1922, this 'experience' included RAF operations against the Abu Salih tribe in Mesopotamia in 1919, the 'Mad Mullah' in British Somaliland in 1920 and the Third Afghan War with its subsequent tribal uprisings. The chapter analysed the characteristics of traditional military operations against uncivilised enemies as being invariably limited in time, the aim being to defeat the enemy as rapidly as possible and

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<sup>76</sup> *Mesopotamia: Preliminary Scheme for RAF Control*.

then withdraw the force (resonating with the NWF Close Border policy). It warned, however, that the punishment could be rapidly forgotten and that lasting results would often only be achieved by occupying the country for a considerable period.

Nevertheless, the advantages of air power were emphasised. The aircraft's reach over large areas of operations could be used to locate the enemy in ample time to concentrate friendly forces against them. In 'wild country', aircraft could also map the line of advance of friendly ground forces. According to the doctrine, the chief advantage of 'savages' – their mobility and inconspicuous clothing which allowed them to concentrate and execute surprise raids on the Army's vulnerable lines of communications – was unable to compete with aircraft. Tribesmen would be unable to concentrate unseen; instead, aircraft would inflict considerable casualties and material damage, against which the tribesmen had no redress. Controversially, *CD22* stated that military forces should be employed solely to protect advanced landing grounds – the only potentially vulnerable friendly targets, obviating the need for vulnerable, extended lines of communication. Not only would expeditions by ground troops be unnecessary, but the doctrine warned that the following-up of the brief aerial attacks by ground action only played into the hands of the tribesmen by providing a vulnerable target to focus on.

According to *CD22*'s Chapter XI, the nature of the objective in uncivilised warfare would vary according to the circumstances. In the case of settled governments (such as Afghanistan), the doctrine described how the fielded forces should be destroyed first, followed by continuous bombing of the capital and, subsequently, the surrounding villages, crops and livestock. Indeed, it is almost possible to hear the tones of Jock Halley's bomb-laden Handley Page V/1500 droning its way to Kabul in these words.<sup>77</sup> Against tribes of the nature found on the NWF, the

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<sup>77</sup> For a first-hand account of the raid, see: J Halley, "The Kabul Raid", *Aeroplane Monthly*, August 1979.

doctrine acknowledged the difficulty in locating scattered forces and the need for them to be engaged by ground troops acting on the defensive. Meanwhile, aircraft should attack the tribesmen's villages, so that the fighting men returned to find them in ruins. However, even at this early stage of doctrinal development, the requirement for humanity was displayed by a requirement to spare the women and children 'as far as possible' by issuing warnings 'whenever practicable'.<sup>78</sup> Advice was also provided on weapon-to-target matching: delayed action, as well as instantaneously-fused, bombs should be dropped to extend the period of unease, while livestock could be machine-gunned and crops could be burnt using incendiary bombs. The need for unremitting and relentless attack was emphasised, with a progressive shift during a campaign from targeting the enemy's fielded forces to objectives in their home territory. The need for a vigorous offensive to leverage the susceptibility of "savages" to moral influences was described as 'a most important factor in the campaign', with hesitation or retrograde movement likely to be interpreted as signs of weakness. The targeting of wells and water supplies 'throughout day and night' was also recommended, along with reconnaissance and photography to determine the topography, habits and characteristics of the enemy such that, against an independent-minded and easily-dispersed foe, the necessary decisive, crushing blow could be delivered.

Interestingly, *CD22* did not contain any guidance on targets that should be 'out of bounds' for humanitarian reasons (other than women and children), although it did direct that all attacks should have a 'definite objective'. Air power's dependence on technical support, such as workshops and spare parts, was acknowledged, with a recommendation to concentrate air forces in the largest possible ground units to avoid logistical inefficiencies, although temporary landing grounds might be necessary to bring targets within easy reach. The doctrine showed respect for the enemy's acumen, warning that secrecy should not be relaxed because the enemy was

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<sup>78</sup> Air Council, *CD 22*, 128.

uncivilised; many races were adept at obtaining and using information and *CD22* recommended that meetings with informants or enemy messengers should be conducted well away from landing grounds and aerodromes to ensure that their interiors remained terra incognita to the enemy.<sup>79</sup> These themes directly reflected those presented by Chamier to RUSI just prior to *CD22*'s publication.<sup>80</sup>

Three of Chapter XI's eight pages described the 'use of aircraft in occupation of a country'. Given the political importance of substitution to the Air Ministry, this was a key subject. However, the doctrine's claims fell short of completely replacing ground forces, venturing only that 'the Air Force can undertake a considerable portion of the work of the occupation of a country'. When the country was too big to be patrolled from permanent aerodromes, advanced landing grounds would need to be prepared. These would be based adjacent to the local civil administration, equipped with workshops, defensible for a month without reinforcement by a local garrison and equipped with a corresponding supply of consumables. They could also be reinforced and resupplied by air, with the AOC maintaining a central reserve of troops and aircraft under his immediate control. The need for air-minded force protection was articulated in the need for posts to protect the landing and departure approaches from hostile rifle fire. Centralised control by the AOC was cited as being key, with orders and reports being passed between the advanced landing grounds and Air HQ by wireless. Aircraft would enforce peace by patrolling continuously over the occupied area, dropping propaganda leaflets 'disseminating the correct news', thereby establishing an impression within the native population that all their movements were being watched and reported on: 'It must be remembered that from the ground every inhabitant of a native village is under the impression that the occupant of an aeroplane

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<sup>79</sup> Ibid., 128-130.

<sup>80</sup> Chamier, "The Use of the Air Force for Replacing Military Garrisons".



is actually looking at him'.<sup>81</sup> One enduring myth perpetuated by various critics and examined throughout this Thesis was that air power's application against uncivilised enemies was purely kinetic. However, even at this early stage of doctrinal development prior to air control being adopted, *CD22* emphasised that force should only be resorted to when peaceful measures had failed. Authority to take offensive action should be vested with the AOC alone because the speed of response, reach and relative immunity of aircraft 'combine to encourage their use more often than the occasion warrants'. Thus, in contrast to Chamier's 1921 presentation, the prime tactic pushed by the Air Staff for controlling an occupied area was based on the moral effect of constant aerial surveillance backed by the inherent, but measured, threat of lethal force.<sup>82</sup> This counters the myth that air power in this period was predominantly based on kinetic effects.

Overall, *CD22*'s basic theme of air operations against uncivilised enemies was the replacement of conventional artillery by aerial bombing and the punitive bombardment of enemy forces. Although the doctrine recognised that lasting results could normally only be obtained by occupation, there was no attempt to describe how air power could achieve this level of control. This was perhaps understandable given the aim of substituting punitive expeditions with aircraft – the replacement of one method of firepower (pack artillery) by bomber aircraft. The lack of consideration of a long-term air-focused strategy is perhaps the greatest criticism of what would become air control. Although this doctrine was not written solely for the NWF, *CD22* was nevertheless written during the ongoing tribal aftermath of the Third Afghan War and the teetering of strategies between the pre-1919 Close Border and post-1923 Modified Forward policy on the Frontier.<sup>83</sup> The tribal areas across the Administrative Border were of no economic value and had only been annexed as a British buffer zone to

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<sup>81</sup> Air Council, *CD 22*, 133.

<sup>82</sup> Chamier, "The Use of the Air Force for Replacing Military Garrisons".

<sup>83</sup> See Chapter 2.

protect the fertile plains of the Indus from Afghan-sponsored armed criminal activity. Air power's characteristics of speed and reach nested comfortably with the Close Border policy of local militias, general non-interference and punitive action against unrest. The same characteristics also lent themselves as a coercive deterrent against Kabul to keep Afghanistan within the British sphere of influence and out of Russia's, as demonstrated by the significant, previously-described proportion of air power that the British planned to apportion against Kabul in the event of war with Afghanistan.<sup>84</sup> Thus, independent air power and the Close Border policy were well matched and the RAF's focus on punitive action was perhaps understandable. The Modified Forward policy, and the concomitant 'watch and ward' garrisoning of the tribal area, would naturally require troops, but the size of these isolated garrisons could be reduced by the support of aerial-delivered firepower and logistical support.

## RAF STAFF COLLEGE

The influence of the RAF Staff College on the development of early RAF small wars doctrine is worthy of examination. Formed at Andover in April 1922, the Staff College was one of the three training establishments founded by Trenchard to allow the RAF to expand if necessary in the future.<sup>85</sup> In his opening address to the first course, Trenchard expressed a vision that, from the brains of the staff and students 'will emanate new and brilliant ideas for the development of the Air and its power', adding a caveat about the importance of austerity-induced economy.<sup>86</sup>

Allan English's 1993 thesis posited that the RAF's unproven strategic bombing

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<sup>84</sup> Air Staff (India), *Pink Plan*.

<sup>85</sup> The other establishments were the officer cadet college at Cranwell and the apprentices' school at Halton.

<sup>86</sup> Air Marshal Sir Hugh Trenchard, "RAF Staff College Opening Address to First Course", (1922) quoted in Allan D English, "The RAF Staff College and the Evolution of British Strategic Bombing Policy, 1922-1929", *The Journal of Strategic Studies* 16, no. 3 (1993): 409. Sadly, the original document was lost when the RAF Staff College was subsumed into the Joint Services Command and Staff College and moved to Shrivenham.

doctrine was fully evolved by 1929 and that students were institutionally trained to conform to, rather than question, official doctrine.<sup>87</sup> English drew this conclusion because the entrance exam tested prospective students against extant doctrine (which resulted in “conformists” being selected) and were subsequently assessed against the same benchmark during the course. Certainly, the Staff College entrance exam served to select officers of an appropriate intellectual capability and provide them with a uniform knowledge-base to start the course. But this base was quite wide; by 1933, the essential reading included Hamley’s *Operations of War* and Caldwell’s *Small Wars*.<sup>88</sup>

In contrast, Parton’s 2009 thesis countered that the theory that the Air Staff had a monolithic, unthinking adherence to ‘Trenchardian’ strategic bombing doctrine was fallacious and that the main area of doctrinal development during the 1920s related to air policing. This emphasis was due to Trenchard’s desire to counter the Army and Navy’s attempts to re-absorb the RAF by providing doctrinally-supported evidence of what the RAF could achieve on its own.<sup>89</sup>

Certainly, the *CD22 Operations Manual* played an important role in the College syllabus. Although *CD22* was published in time for the first course and formed its intellectual foundation (indeed, Parton suggested that the advent of Staff College may have been the initial impetus for publishing *CD22*), it was immediately dissected by the students who were reported in the *Daily Telegraph* to be ‘amending it sentence by sentence in the light of experience in the field’.<sup>90</sup> The College Commandant, Air

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<sup>87</sup> English, “The RAF Staff College and the Evolution of British Strategic Bombing Policy, 1922-1929”: 426-427. English’s article is particularly useful, as he had access to documents, such as the Staff College Operational Record Book, which were lost following the College’s amalgamation into the Joint Services Command and Staff College and its associated move from RAF Bracknell to Shrivenham.

<sup>88</sup> The reading list is reproduced at [Annex 4](#).

<sup>89</sup> Parton, “RAF Doctrine”, 231.

<sup>90</sup> *Ibid.*, 227; Major C C Turner, “Air Staff College: Strategy of the New Arm: A Visit to Andover”, *The Daily Telegraph*, 1 December 1922. This was almost certainly an all-day ‘conference’ on 30 November which was examining Chapters 6 (Operation Orders), 9 (Co-operation of Aircraft with the Army) and 11 (Aircraft in Warfare against an Uncivilised Enemy).

Commodore Brooke-Popham, submitted these revisions to the Air Ministry in 1923, although CD22 was not updated during the first six Staff College courses.<sup>91</sup> Nonetheless, it is clear that Andover took a proactive role in influencing doctrine. Additionally, since the students of this first course, such as Portal, rose to the very highest ranks of the RAF during the Second World War, the course may well have been of particular influence on later events. Apart from a close examination of CD22, the first course covered other pertinent subjects, including 'organisation of the Army in India', 'small wars', 'British policy in India', 'Palestine', 'topography & meteorology of the N W Frontier of India and Afghanistan', 'Imperial strategy', 'Iraq' and 'the RAF in Palestine, 1918'. Interestingly, the term 'small wars' was officially used in the first 19 courses, despite its absence from official RAF doctrine, only disappearing in 1941.<sup>92</sup> The NWF was a significant element of the syllabus: the last two full days of the first course were spent studying 'fighting on the N W Frontier of India',<sup>93</sup> the penultimate lecture of the second course was 'The RAF in India'; subsequent to which the last lectures became 'Imperial Strategy', presented by the Commandant. The lectures were normally given by members of the Directing Staff (DS), but some involved external presenters.<sup>94</sup> Unfortunately, few of the notes from the 1920s lectures survive in the archive, one exception being the personal notes of a 1927 student on 'aircraft in small wars', which record for example that 'As long as the enemy is dependent upon

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There were several of these conferences in the syllabus, each of which examined between one and three of CD22's chapters. See AIR 69/19, RAF Staff College, *Programme of Work - 1st Course* 1922.

<sup>91</sup> See AIR 2/1059, Air Commodore R Brooke-Popham, *Letter: Revised Manual of Combined Operations*, May 1923, which mentions a version of CD22 'revised at the Staff College and submitted to the Air Ministry'.

<sup>92</sup> The last 'small wars' presentation was given by Group Captain A B Ellwood on 'The Air Aspects of Small Wars'. See AIR 69/409.

<sup>93</sup> In his introduction to the third term, the Commandant listed on of the themes as 'Small Wars with special reference to Indian Frontier Warfare'. See RAF Staff College, *Programme of Work - 1st Course*.

<sup>94</sup> such as Lord Meston, an ex-member of the Viceroy's executive council, who presented 'British Policy in India' on Course No 1 (see *Ibid.*) and Air Vice-Marshal Game, who presented 'The RAF in India' on Course No 2, having just returned from being AOC(India) (see AIR 69/30, ———, *Programme of Work - 2nd Course* 1923). Game's biography is at [Annex 7](#).

settled activities or activities that are vulnerable to air attack... air power unaided can achieve a decision'.<sup>95</sup> So, it appears that the staff lectures generally reflected Air Staff doctrine. Presentations by the students based on their operational experience formed an important element of the course, a selection of which were officially published each year until *The Hawk* took over in 1928;<sup>96</sup> of the two or three Army students on the course, one was always from the Indian Army and their presentations often focused on the NWF.<sup>97</sup> Later, NWF presentations were often given by external experts. For example, the 1938 NWF air operations lecture was given by Group Captain Bottomley, who had just returned from commanding No 1(Indian) Group.<sup>98</sup> Thus, students were briefed not only on Air Ministry doctrine, but also Indian 'in-theatre' tactics, which were not always identical, as described later.

Overall, it appears clear that, in the early 1920s, the Staff College took an active role in analysing official doctrine and offering revisions based on the students' wartime experience, and that the students were exposed to both official RAF doctrine and local, in-theatre practice. Furthermore, student presentations were widely published within RAF circles where they could influence the formulation of future doctrine. A detailed assessment of individual officers and the correlation between Andover's educational themes and their subsequent beliefs concerning the most effective way to employ air power is outwith the scope of this Thesis. However, the students of the initial Staff College courses rose to key leadership positions during the Second World

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<sup>95</sup> X005-6545-002-006 (RAF Museum, Hendon), Wing Commander D S C Evill, *Aircraft in Small Wars - personal notes of Squadron Leader John Sowrey*, 9 May 1927, 4.

<sup>96</sup> The presentations were published in: AP 956 (1922/23 course, AIR 10/973 and 10/5544); AP 1097 (1923/24, AIR 10/1109 ); AP 1152 (1924/25, AIR 10/1159); AP 1233 (1925/26, AIR 10/1269); and AP 1308 (1926/27, AIR 10/1703). Each student was required to give a lecture based on their personal experience. Students submitted a list of three possible subjects, one of which was selected by the DS. See note from Commandant on 'Student Lectures' in AIR 69/33, RAF Staff College, *Programme of Work - 3rd Course* 1924.

<sup>97</sup> The small wars elements of the syllabi of the inter-war courses are at [Annex 5](#).

<sup>98</sup> AIR 69/179, Group Captain Norman H Bottomley, *Small Wars - India: Air Operations on the N W Frontier of India*, 6 June 1938. Bottomley's presentation was almost identical to his 1939 JRUSI article (Bottomley, "The Work of the RAF on the NWF") which, itself, conforms closely to the 1939 *Combined Frontier Manual* published by the Indian Defence Department. These relationships are explored in Chapter 5. Bottomley's biography is at [Annex 7](#).

War, so any ‘sticky’ ideas accumulated during their College education would have been particularly crucial to the development of future policy, at least to the extent of ‘how’ to think, if not ‘what’ to think.<sup>99</sup> This latter point about the development of critical analysis is important, as illustrated by the manner in which *CD22* was dissected by the students. However, to put Andover’s influence on future doctrine in perspective, Harris, possibly the most adherent disciple of the ‘Trenchardian offensive’, attended Army Staff College at Camberley, rather than Andover, something on which Gray in 2012 commented that Portal probably regretted.<sup>100</sup> Harris commented that ‘I came in for a good deal of attack’ during the Course, so it may have been that, given his resolute character and (as Messenger observed) his ‘tendency to see but one side of the argument’, the Army environment entrenched Harris’ single-Service beliefs and he missed out on the opportunity of analysing the finer points of RAF doctrine in Andover’s relatively open environment.<sup>101</sup> Overall, the extent to which the RAF Staff College education of individual senior officers influenced future doctrine is worthy of further analysis which is beyond the scope of this thesis.

## CONCLUSION

RAF doctrine applicable to the NWF prior to 1922 developed within the context of the RAF emerging from the FWW and needing a single-Service role to justify its continued existence in a time of austerity. Air control was seen as an ideal vehicle, although it had not yet been imposed anywhere. This required aircraft to substitute British troops,

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<sup>99</sup> Subsequently important students on early course included: Portal and Peirse (1922); Bottomley and Slessor (1924); Cochrane (1925); and Saundby (1927). Interestingly, Ludlow-Hewitt attended Royal Naval Staff College in 1925, while Peck attended Camberley in 1926.

<sup>100</sup> See Probert, *Bomber Harris: His Life and Times*, 58-61; Saward, *‘Bomber’ Harris*, 45-46; Peter W Gray, *The Leadership, Direction and Legitimacy of the RAF Bomber Offensive from Inception to 1945*, ed. Gary Sheffield, Birmingham War Studies (New York: Bloomsbury, 2012), 43. Harris replaced Peck as the RAF student at Camberley.

<sup>101</sup> Saward, *‘Bomber’ Harris*, 45; Probert, *Bomber Harris: His Life and Times*, 59; Charles Messenger, *‘Bomber’ Harris and the Strategic Bombing Offensive, 1939-1945* (London: Arms and Armour Press, 1984), 195.

so it is unsurprising that the early doctrine focused on the replacement of punitive expeditions with punitive bombing carried out relentlessly until the aim was achieved (albeit viewed by 1922 as a last resort); whilst apparently brutal and not addressing the root cause of tribal unrest, the RAF opined that its reputation would act as a future deterrent. This nested well with the NWF's Close Border policy, but less so with the Modified Forward policy. The RAF thought aircraft had a significant morale effect on tribes unaccustomed to aircraft, while inflicting less casualties and costing less than land operations, a Trenchardian theme that would endure. From the outset, the aeroplane's limited ability in built-up areas was acknowledged. Even at this early stage, the roles of transporting local authorities, the aerial resupply of isolated troops and medical evacuation had already been suggested. The RAF countered the Army's perceived lack of 'air-mindedness' and their desire to 'penny packet' air power with the concept of centralised control under an Air commander. Nonetheless, tactics were developed for co-operating with ground troops (predominantly reconnaissance), although punitive expeditions were deemed unnecessary. Where undeveloped countries had a degree of centralised governance, the bombing of strategic targets was advocated. *CD22*, a somewhat rushed publication produced against a background of rapid doctrinal development, provided the necessary endorsed doctrine which underpinned the RAF's political aspirations, aided by early Staff College graduates educated in critical analysis.

## **CHAPTER 4 – RAF TACTICS AND DOCTRINE, 1922-28**

### **INTRODUCTION**

Chapter 3 discussed the evolution of the RAF's first formal doctrine publication, *CD22*, (with its simple, punitive approach to substitution in semi-civilised theatres) and its immediate reception and critical analysis by the RAF Staff College. This Chapter will demonstrate how the Air Staff developed air doctrine against a backdrop of experience gained from air control in Iraq and Transjordan. It will show a trend towards the application of minimum force to maintain air power's legitimacy in response to increasing pressure for a more humane approach to semi-civilised cultures. This resulted in the evolution of non-kinetic techniques such as 'air demonstrations' and a broadening of techniques which catered for morale, as well as material, effects, leading up to the publication of *AP1300* in 1928. Local techniques also had to cater for the tribal reaction to the new air weapon.

### **MINOR DOCTRINAL PUBLICATIONS**

*CD22* was rapidly overtaken by developing doctrine, although its replacement, *RAF War Manual, AP1300*, was not published until 1928. By mid-1923, the Deputy CAS (DCAS) noted that *CD22* was 'out of date' and 'liable to mislead, rather than inform' while, from 1924, all copies of *CD22* had a note stating 'This manual is not at all points in accordance with the present views of the air staff and will shortly be revised'.<sup>1</sup> The doctrinal hiatus between the publication of *CD22* and *AP1300* was filled by 'derived doctrine', i.e., doctrinal ideas that are supported by official doctrine, but are not directly stated therein. These 'derived' ideas could influence and shape the high-level

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<sup>1</sup> AIR 5/299, DCAS, *CD 22 Printing and Publication, Minute 137*, 20 July 1923; AIR 5/299, Air Ministry, *CD 22 Printing and Publication, Enclosure 141A*, 20 July 1923.



doctrine as it evolved, but could also be sidelined if they failed to find the necessary level of consensus.

Chronologically, the first post *CD22* publication was Flight Lieutenant Mackay's "The Influence in the Future of Aircraft upon Problems of Imperial Defence", which won RUSI's 1921 Gold Medal (RAF) Prize.<sup>2</sup> Mackay, the principal author of *CD22*, worked under Chamier in the Directorate of Operations and Intelligence, which explains why his essay's themes resonated with Chamier's 1921 RUSI presentation.<sup>3</sup> Indeed, Mackay's article was, in many ways, a non-confidential version of *CD22*, albeit viewed from the wider perspective of Imperial defence. Mackay's pretext was that the financial burden of garrisoning the Empire could be reduced by the extensive employment of aircraft and a corresponding reduction in 'other methods of garrison'.<sup>4</sup> He described tactics for 'the Colonies' and 'small wars' separately, but almost identically. The NWF was used as an example of where small ground forces, deployed to punish marauders or rebellious villages, attracted large numbers of hostile tribesmen which required large, expensive relief expeditions, with concomitant vulnerable lines of communication, to relieve them. Mackay contrasted this with the secrecy and speed of aircraft in delivering a similar level of punishment while depriving the tribesmen of loot ('his first joy'), an opponent to fight ('his second joy') and the opportunity to capture rifles ('his third joy'). Ground units would still be required to protect the aerodromes and to be held as a reserve. Squadrons should not be split up into detachments for logistical reasons, and should only be used as a last resort at the request of the civil authority and under the control of the AOC. But, when required, aircraft should be used with 'vigour' and 'bombing must be continuous by day and by night' until the objective is achieved using 'Not a moderate, but a

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<sup>2</sup> Flight Lieutenant C J Mackay, "The Influence in the Future of Aircraft upon Problems of Imperial Defence", *JRUSI* LXVII, no. 466 (1922).

<sup>3</sup> See Chamier, "The Use of the Air Force for Replacing Military Garrisons", and Chapter 3.

<sup>4</sup> Mackay, "The Influence in the Future of Aircraft upon Problems of Imperial Defence": 277.

maximum weight of bombs'. Subsequently, 'the mere threat of bombing should bring about the required result'.<sup>5</sup> Thus, Mackay's proposed methodology was to deter future transgression by the moral effect generated by an initial overawing demonstration.

1924 saw a flurry of ASMs published which expanded and modified the rapidly-produced and increasingly outdated *CD22*. The first, *ASM16*, was a statement by Jack Salmond, five months into his tour as AOC Iraq, on the principles of air power in Iraq.<sup>6</sup> However, parallels between Iraq and the NWF need careful analysis before the applicability of tactics is automatically read across from one theatre to the other. Not only were the topographies (and the resulting nature of the populations) generally quite different, but Britain's strategic aim in Iraq was to build up the Iraqi Army to allow the withdrawal of British forces (similar to British policy during the 2001-2014 Afghan conflict).<sup>7</sup> Indeed, Harris' notes for his 1929 Army Staff College student presentation stated that British policy in Iraq was to: 'Raise an Iraqi Army, and progressively lighten our commitment by handing over control to the Iraqi Govt. and their own Army'.<sup>8</sup>

There was a similar contrast in the civil situation; Iraq was largely fully administrated and Salmond emphasised that he used the Iraq Army, Levies, Mounted Police and RAF armoured cars, with or without air co-operation, as well as aircraft in isolation, when requested by the executive administration in cases too dangerous for the police. Even then, no action would be taken unless the British civilian Advisor on the spot requested it and it had been approved by the Iraqi Minister of the Interior, his British Advisor, and the High Commissioner, with advice supplied by the AOC and his local Intelligence Officers. In contrast to Mackay and Chamier, Salmond described how he

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<sup>5</sup> Ibid.: 298-300.

<sup>6</sup> AIR 9/28, Air Marshal Sir John Salmond, *Air Staff Memorandum 16: Statement by Air Marshal Sir J M Salmond KCB, CMG, CVO, DSO, of his Views upon the Principles Governing the Use of Air Power in Iraq*, January 1924.

<sup>7</sup> Ibid., 1.

<sup>8</sup> Wing Commander A T Harris, "Air Control in Iraq, and Elsewhere", *Army Staff College, Senior Division, Student Lecture* (1929). In the same paper, Harris made reference to a pre-air control Iraqi problem that also had relevance to the garrisoned unadministered areas of the NWF when he stated that: 'a very large garrison finds itself very weak at every point when trouble breaks out simultaneously in widely separated areas'.

tried to achieve the desired political result with the minimum action and that air action had never been used where it would not have otherwise been necessary to send out a column. Salmond extolled that not only was air action 'less severe and yet a more powerful corrective action than the visit of a column of troops' but that it also avoided the rallying of neighbouring tribes against ground forces which tended to magnify the trouble, as Mackay had previously described.<sup>9</sup> *ASM16* also made the first mention of the use of 'demonstration flights' and the dropping of leaflets which had achieved the necessary effect without bloodshed (although the effect of the dropping of 'educational' leaflets over a wide area was besmirched due to the illiteracy of the tribesmen, while educational leaflets targeted at misbehaving tribes 'would be interpreted as a sign that the Government did not intend to take any sterner measures').<sup>10</sup> Salmond emphasised that aircraft 'achieve their result by their effect on morale, and by the material damage they do, and by the interference they cause to the daily routine of life and not through the infliction of casualties':

It can knock the roofs of huts about and prevent their repair, a considerable inconvenience in winter-time. It can seriously interfere with ploughing or harvesting – a vital matter; or burn up the stores of fuel laboriously piled up and garnered for the winter; by attack on livestock, which is the main form of capital and source of wealth to the less settled tribes, it can impose in effect a considerable fine, or seriously interfere with the actual food source of the tribe – and in the end the tribesman finds it is much the best to obey Government.<sup>11</sup>

*ASM16* displayed an understanding of the need to restrain the number of 'flag-flying' demonstration flights along remote lines of communication to avoid de-sensitising the enemy and nullified their value, the exact balance being determined by an understanding of the prevailing local conditions derived from intelligence collection. Overall, this early communication by the first AOC under the 'air control' system where doctrine was exposed to real world realities shows an interesting divergence from

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<sup>9</sup> Salmond, *ASM 16*, 4.

<sup>10</sup> *Ibid.*, 5-6.

<sup>11</sup> *Ibid.*, 4.

*CD22* and the Air Staff's articulation of vigorous and unrelenting firepower, towards a much more constrained and measured range of action appropriate to the local situation, including leafleting, along with a willingness to use any combination of ground and air units at the AOC's disposal.

Mackay and Salmond's publications strike a stark contrast than is worthy of unpacking. Mackay, as the principle author of *CD22*, was simply repeating extant doctrine. Part of the aims of this doctrine was to highlight the advantages of independent air action to underpin the requirement for an independent air force. In contrast, Salmond was recording how he had conducted an actual operation which had been shaped by the constraints of various local factors. Salmond showed a marked divergence from doctrine in employing a strategy of minimum, rather than maximum, force. This raises several observations. Firstly, senior commanders felt they had the freedom to diverge from doctrine and possessed the flexibility to exploit this space. Secondly, as will be seen later, the RAF adapted both its implementation and doctrine to reflect these realities. So, this broadening of subsequent small wars doctrine demonstrates that the RAF was able feed back experience from actual combat and incorporate it into its doctrine, learning from its experiences.

*ASM19, Memorandum by the Air Staff on the Psychological Effects of Air Bombardment on Semi-Civilised Peoples*, published in February 1924, appears to be a counterpoint to criticism (probably from the Army, although the records are unclear) about the collateral damage inflicted on tribal women and children by bombing. The Air Staff did not deny that such casualties did occur on occasion, but opined that: 'It is difficult to follow the reasoning which can accept as legitimate against civilised peoples methods of the type outlined and yet hesitate to apply equal or even less drastic methods to the semi-civilised tribes of the East'. Furthermore, 'The Air Staff are convinced that it is not the idea of brutality... which offends certain principles but rather the novelty of a method which disturbs conservative prejudices'. The Air Staff

emphasised that Army tactics, such as blockading an enemy's food and water supply, effected civilians as well as combatants, whereas swift air action in Iraq had demonstrably nipped tribal disturbances in the bud while causing fewer enemy and friendly casualties which was 'not without its effect on our own womenfolk'. In short, air power was 'not brutal, but novel'. *ASM19* reiterated the tactics from *CD22*, adding that aerial bombardment could interfere with normal life, thereby demoralising the enemy and forcing their compliance.<sup>12</sup> A clear link was made between each of these tactics and the desired effect, as shown in [Figure 12](#). The table resonates with more 'modern' concepts and has parallels with what would later be described as 'Effects Based Operations'.

Effect	Air Method	Existing Military Method
Persuade a people that their government is wrong and that steps must be taken to rectify it	Dropping leaflets	Propaganda
To enforce surrender by insidious moral effect	i. Regular attacks at definite intervals, increasing to: ii. Intensive, continuous bombardment	i. Long range bombardment ii. Close bombardment
Reduce food supplies with resulting diminution of fighting spirit	Incendiary bombs against crops	Burning crops
	Small bombs and machine gun fire against livestock	Killing or removing livestock
Punishment & produce antipathy to leadership	Bombing to coerce surrender of rifles	Imposition of fines
Eliminate /reduce ability to wage war	Bombing	Surrender of rifles
Maintenance of order	Threat of repetition of bombing (occupation unnecessary)	Occupation

Figure 12 - *ASM19* comparison of Air and Army tactics and their intended effect

<sup>12</sup> AIR 9/28, Air Staff, *Air Staff Memorandum 19: Memorandum by the Air Staff on the Psychological Effects of Air Bombardment on Semi-Civilised Peoples*, February 1924, 1, 4. Britain had a long history of employing blockades (including the use of the Royal Navy to blockade Germany during the FWW, a key element of the final victory), so the Air Staff's comment would have had particular traction in 1924.

*ASM20* is of interest, as it is an early doctrinal publication recording the lessons from an actual campaign in Northern Iraq, rather than unsupported theory. Furthermore, the Kurdish topography was similar to the NWF. It is the transcript of a lecture by Salmond, until recently AOC Iraq, to the Staff College, Quetta, describing his employment of ground and air forces to deter the Turkish Army from re-occupying their lost provinces of Mosul and Kurdistan while containing unrest within the local Iraqi tribes.<sup>13</sup> In his presentation to the predominantly Army audience, Salmond described how, contrary to the advice from the Air Ministry, his aggressive forward defence of the vilayet by a combined force (comprising British, Indian and Iraqi Army units, RAF squadrons and Armoured Car Companies, and Iraqi Levies) deterred Turkish aggression. In 1923, Salmond had deployed two offensive columns to restore British prestige following the forced withdrawal of the 'RANICOL' column from Kurdistan in September 1922. Following this withdrawal, six months of aerial action had checked any further deterioration. In March 1923, 'KOICOL' column (composed of British and Indian Army units who had experience against the Mahsuds, Wazirs and Afridi) and 'FRONTIERCOL' (made up of Iraqi units) entered the Kurdish mountains, both accompanied by a political officer, an Air Liaison Officer, and RAF W/T units. Salmond used aircraft to drop messages to the columns, and even flew over them himself, landing to meet with OC KOICOL on several occasions. Salmond emphasised the importance of air power in reducing the risk to these columns:

Throughout the operation the Air Forces were continuously engaged in bombing in close and distant support of the advancing Columns, in carrying orders and information from Headquarters, in inter-communication between Columns giving

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<sup>13</sup> AIR 9-28, Air Marshal Sir John Salmond, *Air Staff Memorandum 20: Lecture by Air Marshal Sir J M Salmond KCB, CMG, CVO, DSO, to the Students of Staff College, Quetta*. Salmond's official despatch of the operation, which gives more detail than the ASM, is recorded in *The London Gazette* (Air Vice-Marshal Sir J M Salmond, "Despatch describing the operations of certain of the Forces under my Command in Kurdistan", *Supplement to The London Gazette*, 11 June 1924). The despatch was described as 'One of the most fascinating official documents to be published in many years' by the founder of *Flight* magazine (Stanley Spooner, "Editorial Comment", *Flight: The Aircraft Engineer & Airships*, 19 June 1924).

each its position, in message delivering and picking up and in reconnaissance over the whole front.<sup>14</sup>

Aircraft also dropped supplies to the columns, initially without parachutes (with variable success), but subsequent experimentation with cheap parachutes led Salmond to state that 'I feel satisfied that there are no serious difficulties to the supply of emergency requirements to a column by these means'.<sup>15</sup> Delicate wireless transmitters, telephones and accumulators were successfully dropped by parachute, and 246 sick were evacuated, including 200 dysentery and diarrhoea cases which developed during the return march and were evacuated by Vickers Vernons.<sup>16</sup> This avoided a six-day donkey journey – a great relief, no doubt, to both soldier and donkey alike.<sup>17</sup> Salmond used aircraft to target the local pro-Turk Governor, Shaikh Mahmud, by dropping leaflets on the Kurdish capital, Sulaimania, and bombing his HQ and occupied villages as KOICOL advanced, which was itself supported by continuous contact patrols.<sup>18</sup> Contingency plans were drawn up for heavy bombing raids, low flying attacks and pursuit patrols when the column traversed two vulnerable passes, which air reconnaissance later confirmed were not required. Salmond drew three significant lessons concerning air-land operations in this environment. First, aircraft were invaluable in facilitating communications over long ranges:

at no time and I may say not for a single hour was touch lost with Column Commanders... communications would be absolutely impossible without the means of rapid communication which air transport offers... in one day I was able to visit Baghdad, Mosul, Kirkuk and to be in my Advanced Headquarters [in Irbil] in the evening of the same day.

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<sup>14</sup> Salmond, *ASM* 20, 10.

<sup>15</sup> The supplies dropped included 900 pairs of boots, 7500 pairs of socks, 190 sets of horse and mule shoes, 400 lbs of Dubbin and a whole day's supply of barley.

<sup>16</sup> Salmond, *ASM* 20, 10-11. A more detailed account of the use of No 45 Squadron's Vickers Vernons in its bomber-transport role was provided by its Commanding Officer in the first issue of *The Hawk* magazine; see Squadron Leader R H M S Saundby, "No 45 Squadron in Iraq, 1922", *The Hawk* 1, no. 1 (1928), (later reproduced in the 1993 edition of *The Hawk*).

<sup>17</sup> Salmond, "Despatch on Operations in Kurdistan", 4659.

<sup>18</sup> Spellings for Sulaimania vary, even between the *ASM* and Salmond's despatch. The *ASM* spelling is used here.

Second, the 187 tons of bombs and 72,000 rounds of ammunition expended ahead and in direct support of the columns 'had a very considerable effect on the amount of resistance offered'.<sup>19</sup> Third, Column commanders reported that aircraft saved them:

much hill-climbing to picquet the heights', which allowed rapid marches through difficult country, while wireless and message dropping/picking up allowed the columns to maintain situational awareness, not only of the enemy's disposition, but also of their own lines of communication.<sup>20</sup>

Having laid out his military credentials to his Army audience, Salmond then addressed his use of 'independent air operations, by which I mean those contemplated to bring about a desired result without the aid of ground forces'.<sup>21</sup> He offered that it was impossible to garrison countries such as Iraq adequately and that isolated bodies of troops in insufficient numbers 'spells danger – and has in it the seeds of disaster'.<sup>22</sup> As an alternative, ground forces could be garrisoned centrally and tribal disturbances nipped in the bud without the need for isolated bodies of troops 'on which the disaffected tribesmen can wreak their vengeance [sic]'. An effective intelligence service was essential in providing the necessary forewarning of growing unrest, facilitated by a very close liaison with political and police officers. When required, action had to be swift and drastic and followed through without hesitation. Salmond acknowledged that these tactics had been accused of being brutal; a complete occupation of the country by ground forces sufficient to discourage resistance would be less brutal, but unaffordable. The dispatch of punitive columns to burn entire villages with the loss of many lives on both sides was 'brutality on the grand scale'.<sup>23</sup> In contrast, swiftly-applied air action denied the tribesman (i) a 'profitable and pleasant

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<sup>19</sup> Salmond, *ASM* 20, 12-13.

<sup>20</sup> *Ibid.*, 13; ———, "Despatch on Operations in Kurdistan", 4659.

<sup>21</sup> Salmond, *ASM* 20, 13.

<sup>22</sup> *Ibid.*, 14. This is similar to the 'oil spot' strategy attempted in Afghanistan in 2009. See Karl A Slaikeu, "Winning the War in Afghanistan: An Oil Spot Plus Strategy for Coalition Forces", *Small Wars Journal* (2009), <http://smallwarsjournal.com/blog/journal/docs-temp/227-slaikeu.pdf?q=mag/docs-temp/227-slaikeu.pdf>.

<sup>23</sup> Salmond, *ASM* 20, 14.



period of lawlessness', (ii) any chance of loot and a normal lifestyle for an indefinite period and (iii) offered no chance of retaliation. Facing this, the tribesman would quickly stop defying the authorities. Each outbreak showed less tendency to spread to neighbouring tribes and became less frequent. Salmond concluded that 'Air control is therefore both merciful in operation and deterrent in effect' and had reduced the total numbers of casualties.<sup>24</sup> Overall, what shines through is Salmond's understanding of combined land and air operations and his ability to employ them synergistically to maximise their effect.<sup>25</sup> He used air power to mitigate the risk to the columns ('had it not been for... rapid intercommunication... I should have hesitated to undertake this operation at all') and avoid the 1922 'reverses'.<sup>26</sup> This helped bolster the British reputation more widely in Iraq, thereby reducing the risk of a general uprising against 'weak' British governance. It is apparent that the Air Staff did not believe that the Army employed land and air forces in this joint manner, as their 1921 plea in *CD21* revealed: 'we ask the Army to assist us by thinking "aerially" and utilising us to the full in relief of military responsibilities'.<sup>27</sup> Additionally, Salmond was using aircraft to facilitate effective communication which allowed him to orchestrate his forces centrally - an early example of centralised control. This contrasts with the Army's reliance on 'mission command' which allowed formations to comply with the commander's intent in the absence of communications. Indeed, his official despatch concluded:

It is not too much to say that in a "small war" no Commander has ever before been so closely in touch with his Columns, and at the same time with the general situation throughout the country.<sup>28</sup>

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<sup>24</sup> *Ibid.*, 15.

<sup>25</sup> This was, no doubt, aided by his eleven years spent as an infantry officer in The King's Own (Royal Lancaster Regiment) before being seconded to the RFC. See [Annex 7](#).

<sup>26</sup> Salmond, "Despatch on Operations in Kurdistan", 5659.

<sup>27</sup> AIR 5/168, Air Council, *CD 21: Memoranda: Aircraft and the Army*, June 1921, 11.

<sup>28</sup> Salmond, "Despatch on Operations in Kurdistan", 4658.

Some elements of Salmond's version of the 1923 Kurdistan campaign were challenged in 1927 by Lieutenant Colonel MacClellan (who commanded a KOICOL battery) in his article "Air Co-operation in Hill Fighting: Kurdistan, 1923".<sup>29</sup> MacClellan, writing just after the first independent use of aircraft on the NWF ('Pink's War') and possibly inspired by recent energetic advocates of 'the advantages of employing aeroplanes in uncivilised hill warfare to do the work hitherto performed by the Army', highlighted some of the tactical problems he had witnessed concerning aircraft working with his column.<sup>30</sup> These were germane to the NWF because, as MacClellan stated, the Kurds were 'in every way inferior to the tribesmen of the North West Frontier of India'.<sup>31</sup> Pre-planned offensive action had been difficult to co-ordinate because of the lack of opportunities for face-to-face contact; W/T (i.e., Morse) was deemed the only practical means. From the air, troops were difficult to distinguish from the enemy in mountainous terrain which could result in the 'grave risk of detachments being mistaken for enemies'. MacClellan opined that 'the man fighting on the ground will often feel happier if he knows that the man fighting from the air will confine his attention to his more distant enemies'.<sup>32</sup> The ability of aircraft to protect the column by substituting for picquets was also challenged due to their lack of permanent overhead presence (a characteristic known as 'impermanence' by airmen) and the ability of tribesmen to conceal themselves. Concealment also reduced air power's ability to locate the enemy in the vicinity of the column, with MacClellan citing that no targets were indicated to his artillery from the air. He also revealed that only a 'negligible' quantity of the supplies dropped landed in the designated drop zone and that, of these, a 'very high proportion' was rendered useless due to sacks splitting on impact. Furthermore, some air-dropped supplies damaged camp infrastructure,

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<sup>29</sup> Lieutenant Colonel G P MacClellan, "Air Co-operation in Hill Fighting: Kurdistan, 1923", *JRUSI* LXXII, no. 486 (1927).

<sup>30</sup> *Ibid.*: 318.

<sup>31</sup> *Ibid.*: 325.

<sup>32</sup> *Ibid.*: 320-321.

resulting in further planned consignments being cancelled.<sup>33</sup> Salmond had not been blind to these issues, pointing out that the country was unsuitable for air drop and that there had been insufficient time to make the necessary preparations, but that he was 'confident that when this method of emergency resupply has been more fully investigated... it will prove a valuable asset'.<sup>34</sup> Although MacClellan recognised the 'very fine performance' of the RAF in evacuating the wounded and infirmed, he highlighted that aircraft were unable to assist for eight days due to the terrain. That said, this was the first joint use of air and land power in mountainous terrain, and tactics would naturally require development and refinement. Nonetheless, MacClellan's perspective provided a germane reminder that official accounts, such as Salmond's *ASM20*, could be very subjective and reflect a perspective influenced by political (and perhaps personal) motives (i.e., slanted to show air power, and perhaps the Commander, in a positive light). Notwithstanding this, MacClellan's perspective is itself quite limited, being that of a local battery commander. Additionally, MacClellan articulated a mixture of personal experiences, hearsay and personal conjecture, and it is not always easy to clearly separate these three levels of evidence (a problem also associated with some contemporary RAF articles). Responding to this article six months later in 1927, Flight Lieutenant Hampton criticised MacClellan for assuming that the tactics employed in 1923 would always be employed in small wars, regardless of the circumstances (inferring that the techniques had already been refined) and for under-emphasising the morale effect of air power on the tribesmen.<sup>35</sup> He reminded that the previous 1922 British column that had not been provided with air support had

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<sup>33</sup> In fact, when KOICOL found itself in urgent need of boots and barley, a Vernon was loaded with the supplies at Baghdad and flown to Kirkuk at 24-hours' notice where the cargo was transferred to the bomb racks of Army Co-operation aircraft and dropped without any prior experimentation. More robust methods were developed by 1927 (see Flight Lieutenant H N Hampton, "Co-operation of Land and Air Forces in Kurdistan, 1923: A Reply to 'Air Co-operation in Hill Fighting: Kurdistan, 1923'", *JRUS/LXXII*, no. 488 (1927): 827).

<sup>34</sup> Salmond, "Despatch on Operations in Kurdistan", 4659.

<sup>35</sup> Hampton, "A Reply to 'Air Co-operation in Hill Fighting'".

been defeated by the Turks. Hampton's main point was that aircraft mitigated the risk to the two 1923 British columns, allowing Salmond to use them more audaciously than he would otherwise have dared. Hampton concluded that the perspective of the soldier was often limited to his local situation, whereas air power's characteristics of reach and height, naturally provided the airman with a much broader situational appreciation ranging days ahead of the column.

*ASM21*, published some time after January 1924, covered *The Civilising Influence of Medical Services Advanced by Aid from the Air*. Using evidential examples from Iraq, the *ASM* advertised air power's use of speed and reach to rapidly transport medical aid and doctors to remote areas and to convey both civil and military patients rapidly back to better surgical facilities. This, the *ASM* ventured, assisted the civil administration's cause by 'the spread of British influence and the fostering of friendly feeling amongst the tribes in remote regions that appeals [sic] for help in sickness'.<sup>36</sup> Militarily, the aerial transport of invalids was more effective than 'the old and slower methods' and also reduced the burden on the lines of communication. However, *ASM21* lacked any tactical detail and contained no information at all about how to implement the tactics, unlike the later *ASM32* and *55* on air transport. Indeed, 2½ of the *ASM*'s 3½ pages are examples. Given the nature of *ASM21*, its aim seems to be to educate agencies outwith the RAF about the growing abilities of air power. Another interesting feature was that, although medical evacuation had utility in most theatres, *ASM21* focused solely on tribal scenarios, possibly because of the RAF's experience in Iraq, but perhaps also because of the other potential regions where the doctrine could be applied, thereby growing the RAF's role and bolstering its continued existence as a independent Service.

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<sup>36</sup> AIR 9/28, Air Staff, *Air Staff Memorandum 21: The Civilising Influence of Medical Service Advanced by Aid from the Air*.

*ASM32, Transport of Troops by Air*, was the last of the flurry of early-1920s ASMs and described the transport of a company of Royal Inniskilling Fusiliers from Baghdad to Kirkuk in the Vernons and Victorias of Squadron Leader Arthur Harris' 45(Bombing) Squadron in May 1924.<sup>37</sup> This *ASM* combined an evidence-based description of an operation with detailed annexes covering what would now be termed 'techniques and procedures'. The purpose of the Memo was stated as being 'to draw particular attention to the value of the use of aircraft for transporting troops in quelling disturbances' and, given the inclusion of both a generic description and detailed techniques, the target audience was presumably both Army and Air Force personnel.<sup>38</sup> The example used concerned a disturbance between Assyrian (Christian) levies and local Muslim townsfolk, where very swift intervention was required. *ASM32* emphasised air power's speed, which avoided a twelve-hour railway journey and a four-day march, allowing the initial platoon to arrive on the same day as the disturbances commenced. In August, a relief-in-place was also affected by air, during 'the worst month of the year to move troops by train'.<sup>39</sup> The three detailed annexes covered: an emplaning proforma; a report by OC 1st Battalion Inniskilling Fusiliers describing the August relief, giving details down to the contents of each haversack; and a single-page instruction on 'Movement by Aeroplane' aimed at Army personnel.

One of the first surviving documents expounding specific aerial tactics for the NWF was *Employment of Aircraft on the North-West Frontier of India*, published as a secret pamphlet with the approval of the GoI in 1924, apparently by the Air Staff(India).<sup>40</sup> This detailed, fourteen-page document covered most aspects of 'direct action' by aircraft, rather than co-operation with ground troops. It bridged the gap

<sup>37</sup> AIR 9/28, ———, *Air Staff Memorandum 32: Transport of Troops by Air*, February 1925.

<sup>38</sup> *Ibid.*, 1.

<sup>39</sup> *Ibid.*, 2.

<sup>40</sup> ———, *Employment of Aircraft on the NWFI*.

between strategy, tactics, 'command & control' and rules of engagement; as such, it was a 'one-stop-shop' guide to the use of aircraft in demonstrations and 'the attack of tribesmen, their flocks, crops, and villages by bombing and machine gun fire'.<sup>41</sup>

Structured in three sections, the pamphlet recognised that the use of aircraft for tribal control was new and that data and experience were incomplete.<sup>42</sup>

The pamphlet's first, 'General Principles' section warned that concentration of effort was vital, so squadrons involved in 'direct action' had to be distinct from army co-operation units. Similarly, squadrons should be grouped to facilitate easy logistical support and supervision, the minimum autonomous unit being a squadron. The pamphlet also discussed the advantages and disadvantages of air power: hesitation or delay were 'invariably interpreted as signs of weakness', so air power's rapidity of action offered 'great advantages' at the early stages of unrest, when even the threat of action could be pivotal; however, tribesmen and their flocks could readily take refuge in caves or were nomadic, so enforced temporary tribal migrations were not a 'very serious undertaking'. Surprise attacks were necessary to inflict severe casualties; furthermore, air power was less advantageous in the latter stages of an operation, as tribes could seek sanctuary in Afghanistan, generating political issues, if pursued. Finally, while air operations were cheap and involved minimum friendly loss of life, aircrew could be taken prisoner, complicating the military and political situation.<sup>43</sup>

Turning to legitimacy, the pamphlet noted that, although tribesmen did not conform to 'codes of civilised warfare' and therefore bombing was not constrained 'in its methods or objectives by rules agreed upon in international law', air operations should nonetheless be conducted 'with due regard to the principles of ordinary humanity'.<sup>44</sup>

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<sup>41</sup> Ibid., 1.

<sup>42</sup> The sections were: 'General Principles'; 'Preparation for and Execution of Offensive Air Action'; and 'Procedures to be Adopted in the Event of Forced Landings in Enemy Territory'.

<sup>43</sup> Air Staff, *Employment of Aircraft on the NWFI*, 1-2.

<sup>44</sup> Ibid., 2. This source has been widely abused. Chandler quoted 'In warfare against savage tribes who do not conform to codes of civilized warfare[,] aerial bombardment is not necessarily

Proportionality' was also addressed, whereby punishment had to match the seriousness of the offence.<sup>45</sup> Additionally, civil-military distinction was also recognised; while stating that 'bombing is inherently no more indiscriminate than shell fire', the pamphlet stated that it was important to avoid embittering feelings by wantonly endangering women and children. Importantly, these early statements counter the opinion that the concepts of humanity, proportionality and civil-military distinction are relatively modern. The pamphlet continued that, although close consultation with the political and military authorities was vital, neither local commanders nor political officers could authorise bombing due to the potential ramifications of unduly hasty action. Instead, they had to refer to Air HQ. Before sanctioning bombing, it was vital to determine whether the aim was (i) to punish offenders or (ii) to secure submission to Governmental demands. Intelligence was recognised as being vital in order to understand tribal structure, the nature of the environment and the proximity of the Afghan border; RAF personnel were encouraged to become familiar with both accessible and 'closed' tribal areas. Nevertheless, a 6-mile zone along the Afghan border had been established which aircraft required special Governmental permission to enter. The pamphlet modified *CD22*'s guidance that warnings should be issued 'whenever practicable';<sup>46</sup> instead, no warning was required against 'definitely hostile' tribes in contact with troops or to disperse hostile *lashkars*. However, when possible, warning should be given prior to bombing the

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limited in its methods or objectives by rules agreed upon in international law', omitting the all-important next sentence that 'The only test is that air operations should be carried out with due regard to the principles of ordinary humanity', thereby changing the original legal but humanistic meaning into a chilling statement. Omissi mis-quoted this in the same fashion, something which has been subsequently repeated in many books and websites, such as: Renfrew, *Wings of Empire*, 154 and <http://activist1.wordpress.com/2012/11/10/drones-setting-up-a-register-the-power-of-tribunal-and-disaster-preparedness/>. See Graham Chandler, "The Bombing of Waziristan", *Air & Space Magazine*(2011), <http://www.airspacemag.com/military-aviation/The-Bombing-of-Waziristan.html> and David E Omissi, "The Hendon Pageant, 1920-37" in *Popular Imperialism and the Military: 1850-1950*, ed. John M MacKenzie (Manchester University Press, 1992), 213.

<sup>45</sup> Later enshrined in Protocol II of customary international humanitarian law. See [http://www.icrc.org/customary-ihl/eng/docs/v1\\_cha\\_chapter4\\_rule14](http://www.icrc.org/customary-ihl/eng/docs/v1_cha_chapter4_rule14).

<sup>46</sup> Air Council, *CD 22*, 128.

*lashkar*'s village of origin. In contrast, warnings were always to be given before engaging tribes not known to be definitely hostile. Such warnings should be accompanied by demonstrations. Delayed action bombs were viewed as 'a particularly severe form of offensive action' which invariably required warning of their use.<sup>47</sup> Once the decision to use lethal force was taken and the warning period expired, surprise and sustained concentration of effort were necessary to attain material results and inflict casualties via 'man killing' anti-personnel bombs and machine gun attacks, preferably at dawn or dusk to ensure the greatest concentration of men and animals around the village. Incendiary bombs against villages and crops could also be effective. However, as an operation progressed it was noted that tribesmen learnt to conceal themselves, their animals and possessions, and air action had to rely on its effect on tribal morale via the threat of constant attack and the consequent dislocation of daily life as men hid in caves and grazed their flocks in small groups, unable to till their fields. To avoid predictability, subsequent, lighter attacks should be made at irregular interval and with heavy bombs to destroy houses, towers, irrigation channels, 'bunds' and terraces. If sanctioned by the political authorities, long delay bombs of up to 36 hours could amount to a 'close blockade' by day and night.<sup>48</sup> Despite the physical destruction, the pamphlet noted that moral effect 'is at all times greater than the material in air operations'.<sup>49</sup> If the tribesmen and their animals migrated to neighbouring tribes under the protection of *Pashtunwali*, patrols could prevent their return while the Political Authorities warned their hosts that harbouring enemies of the Government rendered them liable to attack. After due warning and demonstrations, the offenders would be pursued in their neighbours' village, enforcing collective tribal responsibility. If aircrew were captured, a standard, non-negotiable reward would be offered and any ill-treatment severely avenged to

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<sup>47</sup> Air Staff, *Employment of Aircraft on the NWFI*, 4.

<sup>48</sup> *Ibid.*, 6.

<sup>49</sup> *Ibid.*, 5.



deter such behaviour.

The second part of *Employment of Aircraft on the NWF* contained detailed tactical guidance for the RAF formation commander (normally a wing commander), and his squadron and flight commanders on the 'Preparation and Execution of Offensive Air Action'. The pamphlet offered technical advice for testing engines and W/T (where carried) as well as advice on the type of bombs to carry and formation flying.<sup>50</sup> To enhance the awe of demonstration flights, Very pistols or smoke signals were used and propaganda was scattered.<sup>51</sup> Where the exact location of a village was uncertain, the local political officer could fly in the leading aircraft to identify the target. The pamphlet also provided detailed tactical guidance on co-ordinating the initial massed bombing and machine gun attack.<sup>52</sup> Following the initial heavy bombing phase, the pamphlet describes how 'a species of aerial blockade' could be imposed to 'dislocate the life of the hostile tribe' by irregular patrols and attacks by day and night.<sup>53</sup>

The third, final part of *Employment of Aircraft on the NWF* was a single page describing the 'Procedure to be Adopted in the Event of Forced Landings in Enemy Territory'.<sup>54</sup> Overall, the aim of the air operations expounded in the pamphlet was to generate morale effect by inflicting casualties, although the importance of legitimacy, legality, humanity, proportionality and civil-military distinction were recognised as key themes, as was the conflict between the sanctuary of Afghanistan and the need to

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<sup>50</sup> 20-lb bombs were deemed most effective 'to cause casualties' but would only make a small hole in the roof of huts, whereas 112-lb bombs could be expected to blow roofs off and 230-lb and larger bombs would destroy the whole house. See *Ibid.*, 10.

<sup>51</sup> In recent RAF operations in Iraq and Afghanistan, aircraft have routinely deployed infra-red flares during 'shows of force'.

<sup>52</sup> The pamphlet authorised DH9As to descend to 2-3,000 feet during precision attacks on small targets, while Bristol Fighters, if flown fast and erratically, could descend to about 800 feet without undue risk.

<sup>53</sup> Air Staff, *Employment of Aircraft on the NWF*, 11-13.

<sup>54</sup> The pamphlet directed crews to disable their Lewis Gun and burn the aircraft. If surrounded, the crew were advised to surrender with 'as much good grace as possible and a bold demeanour, and preferably to the older and more important-looking men' and subsequently be careful to do nothing to aggravate the situation or complicate the political officer's task in securing their release. See *Ibid.*, 14.

respect the border to prevent an international incident. Nonetheless, at this early stage, the RAF did not shy from destroying men and material to achieve its aims. However, it recognised that tribesmen could adapt to minimise the physical destruction caused by aircraft by dispersing, which meant that morale effect had to be generated by the more time consuming (and less tangible) process of dislocating day-to-day tribal life. Indeed, the pamphlet was amongst the first documents to articulate the notion of an 'aerial blockade'. Importantly, it is clear that the switch of methodology from material destruction to tribal dislocation was not by choice, but rather the RAF's reaction to tribal adaptation.

As the surge in classified small wars ASMs which modified *CD22* in the early 1920s started to ebb, the momentum was transferred to publications in the public forum. These generally covered similar themes to the ASMs. There are several possibilities why the open forum could have been deemed an important 'battlespace'. Some authors were clearly sponsored by the Services in an attempt to garner the support of politicians and the public in the competition for the largest share of the defence budget. The open forum was also a conduit to advertise emerging ideas to the public, politicians and other Services that would take time to be incorporated into more official publications. Additionally, even if sponsored by the Services, authors could publish controversial or critical comments and claim they were their own and not officially sanctioned. And, of course, some zealots simply wanted to publish their ideas and experiences. What is not clear is the degree to which the various journals actively solicited relevant or controversial articles to bolster their circulations and status.

*Flight* magazine published a Parliamentary note from the Minister for Air in June 1924 which contained the same themes as Salmond's secret *ASM16*;<sup>55</sup> in the same

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<sup>55</sup> Lord Thomson, "Note on the Method of Employment of the Air Arm in Iraq", *Flight: The Aircraft Engineer & Airships*, 14 August 1924.

month, a more detailed account of Salmond's secret *ASM20* was reproduced in his despatch in the unclassified London Gazette.<sup>56</sup> But the main forum used to expose developing doctrine was the RUSI lectures. The in-theatre equivalent for officers in India was the USII. Salmond presented an unclassified paper to RUSI on the same subject as his *ASM20* in March 1925, the most notable point being the complete lack of questioning from the audience, with the Chairman (the ex-High Commissioner of Iraq) concluding that he was 'quite ready to be persuaded that the Air Force could do the trick, and I think he has successfully proved that it can'.<sup>57</sup>

One of the first post-*CD22* RUSI lectures was Wing Commander Edmonds' December 1923 "Air Strategy".<sup>58</sup> Emphasising that the ideas were his own and not necessarily the Air Staff's opinion, he used two themes, those of 'imperialism' and economy, to analyse 'the strategical problems of this empire' from the perspective of 'the seat of an aeroplane', using two scenarios – 'small wars' and 'continental wars'.<sup>59</sup> Admitting that most of his themes were not new, Edmonds opined that the challenge for air strategy was 'to learn how to apply old principles in a new sphere' which was challenging given that the flying age 'has come upon us so quickly that our habits of mind have not fully changed'.<sup>60</sup> He noted that the most important characteristic of air strategy was its ability to prevent small wars, advocating demonstration flights over intransigent tribes, followed up if necessary by flying in the local political officer to reason with the leaders while aircraft continued to circle overhead as 'proof of the white man's power'.<sup>61</sup> Failing this, or if it was unsafe for a political officer to visit,

<sup>56</sup> Salmond, "Despatch on Operations in Kurdistan". The lack of questioning may be been because the audience were overawed by the 3-star presenter and Chairman, Major-General Sir Percy Cox.

<sup>57</sup> ———, "The Air Force in Iraq": 498.

<sup>58</sup> Wing Commander C H K Edmonds, "Air Strategy", *JRUSI* LXIX, no. 474 (1924), published in May 1924. Edmonds was an ex-Naval aviator who attended Army Staff College at Camberley in 1921 and was a member of the initial RAF Staff College DS at Andover from 1922 to 1925.

<sup>59</sup> *Ibid.*: 192.

<sup>60</sup> *Ibid.*: 208.

<sup>61</sup> *Ibid.*: 193.

leaflets would be dropped. Edmonds repeated Mackay's sentiments that air power's greatest advantage in small wars was that it denied the tribesman loot and a fair fight, while making him expend valuable ammunition against an elusive target. This was achieved by another characteristic of air power, its asymmetry when employed against ground forces. In cases where these peaceful methods failed, Edmonds recognised that it could be difficult for aircraft to inflict material damage against dispersed tribesmen, but that the main effect on 'ground enemies' was that it targeted their morale.<sup>62</sup> As this was not always achieved instantaneously:

The air commander has merely got to ensure that his resources can outlast the tribe's morale' and maintain his objective by continuous bombing as the enemy passed through three phases, namely: fear and panic; followed by indifference 'when the smallness of the material damage is realised'; which developed into weariness, as normal life becomes increasingly impossible.<sup>63</sup>

Edmonds recognised the issue of 'sanctuaries', 'leaky borders' and external sponsorship that allowed a 'subsidised agitator' to slip over the border and subvert local tribes against the British. This could require a column of troops to be deployed, with which aircraft would work in close co-operation. Prior to the column's arrival, aircraft would use their speed of response to continuously bomb villages harbouring the agitators, harassing and hindering them from completing defensive precautions against the column, coercing nearby tribes to remain neutral. Once contact was made on the ground, air power would support the troops by providing warning of impending flank attacks, revealing and bombing enemy strong points, and enabling communication between column commanders and higher command. Thus, unlike RAF India's *Employment of Aircraft on the NWF*, Edmonds covered both 'direct action' and Army co-operation. Overall, Edmonds concluded that air power helped render small wars 'less dangerous, less costly and more localised'.<sup>64</sup> This early

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<sup>62</sup> Ibid.

<sup>63</sup> Ibid.: 194.

<sup>64</sup> Ibid.: 194-195.

treatise is important for several reasons. Firstly, it highlighted air power's flexibility in being able to conduct independent operations and then adapt to support other Services as a dynamic situation changed. In this way, it was rounded and relatively non-partisan. Secondly, although the morale effect of air power was a well established concept by 1923, it was the first to articulate that continuous air action would result in the enemy cycling through fear to indifference and finally weariness, at which point they would concede to British demands. Although Edmonds suggested that this should be achieved by directly targeting the tribesmen, this psychological impact would become the basis of the 'inverted blockade', as discussed later.

Amongst the first significant *JUSII* air power articles was Flight Lieutenant Stevenson's July 1925 "The Army Co-operation Squadron".<sup>65</sup> This was essentially a repetition of *ASM25* aimed to educate Army officers in India and build mutual understanding of the role of army co-operation squadrons. Stevenson offered additional detail, noting that the Divisional HQ should be located as near as possible to the aerodrome. The squadron was viewed as a self-contained, mobile fighting unit of three flights, each established with four aircraft, allowing a flight to maintain one aircraft airborne throughout daylight hours.<sup>66</sup> Night attacks were possible, but the squadrons were not established for continuous 24-hour operations. The main role of the army co-operation aircraft was reconnaissance of two types - 'close reconnaissance' and 'artillery reconnaissance'. The role of 'close reconnaissance' was to reconnoitre enemy positions and pass details to the ground unit's HQ.<sup>67</sup> In

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<sup>65</sup> Stevenson, "The Army Co-operation Squadron".

<sup>66</sup> However, flights would need to be augmented to six aircraft for a major war.

<sup>67</sup> Air-to-ground communication was achieved by dropping primitive message bags on the formation HQ (rather than dealing directly with the artillery), although short-range, two-way R/T (i.e. voice) was being deployed to communicate with infantry units as equipment became available. To identify themselves to ground troops, these aircraft carried black stripes and trailed banners and coloured streamers and fired white lights or a Klaxon to stimulate friendly troops to indicate their positions.

contrast, 'artillery reconnaissance' aircraft liaised directly with their assigned battery.<sup>68</sup> An Army Branch Intelligence Officer and a Squadron Artillery Officer were attached to each army co-operation squadron, with the Intelligence Officer dealing with general intelligence and the Artillery Officer furnishing information on artillery positions. Both of these officers flew frequently as observers to gain an understanding of the environment and to generate mutual understanding between the Services. Each squadron had a mobile reception station consisting of a tender with R/T and W/T capability which would collocate itself with the formation HQ with which the squadron was working. While offensive action was not a normal role for army co-operation squadrons, they could be used in a pursuit or retreat.<sup>69</sup> In an emergency, the squadron could also drop water, rations and ammunition by parachute to troops. Stevenson predicted that aircraft would force the enemy to operate predominantly by night. While Stevenson's article did not focus specifically on the NWF, it indicated how Indian-based army co-operation squadrons were expected to operate in 1925, both in small wars against a generic tribal threat and in larger-scale warfare against Afghanistan and, potentially, a Russian sponsor. That this first *JUSII* article was on army co-operation may also provide an insight into the priorities for Indian-based RAF units at this time.

The next significant RUSI article was Captain John Glubb's November 1926 "Air and Ground Forces in Punitive Expeditions". Whilst based on his experience in Iraq, it was germane to the NWF.<sup>70</sup> This was an important paper, published just as 'Glubb

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<sup>68</sup> Longer-range W/T (i.e., Morse) was used to communicate from the aircraft to the battery, with the battery responding to the aircraft via a ground strip code. Every air-to-ground W/T message was an invitation to fire and an offer to observe for fire, but the battery commander (or Commander Royal Artillery for important targets) would decide whether to engage or not. According to Slessor, R/T equipment was delicate and prone to jamming from other R/T transmitters which restricted the number of concurrent users in a given area. Additionally, voice transmissions could be unintelligible. In contrast, W/T was fast, clear, could be encoded and allowed many operators to transmit simultaneously. See Slessor, "RAF and Army Co-operation - The Other Point of View": 126-127.

<sup>69</sup> The aircraft's normal armament in this role was two 112lb bombs or twelve 20lb bombs.

<sup>70</sup> Glubb, "Air and Ground Forces in Punitive Expeditions".

Pasha' retired from the Army in Iraq and became a political officer for the Government of Iraq, and was written from the perspective of a soldier, rather than an airman.

Although starting from the standpoint that punitive expeditions were an effective and necessary tool, Glubb's article compared the relative effectiveness of punitive expeditions in 'semi-civilised' countries conducted by ground troops with punitive operations carried out mainly by air forces under an Air Force Commander, assisted by ground units (i.e., air control). Several of his themes were not new. Thus, the ubiquity resulting from air power's speed, reach and its ability to use height to overfly all but the highest mountains, allowed aircraft to deliver summary punishment within a few hours, nipping unrest in the bud and deterring neighbouring tribes from joining the rebellion. These same characteristics allowed aircraft to be based in easily-defended, centrally-located aerodromes. In contrast, ground forces' relatively slow reaction and limited reach required garrisons to be spread throughout the region where they were liable to be cut off and besieged, frequently being 'overwhelmed before the arrival of relief, thus giving rise to a "regrettable incident"'.<sup>71</sup> Glubb reiterated Edmonds' theme about denying the tribes time to procrastinate by rapidly conveying officials or, if too dangerous, dropping leaflets. He also warned that aircraft were limited by the need for regular maintenance. Intelligence was also vital, and success could depend on the availability of personnel with a thorough knowledge of the tribes and country and experience as an air observer. Glubb recommended that pilots build up this knowledge themselves, as friendly or neutral tribes had been mistakenly attacked with 'unfortunate' consequences. Although stating that 'in open country, heavy casualties can be inflicted by both bombing and, perhaps still more, by machine gun fire', Glubb noted that indirect physical effects could coerce the tribesmen to surrender. Stone dwellings could be damaged by high explosive bombs, thatch or reed huts could be burnt using incendiary projectiles, and sheep were easy targets because they flocked

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<sup>71</sup> Ibid.: 778.

together. However, mud huts could be quickly repaired, crops were difficult to damage unless dry enough to fire with incendiaries, and camels and horses tended to scatter when attacked. Of importance to operations on the NWF, Glubb warned that mountainous or wooded areas were challenging for air power, as tribesmen could take refuge in woods or caves which were relatively comfortable and inaccessible to direct air action. He also provided another early articulation of the concept of the 'inverted blockade' (albeit without using the term), stating that, by bombing villages at irregular intervals:

even though such attacks may not inflict heavy casualties, the enemy can be almost entirely denied access to his towns and villages, and be compelled to lie in concealment in the open country. Exposed to the inclemencies of the weather, he may soon find life becoming unbearable.<sup>72</sup>

Glubb followed this with an interesting statement:

Very often the utmost that can be done is to deny them the use of their villages by bombing the latter at irregular intervals... The only manner of bringing such peoples to surrender is by upsetting their daily lives, cutting off communications and preventing them from cultivating their crops or grazing their flocks.<sup>73</sup>

Glubb noted that these air operations had often been stigmatised as 'barbarous' because they were liable to inflict casualties on the guilty and innocent alike, but challenged the assertion as being 'usually made without a true knowledge of the facts'. Rather, according to Glubb, air power was a less lethal approach which was advantageous because 'the infliction of human casualties as tending to embitter the people against Government, is not only unnecessary but undesirable'.<sup>74</sup> In his experience, given air power's reputation, a show of force over a village followed by leaflet dropping often sufficed to bring about surrender but, if not, women and children were given time to leave. One or two aircraft dropping two or three small bombs on the village usually caused the remaining inhabitants to bolt and scatter in the open

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<sup>72</sup> Ibid.: 780.

<sup>73</sup> Ibid.

<sup>74</sup> Ibid.: 781.



where the fugitives could be engaged by machine or Lewis guns, preferably by low-flying aircraft who 'should be able to distinguish men from women and children'. Only in the case where the enemy had committed atrocities against Europeans or peaceful inhabitants would heavy bombing, without a warning, be justified and, even then, Glubb doubted that the resulting heavy casualties were any worse than long-range shelling.<sup>75</sup> A clue to the pragmatic and unpartisan nature of Glubb's view of the utility of air power is given by his warning that, against a deeply motivated tribesman, such as a religious fanatic supported by foreign propaganda or money, aircraft alone may not be sufficient and that 'Against a determined and well disciplined enemy, the rifle and bayonet are, at present, the only finally decisive weapons'.<sup>76</sup> Overall, Glubb's paper is important, as it provided what is possibly the least partisan view of air power's utility and also demonstrated the first signs of acknowledgement of the advantages of less lethal means, despite being bounded by the context of punitive expeditions.

In 1927, Squadron Leader Hodsoll published the transcript of a USII lecture that he had given to the 1926 Army Staff College Course which repeated most of the themes from both *ASM25* and Stevenson's 1925 article. He referenced them to Field Service Regulations, thereby providing officers in India with a consistent doctrine from both Army and RAF camps.<sup>77</sup>

One of the last publications before *CD22* was replaced by *AP1300* was Squadron Leader Cyril Burge's 1927 book, *Basic Principles of Air Warfare*, published

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<sup>75</sup> *Ibid.*: 782.

<sup>76</sup> *Ibid.*: 783.

<sup>77</sup> Hodsoll, "Royal Air Force Co-operation with the Army: A Lecture Delivered at the Army Headquarters Staff College Course, 1926". One additional emphasis from Hodsoll was that army co-operation squadrons should not be tasked with bombing raids and that requests for such strikes should be addressed to higher formations who would allocate special, independent, squadrons. Hodsoll was a prolific contributor to the JUSII, having published an article on *The Development of Co-operation between Aircraft and Tanks* in 1925, *Aircraft and Anti-Aircraft Defence* in 1926 and, as will be discussed later, *Some Notes on Air Matters Affecting India* in 1928.

under the pseudonym 'Squadron Leader'.<sup>78</sup> While the book does not address small wars, what nevertheless makes it particularly interesting is that Burge had been Trenchard's Personal Assistant since August 1926, lending it an apparent semi-official status. Burge's views leaned more towards *CD22* than the impending *AP1300*. For example, he downplayed the efficacy of morale effect and air power's ability to win wars independently, instead stating that the surest and quickest method of winning a war is to defeat the enemy's armed forces. These themes would seem to be at odds with the Air Staff's championing of independent air operations and the importance consistently placed on morale effect. Parton's research revealed that, in fact, Trenchard had tried to ban the book from being published and did not want any officers to publish for fear of offending the other Services.<sup>79</sup> So, the relevance of *Basic Principles of Air Warfare* to this Thesis is that, firstly, although there was not complete doctrinal homogeneity across the Air Ministry, any failure to 'tow the party line' was discouraged and, secondly, Trenchard's sensitivity to inter-Service relationships.

The last RUSI lecture before the publication of *AP1300* was Wing Commander Richard Peck's February 1928 "Aircraft in Small Wars", given when he had been serving in the Air Ministry's Directorate of Operations and Intelligence since November 1927.<sup>80</sup> Peck had experience of 'small wars', having served on the HQ RAF Iraq staff in 1922-24, and his position in the Ministry would have given him a detailed appreciation of developing doctrinal thinking within the Air Staff. Despite his

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<sup>78</sup> 'Squadron Leader', *Basic Principles of Air Warfare (The Influence of Air Power on Sea and Land Strategy)* (Aldershot: Gale & Polden, 1927).

<sup>79</sup> Group Captain Neville Parton, "Historic Book Review: Basic Principles of Air Warfare", *RAF Air Power Review* 10, no. 2 (2007). Parton's research focused on Liddell-Hart's diary of conversations with Burge. It is perhaps not surprising that Burge left his post as Trenchard's PA shortly after his book was published and later became the first editor of *RAFQ*. Parton's research was also incorporated into his PhD thesis (Parton, "RAF Doctrine", 145-146).

<sup>80</sup> Peck, "Aircraft in Small Wars". Peck would be promoted to Deputy Director of the Directorate and later become the Senior Air Staff Officer in HQ RAF India in 1936, retiring as an acting Air Marshal in 1946. His obituary is at: "Air Marshal Sir Richard Peck", *Flight: The Aircraft Engineer*, 19 September 1952. See also [Annex 7](#).

disclaimer that his thoughts were ‘my own unaided handiwork’, they almost certainly reflected Trenchard’s thinking, especially given Burge’s recent publication.<sup>81</sup> Peck’s presentation opened by highlighting that the subject had been marked by prolonged controversy. Given that air control had by this time been established in Iraq, Transjordan, Palestine and Aden for some time, Peck focused on theatres where the primacy of air power had not been established, such as the NWF. His presentation discussed how Western powers traditionally used superior equipment to counter the tribesmen’s local, irregular, advantages, but how this had been recently offset by the ‘wild enemies’ obtaining long-range, accurate, rapid-firing rifles. Of recent technological advances, ‘none is so admirably suited to warfare against wild men and in wild countries, as the aircraft – *provided, of course, it is correctly employed*’.<sup>82</sup> Aircraft could be employed in small wars in four broad ways: first, independently, with land forces relegated to protecting air bases; second, as the primary arm to break the enemy’s resistance (akin to a preliminary bombardment) with land forces clinching the victory; third, co-operating in a secondary role with expeditionary columns; and finally, in ancillary roles, such as communications, casualty evacuation and emergency resupply.<sup>83</sup> Peck explained the embitterment generated by a punitive expedition whose aim was to bring the tribesmen to battle and to:

take away from the poor, from the poorest men in the world, even that which they have... We must burn from his home and his goods and chattels and destroy his roof-tree in order to force him to fight.<sup>84</sup>

Showing a significant understanding of the cause of the violence, Peck described that ‘the cure for the trouble lay in making the country somehow self-supporting on the one

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<sup>81</sup> Indeed, the two key ‘English merchants’ in the Ministry for articulating Trenchard’s vision of air control were Peck and, from October 1928, Squadron Leader John Slessor. These two officers were almost certainly the authors of the various ASMs concerning air control and the ‘air method’ (as Slessor would later describe it) published between 1928 and 1930. See Slessor, *The Central Blue*, 48, 70-74.

<sup>82</sup> Peck, “Aircraft in Small Wars”: 537.

<sup>83</sup> *Ibid.*: 538.

<sup>84</sup> *Ibid.*: 539.

hand, and the process of raiding a less attractive pastime than trading'.<sup>85</sup> However, the high cost of punitive columns limited the budget available for investing in social infrastructure.<sup>86</sup> In contrast, 'Air action does most definitely neither seek its effects nor secure them by the casualties it inflicts' but rather by the moral effect of inducing 'intolerable inconvenience and hardship' by driving livestock away and denying the use of tribal villages, forcing the villagers into caves, thereby disrupting normal life. Peck contended that the tribesman 'endures it for a while, but as he sees little result for his shooting, he gets unendurably bored with the inconvenience out of which he gets no compensation... and after a while he is prepared to ask for terms'.<sup>87</sup> Peck compares this moral pressure to 'a blockade', revealing that the Air Staff, again whilst not yet having adopted the term 'inverted blockade', were thinking in these terms. He categorised the characteristics of air power in small wars as follows: it did not seek to cause casualties, but rather intolerable and unprofitable inconvenience; its swiftness could rapidly nip discontent in the bud and prevent it spreading; it was selective and could single out offending villages or tribes - bomb sights had improved and bombing was now a precision weapon; wholesale destruction could be avoided, unless it was essential (normally, small bombs were used, as the aim was to keep inhabitants out of the villages, but larger bombs were more powerful than artillery shells and could produce utter destruction); often, demonstration flights were sufficient to coerce the tribes into compliance; the lack of physical damage meant that animosity amongst the tribesmen was minimised; air power could be applied progressively and cheaply; and Air action involved no commitment and no risk of tactical defeat. However, it took time to produce an effect, but was nevertheless effective and had an enduring effect because the tribesmen knew it could be swiftly re-applied. To back up these claims,

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<sup>85</sup> Ibid.: 541.

<sup>86</sup> £475,000 in 1916-17; £1,134,000 in 1917-18; and £16,000,000 in the 1920 Third Afghan War. See Ibid.: 540.

<sup>87</sup> Ibid.: 542.

Peck cited 'its astonishing success in Iraq', 'Pink's War' of 1925 and operations against the Mohmands in 1927. The post-lecture 'question and answer' session was as interesting as Peck's presentation. The Chairman, Jack Salmond, thought that there was broad accord that the solution to unrest on the NWF was to bring 'civilisation': while the employment of sufficient aircraft could stop tribesmen raiding the administrated plains, they could not bring civilisation alone; in contrast, the combination of land forces and road building (i.e., the Razmak policy) could bring civilisation, but was unaffordable. Perhaps surprisingly, the Army officers in the audience largely supported Peck's perspective; describing the NWF as 'the greatest small war problem in the British Empire', Colonel Robinson noted that all officers had 'a tremendous admiration for the achievements of the Royal Air Force in India' and supported Peck's view that military control merely addressed the symptoms and that an economic solution for the cause of unrest was necessary.<sup>88</sup> Colonel Howard challenged Peck's contention that the aircraft was undervalued in small wars: 'I think there he is wrong. In the Army it is very much appreciated'.<sup>89</sup> Howard also noted that aircraft terrified and dispersed hostile tribesmen, making air attack an unsuitable opening tactic if the aim was to bring the enemy to battle against ground troops. Howard concluded:

If aircraft can do the work entirely on their own and produce decisive results, which they can in many cases, let them do so; but if it is thought they cannot by themselves produce decisive results, it is, in my opinion, wrong to take air action (except of course reconnaissance) *before* attacking with ground troops.<sup>90</sup>

This discourse is important and revealing on several levels. Peck was clearly expecting a hostile Army audience (his opening remarks include the statement that 'I do not think that good co-operation and the solution of important imperial problems

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<sup>88</sup> Ibid.: 546.

<sup>89</sup> Ibid.: 547.

<sup>90</sup> Ibid.

are to be attained by the primrose path of mutual admiration').<sup>91</sup> This may have been because, as an Air Ministry staff officer, he would have been well aware of the political animosity between the Imperial General Staff (IGS) and the Air Staff over the subject. Yet, the Indian-experienced middle-ranking Army officers in the audience were surprisingly receptive and readily acknowledged air power's virtues, both as an independent role and in co-operation with the Army. From this, it appears probable that good inter-Service co-operation was already *de rigueur* at the tactical, formation level in India. Additionally, Howard's observation about aircraft causing tribesmen to disperse raises the question of whether the RAF's doctrinal shift away from inflicting casualties and towards what would become the 'inverted blockade' was the result of aircraft's inability to cause casualties or the Air Staff's desire to become (and be seen as becoming) more humane. It may well have been a mixture of both.

It would be misleading to paint a picture that there was complete tactical-level accord over RAF co-operation with the Army. There was widespread feeling within the Army in the late 1920s that it should possess its own Air Arm, effectively subsuming the RAF's army co-operation squadrons. This was no doubt emboldened by similar aspirations by the Royal Navy over control of the Fleet Air Arm. The controversy was ably summarised by Major Strover of the 3/20<sup>th</sup> Burma Rifles in his April 1928 *JRUSI* article, "An Army Air Arm".<sup>92</sup> Strover explained that an Army Air Arm, piloted by Army officers, would be advantageous because Army commanders could exercise 'better' control over it and that the Army pilots would work better with Army officers. However, Strover acknowledged that the same ends could be largely achieved if the RAF placed its army co-operation squadrons under Army command at the outbreak of war. There were, however, significant challenges: the Army was unlikely to be able to recruit sufficient pilots (as aspiring aviators would be attracted to

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<sup>91</sup> Ibid.: 535.

<sup>92</sup> Strover, "An Army Air Arm".

Cranwell rather than Sandhurst); the RAF's goodwill would likely be compromised; and co-operation was not a natural trait of Army officers, having been nurtured by the public school system to be 'loyal to his own particular crowd while regarding the other crowd with tolerant and good natured contempt'.<sup>93</sup> Overall, Strover concluded that it was 'most unwise to attempt to establish an Army Air Arm'. Nonetheless, the Air Staff would, no doubt, have been wary of these Army aspirations and the potential concomitant loss of control over a substantial element of its squadrons. Indeed, part of the RAF's enthusiasm for detailed army co-operation doctrine may well have been generated by the desire to demonstrate that it could ably support the Army, thereby countering the arguments that the Army could implement the role any more effectively.

One of the last publicly published articles prior to the issue of *AP1300* was Squadron Leader Hodsoll's wide-ranging *JUSII* paper, "Some Notes on Air Matters Affecting India".<sup>94</sup> One part of his article focused on the NWF, noting that the RAF could potentially assume the major responsibility for the defence of the unadministered agencies following the 'highly successful' implementation of air control in Iraq and Aden. Hodsoll acknowledged that the aim was 'to introduce civilisation where none exists' by building roads, but claimed that air power could conduct punitive operations relatively economically and, as civilisation encroached as the road network expanded, garrisons could be withdrawn, replaced by an expanded *Khassadar* force backed by the RAF conducting extended patrols, operating via a network of landing grounds. For the first time, air power was described as being used to 'police' the unadministered agencies. Hodsoll's article was not universally accepted; Major Wilkinson of the 2<sup>nd</sup> Bombay Pioneers wrote to the *USII* expressing doubt that aircraft alone could repel foreign aggression or subdue a widespread

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<sup>93</sup> *Ibid.*: 250.

<sup>94</sup> Hodsoll, "Some Notes on Air Matters Affecting India".

uprising.<sup>95</sup> Countering this claim later in 1930, *ASM48* would emphasise how even the British Army's 60,000 troops required reinforcements from India during the 1920 insurrection in the lower Euphrates.<sup>96</sup> While acknowledging air power's efficacy in punitive operations, Wilkinson claimed that this role had not proved to be the quickest or most economical method of dealing with disturbances which were disappearing as road-building pacified the NWF tribesmen.<sup>97</sup> Interestingly, Wilkinson focused predominantly on air power's kinetic effect, which may be a reflection of the Army's perspective on the main use of the RAF on the Frontier.

### **AP1300 – ROYAL AIR FORCE WAR MANUAL, 1928**

As described earlier, the doctrine articulated in the hastily prepared *CD22* had been swiftly overtaken by developing doctrine. Despite becoming outdated, it remained extant until withdrawn in 1926 because, Parton posed, it had rapidly ceased to reflect the views of the Air Staff.<sup>98</sup> However, its replacement, *AP1300, The RAF War Manual*, was not published until July 1928, the hiatus between these two major doctrines being filled by the derived doctrinal publications discussed above.

*AP1300* was significantly different to *CD22* and reflected the rapid development in aerial doctrine. Not only was the new *War Manual* considerably larger than its predecessor, but its content was far more air-focused.<sup>99</sup> *AP1300* contained new, air-centric chapters on *Air Warfare*, *Air Bombardment*, *Air Fighting*, *Air Attacks on Aerodromes*, and *Air Operations in Undeveloped and Semi-civilised Countries*, reflecting significant doctrinal changes. Previous themes such as the main objective of an air force being the destruction of the enemy air force were replaced by

<sup>95</sup> Wilkinson, "Some Notes on Air Matters Affecting India".

<sup>96</sup> AIR 5/172, Air Staff, *Air Staff Memorandum 48: Notes on the History of the Employment of Air Power* 1930, 5.

<sup>97</sup> Wilkinson, "Some Notes on Air Matters Affecting India".

<sup>98</sup> Parton, "RAF Doctrine", 113-114.

<sup>99</sup> Due to its increased size, *AP1300* was issued in two parts, the first covering operational matters and the second covering organisation and administration.



statements such as ‘The bomb is the chief weapon of an air force and the principal means by which it may attain its aim in war’.<sup>100</sup> Indeed, three months after *AP1300* was published, Trenchard explained the reasons for this policy to the Imperial Defence College, emphasising that the Air Force’s main offensive would be against centres essential for the continuance of the enemy’s resistance and not against his air forces – a policy with which all three Service Chiefs agreed.<sup>101</sup> Moreover, this subject was apparently very much ‘in the spotlight’ as, two months later in December 1928, Group Captain MacNeece Foster gave a similar, but unclassified, lecture at RUSI.<sup>102</sup> *AP1300* categorised RAF duties as bombing, fighting, co-operation with the Navy and Army, and transportation. Air superiority was now viewed as an enabling function to allow sustained air operations and provide the other Services with immunity from air attack, supported by statements such as ‘Security can be assured by the complete destruction of the enemy air forces’.<sup>103</sup> The offensive use of air power was a prime theme, with the prime vehicle being the bomber. Targets were grouped roughly into five classes according to their susceptibility to different types of bomb.<sup>104</sup> *AP1300* was littered with phrases advocating the offence, such as:

The maxim that offence is the best defence applies even more truly to air warfare than any other operation of war... maintaining the initiative in offence with all its strategical and tactical advantages.<sup>105</sup>

the strategical offensive is mainly conducted by the bomber aircraft about whom most of the fighting will centre.<sup>106</sup>

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<sup>100</sup> Air Council, *CD 22*, 54; Air Ministry, *AP 1300: Royal Air Force War Manual. Part I - Operations* (1928), Ch IV, para 21(ii).

<sup>101</sup> AIR 5/169, Air Staff, *Air Staff Memorandum 43: The War Aim of the Royal Air Staff*, October 1928, 3, 6.

<sup>102</sup> Group Captain W F MacNeece Foster, "Air Power and its Application", *JRUSI* LXXIII, no. 490 (1928). Sir Samuel Hoare, The Secretary of State for Air, was in the Chair. MacNeece Foster was, at the time, the British Air Representative to the League of Nations, having previously been awarded a CBE during his service in Iraq.

<sup>103</sup> Air Ministry, *AP 1300*, Ch IV, paras 21-22; ———, *AP 1300*, Ch VII, para 2.

<sup>104</sup> See [Annex 6](#).

<sup>105</sup> Air Ministry, *AP 1300*, Ch VII, para 5.

<sup>106</sup> *Ibid.*, Ch IX, para 2.

The principal aim of bomber aircraft in all air bombardment operations, is to deliver the bomb at the decisive point in the most efficient manner possible.<sup>107</sup>

the bombardment of the most vital and vulnerable ... centres may be more effective and decisive than the direct attack on naval and military forces.<sup>108</sup>

Although the bombardment of suitable objectives should result in considerable material damage and loss, the most important and far-reaching effect of air bombardment is its moral effect.<sup>109</sup>

Against all objectives where moral effect is the main aim, air bombardment should be as sustained as possible.<sup>110</sup>

Compared with *CD22*, a clear shift in the RAF's strategic culture away from air superiority and towards the independent application of strategic air power for cognitive, morale effect can be detected. Against this, it is not difficult to imagine the likely tensions between the RAF and the Army on the NWF, when the Army expected the RAF to deliver local, tactical, material effect.

*AP1300*'s Chapter XII on 'Aircraft in Co-operation with the Army' reflected the forerunning 'derived doctrine' expounded by *ASM25*, Stevenson and Gossage. This illustrates that some ASMs, such as *ASM25*, were being used to modify existing doctrine (in this example, *CD22*) which was subsequently subsumed into the next issue of the high-level doctrine (i.e., *AP1300*). Unfortunately, the archive does not record when *ASM25* was withdrawn, so it is not possible to analyse how closely the issue of new high-level doctrine was co-ordinated with the withdrawal of less formal, derived doctrinal publications. Chapter XII explained that aircraft allotted to an Army formation were placed under the orders of the Army C-in-C and could consist of (i) bomber and fighter squadrons and (ii) army co-operation squadrons. The principal task of the bomber and fighter squadrons, operating under the direct control of GHQ, and 'the most valuable contribution that the air forces can make to the success of the

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<sup>107</sup> Ibid., Ch VIII, para 1.

<sup>108</sup> Ibid., Ch VIII, para 4.

<sup>109</sup> Ibid., Ch VIII, para 13.

<sup>110</sup> Ibid., Ch VIII, para 27.

military operations' was to gain air superiority and therefore prevent the enemy's aircraft from impacting upon friendly forces' freedom of action.<sup>111</sup> Additionally, bombers could be employed as long-range artillery, while fighters could be used for low-flying attacks against ground targets. In contrast, the army co-operation squadrons would provide direct assistance to troops by means of reconnaissance and observation, and could be allotted to subordinate formations, especially during rapidly moving operations. The dropping of supplies was briefly mentioned, probably reflecting the recommendation that army co-operation aircraft should only be used in this role 'in very exceptional circumstances'.<sup>112</sup> Overall, this chapter, with all its caveats, conveys a very realistic and measured view of army co-operation which would indicate a close liaison between the General and Air Staff during its production.

Chapter XIV on 'Air Operations in Undeveloped and Semi-civilised Countries', like Chapter XII, reflected many of the themes of the post-CD22 minor doctrinal publications. However, in looking at these operations more holistically, it provided a fresh overview of the RAF's approach to this subject. The chapter is *AP1300*'s largest, making up 13% of the publication (excluding appendices). If recent RAF doctrine can be used as a benchmark, the length of these chapters reflected the importance attached to the role by the Air Staff.<sup>113</sup> Although the temptation to transpose current sensitivities about socially or institutionally offensive language onto historical situations is best avoided, it is nevertheless interesting that the use of the term 'enemy' is consistently used in this chapter to describe members of the population (who in most situations would also be crown citizens) who did not comply

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<sup>111</sup> Ibid., Ch XII para 38(ii).

<sup>112</sup> Ibid., Ch XII para 40(g).

<sup>113</sup> For example, in the 2006 edition of AP 3002 '*Air Warfare*', only two pages were assigned to '*Counter Sea Operations*' and just 2½ to '*Air Operations for Strategic Effect*', whereas the chapter on '*Counter Land Operations*' included 28 pages of tactical detail. This was a reflection of the RAF's priorities in the aftermath of the land-centric 2003 Iraq War and ensuing insurgency. See RAF Air Warfare Centre, *AP 3002: Air Warfare* (Media Service, HQSTC, 2006).

with civil law. Indeed, the term is used sixty-two times in the chapter's sixteen pages, although it was, no doubt, being used as a relativist term for an adversary. As with *CD22*, the term 'small war' is notable by its absence, despite its common use in the contemporary lexicon. The chapter remained generic and did not focus on 'air control' (a command relationship, rather than a tactic), although the doctrine would have been applicable to such situations. The chapter covered air operations against an enemy who had little or no industrial organisation and a comparatively primitive political system but who were operating in country familiar to themselves and ill-suited to modern arms. The chapter was divided into several sections covering: 'The Characteristics of Operations against a Semi-Civilised Enemy'; 'General Effect of the Employment of Aircraft'; 'The Selection of Objectives in Air Operations'; 'Methods of Air Attack'; 'Aircraft in Co-operation with Land Forces'; 'Air Operations in Support of Land Operations'; and 'Employment of Air Forces in Support of Civil Administration'. The doctrine emphasised that the principles described in the rest of *AP1300* held true, but that their application needed to be largely modified. One of the most significant new themes was the categorisation of air operations against a semi-civilised enemy into two distinct aims: subduing a turbulent or troublesome people on or beyond a country's frontiers; and creating or restoring law and order within a country's borders. *AP1300* recognised that the main challenges of this form of warfare were, for the Army, the natural difficulties of movement and communications (noting that 'The most determined foes are generally those who inhabit the least accessible localities') and, for the Air Force, the lack of vulnerable objectives.<sup>114</sup> Indeed, the normal absence of targets was the reason for focusing on morale effect via the interruption of normal life; where 'proper' targets were present, the strategy would differ little from major wars.<sup>115</sup> The chapter set these operations in a wider context by pointing out that the aim was to

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<sup>114</sup> Air Ministry, *AP 1300*, Ch XIV para 5-6.

<sup>115</sup> *Ibid.*, Ch XIV para 5. 9. 19.

‘induce the enemy to submit, with the minimum destruction of life and property and with due regard to economy in time money and energy’.<sup>116</sup> Efficient intelligence was described as ‘essential’ (but with little further elucidation), and firm, immediate action could stop unrest from spreading.<sup>117</sup> As in several of the previous minor doctrinal publications, semi-civilised ‘enemies’ were characterised as regarding war ‘rather in the light of a game’ which involved inflicting casualties, capturing loot and outwitting their opponents, while it was claimed that aircraft could place these inducements out of reach. Although aircraft could react quickly, *AP1300* warned that the temptation to act quickly should be avoided until political means had been exhausted.<sup>118</sup> While timely airborne demonstrations could prevent the outbreak of hostilities, *AP1300* took a more brutal approach than Glubb; lethal force could be applied with as much or little warning as required. Similarly, surprise attacks against a concentrated enemy could inflict effective casualties.<sup>119</sup> While this might be necessary in punitive operations, it could be counter-productive if the district was to be re-settled and could create the conditions for continued lawlessness.<sup>120</sup> Nonetheless, *AP1300* offered that the most effective tactic was to drop warnings to disperse the enemy from their villages and fields, indefinitely interrupting normal tribal life by persistent aerial harassment. Crops were described as difficult to destroy effectively from the air, leaving the inhabitants and their possessions as the primary air objectives. The enemy fighting force seldom presented a suitable objective for attack unless forced to converge on ‘focal points’ such as mountain passes.<sup>121</sup> Because the success of air operations was dependent on moral effect, any suspension of attacks would reduce air power’s effectiveness.<sup>122</sup> Overall, *AP1300* stated that, where the ‘enemy’ was dependent on settled activities

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<sup>116</sup> Ibid., Ch XIV, para 10.

<sup>117</sup> Ibid., Ch XIV, para 5-6.

<sup>118</sup> Ibid., Ch XIV, para 25.

<sup>119</sup> Ibid., Ch XIV, para 16.

<sup>120</sup> Ibid., Ch XIV, para 19.

<sup>121</sup> Ibid., Ch XIV, para 22.

<sup>122</sup> Ibid., Ch XIV, para 25.

and possessions, the independent use of air power could achieve the aim unaided. However, some conditions were challenging for air power, such as close or broken country, an opponent with few territorial ties or possessions, or where friendly and hostile tribes were intermixed. In these conditions, *AP1300* recommended that it was best to combine the mobility of aircraft with the direct action of troops, with the Air Force either co-operating with, or indirectly supporting, ground forces. Thus, the chapter contains some inconsistencies, as the acknowledged general lack of material objectives would indicate that the independent use of air power would not be as effective as joint air-land operations, except perhaps in purely punitive operations.<sup>123</sup>

Chapter XIV's section on the 'Methods of Air Attack' included relatively little new material. The need for accurate weapon delivery was emphasised, along with the complications caused by the lack of accurate maps and featureless terrain, which could be mitigated by airmen developing local knowledge of the country. Night bombardment was important in denying tribesmen respite and could be of particularly high moral value; when impractical, long-delay fuzes could, as in *CD22*, achieve similar results. Advice on weapon-to-target matching was provided in marginally more detail than *CD22*, but much less than in *ASM19*.

'Air Co-operation with land forces' in undeveloped and semi-civilised countries was also covered in Chapter XIV, which opened with a statement that the principles remain the same as in Chapter XII, but that their application varied due to the differences in the nature of the operations, the topography and the opponents' weapons. Significantly, the lack of aerial opposition would allow aircraft to conduct direct co-operation unhampered. The main duties of aircraft in this role were to locate the enemy, support friendly troops and observe artillery fire, duties which, in close, mountainous or unmapped country, presented challenges not encountered in major wars. By using aircraft to search reverse slopes, the Army commander might be able

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<sup>123</sup> Ibid., Ch XIV, para 19.

to reduce the number of picqueting troops and aerial support could be particularly effective in stiffening the resolve of irregular or inexperienced native troops. However, using aircraft to observe artillery fire could be challenging due to the steep slopes. As the opportunities for directly attacking the enemy could be fleeting due to their use of terrain and the difficulty in differentiating between the enemy and the local population, all aircraft, irrespective of their primary role, should engage the enemy with bombs or machine-gun fire when the opportunity presented itself. Advanced aerodromes should be established as near as possible to the fighting troops to balance the competing requirements of security and logistics afforded by centralised airfields against the need for close liaison and consultation with Army personnel. An Air Force liaison officer should accompany an advancing column to advise the Army commander, select advanced aerodromes and maintain W/T contact with both the nearest aerodrome and airborne aircraft.<sup>124</sup> The issue of how to deal with captured personnel was addressed. *AP1300* strongly recommended that this should not be allowed to influence the conduct of any operation, a policy which, it offered, would be the best protection for captured prisoners.<sup>125</sup> In contrast, the Army had a history of appearing embarrassed by the ramifications of captured aircrew to the extent, at times, of appearing to prefer to accept friendly casualties rather than air support.<sup>126</sup>

*AP1300*'s Chapter XIV also described 'Air operations in support of land operations', which it defined as any of a multitude of indirect methods to facilitate the progress of land operations. These could range from direct attacks to reduce the strength or morale of enemy forces, through the swift support of isolated army

<sup>124</sup> Nonetheless, two-way W/T contact with aircraft was not always possible in mountainous terrain, so aircraft might have to communicate with troops by message-dropping, although the picking up of messages by aircraft was often impracticable and *AP1300* recommended that visual signalling should always be available.

<sup>125</sup> Air Ministry, *AP 1300*, Ch XIV, para 37-46.

<sup>126</sup> For example, two aircraft force landed during operations against the Mahsud in 1923; 'Their capture caused much embarrassment to the GOC the Waziristan Force in his conduct of the operations'. See IOR/L/MIL/7/16930, General Lord Rawlinson, *Despatch by His Excellency General Lord Rawlinson of Trent, Commander-in-Chief in India on the Operations of the Waziristan Force for the period 1st January 1922 to 20th April 1923*, 25 July 1923, 3.

garrisons, to communications and emergency resupply by parachute. Air patrols over lines of communication could deter attacks on convoys and, the chapter offered, repeated appearances could influence neighbouring tribes to remain neutral. 'Ancillary' services, such as rapid troop transportation, could be decisive while casualty evacuation could avoid the embarrassment associated with a 'modern' suffering significant casualties against a semi-civilised opponent. From the duties listed, it appears that the main differentiation between the 'co-operating' and 'support' roles was the command relationship, with co-operating aircraft being controlled by the Army commander, while the 'supporting' aircraft were tasked independently, although this is not explicitly stated. Interestingly, all these support roles have been used in the recent operations in Iraq and Afghanistan.

Chapter XIV's section on the 'Employment of Air Forces in support of Civil Administration' was one of the first direct articulations of this role. Although only five paragraphs long, it conveyed an uncompromising approach with no recognition of the dilemma of using force to maintain civil order. Instead, law and order in an 'uncivilized' country required sound and 'strong administration'; the native would judge the authorities by 'its capacity to mete out suitable and adequate punishment without delay'.<sup>127</sup> The approach was not completely brutal, however, and *AP1300* underlined that air bombardment could have a high moral effect without excessive material damage. Indeed, it recommended that casualties within women and children should be avoided by dropping warnings. Furthermore, the limitations of the use of air power were recognised, such as its inability to identify insurgents in 'close country' or to distinguish them from friendly civilians in towns, with the statement that, in these circumstances, 'air bombardment is less suitable than military action'.<sup>128</sup> Nonetheless, it was caveated that, in normal circumstances, air action was effective without being

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<sup>127</sup> Air Ministry, *AP 1300*, para 51.

<sup>128</sup> *Ibid.*, 52.



too severe. This first attempt at the articulation of doctrine for maintaining civil order was not only brief, but also focused purely on the effect of bombardment, which was arguably the least appropriate air capability.

It would appear that many of the tactics outlined in *AP1300* reflected contemporary practice in India, although there is little evidence of its hard line over casualties; indeed, evidence suggests that the main effect intended was the dislocation of everyday life. According to Bowyer, the diary of an RAF officer in India from the late 1920s recorded:

the Political Agent (PA) would summon the tribal leaders to a *jirga* (meeting) at which he would tax them with their sins and pronounce government penalty – usually a fine of rifles and/or rupees... The PA would then issue his ultimatum which normally gave the tribes another week in which to get to their caves in the nearby hills habitable. The day before this ultimatum expired squadrons would demonstrate over the village and drop leaflets tied to small pieces of rock and containing a reminder that all women and children should be removed. The fact that nobody could read was immaterial – everyone knew the rules. The war would last anything up to a fortnight before the tribesmen would indicate their willingness to try and raise the necessary (fines). It was generally accepted that the surrender was not brought about by the bombing, most of which made little impression on the strongly-built forts and towers, but by the myriad vermin which infested the hill caves!<sup>129</sup>

Overall, *AP1300*'s chapter on Undeveloped and Semi-civilised Countries was evolutionary rather than revolutionary. Whilst more detailed and embellished than the equivalent *CD22* chapter (having sixteen pages versus *CD22*'s nine), it had a less idealistic tone, with a willingness to note the limitations of air power in this role. This was largely gained from experience from areas under air control during the six years since *CD22* had been published. There were a limited number of new themes, such as the use of air power to support the civil administration, but the doctrine still advocated the infliction of mass casualties, when appropriate and achievable, with the onus for avoiding casualties amongst women and children being placed on the tribes

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<sup>129</sup> Bowyer, *RAF Operations 1918-1938*, 213-214. Frustratingly, Bowyer's book is of a genre and era that did not use accurate references. It is possible that Bowyer used personal interviews and had access to individuals' diaries that are not accessible in the archives.

willingness to heed warning notices. Where casualties or physical destruction could not be achieved due to the lack of vulnerable targets, coercive effect was administered through the dislocation of normal life, although it appears that the main driver for this latter, less lethal, application of air power was the inability to inflict casualties once tribes had dispersed rather than a desire to avoid them. Perhaps understandably, *AP1300* lagged behind the cutting edge ideas, as articulated by Glubb and Peck, for example, and failed to fully recognise the growing influence of public demand for the humane application of air power. *AP1300*'s absence of the themes elucidated by Peck probably reflects the latency in the process of producing publications when doctrine was developing rapidly. Nonetheless, it is clear that the tone of RAF doctrine had been subtly changed by its practical experience since *CD22* had been published.

## CONCLUSION

*CD22* was rapidly overtaken by developing doctrine. Air control in Iraq and Transjordan provided the RAF with evidence to counter Army claims that air power was 'untested'. Air Staff doctrine began by calling for substitution of land forces, with the Army relegated to protecting aerodromes and a focus on the relative invulnerability of aircraft and their ability to swiftly nip unrest in the bud. However, in practice, AOCs often made good use of joint forces, mitigating the risk to ground expeditions by their use of aircraft, allowing audacious operations. The practice of demonstration flights developed (with an appreciation of avoiding their over-use) along with the use of leaflets to communicate intent to the tribes.<sup>130</sup> It became clear that bombing made tribesmen disperse and caused limited material damage, and doctrine rapidly developed to use this initial disadvantage to good effect by focusing on the dislocation

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<sup>130</sup> Currently known as 'Shows of Force' in the current military lexicon.

of normal tribal life, thereby reinforcing the importance of morale effect. This led to a lack of focus on precision bombing, with aircraft releasing from a safe (inaccurate) height. A highly developed intelligence service was required to support this coercive strategy by judging the offending tribe's mood during these 'blockade' operations, although it was acknowledged that religious fanatics were challenging. Accusations of the brutality of bombing, especially towards women and children, resulted in an increasingly political emphasis on the use of minimum force, legitimacy and civil-military distinction, which nested comfortably with 'dislocation' rather than destruction. Nonetheless, morale effect remained the key theme. This relied on the tribes' understanding of the potency of air power and their lack of opportunity for loot and sport. To support this, RAF doctrine did not shy from the sudden use of lethal force, including delayed-action bombs and incendiaries. The RAF countered the threat of the Army 'penny packeting' by calling for close political control of the use of aircraft via the AOC, thereby circumventing Army control to some extent. By the end of the period, in-theatre airmen were expressing an understanding that air power could not address the root cause of the NWF 'problem', but could support the policy of road building and reduce the requirement for expensive military garrisons.

Joint operations were not without issues. Tribesmen became adept at concealment and aircraft had difficulty in differentiating friend from foe. This required army co-operation aircraft to conduct low-altitude, precision attacks and risked the embarrassment of capturing aircrew. Additionally, aircraft had limited loiter time and air-ground communications were challenging. However, aerial reconnaissance, limited troop transportation and casualty evacuation had become demonstrated capabilities, as had the ability for limited aerial resupply.

It is also clear that, while there was significant disagreement between the Air Staff and the IO, in-theatre units co-operated effectively, with army co-operation

squadrons falling under the direction of their associated Army formation, although the need for an Army air arm was occasionally voiced.

## **CHAPTER 5 – RAF TACTICS AND DOCTRINE, 1928-39**

### **INTRODUCTION**

This Chapter examines the factors that shaped the evolution of RAF small wars doctrine following the publication of *AP1300*. The discussion over substitution was re-ignited by Trenchard as he left office in 1929, resulting in a Manichean response from some Army quarters and even calls for the re-absorption of the RAF into its parent Services, with India being at the centre of this storm. The Geneva Conferences also raised the debate over the humanity of air power. These factors, combined with in-theatre opportunities, resulted in a further broadening and deepening of air power small war doctrine: a broadening to encompass less kinetic, ethically justifiable roles; and a deepening to underpin existing and evolving roles with critically-examined examples. However, towards the end of the 1930s, a combination of needs and adaptable personalities resulted in doctrinal convergence in India with the publication of the *Combined Frontier Manual*.

### **MINOR DOCTRINAL PUBLICATIONS**

In late 1928, the CID distributed an Air Staff memorandum concerning the regulation of air control in undeveloped countries. Over 160 copies were distributed, including fifty 'for information' copies to India.<sup>1</sup> The two-page document discussed the primacy of air power's moral effect, explaining that it could be intangible and difficult to

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<sup>1</sup> AIR 9/12, E20; IOR/L/PS/12/1957, Air Staff, *Notes by the Air Staff on the Regulation of Air Control in Undeveloped Countries*, 21 November 1928, 133; IOR/L/PS/12/1957, J C Walton, *Memo, India Office to Secretary of the Government of India, Foreign & Political Department*, 18 June 1929; IOR/L/PS/12/1957, Foreign Secretary to the Government of India, *Distribution List of the Memorandum Prepared by the Air Staff on the Regulation of Air Control in Undeveloped Countries*, 19 December 1929; IOR/L/PS/12/1957, J G Laithewaite, *Memo, India Office to Secretary, Committee for Imperial Defence*, 16 January 1930. The Memo appears to have been well received by the GoI, as they distributed their copies to all Residents, Chief Commissioners, Political Agents, consuls, the GS(India) and GOCs and their deputies (but not RAF(India)) and subsequently asked for an additional twenty copies.

understand compared to land operations, because it often lacked attributes such as defined phases, columns of troops, friendly casualties and close-quarter combat. The application of the desired moral effect depended on intimate co-operation between the RAF commander and the local political authorities. Indeed, the Air Staff drew a parallel between air power and diplomacy, claiming that their coercive natures were very similar, depending on the opponent being unsure as to the lengths the British were prepared to go to in order to achieve their aims, or what the next steps would be. Departing from the previous doctrine, the Air Staff now recommended a cessation of hostilities when the moral effect was deemed to be affecting the tribesmen's normal mode of life to allow negotiations to take place, thereby avoiding unnecessary prolongation of the offensive – a theme which would prove controversial. Additionally, the AOC's dependency on the Intelligence Service to achieve a quick, economical and humane outcome was mentioned, along with the need for rapid political decision-making. The aim was to be able to deliver 'retribution' at a range of 200 to 300 miles within 12 to 24 hours of its sanction, thereby avoiding the long delays normally associated with punitive columns. The need to avoid limiting air power's potential by constraining it to tactical defensive actions in confined geographic areas was highlighted, with a recommendation that it be allowed the necessary freedom of manoeuvre and used as an offensive tool.

Despite being published in July 1928, it is apparent that *AP1300*'s Chapter XIV on Undeveloped and Semi-civilized Countries was rapidly deemed to be in need of modification. Someone was at work in the Air Ministry on New Year's Day 1929 to publish *ASM41: Some Points on the Administration of Air Control in Undeveloped Countries*.<sup>2</sup> This confidential document was written to be read in conjunction with *AP1300* and described 'certain basic principles which have emerged as a result of

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<sup>2</sup> The author was possibly Wing Commander Peck or Squadron Leader Slessor. See *The Monthly Air Force List*, (London: HMSO, 1929).

recent experience'. Despite *AP1300* mentioning the morale effect of air power fifteen times in Chapter XIV, *ASM41* started by repeating this now familiar theme, possibly due to continued comment about the limited physical effects of air bombardment:

The aim of air action is the moral attack upon the nerves, the habits, and the means of livelihood of the peoples... it inflicts neither great nor permanent suffering.<sup>3</sup>

*ASM41*'s second theme, mentioned in less detail in *AP1300*, was the need for the closest relationship between the RAF Commander and the political (rather than military) authority. Because the moral impact of air action upon the 'enemy' was less physically apparent and tangible than the normal objectives of the Army or Navy, the political authority's intimate knowledge of the enemy's habits and characteristics was essential in judging when air action should be 'imposed, extended or suspended' while keeping the enemy uncertain of how the authorities were prepared to go to achieve their objectives. The third theme was more novel. Previously, intelligence had only been mentioned in passing (although *AP1300* acknowledged it was 'essential').<sup>4</sup> However, *ASM41* emphasised the role of intelligence in understanding the enemy and in judging his changing state of morale as a coercive air campaign progressed. Additionally, when necessary, swift air action could achieve a significant moral effect but was dependent on 'a corresponding rapidity in the service of information'.<sup>5</sup> But swift intelligence was not in itself enough; the fourth theme was the need for a rapid decision-making process to match the speed and tempo of air operations, something that was, again, dependent on an intimate relationship between the RAF Commander and the civil authorities. *ASM41*'s final theme was that aircraft were inherently offensive; when used defensively, they required room for manoeuvre to break up enemy formations in a manner akin to offensive action. Importantly, there was also a

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<sup>3</sup> AIR 9/28, Air Staff, *Air Staff Memorandum 41: Some Points on the Administration of Air Control in Undeveloped Countries*, 1 January 1929, 1.

<sup>4</sup> Air Ministry, *AP 1300*, Ch XIV, para 7.

<sup>5</sup> Air Staff, *ASM 41*, 3.

forthright statement that it could not restore order in cities (any more than artillery could) due to the collateral damage resulting from bombardment in densely populated areas. Published just five months after *AP1300*, *ASM41* demonstrated how the Air Staff was rapidly adapting and evolving RAF doctrine to be more widely acceptable, while not shying away from clearly stating the limits of the aeroplane. Perhaps most importantly, it is clear that the RAF wanted its squadrons in undeveloped countries to be directly accountable to the political authorities, rather than being subordinated to the Army – something that was at times a distinct point of friction on the NWF, as discussed later.

*ASM41* was superseded in March 1930 by Slessor's similarly-named *ASM46: Notes on Air Control of Undeveloped Countries*.<sup>6</sup> Like its predecessor, its aim was to supplement Chapter XIV of *AP1300* and make all RAF officers aware of the theory and development of air control policy. This was something the Air Staff appeared to want all its officers to be able to clearly articulate, no doubt to counter criticism from the other Services. Indeed, the *ASM*'s tone is adversarial, consistently highlighting the disadvantages of land operations and the advantages of air power while countering contemporary criticisms of air control. Like its predecessor, its title was slightly misleading, in that it focused neither exclusively on air control nor 'undeveloped' countries; the general principles applied to the NWF and semi-civilised societies and there were several direct references to the Indian Frontier. It was, however, significantly longer and more detailed than *ASM41* (12½ versus 3½ pages).

Unsurprisingly, all the main themes from *ASM41* persisted into *ASM46*. However, *ASM46* expanded upon them. Air Commanders needed to be familiar with any conflict's political dimensions to judge when the 'moral end' had been reached

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<sup>6</sup> AIR 9/28, ———, *Air Staff Memorandum 46: Notes on Air Control of Undeveloped Countries*, 24 March 1930; AIR 75/29, Wing Commander J C Slessor, *Letter, Officer Commanding 3(Indian) Wing to Air Commodore Bertie Sutton, Senior Air Staff Officer, HQ RAF India*, 15 April 1935, 2. Slessor's biography is at [Annex 7](#).



and offensive operations should be suspended. The *ASM* noted that the expression 'moral effect' was frequently misunderstood and referred not to the immediate reaction to high explosives but to the cumulative effect of fear, boredom, acute discomfort, material loss and feeling of impotence as a result of the complete dislocation of normal life. Claims that air control was 'an impersonal mechanical system which is lacking in the important elements of sympathy and understanding of tribal politics and conditions' were 'a complete misapprehension of air methods';<sup>7</sup> instead, intelligence endowed the Air Commander and political officers with 'an intimate understanding of the habits and mentality of the tribes'.<sup>8</sup>

*ASM46* contained additional themes to those of *ASM41* (although several of these were not new), such as: 'control without occupation' (the substitution of antagonistic garrisons by aircraft); and economy (whereby the aeroplane's speed and range allowed it to rapidly project effects over a wide area with a small force from secure airfields or advanced landing grounds, avoiding vulnerable lines of communication). Additionally, in punitive operations, it was vital to decide whether the air or land forces would have 'primacy'. The aim of ground operations was to compel the tribesmen to concentrate (by threatening that which they treasured) so decisive casualties could be inflicted. In contrast, air power's moral effect was achieved by forcing the tribesmen to disperse from their villages. Therefore, if land forces had primacy, air action should conform with the military tactical plan and not be applied too early, lest the enemy disperse. The *ASM* recommended that tribal 'outrages' should be sharply punished without negotiation. However, in most cases, the escalatory methods of negotiation, leaflet dropping, demonstration flights, and bombing carefully selected objectives, all judged against the changing morale of the tribe, were effective. Leaflets could also be used to deter neighbouring tribes from harbouring offenders.

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<sup>7</sup> Air Staff, *ASM 46*, 8-9.

<sup>8</sup> *Ibid.*, 9.

*ASM46* highlighted that the relative invulnerability of aircraft denied the tribesmen the 'sport' and 'loot' of conflict, thereby removing much of the inducement for neighbouring tribes to become involved and localising any unrest.<sup>9</sup> It rejected the criticism that air bombardment was unjustifiably brutal. Loss of life was 'very much less than in military operations on the ground' on both sides and 'there is no doubt that the control of turbulent tribesmen from the air is more merciful' than garrisoning; all warlike operations inevitably inflicted casualties on women, children and non-combatants, including punitive expeditions and naval blockades. However, the aim of air operations was not to inflict casualties, and invariably warning notices were dropped instructing women and children to be removed. The increasing accuracy of bombing had dispelled the accusation that bombing was indiscriminate or alienated the tribes. Indeed, witnesses had testified to the exact contrary: air action 'leaves no special legacy of hate, and causes no personal rancour or retaliation on women or other individuals'.<sup>10</sup> Another theme was that, whilst a 'salutary and lasting lesson' might occasionally be required, the tribesmen had to be governed subsequently. To achieve this, air operations should be confined 'to the minimum consistent with the object' and, once terms had been accepted, medical assistance should be rendered whenever 'necessary and possible'.<sup>11</sup> *ASM46*'s final theme was important and concerned aerial communications. Aircraft improved political contact with the tribes which increased the personal influence of the political officers, allowing disputes to be resolved without resorting to armed force. Similarly, aerial reconnaissance of roads and police posts facilitated inter-unit communication while simultaneously deterring offenders from interfering with traffic.

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<sup>9</sup> *Ibid.*, 13-14. Harris had articulated this theme as 'no honour, glory, or loot, to be obtained from opposing the air' in his 1929 individual student essay while at Army Staff College. See Harris, "Air Control in Iraq, and Elsewhere": 4.

<sup>10</sup> Air Staff, *ASM 46*, 12-13.

<sup>11</sup> *Ibid.*, 14.

Overall, *ASM46* demonstrated the continued progressive development of RAF doctrine. The interweaving of NWF examples in a publication ostensibly about air control hints at RAF ambitions to further air control. Indeed, four months earlier, just prior to his retirement, Trenchard had published his ‘swansong’, *The Fuller Employment of Air Power in Imperial Defence*, in which he proposed, amongst other suggestions, that air control be adopted on the NWF and that the Army’s covering troops be replaced by five or six new squadrons.<sup>12</sup> Thus, *ASM46* was probably published to provide tactical detail and evidence to support the contentions in Trenchard’s Cabinet Paper. It also reveals that the Air Staff were thinking more widely about the use of air power than just a purely punitive instrument, and were starting to recognise the political significance of ethics in the application of air power.

In anticipation of the 1930 Imperial Conference (the periodic gathering of Government leaders from around the Empire), the Air Staff published *ASM47: Air Power and Imperial Defence*, in May 1930.<sup>13</sup> It described the principal developments in the employment of air forces since the 1926 Imperial Conference, presumably to inform the delegates about current air power capabilities. Interestingly, in listing the responsibilities of Imperial Defence devolved to the RAF, the *ASM* failed to mention air power’s role in supporting the Army, even in India, although examples from the NWF pervaded the document.<sup>14</sup>

Within the context of this Thesis, *ASM47* is useful in providing a snapshot of the

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<sup>12</sup> CAB 24/207, Marshal of the Royal Air Force Sir Hugh Trenchard, *Cabinet Paper 332 (29): The Fuller Employment of Air Power in Imperial Defence*, November 1929. The phrase ‘swansong’ was coined by Hankey; see Trenchard Papers, RAF Museum, MFC 78/23/1, Colonel Sir Maurice Hankey, *Personal letter to Viscount Trenchard*, 16 December 1935. The episode is discussed in Chapters 6 and 7.

<sup>13</sup> AIR 5/171, Air Staff, *Air Staff Memorandum 47: Air Power and Imperial Defence*, November 1930. Although written in May 1930, it was not published as an *ASM* until November 1930. The Imperial Conference began in late September 1930.

<sup>14</sup> *Ibid.*, 1. The RAF’s responsibilities in Imperial Defence were listed as: air defence of the UK; the provision of the Admiralty requirements for the Fleet Air Arm; RAF contingents to the Expeditionary Force; control of Iraq, Palestine, Transjordan and Aden; assistance in the maintenance of sea communications in narrow waters and the defence of fuelling bases; and assistance in the development of Imperial air routes.

principal attributes, developments and roles of air power deemed worthy of being brought to the attention of the delegates. It emphasised the aircraft's increased striking power resulting from improving ground-to-air communications, range, navigation and bombing precision.<sup>15</sup> Air power was efficient, humane and economic when used promptly in restoring and maintaining order in undeveloped countries where suitable conditions existed.<sup>16</sup> The use of 'heavy transport' aircraft to rapidly concentrate troops or armed police in internal security emergencies (particularly towns, where direct air action was not appropriate) was gaining rapid recognition with governing authorities. Airborne casualty evacuation during minor operations was now becoming 'the accepted method'.<sup>17</sup> Air transport was also becoming increasingly capable of resupplying remote garrisons;<sup>18</sup> air transport could even drop fragile supplies to columns in the field.<sup>19</sup> The aerial conveyance of Governors or political officers to outlying provinces was become a normal task in India, Iraq, Persia and Afghanistan. Aerial photographic mapping had been used in frontier delineation and archaeological sites. Additionally, examples of the rapid provision of medical aid were 'too numerous to mention'. Aircraft had also been used to support the local population following natural disasters such as floods and anti-locust campaigns.<sup>20</sup>

Given that *ASM47* was produced to inform the Heads of Government from around the Empire, the memo probably reflected the roles that the Air Staff considered were of

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<sup>15</sup> Bombing accuracy was defined as the radius of the circle within which 50% of bombs would fall. Bombing accuracy at this time was quoted as being 53 yards for normal attacks and 26 yards for low-altitude attacks. *Ibid.*, 2-3.

<sup>16</sup> Examples quoted of the increased use of air power included Aden (which had adopted air control in 1928) and the NWF, where two additional squadrons (No 11 and 39(Bomber) Squadrons) had been deployed in late 1928 as the nucleus of a flying reserve for defending Singapore (see Boyle, *Trenchard*, 573).

<sup>17</sup> The 1928/29 evacuation of the British legation from Kabul was quoted as an example of the use of air power to transport large numbers of personnel. Since 1923, more than 1000 casualties had been evacuated by air. See Air Staff, *ASM 47*, 5.

<sup>18</sup> The *ASM* described how one heavy transport squadron had transported 490 tons in South Iraq during a four-month operation in 1928/29 and impending aircraft undergoing trials could transport a ton of stores almost a thousand miles or convey 25 troops 500 miles.

<sup>19</sup> Air Staff, *ASM 47*, 5.

<sup>20</sup> *Ibid.*, 7-8.

strategic interest at the time. There was relatively little emphasis on offensive action; instead, the *ASM* focused on the various air transportation roles. This resonates with subsequent air discussion at the 1933 Geneva Disarmament Conference.<sup>21</sup>

At first glance, it might appear coincidental that the next significant doctrinal publication after *ASM47* described “The Development of the Heavy Transport Aeroplane”, published in the October 1930 *JUSII*.<sup>22</sup> However, closer examination reveals that the author, Flight Lieutenant Dickson, was at the time of publication, the Personal Assistant to AOC(India), Sir Geoffrey Salmond.<sup>23</sup> Thus, it is likely that ‘heavy transport’ was a theme of growing importance to the RAF in Imperial defence, and Dickson’s article may have reflected Salmond’s views. At this time, the only heavy transport aircraft in the Middle East were 216 Squadron’s Victorias in Egypt and 70(Bomber) Squadron in Iraq. Dickson explained that logistical constraints precluded the deployment of additional aircraft types to India and that specialised, single-role transport aircraft were ‘an expensive, although sometimes essential, luxury’.<sup>24</sup> However, 70(Bomber) Squadron had already demonstrated its utility in India by deploying seven 22-seat Victorias to the NWF during the 1928/29 evacuation of Kabul.<sup>25</sup> The main justification for these aircraft was strategic mobility:

No garrison in the Empire can be expected to deal with every contingency which may threaten it without assistance. The Air Force units overseas are accordingly linked by air routes and organised so that reinforcing squadrons may be flown to any theatre of operation.<sup>26</sup>

Dickson described the need for squadrons to be able to deploy as autonomous units; three heavy transport aircraft could transport sufficient bomber squadron personnel

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<sup>21</sup> See Chapter 7.

<sup>22</sup> Dickson, “The Development of the Heavy Transport Aeroplane”.

<sup>23</sup> *The Monthly Air Force List*, (London: HMSO, 1930), 76.

<sup>24</sup> ———, “The Development of the Heavy Transport Aeroplane”: 456.

<sup>25</sup> AIR 5/1321, Air Marshal Sir Geoffrey Salmond, *Command 3400: Report on the Air Operations in Afghanistan Between December 12th, 1928, and February 25th, 1929*, September 1929, 9-11.

<sup>26</sup> Dickson, “The Development of the Heavy Transport Aeroplane”: 455-456.

and equipment to allow the bomber squadron to operate from a 'wing station' until reinforced by surface transport.

Dickson explained that the new Vickers Valentia was a multi-role aircraft.<sup>27</sup> In its primary role as a fast troop carrier and ambulance, it could fly a platoon immediately into a danger area, nipping serious trouble in the bud, and avoiding the necessity of despatching large punitive columns at a later date'.<sup>28</sup> It could be adapted to carry aircraft engines, petrol tanks and up to 2.5 tons of bulk stores, allowing the provision or re-ammunition of outlying or beleaguered garrisons. Dickson noted that heavy transports were stable bombing platforms able to carry six times the bomb load of day bombers over much greater distances. India was well aware of the strategic effect that such aircraft could deliver following the pivotal V/1500 raid on Kabul during the 1919 Third Afghan War. On Frontier control duties, the heavy transport's long endurance allowed it to loiter at height for long periods with a large payload of small bombs, influencing hostile tribesmen over a large area and for far longer than the fleeting attacks of day bombers. If punitive action was required against recalcitrant tribes, the heavy transport could achieve the objective more quickly than the day bomber aircraft. Dickson concluded that the heavy transport's multi-role capability was no longer supplemental to conventional bombers and that 'For India in particular, with its long external and weak internal communications, possibilities of internal unrest, its tribal territory to control and a frontier to defend, it appears to be peculiarly well adapted'.<sup>29</sup>

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<sup>27</sup> The Valentia was an up-engined Victoria.

<sup>28</sup> Dickson, "The Development of the Heavy Transport Aeroplane": 457.

<sup>29</sup> Ibid.: 459. The same enduring characteristics of endurance and payload are shared by both the 1930s heavy transport and the USAF's current B1 bomber, so it is not surprising that the Frontier role envisaged by Dickson is strikingly similar to the use of the B1 in Operation ENDURING FREEDOM where it delivered over 60% of the weapons dropped in Afghanistan. See Tom Vanden Brook, "B-1 bomber mission shifts from Afghanistan to China, Pacific", *USA Today* (2012), <http://usatoday30.usatoday.com/news/military/story/2012-05-11/b-1-bomber-obama-new-strategy/56097706/1>.

*ASM48: Notes on the History of the Employment of Air Power* was published as a 'companion' to *ASM46* later in 1930.<sup>30</sup> It consisted of a survey of the employment of air power in Somaliland, Iraq, Aden and India since 1920. Its main focus is clear; thirty-six percent of the main body systematically described NWF operations, recording each operation's aim, a narrative, the results and costs (in human and financial terms). All the examples involved coercive action, in contrast to the wider roles described in *ASMs 46* and *47*. Despite its usefulness as an operational compendium, *ASM46's* main relevance to this Thesis lies in the reason it was written. The preface makes the purpose clear:

In view of the present currency, in ill-informed circles, of many depreciatory statements regarding the efficacy of air power, it is hoped that the present memorandum will be of interest and value to Royal Air Force officers.<sup>31</sup>

The *ASM* is important because it highlights the RAF's sensitivity to criticism and that it took steps to educate all officers so they could rebut any disparaging comments from an informed perspective. Given that its purpose was to provide RAF officers with evidence to counter criticism of the employment of air power in undeveloped countries, and the *ASM's* emphasis on India, it is likely that the criticism mentioned was a reaction to Trenchard's recently-published swansong.<sup>32</sup> However, its focus on bombing alone would indicate that it was this RAF role that was being disparaged. *ASM48* was deemed sufficiently important to be revised and re-published in August 1935.

*ASM49: Air Policy in Imperial Defence – Some Current Problems*, is worthy of a brief mention.<sup>33</sup> This *ASM* is the transcript of a confidential address by CAS, Jack Salmond, to the Imperial Defence College in 1930. Salmond argued for 'active co-

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<sup>30</sup> Air Staff, *ASM 48*.

<sup>31</sup> *Ibid.*, 1.

<sup>32</sup> Trenchard, *CP 332 (29)*. Trenchard's swansong and its impact are discussed in Chapters 6 and 7.

<sup>33</sup> AIR 9/8, Air Staff, *Air Staff Memorandum 49: Air Policy in Imperial Defence - Some Current Problems* 1930.

operation' between all three Services to discern how much common ground could be found, noting that disagreements were often over 'method', with each Service pressing its own claims, but that the College presented the opportunity to nurture co-operation. He also noted the importance of the strategic mobility endowed by heavy transport aircraft. Although two Handley Page Clives had recently been deployed to India, Salmond noted that, if a whole squadron was available, Singapore could be reinforced with combat ready squadrons within five days. Although CAS's vision of strategic mobility was subsequently supported by a Tribal Control and Defence Committee set up in 1931 which recommended an immediate increase in air strength by one heavy transport squadron (to be followed by a second a year later), this was refused by the Viceroy, C-in-C(India) and senior GoI members, with the curt response that they were 'unable to contemplate at present any increase in Air Strength'.<sup>34</sup> This illustrated the difference between the Air Staff's strategic vision and the in-theatre Army view. As all RAF India units were funded by India under the direct command of C-in-C(India), the heavy transport issue also demonstrated how the Air Staff's strategic aspirations could be impeded by parochial decisions inside India.

An important new line of discursive articles sprouted with the launch of the *RAFQ* in January 1930. This unclassified publication gave the RAF a semi-official public and internal mouthpiece. However, with a predominantly sympathetic Air Force readership, the tone of these articles was generally less defensive and more persuasive in nature than the *JRUSI* and *JUSII* articles. Thus, they reveal less about inter-Service relations than their predecessors, being subjected generally to peer,

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<sup>34</sup> IOR/L/PS/12/3171, Willingdon et al., *Letter to Secretary of State for India: Frontier Tribal Control and Defence Against Incursions*, 15 September 1931, 5 (also published as CAB 16/87, Evelyn B Howell et al., *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power) - Report of the Tribal Control and Defence Committee, 1931 (DI/AP) 12*, 26 March 1931). The Tribal Control Committee was chaired by Sir Evelyn Howell (Resident, Waziristan, 1924-26, while the other members were AOC(India), Sir John Salmond's brother, Sir Geoffrey Salmond, Deputy CGS(India), Major-General Sir Sydney Muspratt, and the finance member, Mr A C Badenoch. The Committee is sometimes referred to as the 'Howell Committee'.



rather than inter-Service, review. Early *RAFQ* articles of relevance included Wing Commander McClaughry's prize-winning essay on the role of armoured cars in air control (in which he advocated that armoured cars were an essential complement to aircraft, and that the closest co-operation between air and ground forces, enabled by efficient communications, was required) and extracts from AOC(India)'s report on the 1928/29 evacuation of Kabul.<sup>35</sup> Of greater relevance was Hannay's article on "Empire Air Policy".<sup>36</sup> Hannay, a Cameron Highlander, summarised the popular perception of air power thus:

The very name of aeroplane seems to conjure up in many peoples [sic] minds, even in these enlightened days, visions of wild and indiscriminate bombing, machine gunning, and consequent wholesale butchering of innocent women and children. This, in fact, is almost invariably the underlying tone whenever air operations or extension of the policy of "air control" are mentioned.<sup>37</sup>

Hannay's article focused predominantly on the NWF and, like Hodsoll's *JUSII* article, used the phrase 'policing' in the context of aircraft. Hannay refuted the claim that 'personal touch' normally provided by the Army was lost under air control, as 'the people who really maintain that personal touch are the local administrators'; he also claimed that aircrew knew more about the tribes and their individual customs than the 'constantly changing regiments', although he emphasised that air control did not spell the complete disbandment of ground forces, but rather their concentration, with concomitant reductions in troop numbers.<sup>38</sup> Hannay did not sit on the fence concerning India: 'I advocate India as a country where air control can by degrees be

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<sup>35</sup> Wing Commander W A McClaughry, "The "Gordon-Sheppard" Memorial Prize Essay, 1929: Discuss the Part which Armoured and/or Armed but Unarmoured Vehicles Should Take in the Air Control of an Undeveloped Country; their Tactical Employment, the Types of Vehicle and Equipment which should be Developed for this Duty, and the Training of the Unit", *RAFQ* I, no. 3 (1930); Air Marshal Sir Geoffrey Salmond, "Report on the Air Operations in Afghanistan Between December 12th, 1928, and February 25th, 1929", *RAFQ* 1, no. 1 (1930). Wilfred McClaughry was the brother of Edgar Kingston-McCloughry; they both became air vice-marshals. Kingston-McCloughry's biography is at [Annex 7](http://adb.anu.edu.au/biography/mccloughry-edgar-james-7788). See also: Alan Fraser, 1986, "McCloughry, Edgar James (1896–1972)", Australian National University, <http://adb.anu.edu.au/biography/mccloughry-edgar-james-7788> 10).

<sup>36</sup> Captain A P C Hannay, "Empire Air Policy", *RAFQ* 1, no. 4 (1930).

<sup>37</sup> *Ibid.*: 643.

<sup>38</sup> *Ibid.*: 645.

entirely substituted for ground occupation'.<sup>39</sup> At first glance, it appears strange that, at a time of such tension between the Army and RAF following Trenchard's swansong, an Army officer would advocate substitution by air power so fervently (although no doubt the RAF was happy to publish such an article in *RAFQ*). However, Hannay had served as a pilot on 20 Squadron at Quetta and the School of Army Co-operation.<sup>40</sup> Thus, he provided a very useful perspective from 'both sides of the fence'. As has been noted earlier, many Army practitioners supported the use of air power at the tactical level.<sup>41</sup> Disagreement was normally at a higher level where competition over budgets and political influence occurred. Nonetheless, Hannay was unusual in advocating substitution, something that was most probably the result of his previous Air Force experience. His atypical career background gave him an unusual, unpartisan and informed perspective, so his calls for substitution on the NWF are particularly interesting for the weight they carried.

The expanding ideas on the potential role of aircraft generated a certain amount of reaction in military journals, and in particular in the *JRUSI* and *JUSII*. In January 1930, Major Blacker of the Guides Infantry published "Modernized Mountain Warfare", strongly advocating aerial resupply.<sup>42</sup> Blacker wrote that punitive columns could be reduced by two-thirds by replacing mule trains and their picquets with supply aircraft. The resulting force would be highly mobile, moving at the speed of soldiers, rather than heavily-laden mules, allowing 'an undreamed-of freedom of manoeuvre'.<sup>43</sup> Cumbersome mountain artillery could be replaced by more powerful bombs. He also advocated the use of auto-gyros to replace field ambulances in hill warfare. The

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<sup>39</sup> *Ibid.*: 647.

<sup>40</sup> Hannay was re-seconded to the RAF over the period 1934 to 1939, rising to become the first post-FWW Army officer to command an RAF Squadron. At the time his article was published, he was serving in the Colonial Office.

<sup>41</sup> See, for example, the unexpected support Peck received from the Army audience of his 1928 presentation to RUSI described in Chapter 4.

<sup>42</sup> Blacker, "Modernized Mountain Warfare".

<sup>43</sup> *Ibid.*: 90, 92.

provision of ammunition by parachute would remove the soldiers' constraint of twenty rounds a day and allow the use of sub-machine guns and rifle grenades, which were more effective in mountain warfare than the flat-trajectory .303 bullet 'which merely splashes on the rocks'.<sup>44</sup> Small formations could be inserted, supplied, extracted, and any casualties evacuated, by air deep in hostile territory, 'making any enemy of the King feel insecure, however remote'.<sup>45</sup> Blacker's perspective was probably coloured by his professional background. The Guides had a long history as highly mobile frontier infantry focused on local, mountain tactics, rather than large-scale warfare. Nevertheless, his suggestions bear a striking similarity to more recent operations in Afghanistan, although his suggestion that aerially-delivered non-lethal persistent chemical sprays were more valuable than high explosives, and would avoid female and child casualties, did not endure. Blacker's views were not solitary, being reinforced by 'Light Infantry' a year later in the *JUSII*, although his nom de plume would suggest a similar regimental background.<sup>46</sup>

Blacker and 'Light Infantry's' enthusiasm for air power was not shared by all their colleagues. Major Fink published a critical *JRUSI* article in February 1931 entitled "Regional Control and the Co-ordination of Air and Land Forces" in which he claimed that the aircraft's capabilities had been exaggerated beyond justification over the preceding decade.<sup>47</sup> Fink used, for comparative purposes, the purest doctrinal model of air control, in which aircraft completely substituted ground troops. In his examination of Iraq, Fink noted that, although the cost of maintaining the RAF units and 20,000 Iraqi Levies and police was 'comparatively small', the cost of King Faisal's 18,000 troops (which were not paid for by the Middle East Vote of the RAF budget) should also be taken into account, ignoring the context that Britain was actively trying

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<sup>44</sup> Ibid.: 91, 94.

<sup>45</sup> Ibid.: 92.

<sup>46</sup> See 'Light Infantry', "Mobility", *JUSII* LXII, no. 266 (1932).

<sup>47</sup> Major R H L Fink, "Regional Control and the Co-ordination of Air and Land Forces", *JRUSI* LXXVL, no. 501 (1898).

to transfer responsibility to Faisal's forces.<sup>48</sup> He also opined that these forces would need significant reinforcement to quell any widespread insurrection, something that the RAF widely acknowledged and was the justification for the Middle East heavy transport squadrons.<sup>49</sup> Fink acknowledged that the RAF had never claimed that aircraft were suitable for maintaining order in towns, as had been proven in Palestine, but that 'this is the very task which our military forces are so often called upon to perform in other parts of the Empire, especially in India'.<sup>50</sup> Notwithstanding this, Trenchard's 1929 swansong had specifically stated that 'Internal Security Forces would remain unchanged'.<sup>51</sup> Turning to the NWF, Fink noted that air action had been most successful against 'localized minor tribal gatherings out of reach of the ground garrisons', but had not achieved notable results against widespread disaffection and determined opposition as, he stated, had been demonstrated in the Afridi assault on Peshawar in August 1930. He also criticised AOC(India)'s right of direct access to the Viceroy, which divided responsibility and made co-ordination difficult;<sup>52</sup> indeed, Fink suggested that the RAF and Army be rationalised into a single ministry under a combined Army and Air Council.<sup>53</sup> Overall, although aircraft were 'of great value as an economical auxiliary to military forces', the restraining effect of air policing was not great and air control was dependent on strong mobile ground forces.<sup>54</sup> Fink's article reflected a view from some Army practitioners to employ air power purely as a tactical supporting tool, and illustrated some of the pressures that the Air Staff were under in justifying the continued existence of the RAF as an independent Service. However, as explained later, Fink's view reflected that of the IGS, who had reacted to Trenchard's 1929 swansong by calling for 'an examination, in conjunction with the

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<sup>48</sup> Salmond, *ASM* 16, 1.

<sup>49</sup> See Air Staff, *ASM* 49, 8.

<sup>50</sup> Fink, "Regional Control": 21.

<sup>51</sup> Trenchard, *CP* 332 (29), 7.

<sup>52</sup> Fink, "Regional Control": 21-22.

<sup>53</sup> *Ibid.*: 25.

<sup>54</sup> *Ibid.*: 22.

Treasury, of the question of the present constitution of the Royal Air Force as a separate service'.<sup>55</sup>

February 1931's *JRUSI* also published a similar, but less extreme, article to Fink's *Regional Control*. Inspired by the planned end of the British Iraqi mandate in 1932, Jundi's "Eight Years of British Control in Iraq" examined the success of air control in Iraq, focusing almost solely on frontier defence (rather than internal security).<sup>56</sup> Jundi, like Fink, highlighted the significant number of ground troops and police involved in air control. He also highlighted the challenges posed by trans-border Bedawin raiders on the south-western and Kuwaiti frontiers between 1927 and 1929. Despite the terrain being eminently suited to air action and the employment of three bomber squadrons, six armoured car sections and an Iraqi Army machine gun company, Jundi considered that the operations were not completely successful. He attributed this to the lengthy frontier, the lack of intelligence, an inability to identify small raiding parties in the featureless desert and distinguish them from non-combatants, combined with the transitory nature of aircraft and the raiders' ability to rapidly disperse. Unlike Fink, Jundi offered no conclusions, nor did he assess how land forces alone would have fared. These points were raised in a rebuke published in the subsequent *JRUSI* by 'Taiyari' who countered much of Jundi's tactical detail, pointing out the deliberate British policy of maximising the involvement of the Iraqi forces to increase their experience prior to the planned British withdrawal.<sup>57</sup> Of particular relevance to the NWF, Taiyari highlighted the reliance of both the Army and Air Force on the local police to maintain order. He tried to manage Jundi's expectation that air control could completely control permeable frontiers, pointing out

<sup>55</sup> CAB 24/207, Thomas Shaw, *Cabinet Paper 356(29): The Fuller Employment of Air Power in Imperial Defence: Note by the Secretary of State for War*, 7 December 1929.

<sup>56</sup> "Jundi", "Eight Years of British Control in Iraq", *JRUSI* LXXVI, no. 501 (1931). 'Jundi' is Arabic for 'soldier'.

<sup>57</sup> 'Taiyari' is Hindi for 'prepared'.

that the NWF battalions had been no more successful in policing the Administrative Border.<sup>58</sup>

In April 1931's *JUSII*, "Constabeel" provided a balanced analysis of "Aircraft and Internal Security in India".<sup>59</sup> This considered reconnaissance, communication, moral effect, offensive action and transportation, concluding that, given the ethical constraint on the use of force against Crown subjects, the difficulty in discriminating between the guilty and innocent from the air, and the potential outrage of the non-proportional use of air power, the most appropriate internal security role for aircraft was to use heavy transports and impressed civil aircraft to rapidly convey police or soldiers at the initial stages of a disturbance to restore order. This article probably presented a police practitioner's critique to the RAF's expanding ideas for the employment of air power in India.

What is interesting about these Army articles is their lack of acknowledgement of the synergistic virtues of air and land forces or the need for a fundamental understanding of how to employ joint forces, something which Salmond had ably articulated in *ASM20*. This is brought into greater relief by their lack of any comparative analysis between the capabilities of land and air forces (i.e., independent air operations are criticised for deficiencies that they shared with land forces). It is interesting to compare the Army's focus on substitution with *AP1300*, written only two years before these *JRUSI* articles, which did not mention independent air operations in its chapter on undeveloped and semi-civilised countries, illustrating the continued pace of air strategy and the Army's instinctive resistance to it.

Slessor wrote a seminal summary in May 1931, entitled "Air Control: the Other Point of View".<sup>60</sup> At the time, Slessor was attending Army Staff College at Camberley

<sup>58</sup> "Taiyari", "Eight Years of British Control in Iraq: A Reply", *JRUSI* LXXVI, no. 502 (1931).

<sup>59</sup> "Constabeel", "Aircraft and Internal Security in India". 'Constabeel' was local slang for 'constable', indicating the author's profession.

<sup>60</sup> AIR 69/9, Squadron Leader J C Slessor, *Air Control: The Other Point of View*, May 1931.

(having also attended the second Andover course in 1924) and had accumulated considerable experience, having commanded a flight on the NWF during 1921-22, generated doctrine under Trenchard's direction on the Directorate of Operations and Intelligence during 1928-1930 and served on the staff of the School of Army Co-operation.<sup>61</sup> This unpublished paper was probably Slessor's Staff College 'student lecture' but was also distributed to all students at the RAF Staff College.<sup>62</sup> He described his motive for writing the article:

There are at present few subjects more controversial or on which there is more general misunderstanding than that of the share which air forces can take in the ordinary peace time responsibilities of Imperial security overseas.<sup>63</sup>

His monograph aimed to:

set out in informal terms the answers to some of the commonest criticisms, to dispose of some of the most frequent quoted fallacies on the subject of air control, with particular reference to a number of articles which have recently appeared in Service journals.<sup>64</sup>

Despite the article's title mentioning 'air control', the NWF was a repetitive theme, indicating that India was very much in Slessor's mind. He explained that air control enhanced the mobility and ubiquity of the civil administration, with aircraft being used as a steadying influence to 'preserve' order when a delicate situation threatened to escalate into disorder, but could, as a last resort, apply lethal force with the required degree of severity at a few hours' notice to 'restore' order. He emphasised that:

Air control does not mean the complete elimination of land forces; there are many important functions which can only be effectively discharged by the armed man on the ground. Nor of course does it imply the substitution of the heavy high-explosive bomb for the baton of the policeman.<sup>65</sup>

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<sup>61</sup> Slessor's biography is at [Annex 7](#).

<sup>62</sup> A copy appears to have been passed to Group Captain Tedder, the Assistant Commandant, who then distributed it to all students. Unfortunately, the 1931 Army Staff College records were destroyed in 1940. However, on a similar theme, Arthur Harris had written 'Air Control in Iraq, and Elsewhere' whilst a student at Camberley in 1929. See Harris, "Air Control in Iraq, and Elsewhere".

<sup>63</sup> Slessor, *The Other Point of View*, 1.

<sup>64</sup> *Ibid.*, 1-2.

<sup>65</sup> *Ibid.*, 2.

He also stressed that it was the political officer that controlled the population and that aircraft could not themselves achieve this any more than 'the business end of an 18 pounder or a service rifle'.<sup>66</sup> His paper was 'a reply to those forms of criticism which are most commonly directed against air control in undeveloped countries'.<sup>67</sup> To that end, he addressed several issues:

Firstly, Slessor addressed the accusation that 'air action caused resentment and was particularly immoral in striking at women and children'. All forms of force caused resentment and suffering and there were no grounds for the argument that, 'if you stick a Pathan in the stomach with a bayonet or blow out his brains with a bullet he regards it as a perfectly "fair do" and all in a day's work'; indeed all evidence was to the contrary. Precision bombing was as accurate as artillery and was only used as a last resort after all other means had failed; its aim was not to kill in large numbers and casualties were very few on both sides.<sup>68</sup> Indeed, the Tribal Control and Defence Committee, having elicited opinion from Pathan and Indian witnesses, concluded in the same year that:

it has not been proved that air action does cause greater resentment than the use of other forms of force. Experience has shown that, if due warning is given, air action against villages ordinarily causes very insignificant loss of life.<sup>69</sup>

This was the Gol's consistent official opinion, with the Viceroy having reported in 1925 that 'There is no evidence to support this theory' of tribal resentment.<sup>70</sup>

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<sup>66</sup> Ibid.

<sup>67</sup> Ibid., 33.

<sup>68</sup> Ibid., 5-11.

<sup>69</sup> IOR/L/PS/12/3171, Tribal Control and Defence Committee, *Report of the Tribal Control and Defence Committee 1931*, March 26 1931, 32. In contrast, the report also recommended that aircrew carry 'gooley chits' (see ———, *Report of the Tribal Control and Defence Committee 1931*, 51).

<sup>70</sup> Despatch from the Viceroy in Council, 1925, quoted in: Slessor, *The Central Blue*, 67. Slessor was probably referring to: CAB 6/5, Earl of Reading, *Principles to be Adopted in Flying on the Frontier: Despatch from the Government of India (Foreign and Political Department), (No. 11 Of 1925), to the Secretary of State for India (CID 141D)*, 15 October 1925.



The second accusation was that ‘air action was ineffective because tribesmen scattered and took refuge in caves’. Aircraft had to be allowed to engage *lashkars* while the enemy was concentrated and moving in the open, rather than wait until they ensconced themselves in caves. Against villagers, the aim was to interrupt normal life until a continuance of hostilities became intolerable, rather than to inflict casualties. Compelling tribesmen to shelter in caves ‘among the fleas’ achieved this aim.<sup>71</sup>

Thirdly, ‘air effects were transitory and left no permanent solution’. All forms of military force, other than complete, overwhelming military occupation, were transitory. Between 1895 and 1925, military operations on the NWF had cost some £50 million, illustrating that the effects of neither garrisons nor punitive columns were enduring. Indeed, there had recently been multiple uprisings within 20 miles of the Razmak garrison.<sup>72</sup> However, unlike punitive columns, air power could be rapidly and cheaply re-applied if necessary.<sup>73</sup>

Another accusation was that ‘on the NWF in particular, air action did not provide an alternative means of livelihood’. Slessor agreed that the policy of road construction was sound. However, a combination of aircraft, armoured cars, irregular corps, militia and tribal levies would be effective. This would avoid an expensive military occupation, leaving more funds for road building.<sup>74</sup>

Slessor agreed that ‘aircraft alone could not defend against invasion or preserve internal order’ and needed the support of land forces, just as armies required effective air co-operation. Slessor’s subsequent description of command relationships would now be termed as ‘supported’ and ‘supporting’, and his description of combined operations under a single commander mirrors the current military concept of ‘componency’. He postulated that the imposition of air control on the NWF would

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<sup>71</sup> Slessor, *The Other Point of View*, 11-13.

<sup>72</sup> In May/June 1930, thirteen different sections of the Mahsuds and Wazirs had revolted.

<sup>73</sup> Slessor, *The Other Point of View*, 14-18.

<sup>74</sup> *Ibid.*, 19.

involve the eventual withdrawal of regular land forces from remote tribal areas and their redeployment as close defence of administrative conurbations, such as Peshawar, Kohat and Bannu, to support the local police. Additionally, air striking forces would replace 'costly punitive expeditions'.<sup>75</sup>

Although 'air control had not been uniformly successful', Slessor noted that 'the critics for some reason appear to expect or demand of [aircraft] a far higher standard of success than has ever been achieved by any other form of force'.<sup>76</sup> Addressing the RAF's inability to prevent the 1929 Palestine disorders, Slessor pointed out that the Air Staff had only assumed control of Palestine as an administrative convenience; with Iraq and Transjordan under an AOC, efficiencies had been made by administering Palestine in a similar fashion, with the Air Ministry acting as the Colonial Office's agent. Slessor continued:

... no one knows better than the Air Staff that the preservation of internal order in more settled countries where the security problem is largely an urban one, such as in Palestine and British India, is a task for which the methods of air control are entirely unsuited.<sup>77</sup>

Slessor's informed perspective had probably been shaped by correspondence he had seen (and possibly even drafted) the previous year between CAS and Churchill during his time on the Air Staff; Churchill had been the main instrument in transferring control of Palestine from the WO to the Air Ministry but had caveated in 1922 that 'This does not imply that Palestine is to be controlled from the air, but merely as a matter of convenience in administrative channels'. Salmond wrote to Churchill in 1930 that:

The Air Ministry, of course, have never claimed to control Palestine from the air, as it is and always has been obviously impossible to quell disturbances in large and civilised cities such as Jerusalem, etc., by air bombardment.<sup>78</sup>

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<sup>75</sup> Ibid.

<sup>76</sup> Ibid., 24.

<sup>77</sup> Ibid., 25-26.

<sup>78</sup> AIR 8/110, Air Chief Marshal Sir John Salmond, *Letter, Chief of the Air Staff to Rt Hon Winston S Churchill*, 16 June 1930.

Air power's inappropriateness had been made apparent in, for example, the Wailing Wall incident in 1929, where the narrow streets had also rendered armoured cars impotent, precipitating the dispatch of a battalion from each of Egypt and Malta to suppress the rising.<sup>79</sup>

The final accusation was that 'Air Forces maintained in the Middle East were insufficient to cope with significant emergencies, and would have to be reinforced in the event of serious attack, probably by land forces'. Slessor highlighted the necessity of balancing 'absolute' and 'practical' (i.e., affordable) security; the RAF had never claimed to be able to defend Iraq unaided against large scale invasion (as the Army could not defend India alone). However, air routes would enable the rapid reinforcement from strategic Imperial garrisons.<sup>80</sup> Slessor concluded with a pragmatic, conciliatory and 'joint' statement worthy of a future CAS:

Let the airman realise that his arm in which he has such faith has its limitations as well as its possibilities; and let us hear less about the Air Force doing things alone. Let the soldier realise that it is no good his talking of co-ordination when the word he really means is subordination – of the airman or the soldier... There are some circumstances in which the air force must be purely auxiliary to the army; others when the reverse will be necessary... The answer will be found before long, when we have a combined staff at the centre, in London, and in Simla.<sup>81</sup>

However, in his 1956 memoirs he was rather more circumspect, concluding that:

If there is one lesson that stands out farther than others from the long story of operations in Waziristan, it is the expensive futility and waste of good material involved in a policy which locked up first-class troops under rather demoralizing conditions behind wire perimeters in Razmak in the midst of a waterless tangle of mountains.<sup>82</sup>

Sir David Lee agreed, recording that 'the Frontier could have been controlled with a

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<sup>79</sup> See Steven Morewood, *The British Defence of Egypt, 1935-1940: Conflict and Crisis in the Eastern Mediterranean* (Abingdon: Routledge, 2013), 21.

<sup>80</sup> Slessor, *The Other Point of View*, 30-31.

<sup>81</sup> *Ibid.*, 34-35.

<sup>82</sup> ———, *The Central Blue*, 68.

few more squadrons of aeroplanes and half the soldiers for a fraction of the price'.<sup>83</sup>

What has to be taken into account, given Slessor's later comments discussed in Chapter 6, is that this paper was written while he was a student at Army Staff College, when he would have been immersed in an Army environment;<sup>84</sup> while Slessor's aim was probably to rebut criticism he had experienced at Camberley, his paper would have been understandably written to be receptive to an Army audience.

Nevertheless, Slessor's monograph illustrated that air power had, by this time, evolved to mitigate some of its disadvantageous characteristics (such as its propensity to scatter its victims when targeted) and that the RAF could articulate robust, cogent and joint arguments to counter 'popular' criticisms.

Another useful summary of the situation was provided in 1932 by Liddell Hart in a chapter of his book, 'Air and Empire: The History of Air Control'.<sup>85</sup> In this, he commented that reaction to Lord Trenchard's maiden speech in the House of Lords in April 1930 had revealed 'an unyielding determination to maintain sectional service interests without regard to the general interests of the country'.<sup>86</sup> Trenchard had outlined how, during the FWW, the RAF 'was built up to deal with the enemy's Air Force' but that, to justify its expenditure during the ensuing peace, it should take over 'some of what I might call the humdrum responsibilities of peace that the Navy and Army had performed for so many hundred years'. He had continued: 'We thought that, if full use were made of the mobility and moral effect of the Air Force, it could keep order in these wide spaces of the British Empire'. Trenchard had highlighted air power's speed in crossing these 'wide spaces' and that 'There would be no vulnerable lines of communication to attack; there would be no convoys to cut up; there would be

<sup>83</sup> Lee, *Never Stop the Engine when it's Hot*, 117.

<sup>84</sup> See Chapter 6's discussion of 'Improving In-Theatre Relations'.

<sup>85</sup> Captain B H Liddell Hart, "Air and Empire: The History of Air Control" in *The British Way in Warfare* (London: Faber & Faber, 1932).

<sup>86</sup> *Ibid.*, 139. For a resume of the debate, see Stanley Spooner, "Editorial Comment", *Flight: The Aircraft Engineer & Airships*, 18 April 1930.

no railways and roads to make'. Turning to the morality of employing asymmetric technology, Trenchard had argued that 'it may sound unsporting or unfair... but I submit it is not'... 'It is only just to your own side and others if you can stop fighting by being better armed' and that, often, 'the mere presence of an aeroplane, owing to its moral effect, is sufficient'. Air power was humane because 'the weapon by its very nature does not kill so many people... the Air Force is not more brutal than any other form of warfare, and all warfare is brutal'. Trenchard had then highlighted the cost effectiveness of air control, finishing with a proposal for an enquiry to determine which Imperial theatres the RAF could take over: 'What about the frontier of India? What about the Persian Gulf, the Red Sea, the Sudan, and other places?'.

Earl Beatty had immediately retorted to Harris' Lords speech that flying boats could neither stop and board suspect ships nor 'show the flag' as effectively as a sloop. Furthermore, weather made the Red Sea and Persian Gulf unsuitable for flying boats for nine months a year. Ex-CIGS Earl Canavan ventured that such a vast proposition should be submitted to the CID, not the House of Lords. His lack of understanding of air power was evident when he had stated that 'Bombing must be indiscriminate. Women and children must take their chance' and urged that any policy change should address 'humanitarian as well as economical' implications. Viscount Plummer, a retired FWW General who had been High Commissioner for Palestine from 1925 to 1928 displayed a similar dated view when he had highlighted air power's offensive nature and the inappropriateness of bombing civil populations: 'it is, I consider, a mischievous power'. Lord Lloyd, who had been Governor of Bombay from 1918 to 1923, announced that the prospect of using the Air Force as the primary arm on the NWF filled him, 'and many others', with grave alarm as it would be a reversal of the present policy of civilisation and pacification as air power was 'a purely offensive weapon'. Others, such as Lord Gorell and Earl Peel, welcomed Trenchard's proposed

inquiry, while SoS(Air), Lord Thomson, took time to describe the less kinetic aspects of air power.<sup>87</sup>

In his book, Liddell Hart provided a survey of historical events (including India), highlighting the aeroplane's qualities of responsiveness and cost-effectiveness in contrast to 'the helplessness of static posts and low-mobility troops to cope with a mobile antagonist'.<sup>88</sup> His conclusions focused largely on the politics of inter-Service rivalry, noting that air officers should command air assets to ensure that they were not 'misapplied or frittered away on secondary tasks', while empathising with the soldier's and sailor's perspective ('Few of us can be impartial when our livelihoods are threatened... Their future is a narrowing horizon. Little wonder that they are unwilling to agree publicly to what they often admit privately').<sup>89</sup> He also noted that opponents of air power were increasingly highlighting its inhumanity. Overall, Liddell Hart's article advocated the implementation of air control, but called for a combined General Staff (rather than individual, competing Ministries) that would draw logical, rather than partisan, conclusions on the most effective methods of Imperial Defence.

June 1933 saw the publication of *ASM52*, the transcript of a lecture by DCAS to the Imperial Defence College entitled *Air Control*.<sup>90</sup> Its author, Air Vice-Marshal Ludlow-Hewitt, will become one of the key characters in this Thesis, as he progressed to become AOC(India) immediately after his two-year DCAS appointment, prior to becoming AOC-in-C Bomber Command in 1937. At the time of his presentation, he had been in post for two months (and previously AOC Iraq), explained that he viewed air control in the broad sense of the use of air forces to maintain good order and security (i.e. policing), and in particular the pacification and settlement of backward, undeveloped territories, irrespective of the cloth of the C-in-C. By this definition, air

<sup>87</sup> Hansard, House of Lords, *The Air Force*, Vol. 77, 9 April 1930.

<sup>88</sup> Liddell Hart, "Air and Empire: The History of Air Control", 151.

<sup>89</sup> *Ibid.*, 158.

<sup>90</sup> AIR 5/1323, DCAS, *Air Staff Memorandum 52: Air Control: A Lecture by the Deputy Chief of the Air Staff at the Imperial Defence College, April, 1933*, June 1933.

control covered air operations in the NWF, Somalia and the Sudan, as well as AOC-commanded theatres, although he reinforced that it had been most effectively employed when commanded by the latter. Indeed, this broadening of the term may have been the result of the Army's resistance to the concept of AOCs commanding joint forces, as suggested by Trenchard's 1929 swansong. According to Ludlow-Hewitt, air control was cheap, quick, effective, relatively invulnerable and could be applied in areas inaccessible to other forces, virtues which would assure its continuance despite calls for the abolition of aerial bombardment. He explained that these characteristics depended on two conditions: firstly, a first-class tactical and political intelligence system to understand the enemy in the widest sense;<sup>91</sup> and, secondly, a command system that could authorise action immediately, which resulted in great moral effect. Air control did not involve the elimination of land forces, as these were invaluable in consolidating success after aircraft had broken the enemy's resistance. However, Ludlow-Hewitt explained that air control was 'entirely unsuitable' in addressing internal Indian troubles, civil rioting in Palestine, civil or domestic unrest, or hunting brigands and criminals. He explained the importance of explaining Governmental terms and what the tribesman had to do to comply. Once air operations commenced, the aim was not punishment but rather to bring about the enemy's submission by causing great inconvenience, albeit with 'the minimum loss of any kind' to avoid both animosity and the deprivation of livelihood. Ludlow-Hewitt introduced the importance of propaganda, pointing out how the tribesmen normally received moral support from their own chiefs, fanatical religious leaders, National agitators or foreign powers, all of which could be undermined by Governmental messages about how easy it was to submit, how light the terms were, how enduring and invulnerable air operations were, and how they would apply increasing and

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<sup>91</sup> Something Ludlow-Hewitt stated had been hampered on the NWF by tribal areas such as the Tirah and Mohmand being closed to aircraft.

unyielding pressure. Loudspeaker-equipped aircraft could now deliver these ‘sound bites’ directly to ‘the ear of the individual tribesman’. Once the tribesmen had submitted, land forces (preferably police) should be deployed to provide food, tend to the diseased and wounded, and set up police posts for *Khassadars*, the ultimate aim being to employ locals to build roads and schools and administrate the country. Ludlow-Hewitt described how, under this system, the tribes would garrison themselves, albeit with the ever-present threat of ‘air reprisals’. In his conclusion, DCAS emphasised that he had not mentioned the ‘common objections’ to air control because there was ‘no evidence to support them’ – a bold, but perhaps naive, approach, which echoed the sentiments of the 1931 Report of the Tribal Control and Defence Committee mentioned previously.<sup>92</sup> He concluded that, while expeditions aimed to inflict punishment by causing casualties, air control resulted in ‘less bloodshed’ and was more economical. What is particularly interesting about Ludlow-Hewitt’s lecture is that it revealed both a broadening of the Air Staff’s definition of air control away from a command and control system, and its integration into an overall system of imposing ‘civilisation’ on previously unadministered regions. This is all the more pertinent to this Thesis given Ludlow-Hewitt’s subsequent key positions. His previous experience is also worthy of recording. Despite not being very approachable, Harris described him as ‘the most brilliant officer I have ever met’ and ‘one of the few RAF commanders who kept abreast of new techniques’. After nearly ten years in the Royal Irish Rifles, he commanded at squadron, wing and brigade levels, and was Chief of Staff of the RAF’s French HQ, during the FWW. Following the War, he had been ADC to the King, secretary to SoS(Air), attended the Royal Naval Staff College and been the second Commandant of the RAF Staff College before becoming AOC(Iraq). Thus, not only was he a decorated combat pilot, but he

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<sup>92</sup> Tribal Control and Defence Committee, *Report of the Tribal Control and Defence Committee 1931*, 32.



had a background in all three Services and was very well educated and politically aware.<sup>93</sup>

A revealing insight into the way in which air power and inter-Service co-operation in India were advanced by local improvisation was provided by Flight Lieutenant Chamberlain's *RAFQ* article, "The Adoption of R/T for Close Reconnaissance Aircraft in India", published in July 1933.<sup>94</sup> This technical article described the limitations of the pre-1927 methods of air-ground communication, such as: the 'Popham' and 'Stevenson' Panels;<sup>95</sup> the 'Direction Arrow';<sup>96</sup> the Aldis Lamp;<sup>97</sup> and message dropping/retrieval.<sup>98</sup> By 1933, R/T was considered more flexible than W/T.<sup>99</sup> It was the responsibility of each army co-operation squadron to provide their associated Army units with the necessary R/T sets, operators and transportation. Squadrons improvised scavenged tenders to establish an R/T capability in the Army's mind.<sup>100</sup> Overall, Chamberlain's article demonstrated that local improvisation, rather than central organisation and funding, drove the way in which evolving technology was adapted to local field conditions.

<sup>93</sup> Royal Air Force Website, "Air Chief Marshal Sir Edgar Ludlow-Hewitt: C-in-C Bomber Command 1937-40", <http://www.raf.mod.uk/history/bombercommandcommandersofworldwariithecommandchief.cfm> (accessed 1 May 2017); Probert, *Bomber Harris: His Life and Times*, 95; <http://www.rafweb.org/Biographies/Ludlow-Hewitt.htm>. His full biography is at [Annex 7](#).

<sup>94</sup> Flight Lieutenant G P Chamberlain, "The Adoption of R/T for Close Reconnaissance Aircraft in India", *RAFQ* IV, no. 3 (1933).

<sup>95</sup> The Popham Panel consisted of a white 'T' on a black background with nine white exposable arms. However, it required a pre-arranged code, could not be read above about 3000 feet, and was obsolete when the article was written. The Stephenson Panel was a bulky venetian-blind semaphore device whose unreliability led to its withdrawal.

<sup>96</sup> The Direction Arrow, although still in use in 1933, had limited powers of expression. An example is at [Annex 8](#).

<sup>97</sup> The Aldis Lamp had a usable range of only four miles while its heavy battery compromised aircraft performance.

<sup>98</sup> Message dropping was still widely practiced as 'India is a conservative country and well-established methods never die', but messages could be difficult to recover in mountainous terrain. Similarly, picking up messages in mountainous areas was not practiced due to the unsuitable terrain and the probability of being sniped at from above and below.

<sup>99</sup> Nonetheless, aircraft that had been suitable for W/T could be 'hopeless' for R/T due to interference from the unscreened engines.

<sup>100</sup> The RAF in India sent wireless operators on equitation courses and deployed aircraft R/T sets, protected by rubber pads, on specially trained pack animals which accompanied the columns when the terrain became impassable to tenders.

Chamberlain's tactical article was followed in July 1934 by a *JUSII* article which provided an Indian perspective on the WO's 1932 *The Employment of Air Forces with the Army in the Field*. Published by an Army officer under the pseudonym 'Mouldy', "Co-operation Between the Army and the RAF" demonstrated that the British Army in India maintained a broad view on warfare and was not solely focused on Frontier tactics.<sup>101</sup> Mouldy's article largely concentrated on conventional, rather than irregular, warfare. Nevertheless, the need for a sound system of inter-Service co-operation based on personal liaison between commanders was deemed especially important for minor operations on the NWF involving small columns with improvised staffs. In India, day bomber squadrons were trained in tactical (but not artillery) reconnaissance on the NWF, although their effectiveness was handicapped by lack of both R/T and message pick-up equipment.<sup>102</sup> In contrast, the army co-operation squadrons were trained for all forms of reconnaissance and were equipped with R/T, W/T, message pick-up gear and one-way W/T for artillery work.<sup>103</sup> Mouldy also emphasised the importance of educating all Army officers in India in air co-operation and recommended that RAF officers and Army Intelligence liaison officers be used to lecture, train and exercise with Army units.

One of the most important publications for this Chapter was *Air Staff (India) Memorandum No 1 (AS(I)M 1)*, published in April 1935 and entitled 'Tactical Methods of Conducting Air Operations Against Tribes on the North-West Frontier of India'.<sup>104</sup> Unfortunately, as the internal files of HQ RAF(India) have not survived, the in-theatre machinations behind its provenance cannot be positively determined, although its

<sup>101</sup> 'Mouldy', "Co-operation Between the Army and the RAF".

<sup>102</sup> The Day Bomber squadrons in India in 1934 were: 27(B) and 60(B) at No 1(Indian Wing) Station, Kohat equipped with Hawker Harts and Westland Wapitis respectively; and No 11(B) and 39(B) at No 1(Indian Wing) Station, Risalpur, both with Harts. See [Annexes 23](#) and [24](#).

<sup>103</sup> The army co-operation squadrons in India in 1934 were: 5(AC) and 31(AC) at No 3(Indian Wing), Quetta; No 20(AC) at Peshawar; and 28(AC) at Ambala, all equipped with Wapitis.

<sup>104</sup> *Air Staff (India) Memo No. 1*.

contents were discussed with the GS(India) during its preparation.<sup>105</sup> Its supersession in 1939 by the '*Combined Frontier Manual*' is much clearer.<sup>106</sup> Despite the lack of primary evidence, it is reasonable to assume that the Air Staff(India) felt it necessary to amplify the extant official RAF doctrine (*AP1300*, *ASM46* and its evidential companion, *ASM48*). The Air Staff(India) were in an unenviable position, being culturally attuned to the Air Ministry's doctrine, but under the command of C-in-C(India). Certainly, any official doctrine published by HQ RAF(India) would need at least tacit approval from C-in-C(India). Furthermore, Air Marshal Steel had been replaced as AOC(India) by Sir Edgar Ludlow-Hewitt the month before *AS(I)M 1* was published, and this resulted in a marked improvement in in-theatre inter-Service relations. The new AOC wrote to C-in-C(India) in June 1935 that:

I am not here to compete with the Army on any ground whatever, but simply to cooperate on the best terms under your orders... I believe that one of the causes of anti-Air Force feeling out here is fear of substitution,

to which, in his response, Field Marshal Sir Philip Chetwode blamed the misunderstanding over Trenchard's 1929 'ill-advised Cabinet paper on substitution'.<sup>107</sup> Interestingly, at the same time, the RAF staff at Camberley were teaching Army students that air control did not exclude the requirement for land forces; 'Far from it'.<sup>108</sup> *AS(I)M 1* was certainly drafted before Ludlow-Hewitt arrived and, although probably approved by him prior to publication, his influence was apparently limited; the ten-page Memorandum focused solely on the use of independent air action, defining the primary operational aim to be to compel the tribes to comply with Government terms with the minimum use of force. One rare insight into the staffing of the *Memo* is a

<sup>105</sup> See AIR 23/688, Air Commodore Richard H Peck, *Letter, Acting Air Officer Commanding, India, to Commander-in-Chief, India*, 15 September 1937, 2.

<sup>106</sup> Defence Department, *Frontier Warfare - India*. The gestation of the *Combined Frontier Manual* is described in Chapter 7.

<sup>107</sup> Waldie, "Relations Between the Army and RAF, 1918-39", 211.

<sup>108</sup> Army Staff College, Camberley, "The Air Force in Imperial Policing", *Senior Division Lecture Notes* Vol I, File 11/4 (1935): 2. This lecture was delivered by Wing Commander Arthur Capel, who had been awarded a DSO during 'Pink's War', having been captured by tribesmen (see [Annex 7](#)).

draft copy which advised that, in order to deprive the enemy of minor successes in the field, 'it may be advisable in certain circumstances not to despatch land forces';<sup>109</sup> this was substantially softened in the final version to 'the presence of troops within reach of the tribesmen may give rise to the hope of gain through some minor successes in the field', possibly by the hand of the new AOC(India).<sup>110</sup> Nonetheless, *AS(I)M 1* was a remarkably 'single Service' statement that reflected more the view of the Air Ministry than the Indian in-theatre requirements. Overall, *AS(I)M 1* marks the last example of Steel's emphasis on independent air operations, with a subsequent AOC(India)-led change towards joint in-theatre doctrine, as evidenced by the aforementioned development of the *Combined Frontier Manual*, which commenced only a year after the Memo's publication. That is not to say that the gestation of this replacement Manual was not without considerable inter-Service dispute;<sup>111</sup> nonetheless, there were no subsequent Air Staff(India) Memos published. Certainly, the change of emphasis between *AS(I)M 1* and the *Combined Manual* illustrated the vital influence of the relationship between the most senior in-theatre commanders, with the 'damage' of Trenchard's 1929 swansong being perpetuated by Steel (who had become AOC(India) in February 1931) before Ludlow-Hewitt adopted a more pragmatic and conciliatory approach with C-in-C(India) in 1935, as examined later.<sup>112</sup>

*AS(I)M 1* emphasised some familiar themes, such as the importance of intelligence to understand tribal organisation, leadership, the physical vulnerabilities of tribal buildings, and the location of mosques so aircraft could target effectively while discriminating between hostiles and friendlies. The recent theme of using Intelligence to judge the changing morale of a tribe, the movement of *lashkars* and leaders, and to

<sup>109</sup> AIR 20/5480, *Air Staff (India) Memo No. 1: Tactical Methods of Conducting Air Operations Against Tribes on the North-West Frontier of India (draft)*, April 1935, 4.

<sup>110</sup> *Air Staff (India) Memo No. 1*, 4.

<sup>111</sup> See Chapter 7.

<sup>112</sup> Steel's biography is at [Annex 7](#).

vary the pressure accordingly, was reiterated.<sup>113</sup> Tribal Directories, compiled from interrogations and aerial photographs, were vital, as were accurate maps and pre-flight study by the crews to distinguish between adjacent and often similarly-named hostile and friendly villages.<sup>114</sup> The Memo's emphasis on discriminating friend from foe is clear.

*AS(I)M 1* described how air forces should be kept at high readiness so they could act swiftly. However, warnings should invariably be issued before commencing air operations against villages. These warnings were of two types: firstly, an *ultimatum*, which aimed to induce the tribe to submit without employing force by warning that air action would commence unless the offending tribes complied with Governmental demands; and, secondly, a *bombing notice*, issued to avoid undue casualties by specifying the village(s) to be bombed and warning the inhabitants to evacuate by a specific time, not return until told to by a subsequent notice, and warning about the danger of delay action bombs.<sup>115</sup> In contrast, no warnings were required for operations against hostile *lashkars*, although they could be used to warn inhabitants ahead of the advancing hostiles to evacuate a specified area wherein any movement could be subjected to aerial attack (a tactic that the Air Ministry referred to unofficially as *proscription*, although the term did not yet form part of the doctrinal lexicon).<sup>116</sup> This concept of distinguishing between *ultimatums* and *notices* was not new, having first been raised by the Tribal Control and Defence Committee in 1931.<sup>117</sup>

In its examination of tactical methods, the *Memo* differentiated between harassing attacks which targeted the morale of the tribesmen without causing

<sup>113</sup> *Air Staff (India) Memo No. 1*, 1-2.

<sup>114</sup> *Ibid.*, 9.

<sup>115</sup> If insufficient time was available, the *ultimatums* and bombing *notices* could be combined.

<sup>116</sup> *Air Staff (India) Memo No. 1*, 2-3. For an example of the use of the term 'proscription', see: AIR 23/708 Enclosure 6, Air Vice-Marshal C L Courtney, *Letter, Director of Operations and Intelligence, Air Ministry, to AOC Aden*, 17 October 1936.

<sup>117</sup> Tribal Control and Defence Committee, *Report of the Tribal Control and Defence Committee 1931*, 32.

unnecessary casualties or damage (described again as ‘blockades’) and attacks on materiel designed to produce a definitive degree of damage. The coercive blockade was the preferred tactic, because of its economy of effort and the limited physical impact it inflicted on tribesmen, their possessions, livelihood and prosperity, along with the latent threat of escalation. A variety of methods were used, including: intermittent attacks using light weapons;<sup>118</sup> sporadic patrols to attack personnel and flocks to force the tribesmen to disperse; light night bombing of villages, wells or caves mouths to continue the blockade by darkness (alternatively, where night flying was impractical due to weather etc, long-delay action bombs could be dropped by day to detonate at night); and the occasional use of heavy attacks to demonstrate the latent ability to inflict serious damage.<sup>119</sup> In contrast, attacks aimed at producing material damage used heavier bombs, followed up by incendiaries to ignite inflammable materiel.<sup>120</sup> It was recommended that only the houses of important leaders should be attacked, so good intelligence to identify these buildings was essential. The cost of ordnance was also a factor.<sup>121</sup> The *Memo* displayed a good understanding of the factors affecting the selection of targets and the optimum balance of effort over a wider area: a compromise was often necessary between selecting the most disaffected village (which would produce the best political result) and the village most vulnerable to air attack; additionally, where the aim was material damage, *AS(I)M 1* recommended that attacks should be concentrated on the minimum number of villages to maximise the impact, whereas when harassment and disruption was intended, more widely-dispersed attacks broadened the effect. Non-lethal methods such as propaganda were also employed to communicate intent to the tribesmen. However, tribesmen would often renege on agreed terms, so air action should not be wholly discontinued

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<sup>118</sup> Typically 20 or 112-pound Mark VI bombs.

<sup>119</sup> *Air Staff (India) Memo No. 1*, 4-5.

<sup>120</sup> Typically 230/250-pound and 112-pound Mark VII bombs.

<sup>121</sup> 230-pound bombs were about twice the price of 112-pounders.

until terms had been fully complied with. If *jirgas* assembled to discuss terms with the political officer, coincidental aerial demonstrations could have beneficial results.<sup>122</sup>

Additionally, the *Memo* recommended that the Air Commander should accompany the political officer to enhance his understanding and provide pragmatic advice.<sup>123</sup>

*AS(I)M 1* demonstrated the interactive nature of warfare and its impact on the development of tactics by both parties. By 1935, hostile *lashkars* had learnt the vulnerability of large bodies of men to air attack and so usually moved by night and dispersed by day. Reacting to this, the *Memo* recommended that the most effective method of dispersing *lashkars* was to attack their villages of origin, the aim being to make the prospect of loot and fighting less attractive by the likelihood and uncertainty of loss of personal wealth at home. The previously-mentioned use of leaflets to proclaim an area around land forces, or specific villages, as 'hostile areas' to be evacuated was aimed at both minimising friendly casualties and denying the *lashkars* the opportunity of hiding within the local population.<sup>124</sup>

The *Memo* also briefly addressed the ramifications of captured aircrew being used as hostages, stating that air operations should continue unabated, with reliance placed on the Government to avenge any ill-treatment, and the dropping of leaflets warning of concomitant retribution. To avoid being exposed to ground fire, low flying machine gun attacks below 3,000 feet were only employed as immediate retaliation against tribesmen seen firing at aircraft or to keep tribesmen under cover during air blockades. The only exceptions to this were when *lashkars* were engaging friendly troops or about to enter administrated territory, or against urgent targets where high-level bombing was difficult. In all other circumstances, anti-personnel bombs delivered from high level were to be used. Pre-emptive bombing was always detailed

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<sup>122</sup> *Air Staff (India) Memo No. 1, 4-7.*

<sup>123</sup> *Ibid.*, 10.

<sup>124</sup> *Ibid.*, 7-8.

in written orders to the pilot, except in emergencies when W/T could be used.<sup>125</sup> This guidance is interesting, as it demonstrated that, to avoid the political ramifications of aircrew being captured, the RAF was being forced to operate at high level where precise weapon delivery was difficult.<sup>126</sup> Overall, the Memo is notable for its complete absence of any reference for the need for precision weapon delivery.

*AS(I)M 1* concluded with a repetition of the enduring theme that ‘success in air operations is dependent on their effect on the enemy’s morale’ and that this had to be achieved ‘by the use of the minimum force’. The Air Force Commander had to be familiar with the political aspects of the situation and keep his finger on the pulse of the tribe. To achieve this, the Air Force Commander should keep in the closest touch with the political authority.<sup>127</sup> The Air Staff(India) were careful not to contradict higher Indian authorities; *AS(I)M 1* began with the caveat that it was issued as *guidance* for RAF officers and did not impinge on the control of air power as laid down by the GoI.<sup>128</sup> Nonetheless, the *Memo* highlights the significant difference between the methodologies of Army punitive expeditions and RAF tribal operations. While the RAF emphasised ‘the use of the minimum of force to compel the tribe... to comply’, Army Staff College were teaching in 1933 that ‘we want the enemy to stand and fight’.<sup>129</sup> Notwithstanding that Camberley had softened its tone slightly from 1929 (when it had taught that the aim was ‘a ground and air fight with a view to killing’, while admitting that ‘You could of course deal with the whole problem up to a point – by air’), the fundamental disparity remains clear.<sup>130</sup> Furthermore, the aim of the Army’s punitive

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<sup>125</sup> Ibid., 9-10.

<sup>126</sup> There are distinct parallels with the Soviet Air Force being similarly forced to operate at medium level after 1986 when shoulder-launched surface-to-air missiles were supplied to the *Mujahideen* by the West. See Headrick, *Power over Peoples*, 352.

<sup>127</sup> *Air Staff (India) Memo No. 1*, 10.

<sup>128</sup> The GoI’s Instructions on the control of operations were contained in ‘*Instructions for the Control of Operations, including the Employment of Aircraft*’, as described in Chapter 7.

<sup>129</sup> *Air Staff (India) Memo No. 1*, 1; Camberley Army Staff College, “Mountain Warfare Exercise”, *Senior Division Directing Staff Lecture Notes* (1933): 27.

<sup>130</sup> Camberley Army Staff College, “Mountain Warfare Exercise”, *Senior Division Directing Staff Lecture Notes* (1929): 25. The gradual softening of tone and progressive redaction of the



columns was to threaten tribal villages to compel the tribesmen to defend their homes in 'traditional' massed formations where they became vulnerable to the British Army's technical advantage in asymmetric firepower while, in contrast, air blockades attempted to disperse the inhabitants of the village to deny them their ordinary mode of life. Even when the objective was a tribal *lashkar*, Camberley emphasised that, in response to air action, tribesmen 'will scatter and you won't kill many', thereby denying the Army of its primary advantage – superior firepower against a clearly identifiable, massed, enemy formation.<sup>131</sup> Understandably, the RAF's faith in dispersing *lashkars* by independently targeting their villages of origin was not shared by the Army, who saw the RAF's role as direct support of troops; Camberley was teaching its Army students in 1937 that aircraft should only be used in close co-operation with troops, and that attacks against *lashkars* were limited to low flying attacks, especially against hostiles on reverse slopes.<sup>132</sup> Gwynn stated in 1936 that 'infantry still remains the chief offensive agent' while noting, in his analysis of the Afridi *lashkars* which advanced towards Peshawar in 1930, that 'a combination of ground and air action becomes necessary to secure results and close co-operation between the Services is essential'.<sup>133</sup> Doctrinally, in 1935-India, this co-operation was absent. This discontinuity had been evident as early as the 1930 operations in Waziristan, when the Chief Commissioner, NWFP, had decreed that 'air action is likely to meet the case adequately whereas attack by troops is likely to induce an extension of the area of

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punitive terminology is shown in [Annex 9](#). This may be due to changes in the Indian Army Instructor responsible for the Exercise: in 1931, Lieutenant Colonel John Smyth VC replaced Lieutenant Colonel Matheson who was, in 1934, replaced by the then acting Lieutenant Colonel Slim (who removed all reference to RAF punitive operations). Smyth later commanded 127 Brigade in the British Expeditionary Force during WWII, forcibly retired as a divisional commander to become firstly the military correspondent for the Sunday Times, then a Member of Parliament, and finally a baronet. For more details on Smyth, see Richard Mead, *Churchill's Lions: A Biographical Guide to the Key British Generals of World War II* (Stroud: Spellmount Ltd, 2007), 430-433 and Nick Smart, *Biographical Dictionary of British Generals of the Second World War* (Barnsley: Pen & Sword, 2005), 292-293.

<sup>131</sup> Army Staff College, "Mountain Warfare Ex, 1929": 25.

<sup>132</sup> ———, "Mountain Warfare I - The North-West Frontier of India and its Problems": 2.

<sup>133</sup> Charles W Gwynn, *Imperial Policing* (London: Macmillan, 1936), 29, 280.

tribal hostility' noting afterwards that 'the local Commander resented the inactive role of the Razmak column while air action was in progress'.<sup>134</sup> Another important theme is clear – the RAF's desired effect was on the tribesmen's morale rather than the denial of materiel by precise weapon delivery.

Validation of the tactics expounded in *AS(I)M 1* came in the Air Ministry's post-action analysis of the 1935 Mohmand operations, which was circulated to RAF Staff College and the overseas Commands.<sup>135</sup> This comprised a questionnaire covering the air blockades against the Burhan Khel, Isa Khel and Safi which had been completed by the Deputy Commissioner of Peshawar and OC No 1(Indian) Group.<sup>136</sup> The Air Ministry drew four lessons from the Mohmand operations. First, excessive force had been applied; normally, only light bombs should be used to enforce air blockades. Secondly, the incendiary bombs used against the houses and crops of specific 'die hards' had caused great destruction and created a marked deterrent effect. However, the Air Ministry deprecated anything other than the use of minimum force, stating that incendiary bombs should only be used for punitive operations. Third, delayed action bombs could not completely replace night bombing, but supplemented it effectively. The tribesmen did not understand the concept of the deliberate use of delayed action bombs, so needed to occasionally hear aircraft overhead at night. Night bombing against camp fires seen in the area had been 'a great deal more effective'. Lastly, it was vital that political officers educated the tribesmen about the aim of air blockades, how easy they were to apply and how futile resistance was.

Overall, the Mohmand questionnaire demonstrated the different views of the Air Ministry (operating at the near-political level) and the Air Staff(India) (operating at the in-theatre tactical level). The Air Ministry appeared keen to use the minimum amount

<sup>134</sup> Griffith, *Note by Governor NWFP*, describing Red Shirt-inspired operations in the Shaktu and Baddar valleys.

<sup>135</sup> Courtney, *Letter, Director of Operations and Intelligence, Air Ministry, to AOC Aden*.

<sup>136</sup> OC No 1 Indian Group was Group Captain Norman Bottomley who later became DCAS and then replaced Harris as C-in-C Bomber Command. See Chapter 6's analysis of the operation.

of force necessary (in accordance with air control doctrine) for reasons of political acceptability and to avoid tribal resentment, while the in-theatre objective was to compel the tribesmen to comply as swiftly as possible. The IO had a different perspective and refused to publish their 1935 Mohmand report because:

in view of the keen interest taken, in political and public circles, regarding air action against tribesmen, particularly in regard to events in Abyssinia, the SoS for I thinks it better not to publish.<sup>137</sup>

In mid-October 1936, the Air Ministry circulated a memorandum entitled *Air Blockade* which clarified policy.<sup>138</sup> The gestation of this memo is revealing. The Air Ministry had felt that C-in-C(India) was increasingly preventing the use of aeroplanes in their 'primary role' on the NWF, 'pretending' to be worried about claims of inhumanity in the Indian Press and Legislative Assembly. The 1935 Mohmand operations had culminated in SoS(India) refusing to publish the official report in 'one of those periodical attacks by India'. As a result, CAS had arranged a round-table conference with the IO, the outcome of which had been a letter from the SoS(India) to the GoI stating that the air blockade was not inhumane. This, the Air Ministry hoped, would curtail C-in-C(India) from using his previous excuse. The *Air Blockade* memo had been prepared for this conference.<sup>139</sup> This memo emphasised that no land forces should enter a blockaded area until the tribe had submitted in order to deny the tribesmen a potential source of retribution. In 'normal times', aircraft should regularly visit tribes, accompanied by medical officers, to maintain relations and gain vital

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<sup>137</sup> IOR/L/PS/12/3187, E358, Marshal of the Royal Air Force Sir Edward L Ellington, *Letter, Chief of the Air Staff to Lieutenant General Sir John Coleridge, Secretary, Military Department, India Office*, 18 April 1936.

<sup>138</sup> AIR 23/708, Enclosure 2, Deputy Director Operations and Intelligence Air Ministry, *Air Blockade*, October 1936. The meeting this memo was prepared for was held on 25 September, where the Directorate of Operations and Intelligence was represented by AVM Courtney (DCAS and Director, Operations and Intelligence), Wing Commander Pirie and Squadron Leader Darvall. Group Captain Arthur Harris, a Deputy Director, may also have been involved in the memo's staffing.

<sup>139</sup> AIR 23/708, Enclosure 10, Wing Commander G C Pirie, *Letter from Air Ministry to Air Officer Commanding, Aden Command*, 4 February 1937. For more analysis of this round-table conference, see Chapter 7, AIR 2/1721 and IOR/L/PS/12/3187, E286, *Notes of a Meeting at the India Office*, 25 September 1936. Pirie's biography is at [Annex 7](#).

intelligence. On occasions where force was necessary, commanders were reminded to avoid action (such as casualties or serious damage to houses, herds or crops) likely to result in undue subsequent resentment. The Air Blockade memo acknowledged that similar pressure could be achieved by troops or police, but that punitive columns were slow and costly in both money and casualties on both sides. In its conclusion, the Air Staff's memo stated: 'it is difficult to see... how any charge of inhumanity can possibly be levelled against the policy', whilst accepting that:

in the past on the frontier of India and elsewhere the air blockade method has sometimes not been properly applied, and alas have too many forceful methods of different kinds been misapplied at different times... Granted care and restraint however there can surely be few if any methods of applying force less calculated to cause bloodshed or more humanitarian in conception and practice.<sup>140</sup>

Given that the objective of this Air Ministry memo was to convince SoS(India) that the air blockade method was humane and acceptable within the developing ethical landscape, it is perhaps not surprising that it focused on political acceptability, rather than tactical effectiveness. Indeed, the Air Ministry later unofficially admitted that the staff had been 'particularly humanitarian-minded' when drafting the memo.<sup>141</sup>

Nonetheless, these tactics endured and were reiterated in June 1938 by Group Captain Slessor, Deputy Director Plans, to rebuke Parliamentary Questions from the Opposition on 16 June 1938.<sup>142</sup>

The disparity between the views of the Air Ministry and 'theatre' was not confined to the NWF.<sup>143</sup> The Air Ministry rebuked AOC Aden in October 1936 for the unnecessary destruction caused by the use of incendiary bombs in the Lower Aulaqi

<sup>140</sup> AIR 23/708, Enclosure 2, Air Ministry Deputy Director Operations and Intelligence, *Air Blockade*, October 1936, 10.

<sup>141</sup> Pirie, *Letter from Air Ministry to Air Officer Commanding, Aden Command*.

<sup>142</sup> Slessor, *Notes on Police Bombing dated 18 June 1938*. The same tactics were also articulated in a 1938 paper entitled *Air Blockade* filed by the Air Ministry, although the exact author and date of this paper cannot positively be identified - see AIR 5/1327, Enclosure 2, *Air Blockade*, 1938; this file originated from the Deputy Director of Operations (Overseas) and was his 1938 'India' file (see Sebastian Cox, *Head of Air Historical Branch (RAF) to Author*, Email, 10 January 2013).

<sup>143</sup> For further analysis of different views between the Air Ministry and RAF(India), see the discussion in Chapter 6 concerning AOC(India)'s UK visit in May 1938.

area.<sup>144</sup> This resulted in a protracted exchange, with AOC Aden disagreeing with the Air Ministry's lessons from the 1935 Mohmand operations, explaining that he had insufficient resources to impose long blockades and that the Aden Resident was in agreement that 'hitting as hard as I could the few available targets' was quicker and more effective.<sup>145</sup> The Ministry's letter also revealed how the transparency of operations to a wider audience could impact on the acceptability of tactics, especially when 'dealing with what were no more than 'a bunch of scallywags'':

On the Frontier of India we must, for political and other obvious reasons, undertake any air blockade operation strictly in accordance with the principles laid down... At Aden, on the other hand, there is no Legislative Assembly or local politician to worry about and on other grounds too, the conditions there do permit of a slight departure from the orthodox methods... we suggest you should carry on as before.<sup>146</sup>

In his response, AOC Aden retorted that:

I agree that in theory the so called air blockade sounds delightfully humane, and to the ignorant may sound as though the R.A.F. can achieve wonders without hurting anyone, or in other words can make omelettes without breaking eggs... The Aden tribesman requires definite proof that we can hit him hard... The methods I advocate result in a certain amount of damage to property (mainly houses and forts) which can be readily repaired afterwards, thus keeping the tribesmen out of mischief while that is being done.<sup>147</sup>

The Air Ministry's final response to AOC Aden confirmed that the general principles of air control remained the same in all undeveloped countries, but that local factors affected their exact application, with air blockade policy being driven, and constrained, in particular by the political situation on the NWF:

We believe that the tribesmen on the North West Frontier is a more fearless and rugged fighter than the average Arab of, say, the Aden Hinterland. Moreover, he is more familiar with modern engines of war and is therefore probably much

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<sup>144</sup> AIR 23/708, Enclosure 3, Air Council, *Letter to Air Officer Commanding, Aden Command*, 24 October 1936.

<sup>145</sup> AIR 23/708, Enclosure 5, Air Commodore W A McClaughry, *Letter from Air Officer Commanding, Aden Command, to Air Ministry (Wing Commander G C Pirie)*, 11 November 1936.

<sup>146</sup> Pirie, *Letter from Air Ministry to Air Officer Commanding, Aden Command*.

<sup>147</sup> AIR 23/708, Enclosure 12, Air Commodore W A McClaughry, *Letter from Air Officer Commanding, Aden Command, to Air Ministry (Wing Commander G C Pirie)*, 12 May 1937.

less impressed by spectacular damage caused by bombing. Thus, unless severe casualties to personnel are permissible, it is probable that the “air blockade” method pure and simple – though admittedly long drawn out – is the only effective method on the North West Frontier.<sup>148</sup>

This exchange provides another insight into the varying factors affecting the development of doctrine at ‘home’ and the various ‘theatres’, illustrating how generic, world-wide doctrine was unofficially permitted to be refined according to specific local political and tactical conditions.

The final ASM considered within this Thesis is *ASM55: The Role and Employment of Bomber Transport Aircraft*, published in November 1936.<sup>149</sup> This ASM emphasised that bomber-transport aircraft were a compromise between an offensive weapon and a transport vehicle. As a result, they were unarmed and had poor performance, so could only operate where no air opposition was anticipated. Their primary role was strategic mobility. In a germane example, the Memo described how, should a squadron of medium bombers from Egypt need to reinforce the NWF, a flight of bomber-transport aircraft would transfer the necessary squadron personnel and equipment to allow the medium bomber squadron to become fully operational within six days, where it would otherwise take three to four weeks. In undeveloped countries, where large distances were involved and land communications poor, squadrons and their logistics could be rapidly redeployed to remote bases, and subsequently resupplied, by bomber-transport aircraft. The troops and police required to secure these airfields and co-operate with the air forces could also be transported and

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<sup>148</sup> AIR 23/708, Enclosure 13, Wing Commander R H M S Saundby, *Letter from Air Ministry to Air Officer Commanding, Aden Command*, 17 September 1937. Saundby had just replaced Pirie, and had appropriate local experience, having been a flight commander on 45 Squadron at Hiniadi in 1922 (where, as Arthur Harris’ co-pilot, he helped develop a bombing capability for the Vickers Vernon) and commanded the Aden Flight in 1925. He rose to become Deputy AOC-in-C. Bomber Command, in 1943.

<sup>149</sup> AIR 10/2173, Air Staff, *Air Staff Memorandum 55: The Role and Employment of Bomber Transport Aircraft*, November 1936. Although not mentioned by name, the ASM referred to the recent introduction of the Vickers Valentia. The evolution of the BT concept, which had resulted in the formation of the BT Flight at Lahore by 1931, is described at: Wing Commander C G Jefford, “The Bomber Transport and the Baghdad Air Mail”, *Journal of the Royal Air Force Historical Society*, no. 22 (2000).

maintained by air. As a secondary role, they could be employed as bombers, operating at range from secure (rather than advanced) bases, thereby simplifying logistical and security challenges. Bomber-transport could carry the heavy bombs required to demolish buildings when required or, for blockade operations, maintain pressure for long periods by day or night with a large number of small bombs, at great economy. They could also fulfil a variety of tertiary roles, such as swiftly moving police or troops to a point of growing disorder, or reinforcing borders against external threats. They could also obviate the need for small, vulnerable garrisons, allowing troops to be concentrated centrally. However, bomber-transport could not move large numbers of troops during emergencies, as heavy equipment could not be carried and the aircraft's primary role was to relocate RAF squadrons. Nonetheless, when small land units were transported, they could also be subsequently resupplied with ammunition, rations, medical stores, etc, and could be used to temporarily support larger land formations in the case of unforeseen shortages of essential supplies. In both cases, supplies could be conveyed to advanced aerodromes, or dropped by parachute. However, *ASM55* warned that it would be 'extremely unwise to rely on aircraft for anything more than the purely temporary maintenance of military garrisons at frontier posts' because 'all available aircraft should be free for offensive action'; nonetheless, 'In the event of serious trouble these posts might immediately be withdrawn by air and the bomber-transport aircraft are then free for their more important duties'. The memo dwelt on the vulnerability of these aircraft while on the ground and the need for land forces or, in their absence, the police, to secure the landing grounds.<sup>150</sup> Bomber-transport could also be used for the emergency evacuation of non-combatants or invalids, as had been demonstrated during the

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<sup>150</sup> It even went as far as to suggest that, in the absence of ground forces at remote landing grounds, a squadron of Army Co-operation aircraft could reconnoitre the landing surfaces first, a flight of which could land and deploy themselves to protect the landing area with their rear-facing guns, while the remaining flight patrolled overhead.

1928/29 evacuation of the British legation from Kabul and the 1935 Quetta earthquake. On a similar theme, although it was impossible to provide bomber- transports specifically as dedicated air ambulances during the early stages of hostilities, they could be used to evacuate casualties on return sectors once their cargo had been offloaded. Loudspeakers could also be fitted for propaganda purposes. The relative priorities of these secondary roles would depend on the circumstances and vary over time. *ASM55* demonstrated the competing priorities the Air Staff had to manage in advocating the utility of the bomber-transport in supporting land forces, whilst their role in offensive action remained paramount. This illustrated the enduring quandary of costly, multi-role aircraft which, due to their commensurate limited numbers, could be in simultaneous demand from a variety of users. The number of Indian references within this *ASM* indicates that part of its purpose was to provide the doctrine to support the case to expand the Bomber-Transport Flight (BTF) at Lahore to squadron strength. The Heavy Transport Flight had formed in 1932 and been renamed the BTF a year later, but its expansion to squadron strength was frequently discussed but never funded.<sup>151</sup>

Air Commodore Charles Portal's February 1937 RUSI presentation entitled "Air Force Co-operation in Policing the Empire" was notable on several fronts.<sup>152</sup> Not only had he been responsible for applying air control as AOC Aden during 1934-36, but his presentation cemented terms such as 'Air Force policing' and 'inverted blockade' into the lexicon. His employment of air power to resolve raiding by the Quteibi tribe in 1934, a major theme of his presentation, was used by the Air Council to extol the

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<sup>151</sup> Expanding to a ten-aircraft squadron was still being discussed in 1938 by the Chatfield Committee. See CAB 24/287/16, AIR 8/255, Lord Chatfield, *Cabinet Paper 133(39): Report of the Expert Committee on the Defence of India, 1938-39 [Chatfield Report]*, 30 January 1939, 41-43 (also published as ID(38)10 in CAB 27/654). See also AIR 23/687, Air Staff, *Proposal to Form a Bomber Transport Squadron*.

<sup>152</sup> Portal, "Air Force Co-operation in Policing the Empire".



advantages of the air method.<sup>153</sup> Portal categorised operations into two types: firstly, those in 'fully administrated territory where communal or other trouble had escalated beyond the control of the Civil Power'; and secondly, those in 'unadministered or loosely administered territory where the agents of civil control are non-existent or, if they exist, are too few to cope with any but isolated acts of lawlessness'. In the first case, the 'senior partner' would probably always be the Army (due to the proximity of the guilty and innocent), while in unadministered country the aeroplane had increasingly become the primary weapon, although Portal conceded that it was most effective when the tribes were settled and dependent on their land, rather than nomadic.<sup>154</sup> A key issue highlighted in the presentation was that the air and land policing mechanisms were fundamentally incompatible: 'the two methods are like oil and water in that they will not mix : the air method drives the tribesmen away, the army punitive expedition makes him stand and fight'. Whilst 'both the air method and land operations have advantages and disadvantages', Portal recommended that:

any operation in wild country should either be left to the Air Force until the time for consolidation had arrived or else that they should be done by the Army, with of course its air units in co-operation for reconnaissance, spotting and perhaps for the role of artillery.

... but acknowledged that this was not fully accepted in India.<sup>155</sup> When supporting the Army, Portal visualised transport aircraft deploying a new type of specially recruited

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<sup>153</sup> Portal's original Quteibi report (AIR 10/2196, *Report on the Operations Carried Out from Aden Against the Quteibi Tribe from the 22nd March to the 21st May 1934*, 1935) had been circulated earlier as a Confidential Document (AIR 2/1385, Air Ministry, CD 109: *Aden Operations Against Quteibi Tribe*, June 1934) while his RUSI presentation was also immediately précised in *The Aeroplane* magazine (see "Air Control By Blockade", *The Aeroplane*, 24 February 1937). Subsequent air control operations against the Aulaqi tribe were also publicised in this magazine (see "Operations in the Aden Protectorate", *The Aeroplane*, 4 November 1936). This latter article was deemed sufficiently important to have its contents typed up and circulated within the Air Ministry (see AIR 23/708 Enclosure 6, *Extract from "The Aeroplane" of November 4th, 1936: Operations in the Aden Protectorate*, 4 November 1936). Further background on Portal's time at Aden is contained in Richards, *Portal of Hungerford: The Life of Marshal of the Royal Air Force Viscount Portal of Hungerford KG, GCB, OM, DSO, MC*, 107-119.

<sup>154</sup> Portal, "Air Force Co-operation in Policing the Empire": 344, 357.

<sup>155</sup> Ibid.: 355-356.

lightly-armed 'fly-weight' policing troops to counter internal security crises, noting that:

there is much scope for it in India, and I believe that this is recognized by the authorities there, though up to now money has not been available to provide the necessary aircraft.<sup>156</sup>

Portal explained how W/T had been used by troops in Palestine to summon air support which would arrive within fifteen minutes.<sup>157</sup> Controversy over the air method was 'now dead', but misunderstanding continued in some quarters, as had been evident by the 'ill-informed' criticism of 'police-bombing' at the 1932-34 Geneva Disarmament Conference.<sup>158</sup> Occupying large territories with troops or armed police could maintain the peace, but would be prohibitively expensive and would be disturbing for law-abiding tribes. Portal viewed the alternative of paying tribes to behave as bribery and futile. He was equally disparaging of the 'bomb and scuttle' method of immediate bombing as punishment for misbehaviour, emphasising instead that the object was to generate 'a change of heart, and we want to get it by the use of the minimum amount of force'.<sup>159</sup> Using the Quteibi operation as an example, Portal described how the tribe's Sheikh had been summoned by an air-dropped message to meet the political officer at a landing ground in neighbouring neutral territory, where he was accused of, and admitted, the crime, claiming that he was unable to control the offenders. As a result, a very carefully worded ultimatum had been drafted and dropped on most of the villages within the Sheikh's territory.<sup>160</sup> During the ultimatum period, vital additional intelligence was gathered on the tribe, and maps refined.<sup>161</sup> Within a few minutes of the ultimatum's expiry, aircraft had dropped a few small

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<sup>156</sup> Ibid.: 345.

<sup>157</sup> Portal explained that this air support could deliver as much firepower as 650 18-pound artillery shells and 24 machine guns.

<sup>158</sup> See Chapter 7.

<sup>159</sup> Portal, "Air Force Co-operation in Policing the Empire": 350.

<sup>160</sup> This ultimatum contained three themes: firstly, an explanation of how they could avoid bombardment by complying with the Government's 'full, final and irrevocable demands'; secondly, the avoidance of any demands that could be considered as being unreasonable or impossible; and, lastly, an explanation of what would happen if the demands were not met by a specific date (see Ibid.: 351).

<sup>161</sup> Portal explained that the ultimatum period was typically ten days.

bombs on the principal villages, even though the population had left, while heavier bombs were dropped on the Sheikh's house and his closest supporters. When the tribe had expressed contempt over the light bombing, a small but conspicuous village belonging to the miscreants had been flattened. Meanwhile, aircraft patrolled all day and, when the moon allowed, by night, with delayed-action bombs being dropped prior to unsuitable nights. After two months, the Quteibis' mood had changed. They had begun in an excited, defiant and revengeful mood, shooting freely, but ineffectively, at aircraft. Under the pressure of economic hardship, discomfort and propaganda, squabbling then broke out as tribesmen blamed one another for causing the hardship and protesting against the Government. This was followed by wistful boredom and reflection on the prospect of being unable to harvest their forthcoming crops. After a combination of the Resident expressing his desire for the Quteibis to return to their previous, law-abiding existence, and a fairly heavy bombardment, mediation began. This had been enabled through a neighbouring Sultan, while a two-day suspension of bombing had allowed the whole tribe to meet and reach agreement. The Quteibis having conceded, the Political Secretary flew out to receive their fine and offer them help in resuming their previous existence as soon as possible, which had been received with 'fervent cheers and long-winded protestations of loyalty and goodwill'.<sup>162</sup> All unexploded ordnance was immediately demolished and a medical officer flown in.<sup>163</sup> Portal reported practically no ill-will; indeed, the tribesmen even fraternized with the airmen, viewing the aeroplane as 'an impersonal agent of Government', able to return at any moment.<sup>164</sup>

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<sup>162</sup> Portal, "Air Force Co-operation in Policing the Empire": 354.

<sup>163</sup> Portal reported that the only casualties were three tribesmen killed whilst dismantling a delayed-action bomb.

<sup>164</sup> Portal, "Air Force Co-operation in Policing the Empire": 354.

Slessor's "RUSI Gold Medal Essay", published in August 1937, gives yet another interesting perspective on the role of aircraft on the NWF.<sup>165</sup> It focused on the offensive use of armoured vehicles, predominantly in European theatre. Since originality was a key facet against which RUSI judged the winning submission, it is perhaps not surprising that Slessor advocated 'a rather revolutionary change' in Army organisation and strategy from that of penetration (a FWW hangover) to one of employing mobility and manoeuvre to envelope the enemy.<sup>166</sup> Despite the European theme, Slessor provided an Indian perspective, stating that claims that the challenges of the NWF could be solved by air power alone were 'demonstrably fantastic'. Instead, he suggested that all Frontier troops, Covering Troops and the Field Army should be Indian (which, if organised along the lines of the previous Punjab Frontier Force, would be better suited than British troops), but that the British element should be 'in the air and in tanks'.<sup>167</sup> Whilst, by its nature, this essay had to be novel, and the Indian element was an adjunct, it nonetheless provides an insight into concepts being aired during this period and Slessor's broad appreciation of joint operations. And India offered the potential for change. According to Bond, Sir Andrew Skeen, while Chief of the General Staff, India (CGS(India)) in 1924-27, decreed that 'no modern instruments of warfare were to be introduced into schemes or manoeuvres'. Skeen's successor, Chetwode, was more innovative. In 1932, Quetta Staff College had designed a plan to occupy Kandahar in two days using light tanks and aircraft, whereas the official plan required 70 days. The scheme ended with the remark: 'The Air Force is a good show out here; I wish the Army was as progressive'.<sup>168</sup>

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<sup>165</sup> Slessor, "Gold Medal Essay (Military), 1936".

<sup>166</sup> Ibid.: 464. Slessor was, at the time, OC 3(Indian) Wing at Chaklala (whose squadrons had deployed there from Quetta following the 1935 earthquake) which was co-located with the Army's Armoured Car/Light Tank Military Testing Ground and had no doubt fuelled his thoughts).

<sup>167</sup> Ibid.: 482.

<sup>168</sup> Bond, *British Military Policy between the Two World Wars*, 106.

It would be incorrect to state that the British Army in India did not experiment with air power, albeit generally at a local level. Major Wingfield's October 1939 *JUSII* article, "Mountain Warfare", described a small-scale trial to maximise the mobility of troops by minimising their organic logistical tail.<sup>169</sup> Wingfield's thesis was that:

A heavy column with a mass of mules is not a necessity, for we can move, fight, feed, water and rest without a single mule within a brigade, provided that we employ reasonable and light supporting weapons and take advantage of mobile methods of supply and communication with modern developments in place at our disposal.<sup>170</sup>

Wingfield proposed the use of auto-gyro ambulances or, in their absence, armoured vehicles to overcome 'undoubtedly, the biggest problem that a column of this nature has to face'.<sup>171</sup> Autogyro landing grounds could easily be constructed and would also enable face-to-face Army-RAF liaison and personal reconnaissance by brigade and battalion commanders. No reserve of water need be carried, reliance being placed on aerial re-supply or springs instead.<sup>172</sup> Wingfield considered the following roles for the RAF: preliminary reconnaissances by the column commander; subsequent tactical reconnaissance; close support using bombs and machine guns; communication via message-dropping and locally-designed light-weight Popham panels; tracking and reporting the column's progress via wireless to an R/T Tender co-located at the Army HQ;<sup>173</sup> dropping ammunition, water, rations or medical supplies; and aerial photography. Although aircraft could replace long-range artillery, time-critical short-range support was best provided by organic mortars.<sup>174</sup> Overall, Wingfield showed a sound awareness of the disadvantages of conventional 'field army' tactics in mountain warfare and displayed a willingness to use novel techniques to overcome them.

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<sup>169</sup> Wingfield, "Mountain Warfare".

<sup>170</sup> *Ibid.*: 493.

<sup>171</sup> *Ibid.*: 496.

<sup>172</sup> *Ibid.*: 498.

<sup>173</sup> Wingfield explained that, whilst flags could be used to communicate within a battalion, communication between deployed battalions would be relayed to W/T-equipped aircraft via one-man pack sets, initiated via Popham panels.

<sup>174</sup> Wingfield, "Mountain Warfare": 499-501; 504.

Air Commodore Bottomley's November 1939 *JRUSI* article, "The Work of the Royal Air Force on the North-West Frontier", provided a detailed examination of the state of evolution of RAF tactics at the end of the inter-war period.<sup>175</sup> It appears to have been written as a counterpoint to a March 1938 RUSI lecture by the Governor, NWFP, which the Air Staff felt had deliberately underplayed air power's role and evaded the air-land controversy.<sup>176</sup> Bottomley had been OC No 1(Indian) Group at Peshawar between 1934 and 1937 and had participated in two biennial Chitral Relief Columns, the 1935 Loe Agra and Mohmand operations and the 1936 Waziristan operation.<sup>177</sup> Given that later, as DCAS to Portal during the Second World War, he was an advocate of area bombing, Bottomley's presentation is particularly germane and provided an interesting glimpse at his formative experiences. Bottomley opened with a declaration that the NWF was 'an insoluble problem' where the line between peace and war was very ill-defined.<sup>178</sup> In places, Europeans could move in complete safety, whereas military escorts were essential in Mohmand country and on the recently-built roads of Waziristan. Other parts, such as the heart of the Tirah, had not been visited by the 'white man' since 1897, and the RAF provided the only direct intelligence. Bottomley categorised RAF operations on the NWF into two types: peacetime 'watch and ward' duties; and 'operations' when more serious situations arose.<sup>179</sup> In describing 'operations', Bottomley revealed that 'the more scientific and

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<sup>175</sup> Bottomley, "The Work of the RAF on the NWF". The article is the transcript of Bottomley's March 1939 presentation at the Institute, which was presided over, rather appropriately, by General Muspratt, who had been GOC Peshawar District at the same time as Bottomley and was, by 1939, the IO's Military Secretary. He played a significant role in the gestation of the 1939 Combined Frontier Operations Manual, as described in Chapter 7.

<sup>176</sup> AIR 2/2051, Squadron Leader L Darvall, *Minute to DCAS*, 29 March 1938.

<sup>177</sup> No 1(Indian) Group comprised four bomber squadrons, the Wapitis of No 27(B) and 60(B) Squadrons at No 1(Indian Wing) Station, Kohat, and the Hawker Harts of No 2(Indian Wing) Station, Risalpur, comprising No 11(B) and No 39(B) Squadrons.

<sup>178</sup> Bottomley, "The Work of the RAF on the NWF": 669-670.

<sup>179</sup> 'Watch and ward' duties included special air reconnaissance over vast tracks of inaccessible areas for the political or military authorities, and regular, routine reconnaissance and photographic surveys to collate accurate maps which also 'show the flag'. As Bottomley pointed out: 'The airman may see few tribesmen on these reconnaissances, but thousands of tribesmen see the aircraft' (see *Ibid.*: 771).

effective method of air blockade, such as we have practised successfully in Iraq and Aden, has never been properly tried in India', although the RAF had attempted to enforce tribal submission by destructive or punitive air action on a few occasions.<sup>180</sup>

As a result, Bottomley confined himself to describing the types of operations undertaken under Army control during his tour of duty, namely: 'destructive air action'; 'proscriptive air action'; 'close support'; and 'troop carrying and supply'.

'Destructive air action' was reserved 'for punishment of particularly "bad hats" or specially outrageous sections', the aim being to inflict a specified measure of punishment for definite misdeeds.<sup>181</sup> Bottomley contrasted this with air blockades, which kept destruction to an absolute minimum. He also noted that offenders often removed the valuable timbers from their dwellings beforehand, adding to the destruction. An example of destructive air action was the 1937 operation against of the Mahsud hamlet of Aarsal Kot where the Foli was sheltering which, following warnings by messengers and notices dropped 48 hours beforehand, was completely obliterated in two days.<sup>182</sup>

'Proscriptive air action' was used to clear an area of tribesmen for a variety of reasons. As aircraft were largely unable to distinguish between the guilty and innocent, by ordering everyone to clear an area, anyone remaining could be deemed hostile and freely engaged. The primary uses of proscription were: (i) to disperse a hostile *lashkar* or prevent it traversing an area; (ii) to prevent access to hostile leaders in an area of unrest;<sup>183</sup> (iii) to reduce opposition to advancing troops; or occasionally (iv) as a punitive measure to deny grazing areas. AOC(India) had described the first

<sup>180</sup> Ibid.: 773.

<sup>181</sup> Destructive operations normally took a day or two and targets were normally publicised in advance.

<sup>182</sup> Bottomley, "The Work of the RAF on the NWF": 774. For a précis of the Faqir of Ipi and the Aarsal Kot operation, see: Milan Hauner, "One Man against the Empire: The Faqir of Ipi and the British in Central Asia on the Eve of and during the Second World War", <http://www.khyber.org/publications/021-025/faqiripi.shtml> (accessed 3 October 2013). See Annex 2 for the weapon expenditure statistics.

<sup>183</sup> The Foli's Aarsal Kot hamlet was subjected to proscriptive air action following its physical destruction described above.

three techniques as 'tactical proscription' and the latter as 'punitive' in 1938.<sup>184</sup> This had caused a dispute between AOC(India) and the Air Staff over the confusion between punitive proscription and air blockading which had led to the application of the former rather than the latter.<sup>185</sup> Even in the most serious situations, the Government would enforce a minimum of 48-hours notice via messengers, notices or, if possible, by direct announcement in *jirgas*.

'Close support for troops' was an intensified version of normal 'watch and ward' duties, but with army co-operation squadrons allotted to specific Army formations.<sup>186</sup> Bottomley noted that, since the 1930 Afridi Peshawar incursions, hostile *lashkars* rarely presented themselves as targets because 'the tribesman is now too air-minded and too conscious of the effects of the bomb and machine gun to expose himself in that manner'.<sup>187</sup> As a result, by 1939, it was only during the close support of troops that hostile tribesmen were encountered in any numbers. This proximity, however, required precision attacks to avoid friendly casualties which were only possible by 'low-dive bombing attacks' down to about 1,000 feet.<sup>188</sup> The requirement for precision precluded high-level bombing and brought aircrew within hostile rifle fire, something which the aforementioned *AS(I)M 1* had sought to avoid in all but extreme circumstances. It also required the closest liaison between pilots and troops using R/T, supplemented by ground signals. Due to these challenges, exacerbated by the NWF's terrain, the RAF preferred to engage targets that the Army could not tackle

<sup>184</sup> See AIR 2/2065, Air Marshal Sir Philip Joubert de la Ferte, *Letter, Air Officer Commanding, India, to Deputy Chief of the Air Staff*, 5 October 1938.

<sup>185</sup> AIR 2/2065, Squadron Leader L Darvall, *Minute, FO5 to Deputy Chief of the Air Staff and Deputy Director Plans*, 14 July 1938. The dispute between 'tactical' and 'punitive' proscription is described in the analysis of the *Combined Frontier Manual* in Chapter 7.

<sup>186</sup> Close support roles included reconnaissance, communications as well as traditional 'close support' using bombs and machine guns.

<sup>187</sup> Bottomley, "The Work of the RAF on the NWF": 776.

<sup>188</sup> This profile was known locally as the 'VBL' or Vickers-Bomb-Lewis attack, with the front Vickers gun being used to cover the approach prior to bomb release, while the rear gunner's Lewis kept heads down during the 'get away' as the aircraft returned to the sanctuary of height.



with their own weapons, such as hostiles on reverse slopes, except in emergencies.<sup>189</sup>

Finally, ‘troop carrying and supply’ had been employed for a wide variety of tasks, including: personnel movement;<sup>190</sup> the evacuation of casualties, the sick and medical staff;<sup>191</sup> and the re-supply of isolated garrisons and columns to relieve them of the burden of supply chains.<sup>192</sup>

Bottomley concluded with a revealing reflection on inter-Service co-operation:

Whatever conflicting views may be held by higher circles as to the best methods of control on the frontier, those different points of view have never prejudiced the single aim which has always characterized inter-Service co-operation in the field... there is great mutual understanding, most friendly co-operation and the greatest confidence in inter-Service relations on the North-West Frontier itself.<sup>193</sup>

Bottomley’s article highlights how the Air Ministry’s sophisticated air blockade policy had been constrained from being applied in India. Instead, the Army had insisted on the RAF applying ‘punitive proscription’, a tactic not recognised by the Air Staff.<sup>194</sup> It also demonstrates how the tribesmen had countered the threat of aircraft by dispersing, only presenting a concentrated target when forced to counter British troops. The concomitant proximity of friendlies and hostiles had driven the RAF to focus on precision, a rare aberration from the normal emphasis on ‘morale effect’, and one enforced on it by Army, rather than Air Force, requirements. In contrast, the Air Staff would have preferred to use the dispersing effect of air power to enforce inverted

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<sup>189</sup> This was in harmony with the Army Council’s guidance, which stated that ‘Troops deployed are not suitable targets for fighters, nor should fighters be used to attack objectives that can be engaged by artillery or machine guns on the ground’ (see Army Council, *The Employment of Air Forces with the Army in the Field* (London: HMSO, 1938), 38).

<sup>190</sup> Bottomley explained that the 14-day Peshawar-Gilgit journey could be made in two-and-a-half hours by air.

<sup>191</sup> As had been employed during the 1935 Quetta earthquake. See Slessor, *The Central Blue*, 102-118.

<sup>192</sup> During 1937, Wana had been re-supplied with 145 tons of supplies and 5,000 men by air when the roads were closed.

<sup>193</sup> Bottomley, “The Work of the RAF on the NWF”: 778. General Muspratt, the IO’s Military Secretary, was chairing the RUSI presentation and agreed with Bottomley’s sentiments about inter-Service accord. See Chapter 6’s section on ‘improving inter-Service relations, 1935’.

<sup>194</sup> The biography of John Masters, a Ghurkha officer on the NWF, revealed how punitive proscription worked: ‘Ideally aerial proscription sent all the tribe into the safe enclave and forced its surrender, without bloodshed, by the complete disruption of its normal life. In practice the threat was often enough’. See Masters, *Bugles and a Tiger*, 215.

blockades. Equally important is Bottomley's description of how, despite inter-Service disagreement over the employment of the RAF on the NWF, there was nevertheless very close co-operation at a local, tactical level.

## COMBINED FRONTIER MANUAL

The 1939 *Frontier Warfare – India (Army and Royal Air Force)*, known at the time as the '*Combined Frontier Manual*', forms an appropriate full stop at the end of the doctrinal publications considered in this Thesis.<sup>195</sup> It could be argued that Edition 2 of AP1300 is also a logical end-point. Although published in 1940, its gestation began in 1938 when Wing Commander Ivelaw-Chapman was appointed editor. Whilst Edition 2 was a significant re-write, it continued to emphasise that morale effect was the primary aim. Chapter XIII 'Operations in Unadministered and Undeveloped Areas' closely reflected the themes of the Combined Manual and emphasised that the aim was 'to induce the enemy to submit with the minimum destruction of life and property, and with due regard to economy in time, money and energy'.<sup>196</sup> One notable additional AP1300 tactic was the 'air cordon'; also known as 'air pinning', it involved air forces assisting troops in surprise searches of villages by imposing an aerially-enforced cordon and dropping notices warning the inhabitants to remain within the village or be liable to be shot if they left. This allowed time for ground forces to then deploy and search for offenders.<sup>197</sup>

Nonetheless, the *Combined Frontier Manual* replaced both the Army's 1925 *Manual of Operations* and the 1935 AS(I)M 1.<sup>198</sup> Indeed HQ RAF(India) was so keen to use the new *Combined Manual* that it replaced AS(I)M 1 with a proof copy of the

<sup>195</sup> Defence Department, *Frontier Warfare - India*.

<sup>196</sup> Air Ministry, *AP 1300: Royal Air Force War Manual. Part I - Operations*, 2nd ed. (1940), Ch XIII, para 8.

<sup>197</sup> AIR 5/1327, Enclosure 1, *Notes on the Air Cordon*, 1938.

<sup>198</sup> Army Headquarters, *Manual of Operations on the North-West Frontier of India* (Calcutta: Government of India, 1925); *Air Staff (India) Memo No. 1*.

new Combined publication the year before it was officially published. Understandably, the gestation of the *Combined Manual* was not without issues, especially over independent air operations, as explained in Chapter 7. Air operations were covered in Chapter III (*Air Operations - Principles*), IV (independent *Air Operations - Methods*), while Chapter VII covered *Co-operation by Land and Air Forces*, with Chapters IV and VII being the most relevant. Overall, the Manual's tactics correlate closely with Bottomley's *JRUSI* article and reflected the contemporary derived doctrine.

Chapter III, a short, three-page section entitled '*Air Operations – Principles*', grouped operations into three broad, overlapping, categories, namely: air blockade; destructive air action; and the direct attack on hostile tribesmen. Interestingly, the latter two categories were specific in-theatre techniques that had developed in reaction to the NWF's circumstances. Of note, the *Combined Manual* recommended that, to take advantage of the speed of response of aircraft, the decision to take air action should be reached 'as soon as possible'. If crews were captured, notices would be dropped explaining that air action would not be relaxed and that the tribesmen would be held responsible for the airmen's safety.<sup>199</sup>

Chapter IV (*Air Operations – Methods*)'s thirteen pages provided a detailed description of the independent employment of aircraft. The primacy and prior approval of the political authorities was emphasised. The Chapter described in detail how to draft warning notices that the RAF, augmented by messengers, would deliver, the 'preliminary warning notices' being on white paper, and the 'final bombing notices' on red paper. It then described the three categories of independent air operations (air blockades, proscriptive and destructive air action).

The detailed description of air blockade methodology was consistent with the Air

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<sup>199</sup> Defence Department, *Frontier Warfare - India*, 17-19.

Staff's previously-described 1936 and 1938 Air Blockade memos.<sup>200</sup> At the IO's request, there was no reference to the use of delayed-action bombs.<sup>201</sup> Interestingly, a December 1939 paper by the Air Staff's Directorate of Plans concerning attack on German industrial targets opined that delayed action bombs were humane because they gave 'all workers and civil population in the neighbourhood time to move away'. However, the Air Staff were clearly conscious of the Army's position, with the Deputy Director of Intelligence noting that:

I do not think that the analogy of action against black and yellow tribes is a true one. Such people cannot be persuaded to understand what they read, even if they read it. They have little sense of time and are unable to reason logically. Against them, the long-delay bomb is likely to wreak havoc.<sup>202</sup>

If this was a generally-held view, it significantly undermined the perceived effectiveness of warning notices. Nonetheless, the Deputy Director commented, with reference to delayed-action bombs against Germany: 'Would the world at large agree that we had found the answer to the normal humanitarian objections to bombing? I think on the whole it would'.<sup>203</sup> So, ironically, the use of delayed action bombs that the IO objected to was soon to be advocated as humanitarian against Europeans.

The *Combined Manual* categorised proscriptive air action as being either 'tactical' or 'punitive'. Terminology apart, the tactics are identical to Bottomley's previously mentioned 1939 *JRUSI* article. To pacify the Air Staff's concern over

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<sup>200</sup> See Air Ministry, *Air Blockade*, 1936; Slessor, *Notes on Police Bombing dated 18 June 1938*; and *Air Blockade*, 1938.

<sup>201</sup> All mention of delayed-action bombs in a draft copy of the Manual were crossed through by the IO, and did not appear in the final version. See AIR 2/2065, India Defence Department, *Frontier Warfare - India (Army and Royal Air Force) - Draft*, 7 October 1938, 23, 27. Delayed-action bombs did cause some casualties; Air Commodore Chamier wrote to *The Times* describing a personal interaction in 1925 with the Jalal Khels on the NWF: 'They spoke of many bombs which failed to explode and their value for the brass they contained, and laughed as they told of the effect of one of the long delay action bombs which blew one of their number to pieces as he tried to unscrew the fuze'. See AIR 9/12, E54, Air Commodore J A Chamier, *Letter to the Editor, The Times*, 23 September 1932, 2.

<sup>202</sup> AIR 20/438, Group Captain H H MacL Fraser, *Memo from Deputy Director Plans (Operations) to Director of Operations (Group Captain J C Slessor)*, 16 December 1939.

<sup>203</sup> AIR 20/438, Deputy Director Intelligence (3), *Minute from Deputy Director Intelligence to Deputy Director Plans (Operations)*, 21 September 1939.

confusion between punitive proscription and the air blockade (described in Chapter 7), the *Manual* noted that the former ‘bear no relation to air blockade’.<sup>204</sup>

The *Combined Manual*’s description of destructive air action is almost identical to Bottomley’s *JRUSI* article. No doubt to the Air Staff’s chagrin, the description added that, in addition to being used purely punitively (as an Army punitive expedition would be), destructive air action could also be used to bring pressure to bear on tribes ‘when conditions are not suitable for air blockade’ or, alternatively, in conjunction with air blockades or proscriptive air action. If used to apply pressure, the *Manual* recommended that the destruction should be progressive, with each destructive phase notified well in advance (to maximise psychological pressure, as well as to avoid casualties). The selection of objectives for destruction had to be made with due regard to their susceptibility to aerial bombardment and, as a considerable expenditure of heavy bombs would usually be necessary, the individual objectives should not be too numerous, presumably to minimise cost and effort.<sup>205</sup>

Chapter VI of the *Combined Manual*, which described the *Characteristics of the Armed Forces*, contained a brief description of the roles of bomber and army co-operation squadrons in India. For the first time in formal doctrine, the role of the bomber-transport was described, namely: increasing the mobility of squadrons; evacuation of troop casualties; and the carriage of reinforcements, supplies and ammunition to isolated posts or small detached forces. The Chapter also warned Army officers not to unnecessarily risk the loss of an aircraft due to the repercussions if the crew were captured.<sup>206</sup>

Chapter VII, *Co-operation by Land and Air Forces*, just two pages shorter than Chapter IV on independent air operations, underlined that army co-operation aircraft

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<sup>204</sup> Defence Department, *Frontier Warfare - India*, 30.

<sup>205</sup> *Ibid.*, 31-33.

<sup>206</sup> *Ibid.*, 51-52.

would be placed under the command of the Army force commander, with an RAF advisor attached to the force HQ. If this HQ did not accompany the column, another RAF officer would deploy to advise and liaise with the column HQ. Bomber aircraft would remain under RAF control, albeit co-ordinated with the army co-operation squadrons. The four discrete army co-operation roles of 'air reconnaissance', 'troop carrying and supply', 'offensive air action in co-operation with land forces', and 'close support' were described in detail.

'Air reconnaissance' patrols provided advanced warning of tribal attacks against Army posts. Tribesmen had learnt to move at night or in small parties, and to conceal and camouflage themselves when aircraft were heard, but machine gun fire or light bombs could be used to stimulate movement. Pilots would normally remain above effective rifle range, but could descend at high speed if absolutely necessary. Stereoscopic photographs could be an 'invaluable supplement' to ground reconnaissance.<sup>207</sup>

Expanding upon the advice in Chapter VI, the *Manual* explained that improvised landing grounds should be prepared near Army posts and halting places. In their absence, limited supplies could be dropped to Army units. Potentially, with sufficient aircraft, brigade-plus-sized formations could be re-supplied. However, troops would have to protect low-flying or landing aircraft as well as parachute drop zones.<sup>208</sup>

As explained by Bottomley, during watch and ward duties, aircraft co-operating with troops could only use lethal force against tribesmen in self defence; habitations could only be engaged with the prior sanction of the GoI. However, in emergencies, a land commander could request aerial 'offensive air action' against tribesmen actually engaged with troops. Tribesmen seen approaching a column with apparent hostile intent, even if seen preparing an ambush, could not be engaged until they had opened

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<sup>207</sup> Ibid., 58-61.

<sup>208</sup> Ibid., 62-63.

fire. Even during Government-authorised operations, villages could not be engaged until warning and bombing notices had been dropped; similarly, to separate friendlies and hostiles, an area had to be cleared (proscribed) prior to offensive air action, except in self defence or in emergencies.<sup>209</sup>

When an area around a land force had been proscribed, army co-operation squadrons could ordinarily employ light bombs and machine gun fire against approaching or retiring tribesmen. Thus, aircraft could be used simultaneously in an independent role to proscribe an area, while also conducting 'close support' work with ground forces. Their greatest value in this latter role was in dispersing tribesmen about to overwhelm friendly troops; indeed, their mere presence could prevent tribesmen from concentrating. Thus, while punitive columns aimed to compel tribesmen to concentrate and give battle under advantageous conditions, the Army used the RAF to disperse tribesmen when disadvantaged. The *Manual* recommended, as had Bottomley, that aircraft should only rarely engage targets that ground forces could engage; the reason for this recommendation is unclear, but was probably due to difficulties with air-to-ground communication.<sup>210</sup> It was recommended that, normally, only one aircraft should attack at a time, while the other aircraft remained outside the range of effective rifle fire.<sup>211</sup> Due to the lack of robust communications, standing air patrols would, when possible, be arranged. Independent detachments (such as advanced guards) could be allocated their own close support aircraft. However, the *Manual* warned that, where two or more troop formations acted together in the same operation, a higher commander should control any air support due to the individual formations' inability to maintain situational

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<sup>209</sup> Ibid., 63-64.

<sup>210</sup> The Army was responsible for land-line telephony between their HQ and the landing grounds, while ground-to-air direction was maintained via either R/T, visual signals such as the Popham Panel, or by cloth strips.

<sup>211</sup> Normally above 2500 feet. While it was 'the duty of a pilot to fly temporarily at a lower height' if required, it was seldom necessary for attacking aircraft to descend below 1500 feet.

awareness of each other.<sup>212</sup>

The *Combined Manual* is an apt place to halt the inter-War analysis of RAF NWF doctrine. Certainly, this was an unprecedentedly joint publication which, given its similarity to Bottomley's description to RUSI, probably largely reflected actual practice. Some items are notable by their absence, such as lack of any mention of the use of aircraft in rearguard actions. Another anomaly was the inclusion of air blockade tactics which, as Bottomley had explained, had never been properly applied in India (indeed, the Air Ministry had stated in 1935 that 'there is every indication that it will never be allowed to be used');<sup>213</sup> SoS(India) had allowed this be included at the RAF's insistence, despite the Army's wishes.<sup>214</sup> This is interesting, given that the air blockade was designed to minimise damage, whereas the Army were active sponsors of punitive proscription and destructive air action which achieved their aim by deliberately inflicting damage. Certainly, the overlap between the air blockade, punitive proscription and destructive air action was confusing. The reasons for the Army's reticence about the air blockade may be diverse. Firstly, the Army and RAF authorities in India had to take a pragmatic approach to the practical issues of the NWF, while the Air Staff's 'battles' were largely political in nature, focusing on their need for an ethically-defensible, air-only tactic. Additionally, there was wider normative acceptance of troops delivering lethal force than of the "unsportsman-like", asymmetric use of air power on tribesmen who could not easily retaliate. Importantly, many within the Air Ministry thought the reason was 'largely fear of reductions being made in the land forces of INDIA' following Trenchard's 1929 swansong.<sup>215</sup> Indeed, one fairly constant theme was the Army's preference to accept casualties, rather than

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<sup>212</sup> Defence Department, *Frontier Warfare - India*, 64-67.

<sup>213</sup> AIR 5/1325, Squadron Leader L Darvall, *Paper for Deputy Director Operations (Group Captains R H Peck and A T Harris): Air Power on the North West Frontier of India*, 16 October 1935.

<sup>214</sup> This is discussed in Chapter 7.

<sup>215</sup> Darvall, *Air Power on the NWF of India*, 16 October 1935. Trenchard's swansong is discussed in Chapters 6 and 7.



employ aircraft to their full effect; C-in-C(India) had complained in 1922 that the capture of two RAF crews during a Waziristan operation 'caused much embarrassment to the GOC', while Beaumont commented that, in 1931:

'In the prolonged debate over air policing in India, the Army was manoeuvred at one point into arguing that it was better that they[,] rather than their enemies[,] should suffer heavy casualties'.<sup>216</sup>

## CONCLUSION

Trenchard's 1929 call for substitution ('control without occupation') on the NWF caused a significant rift between the Air Staff and IO.<sup>217</sup> *AP1300*'s guidance on undeveloped and semi-civilised operations was rapidly updated by ASMs, with increased emphasis on morale effect, political control, rapid decision-making and allowing aircraft freedom for manoeuvre, all aimed at removing Army constraints on the employment of air power. To counter accusations of brutality, there was also a broadening of emphasis towards inter-theatre and tactical troop transport, evacuation and aerial resupply enabled by the advent of bomber-transports, which also offered longer loiter times and bomb loads. However, as Vincent Orange pointed out, RAF transport aircraft technology lagged well behind the Germans and Americans.<sup>218</sup> While this capability would have greatly reduced the logistical issues associated with punitive columns on the NWF, it was rejected by C-in-C(India) on the grounds of cost; the concomitant threat to Army structure, especially under the shadow of Trenchard's swansong, along with mixed messages from the RAF, were probably significant factors. Indeed, although the RAF displayed local technical innovation in India (because it increased capability), the Army seemed to ignore it, probably because

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<sup>216</sup> Beaumont, "A New Lease on Empire": 86.

<sup>217</sup> Air Staff, *ASM 46*, 3.

<sup>218</sup> Orange, *Churchill and His Airmen: Relationships, Intrigue and Policy Making 1914-1945*, 133.

technology threatened man-intensive force structures.<sup>219</sup> *AS(I)M 1* supported substitution, focusing on independent air operations alone and recommending the use of minimum force in imposing coercive blockades, rather than destructive, punitive strikes. When supporting ground troops, *AS(I)M 1* recommended coercive strikes against the village-of-origin of *lashkars*. In contrast, the Army required, understandably, precision attacks on tribesmen to directly support troops. It became evident that, while ground operations endeavoured to force the tribesmen to concentrate in conventional battle, the 'air method' tended to disperse them; the two methods were incompatible unless carefully co-ordinated and a clear decision on whether the Army or RAF took the lead. In India, it was always the former, and air blockades were almost never imposed. The arrival of Ludlow-Hewitt as AOC(India) in 1935 marked a watershed for Army-RAF relations on the sub-continent. While the Air Staff's doctrine continued to favour the 'inverted blockade', in India, the *Combined Manual* focused on co-operative methods, although 'blockade' tactics were still included at the Air Staff's insistence, despite never being allowed to be used. Interestingly, while the Army's greatest public criticism of the air method was its 'brutality', they advocated punitive, destructive, air action rather than the RAF's tactic of minimum force in enforcing blockades, whilst remaining sensitive to the consequences of captured aircrew.

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<sup>219</sup> Contrast, for example, the RAF's in-theatre development of R/T tenders against the Army's adverseness to aerial resupply.

## ***CHAPTER 6 – A BRIEF HISTORY OF THE RAF ON THE NWF***

### **INTRODUCTION**

The previous Chapters described the development of Air Staff doctrine pertinent to NWF operations. This Chapter examines the conduct of NWF air operations against this doctrine, focusing on the influence of inter-Service friction rather than comprehensively describing events. The analysis shows that discord occurred at several levels: first, over funding and resource allocation in a competition over relative force structures and concomitant political influence; and second, over the most efficient strategy for employing aircraft. These were linked by further competition over the command and control of in-theatre assets, which allowed the 'supported' Service to dictate tactics to the subordinated, 'supporting' force. The dynamic was not just between the Army and RAF, as routine political control was vested in the GoI's Foreign and Political Department. The Army and RAF approached this hegemony differently. The Army sometimes adopted a 'surlly if not actively hostile' attitude, while the Air Staff promoted their ability to cheaply deliver political effect with minimum force without costly punitive land operations.<sup>1</sup> Despite this enduring inter-Ministry tension, the exigencies of the growing insurgency in the late 1930s resulted in generally effective tactical co-operation between the in-theatre Services. Overall, the inter-Ministry conflict centred on competition over control of resources and political influence rather than tactical capability. Frustrated by their lack of influence, the Air Staff became unnecessarily critical without fully appreciating the context. In contrast, the Air Staff(India) remained pragmatic, promoting the most efficient use of air power within the in-theatre constraints, despite disagreeing with GS(India) strategy. This placed the Air Staff(India) in an invidious position; a pragmatic approach was required to address urgent local security issues and demonstrate the RAF's ability to delivered

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<sup>1</sup> Ledwidge, "Review of Tripodi, 'Edge of Empire'": 107. See Chapter 2.

the effects tasked by the Army's command chain. To petition continually for the application of the Air Staff's doctrine may have alienated their Indian (Army) command chain and been detrimental to the RAF's in-theatre reputation, especially since, constitutionally, there was no official links between the Air Staff(India) and the Air Ministry over policy issues. Ultimately, the Air Staff(India) had a duty to comply with their in-theatre command chain. Conversely, most RAF officers seemed to agree with core RAF doctrine and were keen to maximise air power's potential on the NWF. As will be seen, different AOC(India)s took different approaches to balancing these contradictory factors, but most ultimately erred on the side of complying with the requirements of the job in hand.

## EARLY INDIAN AVIATION

The archive reveals India's initial enthusiasm for air power. In 1911, twelve generals observed a Bristol Box-kite participate in a cavalry exercise.<sup>2</sup> C-in-C(India) 'realized at once its vast possibilities and its future importance to the Indian Empire'.<sup>3</sup> CGS(India), Douglas Haig, subsequently informed the WO that 'We are considering here how best to start a school of instruction and a corps for air work...' although 'Money at present is very tight'.<sup>4</sup> By April 1914, an Indian Central Flying School had been established 'to gain experience in aviation under Indian conditions'.<sup>5</sup>

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<sup>2</sup> Macmillan, *Sir Sefton Brancker*, 14-18. The first aeroplanes had flown over India in late 1910 when three companies carried out demonstration flights (see also Clive Richards, *Origins of Military Aviation in India and the Creation of the Indian Air Force, 1910-1932, Part One: The Origins of Military Aviation in India, 1901-1918*, Manuscript from Author, 2007, 2).

<sup>3</sup> Macmillan, *Sir Sefton Brancker*, 19.

<sup>4</sup> Michael Paris, "Air Power and Imperial Defence 1880-1919", *Journal of Contemporary History* 24, no. 2 (1989): 218. Financial considerations remained an enduring constraint in India (see B R Tomlinson, *The Political Economy of the Raj 1914-1947* (London: MacMillan Press, 1979)).

<sup>5</sup> "Flying School for India", *Flight*, 11 April 1914.

## FIRST WORLD WAR

At the outbreak of the FWW, all India's aircraft and associated personnel were deployed overseas.<sup>6</sup> In April 1915, India's Inspector of Mechanical Transport, Lord Montagu, informed the GS(India) that 'The moral effect of aeroplanes and the dropping of high explosive bombs on hostile Lashkars and villages would probably be very great', advocating a chain of airfields along the NWFP.<sup>7</sup> The Chief Commissioner, NWFP, added 'I am quite sure that [Montagu] will have done more for the pacification of the Frontier and for the prevention of a possible Afghan war than anyone has done in the last twenty years'.<sup>8</sup> In August 1915, the Viceroy requested that the WO deploy aircraft to the NWF as 'one of the most valuable' measures of mitigating his garrison's depleted strength:<sup>9</sup>

The early establishment of an efficient and adequate flying service... on the North West Frontier is so essential for us that we press for all promptitude in the matter.<sup>10</sup>

Even at this early stage, India appeared keen to control its own air power, rather than rely on the RFC, proposing the re-establishment of an Indian aviation school. The WO rejected this due to lack of resource and concerns over sustaining the supply chain at such great distance, a constraint that would endure.<sup>11</sup> The WO conceded in November 1915, deploying 31 Squadron to India. The Squadron soon demonstrated over the Chief Commissioner and trans-border tribal leaders. One chief reflected: 'the day of the Robber and Murderer was at an end as the Raj... could see all their

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<sup>6</sup> Paris, "Air Power and Imperial Defence": 218.

<sup>7</sup> Ibid.: 218-219. For a detailed analysis of Montagu's influence, see Michael Collins, "A Technocratic Vision of Empire: Lord Montagu and the Origins of the Royal Air Force", [http://www.academia.edu/2786237/A\\_Technocratic\\_Vision\\_of\\_Empire\\_Lord\\_Montagu\\_and\\_the\\_Origins\\_of\\_the\\_Royal\\_Air\\_Force](http://www.academia.edu/2786237/A_Technocratic_Vision_of_Empire_Lord_Montagu_and_the_Origins_of_the_Royal_Air_Force).

<sup>8</sup> Paris, "Air Power and Imperial Defence": 218-219.

<sup>9</sup> AIR 1/31/15/1/165 E2, Under Secretary of State for India, *Copy Telegram from Viceroy to Secretary of State. Dated 20th August 1915*, 28 August 1915.

<sup>10</sup> AIR 1/31/15/1/165 E5, India Office Military Secretary, *Telegram from Viceroy. Dated 22nd August 1915*, 10 September 1915.

<sup>11</sup> AIR 1/31/15/1/165, B B Cubitt, *Letter, Assistant Secretary to the War Office to Under Secretary of State for India*, 2 October 1915.

doings'.<sup>12</sup> In July 1918, the IO requested two additional squadrons:<sup>13</sup>

Recent frontier warfare has shown their extreme value... an efficient and sufficient force of aeroplanes can bring about a decision in our favour on the frontier more quickly than anything else, and incidentally[sic] save many lives, considerable bloodshed, and much money,

simultaneously highlighting air power's role against potential Russian aggression.<sup>14</sup>

Whilst agreeing in principle, the Air Staff 'regretted that it is not possible at the present time to divert any additional Air Force to India', although they could 'despatch squadrons from Egypt to India in the case of emergency'.<sup>15</sup> Nevertheless, the IO continued to 'strongly urge' the development of aircraft suitable for the NWF.<sup>16</sup>

The early development of air power in India is revealing given the Army's subsequent attitude. First, Army officers swiftly recognised the aircraft's potential and sought an Indian capability. Second, the FWW's outbreak stifled the Indian air arm's development, leaving India dependent on UK assets; 'India's' aspiration for an organic capability probably influenced the subsequent attitude towards 'outside' airmen. Third, the Army's early enthusiasm was a reaction to Indian troop reductions; the Army recognised air power's utility as a force multiplier, partially substituting troops and mitigating the inherent risks associated with a numerically-depleted force. The Air Staff would later use the same argument during the strain on troop numbers during the 1935 Mohmand Campaign to propose the expansion of NWF air action.<sup>17</sup>

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<sup>12</sup> *The History of No 31 Squadron Royal Flying Corps and Royal Air Force in the East from its Formation in 1915 to 1950*, 1-2.

<sup>13</sup> AIR 2/68 (A1179), Air Council Secretary, *Letter to Under Secretary of State, India Office*, 29 July 1918.

<sup>14</sup> AIR 2/68 (A1179), Lieutenant-General Sir Herbert Cox, *Letter, Secretary, Military Department, India Office, to Secretary, Air Ministry*, 11 July 1918.

<sup>15</sup> Air Council Secretary, *Letter, Air Ministry to USoS India*, 29 July; AIR 2/68 (A1179), India Office Military Secretary, *Letter to Secretary, Air Ministry*, 8 August 1918.

<sup>16</sup> AIR 2/68 (A1179) E6, Sir James Seabrooke, *Letter, Military Department, India Office, to Secretary, Air Ministry*, 27 August 1918.

<sup>17</sup> See Chapter 7.

## POST-FWW AVIATION

The Armistice catalysed a significant *volte-face* from both the Air Ministry and IO. In November 1918, the Air Ministry recommended that India establish a twelve-squadron force of army co-operation and long-range striking squadrons, as developed during the FWW, 'paid for by the Government of India'.<sup>18</sup> The Air Ministry's thinly veiled agenda, as it faced the possibility of re-absorption into its parent Services, was probably to retain as much wartime force structure as possible (and therefore maintain inter-Service influence), at India's expense. This was clearly a dangerous gambit, given that "he who pays the piper calls the tune", something that would become an enduring issue for NWF air power. The IO promptly questioned why the Air Ministry's recommendation was three times larger than its July suggestion, given the absence of a hostile air threat, adding that:

... any increase beyond what is necessary for local defence must depend upon the role of India in any scheme for Imperial defence in the future, a matter which... has not yet been decided.<sup>19</sup>

The Air Ministry responded that the bomber's 'long range and great weight carrying capacity would... be particularly valuable for action against frontier tribes' and could 'save expenditure in minor operations'.<sup>20</sup> Despite the Air Ministry reducing its suggested force strength to seven squadrons, the IO directed that only five squadrons should be included in the Air Estimate, resulting in 20, 48, 99 and 97 Squadrons

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<sup>18</sup> The Air Ministry suggested a force of four Army Co-operation 'Corps Reconnaissance' squadrons, two fighter reconnaissance squadrons, two squadrons of 'Day Bombers', two 'Scout' squadrons and two heavy bomber 'Giant' squadrons. See AIR 2/68 (A2177), H W W McAnally, *Letter, Assistant Secretary, Air Council, to India Office*, 20 November 1918. The funding suggestion echoed Churchill's speech to Parliament described in Chapter 3 (see McAnally, *Letter, Air Council to India Office, 20 November*).

<sup>19</sup> AIR 2/68 (A2177), E9, India Office Military Department, *Letter, India Office to Secretary, Air Ministry*, 28 November 1918.

<sup>20</sup> AIR 2/68 (A2177), E13, Sir W A Robinson, *Letter, Secretary, Air Council, to India Office*, 7 December 1918.

forming in India between June and August 1919.<sup>21</sup>

In December 1919, Trenchard published a Cabinet White Paper for the permanent organization of the RAF, proposing eight squadrons for India ‘in accordance with a proposal... now under consideration by the Gol’, adding that:

Recent events have shown the value of aircraft in dealing with frontier troubles, and it is not perhaps too much to hope that before long it may prove possible to regard Royal Air Force units not as an addition to the military garrison but as a substitute for part of it. One great advantage of aircraft in the class of warfare approximating to police work is their power of acting at once.<sup>22</sup>

Accordingly, in January 1920, 1 and 3 Squadrons formed in India with Sopwith Snipes.<sup>23</sup> Despite this increase in squadrons, the Viceroy telegraphed SoS(India) in March that any operations against Kabul would require an additional ‘four squadrons, namely, one Scout, two Corps reconnaissance, one bombing’ as well as an additional bomber squadron for a simultaneous advance on Kandahar, a force equal to the Air Ministry’s 1918 suggestion that the IO had rejected.<sup>24</sup> Nonetheless, the logistical burden of supporting an additional aircraft type resulted in many Snipes becoming permanently grounded. In January 1921, the Gol petitioned the IO to withdraw two squadrons, something the Air Ministry only discovered three weeks later. A frustrated Trenchard appealed through SoS(Air) to the CID’s Committee of Indian Military Requirements (CIMR) that:

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<sup>21</sup> AIR 2/68 (A2177), E15, ———, *Letter, Secretary, Air Council, to Under Secretary of State for India*, 6 March 1919; AIR 2/68 (A2177) E16, Lieutenant-General Sir Herbert Cox, *Letter, Military Secretary, India Office to Secretary, Air Ministry*, 10 March 1919; Jefford, *RAF Squadrons: A Comprehensive Record of the Movement and Equipment of all RAF Squadrons and their Antecedents since 1912*, 31, 40-41, 53; Bowyer, *RAF Operations 1918-1938*, 153; James J Halley, *The Squadrons of the Royal Air Force & Commonwealth, 1918-1988* (Tonbridge: Air-Britain (Historians), 1988), 57-58, 106, 169, 171.

<sup>22</sup> “The Permanent Royal Air Force”, *Flight*, 18 December 1919, 1622. In addition to the Gol funding the Indian-based squadrons, the Air Ministry also discussed the possibility of India paying a proportion of the costs of running the Air Ministry and experimental stations (see AIR 8/46, E2, Air Staff, *Indian Establishment - Financial Arrangements*, 4).

<sup>23</sup> Jefford, *RAF Squadrons: A Comprehensive Record of the Movement and Equipment of all RAF Squadrons and their Antecedents since 1912*, 23-24.

<sup>24</sup> CAB 6/4, Edwin S Montagu, *Papers Relating to the Size, Composition and Organisation of the Army in India (CID 119-D)*, 3 January 1921, 4. ‘India’ subsequently amended its estimate of the number of additional squadrons to two (see CAB 6/4, Captain Frederick E Guest, *Air Staff Memorandum of an Afghan War (CID 123-D)*, 8 November 1921, 1).



existing arrangements should be revised so as to provide that communications on Air matters received from the Government of India or from the C. in C. should in the first instance be referred by the recipient Department to the Air Ministry, in order that they may be considered at the earliest stage by that Department as primarily responsible to H.M. Government for all questions affecting national or imperial Air interests.<sup>25</sup>

Nevertheless, both Snipe squadrons were withdrawn by September.<sup>26</sup>

### THIRD AFGHAN WAR

During the 1919 Third Afghan War, aircraft were employed extensively on the NWF for the first time.<sup>27</sup> Aircraft were mostly confined to close reconnaissance patrols.

However, long-range attacks against Dakka and Jalalabad in May generated significant moral effect.<sup>28</sup> Additionally, Captain 'Jock' Halley's Handley Page V/1500 famously bombed Kabul on Empire Day. The Amir agreed an armistice in May, 'laying great stress on the bombing of the Jalalabad and Kabul Royal Palaces'. Halley later claimed his aircraft had 'ended a war on its own';<sup>29</sup> C-in-C(India) was more measured, stating that 'this raid was an important factor in producing a desire for peace at the headquarters of the Afghan Government'.<sup>30</sup> The Thal garrison commander reported that hostile tribesmen 'live in dread of aeroplanes... Wherever action was taken by aeroplanes the enemy dispersed, often abandoning guns and horses', while the RAF

<sup>25</sup> AIR 8/40, E1, Air Marshal Sir Hugh Trenchard, *Memorandum: 'Status of the Royal Air Force in India', circulated by Secretary of State for Air to the Committee on Indian Military Requirements*, 8 December 1921.

<sup>26</sup> Jefford, *RAF Squadrons: A Comprehensive Record of the Movement and Equipment of all RAF Squadrons and their Antecedents since 1912*, 23-24.

<sup>27</sup> AIR 5/1329, *Resume of Operations against Afghanistan 18th May to 31st May 1919*, 1919, 4.

<sup>28</sup> AIR 5/1329, HQ RAF India SO "A", *Daily Detail of Work Done - 52nd Wing 1919*, 1; Army Headquarters General Staff Branch, India, *The Third Afghan War 1919 Official Account* (Calcutta: Government of India Central Publications Branch, 1926), 35; Sir Charles Monro, "An Account of the Recent Operations Against Afghanistan", *The London Gazette*, 12 March 1920, 3276-3277; AIR 8/46, E12, Air Staff, *The Progress of the Development of Air Power in India*, June 1926, 2; *Resume of Operations against Afghanistan 18th May to 31st May*, 1; General Staff Branch, *The Third Afghan War 1919 Official Account*, 49; "Air Work on Indian Frontier", *Flight*, 18 March 1920, 310.

<sup>29</sup> Halley, "The Kabul Raid", 441. One 112 and three 20-pound bombs hit the Palace while three 112 and seven 20-pounders hit the arsenal at Arg, the latter resulting in a large explosion (see *Resume of Operations against Afghanistan 18th May to 31st May*, 1-2).

<sup>30</sup> Monro, "An Account of the Recent Operations Against Afghanistan", 3277.

recorded 'the almost complete demoralization of Afghan troops and tribesmen as a result of offensive action by aircraft'.<sup>31</sup> However, the GS(India)'s official account noted that the campaign:

proved the value of aeroplanes in long-distance strategical reconnaissances, in bombing areas of concentration, supply depots and transport, but in short-distance tactical reconnaissances they were of no great value... the tribesmen soon learnt how to break into small groups and to keep still when an aeroplane was overhead.<sup>32</sup>

The RAF noted that a shortage of aircraft had resulted in inadequate Army co-operation, while splitting squadrons into small detachments had rendered concentrated offensive action almost impossible.<sup>33</sup> It is clear that the Air Staff considered the greatest RAF effect had been on Afghan morale, most pivotally by unexpected long-range bombing against strategic targets, with the inherent threat of escalation.

The lack of a decisive outcome from the Third Afghan War and ensuing poor Anglo-Afghan relations, combined with India's poor post-FWW financial position and shortage of effective manpower, led to the possibility of further conflict with Afghanistan.<sup>34</sup> This was exacerbated by improving Russo-Afghan relations following their 1920 Treaty, including the Russian sponsorship of the Afghan Air Force as a defence against future British air attack.<sup>35</sup> The Air Staff ventured in November 1921, in anticipation of the forthcoming CIMR report, that 'the conditions for an air campaign

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<sup>31</sup> *Resume of Operations against Afghanistan 18th May to 31st May*, 1-3. The Thal garrison commander subsequently messaged the RAF that 'But for the excellent information which you gave, and your accurate shooting and bombing, my task would have been infinitely harder' (see AIR 5/1329, GOC 45th Infantry Brigade, *Letter from Commander Field Force, Thal, to OC RAF Detachment, Kohat*, 3 June 1919); *Resume of Operations against Afghanistan 18th May to 31st May*, 1-2.

<sup>32</sup> General Staff Branch, *The Third Afghan War 1919 Official Account*, 133.

<sup>33</sup> *Resume of Operations against Afghanistan 18th May to 31st May*, 4.

<sup>34</sup> Guest, *CID 123-D*.

<sup>35</sup> CAB 6/5, Lord Erwin, *Despatch No 9 from Government of India to Secretary of State for India, dated 7th October 1926 (Annexure A in CID 149-D)*, 7 October 1926, 3. See also the comments of the GoI's Foreign Secretary during a 1927 meeting of the CID, CAB 16/83, Lieutenant-Colonel Sir M P A Hankey, *Committee of Imperial Defence: Minutes of the 223rd Meeting*, 17 March 1927, 4.

against Afghanistan are exceptionally favourable to the employment of aircraft as the sole striking force'. This was due to the increasing concentration of Afghanistan's population and wealth in fair-sized towns (80% of which were within striking distance of Frontier aerodromes), and its lack of efficient air defences.<sup>36</sup> The CIMR established a joint Army-RAF Technical Sub-Committee chaired by CIGS which 'disclosed sharp divisions of opinion between the General and Air Staffs'. The CIMR recommended that the Air Force's utility in Indian warfare should be further studied by a high-ranking air officer under C-in-C(India), adding that:

If, as we think possible, the result of this study is to show that in present conditions the most effective and most economical method of defence lies in an increase in the offensive power of the Air Force, we should hope that the conclusion would be accompanied by a clear possibility of a compensatory reduction of military expenditure; and we should advise that the present establishment of the Air Force in India should be increased to enable effective bombing of vital points in Afghanistan'.<sup>37</sup>

## WAZIRISTAN, 1919-1920

Tribal unrest persisted following the Third Afghan War. In November, aircraft bombed the Madda Khel tribe, bringing about their immediate submission. The Mahsud's principal villages were also bombed,<sup>38</sup> but C-in-C(India) reported that 'It soon became apparent... that operations from the air, alone, would never force the Mahsuds to

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<sup>36</sup> Guest, *CID 123-D*, 1-2. In 1926, the Air Staff(India) professed that, from aerodromes at Jalalabad, air power could stop a Russian advance against Kabul with minimal Army support, something which CIGS described as 'a most dangerous doctrine' (see CAB 6/5, India Air Staff, *Air Staff, India's, Views on the Employment of the Royal Air Force in Substitution of and in Co-operation with the Military Forces (Appendix II in CID 149-D)*, 17 September 1926, 22 and CAB 6/5, General G F Milne, *Memorandum by the Chief of the Imperial General Staff on the Integrity of Afghanistan (Annexure D in CID 149-D)*, March 1927, 40).

<sup>37</sup> CAB 6/4, Committee of Imperial Defence, *Report of the Sub-Committee on Indian Military Requirements, dated June 22nd, 1922: As Amended and Approved by His Majesty's Government, dated January 26th, 1923 (CID 130-D)*, 26 January 1923, 20. The Committee consisted of: the Prime Minister (Chamberlain); SoS for the Colonies (Churchill); SoS(India)(Montagu/Peel); SoS(War)(Worthington-Evans); President of the Board of Education (Fisher); SoS(Air) (Guest); CIGS (Wilson/Cavan); CAS (Trenchard); Viceroy (Chelsford); and Ex-C-in-C(India)(Monro).

<sup>38</sup> Sir Charles Monro, "Report on the Operations in Waziristan during the Period 3rd November, 1919, to 7th May, 1920", *The London Gazette*, 8 December 1920, 12131; AIR 5/1329, Wing Commander R P Mills, *Summary of Operations: 9th November to 15th December 1919*, 11 January 1920, 4.

accept our terms'.<sup>39</sup> The situation was stabilised by combined Army-RAF operations in May 1920. C-in-C(India) concluded that:

It is impossible to over-estimate the value of aircraft in tactical co-operation with other arms... Their presence alone greatly raised the moral of our troops, while correspondingly decreasing that of the enemy... On the other hand results from bombing and tactical reconnaissance did not fulfil expectations. This was largely due to the nature of the country and the skill with which the tribesmen concealed themselves.<sup>40</sup>

However, the Air Staff later explained that:

Bombing... was subordinated to the requirements of the Army for close reconnaissance, with correspondingly disappointing results... the importance of the new air arm was not as yet fully appreciated by the Government of India.<sup>41</sup>

Thus, the Army drew almost opposite conclusions on air power's utility from the Waziristan campaign and the Third Afghan War: in the latter, they extolled the virtues of long-range air action and denigrated tactical co-operation; whereas in the Waziristan campaign, they besmirched bombing but praised tactical co-operation. This reflected the two campaigns' different characteristics, with fewer 'strategic' targets and regular troop concentrations in Waziristan and a desire by the Army to employ aircraft in a supporting, rather than independent, role.

## BUDGETARY ISSUES

The conclusion of the 1919-20 Waziristan campaign resulted in a comparatively peaceful state. Brancker wrote in 1921 that:

It seems obvious that the garrison in India can be reduced to the strength necessary for purely defensive work, and that all offensive operations, both on the frontier and internally, can be entrusted to the Royal Air Force, with a great saving in money and a far greater saving in men.<sup>42</sup>

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<sup>39</sup> Monro, "Report on the Operations in Waziristan", 12131.

<sup>40</sup> Army Headquarters General Staff, India, *Operations in Waziristan, 1919-1920*, 2nd ed. (Delhi: Government Central Press, 1923), 156-157. Similar comments were included in the C-in-C's despatch (see Monro, "Report on the Operations in Waziristan", 12139).

<sup>41</sup> Air Staff, *The Progress of the Development of Air Power in India*, 1-2.

<sup>42</sup> Macmillan, *Sir Sefton Brancker*, 241.

Instead, severe cuts were made in the Indian air budget with an embargo on spares, causing a deteriorating serviceability rate with a concomitant impact on RAF morale. CAS later attributed this to 'a failure on the part of the Government of India to appreciate the importance of maintaining adequate reserves'.<sup>43</sup> Despite Air Ministry protestations, the deterioration continued; towards the close of 1921, 'the Royal Air Force in India almost ceased to exist as a fighting service'.<sup>44</sup> Pressure from a national press campaign, supported by Montagu, House of Commons questions, and an Air Staff memorandum to the CIMR (highlighting AOC(India)'s lack of access to the Viceroy and the need for a separate RAF(India) financial vote), brought an end to the embargo in April 1922 and the decision to conduct an in-theatre review.<sup>45</sup> Nevertheless, SoS(Air) complained in September 1922 that, as AOC(India) had no right of correspondence with the Air Staff, their only source of information was unofficial, anecdotal reports. This illustrated the Gol's continued reluctance to admit the state of affairs. SoS(Air) recommended that AOC(India) be given the right of access to the Viceroy and the Air Ministry, as was the case with CGS(India) and the WO.<sup>46</sup>

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<sup>43</sup> Air Staff, *The Progress of the Development of Air Power in India*, 2. For more detail, see AIR 8/46, E4, Secretary of State for Air, *Cabinet Paper 4179: Shortage of Equipment of the Royal Air Force in India*, September 1922, 1.

<sup>44</sup> Air Staff, *The Progress of the Development of Air Power in India*, 2.

<sup>45</sup> Bowyer, *RAF Operations 1918-1938*, 163; Secretary of State for Air, *CP 4179: Shortage of Equipment of the RAF in India*, 2; Laffin, *Swifter than Eagles*, 152-153; IOR/L/MIL/7/19272, Captain Frederick E Guest, *Memorandum from Secretary of State for Air to Indian Military Requirements Committee: Status of the Royal Air Force in India*, 8 December 1921. These issues are discussed in Chapter 7.

<sup>46</sup> Secretary of State for Air, *CP 4179: Shortage of Equipment of the RAF in India*, 1-2.

## 1922 SALMOND REVIEW

Trenchard recommended that Jack Salmond chair the Indian review<sup>47</sup> and drafted wide-ranging Terms of Reference.<sup>48</sup> Salmond's team arrived in India in June 1922, finding only a handful of serviceable aircraft, aircraft with holes in the wings and FWW battle damage, pilots who rarely flew, and 'rock-bottom' morale.<sup>49</sup> According to Saward, 'Salmon received scant, if any, cooperation from the Army'.<sup>50</sup> Laffin's biography of Salmond concurred, noting that Arthur Harris (then OC 31 Squadron) reported that the Army's attitude changed on learning of the looming review:

They obviously panicked... all the stores that we had been unable to obtain for a year and more in the past were rushed up to us before Salmond could reach India. I am sure that it was because of my personal knowledge of the disgraceful technical conditions of the R.A.F. in India under the Army that I was hurriedly posted to Iraq... but I stayed long enough to help put [Salmond] wise.<sup>51</sup>

The impending review changed the tone of correspondence between C-in-C(India) and CAS, with Rawlinson appearing keen to avoid any blame; in April, Rawlinson asked Trenchard to 'make as much noise as possible over our shortage of spares' which he alleged was:

entirely due to the action of... our Finance Member, in stopping the purchase of spare parts... I took the matter to Council three times, and urged the Viceroy

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<sup>47</sup> C-in-C India had recommended to Trenchard in April 1922 that Air Vice-Marshal Phillip Game head the review; although Salmond was sent instead, Game would become AOC(India) in December 1922. See: Laffin, *Swifter than Eagles*, 153; MFC-76-1-136, General Lord Rawlinson, *Letter, Commander-in-Chief India to Chief of Air Staff*, 20 April 1922.

<sup>48</sup> Air 8/40 E16, J A Webster, *Letter from Principal Assistant Secretary, Air Ministry, to Indian Military Requirements Committee (IMR 93): Despatch of Officer of High Rank to India*, 11 May 1922. The TORs, agreed by SoS(India), SoS(Air) and CIGS, were to: (i) identify possible economies by an increased use of the RAF; (ii) investigate the RAF's role in (a) border defence, (b) controlling the border tribes and (c) maintaining internal security; (iii) design an improved RAF(India) structure for maintaining air units; and (iv) submit a report to SoS(India), through C-in-C(India). See Salmond, *1922 Report on RAF India*, Appendix I.

<sup>49</sup> Group Captain Chamier (the Air Staff's Deputy Director Operations and Intelligence), a Wing Commander engineer and an Aide-de-Camp accompanied Salmond (see Webster, *Despatch of Officer of High Rank to India, dated 11 May 1922*).

<sup>50</sup> See Saward, *'Bomber' Harris*, 33 and Slessor, *The Central Blue*, 34-35. For an in-depth analysis of the Army's attitude to Salmond during his review, see Waldie, "Relations Between the Army and RAF, 1918-39", 174-180.

<sup>51</sup> Laffin, *Swifter than Eagles*, 155-156. Harris' biography is at [Annex 7](#).

and my Hon'ble Colleagues to over-ride the Finance Member's decision. They refused to do so...<sup>52</sup>

However, Salmond informed Trenchard privately from India in June that 'I have my doubts whether that is actually the case' and that 'There is no doubt that [Rawlinson] is thoroughly opposed to giving the RAF more freedom of action'.<sup>53</sup> Nonetheless, Salmond concurred that 'The RAF have an unsavoury reputation in financial circles not in the least deserved which I have done my best to dispel'.<sup>54</sup>

The structure of Salmond's 59-page report is revealing. Part I described the RAF's successful use of aircraft abroad (focusing on the NWF), followed by a discussion of the advantages of aircraft on the Frontier. It then outlined a cost-saving scheme for the substitution of troops in tribal territory by punitive air operations.<sup>55</sup> Salmond highlighted air power's ability to bring pressure to bear on Kabul without occupying it, predicting: 'the lesson of history teaches us that *if we advance into the heart of the land* our troubles may only then be commencing', although he warned that 'by rapidly disintegrating the Government of Afghanistan *before* decisively defeating the main Afghan Armies in the field we shall merely create a state of chaos'.<sup>56</sup> Two themes were evident in Salmond's proposals. First, the use of aircraft was envisaged as being largely punitive at this time (as a simple substitute for punitive columns) and, second, an emphasis on moral, rather than physical, effect.

Part II focused on RAF(India)'s organisation. It highlighted: the under-establishment of most RAF units; the embargo's impact on all UK technical supplies; HQ RAF(India)'s geographic dislocation from Army HQ and the GoI;<sup>57</sup> the RAF's need

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<sup>52</sup> Rawlinson, *C-in-C India to CAS, 20 April 1922*.

<sup>53</sup> MFC-76-1-138, Air Vice-Marshal Sir J M Salmond, *Personal Correspondence to Chief of Air Staff* 22 June 1922.

<sup>54</sup> MFC-76-1-138, ———, *Personal Correspondence to Chief of Air Staff*, 8 August 1922.

<sup>55</sup> This required an additional two squadrons to deliver 216 tons of bombs per month.

<sup>56</sup> Salmond, *1922 Report on RAF India*, 9-10. Emphasis in original.

<sup>57</sup> At this time, HQ RAF(India) was at Ambala, whereas the GS(India) was co-located with the GoI at Delhi (relocating to Simla between March and October).

for a separate, independent budget; and AOC(India)'s lack of access to the Viceroy.<sup>58</sup>

Salmond informed the Viceroy that:

In every part of the world, with the exception of India, the recognition of the Royal Air Force as a separate service, the junior indeed but "inter-pares" of the three fighting services, is complete : in India I doubt if all the members of Your Excellency's Council are even aware that such is the fact.<sup>59</sup>

The Viceroy agreed with Salmond's recommendations.<sup>60</sup> However, C-in-C(India), while concurring with most of Salmond's recommendations, disagreed with the RAF substituting the Field Army in offensive operations against Afghanistan.<sup>61</sup> However, Rawlinson subsequently caveated to Trenchard privately that:

Nothing will please me better than if Jack Salmond can demonstrate, beyond all question, the power of the Air Force to maintain law and order and to preserve our frontiers, for, when this has been indubitably established, we shall be able to make considerable economies in India, and our progress on the road to ruin will therefore be stayed; but India is a country where we cannot afford to take unlimited risks, and we must go carefully in consequence.<sup>62</sup>

In response to Salmond's Review, the Secretary of the Govt's Foreign Department warned that:

tribal control is never purely military. The broad political view is that, while aircraft have a great future in frontier control, they cannot be allowed to operate as a tribal provocative.<sup>63</sup>

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<sup>58</sup> C-in-C(India) was, constitutionally, the Viceroy's sole military advisor.

<sup>59</sup> Salmond, *1922 Report on RAF India*, 15-21.

<sup>60</sup> Having discussed Salmond's report in Council on 28 September, the Viceroy announced four decisions: (i) AOC(India)'s post would be held by an Air Vice-Marshal instead of an Air Commodore, 'provided this appointment will not entail employment of additional Air Force staff'; (ii) AOC(India) was granted access to the Viceroy; (iii) HQ RAF(India) would re-locate to Army HQ at Simla; (iv) two additional squadrons would be added to the permanent peace strength of the RAF in India and provisions made for the reinforcement of three squadrons in the event of war with Afghanistan. Furthermore, the Field Army would be reduced by a division. However, the C-in-C disagreed with this last decision until the RAF's effectiveness could be demonstrated. See IOR/L/MIL/7/19272, Earl of Reading, *Telegram from Viceroy of India to India Office*, 30 September 1922.

<sup>61</sup> AIR 8/46, E1, General Lord Rawlinson, *Memorandum on Air Vice-Marshal Sir John Salmond's Report 1922*, 10.

<sup>62</sup> Rawlinson, *C-in-C India to CAS, 13 November 1922*. Salmond had already conveyed his similar impression of Rawlinson's opinion to Trenchard whilst conducting the review in July (see Salmond, *Salmond to CAS, 3 July 1922*).

<sup>63</sup> AIR 8/46, E1, Mr Denys Bray, *Note by Mr Denys Bray, Secretary to the Government of India in the Foreign Department*, 24 August 1922, 13.



This political concern over the potential inflammatory effect of aircraft would endure and constrain air power's potential throughout the period under consideration. C-in-C(India) qualified his token concurrence with a requirement to secure additional finance. This was not forthcoming. Consequently, aircraft serviceability only improved marginally. As the Air Staff later described, C-in-C(India) 'could not see his way to effect a corresponding reduction of his ground forces as required by the Government of India'.<sup>64</sup>

## 1922-1924

Operations following the 1919-1920 Waziristan campaign exposed limitations on the use of aircraft. The Gol's *Official History* noted that the capture of two crews during the 1922 Razmak Operation caused 'considerable embarrassment'.<sup>65</sup> Nevertheless, the captives later reported:

There is no doubt that the moral effect is great. I had previously thought that reports on this score were considerably exaggerated, but am now convinced that the enemy have been completely demoralised.<sup>66</sup>

The political sensitivity of applying air power near permeable borders was demonstrated in 1923 during the bombing of the Ahmedzai Wazirs when a few bombs accidentally fell just inside the Afghan border, generating objections by the Afghan Government and political embarrassment.<sup>67</sup>

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<sup>64</sup> AIR 1/2399/283/1, Air Staff, *The Progress of the Development of Air Power in India*, July 1925. A later copy of this Memo is at AIR8/46, E12.

<sup>65</sup> AIR 5/1329, Air Officer Commanding RAF India, *RAF India Resume of Operations No 49: December 1922*, 25 January 1923, 3; AIR 5/1330, ———, *RAF India Resume of Operations No 50: January 1923*, 4-5; "Official History of NWF Ops, 1920-35", 18, 23, 26.

<sup>66</sup> AIR 5/1329, Air Officer Commanding RAF India, *RAF India Resume of Operations No 51*, February 1923, 2-4.

<sup>67</sup> See AIR 5/1330, *Royal Air Force Intelligence and Operation Summary for Week Ending April 7th*, 1923, 1; "Official History of NWF Ops, 1920-35", 28. Two Afghans were killed and five injured. The Gol expressed its 'unqualified regret' and provided financial compensation (see AIR 5/298 Part I, E88, Earl of Reading, *Telegram, Viceroy to Secretary of State for India*, 9 June 1923).

## PINK'S WAR, 1925<sup>68</sup>

During 1924, the Abdur Rahman Khel (ARK) Mahsuds, and three smaller tribal sub-sections, became increasingly hostile;<sup>69</sup> this culminated in May 1924, in a two-day air action by 1(Indian) Wing that was severely criticised by AOC(India) for not complying with extant doctrine.<sup>70</sup> The Gol's *Official History* reflected on Pink's War's importance because, firstly, Salmond's 1922 *Report* had recommended that the RAF control the NWF and, secondly, it achieved 'the desired result at very small cost in casualties and money by comparison with a punitive expedition'. These factors, 'albeit based on brief localised experience and somewhat incomplete appreciation of Frontier problems, are nevertheless of obvious importance'.<sup>71</sup> At the time, despite C-in-C(India) declaring the operation as 'active service', the WO resisted issuing a campaign medal because 'there had not been enough casualties'.<sup>72</sup>

The Gol's *Official History* described three tactics: short, intensive air action by multiple squadrons; 'air blockade', whereby single aircraft irregularly harassed and

<sup>68</sup> For comprehensive descriptions of Pink's War, see Bowyer, *RAF Operations 1918-1938*, 170-180 and Roe, "'Pink's War' – Applying the Principles of Air Control to Waziristan, 9 March to 1 May 1925". The operation derives its name from Wing Commander Richard Pink, OC 2(Indian) Wing at Risalpur.

<sup>69</sup> The ARK had been amongst the agitators in the 1922 Razmak Operation and their tarns-border, migratory nature and concomitant lack of allowances had complicated a full settlement. The other implicated sub-sections were the Guri Khel, Faridai and Maresai. See "Official History of NWF Ops, 1920-35", 33-34 and Air Vice-Marshal Sir Edward Ellington, "Report on the RAF Operations in Waziristan for the Period 9th March to 1st May 1925", *The London Gazette*, 17 November 1925, 7596.

<sup>70</sup> Ellington described Wing Commander E Murray's conduct as 'disappointing in the extreme' for not complying with Air Staff, *Employment of Aircraft on the NWFI*. See AIR 5/298 Part 2, Air Vice-Marshal Sir Edward Ellington, *Letter, Air Officer Commanding, India, to Wing Commander E Murray, OC 1(Indian) Wing*, 13 June 1924; AIR 5/298 Part 2, Wing Commander E Murray, *Report on Operations carried out against Faridai, Maresai, Guri Khel & Abdur Rahman Khel Sections of the Mahsud Tribe during May 1924*, 5 June 1924. One could conject that Ellington's lack of confidence was the reason that Pink was given command of the 1925 operation, given that Pink's 2(Indian) Wing at Risalpur was more distant from the operational area than Murray's 1(Indian) Wing at Peshawar.

<sup>71</sup> "Official History of NWF Ops, 1920-35", 34.

<sup>72</sup> Trenchard Papers, RAF Museum, MFC 76/1/178/4, Air Vice-Marshal Sir Edward Ellington, *Letter: Air Officer Commanding, RAF India, to Air Chief Marshal Sir Hugh Trenchard*, 5 May 1925, 2. It took Salmond's personal intervention for a campaign Bar to the Indian General Service Medal to be issued. See Laffin, *Swifter than Eagles*, 207-208.

disrupted normal life; and moonlight night bombing by single aircraft.<sup>73</sup> To avoid small-arms fire, most aircraft bombed from 3000 feet.<sup>74</sup>

No attempt having been made to comply with the Gol's terms, offensive operations commenced on 9 March, initially against the ARK.<sup>75</sup> Bombing was paused twice to allow inconclusive peace *jirgas*, with intensive bombing immediately re-applied.<sup>76</sup> By 23 March, the Guri Khel had accepted terms, with the Biland Khel following on 25 March.<sup>77</sup> After this, British tactics changed to protracted coercion with the RAF imposing air blockades.<sup>78</sup> When night raids produced 'excellent moral effect', further night bombers deployed into theatre.<sup>79</sup> Following an unsuccessful three-day negotiating pause, maximum-intensity bombing recommenced, resulting in the Faridai and Maresai submitting on 18 April. Simultaneously, the ARK fled towards Afghanistan, but were stopped by en-route tribes who feared being bombed themselves. Sanctuary denied, the ARK were granted respite for a *jirga* on 28 April, over which fourteen aircraft demonstrated, generating a final settlement on 1 May.<sup>80</sup>

Whilst a full analysis of the weapon employment at [Annex 10](#) is outside this Thesis' scope, a cursory glance indicates that the RAF had a clear understanding of weapon-to-target matching and were attempting to achieve specific effects from different weapons using what would now be called a 'strategy-to-task' approach.

<sup>73</sup> "Official History of NWF Ops, 1920-35", 35-36.

<sup>74</sup> Ellington, "Report on RAF Ops in Waziristan, 1925", 7597.

<sup>75</sup> "Official History of NWF Ops, 1920-35", 34-35. The initial deployment of RAF assets is described at AIR 5/1330, AOC RAF India, *RAF India General Monthly Resume and Diary of Operations No 76: March 1925* 1925, 4-10. A graphical description of the Operation, mapping the various phases against weapon expenditure, is at [Annex 10](#). Note that, from May 1924, the squadron's role was incorporated into their title. E.g., 31(AC) Squadron. This nomenclature endured until just before the Second World War, when it was removed for security reasons.

<sup>76</sup> The Army's Official History noted that 'the fleas that infested the caves were 'a vigorous and important ally to the R.A.F. as they made life unbearable'. "Official History of NWF Ops, 1920-35", 36-37, 56.

<sup>77</sup> AOC RAF India, *Resume of Operations No 76*, 30, 32, 37.

<sup>78</sup> "Official History of NWF Ops, 1920-35", 37.

<sup>79</sup> AIR 5/1330, ———, *RAF India General Monthly Resume and Diary of Operations No 77: April 1925* 1925, 6, 10, 15 and Ellington, "Report on RAF Ops in Waziristan, 1925", 7598.

<sup>80</sup> See AOC RAF India, *Resume of Operations No 77*, 17-18, 23 and "Official History of NWF Ops, 1920-35", 37-38.

Thus, during the initial, maximum-effort raids, the bomber squadrons predominantly used heavy 230-pound bombs to destroy buildings and coerce inhabitants to abandon their villages, before switching to smaller 112-pound bombs to deter them from returning; this is reflected in the decreasing ratio between ‘total bomb tonnage’ and ‘number of bombs dropped’. Similarly, the army co-operation squadrons commenced with the mass use of Baby Incendiary Bombs (BIBs) to generate a dramatic effect by burning infrastructure previously targeted by the bomber squadrons, before switching to 20-pound bombs to harass the tribesmen. Mapping the weapon employment against tribal behaviour reveals how weapons were used to generate specific coercive effects to change tribal behaviour. This data is worthy of further analysis; in particular, as [Annex 10](#) is a campaign-wide view, it would be interesting to map the weapons used against each specific tribe (and their context) to determine how effective the strategy had been. Nevertheless, it is evident that airmen at this time already had a sophisticated understanding of both weapon effects and a strategy of employing them to generate the coercive effects necessary to achieve the desired endstate.

Reaction to the operation was partisan. AOC(India) noted the operation’s length, blaming the shortage of aircraft caused by ‘an under-estimate of the financial requirements of the R.A.F. in India’ and the improving spring-time weather which made the tribesmen’s exclusion from their homes more tolerable. His report strongly criticised the frequent political cessation of bombing to facilitate inconclusive *jirgas*, which allowed tribesmen to recover property and gave the impression of weak Governmental resolution. Ellington continued:

On more than one occasion the tribes came to terms without any preliminary respite or after bombing had been resumed... This shows that a respite is not always necessary, and whenever possible the operations should continue without check, until the terms laid down at the beginning have been complied with.<sup>81</sup>

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<sup>81</sup> Ellington, "Report on RAF Ops in Waziristan, 1925", 7600. Ellington’s biography is at [Annex 7](#).

Ellington intimated that, by enforcing 'full tribal responsibility' and holding the whole tribe responsible for their sub-sections, the challenges in differentiating between hostile and friendly Mahsud elements could be avoided. This would become a major factor in the years to come. AOC(India) concluded that:

the Government of INDIA have a weapon which is more economical in men and money and more merciful in its action than other forms of armed force for dealing with the majority of problems which arise beyond the administrative frontier.<sup>82</sup>

RAF(India) acknowledged the 'very greatest help and encouragement' from the Army and Political services: 'They co-operated in every possible way to ensure the successful outcome of the operations and frequently went to great lengths to render special services'.<sup>83</sup>

Before the operation, GOC Waziristan had strongly recommended that the RAF operations be kept under military command. Following its successful conclusion, his brother, C-in-C(India), initially agreed to press for two additional squadrons.<sup>84</sup> However, C-in-C(India)'s enthusiasm was short lived. In November 1925, he set the die for future ventures by ignoring the time required to muster and deploy land forces when he stated that:

a combination of land and air action would have brought about the desired result in a shorter space of time, and next time action has to be taken, I trust that it will be possible to employ the two forces in combination. That they were not so employed this time was due to our desire to give the Royal Air Force the

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<sup>82</sup> Ibid.

<sup>83</sup> AIR 5/1321, E11, Anon, *A Report on the First Military Operation in India Carried Out Solely by Air Forces, March-April 1925*, 11.

<sup>84</sup> Ellington, *AOC(India) to CAS, 5 May 1925*, 2. GOC Waziristan was Major-General Arthur le Grand Jacob. His brother, General Sir Claud William Jacob, was temporarily C-in-C(India) following the death of Lord Rawlinson. See Kenneth Jacob, "Major-General Arthur le Grand Jacob CB, CMG, CIE, CBE, DSO, ADC", <http://www.myjacobfamily.com/favershamjacobs/arthurlegrandjacob.htm> (accessed 18 October 2015) and ———, "Field Marshal Sir Claud William Jacob GCB GCSI KCMG", <http://www.myjacobfamily.com/favershamjacobs/sirclaudjacob.htm> (accessed 18 October 2015).

opportunity they have long wished for of testing the effectiveness of their unsupported action.<sup>85</sup>

After Trenchard highlighted this ‘absurdity’, pointing out that land forces compromised the effectiveness of independent air action, the IO questioned C-in-C(India) about his ‘old-fashioned ideas’.<sup>86</sup> Bowyer’s 1988 analysis recognised:

a certain amount of nit-picking in subsequent official Army reports – mostly displaying a barely-hidden anxiety that the Army’s long-standing ‘preserves’ might now be poached by this upstart air arm.<sup>87</sup>

Sensitivity over casualties was evident, even in 1925. The Air Council requested that reference to the munitions expenditure and destruction of livestock and crops be omitted from the official despatch, which SoS(India) agreed to.<sup>88</sup>

The Waziristan Resident swiftly recognised air power’s potential as a politically-controlled tool of tribal control, showing an intimate understanding of air power’s ability to dislocate normal life and impose ‘annoyance and discomfort’ without causing many casualties: ‘there is every reason for using the moral weapon’, although ‘an aerial blockade may be a long business’.<sup>89</sup> However, the Political Agent, South Waziristan, did not fully agree and the Chief Commissioner, NWFP, whilst recognising the benefits, responded that the required resources were unavailable, effectively curtailing

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<sup>85</sup> General Sir Claud Jacob, “An Account of the Recent Operations by the RAF against certain Recalcitrant Sections of the Mahsuds in March, April and May, 1925”, *The London Gazette*, 17 November 1925, 7595.

<sup>86</sup> AIR 5/298 Part II, M142, Group Captain C S Burnett, *Minute, Deputy Director Operations & Intelligence to Deputy Chief of the Air Staff*, 15 August 1925; AIR 5/298 Part II, ———, *Letter, Deputy Director of Operations and Intelligence to Colonel W E Wilson-Johnston, India Office*, 14 August 1925; AIR 5/298 Part II, M149, Air Chief Marshal Sir Hugh M Trenchard, *Minute, CAS to Group Captain C S Burnett, Deputy Director Operations & Intelligence*, 27 August 1925.

<sup>87</sup> Bowyer, *RAF Operations 1918-1938*, 180.

<sup>88</sup> AIR 5/298 Part II, Sir Walter F Nicholson, *Letter, Secretary of the Air Ministry to The Under Secretary of State, Military Department, India Office*, 17 August 1925; Trenchard, CAS to DDOI, 27 August 1925; AIR 5/298 Part II, Colonel W E Wilson-Johnston, *Letter, India Office to Secretary, Air Ministry*, 2 September 1925. This is discussed in more detail in Chapter 7.

<sup>89</sup> IOR/L/PS/12/3260, Evelyn Howell (Resident in Waziristan), *Waziristan Border Administration Report for 1924-25*, 20 May 1925.

progress.<sup>90</sup>

The Air Staff immediately noted that ‘the result was not only a complete success, but had far reaching effect on tribes in no way connected with the operations’.<sup>91</sup> CAS subsequently described it as ‘a striking tribute to the power of the air in subduing semi-civilised people’, the effect of which ‘was felt all through Waziristan where a much healthier atmosphere now began to prevail’, all at relatively minimal cost.<sup>92</sup> He concluded that ‘the power of the air in controlling the semi-civilised peoples on the frontier of India, has been clearly demonstrated’.<sup>93</sup>

The Gol’s 1945 *Official History*, written with the hindsight of joint operations necessitated by the Second World War, provided a more considered, reflective view. It noted a ‘Considerable moral effect’ on both the protagonists and neighbouring tribes, highlighting the ‘very great’ financial disparity between the air action and an equivalent punitive expedition, ‘even though [the latter] might have achieved the object in a shorter time’. It concluded:

The moral effect, and interruption caused by the blockade to their daily life, were the chief factors in bringing about the tribesmen’s submission. The fact that there were so few casualties was regarded as a satisfactory feature of operations, and one tending to avoid leaving a legacy of bitterness.<sup>94</sup>

Pink’s War had immediate ramifications. According to Waldie, in July 1925, India’s newly-incumbent SOS requested that the Air Staff prepare a scheme for air

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<sup>90</sup> IOR/L/PS/12/3260, Sir Norman Bolton, *Use of the Royal Air Force as a Weapon of Tribal Control*, 5 June 1925. The Political Officer, Major (later Major-General) ‘Bunch’ Parsons, had been awarded a DSO in the Third Afghan War when he ‘guided, navigated and identified targets’ for RAF aircraft (see Trench, *Viceroy’s Agent*, 41).

<sup>91</sup> AIR 5/1330, Squadron Leader G C Pirie, *Notes on RAF India General Monthly Resume and Diary of Operations for March 1925*, 11 June 1925.

<sup>92</sup> As examples, a section of the Malikdinai unexpectedly handed over rifles and paid a fine and both the Bahadur and Shabi Khels Khel paid long-outstanding fines (see IOR/L/PS/12/3260, Air Vice-Marshal Sir Edward Ellington, *Extract from a Letter from the Air Officer Commanding to His Excellency the Commander-in-Chief in India*, 23 June 1925).

<sup>93</sup> Air Staff, *The Progress of the Development of Air Power in India*, 5-6.

<sup>94</sup> “Official History of NWF Ops, 1920-35”, 38-39. Mahsud casualties were assessed as eleven killed or wounded, while the RAF lost two flying officers and their aircraft.

control on the NWF;<sup>95</sup> SOS(Air) cautiously responded:

we will send it to you. We are in no way raising a controversy... I hope, however, no one will think that Trenchard has raised the frontier question upon his own initiative.<sup>96</sup>

The Air Staff submitted a scheme whereby seven squadrons would control the NWF, with two additional squadrons in reserve. All regular troops would be withdrawn, bar those required for airfield and town protection. An AOC would command the Frontier under Political direction.<sup>97</sup> Trenchard alerted SoS(Air) that this paper was likely to generate 'a great deal of controversy with the Army'.<sup>98</sup> This proved correct: the incoming Deputy CGS(India), Kirke, besmirched Pink's War: 'the RAF have the sublime impertinence to try and claim all the credit because they squashed a few villages and inflicted eleven casualties'.<sup>99</sup> He thought the policy should be one of pacification rather than punishment, describing the RAF's proposed scheme as 'a modern and possibly improved variation of the old policy of 'burn and scuttle' which the Government of India has abandoned' and which would deny the Army 'the vital assistance of airpower'.<sup>100</sup> However, HQ RAF(India) considered that Kirke's views were at odds with the Gol, the Resident's and Chief Commissioner, adding that the RAF 'are the blue-eyed boys at the moment'.<sup>101</sup> Kirke's focus on the significance of

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<sup>95</sup> Waldie, "Relations Between the Army and RAF, 1918-39", 184.

<sup>96</sup> AIR 5/413, E17, Sir Samuel Hoare, *Letter, Secretary of State for Air to The Earl of Birkenhead, Secretary of State for India*, 9 July 1925. The Earl of Birkenhead, 'F E' Smith, had only been in post since November 1924.

<sup>97</sup> AIR 1/2399/283/1, Air Staff, *The Progress of the Development of Air Power in India, Appendix A: Outline Scheme for the Control of the North-West Frontier of India by Royal Air Force*, July 1925.

<sup>98</sup> Waldie, "Relations Between the Army and RAF, 1918-39", 184. Unfortunately, the reference Waldie attributes to this quote (AIR 5/413, E10, Air Marshal Sir Hugh Trenchard, *Letter, Chief of the Air Staff to Secretary of State for Air*, 3 July 1925) is now missing from the archive.

<sup>99</sup> Montgomery-Massingberd Papers, Major-General Walter Kirke, *Deputy Chief of the General Staff (India) to Lieutenant-General Sir Archibald Montgomery-Massingberd*, 10 June 1926, quoted in Waldie, "Relations Between the Army and RAF, 1918-39", 185.

<sup>100</sup> AIR 5/413, E24, Major-General Walter Kirke, *Note on Proposals for Air Control on the North-West Frontier of India*, 16 May 1926, 2, 3.

<sup>101</sup> AIR 5/413, E38, Group Captain J A Chamier, *Letter to Director of Operations and Intelligence*, 30 November 1926.



casualties indicates that he did not appreciate the ‘minimum force’ nature of the air blockade, viewing it as an airborne version of a punitive expedition.

Significantly, the Army-RAF friction at this time was not so much about the utility of air power, but rather its control. Additionally, Pink’s War highlighted the paradox that the Gol’s swiftest-reacting weapon (the aircraft) could take longer than traditional land operations, once deployed, to achieve a decisive result.

### **MOHMAND DISTURBANCE, 1927**

In June 1927, a two-day, day/night bombing campaign, authorised by the GOC, dispersed a 1500-strong Mohmand *lashkar* engaging *Khassadar* positions on the administrative border.<sup>102</sup> The Gol’s *Official History* recorded that the crisis ‘was very quickly and successfully dealt with by the effective action of the R.A.F.’, attributing this to: the tribesmen’s half-hearted conviction (whilst acknowledging that any tribal successes could have altered this); and their leaders’ humiliation, having told their followers that the bombs would not explode and that they would be safe at night.<sup>103</sup>

The operation demonstrated the swiftness of centrally-controlled air action when unencumbered by the complexities associated with the presence of troops. The Air Staff made surprisingly little of this operation, possibly because it was commanded by a GOC rather than an AOC and therefore not a clinically ‘independent’ air operation.<sup>104</sup>

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<sup>102</sup> "Official History of NWF Ops, 1920-35", 44-46; AIR 5/1331, AOC RAF India, *RAF India General Monthly Resume and Diary of Operations No 103: June 1927* 1927, 4-8.

<sup>103</sup> "Official History of NWF Ops, 1920-35", 46.

<sup>104</sup> AOC(India)’s *Resume of Operations* underplayed the operation and drew no conclusions. In contrast, the Army’s *Official History* characterised the operation as ‘attacks from the air alone... in a self-contained operation to secure the submission of enemy tribesmen’. See AOC RAF India, *Resume of Operations No 103* and "Official History of NWF Ops, 1920-35", 56.

## COMPARISON OF PINK'S WAR AND 1927 MOHMAND DISTURBANCE

Given the inter-War Army-RAF friction over NWF air power, the Gol's 1945 *Official History* contained a refreshingly objective analysis of Pink's War and the Mohmand Disturbance. It opened thus:

given certain conditions there is a prospect of bringing hostile tribes to submission by the more rapid, economical, and possibly more humane method of air attack alone as compared with the use of land forces, or the two combined.<sup>105</sup>

Clearly, in 1945, India had not discounted the use of independent air action in controlling trans-border tribesmen, possibly because of higher wartime commitments on land forces.

The *Official History* highlighted that both operations represented the tribes' first exposure to aircraft, with night bombing having 'marked results particularly in regards of morale'. The British predicted that technical innovation would offset any diminishment in morale effect. The *History* acknowledged the challenges of 'public opinion and ethics of bombing tribesmen', but countered that 'public opinion... was liable to be fickle and credulous of irresponsible stories', while 'air attack judiciously handled is probably the most humane method of teaching hostile tribesmen a lesson'.<sup>106</sup>

Differentiating between the two operations, the *History* emphasised that Pink's War blockaded villages, generating morale effect by destroying property with large bombs, forcing the population to shelter in flea-infested caves. This interference with daily life took time to become intolerable. In contrast, the numerous small anti-personnel bombs dropped on the Mohmand *lashkar-walas* generated instant effect through extensive mutilating wounds. This quickly dispersed the *lashkar*, 'the operation being over in a matter of hours'. Additionally, while Pink's War was an

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<sup>105</sup> "Official History of NWF Ops, 1920-35", 56.

<sup>106</sup> *Ibid.*, 56-58.

independent RAF operation, the Mohmand Disturbance was backed by troops who threatened to engage scattered tribesmen and block their advance towards administered territory.<sup>107</sup>

Nonetheless, the 1945 *Official History* emphasised that Salmond's 1922 and Ellington's 1925 proposals were 'out of date and of doubtful value in view of the great air development that has taken place since', drawing the following conclusions: first, that 'the only real solution of the Frontier tribal problem is development and assistance on the road to civilisation'; second, that local, irregular forces required 'the adequate and close support of Regular troops' to avoid them mutinying; and, finally, that '[t]he power of control from the air is liable to be curtailed' by ethical considerations.<sup>108</sup>

### **KABUL AIRLIFT<sup>109</sup>**

The 1928/29 Kabul Airlift, when 586 diplomatic staff were evacuated from the besieged British Legation, was an early demonstration of the strategic influence of air mobility. Although unmentioned in the Gol's *Official History*, the RAF and politicians drew significant lessons.

In late 1928, King Amanullah's increasingly unpopular European reformist policies erupted in civil war.<sup>110</sup> The Tajik Habibullah's forces besieged Kabul, cutting communications with India and leaving the unarmed British Legation isolated between the belligerents' crossfire.<sup>111</sup> In January, Amanullah abdicated in favour of his brother, but Habibullah proclaimed himself Amir, having captured Kabul, forcing Amanullah's

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<sup>107</sup> Ibid., 56-57.

<sup>108</sup> Ibid., 58.

<sup>109</sup> For detailed descriptions of the Kabul evacuation, see Baker and Ivelaw-Chapman, *Wings Over Kabul*, Baker, *Life of ACM Sir Geoffrey Salmond*, 196-210 and Roe, "Evacuation by Air: The All-But-Forgotten Kabul Airlift of 1928-29".

<sup>110</sup> Baker and Ivelaw-Chapman, *Wings Over Kabul*, 43.

<sup>111</sup> Ibid., 45; Salmond, *Command 3400*, 7. Baker (the daughter of Sir Geoffrey Salmond) described Habibullah as 'a kind of Robin Hood among the tribes', although the British Minister to Kabul considered him a 'popular highwayman' (see Baker and Ivelaw-Chapman, *Wings Over Kabul*, 40, 46).

brother to abdicate and flee.<sup>112</sup> SoS(Air) recorded in his memoirs: 'It looked as if history was repeating itself, and another British Minister would be murdered in the Afghan capital'. Hoare continued:

Seeing the double chance of forestalling a catastrophe and proving the usefulness of the Air Force, [AOC(India)] at once offered to evacuate by air the... staff of the British Legation... There then followed the first great air rescue in history.<sup>113</sup>

Initially, only twenty-six two-seat bombers were available in India.<sup>114</sup> By 29 December, three Victorias and a Hinair had arrived at Risalpur from Iraq.<sup>115</sup> In a four-phase operation between 18 December and 25 February, ground-to-air communications were established, the Legation's families and then the Afghan royal entourage were evacuated. Finally, as tension increased, five additional Victorias arrived from Iraq to evacuate the European Legation staffs.<sup>116</sup>

In his biography, the SoS(Air) concluded:

The complete success of this operation immensely impressed the public. Instead of being an unwanted child, the Air Force became the favourite in the family of the services.<sup>117</sup>

Hoare drew two lessons from the operation:

first of all, the lesson of the mobility of air power; the second lesson is that the aeroplane, if properly used, can be made an instrument of real help and benefit to the British Empire and to humanity at large.<sup>118</sup>

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<sup>112</sup> Salmond, *Command 3400*, 7-8.

<sup>113</sup> Templewood, *Empire of the Air*, 212. The AOC, 'Geoff' Salmond, would have been very aware of the potential of new technology such as Heavy Transports, having been the RAF's first Air Member for Supply and Research. He had also piloted the first flight from Egypt to India in 1918 and flew with SoS Air in Imperial Airways' inaugural civil flight from Croydon to Delhi in 1926 (see Baker, *Life of ACM Sir Geoffrey Salmond*, 159, 145-149, 189-194).

<sup>114</sup> Twenty-four DH9As were stationed in India. Additionally, 5(AC) and 20(AC) Squadrons were each trialling a single Wapiti in anticipation of the type's impending deployment the next year (see AIR 5/1331, AOC RAF India, *RAF India General Monthly Resume and Diary of Operations No 120: November 1928* 1928, Appendix B).

<sup>115</sup> The Victorias were deployed from 70 Squadron's complement of ten aircraft. See Salmond, *Command 3400*, 11.

<sup>116</sup> *Ibid.*, 12-13; Baker, *Life of ACM Sir Geoffrey Salmond*, 199, 207; Salmond, *Command 3400*, 16-23; Baker and Ivelaw-Chapman, *Wings Over Kabul*, 122-123.

<sup>117</sup> Templewood, *Empire of the Air*, 213.

As Barthorp noted in 1982, the evacuation by unarmed aircraft ‘could hardly have been undertaken by the Army without precipitating a fourth Afghan war’.<sup>119</sup> The RAF had demonstrated its agility in swiftly moving resources between continents; as Roe observed: ‘Trenchard’s vision of an independent Air Force, spanning the world, was coming true’.<sup>120</sup>

### TRENCHARD’S ‘SWANSONG’

In November 1929, with the end of his tenure as CAS looming, Trenchard published his ‘last will and testament’,<sup>121</sup> entitled ‘*The Fuller Employment of Air Power in Imperial Defence*’, based on nearly eight years’ experience of Imperial air control.<sup>122</sup> It is likely that, in his twilight as CAS, Trenchard saw this as ‘unfinished business’. Slessor reflected:

This paper fairly took the gloves off and declared unequivocally the belief of the Air Staff that real economies with at least no less efficacy could be secured by the substitution of Air Forces for other arms over a very wide field.<sup>123</sup>

Trenchard’s far-reaching proposals covered all ‘semi-civilised’ Imperial regions, but ‘By far the most drastic proposals, for which we foresaw would meet with the heaviest opposition, concerned India’.<sup>124</sup> Trenchard proposed substituting five or six squadrons for twenty-five-to-thirty infantry battalions and ten artillery batteries, with the Frontier commanded by an AOC reporting to the GoI,<sup>125</sup> saving £2 million annually.<sup>126</sup> The Air

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<sup>118</sup> Ibid., 295.

<sup>119</sup> Barthorp, *The North-West Frontier: British India and Afghanistan: A Pictorial History, 1839-1947*, 168.

<sup>120</sup> Roe, Cloughley, and Grau, *From Fabric Wings to Supersonic Fighters and Drones*, 110.

<sup>121</sup> ... as Slessor described it. The paper was drafted at Trenchard’s direction in 1929 by Peck and Slessor, initially as an internal statement of his views for subsequent development. See Slessor, *The Central Blue*, 70, 73.

<sup>122</sup> Trenchard, *CP 332 (29)*.

<sup>123</sup> Slessor, *The Central Blue*, 70.

<sup>124</sup> Ibid. Other regions covered included Sudan, East and West Africa, the Red Sea and Persian Gulf.

<sup>125</sup> IOR/L/MIL/17/13/37, Lieutenant-General C J Devereil, *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of the Royal Air Force on the North-West Frontier of India): Memorandum by the General Staff, India*, 30 October 1930, 4.

Staff considered that road building and close co-operation with the local irregular forces, with regular garrisons defending frontier towns, nested comfortably with the Modified Forward Policy.<sup>127</sup>

The other Services reacted aggressively. SoS(War) declared himself in 'complete disagreement with the policy underlying the paper', requesting instead 'an examination... of the present constitution of the Royal Air Force as a separate service'.<sup>128</sup> The Admiralty, similarly, suggested an examination of 'all the aspects of the division of responsibility between the three Fighting Services'.<sup>129</sup> When the issue came before the Cabinet in March 1930, the Prime Minister stated that 'it would be a great mistake to reopen ab initio the question of a separate Air Force and Air Ministry, which should now be taken for granted'.<sup>130</sup> MacDonald did, however, task the CID's Defence of India Sub-Committee with an enquiry into the extended use of air power.<sup>131</sup> Despite the ensuing, prolonged enquiry, Trenchard's third formal proposal for substitution on the NWF found no traction with C-in-C(India) and undermined Army-RAF relations both between the respective Ministries and within India until at least

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<sup>126</sup> Slessor, *The Central Blue*, 71.

<sup>127</sup> Trenchard's general proposals were originally published in CID Paper 135-C, while his plans for the NWF were put to the CIMR in 1922. See Trenchard, *CP 332 (29)*, 1, 5.

<sup>128</sup> Shaw, *CP 356(29)*. The Secretary of State responded by pointing out that there had been ten examinations of various aspects of the RAF's independence since 1917, all of which recommended a separate Air Force and Air Ministry (see CAB 24/207, Secretary of State for Air, *Cabinet Paper 365(29): The Fuller Employment of Air Power in Imperial Defence: Memorandum by the Secretary of State for Air*, 16 December 1929, summarised at [Annex 11](#)).

<sup>129</sup> CAB 24/207, First Lord of the Admiralty, *Cabinet Paper 369(29): The Fuller Employment of Air Power in Imperial Defence: Memorandum by the First Lord of the Admiralty*, 20 December 1929. By 1931, Hankey claimed that 'the missionary zeal of the Air Ministry' had caused inter-Service co-ordination within the COSC to deteriorate to the point that he appealed to the Prime Minister to apply 'a very firm attitude at the top', the primary Army grievance being the use of the Air Force on the NWF. MacDonald scribbled 'Hankey. Speak to me about this' at the top of the letter but, according to Hyde, he was unable to make much progress (see CAB 63/44, Colonel Sir Maurice Hankey, *Letter to Prime Minister, Ramsey MacDonald*, 28 October 1931 and Hyde, *British Air Policy Between the Wars*, 244-245).

<sup>130</sup> CAB 23/63/185, *Cabinet Conclusion 13 (30) 4: Imperial Defence: The Fuller Employment of Air Power in Imperial Defence*, 5 March 1930.

<sup>131</sup> CAB 23/64, *Cabinet Conclusion 24 (30) 9: The Employment of Air Power in Imperial Defence*, 30 April 1930. The CID's Defence of India Sub-Committee was established in 1927 to consider the significance of Afghanistan to India's security. See Hankey, *CID: Minutes of 223rd Meeting*, 10-11.

1935.<sup>132</sup> Due to the backlash it generated, Trenchard's swansong was one of the most significant events within the period under consideration. This backlash is examined in more detail in Chapter 7's section on 'Personalities and Relationships'.

## 1929 RED SHIRT-INSPIRED INCURSIONS

The Forward Modified Policy and technological developments during the latter 1920s produced considerable progress in the pacification of the Frontier tribes. However, the combination of the 1929 Great Depression, MacDonald's new Labour Government and the world disarmament talks generated Frontier unrest which Brock (OC 1(Indian) Group) described as 'more serious and more widespread than it has ever been before', exacerbated by propaganda that the British were leaving India.<sup>133</sup> The subsequent military action revealed a lack of coherent strategy over the control and co-ordination of land and air power that had not been tested during the previous, passive, years. During this unrest, the Chief Commissioner retained operational control, with the Army and RAF commanders advising him and acting independently, attracting criticism from several Army officers.<sup>134</sup>

As an arrangement for the co-ordination of the efforts of the fighting Services it had nothing to commend it; certainly it did not produce true unity of control but rather direction of operations by a committee of three, of which the chairman, being a civilian, had to rely on the advice of the technical members. Such advice could hardly be tendered without bias in the absence of full responsibility for decision.<sup>135</sup>

Civil unrest associated with the arrest of Peshawar-based 'Red Shirt' ringleaders

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<sup>132</sup> This discussion is developed in Chapter 7.

<sup>133</sup> "Official History of NWF Ops, 1920-35", 75; Air Commodore H le M Brock, "Air Operations on the N.W.F., 1930", *Journal of The Royal Central Asian Society* 19, no. 1 (1932): 22. The GoI attributed the uprising to the following factors: fanaticism within the youthful and turbulent tribal elements; tribal perception of Government's weakness; boredom within irresponsible tribal elements following prolonged peace; and tribal disaffection with the distribution of tribal allowances (see AIR 2/2051, Government of India External Affairs Department, *Telegram, Government of India to Secretary of State for India*, 17 June 1937).

<sup>134</sup> Gwynn, *Imperial Policing*, 254.

<sup>135</sup> *Ibid.*, 298. Additionally, Major Fink stated that 'co-ordination must be difficult, and active co-operation lack. Its dangers are self evident' (see Major R H L Fink, "Regional Control and the Co-ordination of Air and Land Forces", *JRUSI* LXXVI, no. 501 (1931): 22).

during April 1930 resulted in *lashkars* coalescing along the Administrative Border.<sup>136</sup>

In early May, a forty-one aircraft demonstration failed to disperse the Haji of Turangzai's Mohmand *lashkar* near Peshawar, although the RAF claimed it deterred adjacent tribes from participating.<sup>137</sup> The Gol initially constrained aircraft to targeting the *lashkar* alone, which merely 'fixed' the *lashkar-walas* in caves, while they continued to threaten the settled district. Brock blamed this on the Gol's refusal to invoke tribal responsibility and swiftly target the Haji's village.<sup>138</sup>

one of our conditions for successful air action – i.e., rapidity in initiating action – was absent in this case. So there we were, fourteen days after the Haji had left his home, restricted to action against the *lashkar* only.<sup>139</sup>

When the Gol finally sanctioned targeting the *lashkar's* villages in early June, many *lashkar-walas* immediately dispersed; however, the Haji remained intractable until coerced by a collective-responsibility ultimatum to bomb his villages.<sup>140</sup> Brock described his aim to have been to humanely interrupt tribal life and cause a nuisance.<sup>141</sup>

Swifter action was evident when an Utman Khel *lashkar* crossed the administrative border near Peshawar in June, taking immediate shelter in caves when bombed. When their villages of origin were subsequently bombed, the *lashkar*

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<sup>136</sup> During these disturbances, 20(AC) Squadron dropped propaganda leaflets. See AIR 5/1332, AOC RAF India, *RAF India Monthly General Summary of Work No 137: April 1930*, 1. AOC India's despatch was officially recorded in CD89 (see AIR 5/1322, Chapter 17, ———, CD89: *Despatch by H.E. Field Marshal Sir William R. Birchwood, Commander-in-Chief in India, on the Disturbances on the North-West Frontier of India from 23rd April to 12th September, 1930*, 14 November 1930).

<sup>137</sup> Brock, "Air Operations on the N.W.F., 1930": 27; AIR 5/1332, AOC RAF India, *RAF India Monthly General Summary of Work No 138: May 1930*, 1; Gwynn, *Imperial Policing*, 254-280. The Haji was the father-in-law of one of the arrested Red Shirt leaders (see AIR 5/1321, E15, India Commander-in-Chief, *Narrative of Events in the North West Frontier Province from 23rd April to 10th June 1930*, 2).

<sup>138</sup> AOC RAF India, *Summary of Work No 138*, 1.

<sup>139</sup> Brock, "Air Operations on the N.W.F., 1930": 27-28. Gwynn later noted that ascertaining all the villages of origin of the diverse *lashkar* would have been challenging (see Gwynn, *Imperial Policing*, 280-281).

<sup>140</sup> Brock, "Air Operations on the N.W.F., 1930": 28.

<sup>141</sup> *Ibid.*: 42.



dispersed immediately.<sup>142</sup> This learning curve continued. Another Utman Khel *lashkar* turned back in July when its villages of origin were swiftly bombed. Brock summarised: 'they never crossed the border, and they effected nothing, and they were severely punished for their efforts'.<sup>143</sup>

Further south in Waziristan, several Mahsud *lashkars* were dispersed by independent air action during May/June, mostly by targeting their villages of origin. To demonstrate decisiveness, aircraft were normally airborne when the ultimatums expired, with air action swiftly authorised via W/T. With the Resident demanding complete submission, aircraft often demonstrated over the ensuing *jirgas*, which 'helped to restrain the hotheads'.<sup>144</sup> Brock summarised: 'in three weeks we had squashed what might have been a really serious Mahsud rising'.<sup>145</sup> This evidence suggests that politically-controlled independent air power could be effective against *lashkars* when allowed the prerequisite freedom of action.

Nonetheless, political indecisiveness often complicated military affairs, requiring close land-air co-ordination that would reveal inter-Service friction, as demonstrated in June when a 700-strong Red Shirt-inspired Afridi *lashkar* progressed towards Peshawar with 'every appearance of hostile intent'.<sup>146</sup> However, the GoI refused Brock's request for air action. Gwynn later concluded that:

The fact that there had been no interference with their march on the previous days confirmed the belief and a favourable moment for a jihad appeared to them to have arrived,<sup>147</sup>

while Brock considered that he had 'missed a good opportunity of teaching them a

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<sup>142</sup> Ibid.: 29; AIR 5/1332, AOC RAF India, *RAF India Monthly General Summary of Work No 139: June 1930*, 1.

<sup>143</sup> Similarly, later in July, hostile Mohmand tribesmen retired when ultimatums were issued threatening the bombing of their own villages. Brock, "Air Operations on the N.W.F., 1930": 29-30.

<sup>144</sup> Ibid.: 31. For an example of an aerial demonstration over a *jirgas*, see AOC RAF India, *Summary of Work No 138*, 2.

<sup>145</sup> Brock, "Air Operations on the N.W.F., 1930": 34.

<sup>146</sup> Gwynn, *Imperial Policing*, 282-283; Brock, "Air Operations on the N.W.F., 1930": 35.

<sup>147</sup> Gwynn, *Imperial Policing*, 283.

lesson that would have been remembered for many years'.<sup>148</sup> The Chief Commissioner eventually authorised air action the night before the Afridis reached the outskirts of Peshawar.<sup>149</sup> Although independent and co-operative air action over the subsequent week inflicted heavy casualties, Gwynn noted that aircraft dispersed the *lashkar* into small bodies, denying the Army the opportunity to inflict a decisive defeat and complicating subsequent co-operative air-land action, although he agreed that early air action could have stopped the *lashkar* maturing.<sup>150</sup> This is another example of the incongruent characteristics of air and land power; air action tended to disperse hostiles, thwarting Western land-based firepower which was optimised against massed formations.

Issues with applying tribal responsibility emerged again in August when *lashkars* of young, disaffected tribesmen advanced towards Peshawar and Kohat. Aircraft were prohibited from targeting their villages of origin, as the tribal elders did not support the *lashkars*.<sup>151</sup> Instead, airmen attempted to engage the *lashkar-walas*, preventing organised tribal action, something Gwynn later described as 'general discouragement'.<sup>152</sup> On reaching Peshawar, the tribesmen were halted by defensive ground action; air-ground co-operation generally proved too dangerous due to the proximity of troops and tribesmen.<sup>153</sup> But when intensive bombing of the tribesmen's villages was finally authorised, the *lashkar-walas* retired and conceded terms.<sup>154</sup>

<sup>148</sup> Brock, "Air Operations on the N.W.F., 1930": 35.

<sup>149</sup> Ibid.: 36; Gwynn, *Imperial Policing*, 284.

<sup>150</sup> AOC RAF India, *Summary of Work No 139*, 1; Gwynn, *Imperial Policing*, 286-287.

<sup>151</sup> Brock wrote that 'the political argument was mainly that the object at the moment was to drive back the *lashkar*, and leave the real settlement of the tribe to a later date, when the whole tribe could be made to realize their responsibility for the disturbances' (see Brock, "Air Operations on the N.W.F., 1930": 38).

<sup>152</sup> Ibid.; Gwynn, *Imperial Policing*, 294.

<sup>153</sup> Gwynn, *Imperial Policing*, 291-294. Gwynn highlighted the danger of using troops defensively and 'the neglect of the opportunity for taking effective air action against the Afridi' (see ———, *Imperial Policing*, 295, 297).

<sup>154</sup> AIR 5/1332, AOC RAF India, *RAF India Monthly General Summary of Work No 141: August 1930*, 1. India's single Hinaidi bomber-transport aircraft was used both to evacuate women and children from Parachinar and then subsequently bombarded the villages (see ———, *CD89*, 48-50).

The RAF and Army drew different conclusions. To the RAF, difficulties in targeting *lashkars* emphasised the importance of blockading villages, something the Politicals supported: 'deprived of its capacity to bomb villages, the Force would be reduced to comparative impotence'.<sup>155</sup> To the Army:

All forms of offensive air action are most effective when combined with the action of land forces. This combination can only be achieved by the logical and economic method of placing both forces under one Commander.<sup>156</sup>

AOC(India)'s despatch illustrated the Services' fundamentally different perspectives; Salmond's chronological narrative reflected a widely-acting force working under one commander, providing an understanding of the entire theatre where a single crew could participate in several separated tactical engagements in a single day. However, C-in-C(India) pointed out that Salmond 'fails to give a connected account... of operations in any one military or civil district', reflecting the soldier's more geographically localised perspective with an emphasis on individual environs.<sup>157</sup>

The WO commissioned a critique aimed at discrediting air power's role, probably to undermine Trenchard's recent substitution paper.<sup>158</sup> aerial demonstrations had been ineffective; *lashkar-walas* had effectively concealed themselves against aerial attack; those *lashkar* that had withdrawn had done so due to troop action. Whilst agreeing that 'at times the punitive bombing of villages can be a very powerful factor in compelling submission', it was nevertheless 'distasteful to all concerned', although land forces had played a large part in the majority of instances. The GS(India) noted the lack of serious damage to villages, recommending 'prolonged bombing with the

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<sup>155</sup> AIR 5/1325, Olaf K Caroe, *Letter, Chief Secretary to Government, NWFP, to Foreign Secretary to the Government of India, Foreign and Political Department*, 25 October 1933, 4.

<sup>156</sup> WO 32/3526, General Staff (India), *The Action of the Royal Air Force on the North West Frontier during the Disturbances of 1930*, 25.

<sup>157</sup> AOC RAF India, CD89, 3. The Army Council echoed C-in-C(India)'s remarks, questioning whether it was wise to publish the despatch at all, incorrectly describing the bombing of villages as 'punitive' (see WO 32/3526, A E Widdows, *Letter, Assistant Under-Secretary, War Office, to Under Secretary of State for India*, 11 February 1931).

<sup>158</sup> WO 32/3526, Minute 1, Major-General J R E Charles, *Minute, Director of Military Operations and Intelligence to Colonel K D Murray*, MO2, 5 August 1930.

heaviest types of bombs', despite highlighting that 50% of the casualties in one village had been women and children, which was 'regrettable but... unavoidable'.<sup>159</sup> The paper's incorrect use of the term 'punitive' and the GS(India)'s preoccupation with physical damage indicates that they failed to appreciate the air method's coercive, minimum-force nature. The GS(India)'s Director of Military Operations thought some of WO's criticisms were 'scarcely fair to the R.A.F.', which the paper's sponsor, the WO's Director of Military Operations and Intelligence, over-ruled:<sup>160</sup>

I wish to emphasise any cases of failure on the part of the R.A.F. They are never fair to us, and ... I wish to include them however unpalatable they may be to the R.A.F... I do not wish to misrepresent the facts (although the Air Staff does do so), but I am not prepared to let them down too easily.<sup>161</sup>

Overall, the Red Shirt operations illustrated the different perspectives towards air power between the Army, RAF and Politicals, all of whom interpreted events to reinforce their own core beliefs; the concomitant lack of agreed strategy resulted in the incoherent application of air power driven, by local personalities. All military commentators agreed that prompt action was key. The RAF wanted to swiftly target villages to coerce tribal leaders into exercising tribal responsibility. However, politicians often procrastinated, resulting in indecisive outcomes and frustrated soldiers and airmen who selectively interpreted events to bolster their respective intuitive perspectives. The Army viewed aircraft as an auxiliary to their own tactical formations, using them to engage tribesmen in close proximity to friendly forces; however, this required close co-ordination that was often absent. The Politicals, with limited military expertise, often had to mediate. Both Services recognised that aircraft could disperse tribesmen, which complicated subsequent ground action; this

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<sup>159</sup> WO 32/3526, General Staff (India), *The Action of the Royal Air Force on the North West Frontier During the Disturbances of 1930*, 11, 19-21.

<sup>160</sup> WO 32/3526, Colonel C G Ling, *Letter, Director of Military Operations, India, to Major-General J R E Charles, Director of Military Operations and Intelligence*, 3 November 1930, 4.

<sup>161</sup> WO 32/3526, Major-General J R E Charles, *Letter, Director of Military Operations and Intelligence to Director of Military Operations, India, Colonel C G Ling*, 21 November 1930.

incompatibility entrenched their positions. Interestingly, Salmond's despatch provided an apparently straightforward recounting of events, rather than offering analysis; this may reflect a lack of inter-Service concurrence on the campaign's lessons and a desire to avoid confrontation, although this was unsuccessful. It is interesting how the Army and RAF drew different conclusions from the same events, demonstrating that opinions can be shaped by organisational culture. The GS(India) was constrained into assessing events through the lens of its own framework, i.e., the effectiveness of air power in supporting the Army and the material damage aircraft had inflicted. Because the Army did not recognise air power's moral effect, it did not assess its effectiveness against this yardstick. The Air Force, in contrast, was frustrated because, in its view, it had been unnecessarily constrained from doing what it did best and was being blamed by the command chain that had imposed the constraints. This difference of perspective proved to be an impediment to doctrinal convergence; it was difficult to find common ground over techniques without agreement on the desired outcomes.

Despite these NWF disturbances, a sub-committee of the Indian Round Table Conference recommended, in January 1931, that the number of British troops in India be reduced to the lowest possible figure, partly due to India's post-1928 economic slump. This prompted a 'expert investigation' under C-in-C(India) whose June report retorted that the only possible reductions were the Chitral garrison, an additional single infantry battalion and 2 companies of supplementary troops.<sup>162</sup> In countering 'an obvious criticism by the layman' of not taking full advantage of air power's potential (a rebuff, presumably, to Trenchard's swansong), the GS(India)'s investigation highlighted its lack of confidence in the possibility of unrestricted use of offensive air power against Afghanistan, adding that it could not subscribe to a policy which

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<sup>162</sup> CAB 16/85, AIR 8/104, Sir Samuel Hoare, *Expert Investigation of the Strength, Composition and Functions of the Army in India, 1931- Note by the Secretary of State for India (CID Defence of India Sub-Committee Memorandum DI 42)*, 21 October 1932, 1. The proceedings of the 1931 Indian Round Table Conference are at CAB 27/469 and CAB 27/470.

recognised 'the bomb as the normal, and indeed the only method of enforcing authority and exercising control over a large section of our own subjects', a policy 'more likely to embarrass than help us'. The GS(India) concluded:

In framing our plans, therefore, we have taken cognizance not only of the additional power conferred, but also of the possible limitations which may be imposed for humanitarian and political reasons.<sup>163</sup>

When put before the CID's Defence of India Sub-Committee for their endorsement, SoS(Air), while accepting the report's main conclusions, dissociated the Air Ministry from the GS(I)'s comments on air power, wary of compromising the Sub-Committee's ongoing enquiry into the extended use of air power. SoS(War), however, said that the opinion of the 'responsible authorities in India' had to be accepted, a comment which would have somewhat undermined the Sub-Committee's authority to challenge 'India'.<sup>164</sup>

## CHITRAL RELIEF, 1932

Tribal resistance to the biennial relief of the Chitral garrison in September 1932 (the first joint operation conducted under the *Instructions Regarding the Control of Operations on the NWFI*) demonstrated further Army-RAF friction.<sup>165</sup> A joint Army/RAF operation to 'induce the enemy to come into the open in strength, where troops and aircraft would be able to inflict severe punishment', only resulted in long-range tribal sniping, possibly due to the deterrent effect of preceding warning notices and aerial demonstrations. Instead, GOC Peshawar directed the heavy bombing of

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<sup>163</sup> Ibid., 11/12.

<sup>164</sup> CAB 16/85, Committee of Imperial Defence: Defence of India Sub-Committee, *Minutes of the Sixteenth Meeting (DI/16th Mtg)*, 8 November 1932, 2. The Sub-Committee members included SoS(India)(Chairman) and his deputy, SoS(War), SoS(Air), SoS for the Colonies, CIGS, DCAS (representing CAS) and Hankey (Secretary). See also CAB 6/6, M P A Hankey, *Army in India: Expert Investigation of the Strength, Composition and Functions - Note by the Secretary of the Committee for Imperial Defence (CID Paper 183-D)*, 24 November 1932.

<sup>165</sup> AIR 5/1323, Army Department, *Instructions Regarding the Control of Operations, including the Employment of Air Forces, on the North-West Frontier of India*, 7 April 1932. These *Instructions* are discussed in Chapter 7.

local villages, resulting in ‘a considerable amount of material damage’.<sup>166</sup> Persistent objections by OC 1(Indian) Group and the Political Agent about the ‘uneconomical’ bombing of ‘poor targets’ eventually resulted in a switch to harassment bombing which progressively suppressed tribal aggression.<sup>167</sup> OC 2(Indian) Wing recorded that ‘It was not apparent to [the GOC] that, the more you bomb a target the harder it is to damage it’.<sup>168</sup> AOC(India) subsequently rebutted criticism of the expense of this ‘air operation’ by highlighting the GOC’s role.<sup>169</sup>

The Governor, NWFP, concluded that the intensive bombing had shown the tribes ‘that they have nothing to gain, but much to lose, by unprovoked attacks’ and that ‘the lesson has been thoroughly assimilated by all this region’. However, C-in-C(India) remained convinced that it was combined air/land action that had dissuaded other sections from participating. Despite these differing opinions, C-in-C(India) concluded that the operations ‘fully achieved their objectives’.<sup>170</sup> However, the Air Staff(India) subsequently commented that the tribes resisted bombing:

due to the tempting bait offered by the mobile column... The young tribesmen were happy that their effects should be bombed and that their relations should be living in discomfort provided they had the opportunity[sic] of firing their rifles nightly into the piquets and camp.<sup>171</sup>

This underlines that tribal responsibility could only be effectively invoked if the tribal elders had influence over their disaffected tribesmen while demonstrating the Army’s

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<sup>166</sup> AIR 5/1322, Chapter 21, Commander-in-Chief in India, *CD101: Report on the Operations in Connection with the Chitral Reliefs*, 1932, May 1933, 3-5; AIR 5/1333, AOC RAF India, *RAF India Monthly General Summary of Work No 166: September 1932*, 1; AIR 5/1333, ———, *RAF India Monthly General Summary of Work No 167: October 1932*, 1; AIR 23/688, Wing Commander D G Donald, *Memo, OC 1(Indian) Group to AOC, RAF, India*, April 1935, 1; AOC RAF India, *Summary of Work No 167*, 1; Donald, *Memo, OC 1(Indian) Group to AOC(India) dated April 1935*, 1. See [Annex 2](#) for the weapon expenditure statistics. GOC Peshawar was General Sir John Coleridge, who became Military Secretary to the IO in 1933 (replacing General Sir Sydney Muspratt) and then GOC-in-C Northern Command, India.

<sup>167</sup> Donald, *Memo, OC 1(Indian) Group to AOC(India) dated April 1935*.

<sup>168</sup> AIR 23/687, OC 1(Indian) Group, *Extract, letter, OC 1(Indian) Group to SASO, HQ RAF India (Air Commodore A S Barratt)*, April 1932.

<sup>169</sup> AIR 23/687, Air Marshal Sir Edgar Ludlow-Hewitt, *Bombing Policy*, 9 September 1935.

<sup>170</sup> Commander-in-Chief in India, *CD101*, 9-10.

<sup>171</sup> Donald, *Memo, OC 1(Indian) Group to AOC(India) dated April 1935*.

enthusiasm for heavy bombing (irrespective of target suitability), rather than minimum force.

### UPPER MOHMANDS OPERATION, 1933

In July 1933, the GoI declined a request by the Governor General to subdue conflict between the pro-Government Lower and anti-Government Upper Mohmands using air action.<sup>172</sup> The Air Staff's India desk officer, Darvall, highlighted the GoI's concern about: bombing hostile *lashkars* occupying friendly villages; discriminating between friendly and hostile tribesmen; and the proximity to the Presumptive Border.<sup>173</sup> Instead, a military column was deployed, but no aircraft were assigned to the GOC, despite his protests.<sup>174</sup> Bombing notices initially subdued the Upper Mohmands, but tit-for-tat army co-operation engagements escalated in September.<sup>175</sup> The Afghan Government eventually sanctioned British forces to engage the Upper Mohmands across the Presumptive Border (avoiding Afghan villages unless occupied by

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<sup>172</sup> AIR 5/1322 Chapter 23, General R A Cassels, *Report of the Mohmand Operations of 1933*, 1; AIR 5/1333, AOC RAF India, *RAF India Monthly General Summary of Work No 177: August 1933*, 1; Darvall, *Air Power on the NWF of India, 16 October 1935*, Annex D: Mohmand Operations 1933.

<sup>173</sup> Interestingly, the GoI relaxed restrictions imposed on movements of troops within 3 miles of the Presumptive Border to give the column tactical latitude, but restricted aircraft in this area to reconnaissance duties alone, with offensive action restricted to tactical co-operation with the column against 'actual tribesmen offering opposition' (see Darvall, *Air Power on the NWF of India, 16 October 1935*, Annex D: Mohmand Operations 1933). The India desk officer, Squadron Leader Lawrence 'Johnny' Darvall (formally designated 'FO5'), was responsible to the Air Staff for operations in India, Burma and the Far East, and was also the Air Ministry liaison officer in the IO (see Embry, *Mission Completed*, 84). Darvall had been a pilot on 20 Squadron in 1924-27 and a staff officer in HQ Iraq, 1933-35, before being posted to the Air Staff as FO5 India. He retired as an Air Marshal in 1956. His biography is at [Annex 7](#).

<sup>174</sup> GOC-in-C Northern Command was the chief complainant, although 'authority was given to call on such air forces as might be required'. See "Official History of NWF Ops, 1920-35", 141, 144; AIR 5/1333, AOC RAF India, *RAF India Monthly General Summary of Work No 178: September 1933*, 1.

<sup>175</sup> AOC RAF India, *Summary of Work No 178*, 1; "Official History of NWF Ops, 1920-35", 144. As examples of the tit-for-tat engagements, on 12 September, 20(AC) Squadron dropped twenty-nine bombs, while on the 14th and 15th it expended forty-nine bombs. The Squadron lost an aircraft on 15 September when it forced landed in tribal territory following an engine failure (see ———, *Summary of Work No 178*, 1).



*lashkars*), which resulted in terms being accepted.<sup>176</sup>

The 'definite reversal' of the Gol's policy of bombing villages was swiftly questioned by the Governor, NWFP. Whilst acknowledging the influence of the Geneva Disarmament Conference, he 'strongly' supported the bombing of villages:

tribes up and down the frontier now regard with the utmost dread a force which can search out their most remote and jealously guarded sanctuaries, and can deal out prompt and effective punishment, and which at the same time withholds from them the opportunities of looting...<sup>177</sup>

The Governor highlighted that previously-bombed *lashkars* quickly became adept at avoiding air action, whereas bombing their villages had been decisive on several occasions; if bombing villages was prohibited, the RAF 'would be reduced to comparative impotence'. He concluded:

The only alternative... is that we should adopt a consistently forward policy and gradually absorb the whole of the tribal area. That, however, is not a matter of practical politics at present.<sup>178</sup>

The *Official History* recorded the Army's frustration over the need to deliver ultimatums before bombing *lashkars* within villages (which did not apply to artillery) and the constraint of the Presumptive Border, which 'greatly limited the power of the air arm'.<sup>179</sup> This reflected the Army's tactical desire for swift, uncompromising, reactive support, in contrast to the RAF's more pro-active, theatre-level, coercive strategy. Additionally, the GOC noted public sensitivity concerning air power - 'a matter of the greatest delicacy' which 'produced an unfortunate feeling in minds of R.A.F. Commanders that the best use was not being made of [their] forces'.<sup>180</sup> Darvall concluded in 1935 that:

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<sup>176</sup> Cassels, *Report of the Mohmand Operations of 1933*, 6.

<sup>177</sup> Caroe, *Caroe to Gol, 25 October 1933*, 2-4. The policy of bombing 'villages, fields, cattle or personnel from the air after due warning', if compelled by tribal behaviour, had been re-affirmed by the Gol in June 1933.

<sup>178</sup> Ibid., 4-5.

<sup>179</sup> "Official History of NWF Ops, 1920-35", 141, 144-146.

<sup>180</sup> Ibid., 153.

Had political pressure been exerted earlier to induce the Afghan Government to remove the restriction on air action on the border, it is probable that the despatch of a column... would not have been necessary.<sup>181</sup>

### **BAJAUR OPERATIONS, 1933**

In May 1933, AOC(India) was authorised to use air power to remove a 'pretender' to the Afghan throne being sheltered in Waziristan by the Khan of Kotkai.<sup>182</sup> Contrary to RAF doctrine, the Governor ordered that, following the dropping of bombing notices, Kotkai should be bombarded for ten days.<sup>183</sup> After two days, the Khan had not conceded, so the Governor switched objectives from coercion to punishment. A day later, Khan's house had been destroyed. As any further effort would be wasteful, bombing was replaced with daily demonstrations for the remainder of the period.<sup>184</sup> The Air Staff highlighted the indecisive strategy that changed from coercion to punishment, only to be prematurely suspended.<sup>185</sup> As AOC(India) explained, 'the tribal offence did not warrant Government exerting the full pressure necessary to ensure compliance', as the GoI was unwilling to invoke wider tribal responsibility (via a full blockade) due to the small number of offenders. Nonetheless, AOC(India) continued, the bombing, backed by the threat of ground action, achieved the expulsion of the agitators.<sup>186</sup> However, this inconsistent application of air power led to criticism, not of the inconsistency, but of air power itself.

The Indian Legislative Assembly criticised the operation's punitive character, but the Army Department's Secretary defended it as it was swift, effective, cost 1% of a

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<sup>181</sup> Darvall, *Air Power on the NWF of India, 16 October 1935*, Annex D: Mohmand Operations 1933.

<sup>182</sup> The Governor, NWFP, had recommended the GoI use air action as the most economical and humane method of coercing the pretender's surrender, which the GoI supported. See AIR 5/1322. Chapter 22, Squadron Leader A S Bishop, *Memorandum to Deputy Director Operations and Intelligence*, 26 April 1934, 1.

<sup>183</sup> AIR 5/1322. Chapter 22, Air Marshal Sir J M Steel, *Report on Air Operations in Bajaur during the period 21st July, 1933, to 13th August 1933*, 3-4.

<sup>184</sup> AOC RAF India, *Summary of Work No 177*, 2-3. The RAF assessed that there had been no enemy casualties during the bombing of Kotkai.

<sup>185</sup> Bishop, *Memo to DDOI*, 26 April, 1.

<sup>186</sup> Steel, *Report on Air Ops in Bajaur, July-August 1933*, 5.

ground expedition, avoided fatalities on either side, and only inflicted damage equivalent to an artillery barrage.<sup>187</sup> In 1935, C-in-C(India) retrospectively criticised the operation, attempting to dissociate the Army from this action.<sup>188</sup> The GoI remained sensitive and reticent to publish AOC(India)'s despatch.<sup>189</sup>

Despite its superficial success, this minor operation demonstrated that, in the absence of coherent objectives, the inconsistent application of air power could generate criticism that was difficult to rebut. It was for this reason that the Air Staff strove for the consistent employment of a morally-defensible doctrine.<sup>190</sup>

### LOE AGRA CAMPAIGN, 1935

The 1935 Loe Agra campaign demonstrated C-in-C(India)'s continued reluctance to employ air power as anything other than an auxiliary to the Army, despite pressure from the 'Politicals' and RAF.

In March 1935, the GoI despatched the Nowshera Brigade to inflict fines on the Fakir of Alingar for subverting the Loe Agra tribes, north of Peshawar.<sup>191</sup> The Fakir's *lashkar* withdrew intact as the Column reached Loe Agra, but re-occupied it when the Brigade withdrew, commencing a series of temporary re-occupations and withdrawals by both sides against increasing resistance from the growing *lashkar*.<sup>192</sup> The GoI refused repetitive requests by the Governor, NWFP, to bomb the *lashkar*'s villages of origin, despite the Governor's appeals not to handicap the RAF from bombing enemy

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<sup>187</sup> AIR 5/1322, Chapter 22, P Mason, *Letter from Under Secretary to the Government of India to the Secretary, Military Department, India Office*, 22 March 1934. See also Darvall, *Air Power on the NWF of India*, 16 October 1935, Annex C: Operations in Bajaur 1933.

<sup>188</sup> AIR 23/687, Field Marshal Sir Philip Chetwode, *Letter, Commander-in-Chief, India, to Viceroy*, 20 August 1935, 2.

<sup>189</sup> This is discussed in Chapter 7.

<sup>190</sup> See Chapter 7.

<sup>191</sup> AIR 5/1334, AOC RAF India, *RAF India Monthly General Summary of Work No 195: February 1935*, 1; "Official History of NWF Ops, 1920-35", 167-170.

<sup>192</sup> For the final re-occupation by the Nowshera Column on 9 April, an RAF Liaison Officer accompanied the Brigade with a two-way W/T pack set and a ground station for the medium artillery battery. See AIR 5/1334, AOC RAF India, *RAF India Monthly General Summary of Work No 197: April 1935*, 1; "Official History of NWF Ops, 1920-35", 186.

concentrations that the Army would not hesitate to bombard.<sup>193</sup> When the Gol finally sanctioned the proscription of the area 12 April, the *lashkar* was dispersing, so no action was taken.<sup>194</sup> Darvall concluded in 1935 that 'The Fakir was not punished nor overawed' and that 'There is little doubt but that had the Royal Air Force been allowed to bomb the villages... the trouble would have subsided quickly'.<sup>195</sup>

### MOHMAND CAMPAIGN, 1935

The 1935 Mohmand operation illustrated continued inter-Service rivalry and a lack of agreed Frontier strategy, something that was veiled in the operation's official report. In July 1935, aircraft engaged a 2000-strong *lashkar* of Upper Mohmands and Safis who were destroying a military road.<sup>196</sup> The Gol delegated operational control to AOC(India) and sanctioned the air blockading of the *lashkar*'s villages.<sup>197</sup> This significantly depleted the *lashkar* and generated tribal requests to discuss terms.<sup>198</sup> The local Army Commander informed the RAF Group Commander that he intended to despatch a brigade-strength column because the Army was being placed in an intolerable position; it was bad for Army prestige to have the brigade inactive in the face of this affront. Nevertheless, the Deputy Commissioner did not think Army involvement was necessary.<sup>199</sup> AOC(India)'s personal letter to CAS revealed his perspective on subsequent events:

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<sup>193</sup> Darvall, *Air Power on the NWF of India*, 16 October 1935, Appendix: Loe Agra Operations, 1935.

<sup>194</sup> AOC RAF India, *Summary of Work No 197*, 1; "Official History of NWF Ops, 1920-35", 186-187.

<sup>195</sup> Darvall, *Air Power on the NWF of India*, 16 October 1935, Appendix: Loe Agra Operations, 1935.

<sup>196</sup> "Official History of NWF Ops, 1920-35", 189-191; AIR 5/1334, AOC RAF India, *RAF India Monthly General Summary of Work No 201: August 1935*, 1.

<sup>197</sup> AOC(India) delegated control to OC 1(Indian) Group. AOC RAF India, *Summary of Work No 201*, 1.

<sup>198</sup> *Ibid.*, 1-2. A tribal request to discuss terms was dismissed as the requesters were not deemed representative. The blockade had three phases: initially, practice bombs were dropped to encourage lingerers to leave their villages; ninety minutes later, any movement in or around the villages was engaged; this continued, but with intelligence-targeted raids to discourage inhabitants from returning (see "Official History of NWF Ops, 1920-35", 194).

<sup>199</sup> AIR 23/5388, *Extracts from Note of a Conference by Group Commander 19.8.35*, 1.

No sooner had the bombing notices been dropped and bombing begun than the G.O.C.in.C. Northern Command, strongly backed by Army Headquarters, expressed their intention of pushing troops forward into the area. Of course I immediately protested. My protest although couched as politely and tactfully as possible created a furious storm in the official teacup... and the result was that for a month we continued using ... two methods mutually opposed both in object and in method.<sup>200</sup>

The Army-centric *Official History*'s counter-view was that 'air action alone was unlikely to secure all the objects desired' and, in late August, GOC-in-C Northern Command was given control of land and army co-operation forces.<sup>201</sup> However, when the column encountered considerable opposition from fresh Afghan tribesmen, control of all air operations was transferred to the GOC-in-C.<sup>202</sup>

The Air Staff reflected that, at this point, the bombing object changed from coercing submission to merely protecting troops.<sup>203</sup> With orders to 'break the will of the Upper Mohmands', aircraft bombed tribesmen and villages ahead of the advancing 'Mohforce'.<sup>204</sup> Difficulties with reactive army co-operation were evident when, in September, a company attacked the tribesmen's strongest position beyond its battalion's supporting range; air action was constrained by the proximity of

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<sup>200</sup> AIR 23/688, Air Marshal Sir Edgar Ludlow-Hewitt, *Letter: Air Officer Commanding, RAF India, to Sir Edward L Ellington, Chief of the Air Staff*, 20 September 1935. Ellington had been AOC(India), 1923-26. The incompatibility of RAF and Army strategies is discussed in Chapter 5 and 6, but there is value in repeating some of AOC(India)'s text here: 'one seeks to bring the tribesmen to terms by inflicting discomfort and loss upon the tribe as a whole, giving the lashkars nothing to do, no opportunity to take retaliatory action [due to the lack of troops]... The other operating through the fear of invasion compels the tribesman to stand in defence of his territory and therefore tends to keep the lashkars in the field, and thereby create opportunities of inflicting upon them decisive defeat'.

<sup>201</sup> "Official History of NWF Ops, 1920-35", 197, 200.

<sup>202</sup> AIR 5/1334, AOC RAF India, *RAF India Monthly General Summary of Work No 202: September 1935*, 1.

<sup>203</sup> AIR 5/1323, Squadron Leader L Darvall, *Minute to DCAS: Mohmand Operations 1935*, 14 October 1938, 2. Nonetheless, independent air blockade techniques continued to be imposed on villages that weren't directly threatened by ground invasion.

<sup>204</sup> "Official History of NWF Ops, 1920-35", 212-214; AOC RAF India, *Summary of Work No 202*, 1. Mohmand Force was initially commanded by Brigadier Claude Auchinleck until Major-General Sydney Muspratt returned from leave (see "Official History of NWF Ops, 1920-35", 222). Auchinleck would later become one of the initial co-authors of the *Combined Frontier Manual* (with Peck), as described in Chapter 7 (see AIR 23/688, Air Marshal Sir Edgar Ludlow-Hewitt, *Letter: Air Officer Commanding, RAF India, to Sir Edward L Ellington, Chief of the Air Staff*, 2 March 1937).

tribesmen and troops.<sup>205</sup> Nonetheless, a settlement was finally reached by *jirga* in October, with thirty-three aircraft demonstrating overhead.<sup>206</sup>

The archives reflect the in-theatre friction. AOC(India) swiftly informed CAS that:

Logically the Army should have conformed during the first phase to the air plan, but they did not... The chief trouble is the difficulty of getting an agreed combined plan, because of the military refusal to take any cognisance of the principles of effective air action, and... their determination that whatever happens they must have their share of the show... If they would only give up their discreditable efforts to discredit the value of air action on the frontier, I should have little cause to complain.<sup>207</sup>

Furthermore, Ludlow-Hewitt considered the change of strategy unnecessary:

air was the primary factor in undermining resistance and in preventing the spread of the trouble... peace moves were almost entirely inspired by the desire to put an end to the air blockade.

He continued that the GS(India) initially balked at mentioning air action in their official despatch, but:

they were very anxious to get an agreed report, and after some haggling they have included the main points on which I insisted... they have practically admitted the principle that has hitherto been anathema to them, namely that air blockade is better without the troops.<sup>208</sup>

Nonetheless, the *Official History* failed to analyse the air action, which may reflect the Army's refutation of air power's initial role in the operation.<sup>209</sup>

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<sup>205</sup> The Company Commander, Captain Meynell, was awarded a posthumous VC (see Barthorp, *Afghan Wars and the North-West Frontier, 1839-1947*, 165-167; AOC RAF India, *Summary of Work No 202*, 2).

<sup>206</sup> AIR 5/1334, AOC RAF India, *RAF India Monthly General Summary of Work No 203: October 1935*, 3.

<sup>207</sup> Ludlow-Hewitt, *AOC(India) to CAS, December 1935*.

<sup>208</sup> Ibid. As explained in Chapter 5, the IO refused to release a public report due to sensitivities over the use of aerial bombing (see Ellington, *CAS to IO*, 18 April 1938).

<sup>209</sup> "Official History of NWF Ops, 1920-35", 240-244.

## IMPROVING IN-THEATRE RELATIONS, 1935

The appointment of Sir Edgar Ludlow-Hewitt as AOC(India) in March 1935 marked a watershed for in-theatre Army-RAF relations. Having previously been AOC Iraq and DCAS, he was well-suited for this post. He cultivated improved relations with the Viceroy and C-in-C(India), telling SoS(India) in early 1936 that:

... though seemingly very prejudiced against the use of the R.A.F. on the frontier, [C-in-C(India)] was so magnanimous as to lend the whole weight of his great influence to push my claims for an improved position for the A.O.C.<sup>210</sup>

Whether his letter's tone can be taken at face value or was, instead, diplomatic and intended to curry trust with his new command chain is unknown. Nevertheless, his reputation for inter-Service co-operation was illustrated in a letter to CAS in late 1936:

even though substitution may be dead – as I think and hope it is – there is still plenty of room for economy by the use of air action in place of expensive operations... On the other hand, I am far from being an advocate of air action at all or any cost... All we want out here is that the use of the Air Force should be given fair and unprejudiced consideration. At present, any proposal for the use of air action is liable to be met on all sides by bias and prejudice.<sup>211</sup>

This quote is interesting. Firstly, Ludlow-Hewitt 'hoped' substitution was dead, but did not 'know', hinting that he was not fully appraised of the Air Staff's intent. Secondly, it reveals that, despite C-in-C(India)'s support, anti-Air Force prejudice endured from 'all sides' (presumably the Army, Politicals and, probably, the Indian Legislative Assembly). Slessor's arrival as OC 3(Indian) Wing at Quetta from Camberley in 1935 was apropos. He criticised his Wing's primary role of countering the Russian threat, preferring 'to give more attention to close-support training'.<sup>212</sup> Nonetheless, despite penning his introduction to *Air Power and Armies* the month he arrived in India,

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<sup>210</sup> CAB 21/1079, Air Marshal Sir Edgar Ludlow-Hewitt, *Letter, Air Officer Commanding, RAF India, to Secretary of State for India*, 20 January 1936.

<sup>211</sup> AIR 23/688, ———, *Letter: Air Officer Commanding, RAF India, to Sir Edward L Ellington, Chief of the Air Staff*, 17 November 1936. Ludlow-Hewitt's attitude is further examined in Chapters 5 and 7. His opinion that military success depended on inter-Service co-operation and his refusal to conform with fanatical air-power purists was examined by Renfrew (see Renfrew, *Wings of Empire*, 186).

<sup>212</sup> Slessor, *The Central Blue*, 122.

Slessor remained an advocate of Air Staff doctrine:

[I] never wavered from my view that, in nine cases out of ten, these tribal disturbances... could best be dealt with by... the Air Method. But in 1935 I was commanding an Army Co-operation Wing... the R.A.F. in India would be used, rightly or wrongly, on many occasions in co-operation with the Army in tribal operations on the Frontier; [I] was concerned to do my best to ensure that when it was so used, it should be used to the best advantage. It did not take me long to become quite sure that it was not being used so.<sup>213</sup>

His 1936 critique of Montgomery's Staff College Quetta paper on Frontier operations articulated the concept of a 'primary arm' and the incompatibility of the Air and Land methods:

... you have got to decide whether to use the Air(Blockade) method or the Army(Battle) method; and whichever you decide on then the other service cooperates in a minor capacity. The two methods will not mix. ...the effect (and incidentally the object given to) the air blockade is to force the lashkars to disperse. You then decide to send a column in... and the inevitable result is to make the lashkars concentrate to oppose you.<sup>214</sup>

Slessor deployed his pilots with Army units and held joint Army-RAF exercises to increase inter-Service awareness.<sup>215</sup> He, and OC Rawalpindi Brigade, persuaded Army HQ to make 'close support' the theme for the 1936 Khanpur combined training exercise.<sup>216</sup> Slessor wrote *Close Support Tactics. Provisional* to supplement a draft chapter of the *Combined Frontier Manual*.<sup>217</sup> The exercise report highlighted that 'the success of close support action depends entirely upon good communications' and 'the essential need for an Air Force Commander at Column H.Q.'. <sup>218</sup> Slessor recognised that the paucity of hostile tribesmen, and the challenge of distinguishing them from both the background population and terrain, meant that army co-operation aircraft had to be directed by troops. This required intimate ground-to-air co-ordination and

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<sup>213</sup> Ibid., 120-121.

<sup>214</sup> AIR 75/29, Wing Commander J C Slessor, *Letter: Officer Commanding 3(Indian) Wing to Wing Commander J B Cole-Hamilton, Staff College, Quetta*, November 1935, 4.

<sup>215</sup> Slessor, *The Central Blue*, 123, 126.

<sup>216</sup> Ibid., 126.

<sup>217</sup> AIR 75/31, Wing Commander J C Slessor, *Close Support Tactics. Provisional* 1936.

<sup>218</sup> AIR 75/31, Brigadier C D Noyes, *Combined Report on Air Co-operation Training*, 2 (Rawalpindi) Infantry Bde and 3 (Indian) Wing, R.A.F., Khanpur Area, 17-25 November 1936, 2, 5.



centralised control to vest the column commander with sole authority for close support.<sup>219</sup> However, consensus was absent across RAF(India); Group Captain Bottomley (OC 1(Indian) Group) felt that deploying a wing commander with a column would disempower the Group and Squadron commanders and that the low flying required to achieve the necessary weapon accuracy in the proximity of friendly troops unjustifiably exposed aircraft to rifle fire.<sup>220</sup> Nevertheless, Slessor deployed with the column on the second Khaisora campaign immediately on return from the Khanpur exercise to trial his new tactics (presumably to Bottomley's chagrin).<sup>221</sup>

Reflecting for a moment on Slessor's character, it appears that, while he believed in the potential of the air method and substitution (having drafted many related ASMs while on the Air Staff), he was nonetheless a pragmatist who was dedicated to the job in hand and picked his doctrinal battles carefully. As we shall see later in this Chapter, he would continue to support the requirement for Army Co-operation tasks following his return to the Air Staff as Deputy Director of Plans in 1937. Overall, he appears to have been able to place issues in their proper contemporary perspective, displaying a very rounded personality.

Overall, the requirement for close support during the 1936-39 Waziristan campaigns compelled the Army and RAF units on the NWF into intimate tactical-level co-ordination such that, by 1939, the IO's Military Secretary publicly stated:

nowhere else in the British Empire, except possibly in Palestine at the moment, is the ordinary day-to-day work of the two Services so closely and harmoniously interconnected.<sup>222</sup>

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<sup>219</sup> Slessor, *The Central Blue*, 121, 127-129; Noyes, *Report on Air Co-operation Training*, 17-25 November 1936.

<sup>220</sup> Slessor, *The Central Blue*, 122; AIR 75/29, Wing Commander J C Slessor, *Private letter to Air Commodore R H Peck*, 20 September 1936; AIR 75/29, ———, *Letter to Air Commodore R H Peck*, 10 April 1936.

<sup>221</sup> Slessor, *The Central Blue*, 130. Slessor recorded his personal experiences during the Khaisora campaign at p130-38. Slessor's report on the campaign is at: AIR 75/31, Wing Commander J C Slessor, *Operations in Waziristan. 24 November 1936 to 15 January 1937*, January 1937.

<sup>222</sup> General Sir Sydney Muspratt, quoted in Bottomley, "The Work of the RAF on the NWF": 780.

Nevertheless, the strategy and employment of RAF units was continually questioned by the Air Ministry, as described subsequently.

### **WAZIRISTAN, 1936-39 – THE FAKIR OF IPI<sup>223</sup>**

Operations in the later 1930s revolved around the Fakir of Ipi in Waziristan who, in Autumn 1936, adopted the role of 'Champion of Islam' to subvert the Tori Khel Wazirs, Mahsuds and Bhitannis.<sup>224</sup> Army operations, which ultimately involved 61,000 Imperial troops, occurred in four phases: the pacification of the Tori Khel Wazirs; operations to expel Ipi; the withdrawal of additional units in late 1937; and the 1938-39 flare-up.<sup>225</sup>

Air support was dismissed, then proved critical, from the outset. The first Khaisora operation began in November 1936 when the Gol invoked its right of access to the Lower Khaisora valley to strengthen the authority of the *maliks* and check Ipi's propaganda.<sup>226</sup> The two columns were heavily engaged and failed to make the planned evening encampment, requiring emergency re-supply by air.<sup>227</sup> Slessor reported that, originally, only a single flight of aircraft had been allotted to support the two, 15-mile separated, columns. To avoid inflaming the local population, aircraft

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<sup>223</sup> See the fold-out maps at Figure 14 and 15. [Figure 14](#) shows the area of Waziristan, while [Figure 15](#) depicts the air operations in the same area.

<sup>224</sup> "Official History of NWF Ops, 1936-37", 4-5. According to Stewart, the Faqir was funded by a variety of sources, including Russia, the Indian Congress Party and, later, the Axis powers, all linked with destabilising British rule. Stewart contended that the Faqir cared less about the overthrow of the British than the establishment of a Pakhtunistan state. Stewart also made direct comparisons between the Faqir and Osama bin Laden. See Leeson, *Frontier Legion: With the Khassadars of North Waziristan*, 81-82; Stewart, *The Savage Border: The Story of the North-West Frontier*, 194. For an overview of Ipi's campaign against the British, see Hauner, "One Man against the Empire", available on-line at <http://www.khyber.org/publications/021-025/faqiripi.shtml>.

<sup>225</sup> Moreman, *The Army in India*, 163.

<sup>226</sup> "Official History of NWF Ops, 1936-37", 5-7. In March 1935, the Gol had increased the Tori Khel's allowances in return for the right of access to the Lower Khaisora and their other territories in the North Waziristan Agency. See "Official History of NWF Ops, 1936-37", 3.

<sup>227</sup> AIR 5/1335, AOC RAF India, *RAF India Monthly General Summary of Work No 216: November 1936*, 3-5; "Official History of NWF Ops, 1936-37", 13; General R A Cassels, "Report on Operations in Waziristan 25th November 1936 to 16th January, 1937 (1st Phase)", *Supplement to The London Gazette*, 2 November 1937, 6812.

were forbidden to engage hostile tribesmen, even in self defence, unless directed by the columns by panels (contrary to the Grey Book, which authorised retaliation 'if hostile sniping or other active opposition is encountered'). The offer of deploying a liaison officer with each column had been declined and, as the column commanders had seldom had the capacity to request air support:

Pilots had the unenviable experience of seeing tribesmen in considerable numbers in the act of opposing the columns, but were precluded by their very definitive orders from rendering [ ] assistance.<sup>228</sup>

The GoI's *Official History* acknowledged that the tribesmen interpreted the lack of offensive air action as 'a manifestation of the Faqir's piety and miraculous powers'.<sup>229</sup> However, more aircraft were urgently summoned and, during the premature withdrawal, OC 1(Indian) Wing rescinded the restrictions, resulting in 'effective and heartening' close support on several occasions.<sup>230</sup> Slessor later reflected that aircraft should have been used to expel and discredit the FoI before the columns were deployed.<sup>231</sup>

The second Khaisora operation was a punitive land-air operation launched in early December to regain the initiative.<sup>232</sup> GOC-in-C Northern Command was vested with full control of land and air operations;<sup>233</sup> responsibility for air operations was devolved to Bottomley, sidelining AOC(India). This time, Slessor accompanied the

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<sup>228</sup> Slessor, *Ops in Waziristan. 24 November 1936 to 15 January 1937*, 3-5.

<sup>229</sup> "Official History of NWF Ops, 1936-37", 20.

<sup>230</sup> ———, *Ops in Waziristan. 24 November 1936 to 15 January 1937*, 5; AOC RAF India, *Summary of Work No 216*, 3-5; "Official History of NWF Ops, 1936-37", 13. For a further description of this engagement, see Coningham, "Air/Ground Cooperation between the RAF and the Indian Army in Waziristan 1936-37", 5-7 and Warren, *Waziristan, the Faqir of Ipi, and the Indian Army*, 114-122.

<sup>231</sup> AIR 9/11, E60, Group Captain J C Slessor, *Memo, Deputy Director of Plans to Chief of the Air Staff*, 10 August 1937, 2.

<sup>232</sup> The 'Striking Force' was the Razmak Brigade, which formed 'Khaicol'; the Bannu Brigade (called Tocol) conducted line of communication protection duties and acted as a reserve. The 2<sup>nd</sup> (Rawalpindi) Infantry Brigade was initially held in deeper reserve to counter any uprising outside the Khaisora valley (see "Official History of NWF Ops, 1936-37", 17-18).

<sup>233</sup> The Resident in Waziristan was appointed his Chief Political Officer (see *Ibid.*, 17).

column.<sup>234</sup> Contradicting RAF doctrine, air action against villages was prohibited and a 5-mile area around the column was proscribed; however, the GOC initially prohibited air attacks within 3000 yards of the column to avoid dispersing hostile tribesmen.<sup>235</sup> Aircraft resupplied troops and, on occasion, effectively substituted for ground picquets along potentially-vulnerable passes.<sup>236</sup> However, friction with air-ground co-ordination was exposed on 22 December when an Indian Company became surrounded beyond artillery support; with the location of the Company unclear, effective reactive air action proved impossible until additional troops had clarified the situation.<sup>237</sup> Independent air action demolished Ipi's Aarsal Kot refuge with 230-pound bombs on 30/31 December;<sup>238</sup> the Fakir declared he had caused the bombing to cease, so sporadic bombing re-commenced until mid-January 1937 with old 112-pound bombs, generating a cognitive, rather than material, effect.<sup>239</sup> Co-operative land-air action finally dispersed Ipi's remaining Afghan tribesmen in late January 1937, ending the second Khaisora operation.

Extensive, renewed tribal unrest in February left regular Army units fixed on defensive road protection duties.<sup>240</sup> This apparently induced a significant change in C-

<sup>234</sup> Slessor, OC 3(Indian) Wing, was assigned as air advisor to the Army HQ, with the four Miranshah Flights and 27(B) and 60(B) Squadrons from 1(Indian) Wing, Kohat, at his disposal.

<sup>235</sup> This prohibition was rescinded on 7 December when it became apparent that there was no serious resistance (see "Official History of NWF Ops, 1936-37", 19; AIR 5/1335, AOC RAF India, *RAF India Monthly General Summary of Work No 217: December 1936*, 4). See [Annex 2](#) for the weapon expenditure statistics.

<sup>236</sup> Aircraft dropped 10,000 pounds of supplies to the newly-established Khaisora Camp when rain made the road impassable (see AOC RAF India, *Summary of Work No 217*, 4). Aircraft routinely provided continuous close reconnaissance, twice-daily deeper reconnaissance sorties, photographic reconnaissance, supply dropping, 'travel sorties' and a daily air service to distribute orders to the deployed units which 'proved to be the only way of circulating written orders in time' (see "Official History of NWF Ops, 1936-37", 26).

<sup>237</sup> "Official History of NWF Ops, 1936-37", 24-25.

<sup>238</sup> *Ibid.*, 31. 60(B) Squadron, who conducted the raids, were thereafter nicknamed 60 (Demolition) Squadron (see Ian M Philpott, *The Royal Air Force 1930 to 1939* (Barnsley: Pen & Sword Aviation, 2008), 178).

<sup>239</sup> AOC RAF India, *Summary of Work No 217*, 5-6; AIR 5/1335, ———, *RAF India Monthly General Summary of Work No 218: January 1937*, 3, 5; "Official History of NWF Ops, 1936-37", 31. See [Annex 2](#) for the weapon expenditure statistics.

<sup>240</sup> "Official History of NWF Ops, 1936-37", 38. See [Annex 2](#) for the weapon expenditure statistics.

in-C(India)'s policy, whereby the Army remained concentrated in 'war stations', while air dealt with outlying areas and supported outlying posts. According to AOC(India):

This plan permits the Commander-in-Chief to gauge[sic] the nature and strength of the hostile movement before he commits his troops, meanwhile applying heavy pressure by air against some of the most troublesome and inaccessible centres of revolt.<sup>241</sup>

The Gol's *Official History* recorded this change of policy slightly differently: 'Action by land forces... was avoided until political means to restore the situation had proved fruitless'.<sup>242</sup>

Tripodi has highlighted the friction between the Army and the Politicals over strategy; while the Army wanted to capture Ipi, the Politicals feared this would fuel tribal unrest. Forcing a tribe to surrender him would compromise *nanawatai* and be viewed as betrayal by neighbouring tribes. Tripodi concluded: 'the only course of action available was to dispute his authority, challenge the *lashkars*, grind them down... and force them to retreat', keeping Ipi on the move and preventing him from building up local support.<sup>243</sup>

The Politicals' strategy nested comfortably with air power. To stabilise unrest, political pressure was first applied on the *maliks*, followed by progressive punitive and proscriptive air action. Examples included the Governor's progressive punitive bombing of three Madda Khel villages by Bomber squadrons (including the first offensive use of the BTF with 540-pound bombs) for the murder of two British officers in February, securing the surrender of three accomplices.<sup>244</sup> Similarly, the Fakir's refuge at Aarsal Kot in the Shaktu Valley was proscribed in March to prevent hostile

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<sup>241</sup> AIR 23/688, Air Marshal Sir Edgar Ludlow-Hewitt, *Letter, Air Officer Commanding, RAF India, to Sir Edward L Ellington, Chief of the Air Staff*, 5 March 1937, 4.

<sup>242</sup> "Official History of NWF Ops, 1936-37", 38.

<sup>243</sup> Tripodi, *Edge of Empire*, 185.

<sup>244</sup> AIR 5/1335, AOC RAF India, *RAF India Monthly General Summary of Work No 220: March 1937*, 4-6. For more information about the murder of Captain Keogh and Lieutenant Beatty (the Assistant Political Agent in North Waziristan), see "Official History of NWF Ops, 1936-37", 38-39 and Trench, *Viceroy's Agent*, 68-69. By April, the murderers had been expelled and the Madda Khel had accepted a fine (see "Official History of NWF Ops, 1936-37", 40).

gangs assembling.<sup>245</sup> The Gol's *Official History* described this Aarsal Kot action as an 'aerial blockade', but AOC(India)'s description of the lack of stipulations indicates that this was proscription designed to curtail insurgent activity.<sup>246</sup> Nevertheless, the archive reveals the progressive refinement of punitive tactics. For example, following an unsuccessful first-day's medium-level punitive bombing of a Datta Khel village in April for looting, Bottomley directed a change to lower-level dive attacks. Despite increased ground fire, this apparently improved precision, as only BIBs were dropped the next day, following which bombing was suspended.<sup>247</sup> A rare example of 'punitive' action against a hostile *lashkar*'s village of origin occurred in mid-April; terms were accepted after three days of bombing.<sup>248</sup> Although similar to RAF coercive doctrine, the Air Staff continued to rebut the term 'punitive' bombing, preferring to call it 'destructive air action'.<sup>249</sup>

Notwithstanding the prominence of independent air action, air co-operation remained important. In March, 5(AC) Squadron 'gave much assistance' to a column's advance guard ambushed near Damdil.<sup>250</sup> It also provided support following a significant Mahsud ambush of forty-nine lorries in the Shahur Tangi defile in April.<sup>251</sup> Following this, most convoys were suspended, leaving the Wana garrison reliant on

<sup>245</sup> AOC RAF India, *Summary of Work No 220*, 5; AIR 5/1335, ———, *RAF India Monthly General Summary of Work No 221: April 1937*, 3.

<sup>246</sup> "Official History of NWF Ops, 1936-37", 45; AOC RAF India, *Summary of Work No 220*, 5. The misleading 'aerial blockade' description was subsequently repeated by several Army commentators, such as Roe, *Waging War in Waziristan*, 166.

<sup>247</sup> AOC RAF India, *Summary of Work No 221*, 3-4; "Official History of NWF Ops, 1936-37", 54-55.

<sup>248</sup> AOC RAF India, *Summary of Work No 221*, 5-6; Roe, *Waging War in Waziristan*, 168.

<sup>249</sup> AIR 5/1336, Squadron Leader L Darvall, *Minute to RAF India Monthly General Summary of Work No 236: July 1938*.

<sup>250</sup> "Official History of NWF Ops, 1936-37", 48-52.

<sup>251</sup> The event made headlines in social commentary magazines (see, for example, *Life Magazine* at [Figure 13](#)). Ninety-two troops were killed or wounded. See *Ibid.*, 55-65. A detailed description was provided by Trench, *Viceroy's Agent*, 70-71. For another, somewhat optimistic, summary, see "Attack on the Convoy at Shahur Tangi on the 9th April 1937", *JUSII* LXVII, no. 288 (1937).

resupply by the BTF, demonstrating the use of air transport as a force protection measure.<sup>252</sup>

Despite their proscription, *lashkars* continued to assemble in the Khaisora and Shaktu valleys. GOC-in-C, Northern Command, was tasked with engaging them on ground favourable to British all-arms.<sup>253</sup> During the late-April third Khaisora operation, 3(Indian) Wing's Advanced HQ accompanied 1 Division, co-ordinating air support under OC 1(Indian) Group.<sup>254</sup> The *lashkars* declined battle, but air-land synergy inflicted significant casualties on tribesmen flushed out by advancing troops.<sup>255</sup> Nonetheless, Ipi claimed 1 Division's subsequent withdrawal as a victory and his Aarsal Kot *lashkar* grew, despite its proscription.<sup>256</sup> The operation exposed different perspectives within the Air Staff. Darvall highlighted the:

wasted effort & misemployment of aircraft... Much ammunition was wasted on close support work... 'targets' i.e. hilltops – patches of bushes, rocks etc were plastered with bombs & S.A.A..<sup>257</sup>

However, Slessor, just posted to the Air Ministry as Deputy Director of Plans following the second Khaisora operation, retorted:

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<sup>252</sup> The BTF was reinforced by a Flight from 70(B) Squadron from Iraq from June to September. See AOC RAF India, *Summary of Work No 221*, 8-9; AIR 5/1335, ———, *RAF India Monthly General Summary of Work No 222: May 1937*, 3, 9-10; AIR 5/1335, ———, *RAF India Monthly General Summary of Work No 223: June 1937*, 3; AIR 5/1335, ———, *RAF India Monthly General Summary of Work No 226: September 1937*, 4.

<sup>253</sup> GOC-in-C, Northern Command, was again given control of both politics in Waziristan and air operations. See "Official History of NWF Ops, 1936-37", 70-71; AOC RAF India, *Summary of Work No 221*, 6.

<sup>254</sup> During the advance, 20(AC) Squadron conducted air action around 1 Division, while the rest of the area was proscribed by 27(B) and 60(B) Squadrons (see AOC RAF India, *Summary of Work No 221*, 7).

<sup>255</sup> "Official History of NWF Ops, 1936-37", 76-77; General R A Cassels, "Report on Operations in Waziristan, 16th January, 1937 to 15th September, 1937", *Second Supplement to The London Gazette*, 15 February 1938, 1059. AOC RAF India, *Summary of Work No 221*, 8. See [Annex 2](#) for the weapon expenditure statistics.

<sup>256</sup> Cassels, "Report on Ops in Waziristan, 16 January to 15th September 1937", 1059; AOC RAF India, *Summary of Work No 221*, 8.

<sup>257</sup> Covering minute to AOC RAF India, *Summary of Work No 221*.

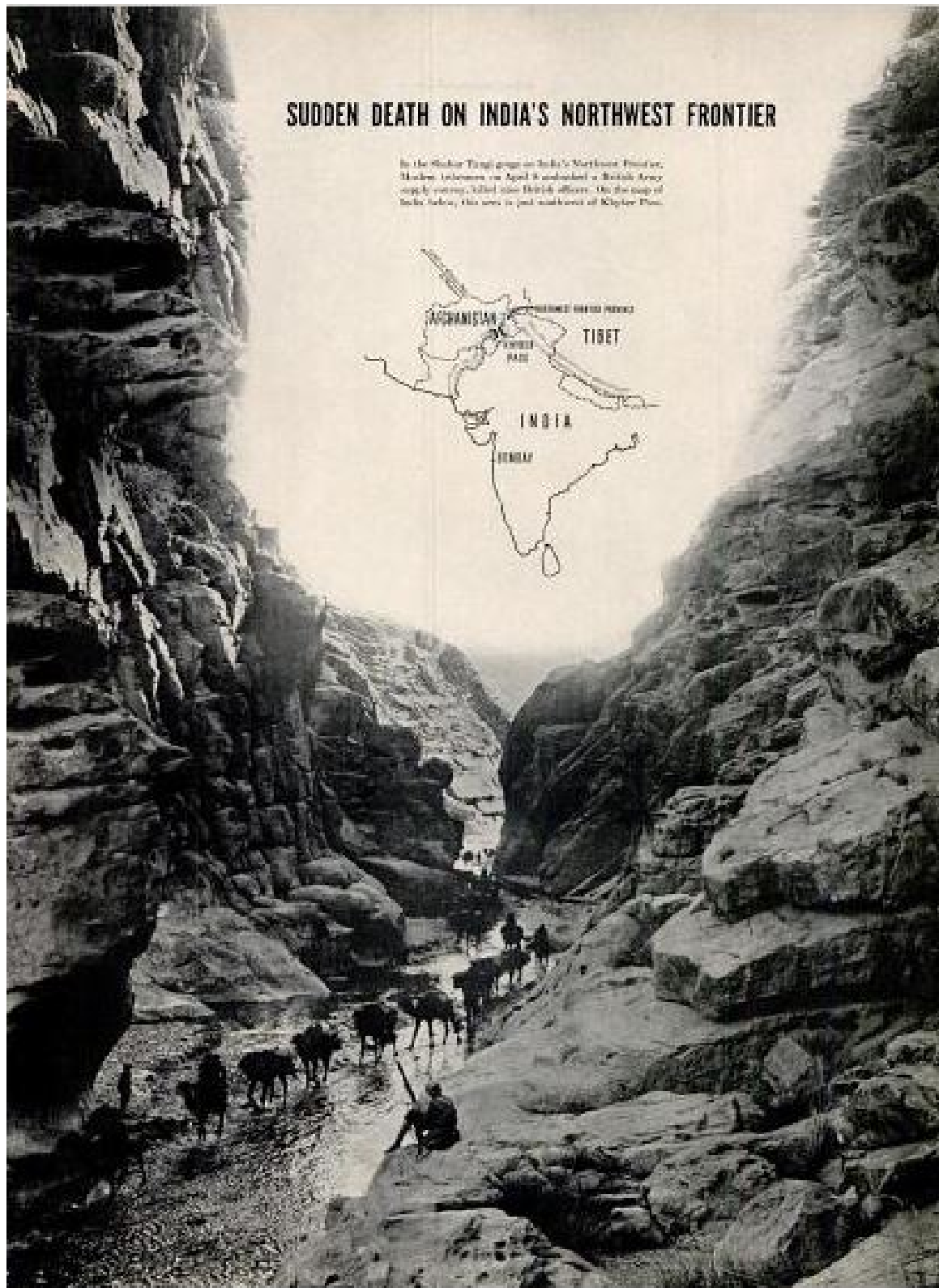


Figure 13 – Shahur Tangi Article, *Life* magazine (May 1937)<sup>258</sup>

<sup>258</sup> "Sudden Death on India's Northwest Frontier", *Life*, 3 May 1937.



I don't think [the] above is quite a fair picture. If they must carry out these column operations I do not think close support is a "waste"... Close support pilots do not bomb or use their guns except (a) against tribesmen seen and (b) areas where the troops know tribesmen are...<sup>259</sup>

This exchange demonstrates that, despite Darvall's less-than-full appreciation of NWF all-arms tactics, the in-theatre perspective was nevertheless represented by officers with first-hand experience.<sup>260</sup>

The escalating insurrection triggered operations to decisively defeat the Shaktu *lashkars* and capture or evict Ipi.<sup>261</sup> The aerially-proscribed areas were extended to herd *lashkar-walas* into the Shaktu valley where they would become vulnerable to Imperial all-arms.<sup>262</sup> New procedures were developed to overcome friction in the orchestration of army co-operation, mainly concerning poor communications, as Slessor's replacement had found himself 'unduly isolated from his squadrons' when deployed on the third Khaisora operation. This time, HQ 3(Indian) Wing deployed to Miranshah and army co-operation liaison pilots accompanied the columns, while RAF R/T tenders deployed to Army Advanced HQs, with R/T pack sets at each Brigade.<sup>263</sup>

These new procedures proved effective. On 11 May, a daring moonless-night advance through the Iblanke Pass outflanked the *lashkars*. The BTF parachuted a day's rations the next morning onto the lightly-equipped troops. The tribesmen commenced a general withdrawal, with army co-operation aircraft significantly

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<sup>259</sup> Covering minute to ———, *Summary of Work No 221*.

<sup>260</sup> Darvall, for example, would be replaced in 1939 by Basil Embry, fresh from commanding 20(AC) Squadron (See Embry, *Mission Completed*, 84). Embry served in the Deputy Directorate of Operations (Overseas) under Air Vice-Marshal Richard Peck who was, at that time, Director of Operations (see *The Air Force List*, (London: HMSO, 1939), 9-10).

<sup>261</sup> The Waziristan Division was created for this operation, consisting of some 10,600 men and 4000 animals. 1 Division was held in reserve to deal with any unexpected circumstances (see "Official History of NWF Ops, 1936-37", 83-86).

<sup>262</sup> AOC RAF India, *Summary of Work No 222*, 4. A sanctuary was established for tribesmen who did not wish to oppose the Government (see "Official History of NWF Ops, 1936-37", 115).

<sup>263</sup> Miranshah was considered the most convenient place to communicate with both Army and RAF formations. "Official History of NWF Ops, 1936-37", 79, 85; AOC RAF India, *Summary of Work No 222*, 3, 6.

depleting the *lashkars*.<sup>264</sup> When the columns occupied Aarsal Kot on 28 May, Ipi had fled; the *Official History* noted how the air bombardment had left Aarsal Kot completely ruined, with only one corner left standing.<sup>265</sup> During the subsequent withdrawal, aircraft designated the correct route with Verey Lights.<sup>266</sup>

Johnson's 2011 analysis concluded that many tribesmen left Ipi's cause at this stage, demonstrating the importance of co-ordinated action by political officers, the Army and RAF. Thereafter, although the Fakir maintained a small group of acolytes, large-scale fighting ceased, with just one area proscribed.<sup>267</sup> Convoys recommenced, but the permanent road picqueting tied-up large numbers of troops, requiring army co-operation aircraft to escort trains.<sup>268</sup>

Renewed road-building to encircle Waziristan's tribal *sanctum sanctorum* provided Ipi with ammunition to encourage unrest.<sup>269</sup> The GOC-in-C continued using Bomber squadrons to control tribal behaviour via OC 1(Indian) Group, still bypassing AOC(India). Punitive action was sometimes applied to achieve the release of hostages, but was also used as pure punishment.<sup>270</sup> In June, army co-operation aircraft supported troop action against hostile gangs south of Razmak. The aim (in

<sup>264</sup> 101 loads of rations were dropped by Valentias. See AOC RAF India, *Summary of Work No 222*, 3, 6; "Official History of NWF Ops, 1936-37", 89-95, 98; Cassels, "Report on Ops in Waziristan, 16 January to 15th September 1937", 1060.

<sup>265</sup> "Official History of NWF Ops, 1936-37", 111. For another description, see Lieutenant Colonel H E M Newman, "Waziristan 1937 to 1939", *Royal Engineers Journal* 98, no. 2 (1984).

<sup>266</sup> AOC RAF India, *Summary of Work No 222*, 7.

<sup>267</sup> Johnson, *The Afghan Way of War*, 197-198; "Official History of NWF Ops, 1936-37", 111-113, 116.

<sup>268</sup> "Official History of NWF Ops, 1936-37", 96. 28(AC) Squadron escorted nine trains during May and nineteen in June 1937. See AOC RAF India, *Summary of Work No 222*, 8, ———, *Summary of Work No 223*, 4 and "Official History of NWF Ops, 1936-37", 103-105.

<sup>269</sup> Hostilities included sniping camps at night, raiding the settled districts and taking civilian hostages (Cassels, "Report on Ops in Waziristan, 16 January to 15th September 1937", 1061).

<sup>270</sup> For example, Bomber squadrons and the BTF punitively destroyed four Bhitanni villages in early June to secure the successful release of Hindu hostages and as punishment for ambushing and harbouring raiders (See AOC RAF India, *Summary of Work No 223*, 5; "Official History of NWF Ops, 1936-37", 121-122; Cassels, "Report on Ops in Waziristan, 16 January to 15th September 1937", 1061). As pure punishment, the Mahsud village of Razin was punitively bombed for three days in early June for insurgent activity, at which point the GOC assessed the damage to be 'adequate punishment' and bombing eased (see AIR 5/1335, AOC RAF India, *RAF India Monthly General Summary of Work No 224: July 1937*, 4-5). See [Annex 2](#) for the weapon expenditure statistics.

contrast to an air blockade) was to 'inflict the greatest possible loss', which they achieved. The GOC-in-C wanted to establish the principle that harbouring Ipi, or his cronies, would automatically incur *ex post facto* aerial punishment, but the GoI would only delegate authority to bomb locations while fugitives were physically present.<sup>271</sup> Nevertheless, the Fakir was driven from place to place, often sheltering in caves to avoid air action.<sup>272</sup>

The improving in-theatre situation abated neither the Army's caution over air power's decisiveness nor the Air Staff's disapproval of Army strategy. The punitive destruction of four Bhitanni villages in July and the territory's subsequent stop-start proscription eventually led to the tribe conceding in October.<sup>273</sup> Nonetheless, the Army refused to accept final terms until a column visited the area. The anticipated resistance was almost absent, which AOC(India) attributed to 'the deep impression on the tribe' caused by 'the continuous air sorties by day and night combined with punitive action'.<sup>274</sup> Within the Air Staff, Darvall described the operation as 'curious':

It would be difficult to imagine more confused action than this. Constant suspensions of operations took place, there was no true air blockade & the aims & terms were constantly changing.<sup>275</sup>

In contrast, C-in-C(India) noted that 'close and cordial relations between the land and air forces were a marked feature of the campaign'.<sup>276</sup> Thus, while the imperatives of combat were forging closer in-theatre co-operation, the Air Staff remained steadfast in advocating pure RAF doctrine, despite the Army's increasing use of bombing as their

<sup>271</sup> "Official History of NWF Ops, 1936-37", 153-154.

<sup>272</sup> Cassels, *Report of the Mohmand Operations of 1933*, 1060; AOC RAF India, *Summary of Work No 223*, 8; "Official History of NWF Ops, 1936-37", 153-154.

<sup>273</sup> The BTF also conducted a few bombing patrols. See AIR 5/1335, AOC RAF India, *RAF India Monthly General Summary of Work No 225: August 1937*, 4-5; "Official History of NWF Ops, 1936-37", 178; ———, *Summary of Work No 226*, 8; AIR 5/1335, ———, *RAF India Monthly General Summary of Work No 227: October 1937*, 5-6.

<sup>274</sup> AOC RAF India, *Summary of Work No 227*, 5-7.

<sup>275</sup> AIR 5/1335, Squadron Leader L Darvall, *Minute to RAF India Monthly General Summary of Work No 227: October 1937*.

<sup>276</sup> Cassels, "Report on Ops in Waziristan, 16 January to 15th September 1937", 1062; "Official History of NWF Ops, 1936-37", 169.

primary tactic. In particular, the Army's heavy bombing contrasted with the Air Staff's 'minimum force' ethic.<sup>277</sup> The tension between these policies exposed the bounds of joint planning in August when the GOC-in-C cancelled an operation to capture Ipi after a thirty-aircraft demonstration made him flee.<sup>278</sup>

Aerial harassment, and lack of Afghan support, forced Ipi into increasingly small-but-widespread insurgent activity in the late summer.<sup>279</sup> This had implications for the RAF, requiring 50% more sorties in September than the previous month.<sup>280</sup> Insurgents reacted by sniping at aircraft operating from Miranshah, whose garrison had to be augmented as a force protection measure.<sup>281</sup> Road attacks increased, leading Army HQ to issue orders that 'the greatest possible loss was to be inflicted on any lashkar'.<sup>282</sup> The Army Commander ordered the punitive bombing of villages associated with hostile activity, which depleted the gangs and coerced several other tribes to comply without offensive action.<sup>283</sup> This was a rare, but effective, use of the Air Staff-endorsed tactic of coercing compliance by targeting villages of origin. However, the *Official History* acknowledged the RAF's concern that the weapon expenditure on some punitive targets was unjustified, countering that 'the Political Authorities considered it well worth while'.<sup>284</sup> To suppress gangs, several large areas, including the Fakir's locations, were proscribed using delayed-action bombs.<sup>285</sup> By December, tribal hostilities had reduced to 'normal' levels, allowing most of the

<sup>277</sup> For example, 51 tons of bombs (many with delayed-action fuses) had been dropped on the Bhitannis. See AOC RAF India, *Summary of Work No 224*, 4-5; ———, *Summary of Work No 225*, 4-5; "Official History of NWF Ops, 1936-37", 178.

<sup>278</sup> AOC RAF India, *Summary of Work No 225*, 3; "Official History of NWF Ops, 1936-37", 178.

<sup>279</sup> "Official History of NWF Ops, 1936-37", 170-171, 176-179.

<sup>280</sup> *Ibid.*, 178-179; AOC RAF India, *Summary of Work No 226*, 4-5, 10; Darvall, *Minute to Summary of Work No 227*, 7. See [Annex 2](#) for the weapon expenditure statistics.

<sup>281</sup> AOC RAF India, *Summary of Work No 226*, 5.

<sup>282</sup> "Official History of NWF Ops, 1936-37", 204.

<sup>283</sup> ———, *Summary of Work No 226*, 5-6; "Official History of NWF Ops, 1936-37", 186-188.

<sup>284</sup> "Official History of NWF Ops, 1936-37", 186.

<sup>285</sup> AOC RAF India, *Summary of Work No 226*, 5-7. The AC Squadrons enforced areas where troops were operating while Bomber Squadrons proscribed the rest.

reinforcements to be withdrawn.<sup>286</sup> Nevertheless, the Army Commander retained control of RAF assets.<sup>287</sup> C-in-C(India)'s official despatch acknowledged that air action 'played an important part in obtaining the restoration of peaceful conditions'.<sup>288</sup>

Sporadic hostilities by Ipi's lieutenants continued into 1938.<sup>289</sup> Insurgents increasingly avoided direct confrontation, instead commencing a 'disturbing' campaign of improvised explosive devices against roads, railways, parade grounds and airfields, damaging a taxiing aircraft at Miranshah.<sup>290</sup> The RAF increasingly became the main offensive weapon, with troops restricted to training marches and small punitive columns.<sup>291</sup> This was, in effect, Army-imposed substitution driven by troop shortages, albeit with air power directed by Army commanders in an unsophisticated, reactive, punitive manner in contrast to the Air Staff's doctrine designed for independent, coercive operations to control tribal behaviour. Darvall noted:

Until control of air operations in India is made over to an Air Staff, misuse of aircraft will continue. There is no doubt that proscription and destructive air action used as a punishment is popular, perhaps because no terms are announced and action can be broken off at any time.<sup>292</sup>

The RAF apparently recognised that these lower-intensity operations did not warrant exposing aircraft to undue risk. So, when the Madda Khel were punitively targeted in March for harbouring Ipi, aircraft remained above 4000 feet to avoid

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<sup>286</sup> In November, the 12-month anniversary of operations, AOC(India) had recorded that 'There appear to be indications now that the campaign may be drawing to a close'. See "Official History of NWF Ops, 1936-37", 227; AIR 5/1335, ———, *RAF India Monthly General Summary of Work No 228: November 1937*, 3-6.

<sup>287</sup> AIR 5/1335, AOC RAF India, *RAF India Monthly General Summary of Work No 229: December 1937*, 4.

<sup>288</sup> General R A Cassels, "Report on Operations in Waziristan, 16th September 1937 to the 15th December 1937", *Supplement to The London Gazette*, 15 February 1938, 3821.

<sup>289</sup> See, for example, AIR 5/1336, AOC RAF India, *RAF India Monthly General Summary of Work No 230: January 1938*, 4.

<sup>290</sup> *Ibid.*, 3; AIR 5/1336, ———, *RAF India Monthly General Summary of Work No 232: March 1938*, 3; AIR 5/1336, ———, *RAF India Monthly General Summary of Work No 236: July 1938*, 3.

<sup>291</sup> By May, all six 1(Indian) Group Squadrons and the BTF were involved. AIR 5/1336, AOC RAF India, *RAF India Monthly General Summary of Work No 234: May 1938*, 4.

<sup>292</sup> AIR 5/1336, Squadron Leader L Darvall, *Minute to RAF India Monthly General Summary of Work No 234: May 1938*.

ground fire. AOC(India) reflected that, 'In view of the high winds encountered, the bombing results were very satisfactory', inferring that they were not as accurate as anticipated. Thus, the tribesmen were degrading the RAF's bombing accuracy by restricting aircraft to higher altitudes where the effect of wind on the weapons' longer flight time degraded weapon accuracy.<sup>293</sup> The bombing forced Ipi to move closer to the Afghan border where he was politically difficult to target. Darvall described this deadlock as 'Gilbertian', adding later that: 'Once air operations have begun and terms have been announced nothing short of complete submission should cause operations to cease'.<sup>294</sup>

Continuing discontinuities in joint planning were revealed in April. A Scout operation was deliberately planned without informing the RAF to prevent aircraft from revealing the troops' disposition. When the operation encountered unexpectedly strong opposition at Dargai Sar, air support was summoned by pigeon. Aircraft scrambled within 60 minutes of the bird's release, remaining overhead until nightfall. AOC(India) recorded that:

The effect of the aircraft's arrival... had a great effect on the Scouts, all of whom broke into a loud cheer. Although cut off and surrounded, the Scouts thereafter felt in very much better spirits.<sup>295</sup>

C-in-C(India)'s despatch failed to identify the lessons, merely recording 'a hard-fought action... supported by aircraft'.<sup>296</sup> Darvall described the engagement as:

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<sup>293</sup> The operation was conducted by 1 and 2(Indian) Wings and two Valentias. See AOC RAF India, *Summary of Work No 232*, 6-7; General R A Cassels, "Report on Operations in Waziristan, 16th December, 1937 to the 31st December, 1938", *Supplement to The London Gazette*, 15 August 1939, 5667. See [Annex 2](#) for the weapon expenditure statistics.

<sup>294</sup> AIR 5/1336, Squadron Leader L Darvall, *Minute to RAF India Monthly General Summary of Work No 231: February 1938*; Darvall, *Minute to Summary of Work No 234*.

<sup>295</sup> AOC RAF India, *Summary of Work No 234*, 9-10. On one occasion, bombing prevented a section from being overrun, the Scouts having used Popham panels to direct aircraft onto the tribesmen. Aircraft also dropped medical supplies, ammunition and Very pistols which 'put the Scouts in a satisfactory position for the night' until they were reinforced the following morning. (see —, *Summary of Work No 234*, 11; AIR 5/1336, —, *RAF India Monthly General Summary of Work No 233: April 1938*, 6). See [Annex 2](#) for the weapon expenditure statistics.

<sup>296</sup> Cassels, "Report on Ops, 16 December 1937 to the 31 December 1938", 5668. Pettigrew claimed the heroes were the pigeons for 'flying so straight and fast that the Audax from Miran

one of the best examples... of an entirely unnecessary operation which has led to casualties and decorations... The local Scouts Leaders spoiling for a scrap fell into the trap – particularly avoided RAF co-operation... had aircraft not come to their assistance they might have been wiped out.<sup>297</sup>

In punishment for the Dargai Sar engagement, six Mahsud villages were proscribed or punitively bombed for a month.<sup>298</sup> Darvall expressed concern that this 'air proscription without terms' would attract accusations of inhumanity:

we see the impossibility of ensuring that the inhabitants understand what areas are safe and what are dangerous... Such conduct and operations would never be permitted by an A.O.C..<sup>299</sup>

It did. The German press highlighted Britain's barbaric bombing of Crown citizens.<sup>300</sup>

Darvall's minute seems to have been circulated exclusively to junior Air Staff members, possibly to avoid adverse comment by Slessor following their disagreement in April 1937.<sup>301</sup> Unfortunately, few of Darvall's comments on the 1937 Monthly Summaries survive in the archive, making a definitive assessment impossible.

Although the Air Staff(India) archives have not survived, AOC(India) provided a rare insight into Indian/London Air Staff dynamics while on UK leave in May 1938. CAS was 'very anxious' that Joubert protest to C-in-C(India) over AOC(India)'s exclusion from the decision-making process and OC 1(Indian) Group's lack of latitude to apply air power in an appropriate fashion.<sup>302</sup> Peck, Acting AOC(India) in India, hastily informed Joubert that the facts 'do not warrant a protest', assuring him that he had access to C-in-C(India) and CGS(India) and had been consulted 'on all material

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Shah was over the target in just over half-an-hour' (see Warren, *Waziristan, the Faqir of Ipi, and the Indian Army*, 214). Warren, however, made no mention of the lack of inter-Service co-operative planning (see ———, *Waziristan, the Faqir of Ipi, and the Indian Army*, 214).

<sup>297</sup> Darvall, *Minute to Summary of Work No 234*.

<sup>298</sup> AOC RAF India, *Summary of Work No 233*, 6-7; ———, *Summary of Work No 234*, 8; Cassels, "Report on Ops, 16 December 1937 to the 31 December 1938", 5668. See [Annex 2](#) for the weapon expenditure statistics.

<sup>299</sup> Darvall, *Minute to Summary of Work No 234*.

<sup>300</sup> Warren, *Waziristan, the Faqir of Ipi, and the Indian Army*, 215.

<sup>301</sup> Darvall, *Minute to Summary of Work No 234*.

<sup>302</sup> AIR 23/688 E72, Air Commodore Richard H Peck, *Letter, Senior Air Staff Officer, India, to Air Officer Commanding, India*, 21 June 1938; AIR 23/688, Air Marshal Sir Philip Joubert de la Ferte, *Letter, Air Officer Commanding, RAF India, to Senior Air Staff Officer, India, Air Commodore Richard Peck*, 16 June 1938.

occasions', despite occasional over-rulings by the Political Authorities. Similarly, OC 1(Indian) Group was free to use his professional judgement. Indeed, in March 1937, AOC(India) had finally been recognised as an ex-officio member of C-in-C(India)'s Military Council.<sup>303</sup> Whilst Peck admitted that weapon expenditure had been heavier than necessary and an AOC(India) would have applied air power more effectively, 'I could not say that these disadvantages have had seriously prejudicial effect'. Nonetheless, Peck opined that the 'hopelessly ineffective and extravagant' Waziristan system had driven security 'steadily from bad to worse'; whilst a deeper solution was required, the Air Staff's criticism of current operations was unhelpful because they had misrepresented the facts. In the meantime, Peck was focused on providing the Gol with 'the benefits and economies of the air method ... which do not clash with the... Army's method of "implementing the forward policy"'. Furthermore, Peck warned that 'there is more than a chance of bombing being stopped by H.M.G. and a protest about air operations just now might contribute thereto, which would be a pity'.<sup>304</sup> This is an important text, as few of the internal Air Staff(India) papers have survived.<sup>305</sup> It reveals the differing viewpoints between the London and Indian Air Staffs and how events were misinterpreted to discredit the Army's employment of Indian air power. It also indicates that the Air Staff(India) were dedicated to delivering air power in the most effective manner possible, despite the constraints and frustrations placed upon them by the Indian command and control system.

India's use of independent air power to influence tribal behaviour beyond the range of land forces was demonstrated in June when a Syrian agitator, the 'Shami

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<sup>303</sup> AIR 23/5388, G R Tottenham, *Letter, Secretary of the Government of India to Chief of the General Staff, Adjutant General in India, Quartermaster General in India, Master General of Ordnance in India and Financial Adviser, Military Finance*, 8 March 1937.

<sup>304</sup> Peck, *SASO(India) to AOC(India)*, 21 June 1938. Joubert's biography is at [Annex 7](#).

<sup>305</sup> This internal Air Staff(India) correspondence only survives in the archives because AOC(India) was on UK leave and it was filed by the Air Staff.



Pir', attempted to incite a rebellion against the Afghan Amir from South Waziristan.<sup>306</sup>

As his *lashkar* moved towards the Afghan border, rigorous political warnings and specially-authorised low-flying demonstrations by Basil Embry's 20(AC) Squadron dispersed it.<sup>307</sup> This was the first time that independent air action had been used to stop *lashkars* crossing into Afghanistan and generated a direct political effect.

A dramatic increase in 'outrages' through the summer catalysed a two-brigade campaign against Ipi and a re-organisation of command and control arrangements. The post of 'Commander Waziristan' was created at Razmak, where AOC 1(Indian) Group co-located his Advanced HQ, apparently to give him assured access to Commander Waziristan.<sup>308</sup> Embry flew both column commanders over the area of impending operations at Kharre. Inter-service liaison was facilitated by deploying a 20(AC) Squadron officer with each brigade and two Army officers to Miranshah.<sup>309</sup> This proved 'extremely successful'; aircraft 'rendered most valuable support' in difficult terrain, inflicting unusually high tribal casualties, primarily because Ipi's largely-Afghan *lashkar-walas*, unaccustomed to aircraft and dressed in white, failed to conceal themselves.<sup>310</sup> After strong tribal opposition, both sides withdrew. Kharre was subsequently inconclusively proscribed to deter the Fakir's return using a new locally-

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<sup>306</sup> AIR 5/1336, Squadron Leader L Darvall, *Minute to RAF India Monthly General Summary of Work No 235: June 1938*. The 'Shami Pir' was a relative of the Queen of ex-King Ammanullah, rumoured to be sponsored by the Axis powers. For a good resume of the political context to the Shami Pir affair, see Hauner, "One Man against the Empire: The Faqir of Ipi and the British in Central Asia on the Eve of and during the Second World War".

<sup>307</sup> AIR 5/1336, AOC RAF India, *RAF India Monthly General Summary of Work No 235: June 1938*, 3, 9-11; Embry, *Mission Completed*, 80-82.

<sup>308</sup> AOC RAF India, *Summary of Work No 236*, 3-4; AIR 5/1336, ———, *RAF India Monthly General Summary of Work No 238: September 1938*, 3. Group Captain Bottomley had left India in January 1938 and been replaced by Air Commodore Charles Darley, temporarily elevating the post from OC to AOC 1(Indian) Group.

<sup>309</sup> The 20(AC) Squadron officers deployed with the columns communicated with aircraft via W/T pack sets, Popham panels, picquetting strips and message dropping, while the Army Commander communicated with his Miranshah liaison staff via wireless sets.

<sup>310</sup> AOC RAF India, *Summary of Work No 236*, 5-6, 8-10; Cassels, "Report on Ops, 16 December 1937 to the 31 December 1938", 5669.

developed tactic termed 'tactical air proscription'.<sup>311</sup> The Air Staff described this as 'an objectionable form of air action, except in co-operation with troop movements' because it neither imposed terms nor invoked tribal responsibility. Darvall noted a repetition of the previous year's May/June flying surge, concluding: 'At the end of nearly two years of operations trouble appears to be more widespread than ever... an alteration in frontier policy is urgent'.<sup>312</sup> The operation illustrated that, despite effective air-land co-operation and local tactical successes, the effect of both punitive columns and aerial proscription was temporary and required constant engagement to counter insurgent activity.

In August, AOC(India) was delegated control of an 'independent' tactical air proscription of the Bannu Wazir salient.<sup>313</sup> However, aircraft proved unable to consistently disperse the raiders. Instead, two columns were dispatched, supported by 20(AC) Squadron who inflicted casualties, while aircraft mitigated resupply issues and located water sources.<sup>314</sup> Darvall noted in the margin that this episode demonstrated:

how to, or perhaps better, how not to handle a large variety of problems inseparable from the assumption of Sovereignty over wild men in wild places... in no instance was the principle of tribal responsibility invoked. The principle of "burn and scuttle" now applied by aircraft, coupled with the use of aircraft as a "flying column" was used instead. The results, as might have been expected, have been entirely unsatisfactory.... The more these situations are studied the clearer it is apparent how admirable a method the air blockade one is.<sup>315</sup>

Despite the Air Staff's disapproval, several areas were subjected to tactical air proscription, destructive air action and punitive air proscription between September

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<sup>311</sup> AOC RAF India, *Summary of Work No 236*, 10-11; AIR 5/1336, ———, *RAF India Monthly General Summary of Work No 237: August 1938*, 7; ———, *Summary of Work No 238*, 7.

<sup>312</sup> Darvall, *Minute to Summary of Work No 236*.

<sup>313</sup> Peck, still acting as AOC(India), described this tactical proscription as 'independent' because troops were not involved. See AOC RAF India, *Summary of Work No 237*, 8-9.

<sup>314</sup> ———, *Summary of Work No 238*, 7-8.

<sup>315</sup> AIR 5/1336, Squadron Leader L Darvall, *Minute to RAF India Monthly General Summary of Work No 238: September 1938*.

and December 1938, all without invoking tribal responsibility.<sup>316</sup> One case, the Tori Khel, took almost seven months to concede and required a joint political, economic and land blockade.<sup>317</sup> AOC(India) summarised this action thus:

Although the original aim... was of a punitive nature, it was hoped at the same time that air action and other punitive measures would bring sufficient pressure to bear on the tribe to induce them to settle... This hope, however, was not to be realised as the hostiles repeatedly declared their inability to submit until the FAQIR himself makes his peace, but the tribe has nevertheless shown their desire to divorce themselves completely from their hostiles in the future.<sup>318</sup>

This indicates that the Air Staff(India) were actively fostering doctrinal convergence by manipulating the Army's punitive policy into a coercive action akin to the RAF Air Staff's doctrinally-pure air blockade. It is apparent that the Air Staff(India) viewed air action in terms of 'effects', using their resources to achieve the Army's objectives (the compliance of the tribes) but via a different causal mechanism (coercion, rather than punishment) based on the use of minimum, rather than overwhelming, force.

AOC(India)'s commentary also indicates that joint action was generating tension between the tribes and Ipi despite the cohesive bonds of *Pashtunwali*. It also highlights the close association between air and political action, with the blockade extending to the political and economic domains.

With the Army largely confined to road protection duties, harassing Ipi required 300% more sorties in February/March 1939 than the previous year.<sup>319</sup> The GoI simultaneously imposed a successful, forty-three-day air, ration and financial

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<sup>316</sup> See AOC RAF India, *Summary of Work No 238*, 8; AIR 5/1336, ———, *RAF India Monthly General Summary of Work No 239: October 1938*, 6-9; AIR 5/1336, ———, *RAF India Monthly General Summary of Work No 240: November 1938*, 5-7; AIR 5/1336, ———, *RAF India Monthly General Summary of Work No 241: December 1938*, 7-8.

<sup>317</sup> This punitive air proscription involved the exclusion of the Tori Khel from their grazing grounds for hostile action and hostage taking. See [Annex 2](#) for the weapon expenditure statistics.

<sup>318</sup> AOC RAF India, *Summary of Work No 234*, 6.

<sup>319</sup> There were about 600 sorties in February/March 1938 vs about 2200 sorties in February/March 1939 (see AIR 5/1337, ———, *RAF India Monthly General Summary of Work No 246: May 1939*, 9).

‘blockade’ on the Madda Khel.<sup>320</sup> This only differed from a doctrinally-pure air blockade in that the terms were somewhat vague.<sup>321</sup> AOC(India) attributed success to ‘the effective pressure maintained by air action’, political and economic measures, and inclement weather.<sup>322</sup> In London, Embry, recently returned from India to replace Darvall as the Air Staff’s India desk officer, described the blockade as ‘an epoch making event so far as air power in India is concerned’:

It is interesting that it took only six weeks to bring about the complete submission of the tribe, whereas the proscription and half hearted air blockade of the Tori Khel which has been undertaken in conjunction with land operations has taken over six months to bring about the desired results.<sup>323</sup>

Embry’s comparison between the previously-described Tori Khel punitive proscription (which started before and ended after the Madda Khel air blockade, receiving a very matter-of-fact commentary from Embry) is interesting.<sup>324</sup> It demonstrates how a recently-returned NWF squadron commander felt comfortable criticising the Army’s application of air power. Conceptually, the Madda Khel operation was a stepping-stone between the Army’s policy of purely punitive proscription and the Air Staff’s endorsed doctrine of coercive air blockading. Despite their significantly different durations, the bombing tonnage of both operations was similar, highlighting their different characteristics.<sup>325</sup> The objective of the shorter, Madda Khel blockade was to exclude tribesmen from their villages to disrupt daily life, thereby requiring the

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<sup>320</sup> See AIR 5/1337, ———, *RAF India Monthly General Summary of Work No 243: February 1939*, 11-12; AIR 5/1337, ———, *RAF India Monthly General Summary of Work No 244: March 1939*, 13; AIR 5/1337, ———, *RAF India Monthly General Summary of Work No 245: April 1939*, 7-8.

<sup>321</sup> See the translation of the bombing notice at [Annex 12](#) from AOC RAF India, *Summary of Work No 243*, 18.

<sup>322</sup> ———, *Summary of Work No 245*, 8-9.

<sup>323</sup> AIR 5/1337, Wing Commander B E Embry, *Minute to RAF India Monthly General Summary of Work No 245: April 1939*. Embry’s biography is at [Annex 7](#).

<sup>324</sup> AIR 5/1337, ———, *Minute to RAF India Monthly General Summary of Work No 246: May 1939*.

<sup>325</sup> The Tori Khel action was the longest operation conducted in the previous three years. 52 tons of bombs were dropped during the Madda Khel blockade vs 57 tons during the Tori Khel proscription.

bombing of largely deserted villages, whereas the longer Tori Khel proscription denied tribal grazing areas, predominantly by machine guns rather than bombs.<sup>326</sup>

In April, AOC(India) assessed that constant aerial harassment and action against Ipi's supporting tribes had nullified his influence, leaving the tribes wanting peace and allowing Waziristan aircraft strength to reduce to peacetime levels.<sup>327</sup> After two years of Army control, the Governor, NWFP, re-assumed political control of Waziristan and independent air action. OC 1(Indian) Group acted as advisor to both the Resident and Commander, Waziristan, dispensing with the Air Staff(India) Officer at Waziristan's Army HQ.<sup>328</sup> Despite greater RAF influence, the Mohammed Ahmadzai Khel Wazirs were proscribed from June 1939 to May 1940 for raiding.<sup>329</sup>

Ipi returned to Kharre in July, but immediately crossed back into Afghanistan after leaflets re-imposing proscription were dropped.<sup>330</sup> When he returned, his new locale was immediately proscribed, forcing him back to Afghanistan in September.<sup>331</sup> By this stage, Ipi appears to have been classically conditioned; he had progressively learnt to react to leaflet-dropping by re-locating, a conditioned response acquired through the experience of previous, repetitive harassment. This response was only effective against tribesmen who had previously experienced proscription and would be relatively impermanent unless frequently reinforced. Nonetheless, by 1939, aerial harassment of the Fakir was relatively effective in denying him respite. Ipi's supporters were also conditioned; AOC(India) described how the aim of proscription

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<sup>326</sup> Three times as many rounds of ammunition were expended on the Tori Khel proscription than during the Madda Khel blockade (see [Annex 2](#)).

See AOC RAF India, *Summary of Work No 246*, 7.

<sup>327</sup> See —, *Summary of Work No 245*, 3-5; —, *Summary of Work No 246*, 4; AIR 5/1337, —, *RAF India Monthly General Summary of Work No 247: June 1939*, 4; AIR 5/1337, —, *RAF India Monthly General Summary of Work No 248: July 1939*, 4; AIR 5/1337, —, *RAF India Monthly General Summary of Work No 249: August 1939*, 5; —, *Summary of Work No 250*, 6).

<sup>328</sup> AOC RAF India, *Summary of Work No 245*, 3-5.

<sup>329</sup> —, *Summary of Work No 247*, 5-6.

<sup>330</sup> —, *Summary of Work No 248*, 3; —, *Summary of Work No 249*, 4, 7.

<sup>331</sup> AOC RAF India, *Summary of Work No 250*, 5; —, *Summary of Work No 249*, 7; —, *Summary of Work No 250*, 8.

was to obstruct and deter hostiles visiting Ipi and make him 'an unwelcome lodger' to the tribes.<sup>332</sup> It is interesting to compare this technique to an air blockade, which did not rely on previous experience, as the discomfort from the disruption of normal life would generate the desired unconditioned coercive pressure to concede to Governmental terms. However, a blockade generally took longer to achieve the desired outcome because the response was not pre-learnt and the discomfort took time to take effect and change tribal behaviour.

### PRE-WAR MODERNISATION IN FINANCIAL AUSTERITY

Throughout the inter-War period, Britain and India clashed over the Indian Army's Imperial role. The GoI, constrained by increasing nationalism, financial austerity and NWF unrest, refused Britain's demands, passing the 1919 GoI Act which placed India's defence as the Army's priority. A series of committees attempted to reconcile these Frontier and Imperial commitments.<sup>333</sup>

The 1933 Garran Tribunal made India responsible for internal security while Britain provided £1.5 million/year towards maintaining an Imperial Reserve.<sup>334</sup> AOC(India) complained when the RAF was excluded from a 1936 Watch and Ward Expenditure Committee, but was rebuked by the GoI's Foreign Secretary with: 'this was a question entirely in the hands of the Commander-in-Chief and if [he] preferred to use the Army... there was nothing more to be said'.<sup>335</sup>

The Air Staffs in both London and India had long been aware of RAF(India)'s

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<sup>332</sup> AOC RAF India, *Summary of Work No 250*, 4.

<sup>333</sup> Leake, "British India versus the British Empire": 1, 4. The military perspective, including the development of the 1928 offensive Blue Plan to counter a Russian invasion of Afghanistan and its replacement by the less ambitious, defensive, 1931 Pink Plan, is well described in Bond, *British Military Policy between the Two World Wars*, 110-126.

<sup>334</sup> Heathcote, *The Military in British India*, 243; Chatfield, *Expert Committee Report*, 17. The financial perspective of India's re-armament is provided at: Tomlinson, *The Political Economy of the Raj*, 138-141.

<sup>335</sup> AIR 23/687, Air Marshal Sir Edgar Ludlow-Hewitt, *Lack of Cooperation by General Staff*, 2 November 1937.

obsolescence to counter the ‘major threat’ from Russian. The CID’s 1928 plan for war against a Russian invasion of Afghanistan relied on the assumption that RAF(India)’s squadrons would be modernised and bomber-transports fully introduced. The CID’s 1934 review highlighted that this essential re-equipment had not happened and that ‘types should be selected more with a view to their employment against long range targets in the Central Asian military district than to meet the immediate requirements of frontier operations’. The next year, AOC(India) reiterated that the necessary modernisation had still not yet occurred, leading CAS to agree with Peck (then the Air Staff’s Deputy Director of Operations and Intelligence) that the Afghan war plan was therefore fallacious and that the Air Ministry should not allow the customary waiver of the CID’s Defence of India Sub-Committee’s annual review of its Afghan war plan.<sup>336</sup> Thus, the strategy behind the plan was flawed because there were insufficient means to achieve the stated aims, largely because India refused to acknowledge its responsibility to fund the necessary resources to support the CID’s plan. Within the Air Staff, Darvall highlighted in 1937 that India had not accepted a commitment to maintain adequate air forces to meet the Russian threat.<sup>337</sup> However, Slessor (who had replaced Peck as the Deputy Director of Operations and Intelligence) preferred to ‘get squadrons out to India on the outbreak of war – not to put any more in!’ due to ‘more pressing problems’ in Europe; Darvall retorted that ‘India is ceasing to be of value as an Imperial Reserve & is becoming a liability’.<sup>338</sup>

In February 1938, SoS(War) called for a reorganization of the British Army in

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<sup>336</sup> AIR 2/2637, Group Captain R H Peck, *Minute, Deputy Director of Operations and Intelligence to Deputy Chief of the Air Staff*, 15 November 1935; CAB 16/84, Viscount Peel, *Committee of Imperial Defence: Defence of India: Second Report of the Sub-Committee (DI-38/CID 172-D)*, 10 April 1929; CAB 6/6, Admiral Sir Ernle Chatfield, General Sir Archibald Montgomery-Massingberd, and Air Chief Marshal Sir Edward Ellington, *Committee of Imperial Defence: Afghanistan: British Policy: Defence of India Plan: Report by the Chiefs of Staff Sub-Committee (CID 185-D/COS 326)*, 23 February 1934.

<sup>337</sup> AIR 2/2637, Squadron Leader L Darvall, *Minute, FO4 to Deputy Director Operations and Deputy Director Plans*, 23 June 1937.

<sup>338</sup> Slessor, *Slessor to Darvall, 1 July 1937*; AIR 2/2637, Squadron Leader L Darvall, *Minute, FO4 to Deputy Director Operations*, 8 July 1937.

India in light of the growing threat of world war.<sup>339</sup> The GoI simultaneously declared it was unable to bear the cost of India's military modernisation, urging the IO to reassess India's defence position.<sup>340</sup> The GoI's appreciation concluded that the requirement to replace RAF(India)'s 'obsolete aircraft by the most suitable modern types available can not be exaggerated and may well be said to take precedence over all other proposals, however urgent they may be...' and called for 'a new "contract" between the United Kingdom and India in which India's financial limitations are recognised'.<sup>341</sup> An internal Air Staff memo reflected on RAF(India)'s 4.7% share of the Indian defence budget:

We see, therefore, that although in their words the re-equipment of the Royal Air Force in India is of greater urgency and importance than any other defence requirement, this view is not reflected in the apportionment of the Defence Budget, nor can I see any possibility of this situation being remedied until the R.A.F. vote ceases to be filtered by the Commander-in-Chief.<sup>342</sup>

Nevertheless, DCAS and the WO's Director of Military Operations and Intelligence initiated a joint appreciation to inform their respective SoSs. However, the WO subsequently became 'disinclined to continue discussions' in preference to a bilateral WO-India committee.<sup>343</sup> The Air Staff's reaction demonstrated how the threat of world war had changed their priorities:

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<sup>339</sup> CAB 24/274/26, Leslie Hore-Belisha, *Cabinet Paper 26(38): The Organization of the Army for its Role in War*, 10 February 1938, 3-4. This Cabinet Paper was tasked by the Minister for Co-ordination of Defence (see CAB 24/273/41, T W H Inskip, *Cabinet Paper 316(37): Defence Expenditure in Future Years*, 15 December 1937, 8).

<sup>340</sup> CAB 24/278/22, C Macl G Ogilvie, *Cabinet Paper 187(38) Annex 1: Letter, Secretary to the Government of India to the Secretary, Military Department, India Office*, 9 February 1938, 11; CAB 24/278/9, T W H Inskip, *Cabinet Paper 174(38): Committee of Defence of India: Interim Report*, 18 July 1938, 3. For another perspective on subsequent events, see Waldie, "Relations Between the Army and RAF, 1918-39", 214-218. A synopsis of the sequence of events is at: AIR 8/1086, R H Melville, *India - Sequence of Recent Events*, 13 April 1938.

<sup>341</sup> AIR 8/1086, C Macl G Ogilvie, *Letter, Secretary to Government of India to Military Secretary, India Office*, 9 February 1938, 5, 18.

<sup>342</sup> AIR 8/255, Air Staff, *Memo, Necessity for the Independence of the RAF in India, both Administrative and Operational* 1939.

<sup>343</sup> AIR 8/1086, ———, *Extract from Note by the Air Staff on the Memorandum by the Secretary of State for War. (C.P. 26 (38))* 1938; AIR 8/1086, Leslie Hore-Belisha, *Letter, Secretary of State for War to Secretary of State for Air*, 28 February 1938.



we are not interested in “substitution” in India, or (except as a factor in the economic use of forces) in the methods of control of the Frontier. But we cannot tolerate much longer the continuance of this virtual “Army Air Arm” in India, where 8 valuable squadrons are inefficiently administered and equipped.<sup>344</sup>

CAS highlighted to SoS(Air) RAF(India)’s obsolete framework and its inability to meet its commitment to provide two squadrons for the defence of Singapore and four for the Middle East:

The subordination of the R.A.F. and the unsatisfactory constitutional position of the A.O.C. prevents alternative methods of frontier control, internal security or major defence being adequately discussed or placed in front of the Viceroy or the Government of India... the provision of a large subsidy to re-organize the land forces can provide no remedy for India’s problem but merely a perpetuation of the existing state of affairs at increased expense to Imperial funds.<sup>345</sup>

SoS(Air) suggested to the Prime Minister that he task the CID’s Joint Planning Committee to examine the issue and the organisation and control of the RAF in India, a move which SoS(India) supported.<sup>346</sup> However, the WO objected to the Joint Planning Committee’s involvement, admitting privately that ‘representation of the Admiralty on the J.P.C. would result in a claim by them for money for naval purposes, and a consequent reduction in the amount available for the War Office’.<sup>347</sup> However, SoS(War) did not mention this in his subsequent letter to the Prime Minister, but merely stated that:

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<sup>344</sup> Air Staff, *Extract from Note by the Air Staff on CP 26(38)*.

<sup>345</sup> AIR 8/1086, Air Chief Marshal Sir Cyril Newall, *Minute, Chief of the Air Staff to Secretary of State for Air*, 25 March 1938.

<sup>346</sup> AIR 8/1086, Viscount Swinton, *Letter, Secretary of State for Air to Prime Minister*, 31 March 1938; AIR 8/1086, Marquess of Zetland, *Letter, Secretary of State for India to Secretary of State for Air*, 11 April 1938; AIR 8/1086, ———, *Letter, Secretary of State for India to Prime Minister*, 11 April 1938. See also AIR 8/529, Air Chief Marshal Sir Cyril Newall, *Letter, Chief of the Air Staff to Secretary of State for Air*, 1 April 1938.

<sup>347</sup> AIR 8/529, Air Chief Marshal Sir Cyril Newall, *Report by DCAS on First of the Informal Talks with Indian Delegation on Defence Requirements of India*, 24 April 1938. The Royal Navy’s lack of resource to protect the sea lanes adjacent to India was frequently discussed by the COSC during 1937-38 (see: CAB 53/6/8, 189th Meeting; CAB 53/9/4, 236th; CAB 53/9/5, 239th; CAB 53/29/8, COS 526; CAB 53/31/7, COS 582; CAB 53/31/9, COS 587; CAB 53/37/7, COS 704; CAB 53/38/6, COS 722; CAB 21/1079, various correspondence) and also, in Spring 1938, by the Joint Planning Committee (See: CAB 55/2/1, 152nd Meeting; CAB 55/9/12, JP 211), so the 1% of India’s defence budget allocated to the Royal Indian Navy was a sensitive subject (see AIR 8/529, ———, *Letter, Chief of the Air Staff to Secretary of State for Air*, 2 June 1938, 3).

... the defence problem in India is in the first instance the responsibility of the Commander-in-Chief... I feel we should put ourselves in the wrong if we were to present the General Staff representatives from India with an appreciation of a subject which is so much their own responsibility.<sup>348</sup>

This was a tenuous argument, given that the CID's Defence of India Sub-Committee had historically been used for exactly this purpose.<sup>349</sup> Nevertheless, the argument that it was India's (rather than London's) responsibility had been used previously by the WO to challenge changes that were not in their interest.<sup>350</sup> Instead, a sub-committee of the CID's COSC - the Pownall Committee - was instigated which, supported by CGS(India) and AOC(India), reported in May.<sup>351</sup> While accepting the Air Ministry's need to modernise India's aircraft to counter 'the major threat of a first class Power' or 'in the wider sphere of Imperial defence', the GoI stated it required only six modernised squadrons for the minor threat of tribal control if employed in line with the recently-published *Combined Frontier Manual*.<sup>352</sup> However, the Committee noted India's historical under-utilisation of air power, highlighting 'the marked disparity between the capacity of India's land forces and... her air forces'.<sup>353</sup> A further four Bomber squadrons were required for contingent Afghan operations, which could conditionally contribute to a Middle/Far East Imperial Reserve.<sup>354</sup> The Air Ministry

<sup>348</sup> AIR 8/1086, Leslie Hore-Belisha, *Letter, Secretary of State for War to Prime Minister*, 13 April 1938.

<sup>349</sup> See, for example, the Sub-Committee's 1927 appreciation on the defence of India (Birkenhead, *CID 158-D*).

<sup>350</sup> See Chapter 7's analysis of Personalities and Relationships.

<sup>351</sup> CAB 53/39/4, Major-General H R Pownall, *COSC Paper 187(38) Annex 2: A Report of a Sub-Committee on the Defence Problems of India and the Composition and Organization of the Army and Royal Air Force in India [Pownall Report]*, 12 May 1938, 22. The Committee was chaired by Major-General Henry Pownall, the WO's Director of Military Operations and Intelligence (later Chief of Staff of the British Expeditionary Force). RAF members of the Committee were AOC(India), Joubert de la Ferte (temporarily in London), Group Captain Slessor (Deputy Director of Plans) and Squadron Leader Darvall (FO5).

<sup>352</sup> AIR 8/529, AIR 20/202, Air Staff, *Note of a Meeting held in the Chief of the Air Staff's Room at the Air Ministry on Thursday, 28th April, 1938 for a Preliminary Discussion on Indian Defence Problems with the Delegation from the Government of India*, 28 April 1938, 2; Pownall, *Pownall Report*, 30. The six squadrons would comprise two bomber, three army co-operation and one bomber-transport squadron.

<sup>353</sup> Pownall, *Pownall Report*, 30, 38.

<sup>354</sup> *Ibid.*, 30, 33. A 1937 air appreciation had determined that an Imperial Reserve of 12 squadrons was required for Middle/Far East commitments. The CID and AM held that this

proposed directly administrating these squadrons as an 'agency', with an RAF-funded independent RAF(India) Command, an RAF Army Co-operation Wing (funded by the RAF, but subsidised by the GoI) and a GoI-funded Indian Air Force Wing, the latter two dedicated to India's defence.<sup>355</sup> Despite some RAF reservations, the IO, WO and Air Staff agreed with Pownall's broad considerations. Nonetheless, CAS informed CIGS in May that, 'if financial or constitutional considerations are injected into the picture... I fear that the C.I.D. and ultimately the Cabinet will get a very confused conspectus' and recommended that Pownall's report be passed to the COSC to give the Admiralty the opportunity to review it.<sup>356</sup> Indeed, CAS clearly considered the moment opportune and informed SoS(Air) in June that 'with a proper use of the air force, considerable economies are possible in [India's] land forces'.<sup>357</sup> Following a meeting with CGS(India), AOC(India) and Pownall, the COSC endorsed Pownall's findings in July, noting that, as India was incapable of discharging many Imperial commitments, her defence was not a self-contained problem, and that the 'agency basis deserved expert examination'.<sup>358</sup> However, CAS questioned whether India could reconcile her assurance that modernising her squadrons was C-in-C(India)'s 'first priority' against the RAF's 7% share of their defence budget; this sum was less than the cost of India's sixteen horsed cavalry regiments whose utility, CGS(India)

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would be provided by four squadrons from Iraq, four conditionally from India and four unconditionally from India (see AIR 8/529, Air Chief Marshal Sir Cyril Newall, *Letter, Chief of the Air Staff to Air Marshal C L Courtney*, 10 December 1938, 1-2; CAB 53/39/4, *Committee of Imperial Defence Chiefs of Staff Sub-Committee Report 737: The Defence of India*, 2 July 1938, 3).

<sup>355</sup> AIR 8/529, Air Chief Marshal Sir Cyril Newall, *Directive for AOC India (Air Marshal P B Joubert de la Ferte)*, 17 September 1937; Pownall, *Pownall Report*, 34.

<sup>356</sup> AIR 8/529, Air Chief Marshal Sir Cyril Newall, *Letter, Chief of the Air Staff to Chief of the Imperial General Staff*, 16 May 1938. The Air Staff's critique of Pownall's report is at AIR 8/529, Air Staff, *Review of Indian Defence Requirements - Air Staff Attitude to Report*, 11 May 1938.

<sup>357</sup> Newall, *CAS to SoS(Air)*, 2 June 1938, 3.

<sup>358</sup> Minutes of this meeting are at: CAB 53/9/5, *Committee of Imperial Defence, Chiefs of Staff Sub-Committee: Minutes of the 241st Meeting, held on 21st June, 1938*, 21 June 1938; the outcome was formally articulated as CID COS 737, 1, 5, 9-10.

admitted, was ‘open to doubt’.<sup>359</sup>

In June, the Cabinet had instigated a Cabinet Committee on the Defence of India, chaired by the Minister for Co-ordination of Defence, Sir Thomas Inskip.<sup>360</sup> The output of the Committee’s six meetings was Inskip’s July report which generally agreed with the COSC’s recommendations, noting RAF(India)’s ‘deplorable’ obsolescence which rendered it unemployable against modern aircraft.<sup>361</sup> However, SoS(India) was concerned that administering RAF(India) on an agency basis might diminish C-in-C(India)’s authority; as there was no Indian equivalent of the tri-Service CID, who would adjudicate over differences of opinion between C-in-C(India) and AOC(India)? If it was to be the Viceroy, then C-in-C(India) was his constitutional military advisor, yet he would be a party in the dispute.<sup>362</sup> In its response, the Air Ministry highlighted RAF(India)’s disadvantageous administrative system, proposing instead that the Air Ministry should be responsible for equipping, maintaining and training RAF(India)’s squadrons. Notwithstanding this, the agency proposal would not affect existing arrangements for operational control or the determination of the strength of RAF(India).<sup>363</sup> However, as the agency proposal was not as urgent as the other issues being addressed by the Cabinet Committee, the matter was not

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<sup>359</sup> COSC: *Minutes*, 21 June 1938, 5, 8-9. Bond recorded that Cassels, C-in-C(India), had ‘a simple mind but was quite a reasonable man apart from his passion for cavalry’ (see Bond, *British Military Policy between the Two World Wars*, 120). The RAF’s exact proportion of India’s defence budget is debatable; the Air Staff often used a figure of 4% (see AIR 8/529, Air Staff, *Note by the Air Staff on the Present Problems of Indian Defence*, October 1938, 2).

<sup>360</sup> CAB 23/94, *Cabinet Conclusion 30 (38) 6: Defence of India*, 29 June 1938, 12. This was a new Committee, distinct from the CID’s Defence of India Sub-Committee.

<sup>361</sup> CAB 24/278/22, T W H Inskip, *Cabinet Paper 187(38): India: Defence Questions: Second Report of Cabinet Committee*, 29 July 1938, 2, 6. The minutes and memos of the Cabinet Committee on the Defence of India are at CAB 27/653 and CAB 27/654 under the ID(38) series of papers. The Air Staff copies of these papers, with associated correspondence, are in AIR 8/255 and AIR 8/256.

<sup>362</sup> CAB 27/653, AIR 8/256, *Cabinet Committee on Defence of India: Conclusions of the First Meeting (ID(38) 1st Meeting)*, 6 July 1938, 5.

<sup>363</sup> CAB 27/654, AIR 8/255, *Cabinet Committee on Defence of India: Report from a Conference of Representatives of the Treasury, India Office, War Office and Air Ministry (ID(38)7): Annex A: Memorandum by the Air Ministry: Proposals for an "Agency Basis" for RAF Squadrons in India* 23 July 1938, 18-22.

pursued.<sup>364</sup>

In July, the Cabinet approved Inskip's proposals, including £5 million to fund an Imperial Reserve Division in India, the increase of the Garran Award to £2 million per year to meet this Division's recurring costs and £3 million to re-equip India's four bomber squadrons. However, the Chancellor of the Exchequer was unwilling to subsidise India's other forces (including the enlargement of Indian aerodromes) until a detailed enquiry had determined what efficiencies could be made. The Cabinet therefore agreed that the GoI should invite a 'Committee of Enquiry' to visit India.<sup>365</sup> The GoI initially objected to this Enquiry being conducted by UK-based officers. However, the Air Staff's view, largely supported by the WO, was that the Enquiry:

... has such enormous repercussions on Imperial defence as a whole, and so closely affects the budgets of the Imperial Defence Departments, that we consider it essential that there should be a new conspectus of Indian defence as a whole, including Frontier policy, by a commission including representatives of the Defence Departments at home.<sup>366</sup>

Unknown to the Air Ministry, C-in-C(India) concurrently commissioned an internal review chaired by Auchinleck, Deputy CGS(India), because 'the armament, equipment and means of mobility of the Army in India has remained virtually unchanged since the end of the Great War' and 'must be rescued from obsolescence'.<sup>367</sup> This Modernization Committee recommended drastic reductions in

<sup>364</sup> CAB 27/654, AIR 8/255, *Cabinet Committee on Defence of India: Report from a Conference of Representatives of the Treasury, India Office, War Office and Air Ministry (ID(38)7)*, 23 July 1938, 12.

<sup>365</sup> CAB 23/94, *Cabinet Conclusion 35 (38) 6: INDIA: Defence Questions*, 27 July 1938, 8, 17-18.

<sup>366</sup> AIR 8/255, Group Captain J C Slessor, *Notes for Secretary of State in the Cabinet Sub-Committee on the Defence of India*, 25 July 1938.

<sup>367</sup> IOR/L/MIL/17/5/1801, Major-General C J E Auchinleck, *Report of the Modernization Committee*, October 1938, 3-4. Other Committee members were the Director of Staff Duties, the Director of Military Operations and Intelligence, and the Director of Military Training. See Philip Warner, *Auchinleck: The Lonely Soldier* (Barnsley: Pen & Sword Military, 2006), 37; Air Staff, *Discussion on Indian Defence Problems with the Delegation from the Government of India*, 28 April 1938, 8; James M Ebran, "Ways of War and the American Experience in the China-Burma-India Theater, 1942-45" (Unpublished PhD Thesis, Kansas State University, 2006), 34-36. The Modernization Committee's report recognised that war with Afghanistan was unlikely and would be subsidiary (and therefore be of a defensive character) to conflict

the Indian Army and envisaged an Imperial Reserve entirely funded by London. AOC(India) pointed out privately that the Forward Policy's requirement for ever-increasing military penetration of the tribal areas and its concomitant increased military expenditure was inconsistent with the financial savings required by the Army's Modernization Scheme; the increased use of air power was the solution.<sup>368</sup> However, despite a lack of analysis concerning air power and without any RAF representation, the Committee recommended a reduction to 'two bomber squadrons only for India's local defence', presumably to fund Army modernization.<sup>369</sup> CAS subsequently reflected on Auchinleck's 'fantastic view that no air forces are really required for India's local defence': 'It is astonishing... that quite so narrow a view should have emanated even from so antiquated a military edifice as Army H.Q., Delhi'.<sup>370</sup>

Following a three-month tour of India, the Expert Committee, chaired by ex-Admiral of the Fleet, Lord Chatfield, and supported by Auchinleck and ex-AOC Iraq, Air Marshal Courtney, reported in January 1939.<sup>371</sup> During the tour, the Air Staff unsuccessfully lobbied for Chatfield to examine the 'higher direction' of Indian

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with Germany, Italy and Japan. It recommended that army co-operation squadrons should have a dual role incorporating defending ports from naval bombardment and that the threat of air attack would require an increase from one to three batteries of modern anti-aircraft artillery (see Auchinleck, *Report of the Modernization Committee*, 1, 9-10). The subsequent modernization plan is at: IOR/L/MIL/17/5/1803, Lieutenant-General E de Burgh, *Plan for the Modernization and Reorganization of the Army in India*, August 1939 and IOR/L/MIL/17/5/1804, ———, *Plan for the Modernization and Reorganization of the Army in India (Operations)* 1939.

<sup>368</sup> AIR 23/5388, Air Marshal Sir Philip Joubert de la Ferte, *Letter, Air Officer Commanding, India, to Air Marshal C L Courtney*, 29 November 1938.

<sup>369</sup> Auchinleck, *Report of the Modernization Committee*, iv, 104; AIR 8/529, Air Marshal C L Courtney, *Letter, Courtney to Chief of the Air Staff*, 14 November 1938, 2.

<sup>370</sup> Newall, *CAS to Courtney*, 10 December 1938, 3, 1. See similar Air Staff's comments at: AIR 8/255, Air Staff, *Report of the Expert Committee on the Defence of India (ID(38)10): Summary and Comments by the Air Staff*, 17 February 1939, 7.

<sup>371</sup> Chatfield, *Expert Committee Report*. The Committee held 78 meetings with 63 witnesses, including Ludlow-Hewitt, Bottomley and Slessor (see ———, *Expert Committee Report*, 4 and AIR 8/529, Air Chief Marshal Sir Cyril Newall, *Letter, Chief of the Air Staff to Air Chief Marshal Sir Edgar Ludlow-Hewitt*, 17 October 1938). The Report is also in the Committee's file at: CAB 27/654, AIR 8/255, Lord Chatfield, *Report of the Expert Committee on the Defence of India, 1938-39 (ID(38)10)*, 13 February 1939. Courtney's personal papers from the Committee are in AIR 23/5388, while Auchinleck's invitation to join the Committee is at: Auchinleck Papers, GB133 AUC/2, Marquess of Zetland, *Letter, Secretary of State for India to Major-General C J E Auchinleck*, 24 October 1938.

defence, the RAF's subordinate position and their proposed agency concept; this was, instead, deferred to the Cabinet.<sup>372</sup> Chatfield's Committee endorsed most recommendations from the COSC and Auchinleck Committees, although they could not agree on air power's utilisation or the minimum air strength (in particular, C-in-C(India)'s proposed reduction to eight, rather than Pownall's ten, squadrons).<sup>373</sup> The *Report* played down the Russian threat while recognising external threats from Afghanistan and the Far East.<sup>374</sup> The Committee heard divergent and conflicting evidence concerning the Forward Policy, noting the lack of coherent planning and unsound methodologies. It recommended an entire review.<sup>375</sup> Chatfield also noted the controversy over the employment of air power and emphasised the importance of maintaining inter-departmental confidence by fully acknowledging Military, Air and Political perspectives. However, air power's recent increased role was acknowledged, as was the inter-Service collaboration over the *Combined Frontier Manual*.<sup>376</sup> The *Report* provided an interesting perspective on the political constraints concerning air blockades:

Some political officers dislike the dictation of terms in advance... on the grounds that it is not always expedient... to commit themselves to prolonged bombing operations... and that once started an air blockade cannot, without a serious loss of prestige, be discontinued before it has been brought to a successful conclusion...

... whereas, during proscriptive air action:

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<sup>372</sup> AIR 8/529, Air Marshal C L Courtney, *Telegram, Courtney to Chief of the Air Staff*, 14 November 1938; AIR 2/2065, Group Captain J C Slessor, *Minute, Deputy Director Plans to Chief of the Air Staff*, 21 October 1938; AIR 8/529, Air Chief Marshal Sir Cyril Newall, *Telegram, Chief of the Air Staff to Air Marshal C L Courtney*, 23 November 1938; Newall, *CAS to Courtney*, 23 November 1938, 2; Chatfield, *Expert Committee Report*, 66; CAB 24/287/21, T W H Inskip, *Cabinet Paper 138(39): Report on the Report of the Expert Committee on the Defence of India*, 23 June 1939, 11, 13. The Cabinet Committee on the Defence of India, chaired by Sir Thomas Inskip, Minister for the Co-ordination of Defence, was the body who co-ordinated the reviews and made recommendations to the Cabinet.

<sup>373</sup> Chatfield, *Expert Committee Report*, 4, 22.

<sup>374</sup> *Ibid.*, 8-9, 11, 42-43, 56, 64.

<sup>375</sup> *Ibid.*, 11, 14.

<sup>376</sup> *Ibid.*, 15-16.

there is no prior announcement of terms, and the Government are thus free to discontinue air action at any stage. Some political officers therefore prefer this method to that of the air blockade.<sup>377</sup>

The Committee's internal notes reveal C-in-C(India)'s position on substitution on the NWF: 'Unless and until it has been proven that air action can exercise decisive control a further reduction of regular troops is not a practical proposition'. However, as the air member of the Committee pointed out, this proof would never be forthcoming as the Army moved in troops every time the air method was employed.<sup>378</sup>

Nevertheless, Chatfield found appreciable support for the unrestricted use of aircraft in a primary role to inflict heavy casualties. Unfortunately, because of the anonymous nature of the Committee's interviews, it is not clear who voiced these views.<sup>379</sup> However, SoS(Air) subsequently described the source as 'one or two fire-eaters... who advocate a policy of frightfulness from the air, e.g. bombing women and children in villages without notice'. Given the RAF's minimum force ethic and the Army's contrasting maximum lethality *modus operandi*, this may have been a military perspective reflecting Army frustration against an elusive opponent. Nevertheless, the Committee dismissed any peacetime relaxation of the rules governing NWF air power. Indeed, both SoS(Air) and CAS dissociated themselves from any relaxations, such as the dropping of warning notices.<sup>380</sup> Nonetheless, this episode is important in illustrating the Army's simplistic view of air power which manifested itself as a

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<sup>377</sup> Ibid., 16.

<sup>378</sup> AIR 23/5388, *Notes on Howell Committee Summary*, 1939, 2. These notes were prepared for Air Marshal Courtney, air member on the Committee, probably written by Air Commodore Peck, Senior Air Staff Officer, HQ RAF(India).

<sup>379</sup> Although C-in-C(India) had initially allowed his officers to speak freely in front of Chatfield's Committee without risk of accusation of being disloyal, he rescinded this, leading to an 'unpleasant episode'. This may account for the anonymity in the final report. See AIR 23/5388, Air Marshal Sir Philip Joubert de la Ferte, *Letter, Air Officer Commanding, India, to Air Vice-Marshal C L Courtney*, 31 October 1938; AIR 23/5388, ———, *Memo, Air Officer Commanding, India, to Air Vice-Marshal C L Courtney*, 9 December 1938.

<sup>380</sup> Chatfield, *Expert Committee Report*, 17; AIR 8/255, Air Chief Marshal Sir Cyril Newall, *Letter, Chief of the Air Staff to Secretary, Committee of Imperial Defence*, 22 June 1939; AIR 8/255, A Rowlands, *Letter, Second Deputy Under-Secretary of State for Air to Assistant Secretary, Committee of Imperial Defence*, 22 June 1939; AIR 8/255, Major-General H L Ismay, *Letter, Secretary of Committee of Imperial Defence to Chief of the Air Staff*, 23 June 1939.



penchant for kinetic effect, in contrast to the Air Force's greater subtlety in applying force.

In London, the Air Staff's internal summary of Chatfield's Expert Committee Report described it as 'a generally practical and acceptable scheme which the Air Ministry can approve in principle, subject to certain reservations and modifications'. In particular, the need for consultation between India and the CID was highlighted:

It is essential that it should no longer be possible, as it was in 1937, for the Government of India – or even a local general on the frontier – to embark on their own responsibility upon operations involving thousands of men and half-a-dozen squadrons of aircraft at a time when that sort of local commitment ought to be cut down to the absolute irreducible minimum.<sup>381</sup>

The Air Staff were not satisfied that the use of air forces on the Frontier was adequately ventilated before the Chatfield Committee, but did not want to raise the issue until the *Report's* proposed subsequent Frontier enquiry. Similarly, although it had been 'thoroughly unsatisfactory' that the Chatfield Committee had expressly excluded the higher direction on Indian defence, the Air Staff decided not to delay the *Report's* general approval but to address the issue later. They were also critical of Auchinleck's preceding Modernization Committee which had formed the basis of the Indian Army's pitch to Chatfield: 'the [Indian Army's] Modernization Committee worked out what they wanted for the army, and the Royal Air Force then had to take what was left over'.<sup>382</sup>

The COSC reviewed Chatfield's *Report* in May 1939.<sup>383</sup> They reinforced the urgent need to review Frontier policy, emphasising that 'Frontier policy has a direct bearing upon our Imperial defence position'. However, as the UK 'have as a rule not been kept fully informed of India's plans for local defence', the COSC underlined

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<sup>381</sup> Air Staff, *Expert Committee: Summary and Comments by the Air Staff*, 1, 4.

<sup>382</sup> *Ibid.*, 6-7.

<sup>383</sup> CAB 24/278/22, *Committee of Imperial Defence Chiefs of Staff Sub-Committee Report 874: Report of the Expert Committee on the Defence of India, 1938-39*, 12 May 1939. A copy is also in the Cabinet Committee on Defence of India archives at: CAB 27/654, AIR 8/255, *Report of the Expert Committee on the Defence of India, 1938-39 (ID(38)11)*, 12 May 1939.

Chatfield's recommendation that both local and external defence plans should be subject to the closest consultation between India and the CID before being approved by both Governments. They also recommended that a full-time senior RAF staff officer should be posted to the IO's Military Department to improve liaison between the IO and Air Ministry.<sup>384</sup>

The *Chatfield Report* was discussed in Cabinet in July where it was noted that, while expenditure could be reduced by increased use of air power, it was generally held in India that troop levels could not be correspondingly reduced. Concern was expressed over the lack of agreed methods for implementing NWF policy ('an Indian problem which would have to be solved in India'), although the Viceroy had commissioned an Expert Committee to report to the Cabinet 'without delay'. The Cabinet tasked SoS(India) to summons C-in-C(India) before the CID to determine the number of Bomber squadrons required.<sup>385</sup> Chatfield, now a Cabinet Minister, highlighted the unsatisfactory position of AOC(India) relative to C-in-C(India), pointing out that the views of the Viceroy and C-in-C(India) were of first importance and doubting that the matter could be settled by a UK inquiry; following an involved discussion, the Prime Minister directed the Viceroy to be consulted - a somewhat circular decision, given that the issue had been specifically excluded from the Chatfield Committee's scope because it required 'examination by Ministers'.<sup>386</sup> This illustrates the autonomous nature of decision making in the defence of India and London's lack of influence. Constitutionally, responsibility for the defence of India rested 'through the Governor-General [ie, the Viceroy] and the Secretary of State for India, with the British Government and no one else'.<sup>387</sup> Yet, as demonstrated in this instance, when a defence issue could not be resolved within India and was raised to

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<sup>384</sup> CID COS 874, 2,4,20.

<sup>385</sup> CC 34 (39) 3, 6-8, 14.

<sup>386</sup> Ibid., 10-12, 14; Inskip, CP 138(39), 11.

<sup>387</sup> Chatfield, *Expert Committee Report*, 8.

Cabinet level, it was referred back to the Viceroy. This was reinforced by Earl Winterton (Under-SoS(India), 1922 to 1929), who reflected in 1938 that ‘it is a recognised fact that every Secretary of State for India has the greatest difficulty in practice in imposing his views on defence on the Viceroy and Government of India’.<sup>388</sup> This situation placed C-in-C(India) - the Viceroy’s *de facto* minister for defence - in a uniquely pivotal and autonomous position, explaining the dearth of discussion of India’s defence within the Cabinet, CID and its sub-committees as well as the RAF’s lack of influence within India during the inter-War years.<sup>389</sup> Interestingly, SoS(War) described the *Chatfield Report* as ‘a landmark in military history’ which made for ‘greater flexibility and co-operation between the Army at Home and the Army in India’, exactly the issues previously denied to the Air Ministry and Air Staff(India).<sup>390</sup>

The prospect of progress resulting from Cabinet pressure on the Viceroy was swiftly overtaken by world events. Within a month, Cabinet had authorised the dispatch of two of India’s Bomber squadrons to Singapore.<sup>391</sup>

## LOOMING WAR

The impending outbreak of the Second World War saw an immediate reorganisation of the RAF in India and aroused unrest amongst the frontier tribes.<sup>392</sup> In September

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<sup>388</sup> AIR 8/529, The Earl Winterton, *Memo to Secretary of State for Air and Chief of Air Staff* 1938(?).

<sup>389</sup> CID sub-committees included: the COSC, the Standing Defence Sub-Committee, the Overseas Defence Committee and the Joint Planning Committee, as well as ad hoc sub-committees established for specific purposes.

<sup>390</sup> CC 34 (39) 3, 13.

<sup>391</sup> CAB 23/100, *Cabinet Conclusion 39 (39) 11: INDIA: The Defence of*, 26 July 1939, 18-20.

<sup>392</sup> AOC RAF India, *Summary of Work No 250*, 4. The following flights were established from existing Squadrons in September 1939:

- H Flight – Battle Flight, 4 x Blenheim, Ambala.
- Q Flight – Coastal defence, 4 x Harts, 2 x Blenheim, Karachi. Manned by IAF.
- V Flight – Coastal defence, 4 x Wapiti, Bombay. Manned by 27 then 60 Squadron.
- Y Flight – Coastal defence, 2 x Blenheim, Madras. Manned by 27 then 60 Squadron.
- Z Flight – Coastal defence, 2 x Blenheim, Calcutta. Manned by 60 Squadron.

See ———, *Summary of Work No 250*, 3; AIR 5/1337, ———, *RAF India Monthly General Summary of Work No 251: October 1939*, Appendix III; Squadron Leader Rana T S Chhina,

1939, Waziristan was relegated to second place in AOC(India)'s Monthly Summaries for the first time since October 1936.<sup>393</sup> Although war did not end Ipi's anti-Governmental activities, the British manipulated the support of the leading, well-respected Mahsud *mullah*, Fazl Din, who constrained the Fol's influence.<sup>394</sup> Nonetheless, the exigencies of the War changed the paradigm of inter-Service relations, forming a suitable full-stop to the period under review.

## CONCLUSION

This examination of the implementation of NWF air power up to 1939, written as a chronological continuum to avoid cherry picking events that support any one perspective, situates the Thesis by providing a historical backdrop to the period under consideration. It demonstrates the way in which the Indian command and control structures caused a divergence between the RAF's core doctrine (described in Chapters 3, 4 and 5) and the in-theatre use of air power, analysed in this Chapter. The enduring competition between the various stakeholders in India's air power occurred at different levels, but was tempered at the point of application by the need for co-operation to address existential threats. Despite India's precarious financial position, the Army remained reticent to make the most of air power's potential efficiencies, fearful of conceding status and influence to another Service.

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*The Eagle Strikes: The Royal Indian Air Force 1932-1950* (New Delhi: Ambi Knowledge Resources, 2006), 24-25.

<sup>393</sup> Annex 15 shows the length of each AOC(India)'s Monthly Summaries and the proportion dedicated to Waziristan superimposed on the Waziristan flying hours from January 1937 to June 1939. There were no operations described in the August 1936 *Summary*, while October 1936's *Summary* described the Chitral Relief before turning to Waziristan (see AIR 5/1335, AOC RAF India, *RAF India Monthly General Summary of Work No 215: October 1936*; AIR 5/1335, ———, *RAF India Monthly General Summary of Work No 213: August 1936*).

<sup>394</sup> Schofield described how the Mullah's support was obtained by showing his brothers aerial photographs of a bombed village (see Schofield, *Afghan Frontier*, 231-232; Lieutenant-Colonel P A Meade, "Frontier Tactics Defended", *JUSII* LXXIV, no. 314 (1944): 61). Nevertheless, the Faqir continued a low-level insurgency throughout the Second World war, with varying degrees of German and Italian sponsorship. Indeed, he continued his resistance against the Pakistan Government after partition, eventually dying in 1960 (see Hauner, "One Man against the Empire: The Faqir of Ipi and the British in Central Asia on the Eve of and during the Second World War").

Furthermore, as experienced was gained, the constraints on air power due to the subjective interpretation of the overbearing, asymmetric element of its character became more germane, especially against the backdrop of increasing Indian home rule. Nonetheless, even during the very highest tempo operations in the late 1930s against the Fol's followers, the Air Staff in London were becoming more concerned at India's neglect of its Squadrons and RAF(India)'s ability to fulfil its role in the wider metropolitan Air Force as world war loomed.

This Chapter's study reveals an interesting absence of one particular tactical technique. While, in areas under formal air control, the RAF employed aircraft and armoured cars synergistically, there appears to have been a complete absence of this form of co-operation on the NWF. In Iraq, the RAF employed armoured cars to provide a ground presence (often following air action) primarily because of their mobility over the generally flat desert plains.<sup>395</sup> As noted in Chapter 5, Slessor had argued in 1931 that a combination of aircraft, armoured cars, irregular corps, militia and tribal levies could avoid the cost of military occupation.<sup>396</sup> While armoured cars had first been used in India on the Mohmand border in 1916 and armoured cars, cavalry and aircraft had been used to harass tribesmen withdrawing from the siege of Thal at the end of the Third Afghan War, the NWF's mountainous terrain restricted them largely to roads, making them predictable. Nonetheless, they were used in limited numbers to open roads and escort convoys, reducing the number of troops required. Thus, it was their degree of protection and firepower that was exploited to provide a defensive, force protection capability; in contrast to their use in Iraq, the armoured car's relative lack of off-road mobility (compared with troops and pack animals) was a limitation, despite occasionally being used for tactical reconnaissance

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<sup>395</sup> In his award-winning 1930 RAFQ article, McClaughry listed the role of armoured cars during air control as: internal security; active operations; guarding advanced landing grounds; conveyance of stores; reconnaissance and showing the flag; and salvaging force-landed aircraft. See McClaughry, "The "Gordon-Sheppard" Memorial Prize Essay, 1929": 454-456.

<sup>396</sup> Slessor, *The Other Point of View*, 19.

on the plains. This limitation was demonstrated during the 1937 Shahur Tangi convoy ambush where the four escorting armoured cars were penned in and unable to elevate their guns sufficiently to engage the tribesmen on the slopes of the defile. Indeed, Moreman recorded how Colonel Toker, at the request of Deputy CGS(India) wrote an article for *JUSII* in 1938 which highlighted how the value of armoured and mechanised forces resupplied by air and supported by close support aircraft had not been fully exploited.<sup>397</sup> It should also be remembered that India had drifted far behind modern military standards; as stated by Auchinleck's 1938 Modernization Committee, the 'mobility of the Army in India has remained virtually unchanged since the end of the Great War'.<sup>398</sup> Overall, it appears that the extreme terrain, combined with the need to resupply isolated, garrisoned troops, drove the Army to employ its limited number of armoured cars in a defensive, rather than offensive, manner, leaving no opportunity for the synergistic mobility of aircraft and armoured cars to be exploited.

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<sup>397</sup> Moreman, *The Army in India*, 99, 106, 125, 128, 146, 157-158, 166, 170-171.

<sup>398</sup> In 1938, the bulk of India's cavalry was still horsed, the sole progress envisaged or achieved being the conversion of four British horsed cavalry regiments into light tanks and two Indian horsed cavalry regiments to armoured cars to replace the tank corps units assigned to the Western Frontier. See Auchinleck, *Report of the Modernization Committee*, 3.

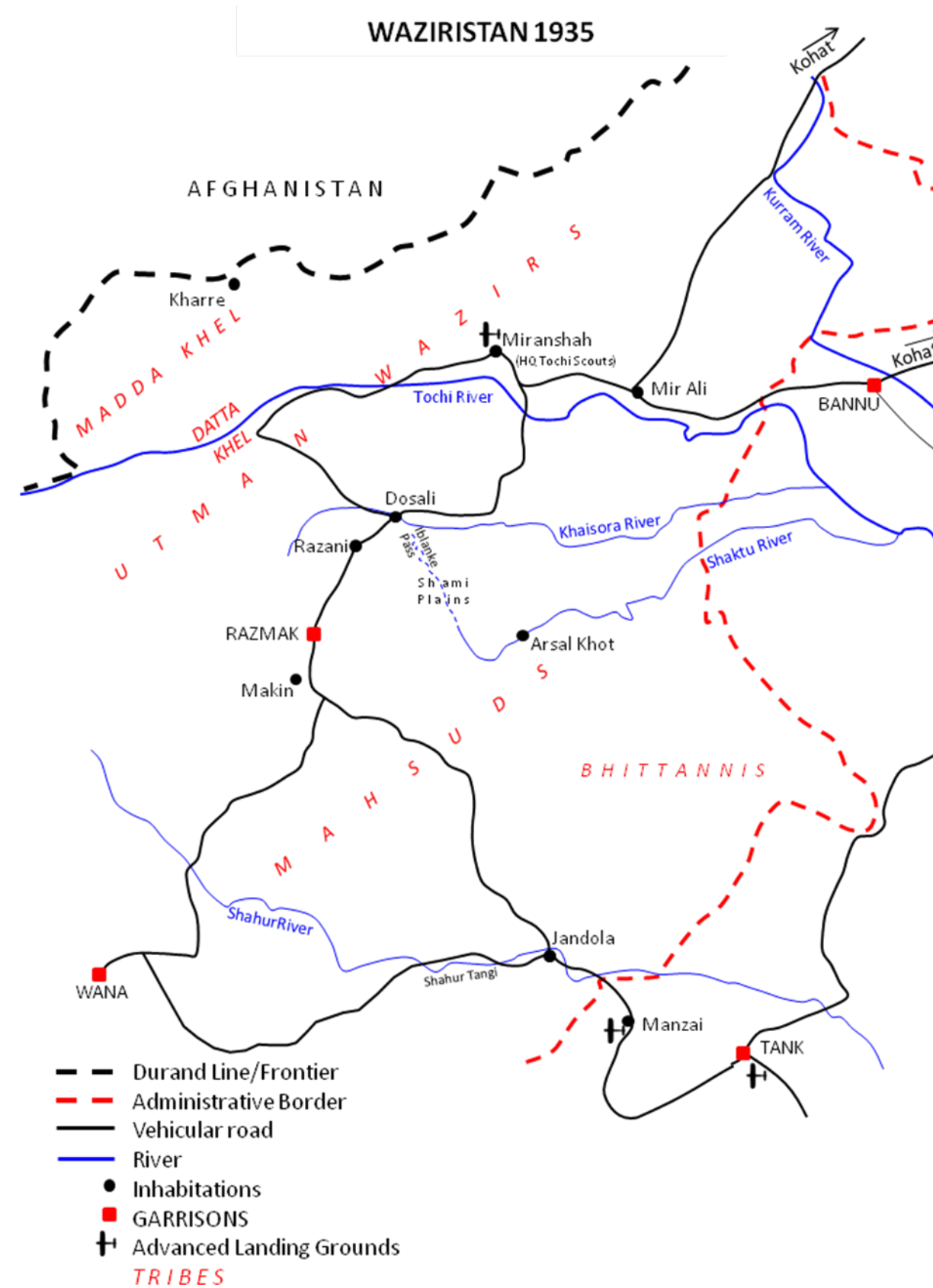


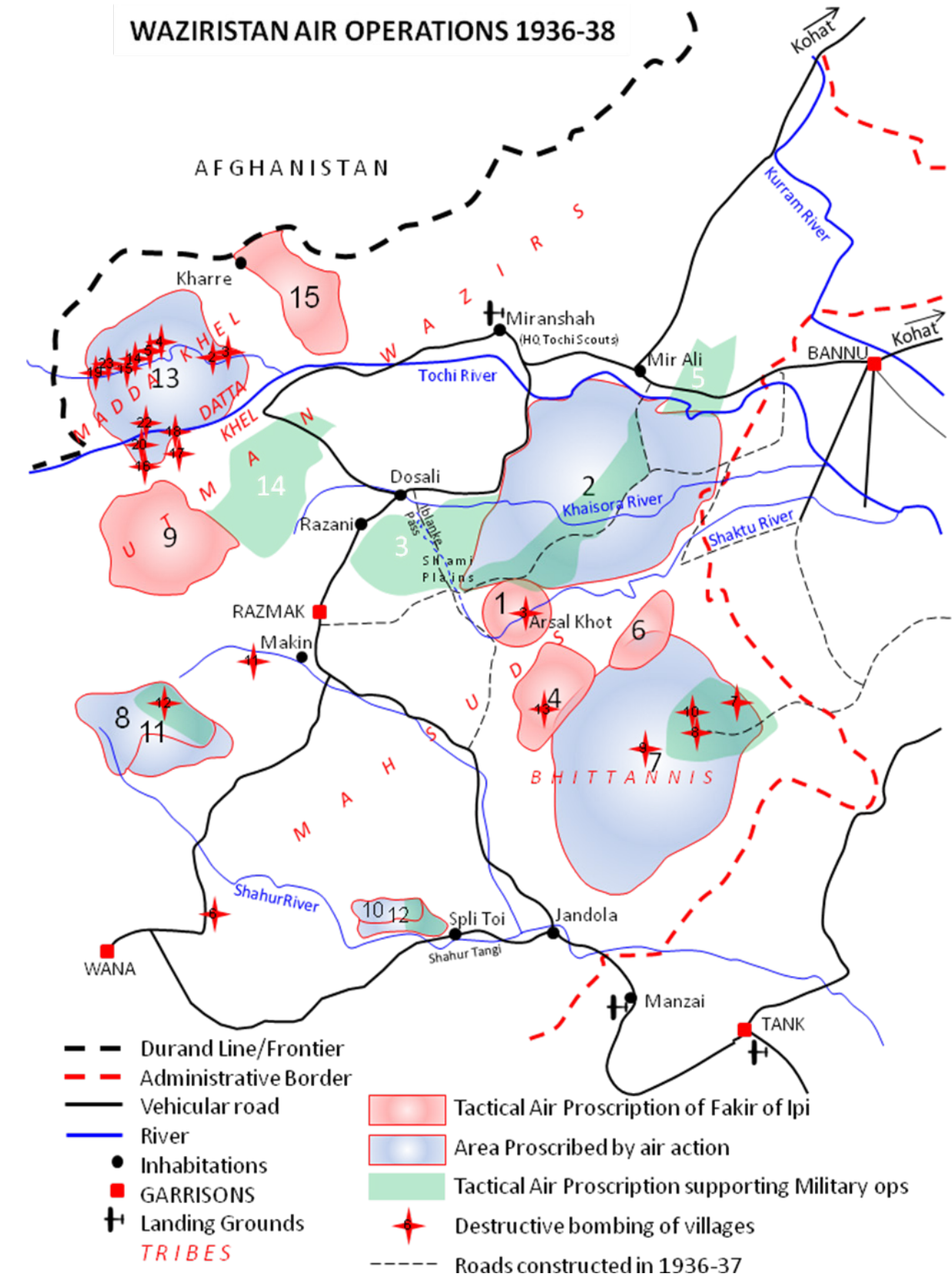
Figure 14 – Waziristan Area of Operations, 1936

**PUNITIVE VILLAGE BOMBING**

1	Arsal Kot	Tori Khel	14	Stara Kazha	Madda Khel
2	Zuram Atsar	Madda Khel	15	Wucha Kazha	Madda Khel
3	Ismail Khel	Madda Khel	16	Sarrum	Madda Khel
4	Raghzai Kalai	Madda Khel	17	Sar Kalai	Madda Khel
5	Datta Khel	Tori Khel	18	Sherani	Madda Khel
6	Urmur Khel Kile	Mahsuds	19	Kashakai Janbe Khel	Madda Khel
7	Raghzai Kile	Bhitanni	20	Manz Kalai	Madda Khel
8	Bara Kile	Bhitanni	21	Rashida	Madda Khel
9	Lowazhi	Bhitanni	22	Tamora	Madda Khel
10	Tali Palosai	Bhitanni	23	Star Kile	Madda Khel
11	Razin	Mahsuds			
12	Laswandai	Mahsuds			
13	Khonia Kel's kot	Mahsuds			

**PROSCRIBED AREAS**

- 1 **Arsal Kot**
  - Proscribed 31.12.36 to 4.1.37
  - Resumed 11.1.37 to 19.1.37
  - 3 mile radius proscribed 17.3.37; reduced to 1 mile 24.3.37 to 25.3.37
  - 3 mile radius resumed 6.4.37 to 31.5.37
- 2/3 **Tori Khel area**
  - Proscribed 6.4.37
  - Extended to area 3 (Sham Plain) 13.5.37
  - Lifted 31.5.37
- 4 **Saruna area** (Jalai Khel Mahsud grazing grounds). Proscribed 28.4.37 to 31.5.37
- 5 **Shinki Defile**. Area 3 miles either side of road proscribed 12.4.37 to 10.9.37
- 6 **Prekari Sar area**. Proscribed 1.8.37 to 8.8.37
- 7 **Bhitanni area**
  - Proscribed 30.8.37 to 2.9.37
  - Resumed 9.9.37 to 13.9.37
  - Resumed 23.9.37 to 12.10.37
- 8 **Baddar and Main Toi areas**. Proscribed 11.9.37 to 15.9.37
- 9 **Shawal area**. Proscribed 25.9.37 to 8.10.37
- 10 **Spli Toi area**. Proscribed 4.10.37 to 15.10.37
- 11 **Upper Baddar and Maintoi**. Proscribed 18.5.38 to 18.6.38
- 12 **Spli Toi**. Proscribed 17.5.38 to 18.6.38
- 13 **Madda Khel**. Proscribed 16.6.38 to 29.6.38
- 14 **Mami Rogha**. Proscribed 21.6.37 to ?
- 15 **Kharre**. Incomplete data

Figure 15 – Waziristan Air Operations 1936-38<sup>1</sup>

<sup>1</sup> All data from: AOC RAF India, *Summary of Work No 235*, 17-19. See also [Annex 2](#) for weapon expenditure.



## **CHAPTER 7 – ‘CONTROL AND CONSTRAINTS’ - CHALLENGES TO THE APPLICATION OF AIR POWER**

### **INTRODUCTION**

During the period under examination, Frontier air power was constrained by a wide variety of factors. The economic, political and moral realities associated with Imperial decline and the post-FWW Great Depression exacerbated inter-Service competition over the decreasing defence vote. Air power had successfully shaped the perception of the international community about the destructive potential of the bomber; an unintended consequence was a humanitarian backlash against the ‘frightfulness’ of using asymmetric technology against tribesmen. This resulted in what Peter Gray described as ‘internecine bickering’ between the Air Staff, IO, WO, GoI, Viceroy, C-in-C(India), CGS(India) and AOC(India), with each party using rhetoric to advance its own ends.<sup>1</sup> CIGS, for example, summed up air action as ‘The bomb that falls from God knows where and lands on God knows what’;<sup>2</sup> the Air Staff thought that ‘air forces have been grossly mishandled under military control’ due to ‘the ignorance and gross prejudice of senior military officers’.<sup>3</sup> This was set against the background of financial austerity, demands for disarmament and the abolition of aerial bombing, with pressure groups berating that ‘there is to most of us something peculiarly revolting in reprisals from the air’.<sup>4</sup> This Chapter analyses the significant factors that constrained NWF air power. It reveals dogmatic debate and how advocacy sometimes obscured accuracy.

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<sup>1</sup> Gray, "The Myths of Air Control and the Realities of Imperial Policing": 49.

<sup>2</sup> Field Marshal Sir Henry Wilson, Chief of the Imperial General Staff, quoted in Slessor, *The Central Blue*, 66.

<sup>3</sup> AIR 9/12, E33, Air Staff, *Instances of Misemployment of Air Forces in India by General Officers Commanding*, 28 May 1930, 5.

<sup>4</sup> C F Andrews, *The Challenge of the North-West Frontier: A Contribution to World Peace* (London: George Allen & Unwin, 1937), 120-121. For a discussion on the Geneva Disarmament Conference, see: Peter W Gray, "The Strategic Leadership and Direction of the Royal Air Force Strategic Air Offensive Against Germany from Inception to 1945" (PhD Thesis, University of Birmingham, 2009), 118-130. See also Renfrew, *Wings of Empire*, 233-239.

## THE CONTROL OF AIR POWER

From 1925, the Gol imposed control measures which divided Frontier airspace into the following five categories: a six-mile prohibited zone along the Durand Line, to avoid the political embarrassment of aircraft straying into Afghanistan; unrestricted zones, such as Waziristan, most of Mohmand country and Baluchistan; areas where entry required the authority of the local political officer, such as the northern Agencies, Peshawar and Hazara Districts; ‘nibbling’ areas, where political officers could be carried over tribal territory, often co-ordinated with local *Maliks*; and, from 1930, free-flight corridors between major towns, such as Peshawar to Kohat.<sup>5</sup> These measures balanced air power’s ability to influence ground events against overly-antagonistic activity. Nonetheless, the Air Staff complained about the lack of freedom to manoeuvre from the late 1920s, to little effect.<sup>6</sup>

At the point of application, air power was constrained by what are now termed “rules of engagement”. The first were published in 1924 by the Air Staff(India) with the approval of the Gol. As described in Chapter 3, *Employment of Aircraft on the NWF* was a broad-ranging, fourteen-page pamphlet which, amongst tactics and techniques, covered aspects of legitimacy, humanity and proportionality. It detailed which targets required warning notices and constrained the employment of delayed-action bombs.<sup>7</sup> This was replaced in 1928 by *Instructions Regarding the Employment of Aeroplanes*

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<sup>5</sup> IOR/L/PS/12/3260, Government of India Army Department, *Rules Relating to Military Aviation on the North-West Frontier and Baluchistan*, 13 November 1930. This superseded a similar document issued on 19 February 1925.

<sup>6</sup> This is discussed in Chapter 5. The generic issue was raised at Cabinet level in 1928, for example, which stated that it was ‘important, once it has been decided to initiate air action, not to tie down aircraft to narrow geographic limits’. See Air Staff, *Notes by the Air Staff on the Regulation of Air Control in Undeveloped Countries*, 2.

<sup>7</sup> ———, *Employment of Aircraft on the NWF*. This also imposed a 6-mile no-fly-zone along the Afghan border, prior to the aforementioned 1925 airspace control measures. When employing air support, Army units were similarly bound by secret policy letters issued by the Army Department of the Gol in 1925 and 1926 (Army HQ secret letters No 15208-MO 1 dated 28 February 1925 and No 15208-MO 1 dated 23 April 1926). See IOR/L/PS/12/3260, Army Department, *Instructions Regarding the Employment of Aeroplanes on the North-West Frontier of India*, 4 July 1928, 1.

on the NWF, published by the GoI's Army Department.<sup>8</sup> This five-page confidential document allowed reconnaissance and demonstration flights, and action to defend troops in combat, to be sanctioned without referring to the GoI.<sup>9</sup> However, warning notices and offensive air action required prior Governmental authority. When supporting Army columns, aircraft could retaliate against tribesmen engaging friendly troops, but could not target their villages. Nonetheless, during the 1930 Peshawar emergency, authority for offensive action was temporarily delegated to the Chief Commissioner, NWFP, due to the necessity for swift retribution.<sup>10</sup> When this was rescinded as unrest subsided, the Air Ministry expressed anxiety to the IO at this 'return to a system which has already been found wanting under trial', highlighting the need for political officers to be delegated discretionary powers to authorise air action to swiftly nip unrest in the bud, thereby localising issues.<sup>11</sup>

In August 1931, the GoI published new provisional combined *Instructions Regarding the Control of Operations including the Employment of Air Forces on the NWF* which emphasised co-ordinated Army-RAF action, allowing slightly more delegated authority during day-to-day watch and ward flights.<sup>12</sup> Aircrew retained authority to retaliate in self defence of themselves or troops against tribesmen in active opposition. However, the *Instructions* also emphasised that:

In order that the fullest use may be made of the air arm to act rapidly, central control is necessary, and the control of squadrons, other than those detailed to co-operate with land forces, will not normally be delegated, except in a definite and limited operation.<sup>13</sup>

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<sup>8</sup> Army Department, *Instructions Regarding the Employment of Aeroplanes on the NWF*, 1928.

<sup>9</sup> Pertinent extracts from these *Instructions* are at [Annex 13](#).

<sup>10</sup> See IOR/L/PS/12/3260, *Telegram to Chief Commissioner, NWFP*, 14 May 1930.

<sup>11</sup> IOR/L/PS/12/3260, C Bullock, *Letter from Principal Private Secretary to Secretary of State for Air to Under Secretary of State (Military Department)*, India Office, 14 July 1931, 2.

<sup>12</sup> IOR/L/PS/12/3260, Army Department, *Instructions Regarding the Control of Operations, including the Employment of Air Forces, on the North-West Frontier of India*, 1 August 1931. Pertinent extracts of the 1931 *Instructions* are at [Annex 14](#).

<sup>13</sup> *Ibid.*, 3-4. The *Instructions* also detailed political action to be taken to recover captured airmen.

Concerned about the Army's mishandling of air power, the Air Ministry wrote again to the IO, strongly urging that this last sentence be deleted and recommending that senior political officers be empowered to authorise warnings and air action against villages in an emergency.<sup>14</sup> The final 1932 version of the *Instructions* incorporated several amendments. Political officers had to inform the local military commander prior to ordering air demonstrations in case they impacted on impending military operations. Once the GoI had authorised the issuance of warning notices, political officers could subsequently commence air action without further reference. Finally, the centralised control of aircraft was now to be maintained except 'in the most exceptional circumstances', vice the previous 'definite and limited operations'.<sup>15</sup> Thus, the Air Ministry's petitioning resulted in some regulatory relaxation, but C-in-C(India) remained in control of air power except when tactically supporting troops. This denied the RAF the autonomy to demonstrate its coercive capability, something the Air Ministry suspected was a deliberate Army policy resulting from Trenchard's 1929 swansong.<sup>16</sup>

Despite the published rules, the Army sometimes circumvented them. In June 1937, OC 1(Indian) Group was ordered by the local Brigadier to bomb a house thought to be occupied by the FoI without first dropping warning notices, something outwith his authority;<sup>17</sup> only after AOC(India) consulted CGS(India) was the order

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<sup>14</sup> IOR/L/PS/12/3260, J S Ross (Principal Assistant Secretary to the Air Ministry), *Letter to Under Secretary of State, India Office*, 24 October 1931. This very much upset C-in-C India, as discussed later.

<sup>15</sup> Army Department, *Control of Operations on the NWF*, 1932. These *Instructions* remained in force until they were replaced in 1941. See IOR/L/PS/12/3260, Defence Department, *Instructions Governing the Employment of Armed Forces in the Maintenance of Tribal Control on the North-West Frontier of India and in Baluchistan: 1940*, 3 January 1941. The 1941 *Instructions* delegated authority to conduct limited air operations in an emergency to selected political authorities, returning almost full circle to the 1930 Peshawar rules.

<sup>16</sup> This theme is developed subsequently in the Thesis.

<sup>17</sup> OC 1(Indian) Group was Group Captain Norman Bottomley, based at Peshawar.

rescinded.<sup>18</sup> At a local level, the troops' adherence to the *Instructions* was not always strict; John Masters, a NWF Ghurkha officer in 1937, revealed that: 'The government's rules for the conduct of the war mattered less to us than the lives and confidence of our men, and we interpreted them in that sense'.<sup>19</sup> Slessor similarly reflected that, while 'under no circumstances were any attacks [by aircraft] to be directed against tribesmen in a village' without 'special permission and the normal period of warning', 'it was considered perfectly legitimate to *shell* a tribal village without warning'.<sup>20</sup> He added that 'No column commander would ever hesitate to shell a village from which an enemy was opposing his advance'.<sup>21</sup> In his report on the 1936 First Khaisora Campaign, he had complained:

a land force may advance on a village, shell it and fire into it with machine guns, and subsequently burn it to the ground, while the co-operating aircraft are not allowed to touch it.<sup>22</sup>

He later recalled how, on one occasion in Waziristan when he had refused a request to bomb a village from which heavy fire was holding up a group advance, the Army Commander responded 'Oh come on, that will be all right, we'll say we shelled it!'.<sup>23</sup>

Slessor summed up the in-theatre airman's perspective thus:

the action of the R.A.F. was 'cribbed, cabin'd and confined' by all sorts of ludicrously out-of-date instructions on the height we should fly, when, how and against what we might use our weapons.<sup>24</sup>

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<sup>18</sup> AIR 23/688, Acting AOC India Air Commodore Richard Peck, *Note of Conversation with Group Captain Bottomley and General Staff(India)*, 29 June 1937. The same papers are also present in AIR 23/687.

<sup>19</sup> Masters, *Bugles and a Tiger*, 209.

<sup>20</sup> Slessor, *The Central Blue*, 132, 166.

<sup>21</sup> *Ibid.*, 132.

<sup>22</sup> ———, *Ops in Waziristan. 24 November 1936 to 15 January 1937*, 9.

<sup>23</sup> ———, *The Central Blue*, 66. Bottomley recalled a similar story in his 1939 RUSI lecture: 'If, for example, the tribesmen resisting our troops are firing from a village, the artillery can shell them, but the airmen cannot bomb them'. See Bottomley, "The Work of the RAF on the NWF": 772.

<sup>24</sup> Slessor, *The Central Blue*, 121.

## ARMY VS RAF DECISION-MAKING SPEED

In his 1928 RUSI lecture, "Aircraft in Small Wars", Wing Commander Peck inferred that RAF(India) was constrained by long delays in gaining authorisation up three successive levels of distant authority, by which time unrest had spread, squandering air power's rapidity of action. While these timescales nested comfortably with land expeditions, Peck appealed that, once action was authorised, 'leave the airman, in conjunction with the political authorities, to carry it out in the way he understands and without continual reference to remote hierarchs'. According to Peck, the Army's lack of air mindedness meant that the 'new weapon' was merely 'made to subserve[sic] existing tactics'.<sup>25</sup> Both the Air Ministry and AOC(India) believed that the Army deliberately procrastinated to allow time for troops to be deployed, thereby denying the RAF any independent glory.<sup>26</sup> This allowed the Army to contend that successful air actions were really due to the presence of troops, rather than aircraft.<sup>27</sup>

C-in-C(India) provided a further insight into Army sensitivities in 1931 when, in response to calls from both the Tribal Control and Defence Committee and AOC(India) for direct political control of Frontier air operations, he declared that this would be 'prejudicial to my position as supreme commander'.<sup>28</sup> Interestingly, while offensive air action had to be approved by the GoI, the Army could invoke Section 21 of the Frontier Crimes Regulations to instigate action without reference to higher authority, something which the Air Staff recognised could 'play into the hands of the

<sup>25</sup> Peck, "Aircraft in Small Wars": 537-358. At this point, Peck was in the Air Staff's Directorate of Operations and Intelligence.

<sup>26</sup> As described, for example, in Chapter 6's consideration of the 1935 Mohmand Operation. AOC(India) informed CAS in 1935 that 'last year orders were issued that whenever air operations were to take place troops were immediately to be pushed forward into the area ! This policy ensures that the air operations do not succeed, or if they do, that the presence of the Army was necessary to that success' (see Ludlow-Hewitt, *AOC(India) to CAS, 20 September 1935*).

<sup>27</sup> ———, *Letter: Air Officer Commanding, RAF India, to Sir Edward L Ellington, Chief of the Air Staff, 1.*

<sup>28</sup> Chetwode, *C-in-C(India) to Secretary, GoI, 1 July 1931*, 296.

soldiers'.<sup>29</sup>

Despite Air Ministry attempts to bring RAF(India) under political direct control, air power's swiftness did not always nest comfortably with that of political decision-making. The Air Ministry's favoured tactic, the coercive air blockade, relied on the early declaration of terms for tribal compliance. However, the IPS had become accustomed to having time to deliberate terms while a punitive column advanced, keeping political options open. Some Politicals disliked dictating terms in advance because of the concomitant commitment and potential loss of prestige if they were not achieved. In contrast, air proscription, which lacked terms, could be halted at any time and so was often the Politicals' preferred option.<sup>30</sup> Furthermore, AOC(India) had no official channels of communication with the Gol's Foreign Secretary and had to wait for a committee to be appointed to discuss Frontier issues.<sup>31</sup>

## INTER-SERVICE HIERARCHY, TRUST AND RESENTMENT

RAF(India)'s subordination under C-in-C(India) rankled the Air Staff. The Air Ministry's overwhelming priority was to demonstrate an independent capability (rather than acting as a mere adjunct to the Army and Navy), thereby justifying the RAF's continued existence as an independent Service. Conversely, the Indian Armies viewed air power as an auxiliary to support their traditional operations. CGS(India), for example, told AOC(India) in 1937 that 'all operations on the Frontier are combined operations and that the Army as predominant partner must always be in control', an attitude which compromised the improving in-theatre inter-Service relations since

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<sup>29</sup> AIR 5/1326, Wing Commander L Darvall, *Memo, FO5 to Deputy Chief of the Air Staff through Deputy Director Plans*, 26 January 1939.

<sup>30</sup> See Chatfield, *Expert Committee Report*, 16. This is discussed in Chapter 6.

<sup>31</sup> AIR 23/5388, Air Commodore Richard H Peck, *Letter, Senior Air Staff Officer, India, to Air Marshal C L Courtney*, 12 December 1938.

1935.<sup>32</sup> Similarly, CAS in 1938 wrote that the GS(India):

view Bomber Aircraft as artillery only and consider that they cannot really undertake any truly independent tasks on the Frontier. This I am afraid is typical of the narrow point of view of the Indian Army soldier who is incapable of seeing further than the nearest picquet position.<sup>33</sup>

Under the in-theatre hegemony, the RAF often felt disempowered and misemployed by Army commanders who did not understand air power. Slessor later reflected of his 1921 Indian flight commander tour that 20 Squadron was 'hampered by absurd restrictions based... largely on ignorance and prejudice, not untinged by jealousy'.<sup>34</sup> The emotive aspect of the debate was illustrated by Harris in a hand-written minute about the pecking-order of the 1921 Indian Jubilee parade:

I once had to march my Sqdn past the D. of Wales behind a whole division, even the pack mule transport Coys being given precedence, & making the going somewhat heavy for us.<sup>35</sup>

Harris' biographer added that he was:

...incensed by the appalling conditions, lack of spares and unserviceability of aircraft... It made me realise what happens when air forces, or any other forces equipped with new weapons... are put under the control of another and older service and subordinated to archaic methods and weapons.<sup>36</sup>

This angst was not just about perceived prestige, but also the lack of control of strategy, tactics and financing of RAF(India). Trenchard had initially agreed to the

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<sup>32</sup> Joubert de la Ferte, *AOC(India) to SASO(India)*, 16 June 1938. Trench recorded another, tactical, example whereby an outspoken Frontier Officer attending a high-level operations conference by a 'very senior' officer on air control responded with: 'Listen, chum, your job is to drive the f\_\_\_\_\_g aeroplane' (see Trench, *Viceroy's Agent*, 77). The previously improving in-theatre accord is described in Chapter 6.

<sup>33</sup> Newall, *CAS to Courtney*, 10 December 1938, 3.

<sup>34</sup> Slessor, *The Central Blue*, 36.

<sup>35</sup> AIR 2/1294, Minute 6, Wing Commander A T Harris, *Minute, Deputy Director Ops to Deputy Director Plans*, 26 November 1935. According to Probert, Harris was so disillusioned by his time in India (having been verbally abused by a General who accused the RAF of wanting to live in the lap of luxury and always having to cover up their delicate aircraft) that he submitted his resignation, intending to return to Rhodesia. As OC 31 Squadron, Harris worked with Salmond to produce his 1922 Indian report, during which Salmond persuaded him to withdraw his resignation and join him in Iraq, where Salmond was about to become AOC. See Probert, *Bomber Harris: His Life and Times*, 49-50.

<sup>36</sup> Saward, *'Bomber' Harris*, 30.



1920 Esher Committee's recommendation that RAF(India) should fall under C-in-C(India)'s control; by 1921 his opinion had changed:

I now consider that far from the Air Force having any chance of increasing under Army control in India (it has already decreased by two squadrons) it is already unduly low compared with the Army in India, and, in my opinion, it is not taking and will not take its proper share of the defence of the country as long as it is under the present system.<sup>37</sup>

As a result, in August 1921, SoS(Air) wrote to SoS(India) requesting that: firstly, AOC(India) 'should be given the status of a Secretary to Government, which carries with it the statutory right of direct access to the Viceroy'; secondly that the Air Staff(India) Financial Advisor should be given direct access to the Gol's Financial Advisor; and, lastly, suggesting 'the institution of an R.A.F. Budget distinct from the Military Budget, comprising all R.A.F. expenditure in India'.<sup>38</sup> The IO's internal correspondence reveals that its military staff were very much against these requests.<sup>39</sup> However, SoS(India) took the middle ground and procrastinated in October: 'This obviously raises an important question into which I should like with your permission to go into a little more closely'.<sup>40</sup> There was also a concurrent Air Ministry/IO dispute over responsibility for air advice to HMG and the Gol. The Air Council believed they were responsible for advising HMG 'on all questions of Imperial air defence and other air matters' and requested that the IO forward all general political intelligence to

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<sup>37</sup> IOR/L/MIL/7/19272, Air Marshal Sir Hugh Trenchard, *Memo to Secretary of State for Air*, 6 December 1921. The Esher Report is at: CAB 6/4, Lord Esher, *Report of the Army in India Committee, 1919-1920 - Part I (CID 115-D)*, 2 November 1919.

<sup>38</sup> IOR/L/MIL/7/19272, Captain Frederick E Guest, *Memorandum from Secretary of State for Air to Secretary of State for India*, 15 August 1921.

<sup>39</sup> Colonel Moens (General Staff Officer, IO) highlighted that the Esher recommendations had been rejected by the IO, although his superior commented that 'Possibly a time may come when the Air Force in India sd [sic] be separated. But at present it is in its infancy, as regards both dimensions & experience' (see IOR/L/MIL/7/19272, Colonel A M Moens, *Memo from General Staff Officer, India Office, concerning Secretary of State for Air's letter dated 15 August 1921*, 17 August 1921).

<sup>40</sup> IOR/L/MIL/7/19272, Rt Hon Edwin S Montagu, *Letter from Secretary of State for India to Secretary of State for Air*, 7 October 1921.

them.<sup>41</sup> While the IO conceded to passing-on intelligence (but only after significant internal discussion, and for fear of appearing petty), they caveated that 'the Air Ministry must not regard itself as having any strategical function, but merely as an agency for supplying men and machines' to India.<sup>42</sup> With little agreement in sight, Trenchard convinced SoS(Air) to appeal to the CIMR in December 1921. Guest wrote:

The present system in India has been given a fair trial and the difficulties appear to be increasing. These modest proposals represent an attempt to obtain for the R.A.F. in India a status similar to that which the Government has accorded to it at home, without which a really high state of efficiency cannot be attained.<sup>43</sup>

The IO disagreed. An internal memo explained to SoS(India) that the RAF in India was in its infancy and was entirely subsidiary to the Army...

and that this being so, larger questions of policy will rarely arise for decision, and that under ordinary circumstances this Office and the War Office are the departments primarily concerned.<sup>44</sup>

The Viceroy was also 'strongly opposed' to AOC(India) having direct access to him, which would have been 'entirely opposed to constitutional practice'.<sup>45</sup> The CIMR's 1922 final report acknowledged that the 'existing arrangements have not proven satisfactory', but deferred a decision pending Salmond's review.<sup>46</sup>

These tensions influenced Salmond's 1922 RAF(India) review, even before he left England. According to his biographer, Salmond saw his mission not merely as an inquiry, but 'a crusade to educate the Army about proper co-operation with the air

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<sup>41</sup> IOR/L/MIL/7/19272, J A Webster, *Letter from Assistant Secretary of the Air Ministry to Under Secretary of State (Military Department), India Office*, 28 September 1921.

<sup>42</sup> IOR/L/MIL/7/19272, *India Office Internal Memorandum to Secretary of State for India*, 30 November 1921.

<sup>43</sup> Guest, *Status of the Royal Air Force in India*.

<sup>44</sup> IOR/L/MIL/7/19272, J G Laithewaite, *Memorandum from Political Department, India Office, to Secretary of State for India*, 12 December 1921.

<sup>45</sup> The Viceroy also rejected the request for AOC(India)'s Financial Advisor having direct access to the Financial Advisor of the Council of India (see IOR/L/MIL/7/19272, Earl of Reading, *Telegram from Viceroy of India to Secretary of State for India*, 29 December 1921).

<sup>46</sup> CAB 6/4, Committee of Imperial Defence, *Report of the Sub-Committee on Indian Military Requirements (CID 125-D)*, June 1922, 10.

service and the intelligent use of its capabilities'.<sup>47</sup> Salmond's key issues were the need for an independent RAF(India) budget and AOC(India)'s lack of access to the Viceroy. His report resulted in a *volte-face* by the Viceroy, who granted the AOC(India) direct access to him 'for the purpose of consultation on important air force questions';<sup>48</sup> AOC(India) could access the Viceroy if C-in-C(India) vetoed an air submission, although the Cabinet later commented that 'this system was likely to lead to friction'.<sup>49</sup>

The Air Staff were also frustrated by their inability to officially communicate with RAF(India) due to their subordination to C-in-C(India).<sup>50</sup> Even by 1930, correspondence was limited to intelligence, training and preparation for war, with the IO copied-in; direct correspondence concerning RAF(India) policy, organisation and administration was specifically prohibited.<sup>51</sup> This caused SoS(Air) to complain that the Air Staff were suffering delays in:

... the rendering of adequate and authoritative reports from the Air authorities in India in regard to the onerous and instructive operations in which the Air squadrons in India have been and still are engaged...The bare and statistical return of hours flown show only how heavily they have been engaged; but of operational information we at present get nothing authoritative other than the occasional references in the Government of India's telegrams.<sup>52</sup>

Instead, the Air Ministry had to rely on nothing more detailed than *ex post facto* dispatches, where published, supported by GoI telegrams and intelligence summaries to glean an understanding of the effectiveness of air power and identify any

<sup>47</sup> Laffin, *Swifter than Eagles*, 153.

<sup>48</sup> Reading, *Viceroy to IO*, 30 September 1922.

<sup>49</sup> CC 34 (39) 3, 11-12. See also Tottenham, *Letter, Secretary of GoI*, 8 March 1937.

<sup>50</sup> See, for example, Secretary of State for Air, CP 4179: *Shortage of Equipment of the RAF in India*, described in Chapter 6.

<sup>51</sup> AIR 8/46 E15, Earl Russell, *Letter, Under-Secretary of State for India to Lord Thomson, Secretary of State for Air*, 17 September 1930. This policy was promulgated through Air Ministry memoranda, namely: AIR 8/110, Sir Walter F Nicholson, *Air Ministry Office Memorandum 389: Royal Air Force in India - Correspondence*, 3 January 1928. The WO was subjected to the same technical limitations. The constitutional position of the forces in India is described in: *Memo the Constitutional Position of the Defence Forces in India*.

<sup>52</sup> AIR 8/110, Lord Thomson, *Letter, Secretary of State for Air to Lord Russell, Under-Secretary of State for India*, 4 September 1930.

concomitant lessons. Full operational accounts, the planning appreciations and associated comments were specifically barred.<sup>53</sup> Nonetheless, various AOC(India)s did occasionally send sensitive correspondence to CAS, marked as ‘strictly private, confidential and personal’, with a warning not to be quoted.<sup>54</sup>

Despite Salmond’s 1922 review, AOC(India) was often marginalised. A 1928 Air Staff Cabinet note reiterated the need for AOC(India) to be used as the subject matter expert on air matters:

The air arm is a delicate weapon which is easily blunted if misused, either by wielding it too early or too late, and especially too much. How, where, when and in what degree it is to be employed are questions upon which the Air Officer Commanding on the spot, and he alone, can give authoritative advice with the advice of the local political officer...<sup>55</sup>

The situation had not improved by 1937. In his parting letter to C-in-C(India) at the end of his tour as AOC(India), Sir Edgar Ludlow-Hewitt, (a great supporter of joint operations) protested that: rather than invoking collective responsibility by blockading a whole tribal area, the political authorities were targeting isolated villages; proscribed areas were so small that *lashkars* could cross them before aircraft could react; and finally, that bombing was being misemployed as an easy means of reprisal, compromising its reputation.<sup>56</sup> A year later, an internal RAF note highlighted that senior Army commanders continued to use aircraft inappropriately on the Frontier while excluding RAF commanders from the operational planning.<sup>57</sup> CGS(India) admitted to CAS that ‘mistakes, amounting to misuse even’ had probably occurred, but the Army was addressing this.<sup>58</sup>

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<sup>53</sup> AIR 8/110, ———, *Letter, Secretary of State for Air to Secretary of State for India*, 18 August 1930.

<sup>54</sup> See various documents in AIR 8/1199.

<sup>55</sup> Air Staff, *Notes by the Air Staff on the Regulation of Air Control in Undeveloped Countries*, 1.

<sup>56</sup> AIR 5/1323, Air Marshal Sir Edgar Ludlow-Hewitt, *Letter to Commander-in-Chief, India*, 19 April 1937.

<sup>57</sup> AIR 23/688, *Notes on Mistakes Concerning the Employment of Air Forces in 1938*.

<sup>58</sup> AIR 8/529, General Sir Ivo Vesey, *Letter, Chief of the General Staff (India) to Chief of the Air Staff*, 6 July 1938, 2.

The RAF's Imperial role generated friction in the 1930s with the threat of a world war looming. C-in-C(India) viewed RAF(India)'s role solely in terms of the NWF, which required relatively simple 'colonial' technology, noting in 1934 that 'the present machines are... amply good enough for their task in the tribal areas' and that they should only be replaced 'when it becomes uneconomical to keep older patterns, and not merely because the new ones are better'.<sup>59</sup> Critically, however, the Air Ministry saw RAF(India) as an integral element of the RAF's wider commitments, objecting to 'a situation in which the organisation, equipment and training... is obsolete and ineffective as compared with the rest of the air force'.<sup>60</sup> Indeed, in 1927, following Trenchard's evidence to the CID's Defence of India Sub-Committee concerning the Afghan war plan, SoS(India) had commented that it was 'most regrettable that the Royal Air Force in India should be equipped with machines which were quite inadequate for operations in the theatre of their probable employment'.<sup>61</sup> The Gol finally recognised the need for modern aircraft in 1938 when faced with an Eastern air threat.<sup>62</sup>

Much of the friction between the Air Ministry and C-in-C(India) can be attributed to mutual mistrust, combined with both organisations' protectionist approach to their force structures. Prior to Salmond's damning 1922 *Report* on RAF India, the Air Ministry believed that the Gol had tried to cover up the poor state of the RAF in India by restricting AOC(India) from communicating with them.<sup>63</sup> The Report undermined

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<sup>59</sup> AIR 23/687, Field Marshal Sir Philip Chetwode, *Conference Transcript*, 27 November 1934, 2.

<sup>60</sup> Air Staff, *Present Problems of Indian Defence*, 4.

<sup>61</sup> CAB 16/83, Lieutenant-Colonel Sir M P A Hankey, *Committee of Imperial Defence: Defence of India: Minutes of the Third Meeting (DI/3rd Meeting)*, 26 April 1927, 10.

<sup>62</sup> Ogilvie, *Secretary, Gol, to Secretary, Military Department, IO*, 12-14. The change of perceived threat from the West to the East as the Second World War approached is discussed at the end of Chapter 6.

<sup>63</sup> Salmond, *1922 Report on RAF India*; Secretary of State for Air, *CP 4179: Shortage of Equipment of the RAF in India*. SoS(Air) emphasised that 'the only source of information open to [the Air Staff] were unofficial reports from officers returned from India and private correspondence' (emphasis in original) (see ———, *CP 4179: Shortage of Equipment of the RAF in India*). This is examined in Chapter 6.

the Air Ministry's confidence in GS(India)'s understanding of air power and their willingness to prioritise funding appropriately.<sup>64</sup> Indeed, in 1936, AOC(India) appealed for help in a series of letters to CAS because the IO 'seem to be very ill-informed about methods of air control', considering air blockades to be 'indiscriminate bombing' and that the Army's general conviction was that 'the only thing the air force[sic] could do was to bomb villages full of women and children'.<sup>65</sup> Indeed, the Army's air-mindedness was so poor that AOC(India) wrote to CGS(India) in 1937 complaining that Army commanders had described 'air blockades' in the Khaisora Valley as having failed, whereas no blockade had been imposed. He continued:

Perhaps one of the most potent causes of resentment in the Air Force is that aircraft have so often been used in a manner not recommended by Air Force officers and that then the Force has been represented, quite untruly, as having failed in its aim so that the Army must go in to put matters right.<sup>66</sup>

The Air Ministry's mistrust of the IO was illustrated in 1931 by an internal paper circulated by Peck highlighting examples of unfair and biased treatment by the IO since 1923. These included: biased responses to Parliamentary Questions; procrastination over the establishment of an Indian bomber-transport squadron; their refusal to publish despatches highlighting RAF operations; and their failure to include

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<sup>64</sup> In 1938, the Air Staff estimated RAF(India)'s share of the Indian defence budget to be 4%, a sum which was 'totally unsuited to meet the requirements even of India's local defence' (see Air Staff, *Present Problems of Indian Defence*, 2-3). However, the COSC used a figure of 7% (see COSC: *Minutes*, 21 June 1938, 5, 8-9).

<sup>65</sup> AIR 23/688, India Air Staff, *Letter to CAS*, 23 March 1936; Ludlow-Hewitt, *Letter, AOC India to CAS*, 5 March 1937, 2. The Army's dogma was not limited to India. Brigadier Dobbie, when giving evidence before the Palestine Commission of Enquiry, stated that 'Aeroplanes are really a bluff. The only thing they can do is to drop bombs or to shoot with their machine guns, and their action is extremely indiscriminate', to which the Air Staff responded 'Clearly, officers whose knowledge of the employment of the air arm is so limited, erroneous and prejudiced as this, are quite unable to understand how to employ it correctly and, as our experience there and elsewhere amply proves, are most reluctant to learn or to give it a chance' (see Air Staff, *Instances of Misemployment of Air Forces in India by General Officers Commanding*, 5).

<sup>66</sup> AIR 23/688, Air Marshal Sir Edgar Ludlow-Hewitt, *Letter: AOC India to General Sir William Bartholomew*, CGS India, 19 April 1937, 1, 3.

the Air Ministry's expertise in decision-making.<sup>67</sup> On being informed that their operational summaries were 'worded... to minimise the success of the Royal Air Force', the IO responded that:<sup>68</sup>

Our sole concern is to make sure that India gets the best service in the cheapest and most efficient way. If it were proven to our satisfaction that in future the R.A.F. ought to be the dominating factor in Indian defence, we should cheerfully consign the Army to a new and subordinate role. But we are not going to pull the present organisation to pieces until we know for certain that we can put something better in its place.<sup>69</sup>

Conversely, the Army mistrusted the RAF's intentions following Trenchard's 1929 swansong, fearing the substitution of regular Army Frontier units by squadrons (with concomitant repercussions for Army force structure and political standing), retorting that air power had 'never yet been tested out in anything but the most minor trouble'.<sup>70</sup> On arrival as AOC(India) in 1935, Ludlow-Hewitt recognised these issues, noting to CAS that the increasingly 'liberal attitude' by the Army was 'of course, largely due to reassurance on the question of substitution'.<sup>71</sup> The IO's perspective was summarised in an internal 1938 minute following an Air Ministry complaint that AOC(India) was being denied control of air operations, resulting in the misemployment of air power:<sup>72</sup>

This is a troublesome and unfortunate letter from the Air Ministry in which they have scraped together various grievances - whether relevant or irrelevant, real or imaginary - which they have been nursing for some time past... ... the Air Staff are extremely anxious to prove that Air Blockade is the panacea for tribal troubles and they want to see it carried out by an Air Commander independently of the local military command. In addition to the perhaps not unnatural desire to

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<sup>67</sup> AIR 8/46, E22, Wing Commander R H Peck, *Memo to Secretary, Air Ministry*, 8 July 1931. See also AIR 23/687. For more detail about the Army's procrastination over the formation of a BT squadron, see: Air Staff, *Proposal to Form a Bomber Transport Squadron*.

<sup>68</sup> AIR 8/46, E22, Air Ministry, *Letter to Military Secretary, India Office (General Sir Alexander Cobbe, VC)*, 24 June 1931.

<sup>69</sup> AIR 8/46, E22, S F Stewart, *Letter to Secretary, Air Ministry*, 4 July 1931.

<sup>70</sup> Trenchard, CP 332 (29); Chetwode, *C-in-C(India) to Secretary, GoI*, 1 July 1931, 296.

<sup>71</sup> Ludlow-Hewitt, *Letter: Air Officer Commanding, RAF India, to Sir Edward L Ellington, Chief of the Air Staff*. In the same letter, Ludlow-Hewitt stated that he thought and hoped that substitution was dead, but that although he was not an advocate of air action at any cost, 'All we want out here is that the use of the Air Force should be given fair and unprejudiced consideration. At present, any proposal for the use of air action is liable to be met on all sides by bias and prejudice'.

<sup>72</sup> Specifically, the Air Ministry cited that punitive action and proscription were being misemployed in place of the imposition of air blockades.

have 'a show of their own' to run, they take the view that an essentially air operation is liable to be mishandled by the soldiers and that in consequence this form of operation may not be given a fair chance of proving its worth...<sup>73</sup>

These sentiments were widely held. According to Orange, the Army Staff College Commandant stopped Slessor from including air control in the Camberley syllabus during his 1931-34 tenure as DS, although this could have been due to conservatism or structural problems with changing the course, rather than bias.<sup>74</sup> Indeed, independent air action was briefly mentioned during the 1933 Mountain Warfare module and, by 1937, Slessor's replacement was: presenting an air control lecture to the Senior Course;<sup>75</sup> analysing the merits of land and air operations in mountain warfare; discussing bomber-transport and supply dropping; and inviting RAF officers to act as the Air Staff(India) in their Mountain Warfare exercise.<sup>76</sup> This reflects the improving Army-RAF relations described in Chapter 6. Furthermore, RAF students attending Camberley sometimes chose air control as the subject of their individual presentations.<sup>77</sup>

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<sup>73</sup> IOR/L/PS/12/3205, Major-General Sir Sydney Muspratt, *Minute: Military Secretary, India Office, to Political Secretary, India Office*, 21 June 1938. For the RAF perspective, see AIR 23/688, E72, Acting AOC India Air Commodore Richard Peck, *Letter to Air Marshal Sir Philip Joubert de la Ferte, AOC India*, 21 June 1938.

<sup>74</sup> Orange, *Slessor: Bomber Champion. The Life of Marshal of the RAF Sir John Slessor, GCB, DSO, MC*, 35. The Senior Course's air lectures, all given by Slessor, were: (i) Air Action in relation to Strategy and Major Tactics; (ii) Co-operation between Artillery and Air Force within the Corps; and (iii) The Strategical Mobility of Air Forces.

<sup>75</sup> Camberley Army Staff College, "Mountain Warfare III: Employment of All Arms on the NWF", *Senior Division Directing Staff Lecture Notes* (1933): 3; Army Staff College, Camberley, "Air Control", *Senior Division Directing Staff Lecture Notes Vol I* (1937).

<sup>76</sup> Camberley Army Staff College, "Mountain Warfare Exercise", *Senior Division Directing Staff Lecture Notes* (1937): 8; ———, "Role of Bomber Transport Aircraft", *Senior Division Directing Staff Lecture Notes Vol I* (1937); ———, "Notes on Supply Dropping by Parachute", *Senior Division Directing Staff Lecture Notes Vol I* (1937).

<sup>77</sup> For example, Wing Commander A T Harris chose 'Air Control in Iraq, and Elsewhere' as the subject of his 1929 student presentation. See Harris, "Air Control in Iraq, and Elsewhere". Unfortunately, the Course material for all years apart from 1923, 1929, 1933, 1935, 1937 and 1938 was destroyed in 1940, precluding a complete survey.



## ARMY RELUCTANCE TO PUBLICISE RAF EXPLOITS

Inter-Service trust was damaged by the perceived reticence of the Army and IO to publicise RAF(India)'s exploits. AOC(India) informed CAS in 1937 that 'it is difficult to realise the extraordinary lack of recognition which has hitherto been extended by the Army to the Royal Air Force in respect to its use on the Frontier'.<sup>78</sup> One specific example was the report of the 1936 Mohmand operation. The IO's Military Secretary informed DCAS in 1936 that 'in view of the keen interest taken, in political and public circles, regarding air action against tribesmen... the Secretary of State for India thinks it better not to publish' the Mohmand Report. CAS responded that the use of aircraft was humane and that 'It seems to me most important that there should be no divergence of view on this matter, particularly at the present time, and I think a small interdepartmental committee certainly ought to be convened'.<sup>79</sup> The Air Staff was concerned that the Indian Armies did not understand that the air blockade tactic was a coercive, rather than punitive, technique. The subsequent ad hoc committee appears to have only sat once, in September 1936, and was effectively just a 'round-table' meeting.<sup>80</sup> At the meeting, the IO agreed to write to "India" explaining the air blockade methodology.<sup>81</sup> There was, however, no assurance that the Mohmand report would be published.<sup>82</sup> The IO and Air Ministry jointly drafted a letter to C-in-C(India) explaining air blockade methodology which, after some inter-Ministry ping-ponging,

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<sup>78</sup> Ludlow-Hewitt, *Letter, AOC India to CAS, 5 March 1937*, 1.

<sup>79</sup> IOR/L/PS/12/3187, E358, Lieutenant General Sir John Coleridge, *Letter, Military Secretary to the India Office to Air Vice-Marshal C L Courtney, Deputy Chief of the Air Staff*, 9 April 1936.

<sup>80</sup> The attendees were Sir Leonard Wakely (Deputy Under Secretary of State for India), Major General Wilson (Military Secretary to the IO), Mr J C Walton (Secretary of the Political Department of the IO) and, from the Air Ministry, AVM Courtney (DCAS), Wg Cdr GC Pirie and Squadron Leader Darvall (from the Directorate of Operations and Intelligence). See also Chapter 5.

<sup>81</sup> *Notes of a Meeting at the India Office, 25 September 1936*.

<sup>82</sup> Indeed, the only public reference to this operation by the RAF was the announcement of the issue of the India General Service Medal with clasp "North-West Frontier, 1935" 'to the forces which were employed in the Loe Agra operations, on the North-West Frontier of India, between 23rd February and 13th April, 1935'.<sup>82</sup> See "Army Notes - India", *JRUSI* LXXXI, no. 522 (1936): 446.

read.<sup>83</sup>

Provided that the methods and safeguards... are carefully observed the Secretary of State [for India] sees no reason why air blockade should be more open to criticism on humanitarian grounds than any other form of applied military pressure against villages or a territory of a *recalcitrant tribe*. *It would appear* to be an effective and humane method of applying such pressure and *he is accordingly* prepared to support the Government of India if occasion arises for its use.<sup>84</sup>

Nonetheless, criticism concerning 'frightfulness' continued sporadically, an example being an Opposition Parliamentary Question in June 1938, for which Slessor, then Deputy Director of Plans, prepared notes for the Prime Minister's response.<sup>85</sup> Slessor's continuing participation emphasises the importance and continuity of specific personalities.

## PERSONALITIES AND RELATIONSHIPS

Personality had a significant role in inter-Service relationships. In 1931, the IO forwarded the Air Ministry's criticism of the Gol's latest *Instructions Regarding the Control of Operations* directly to the Gol without comment.<sup>86</sup> C-in-C(India), Sir Philip Chetwode, went personally to the Viceroy's residence on a Sunday, 'very much annoyed', complaining that the Air Staff had not only gone 'over the head of the Commander-in-Chief' but also queried his competence directly with the Gol. The Viceroy wrote to SoS(Air) explaining that only the CID could advise the Gol;<sup>87</sup> a

<sup>83</sup> IOR/L/PS/12/3187, E277, Air Council, *Letter to Under Secretary-of-State, Political Department, India Office*, 30 November 1936.

<sup>84</sup> IOR/L/PS/12/3187 E274, J C Walton, *Letter to Foreign Secretary to the Government of India*, 24 December 1936, with the IO's amendments in italics.

<sup>85</sup> Slessor, *Notes on Police Bombing dated 18 June 1938*. The Question was posed on 16 June and answered on 21 June 1938.

<sup>86</sup> IOR/L/PS/12/3260, J S Ross, *Letter, Principal Assistant Secretary to the Air Ministry to Under Secretary of State, India Office*, 24 October 1931.

<sup>87</sup> IOR/L/PS/12/3260, Earl of Willingdon, *Letter from Viceroy India to Secretary of State for Air*, 3 December 1931. Chetwode was not appeased by SoS India's response to the Viceroy; he then wrote personally to the Permanent Under Secretary of State for India complaining that they had forwarded the Air Ministry's letter straight to the Gol without adding any comment. See IOR/L/PS/12/3260, Field Marshal Sir Philip Chetwode, *Letter, Commander-in-Chief, India, to Sir Findlater Stewart, Permanent Under Secretary of State for India*, 14 March 1932.

statement that even the IO thought went ‘too far’. Indeed, the IO recognised that Chetwode had expressed ‘his entire disagreement with the A.O.C’s, views’, indicating that his relationship with Sir John Steel was not constructive.<sup>88</sup> In contrast, following Ludlow-Hewitt’s arrival as AOC(India) in 1935, in-theatre Service relationships improved markedly. His successor described the situation thus:

There has been since my arrival out here, and flowing directly from the policy of appeasement initiated by Ludlow-Hewitt, a very real improvement in the relations between the General Staff and the Air Staff and, consequently, a greater readiness to listen to Air advice.<sup>89</sup>

Similarly, Slessor’s arrival as OC 3(Indian) Wing in March 1935, fresh from his DS tour at Army Staff College, heralded a new era as he laboured at ‘making a nuisance of myself to my superiors on the subject of air co-operation in frontier warfare’.<sup>90</sup>

Trenchard’s personality was pivotal. His 1929 swansong was, to quote his biographer, ‘explosive’, following on from previous calls for NWF substitution by Salmond in 1922 and Ellington in 1925.<sup>91</sup> Salmond’s proposal had originally been rejected by C-in-C(India) because the principal was ‘pure conjecture’. However, he had caveated that:

If, as time goes on and the air policy in Iraq and Palestine prove really successful, and if our experience in Waziristan justifies in the future more confidence than we at present possess in air operations generally, I shall be prepared to reconsider my attitude towards this question.<sup>92</sup>

The swansong started life as an internal future policy paper within the Air Staff, but

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<sup>88</sup> IOR/L/PS/12/3260, Political Department Secretary, India Office, *Letter to General Muspratt, Military Secretary, India Office*, 23 December 1931.

<sup>89</sup> AIR 23/5388, Air Marshal Sir Philip Joubert de la Ferte, *Air Officer Commanding, India, to Air Vice-Marshal C L Courtney*, 12 December 1938.

<sup>90</sup> Slessor, *The Central Blue*, 124. Slessor worked closely with some familiar characters, such as Peck (Senior Air Staff Officer in HQ RAF(India)), Squadron Leader Basil Embry (Indian Air Staff) and Group Captain Norman Bottomley (OC 1 (Indian) Group on the NWF). See ———, *The Central Blue*, 125.

<sup>91</sup> Boyle, *Trenchard*, 579. Slessor described how Trenchard’s proposal aroused ‘a rare storm’ (see Slessor, *The Central Blue*, 73). Salmond and Ellington’s proposals are discussed in Chapter 6.

<sup>92</sup> Trenchard, *CP 332 (29)*, 5.

Trenchard suddenly decided to publish it as a Cabinet Paper.<sup>93</sup> As Slessor later recalled:

the Air Staff felt that the time of trial and experiment was past and we should now cash in on our experience and give air-power the responsibilities which it had proven itself capable of fulfilling.<sup>94</sup>

However, both Peck and Slessor were apprehensive about this approach, preferring to leave it as a policy statement for Trenchard's successor, Jack Salmond.<sup>95</sup>

According to Hyde, Salmond did not agree with all the elements of Trenchard's Cabinet Paper.<sup>96</sup> Although both the 1921 Geddes Committee and 1925 Colwyn Committee had recommended the extension of aerial substitution on economic grounds, Slessor later reflected that:<sup>97</sup>

Looking back on it, I have long thought that [Trenchard] made a tactical error... There was not the remotest prospect of the policy being accepted by the Government of the day... I feel sure it delayed rather than accelerated the wider use of air-power in Imperial Defence.<sup>98</sup>

This is a critical observation. Pushing too hard for change at the wrong time was ultimately counterproductive. As illustrated in Chapter 6, India relied most heavily on air power when its Army was over committed, be that during the FWW or containing the Fof, and it would have been at these moments of need that 'India' would have been most receptive to aircraft taking on additional responsibilities. In contrast, Trenchard's timing was driven by the looming closure of his tenure as CAS, rather than strategically opportune circumstances. It was left to the Air Staff(India) to manage the challenge of air power's potential, 'India's' requirements and the concomitant opportunities. The analysis below will show that the backlash from

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<sup>93</sup> Slessor, *The Central Blue*, 73.

<sup>94</sup> Ibid., 70.

<sup>95</sup> Hyde, *British Air Policy Between the Wars*, 242.

<sup>96</sup> Ibid., 235.

<sup>97</sup> See Ibid., 242 and Slessor, *The Central Blue*, 70.

<sup>98</sup> Slessor, *The Central Blue*, 73-74.

Trenchard's swansong probably closed off several potential opportunities and retarded the progress of both Indian air power and the doctrine that supported it.

The normative practice for raising inter-Service 'political' issues was via the CID or its sub-committee, the COSC. Trenchard, however, considered the COSC to be ineffective and thought it avoided issues of 'vital differences of opinion', accusing the COSC Secretary, Sir Maurice Hankey, of 'championing "the inevitability of gradualism"'.<sup>99</sup> Instead, his swansong was published as a Cabinet Paper with a seven-page supplementary memorandum on India, proposing that a committee be set up to examine his preliminary proposals.<sup>100</sup> The Paper was only circulated to the other Service Chiefs a day or so beforehand at Hankey's urgent request.<sup>101</sup> Hoare, Trenchard's SoS(Air), later explained that 'If he could not have something done in one way, he would try improvisation in some other way, even though it was unorthodox'.<sup>102</sup>

Hankey's criticism of Trenchard's swansong was two-fold: method and timing. Firstly, he objected to the circumvention of the COSC and the recommendation of setting up an independent committee. Secondly, he accused Trenchard of having 'assembled in this one paper all the most controversial questions' and 'launched them at the moment of your departure when you could no longer promote or forward them', causing 'a great deal of irritation' with the other Service Chiefs.<sup>103</sup> Indeed, Hankey later told Trenchard that 'It took me two or three years to get over the damage you did to the C.O.S Committee by your Swan Song'.<sup>104</sup> However, Hoare's autobiography revealed another perspective:

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<sup>99</sup> Trenchard Papers, RAF Museum, MFC 78/23/1, Marshal of the Royal Air Force Viscount Hugh Trenchard, *Draft letter to Colonel Sir Maurice Hankey*, 21 February 1936.

<sup>100</sup> The Indian supplement was to be elaborated on 'in due course'. See Trenchard, *CP 332 (29)*, 11.

<sup>101</sup> Trenchard Papers, RAF Museum, MFC 78/23/1, Colonel Sir Maurice Hankey, *Personal letter to Viscount Trenchard*, 26 February 1936, 3.

<sup>102</sup> Templewood, *Empire of the Air*, 264.

<sup>103</sup> Hankey, *Letter to Trenchard*, 26 February 1936, 3. See also Boyle, *Trenchard*, 579 and Hyde, *British Air Policy Between the Wars*, 232.

<sup>104</sup> Hankey, *Letter to Trenchard*, December 35.

Trenchard's constant insistence on substitution made the Navy and Army regard him as unco-operative. In point of fact, he was by nature inclined to co-operation... The conditions for co-operation, however... were first, the recognition of full equality of status for the Air Force, secondly, the admission of its special rôle in national defence, and thirdly, its substitution for the older services, wherever the change meant greater economy of efficiency. If he had failed to take this line ..., he would not have represented the basic principle upon which alone a separate and independent Air Force could be justified.<sup>105</sup>

The swansong left Salmond with the dilemma of either pursuing his predecessor's eleventh-hour proposal under great inter-Service criticism, or dropping it and risking criticism from Trenchard's staff.<sup>106</sup> Trenchard might have been trying to force his successor's hand, especially since Trenchard's replacement was not selected until almost the last minute;<sup>107</sup> Trenchard may have been trying to bring some certainty to an uncertain future, especially if he suspected that his successor was not in full accord with his swansong (as was the case with Salmond).<sup>108</sup> As events transpired, Trenchard probably supported Salmond's appointment, despite the two officers reportedly not being close friends.<sup>109</sup> Indeed, Salmond's biographer noted Trenchard's occasional interference whilst in retirement.<sup>110</sup> Nonetheless, the archives indicate that Salmond supported Trenchard's ideas concerning the NWF and pursued various initiatives, including the setting up of an enquiry through the CID's Defence of India Sub-Committee;<sup>111</sup> this is perhaps not surprising given the views Salmond articulated in his 1922 Indian review and that his brother, Geoffrey, was AOC(India) from when he was appointed CAS until February 1931.<sup>112</sup>

The machinations of the Defence of India Sub-Committee that was established to examine the extended use of air power following Trenchard's swansong reveal

<sup>105</sup> Templewood, *Empire of the Air*, 264.

<sup>106</sup> Hankey, *Letter to Trenchard*, 26 February 1936, 3.

<sup>107</sup> Hyde, *British Air Policy Between the Wars*, 233.

<sup>108</sup> Ibid., 235.

<sup>109</sup> Ibid., 233; Laffin, *Swifter than Eagles*, 211.

<sup>110</sup> Laffin, *Swifter than Eagles*, 215.

<sup>111</sup> See AIR 8/110 for Salmond's internal correspondence on the Indian aspects of Trenchard's swansong.

<sup>112</sup> See Chapter 6.

much about relations between the Services and between the IO and GoI. The Sub-Committee was set up on bequest of the Prime Minister in April 1930.<sup>113</sup> SoS(Air) started the first meeting in June by emphasising that the Air Staff did not desire wholesale substitution on the NWF, but merely an investigation into where economies could be made without sacrificing efficiency or security. He also quoted C-in-C(India)'s rebuff of Salmond's 1922 *India Report* that 'if, as time goes by and the air policy in Iraq and Palestine prove really successful... I shall be prepared to reconsider my attitude'. SoS(Air) added that a recent Commission had concluded that 'Indian defence cannot, now or in any future which is within sight, be regarded as a matter of purely Indian concern'. SoS(War) responded that he thought that 'the Air Ministry were inclined to assume responsibilities which they could not adequately discharge', although he wanted to avoid 'an interminable, and probably unprofitable, controversy'. SoS(India) proposed that, as the constitutional position was that the defence of India was primarily a matter for the GoI, all the Enquiry's documentation should be sent to the GoI for comment. Importantly, he emphasised that the growing 'Indianization' of India's Legislative Assembly had made India sensitive to anything that could be interpreted as dictation from London. Similarly, he was wary of the NWF's sensitive situation and that any hint of policy changes from London could have 'unfortunate political reactions'. CIGS reminded the Sub-Committee that the military advisor to HM Government on Indian defence was C-in-C(India), while CIGS could only act through the IO.<sup>114</sup> SoS(Air) protested that any final decision would have to be made in

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<sup>113</sup> CC 24 (30) 9. The Sub-Committee was chaired by SoS(India), W Wedgewood Benn (who had been a RFC/RAF pilot in the FWW and would become a pilot again in the Second World War before becoming SoS(Air) in 1945-46), supported by SoS for Foreign Affairs, SoS(War), SoS(Air), First Sea Lord, CIGS, CAS (Sir John Salmond), the IO's Military Secretary, and Wing Commander Peck (then in the Air Staff's Directorate of Operations and Intelligence). The Air Ministry correspondence for this Sub-Committee over the period 1929-31 is in AIR 8/110.

<sup>114</sup> CAB 16/87, Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power), *Minutes of the First Meeting (DI(AP) 1st Meeting)*, 26 June 1930, 2-3. As a result of CIGS's unwillingness to consider the proposal, CAS subsequently refused to pass draft copies of the Air Staff's developing scheme to the GS, despite requests

London, a view supported by CAS (Jack Salmond) who observed that any Air Force opinions in India would be drowned out by the large number of very senior Army officers. SoS(India) thought these Air Ministry's fears were 'perhaps somewhat exaggerated' and decided that the Sub-Committee should only meet again once the GoI's opinion had been received. He did, however, concede to CAS's request to send a senior RAF officer to India to present the Air Staff's views.<sup>115</sup> However, the Viceroy took 'an unexpectedly strong view against this', preferring that AOC(India) (CAS's brother, Sir Geoffrey Salmond) alone should advise him, which the Air Council agreed to, caveating that AOC(India)'s views should be considered as the official view of the Air Staff and that the Air Staff should send Wing Commander Peck to advise him.<sup>116</sup> This concession resulted in an oblique response from the IO which reveals their sensitivity over the independence of India's command chain:

It will no doubt be recognised that the procedure is somewhat unusual, since in the ordinary course the views of the Air Council would be transmitted to the Government of India through the Secretary of State [for India], in order that he might take the opportunity to consider whether he wished to make any comments on them before communicating them for the observation of the Government of India. In the present special case, however, he proposes to await the Government of India's observations...<sup>117</sup>

Reading between the lines, the IO were emphasising that AOC(India) reported to C-in-C(India) and that the Air Staff had no right to discuss policy with him, but should instead communicate with the GoI (not AOC(India)) through the IO.

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from CIGS and the IO (see AIR 8/110, Air Chief Marshal Sir John Salmond, *Letter, Chief of the Air Staff to Under-Secretary of State for India*, 12 August 1930).

<sup>115</sup> Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power), *DI(AP) 1st Meeting*, 2-3. See also CAB 16/87, Lord Thomson, *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power) - Note by the Secretary of State for Air (DI(AP) 3)*, 10 June 1930, 5 and AIR 8/110, Air Chief Marshal Sir John Salmond, *Minute, Chief of the Air Staff to Secretary of State for Air*, 14 July 1930.

<sup>116</sup> AIR 8/110, The Earl Russell, *Letter, Under-Secretary of State for India to Lord Thomson, Secretary of State for Air*, 28 August 1930; CAB 16/87, M P A Hankey, *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power) - Note by Secretary (DI(AP) 7)*, 4 June 1931.

<sup>117</sup> CAB 16/87, Colonel G L Pepys, *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power) - Letter from the Secretary, Military Department, India Office (DI(AP) 8)*, 18 June 1931.



CIGS responded to the Sub-Committee in June with what the Air Staff later described as ‘sweeping denunciations’ of the whole basis of air control, which CIGS accused of being a ‘popular illusion’ created by the Air Ministry which was ‘based on the fallacy that the correct employment of the air arm demands the existence of a separate service’.<sup>118</sup> Indeed, nine of his eleven conclusions criticised air control in general. His commentary revealed that the Army still had a hubric view of the RAF as an auxiliary arm to the Army, as the Air Staff:

... fails to appreciate the fact that the aeroplane is, in the main, one of the weapons to be employed by the authorities responsible for the strategical and tactical direction of our defence forces.

CIGS went on to examine the Air Ministry’s proposal to substitute the Army’s NWF covering troops with aircraft, leaving the political officers’ ACFs to police the tribes with the Air Force’s backing. He highlighted that experience had demonstrated that the ACF’s reliability was dependent on the support of regular troops, and that the RAF would not provide ‘the necessary European counterpoise’. It is apparent from his commentary that CIGS still viewed air power as a purely punitive tool, as he compared air control with the Close Border policy’s punitive columns, stating that ‘it is a little difficult to understand how the Air Staff propose to deal with the general situation, unless it is seriously advanced that the necessity for the occasional trans-frontier air demonstrations or bombing’.<sup>119</sup>

Initially, the GS(India)’s primary argument against substitution was that it was illogical to ‘tie up our most mobile arm – the R.A.F. – in a role of local protection... a role in which it is an essential and invaluable accessory, but in which, as all experience has taught us, it can never play a solo part’, and instead recommended

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<sup>118</sup> CAB 16/87, Field Marshal Sir George Milne, *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power) - Memorandum by the Chief of the Imperial General Staff (DI(AP) 2)*, 4 June 1930, 1; CAB 16/87, Lord Thomson, *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power) - Memorandum by the Secretary of State for Air (DI(AP) 4)*, 17 July 1930.

<sup>119</sup> Milne, *DI(AP) 2*, 1, 9-11.

‘utilizing the R.A.F. as a central mobile central reserve’. They also cited ‘unity of command’ to counter calls for AOC(India) to report directly to the Gol, instead calling for ‘the re-welding of the two services’.<sup>120</sup>

The Air Staff published a supporting memorandum to Trenchard’s swansong entitled ‘What Air Control means in War and Peace and what it has Achieved’.<sup>121</sup> In his detailed response, CGS(India) concluded that: air control would only be effective in minor and localised disturbances; aircraft alone could not support the civil forces as effectively as the Army; air action was purely punitive and frequently inflicted casualties on women and children; the results of air operations were usually less enduring than land campaigns; the cost of air operations was ‘extraordinarily high’; and air control lacked the civilising, pacifying and economic advantages of the policy of the gradual extension of civil administration supported by land forces.<sup>122</sup>

CGS(India) considered it a ‘fallacy’ that any commander would only use one arm when he had joint forces at his disposal, pointing out that the land operations quoted in the memorandum were historical ‘purely punitive’ examples of major expeditions from the Modified Close Border era, which were no longer relevant in the contemporary Modified Forward policy; air control was itself ‘purely punitive’ and ‘a reversion to the discredited “burn and scuttle” policy’.<sup>123</sup>

In January 1931, the Air Staff submitted an unsolicited memorandum to the impending Tribal Control and Defence Committee, through AOC(India), focusing on

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<sup>120</sup> Deverell, *Enquiry into the Extended Use of the RAF on the NWFI*, 2 (also published in January 1932 as CAB 16/87, Lieutenant-General C J Deverell, *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power) - Memorandum by the General Staff, India (DI(AP) 13*), 30 October 1930).

<sup>121</sup> CAB 16/87, Air Staff, *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power) - Memorandum by the Air Staff: What Air Control Means in War and Peace and What it has Achieved (DI(AP) 5*), July 1930.

<sup>122</sup> IOR/L/MIL/17/13/38, Lieutenant-General C J Deverell, *An Examination by the General Staff, India, of the Air Staff Memorandum entitled "What Air Control Means in War and Peace and What it has Achieved"*, 20 January 1930, 13-14.

<sup>123</sup> *Ibid.*, 2, 14.

the elements of Trenchard's swansong pertinent to the NWF.<sup>124</sup> Although it only called for substitution of the Covering Troops, CAS was keen to examine further substitution of the Field Army and Internal Security forces, under pressure from the Finance Minister of the Council of India to generate further savings.<sup>125</sup> The scheme caused 'the most frightful row' in India, partially because it was submitted to the Committee before it had been considered by the GS(India) due to a distribution error.<sup>126</sup> In particular, C-in-C(India) was 'indignant at the idea that any outside agency should have had the audacity to state in detail what reductions are possible' because 'it was for him and him alone to decide'.<sup>127</sup> C-in-C(India), CGS(India) and the Army Secretary unsuccessfully attempted to persuade the Viceroy to withdraw the paper.<sup>128</sup> Nevertheless, AOC(India) reassured them that substitution should be implemented gradually in confidence-building stages;<sup>129</sup> Salmond reflected to the Committee that:

... far too little account has been taken of the advent of Air Power, and too little use has been made of it, to save lives and money, of the new methods which aircraft have made possible. The changes effected by aircraft are nothing less than revolutionary, yet the military defence organisation and methods remain substantially what they were before aircraft existed.<sup>130</sup>

Interestingly, the Committee questioned whether Salmond was presenting the scheme as AOC(India) or a representative of the Air Ministry, which was one of the reasons

<sup>124</sup> Salmond made 'a good many alterations' to the Air Staff's scheme, emphasising that the RAF would operate under the Politicals. However, he was aware that C-in-C(India) was emphatic that he could not be responsible for India's defence if another Service could advise the Viceroy, so Salmond removed the recommendation that the AOC should advise the Viceroy on the conduct of air operations (see: AIR 8/110, Air Marshal Sir Geoffrey Salmond, *Personal letter from Air Officer Commanding, India, to Chief of the Air Staff*, 7 February 1931, 1; AIR 8/110, ———, *Letter, Air Officer Commanding, India, to Chief of the Air Staff*, 8 December 1930).

<sup>125</sup> AIR 8/110, Air Chief Marshal Sir John Salmond, *Personal Letter, Chief of the Air Staff to Air Officer Commanding, India*, 17 December 1930.

<sup>126</sup> Salmond, *AOC(India) to CAS*, 7 February 1931, 1-3.

<sup>127</sup> AIR 8/110, Air Marshal Sir Geoffrey Salmond, *Letter, Air Officer Commanding, India, to Chief of the Air Staff*, 13 February 1931.

<sup>128</sup> AIR 8/110, ———, *Extract from Letter, AOC India to CAS*, No DO 8713/1A/31/Air, 7 February 1931.

<sup>129</sup> IOR/L/MIL/17/13/39, Air Staff, *Air Staff Proposals for the Fuller Employment of Air Power on the North-West Frontier of India (Frontier Defence Committee RAF/1)*, 16 January 1931 (a copy is also in AIR 8/110); Salmond, *AOC(India) to CAS*, 7 February 1931, 3.

<sup>130</sup> AIR 8/110, Air Marshal Sir Geoffrey Salmond, *Explanatory Note on Air Staff Proposals*, January 1931, 2,3.

that CAS had wanted to dispatch a senior Air Ministry officer to India, which the Viceroy had vetoed. Despite Salmond's initial optimism, the Committee decided that they were not competent to deal with the detail of the scheme and referred it back to the Gol, confining their Committee comments to examining the general principles. At the time, Salmond predicted that the Gol would instigate another committee to review the RAF's scheme, chaired by an impartial Member of the Indian Council, which he was optimistic would find in the RAF's favour.<sup>131</sup>

CGS(India) responded in March, stating that 'The Air Staff proposals rest frankly on the bomb', emphasising that the RAF could neither 'prevent large bodies of hostile tribesmen entering our territory at will, nor expel them', citing the 1930 Peshawar incursion as an example.<sup>132</sup> C-in-C(India)'s comments to the Gol concerning Salmond's report are revealing:

[AOC(India)] makes statements and suggestions... which, strictly speaking, are not his business at all, as he is not responsible in any way for the defence of India.... he makes suggestions that are outside his province and on which it is the business of the Commander-in-Chief and the General Staff only to give advice to the Government of India.

Notwithstanding this, C-in-C(India) nevertheless recognised:

... the difficulty of his position, and in view of the fact that he has the right of direct access to the Viceroy in other matters... I forward... his report as it stands, with the remark that I do not agree with his conclusions in the least.<sup>133</sup>

It is apparent that C-in-C(India) felt threatened by both AOC(I) and the Tribal Control

<sup>131</sup> AIR 8/110, ———, *Private & Personal Letter, Air Officer Commanding, India, to Chief of the Air Staff*, 1 December 1930; Salmond, *AOC(India) to CAS*, 7 February 1931; Tribal Control and Defence Committee, *Report of the Tribal Control and Defence Committee 1931*, 2.

<sup>132</sup> IOR/L/MIL/17/13/40 and AIR 8/129, Lieutenant-General C J Deverell, *An Examination of the Air Staff Proposals for the Fuller Employment of the Royal Air Force on the North-West Frontier of India*, 18 March 1931, 1, 3.

<sup>133</sup> Chetwode, *C-in-C(India) to Secretary, Gol*, 1 July 1931. This letter was reproduced for the Enquiry into the Extended Use of Air Power as 'Enclosure 1 to Annexure' in DI(AP) 11 (see CAB 16/87, Sir Samuel Hoare, *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power) - Views of the Government of India (DI(AP) 11)*, 16 December 1931, 8-9). A copy is also in a draft of DI(AP) 11 at IOR/L/MIL/17/5/1791, Colonel G L Pepys, *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power) - Views of the Government of India (Uncorrected Proof Copy of DI(AP) 11)*, 16 December 1931, 108.

and Defence Committee's recommendation that air forces should be controlled politically, as had been the case during the 1930 Peshawar disturbances. C-in-C(India) observed that this was 'not only fundamentally unsound, but positively dangerous and prejudicial to my position as supreme commander of the Land and Air Forces in India'.<sup>134</sup> Indeed, the GS(India) had submitted an amendment to the *Instructions Regarding the Employment of Aeroplanes on the North-West Frontier* which transferred control from the Foreign Secretary to C-in-C(India). The Viceroy subsequently gave a more considered response to the Tribal Control and Defence Committee's report which acknowledged a 'fundamental divergence in expert opinion'. Nonetheless, he considered that the policy of 'close and continued intercourse with the tribesmen' was best pursued by the presence of troops as the NWF conditions did 'not afford an exact parallel' with Iraq and Transjordan, where the British mandate was of limited duration and the strategy was one of increasing disengagement rather than increasing interaction with the population.<sup>135</sup> The Viceroy did not want 'the substitution of an unknown for a known factor' and considered that 'the onus of proving that such a risk is justified must rest on the advocates'.<sup>136</sup> In December 1931, SoS(India) informed the CID's Defence of India Sub-Committee that the GoI wished their response to the Tribal Control Committee's report to be regarded as their views on the extended use of air power on the NWF, contrary to Salmond's prediction of a further committee of inquiry.<sup>137</sup> However, before this 'intricate and

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<sup>134</sup> Chetwode, *C-in-C(India) to Secretary, GoI, 1 July 1931*.

<sup>135</sup> Willingdon et al., *Letter, GoI to SOS India, 15 September 1931*, 3 (later reproduced as Appendix B in Hoare, *DI(AP) 11*). Harris conveniently summarised the aim in Iraq in the notes of his individual presentation while a student at Army Staff College in 1929 as follows: 'Raise an Iraqi Army, and progressively lighten our commitment by handing over control to the Iraqi Govt. And their own Army'. Thus, the context was very different to the 'Modified Forward' policy on the NWF. See Harris, "Air Control in Iraq, and Elsewhere": 2.

<sup>136</sup> Willingdon et al., *Letter, GoI to SOS India, 15 September 1931*, 3.

<sup>137</sup> Hoare, *DI(AP) 11*, 1. Indeed, SoS(Air) and CAS had been warned by the Under-SoS(India) in December 1930 that the decision would probably be made by the Governor-General's Council in consultation with their military and air advisors, the Finance Member, the Chief Commissioner, NWFP, and the Foreign Secretary, despite the formers' request for an independent inquiry (see: AIR 8/110, The Earl Russell, *Letter, Under-Secretary of State for*

contentious' issue could be discussed by the CID's India Sub-Committee, SoS(India) postponed further meetings 'until conditions were more favourable'.<sup>138</sup> The Sub-Committee never met again.

On face value, it would appear that the GS(India) were not familiar with the coercive use of aircraft, insisting that the air method was purely punitive and relied on the bomb.<sup>139</sup> However, by the same logic, land operations could have been similarly described as reliant on 'the bullet'. Both analogies are shallow and dogmatic, ignoring the secondary coercive, stabilising effects that result from the latent threat of the "mailed fist in the velvet glove" that both Services ultimately relied on.<sup>140</sup> Similarly, both Services could provide a wide range of graduated, non-lethal, capabilities, such as logistical and medical resupply, security for the civil authorities, famine relief, etc. The Army's dialogue also falsely characterised the debate as a dichotomy between an 'RAF-only' option and joint operations, whereas both methods relied on policing by local irregulars, backed by the potential threat of land or air-based regular forces. Furthermore, AOCs had proved themselves adept at understanding the employment of combined arms forces, as illustrated by Salmond in the 1923 Kurdistan operations.<sup>141</sup> The Army's reaction to Trenchard's proposals may have been normative cultural unfamiliarity, with the Army defaulting to using air power as an auxiliary for their own immediate tactical destructive needs, being culturally blind to

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*India to Secretary of State for Air*, 16 December 1930; AIR 8/110, ———, *Letter, Under-Secretary of State for India to Chief of the Air Staff*, 18 December 1930; AIR 8/110, Lord Amulree, *Letter, Secretary of State for Air to Under-Secretary of State for India*, 8 December 1930).

<sup>138</sup> CAB 16/87, Sir Samuel Hoare, *Committee of Imperial Defence: Defence of India Sub-Committee (Enquiry into the Extended Use of Air Power) - Note by the Secretary of State for India*, 27 January 1932.

<sup>139</sup> Deverell, *Examination of Air Staff Proposals for the NWF*, 1931, 1. The RAF had consistently articulated the coercive nature of the air blockade, at this instance as recently as January 1929 in ASM 41.

<sup>140</sup> Roe, *Waging War in Waziristan*, Chapter 6.

<sup>141</sup> See Chapter 6. Senior RAF officers of this era had all originally been officers in the Army or Royal Navy; the first Cranwell cadet to become CAS was Sir Dermot Boyle in 1956. Of his ten predecessors, only one had been a naval officer (Sir William Dickson). Of the remainder, all but one had been in the Army's 'tooth arms', 45% of them from the infantry.

the more sophisticated methods of employing aircraft. Conversely, their refusal to acknowledge coercive air power may have been a deliberate attempt to undermine the Air Staff's argument. Against this background of Army criticism about the punitive nature of air control, it is interesting that the Army, in the late 1930s, were insisting that the RAF's primary role on the NWF was proscriptive and destructive air action.<sup>142</sup>

Trenchard's swansong soured Air Ministry-Indian Army relations until at least 1935, when Ludlow-Hewitt replaced Steel as AOC(India). The Air Staff viewed Chetwode as being obstructive towards the independent use of air power during his tenure as C-in-C(India). Chetwode blamed Trenchard's 'ill-advised' swansong for the inter-Service friction.<sup>143</sup> However, Ludlow-Hewitt's appeasement was not mirrored by the Air Staff: an October 1935 internal paper noted that there was every indication that the 'R.A.F. method' would never be permitted to be trialled on the NWF, 'the reason for this is largely fear of reductions being made in the land forces of INDIA'. However, the paper suggested that it was 'a propitious time to re-open the question' due to the strain of the 1935 Mohmand Campaign on the Indian Armies, which might make 'India' receptive to the extended use of the RAF on the NWF and might allow the air method to prove its worth, following which, 'all the other economies which we originally advanced will be the natural sequence'.<sup>144</sup> However, there is no evidence that any further action was taken. CAS summarised the Air Ministry's perspective in a June 1937 minute to SoS(Air) during operations against the Fol:

the use of the R.A.F. in India has for many years caused the Air Ministry considerable anxiety. As a result of Lord Trenchard's swan song in 1929... the Indian army, seeing its vested interests threatened, became thoroughly alarmed and have pursued, until recently, a policy of preventing the air force from proving its power by insisting on the participation of land forces on every occasion. The result of this policy is that at present some 40,000 troops are endeavouring to

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<sup>142</sup> See, for example, Chapter 7's analysis of the *Combined Frontier Manual*.

<sup>143</sup> See Waldie, "Relations Between the Army and RAF, 1918-39", 211.

<sup>144</sup> Darvall, *Air Power on the NWF of India*, 16 October 1935.

deal with a situation which probably would not have arisen if, in the early stages of trouble, the Air Force had been properly used.<sup>145</sup>

## MORAL OBJECTIONS TO THE USE OF AIR POWER

In 1922, Chamier, the Air Ministry's Deputy Director of Operations and Intelligence, tasked the RAF's Director of Research with a technical assessment of the effectiveness of various 'forms of annoyance'. These were designed to control tribal behaviour 'less on the probable destruction of life and property than on affecting their morale by making life a burden to them. In other words we rely on "frightfulness" in a more or less severe form'.<sup>146</sup> Chamier's loose use of the emotive term "frightfulness" was unfortunate, as the British had adopted this term during the FWW to refer to German war crimes.<sup>147</sup> During the inter-War period, "frightfulness" became associated with "terror bombing" following the 1937 bombing of Guernica.<sup>148</sup> Subsequently, the term became increasingly associated with aerial bombing of civilian targets, such as the London Blitz. Nonetheless, in 1925, the GoI had reassured SoS(India) that: 'we do not think there is any serious danger of our frontier administration acquiring a reputation for the employment of methods of barbarianism'.<sup>149</sup>

<sup>145</sup> AIR 2/2065, Marshal of the Royal Air Force Sir Edward L Ellington, *Minute, Chief of the Air Staff to Secretary of State for Air*, 23 June 1937.

<sup>146</sup> The weapons investigated included: long-delay bombs to keep tribesmen out of their villages by night; phosphorus bombs to alarm tribesmen, "war rockets" to flush tribesmen out of scrub; "crows-feet" to lame cattle; harmless "stink cartridges" to inconvenience tribesmen; "throwdowns" designed to produce a loud noise but no damage; "liquid fire" to burn crops and houses; crude oil to contaminate some (but not all) wells; "gliding bombs" for use against caves; smoke bombs; and tracer ammunition. See AIR 5/264, Group Captain J A Chamier, *Forms of "Frightfulness"*, 16 December 1922, which is reproduced at [Annex 16](#).

<sup>147</sup> See, for example: "Frightfulness Again", *Flight*, 26 December 1918.

<sup>148</sup> See, for example: Grayzel, *At Home and Under Fire*, 187. Interestingly, Corum suggested that 'The facts about the bombing of Guernica bear little resemblance to the myth', in that the town was not targeted to demoralise the civil population (a myth initiated by the *New York Times*), but was rather 'a purely tactical operation' to interdict an important road junction to hamper the withdrawal of 23 Basque army battalions. Of particular relevance to this Thesis, Corum concluded from his analysis of Condor Legion daily reports that "Due to the poor accuracy of bombers against point targets, the airmen found that villages made better targets'. See James S Corum, "Inflated by Air: Common Perceptions of Civilian Casualties from Bombing" (Air University, 1998), 7-8.

<sup>149</sup> Reading, *CID 141D*.



Given the changing nature of the term “frightfulness” over time, it is perhaps not surprising that Chamier’s 1922 investigations have been the subject of significant subsequent criticism by various authors. Townshend noted that ‘There was no sign of discomfort at the adoption of an approach to warfare which had so recently caused the Germans to be branded as barbarians’.<sup>150</sup> Saint-Amour, analysing Townshend’s comments (but not the primary source) concluded that the RAF underwrote these ‘diabolical weapons and terror techniques – against racially marked bodies in colonial spaces remote from the metropole’.<sup>151</sup> Headrick used Chamier’s investigation as his justification for applying the term “frightfulness” to air control generally.<sup>152</sup> None of these commentators mentioned that Chamier’s paper was merely a technical assessment and only Headrick noted that these weapons were not developed for ‘both moral and technical reasons’.<sup>153</sup> It is clear from the primary source that Chamier’s objective was to generate an emotive response through sensory shock or general inconvenience (rather than a physical effect) via a variety of novel, largely non-lethal, methods; in other words, the weapons were designed to “frighten” rather than “kill”, similar to the more recent coercive technique of “shock and awe”.<sup>154</sup> While these weapons were being contemplated, Chamier had briefed RUSI that punitive aerial action against intransigent tribes should be ‘relentless and unrelenting’ (which, as previously noted, an Army officer in the audience described as ‘rather the Hun method’).<sup>155</sup> Nonetheless, Trenchard’s biographer added that ‘severity was not to be

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<sup>150</sup> Townshend, “Civilization and ‘Frightfulness’: Air Control in the Middle East Between the Wars”, 151.

<sup>151</sup> Saint-Amour, *Tense Future*, 81.

<sup>152</sup> Headrick, *Power over Peoples*, 317.

<sup>153</sup> Unfortunately, the policy documents have not survived, other than a simple acknowledgement by DCAS (see AIR 5/264, Brigadier-General R K Bagnall-Wild, *Minute, Director of Research to Air Commodore Chamier, Deputy Director Operations and Intelligence* 28 December 1922).

<sup>154</sup> Nonetheless, some of these weapons delivered shock through localised lethal effects.

<sup>155</sup> Chamier, “The Use of the Air Force for Replacing Military Garrisons”: 213. See Chapter 3 for an analysis of Chamier’s lecture.

misconstrued as “frightfulness”.<sup>156</sup> However, this punitive policy was swiftly overtaken the same year with the publication of CD22, whereafter moral effect was achieved via aerial surveillance, with lethal force only being applied when non-lethal measures had failed. Thus, Chamier’s ‘forms of frightfulness’ represent a brief investigation into a technique that was discarded and rapidly superseded.

The Army consistently criticised the air method for its inability to discriminate between the guilty and their women and children, stating that it was ‘aimed against the whole population’, in contrast to troops whose aim was to bring the fighting men to battle in the field, sparing women and children.<sup>157</sup> The RAF consistently argued from 1924 onwards that the aim of the air blockade was not to cause casualties, but to dislocate daily life using the minimum force necessary. Furthermore, warning notices minimised the risk of women and children remaining in a village while it was bombed. The RAF unswervingly contented that aircraft caused less casualties to both sides than land operations.<sup>158</sup> The 1931 Tribal Control and Defence Committee reported that ‘Experience has shown that, if due warning is given, air action against villages ordinarily causes very insignificant loss of life’.<sup>159</sup> The Army countered this claim with material examples to the contrary;<sup>160</sup> CGS(India) opined in 1931 that ‘the bomb... never can and never will be accepted by any civilized nation’.<sup>161</sup> However, the Air Staff considered that claims about indiscriminate casualties were ‘really a political cry

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<sup>156</sup> Boyle, *Trenchard*, 390.

<sup>157</sup> See, for example, IOR/L/PS/12/3171, Lieutenant-General Kenneth (Chief of the General Staff Wigram, India), *General Staff Criticism of the Tribal Control and Defence Committee*, 19 May 1931, 5.

<sup>158</sup> For example, during a 1925 operation, it is estimated that there were only 11 humans killed and wounded after 154 tons of bombs and 100,000 rounds of ammunition had been expended. See IOR/L/PS/12/3260, Viceroy Earl of Reading, *Letter to Secretary of State for India: Principles to be Adopted in Flying on the Frontier*, 15 October 1925 (this letter was subsequently circulated to the CID’s COSC as: Reading, *CID 141D*).

<sup>159</sup> Tribal Control and Defence Committee, *Report of the Tribal Control and Defence Committee 1931*, 32. See also the analysis in Chapter 5 to 7.

<sup>160</sup> CGS(India) claimed that, during the bombing of the Massozai in 1930, 65 people were killed or wounded, more than half reportedly women and children, 98 animals were killed, 69 houses destroyed, 852 trees and 9 gardens destroyed, and 192 acres of crops wrecked. See Wigram, *General Staff Criticism of the Tribal Control and Defence Committee*, 5.

<sup>161</sup> Deverell, *Examination of Air Staff Proposals for the NWF*, 1931, 1.

raised by those, both tribesmen and others, who are at their wits' end to find a means to counter the effect of air action'.<sup>162</sup> Beaumont noted that the Air Council censored casualty figures from the Pink's War despatch in early 1925, indicating that this was a sensitive subject in the public forum, both for the RAF and the WO, who supported the redaction.<sup>163</sup> Based on this, Vincent Orange concluded in 2006 that "air action" often caused significant losses to humans, animals and crops', inferring that the RAF consistently concealed casualty figures throughout the period.<sup>164</sup> Similarly, Townshend's secondary-source analysis of Beaumont's work led him to write that there was 'no doubt that the RAF doctored its reports to make [casualties] look much smaller than they were'.<sup>165</sup> Similarly, Renfrew concluded in 2015 that 'Every effort was made... to cover up or play down the bombings and their impact'.<sup>166</sup> However, with no other archival evidence to support these statements, they were, perhaps, dubious conclusions to draw from a single event. Certainly, casualty figures were freely discussed between the RAF and Army throughout the period. Sir Henry Dobbs, a senior diplomat who served in Indian, Kabul and Iraq, responded to a critical 1932 editorial in *The Times* as follows:

I have personally watched the employment of both methods on the Indian Frontier and in Iraq, and can vouch for the immense superiority of air operations in efficiency and humanity. In the first place, a mere demonstration by aeroplanes over disturbed areas, if promptly made before the spark has become a blaze, brings insurgents to heel in nine cases out of 10 without dropping a single bomb... In the second place, villages are not bombed until the inhabitants have had time and opportunity to clear out, and the destruction of property wrought by air-bombs is much less than that wrought on the Indian frontier under the old "scuttle and burn" policy by ground troops, when not only were all

<sup>162</sup> AIR 9/12, E38, *Some Criticisms Levelled in Certain Quarters against the Use of Air Power in 1930*, 6.

<sup>163</sup> Beaumont, "A New Lease on Empire": 88; Nicholson, *Secretary, Air Ministry, to Under SOS(India)*, 17 August 1925; Trenchard, *CAS to DDOl*, 27 August 1925; Wilson-Johnston, *IO to Air Ministry*, 2 September 1925. This redaction is discussed in Chapter 6's section on Pink's War.

<sup>164</sup> Orange, *Slessor: Bomber Champion. The Life of Marshal of the RAF Sir John Slessor*, GCB, DSO, MC, 34.

<sup>165</sup> Townshend, "Civilization and 'Frightfulness': Air Control in the Middle East Between the Wars", 147.

<sup>166</sup> Renfrew, *Wings of Empire*, 156.

buildings razed to the ground and grain stores burnt, but even the village fruit-groves, the result of the labour of generations, were by order destroyed. This was a much more embittering experience for the villagers.<sup>167</sup>

However, Dobbs' lack of intimate knowledge was revealed by his dismissal of the RAF's use of delayed-action bombs in Kurdistan: 'I cannot believe this is true, as it is quite contrary to the traditions of the RAF in Iraq'.<sup>168</sup> In fact, the Air Staff endorsed their use until at least 1938 and they were only withdrawn on the Army's insistence.<sup>169</sup> The Air Ministry did not deny that women and children were occasionally killed.<sup>170</sup> However, the situation was complex. Referring to punitive proscription in 1937, Masters wrote:

Aircraft attacked the sheep and goats surreptitiously sent out to graze, or fired on bands of people, sometimes containing women, as they scurried about in forbidden territory. The tribesmen tied out a few useless old women in the hope of collecting blood money for them, and sometimes the airmen could not see the ropes or the disguise of male clothing, and duly killed them. Buildings were occasionally damaged by accident, though I suspect this was done by the tribesmen in the middle of the night with picks and crowbars since, from what I saw, the twenty-pound bombs could hardly knock the plaster off those strong towers... Aerial proscription was as sound, humane, and economical a weapon as any.<sup>171</sup>

Embry revealed that, while on the Air Staff(India), he had no idea about tribal casualties and had to invent an answer to a Parliamentary Question on the subject.<sup>172</sup> Overall, the exact number of tribal casualties resulting from air action remains unclear. Certainly, the biographies of airmen who served on the NWF indicate that they believed air power was more humane than the Army's alternative.<sup>173</sup> However, some

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<sup>167</sup> H Dobbs, "Letter to the Editor: Order in Iraq: Employmnt of the R.A.F", *The Times*, 29 September 1932.

<sup>168</sup> Ibid.

<sup>169</sup> As described in Chapter 7's description of the Combined *Frontier Manual*.

<sup>170</sup> See, for example, ASM 19, as described in Chapter 6.

<sup>171</sup> Masters, *Bugles and a Tiger*, 215-216.

<sup>172</sup> 'An accurate reply would have been impossible even after weeks of research' - Embry, *Mission Completed*, 77.

<sup>173</sup> Slessor, for example, wrote 'There is no truth whatever in the charges of brutality or of special suffering imposed on women and children... We went out of our way to minimize the loss of life and human suffering that is inevitable in any form of warfare' (Slessor, *The Central Blue*, 67); Sir David Lee wrote 'casualties from air attack were negligible... It was a humane

Air Ministry files, such as *Suggested systems of attack against uncivilised tribes*,<sup>174</sup> were not released for 75 years, indicating that methodology and casualties remained sensitive subjects. Conversely, RAF casualties in all overseas territories during the period 1920-1932 amounted to only 12 killed and 14 wounded.<sup>175</sup> Nonetheless, the air method was not completely one-sided. Masters revealed an infantry perspective:

At first the Pathans thought aeroplanes were unsporting... By the 1930s they had become adept at shooting down aircraft and no longer thought the use of planes unfair. Sometimes they welcomed their arrival because there is a lot of loot in a crashed war-plane and, by Pathan standards, the chance of getting it was well worth the price of a few bombs and machine-gun bullets.<sup>176</sup>

Many critics only considered proportionality in absolute terms, overlooking that the Army's method also produced casualties. Matthews contended that the attitude of the majority of British Frontier officers towards tribesmen prior to 1925 was 'Emphatically to kill as many as possible' and to 'destroy his villages and stores of food and capture his cattle and sheep'.<sup>177</sup> Even as late as 1937, Masters recorded that the Army 'took few prisoners at any time, and very few indeed if there was no Political Agent about'.<sup>178</sup> In 1939, General Hartley, who had commanded Waziristan, told the Chatfield Committee that he preferred to use troops when possible, rather than aircraft, because the former could inflict more casualties and were more discriminative.<sup>179</sup>

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and economical method of control... [a]lthough not always popular with the Army as it reduced their opportunities for exciting but often costly operations' (Lee, *Never Stop the Engine when it's Hot*, 134-135).

<sup>174</sup> AIR 5/264, *Suggested Systems of Attack Against Uncivilised Tribes*, 1922.

<sup>175</sup> AIR 9/12, E59, Air Staff, *Reasons Why the Bombing of Villages Overseas is Essential*, 14 November 1932, 2. As described in Chapter 6, ASM 19 had highlighted the importance of minimising friendly casualties in order to both maintain public support and minimise the effect on British womenfolk.

<sup>176</sup> Masters, *Bugles and a Tiger*, 213-214.

<sup>177</sup> Matthews, *An Ever Present Danger*, 49 quoting Colonel J P Villiers-Stuart, *Letters of a Once Punjab Frontier Force Officer to His Nephew: Giving His Ideas on Fighting on the North West Frontier and in Afghanistan* (London: Sifton Praed, 1925).

<sup>178</sup> Masters, *Bugles and a Tiger*, 208-209.

<sup>179</sup> AIR 23/5388, Air Marshal C L Courtney, *Hand Written Notes from Chatfield Committee Interviews: Tendency to Incline to Column Operations in Preference to Air Operations: Evidence of General Hartley* 1938.

## TRIBAL RESENTMENT

The RAF had to withstand consistent Army charges that aircraft generated tribal resentment.<sup>180</sup> A 1923 Gol enquiry concluded that 'Air operations... are not in their actual effect, inhumane'.<sup>181</sup> This was probably a reaction to publicity in England over two 'particularly distressing' outrages against British women on the NWF which a former SoS had attributed to tribal retaliation to bombing, something the Viceroy rejected: 'there is no evidence whatsoever to support this theory... The perpetrators ... have never attempted to plead this justification'. Interestingly, the Viceroy acknowledged the moral effect of bombing on tribesmen: 'There is no doubt of the potency of the fear of becoming subject to air operations' but that:

the tribesmen probably dislike land and air operations equally, except the in latter his prized inaccessibility is taken from him and his opportunities for hitting back are far more limited.

Nevertheless, the Viceroy acknowledged that air power could be applied so easily that it could be misused by political officers, a problem the Gol mitigated by maintaining the control of air power 'almost entirely in our hands'.<sup>182</sup> Thus, even at this relatively early stage, it is apparent that the Gol understood not only air power's ability to influence, but also the sensitivity of some groups over its application. Similarly, the 1931 Tribal Control and Defence Committee, following a survey of Pathans and Indians with first-hand knowledge, concluded that 'it has not been proven that air action does cause greater resentment than the use of other kinds of force'.<sup>183</sup> AOC(India) added: 'I suggest that, once and for all, this charge against the inhumanity

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<sup>180</sup> See the discussion in Chapter 5.

<sup>181</sup> AIR 9/12, Enclosure 57A, Air Plans, *Fallacies of "Inhumanity" and "Rancour"*, October 1932.

<sup>182</sup> Reading, *CID 141D*.

<sup>183</sup> Tribal Control and Defence Committee, *Report of the Tribal Control and Defence Committee 1931*, 32.

and harmful effect of air action should be set at rest'.<sup>184</sup> However, CGS(India) countered that 'our recent experience on the frontier compels us to disagree'.<sup>185</sup> Nonetheless, Burt-Andrews, a late 1930s NWF pilot, recorded the villagers' reaction to the targeting of their village:

I can testify from personal experience, the entire population could be seen sitting in grand stand formation on the hills round the area to watch the show... the villagers showed no signs of panic or distress as one flew over them.<sup>186</sup>

The RAF employed a variety of bombs to achieve different effects.<sup>187</sup> Practice bombs were used to encourage lingerers to leave their villages during air blockades, followed by small, 20-pound bombs to deter tribesmen from returning. Heavier bombs and incendiaries were used in punitive operations to cause physical destruction.<sup>188</sup> The Army often criticised the RAF for not causing sufficient damage.<sup>189</sup> Such comments miss the point, as the desired effect was often moral, rather than physical. Nonetheless, air action could cause considerable damage to buildings when required. OC 2(Indian) Wing visited two villages that had suffered punitive destructive air action in 1930, finding that, although houses appeared almost intact from the air, the precious wooden roof supports had collapsed, making them uninhabitable.<sup>190</sup> Despite the damage, he reported that the residents 'seem to bear no animosity to us'.<sup>191</sup>

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<sup>184</sup> IOR/L/MIL/PS/12/3171, Air Vice-Marshal J M Steel, *Comments of the Air Officer Commanding, Royal Air Force, India, on the Report of the Tribal Control and Defence Committee*, 10 June 1931, 13.

<sup>185</sup> Wigram, *General Staff Criticism of the Tribal Control and Defence Committee*, 5.

<sup>186</sup> Air Commodore C B E Burt-Andrews, "Guarding the Mountain Wall: Air-power on the Northwest Frontier of India", *RAFQ* (1974): 213-214. His biography is at [Annex 7](#).

<sup>187</sup> See examples in Chapters 3, 5 and 6.

<sup>188</sup> See *Air Staff (India) Memo No. 1 (draft)*, 4-5; "Official History of NWF Ops, 1920-35", 194.

<sup>189</sup> The Viceroy wrote in 1925 that 'Experience has now shown that the damage to personnel and even to material that air operations can inflict under the peculiar conditions holding on most parts of the frontier is very small'. See Earl of Reading, *Letter to Secretary of State for India: Principles to be Adopted in Flying on the Frontier*.

<sup>190</sup> See [Figure 16](#).

<sup>191</sup> See IOR/L/PS/12/260, Wing Commander H V C de Crespigny, *Ground Reconnaissance - Palli - Kala Kalai - Jindai Khar, Carried out 3rd August, 1930, 4 August 1930*, 2. These villages in the Dir Agency had been bombed as part of the Red Shirt uprising described in Chapter 6.

Village	Palli	Kala Kalai
Houses destroyed	25%	35%
Houses damaged	30%	30%
Houses undamaged/slightly damaged	45%	35%

Figure 16 – Battle Damage Report, Waziristan, 1930<sup>192</sup>

## PUBLIC PRESSURE

Public opinion also influenced the IO to restrict offensive air action. Pressure groups were predominantly organisations such as the Labour Party, women's organisations, religious and peace groups, who could be expected to adopt an anti-bombing position.<sup>193</sup> Of the twenty-two letters received by the IO between 1935 and 1937, only one was from an individual, indicating that the NWF was not a cause of significant concern for the UK population as a whole; opposition could be expected from pressure groups and their criticism could be easily dismissed.<sup>194</sup> A common 1937 theme was the perceived hypocrisy of Britain's criticism of air action by the Italians in Abyssinia and fascists in Spain while RAF aircraft bombed tribesmen on the NWF. The National Peace Council enquired if the cause of the NWF disturbances were economic, urging an investigation into the tribesmen's human needs, to which the IO's Military Secretary noted:

I agree that the cause of trouble in the tribal territory is economic. For yrs the G of I have with considerable success been trying to cure this by improving communications, by paying the inhabitants for their services & by encouraging them to indulge more freely in agriculture... The present trouble is not with those who have fallen in with this programme but with those who, rather than work for their living prefer to get it by raiding their neighbours.<sup>195</sup>

<sup>192</sup> From: Ibid., 1-2.

<sup>193</sup> A list of the letters received by the IO between 1935 and 1938 is at [Annex 17](#).

<sup>194</sup> See [Figure 17](#).

<sup>195</sup> IOR/L/PS/12/3251, Major-General Sir Roger C Wilson, *Response to letter from the National Peace Council*, 26 April 1937.



**India Office Correspondence from Members of  
the Public regarding Policy (including air action)  
on the NWF, 1935-39**

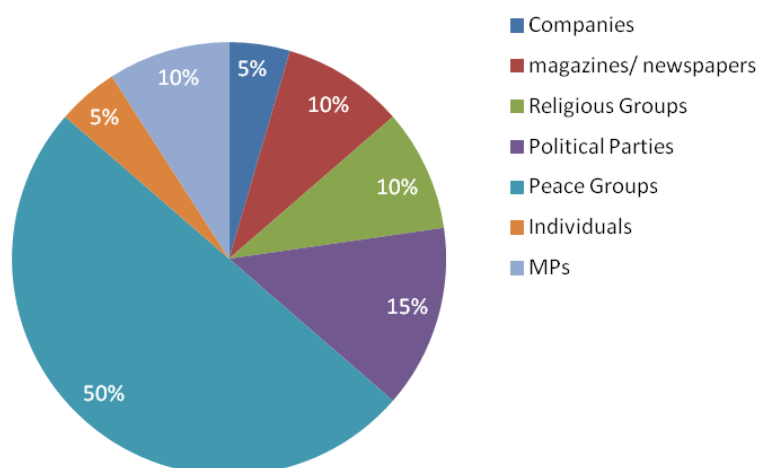


Figure 17

Nonetheless, the IO was certainly sensitive to press criticism of air action. In a 1937 minute to SoS(Air), CAS wrote that the IO:

believe that whenever a bomb is dropped on the Indian Frontier the greater part of the population of England hold up their hands in horror and the majority of the Members of Parliament put down questions.<sup>196</sup>

Press pressure was exemplified by letters published in the 1935 Manchester Times, quoting an Army doctor's eye-witness account:

When our troops enter a bombed village the pariah dogs are already at work eating the corpses of the babies and the old women who have been killed. Many suffering from ghastly wounds, especially some of the children, are found still alive covered with flies and crying for water. As all uninjured adults have fled, these mutilated women and children must perforce lie unattended.<sup>197</sup>

However, Air Staff analysis revealed that the 'eye witness' had never visited India and had been merely speculating on the effects of bombing.<sup>198</sup> Chamier, then Secretary-General of the Air League responded, highlighting the significant number of casualties

<sup>196</sup> Ellington, CAS to Secretary of State for Air, 23 June 1937.

<sup>197</sup> H Binns, "Letter: Bombing Frontier Tribes: A Soldier on Its Effects," *Manchester Guardian*, 25 March 1935 quoting Lieutenant-Colonel A Osburn, "Letter: Bombing from the Air," *News Chronicle*, 5 June 1933, both recorded in AIR 9/12, E97.

<sup>198</sup> AIR 9/12, E97, Minute to M P Murray, PS to Secretary, Air Ministry, 27 March 1935.

resulting from land operations, ending with ‘the inhumanity of air control on our frontiers exists only in the brains of those who have no experience of it’.<sup>199</sup> This incident illustrates not only the moral argument, but also the image that “police bombing” conjured in the public’s mind and the influence of emotive hearsay.

Not all press reports were critical. An extensive 1933 two-part article in *The Times* supported the air method, explaining that:

The influence of air power... seems to depend more on moral effect than on the infliction of material damage... Air power on the Frontier, as these articles have shown, is not inhumane.<sup>200</sup>

This catalysed five MPs to respond in *The Times*, stressing the air method’s advantages in precision and reach over ‘older methods’.<sup>201</sup> The British authorities’ sensitivity to press criticism was retrospectively highlighted by the comments of a Pakistan Air Force pilot in 1960 who had been involved in targeting tribal villages: ‘of course we don’t have the London “Times” on our necks so there is no nonsense about dropping warning leaflets’.<sup>202</sup>

## DIPLOMATIC PRESSURE

Air power was also constrained by national and international diplomatic pressure. For example, the British Envoy in Kabul wrote to CAS in October 1932 enquiring if the tribes could be coerced without killing non-combatants and if air control was compatible with the Modified Forward policy’s progressive civilisation of the tribes.<sup>203</sup> Salmond’s thirteen-page response highlighted how air control in Southern Iraq had

<sup>199</sup> AIR 9/12, E97, Air Commodore J A Chamier, *Letter to the Editor, Manchester Guardian*, 27 March 1935.

<sup>200</sup> Aeronautical Correspondent, “Guarding the Frontier: I - Air Power and the Tribes”, *The Times*, 30 May 1933 and ———, “Guarding the Frontier: II - Moral Effect of Bombing”, *The Times*, 2 June 1933, both in AIR 9/12.

<sup>201</sup> Winterton et al., “Aircraft for Police Purposes: North-West Frontier Operations: Bombs or Artillery Fire?”, *The Times*, 2 June 1933.

<sup>202</sup> Burt-Andrews, “Guarding the Mountain Wall”: 217.

<sup>203</sup> The Envoy (Sir Richard Maconachie)’s position was that he would support air action if it was reasonably unlikely to harm non-combatants or only destroy the property of hostile individuals.

resulted in less than six non-combatant casualties in the previous three years.<sup>204</sup>

Nonetheless, the IO remained sensitive to the diplomatic ramifications of bombing.

AOC(India) informed CAS in 1936 that the improving Army-RAF relations in India were ‘probably influenced by the [Army’s] reflection that, in view of the strong political opposition to the use of air forces in tribal country, they need no longer fear competition’.<sup>205</sup> When new *Instructions Governing the Employment of Armed Forces in the Maintenance of Tribal Control on the NWF* were re-issued in 1941, SoS(India)’s advisor commented that:<sup>206</sup>

In my opinion this is a terrible document which I can only hope will never be seen by our friends in the U.S.A. and elsewhere or by our enemies who will make great capital out of it,<sup>207</sup>

illustrating the influence of both Axis anti-colonial propaganda and American idealism.

Furthermore, as previously described in this Chapter, the GoI being increasingly sensitive to the growing ‘Indianization’ of India’s Legislative Assembly during the 1930s which limited the British Government’s willingness to force decisions on India, thereby restricting the influence of the COSC and Air Staff. Indeed, in 1938 the Chief Commissioner of Baluchistan admitted to the Chatfield Committee that ‘there was always a disinclination to use air forces on account of the political outcry which is

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<sup>204</sup> AIR 9/12, E65, Chief of the Air Staff, *Letter to Sir Richard Maconachie*, 10 January 1933.

<sup>205</sup> Ludlow-Hewitt, *Letter: Air Officer Commanding, RAF India, to Sir Edward L Ellington, Chief of the Air Staff*.

<sup>206</sup> Defence Department, *Employment of Aeroplanes on the NWF*, 1928. There were some minor amendments to these Instructions, such as the 1939 delegation of authority to conduct reconnaissance flights to District Officers of the Frontier Constabulary, Superintendents of Police and the Commandant of the South Waziristan Scouts, rather than just to the local Political Agents. See The National Archives (TNA): IOR/L/PS/12/3260, *Telegram: Amendment to "Instructions regarding the control of operations, including the employment of air forces, on the North-West Frontier of India, 1932"*, 16 October 1929.

<sup>207</sup> IOR/L/PS/12/3260, Sir Horace Williamson, *Untitled Memo*, 9 May 1941. Williamson had been Inspector-General of the Indian police and Director of the Delhi Intelligence Bureau, then a Member of the Council of India, retiring to England to become Advisor to SoS India in 1937 (see John F. Riddick, *The History of British India: A Chronology* (Westport: Praeger, 2006), 327).

produced'.<sup>208</sup> In their evidence to the same Committee, both AOC(India) and his Senior Air Staff Officer (SASO), Peck, submitted that political intervention regularly occurred that was detrimental to ultimate success, often by junior political officers for local reasons; air power was often not used in the manner advocated by AOC(India) on political grounds, so the political and military authorities required educating.<sup>209</sup> For these reasons, Peck and his previous AOC(India), Ludlow-Hewitt, advocated giving AOC(India) more access to the GoI, and the Foreign Secretary in particular, to explain his needs.<sup>210</sup>

The international community also influenced the development and application of Indian air policy. The 1932 World Disarmament Conference at Geneva became a highpoint of debate. Prime Minister Baldwin's Government generally supported the abolition of offensive bombing due to its perceived destructive power, under the premise that 'there is no power on earth that can protect [the UK population] from being bombed'.<sup>211</sup> Supporters of abolishing aerial bombing feared that aircraft could overfly Britain's historical maritime barrier and devastate its cities and vital shipping. A letter in *The Times* summarised the argument:

If bombing is abolished, Great Britain recovers her insular security; ...To maintain bombing for the sake of operations against the Pathans is to sacrifice

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<sup>208</sup> AIR 23/5388, Air Marshal C L Courtney, *Hand Written Notes from Chatfield Committee Interviews: Tendency to Incline to Column Operations in Preference to Air Operations: Evidence of Sir Aubrey Metcalfe* 1938.

<sup>209</sup> AIR 23/5388, ———, *Hand Written Notes from Chatfield Committee Interviews: Precis of Evidence on Full Use of Air Force on Frontier* 1938. Bottomley had complained to AOC(India) about political interference in 1937 while he commanded 1(Indian) Group (see AIR 23/5388, Group Captain Norman H Bottomley, *Letter, Officer Commanding No 1(Indian) Group to Air Officer Commanding, India*, 4 December 1937).

<sup>210</sup> Peck, *SASO(India) to Courtney*, 12 December 1938; AIR 23/5388, Air Marshal C L Courtney, *Hand Written Notes from Chatfield Committee Interviews: Defence Machinery* 1938. See also this Chapter's section on Army vs RAF Decision-making Speed.

<sup>211</sup> Stanley Baldwin, quoted in AIR 9/12, E78, Vyvyan Adams MP, *Letter to the Editor of The Times: Bombing from the Air*, 8 June 1933. This is repeated from his famous 'bomber will always get through' House of Commons disarmament speech of 10 November 1932 (see Hansard, House of Commons, Parliamentary Debates, *International Affairs*, Vol. 270, 10 November 1932, col 632).

the heart for the finger.<sup>212</sup>

The supporters of police bombing asserted that ‘among those who argue for total abolition of bombing from the air there will not be found a single one of the men who have had past experience of the old Frontier expeditions’.<sup>213</sup> Portal described the abolitionists as ‘well-meaning but ill-informed’.<sup>214</sup> Under military pressure, Britain advocated a policy of retaining bombing for Imperial policing purposes, based on its ‘convenience, cheapness, and effectiveness’.<sup>215</sup> Although the Conference collapsed when Germany withdrew, it reflected enduring diplomatic concerns over bombing.<sup>216</sup>

## GESTATION OF THE COMBINED FRONTIER MANUAL

Chapter 5 discussed the tactics published in the 1939 *Combined Frontier Manual*.<sup>217</sup> However, the *Manual*'s gestation, despite occurring at the zenith of Indian inter-Service collaboration, provides an illustrative vignette of many of the challenges previously described.

In India, a joint GS(India) and Air Staff(India) ‘draft-up committee’, which included Auchinleck, Peck and Slessor, produced the draft of the *Combined Frontier Manual* in July 1936.<sup>218</sup> In the Air Ministry’s opinion, the *Manual* ‘for the first time

<sup>212</sup> AIR 9/12 E78, Gilbert Murray, *Letter to the Editor of The Times: Bombing from the Air: Arguments for Total Abolition*, 7 June 1933.

<sup>213</sup> AIR 9/12 E78, Lieutenant-Colonel R H Elliott, *Letter to the Editor of the Times: Bombing from the Air*, 8 June 1933.

<sup>214</sup> Portal, “Air Force Co-operation in Policing the Empire”: 348.

<sup>215</sup> Murray, *Letter to the Editor of The Times: Bombing from the Air: Arguments for Total Abolition*. The report of the 1930 Parliamentary Air Committee recommended ‘the retention of air bombing for police purposes to carry out our Empire and Mandatory obligations, believing that this use of the air arm in the territories for which H.M. Government is responsible is not only an unusually effective deterrent but also the most expeditious, economical, and humane method of maintaining law and order therein’. See AIR 9/12, E96, Air Staff (Plans), *Air Control - "Inhumane" Aspect*, 12 December 1934, 1.

<sup>216</sup> For air-centric analyses of the Disarmament Conference, see: Biddle, *Rhetoric and Reality*, 102-104; Gray, “Strategic Leadership and Direction of the RAF Air Offensive Against Germany”, 118-130; Hyde, *British Air Policy Between the Wars*, 276-295; and Renfrew, *Wings of Empire*, 233-239.

<sup>217</sup> Defence Department, *Frontier Warfare - India*.

<sup>218</sup> Ludlow-Hewitt, *Letter: Air Officer Commanding, RAF India, to Sir Edward L Ellington, Chief of the Air Staff* and AIR 2/2065, Group Captain J C Slessor, *Minute, Deputy Director Plans to*

included a fair statement of what air could do in Frontier Operations’, acknowledging that ‘a great deal of goodwill must have gone into its production’.<sup>219</sup> However, over two years’ wrangling followed before it was published. CAS received an unofficial draft copy from Ludlow-Hewitt, in March 1937. Ellington maintained minor reservations about the drawn-out decision-making required to authorise an air blockade;<sup>220</sup> nonetheless, he informed AOC(India) in April that he had no significant comments to make.<sup>221</sup>

However, in late May 1937, Ludlow-Hewitt learnt ‘very privately’ that SoS(India) was insisting the air blockade chapter be removed and published separately as ‘For Official Use Only’ (FOUO), despite the wishes of the GS(India) and Air Staff(India). AOC(India) considered the *Manual* to be a ‘great step forward in co-operation’ and that it was ‘most important [that the] air method should have treatment on [an] equal basis with [the] Army method’.<sup>222</sup> In June 1937, Peck wrote a private, hand-written note to DCAS suggesting that C-in-C(India) had persuaded SoS(India) to exclude the air blockade chapter.<sup>223</sup> Peck’s emotive note, written from the United Service Club in Simla and filled with corrections, bore the hallmark of an impulsive outburst. The Air Council was sensitive to recent press criticism concerning air action against the FoI, but was confident that the *Manual*’s public publication would explain, and vindicate,

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*Deputy Chief of the Air Staff*, 18 July 1938. At this time, Slessor was OC 3(Indian) Wing which had just moved from Quetta to Chaklala following the 1935 earthquake. Although the term ‘combined’ is currently used by NATO to indicate participation by more than one nation, this term was consistently, if unofficially, used for the *Manual*. See NATO Standardization Agency (AAP-6(2012)), *NATO Glossary of Terms and Definitions* (2012).

<sup>219</sup> AIR 2/2065, Squadron Leader L Darvall, *Note to CAS as Aide Memoire Regarding Back History of Combined Frontier Operations Manual*, 22 June 1937; AIR 2/2065, ———, *Memo, Air Ministry India Office Liaison Officer, to DCAS*, 24 March 1937.

<sup>220</sup> As previously described, Ellington had previously been AOC(India) 1923 to 1926.

<sup>221</sup> AIR 2/2065, Marshal of the Royal Air Force Sir Edward L Ellington, *Letter, Chief of the Air Staff to Air Officer Commanding, India*, 8 April 1937.

<sup>222</sup> AIR 2/2065, Air Marshal Sir Edgar Ludlow-Hewitt, *Telegram AOC RAF, India, to DCAS*, 27 May 1937.

<sup>223</sup> AIR 2/2065, Air Commodore Richard H Peck, *Private letter, Senior Air Staff Officer, India, to Deputy Chief of the Air Staff*, 9 June 1937.

the use of air power.<sup>224</sup> After internal discussion, the Air Council simply nudged the IO about the likely publication date.<sup>225</sup> Having received the IO's non-committal response that it was 'not possible to forecast the date', the Air Ministry's IO liaison officer, Darvall, met with General Wilson, the IO Military Department Secretary, to be told that 'in his view the manual was entirely a matter for the Indian Government and India, and that the Air Ministry had no concern in it whatever'; additionally, Wilson had never considered consulting the Air Ministry when the question of the non-publication of the air chapters was discussed at the IO. Pressured by Darvall, Wilson admitted that the IO had over-ruled C-in-C(India)'s protests supporting the RAF's position; the air chapter would be removed over concern that its publication would attract press criticism. Wilson added that 'it was not public policy to describe air methods' and that, as the Army wanted to publish the *Manual* as an on-sale document for Army promotion examinations, the air chapter would be published separately as an FOUO document. However, Wilson was not prepared to communicate this to the AIR MINISTRY officially or even demi-officially. Darvall responded that the IO had consulted the Air Ministry 'most cordially in the early stages'; he convinced Wilson that, to avoid an inter-departmental quarrel, he should inform CAS of the IO's position. Darvall's notes of the meeting concluded that 'I formed the impression, as a result of the meeting, that the chief agent responsible for cutting out the R.A.F. chapters was General Wilson himself'.<sup>226</sup> If the entire *Manual* was not published:

the air portion will not generally be known, and proper co-ordination between the Army and the R.A.F. on the Frontier will not be achieved. Air forces will continue

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<sup>224</sup> AIR 2/2065, *Draft letter, Air Council to Under-Secretary of State for India*, June 1937.

<sup>225</sup> AIR 2/2065, J M Spaight, *Letter, Air Ministry to Secretary, Military Department, India Office*, 10 June 1937.

<sup>226</sup> AIR 2/2065, Major-General Sir Roger C Wilson, *Letter from the Secretary, Military Department, India Office, to Air Ministry*, 15 June 1937; Air 2/2065, Squadron Leader L Darvall, *Note on Conversation between Major General Sir Roger Wilson, India Office, and Squadron Leader L Darvall*, 18 June 1937. Wilson's biography is at [Annex 7](#).

to be mishandled both by Politicals and by the Army.<sup>227</sup>

However, Wilson failed to officially inform Ellington of the position. Having been again prompted in writing, he merely responded that CIGS was dealing with the matter.<sup>228</sup>

CAS then petitioned SoS(Air), explaining that the IO's resistance was probably because:

India as a whole is usually fifty years behind the time, and the IO fifty years behind India since it is largely staffed by officials who have finished their career in India and who adhere to the convictions of their youth.<sup>229</sup>

Swinton (SoS(Air)) immediately wrote to SoS(India), lauding the *Manual* as 'an admirable example of the co-operation which ought to exist between both Services' but complaining that splitting it would 'defeat the whole purpose of the agreement reached' which was that 'soldiers and airmen should be equally instructed in the functions to be performed by each'.<sup>230</sup> SoS(India) replied in early July, stating that 'I certainly do not desire to have any differential treatment for the two sections of the manual', saying he was sending a telegram to India instructing the whole *Manual* to be published as a FOUO document.<sup>231</sup> Demonstrating the Air Ministry's confidence in the morality of their tactics, Darvall immediately informed the Air Staff(India), adding 'Our next step will I think be in a year or so's time to suggest that the manual be downgraded as an "on sale" publication, but I think we should be unwise to press for

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<sup>227</sup> Ellington, CAS to Secretary of State for Air, 23 June 1937.

<sup>228</sup> AIR 2/2065, Marshal of the Royal Air Force Sir Edward L Ellington, *Demi-Official letter, Chief of the Air Staff to Secretary, Military Department, India Office*, 23 June 1937; AIR 2/2065, Major-General Sir Roger C Wilson, *Demi-Official letter from Secretary, Military Department, India Office, to CAS*, 24 June 1937.

<sup>229</sup> Ellington, CAS to Secretary of State for Air, 23 June 1937. Whilst there was some element of truth in this assertion, it was not completely accurate of key India Office figures such as the Military Secretary. General Wilson had commanded the Wana Brigade, been Commandant of the Staff College at Quetta and then GOC Rawalpindi District, while his successor, General Muspratt, had been GOC Peshawar District from 1933 to 1936. Their biographies are at [Annex 7](#).

<sup>230</sup> AIR 2/2065, Viscount Swinton, *Letter from Secretary of State for Air to Secretary of State for India*, 24 June 1937.

<sup>231</sup> AIR 2/2065, Marquess of Zetland, *Letter, Secretary of State for India to Secretary of State for Air*, 2 July 1937.



that at this stage'.<sup>232</sup> It is of significant interest that, while the RAF wanted the widest possible public publication of their tactics to vindicate them, the Army considered that 'it was not yet desirable to give this matter public circulation'.<sup>233</sup> Nonetheless, the *Combined Manual* remained classified until 1972.<sup>234</sup>

This was not the last chapter in the gestation of the *Combined Frontier Manual*. Almost a year later, in June 1938, an updated proof copy was sent from India to London for formal approval by the IO, WO and Air Ministry.<sup>235</sup> The Air Staff(India) swiftly issued proof copies to all its units instructing them to circulate it widely amongst RAF officers and use it in place of *Air Staff(I)M 1*.<sup>236</sup> However, Peck had concerns:

I am afraid that the IO may have another attack of "nerves"... owing to the recent debates at home on bombing, and may urge this as a reason for further delay in the issue of the manual.<sup>237</sup>

This time it was the Air Ministry that wanted to remove elements of the new proof copy while the GoI wanted to publish as soon as possible.<sup>238</sup> The ensuing discussion demonstrates the different perspectives between the Air Ministry and Air Staff(India), with the Ministry concerned with the theoretical application of air power, while RAF India grappled with its practical application. The new CAS, Sir Cyril Newall, wanted to add additional clarification on several aspects of air blockading: firstly that the swift issuance of terms to the tribesmen were essential; that the entire tribe should be blockaded on the basis of collective 'tribal responsibility'; and that the blockade should never be paused during negotiations. However, the Air Staff's main concern was the

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<sup>232</sup> AIR 2/2065, Squadron Leader L Darvall, *Letter from Air Ministry to SASO, RAF India*, 7 July 1937.

<sup>233</sup> Wilson, *Demi-Official letter from Secretary, Military Department, India Office, to CAS*.

<sup>234</sup> Defence Department, *Frontier Warfare - India* in AIR 23/5370 was declassified in 1972. However, the file on the policy of the development of this manual, AIR 2/2065, remained 'closed' to the public until 1991.

<sup>235</sup> AIR 2/2065, General Sir Claude J E Auchinleck, *Letter from C-in-C India to General Sir John Coleridge, GOC-in-C, Northern Command, India*, 24 June 1938.

<sup>236</sup> AIR 2/2065, Air Commodore Richard H Peck, *Paper from HQ, RAF, India to RAF India units entitled 'Handbook, "Frontier Warfare - India"', 27 June 1938.*

<sup>237</sup> AIR 2/2065, ———, *Letter, Senior Air Staff Officer, India, to Deputy Chief of the Air Staff*, 28 June 1938.

<sup>238</sup> AIR 2/2065, Colonel N L St P Bunbury, *Letter, India Office to Air Ministry*, 13 July 1938.

inclusion of a new section on ‘punitive’ proscriptive air action, which ‘India’ had developed during operations against the Fof because it was ‘liable to be confused with air blockade [which was coercive, not punitive] and is, in fact usually so confused’.<sup>239</sup> They informed the IO that its deletion was imperative.<sup>240</sup> Peck, however, swiftly complained on 4 August that punitive proscription had been invaluable in punishing tribes that lacked assets susceptible to destructive air action. For example, nomadic tribesmen could have their grazing areas proscribed, forcing them to hire pasture from their neighbours, thereby imposing an indirect financial penalty.<sup>241</sup> Slessor, now Deputy Director Plans in the Air Staff, advised DCAS, Sir Richard Peirse, in early August that ‘with [personal] experience of this proscription method, we should not insist on cutting this reference’.<sup>242</sup> Peirse, however, ignored Slessor’s advice and informed Peck that punitive proscription should be removed because:

There is no doubt that the Military and the Politicals at the INDIA Office are extremely confused in their minds about Proscription and Air Blockade, and they cannot at present be relied upon to distinguish clearly between these two forms of air action... the authorities on the Frontier are losing sight of the well-established principle of tribal responsibility and that Air Proscription allows them to burke the issue... The India Office have agreed with these suggestions and I hope you will find it possible to accept them.<sup>243</sup>

DCAS’s confidence was premature; two days later, on 18 September, General Muspratt, who had replaced Wilson as the IO’s Military Secretary, sent a consolidated response saying that ‘India’ ‘wish to retain punitive proscription’ and that ‘It is not apparent why the Air Ministry should object to its retention’, a statement which reveals

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<sup>239</sup> Darvall, *FO5 to DCAS and DD Plans*, 14 July 1938; ‘tactical’ and ‘punitive’ proscription were described by AOC(India) at: Joubert de la Ferte, *AOC RAF India to DCAS*, 5 October 1938.

<sup>240</sup> AIR 2/2065, Squadron Leader L Darvall, *Amendment to Frontier Manual*, 1938, 26 July 1938, 4, sent to India Office.

<sup>241</sup> Peck, *SASO(India) to DCAS*, 4 August 1938; ———, *SASO(I) to DCAS*, 4 August 1938.

<sup>242</sup> AIR 2/2065, Group Captain J C Slessor, *Minute, Deputy Director Plans to Deputy Chief of the Air Staff* 11 August 1938. Peirse had been AOC Palestine 1933-37 and would become AOC(India) in 1942. His RAF career was ended in 1944 when he over-extended the concept of inter-Service co-operation and eloped with the wife of C-in-C(India), Field Marshal Sir Claude Auckinleck.

<sup>243</sup> AIR 2/2065, Air Vice-Marshal R E C Peirse, *Letter, DCAS to SASO, HQ RAF India*, 16 September 1938.

the IO's misunderstanding of the Air Staff's coercive doctrine. Muspratt reassured the Air Staff that 'Naturally we should use air blockade if the situation made this suitable'.<sup>244</sup> Interestingly, the tone and phraseology of the IO's letter was strikingly similar to Peck's letter of 4 August, raising the likelihood that Air Staff(India) and GS(India) were colluding against the Air Ministry on this matter; indeed, the collusion was inferred by Muspratt's use of the collective term 'India' in his letter of 18 September. A letter from the new AOC(India) to DCAS in early October revealed 'India's' real motive for needing punitive proscription:

There are circumstances ... in which air blockade cannot be applied... For example, it is to-day necessary to punish by air action tribal sections guilty of harbouring or assisting the Faqir of Ipi who is moving about from one inaccessible spot to another, and from one tribal section or tribe to another. We have long been advocating a policy of keeping him on the move by air action, and of deterring tribes or sections from assisting him, and at long last this policy is being followed and is beginning already to show useful results.<sup>245</sup>

Joubert concluded this letter to Peirse with a near threat, which both confirms the collusion between the Indian HQs and illustrates the constitutional hierarchy in India:

I feel quite definitely that we should retain this form of action for use in circumstances in which it is applicable; a matter on which it is for me as A.O.C. to advise the C.-in-C.<sup>246</sup>

AOC(India) did, however, think that the punitive proscription could be more clearly explained in the *Manual*, and suggested the following additional paragraph:

The purpose of punitive proscription is to deny to a recalcitrant tribe or section the use of an area which is of economic value to them, such as, for example, a grazing area. This form of action is suitable in cases where the territory of a tribe or section offers no adequate targets for destructive air action, or where the degree of punishment authorised does not warrant the use of destructive air

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<sup>244</sup> AIR 2/2065, Major-General Sir Sydney Muspratt, *Action proposed on suggested amendments to Frontier Manual 1938 in note by Air Ministry dated 23rd July 1938*, 18 September 1938. Sir Sydney Muspratt had also previously held the post 1931-33 and been the Indian staff officer in the WO 1922-25, when he had been described as C-in-C(India)'s "rat" in Whitehall' (See Jacobsen, *Rawlinson in India*, 99). His biography is at [Annex 7](#).

<sup>245</sup> Joubert de la Ferte, *AOC RAF India to DCAS, 5 October 1938*.

<sup>246</sup> Ibid.

action.<sup>247</sup>

Now somewhat isolated, the Air Ministry told the IO that ‘we are prepared to agree with the new suggested Section’ subject to the deletion of the last half-sentence ‘or where the degree of punishment authorised does not warrant the use of destructive air action’, presumably because the Air Ministry wanted to limit the occasions where punitive proscription could be applied.<sup>248</sup> A week later, the IO conceded, requesting ‘the Air Ministry’s official approval to the manual as now amended’, which it received.<sup>249</sup>

This examination of the *Manual*’s gestation is most revealing about the nature of inter-Service, inter-Governmental departmental, inter-theatre and inter-personal relations. It illustrates the importance of characters and their inter-personal dynamics. Wilson, who was firmly against publishing the *Manual*’s RAF elements, seems to have lacked moral fibre; having initially included the Air Ministry in discussions, he then tried to exclude them, yet would not admit his pivotal role, obfuscating the audit trail instead, even in written correspondence to CAS. Peck wrote pleading, private, hand-written letters to CAS when needing his support, yet later colluded with the GS(India), and possibly encouraged the newly-arrived AOC(India) against the Air Ministry to achieve in-theatre objectives. In contrast, the Air Ministry’s IO liaison officer, Darvall, displayed courage in holding the IO’s Military Secretary to account, but was not fully conversant with reasoning behind evolving NWF tactics. Peirse, meanwhile, ignored his experienced staff’s advice. The impact of personalities on inter-Governmental relations is also apparent; Wilson’s lack of forthrightness resulted in the need for the

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<sup>247</sup> Ibid.

<sup>248</sup> AIR 2/2065, Wing Commander L Darvall, *Letter, Air Ministry to India Office*, 18 October 1938.

<sup>249</sup> AIR 2/2065, Colonel N L St P Bunbury, *Letter, India Office to Wing Commander Darvall, Air Ministry*, 25 October 1938; AIR 2/2065, Charles Evans, *Letter, Air Council to Under-secretary of State for India*, 31 October 1938. One vestigial, orphaned remnant of this disagreement and its deleted sentence remained undetected and was published in the *Manual*; in a subsequent section on ‘destructive air action’ lies the orphaned reference to ‘the possibility of employing the alternative method of punishment by proscribing an area’.

matter to be settled at the highest level between the SoSs. These surprisingly personal spats were not conducive to productive inter-Service co-operation and, as will be discussed later, left a legacy that may have influenced the initial stages of the Second World War.

The different perspectives of ‘home’ and ‘theatre’ are also evident. In-theatre units strove to develop new tactics to suit local problems, such as the need to contain the FoI, while the Air Ministry appeared more concerned with advocating an ethical, politically-acceptable ‘pure’ doctrine. Paradoxically, while the Army advocated the early use of lethal force (such as punitive proscription), they were also the most reticent about advertising its use; the Army employed Frontier air power pragmatically, leaving them vulnerable to ethical criticism. There is also little doubt that the Army was reticent to publish anything that might highlight air power’s independent use, given their fear of substitution; GS(India) were unlikely to support anything that threatened India’s military status quo. The Air Staff, in contrast, were more confident about what they considered to be an ethical approach to Frontier air power and thought that publicising their doctrinally pure tactics would vindicate the use of aircraft and gain both public and international acceptance. Yet, in their oversight of India, the Air Staff were less than fully conversant about the ‘messy’, less palatable, in-theatre tactics that were required to address local situations.

## **CHAPTER 8 – IMPLICATIONS AND CONCLUSIONS**

### **IMPLICATIONS**

#### **NWF Influence on Strategic Bombing Policy**

Observers have raised the issue of the influence of RAF inter-war air policing on its subsequent strategic bombing policy during the Second World War. Saundby observed in 1961 that air control 'encouraged the specialization of the training and equipment of the Royal Air Force along the lines that seriously prejudiced its effectiveness in a major war... all British bomber aircraft, bomb-sights, bombs, and the training of bomber crews, were specialized for use in air control'.<sup>1</sup> Beaumont built on this and concluded that inter-War air control generated techniques which were inappropriate when employed against enemies with parity in technology and skill; air control operated within a permissive, daylight environment without air or ground threat which permitted formations of slow aircraft to pick periods of good weather to casually bomb into wind, assuring acceptable weapon accuracy from basic equipment.<sup>2</sup> Cox, in contrast, posited that Iraq was a 'splendid training ground' for the RAF.<sup>3</sup> This does not seem to hold true in India at the tactical level; in 1938, CAS complained to the GoI about India's obsolete aircraft and training framework, which left its pilots unfit to be reabsorbed into the Metropolitan air force.<sup>4</sup> Embry concurred; referring to his return from India to England in 1939, he wrote:

I felt like Rip Van Winkle awakening from a long sleep... I was an airman of a past age, and an officer whose professional knowledge was so lacking as to

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<sup>1</sup> Saundby, *Air Bombardment*, 46.

<sup>2</sup> Beaumont, "A New Lease on Empire": 89.

<sup>3</sup> Cox, "A Splendid Training Ground: The Importance to the Royal Air Force of its Role in Iraq, 1919-32": 175. Cox borrowed the quote from the Secretary of the Colonies, Leo Amery, speaking at the annual dinner of the Central Asian Society following his recent tour of Iraq (see "Mr Amery on Prospects in Iraq", *The Times*, 1 July 1925).

<sup>4</sup> Air Staff, *Discussion on Indian Defence Problems with the Delegation from the Government of India*, 28 April 1938, 2-3.

make me unworthy of my rank.<sup>5</sup>

Nonetheless, it appears that India did influence the development of subsequent bombing strategy.<sup>6</sup> The Air Staff's enduring theme supporting the effectiveness of moral bombing pervades the archives. Specifically, the strategy employed by an ex-AOC(India) during a 1933 staff exercise resonated with the inverted blockade's aim of coercion via the disruption of everyday life:

Our effort must... be directed against the morale of the civil population with the object of so disorganizing the normal daily life of the individual that a continuance of such conditions becomes intolerable.<sup>7</sup>

In 1939, Brooke-Popham suggested retaliating against Germany with a bombing policy adapted from 'dealing with recalcitrant tribesmen'.<sup>8</sup> In October 1940, Portal, who had just become CAS, offered Churchill a revised bombing policy which would change the emphasis from economic to morale bombing 'to drive the Germans as much as possible into their shelters where, we are told, they are apt to spend some of the time in criticising their government'.<sup>9</sup> A subsequent Air Staff paper written to estimate the size of the heavy bomber force required to break German civilian morale, stated that this strategy was:

... an adaption, though on a greatly magnified scale, of the policy of air control which has proved so outstandingly successful in recent years in the small wars in which the Air Force has been continuously engaged.<sup>10</sup>

Pink's War demonstrated that, by 1925, the RAF in India had developed a

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<sup>5</sup> Embry, *Mission Completed*, 87.

<sup>6</sup> Renfrew noted that colonial policing 'played a crucial part in forging the ethos that sustained the RAF in the Second World War', See Renfrew, *Wings of Empire*, 253.

<sup>7</sup> AIR 2/675, Air Vice-Marshal T I Webb-Bowen, *An Appreciation of the Employment of the Air Defence of Great Britain Bomber Formations Against the Western European Confederation during the First Month of Operations*, 12 March 1933, 7-8.

<sup>8</sup> AIR 20/438, Air Chief Marshal R Brooke-Popham, *Cypher Message, Brooke-Popham to CAS*, 15 September 1939.

<sup>9</sup> AIR 19/186, Air Chief Marshal Sir Charles Portal, *Minute: Chief of the Air Staff to Prime Minister*, 27 October 1940, 2.

<sup>10</sup> AIR 19/186, Air Staff, *Development and Employment of the Heavy Bomber Force*, 22 September 1941, 1.

sophisticated understanding of how its various weapons could generate a variety of effects to coerce tribes of varying natures. However, the Army-imposed restrictions on correspondence betwixt the Air Staff(India) and Air Ministry, limiting it to copies of AOC(India)'s official reports to C-in-C(India) and private letters between AOC(India) and CAS.<sup>11</sup> By their nature, AOC(India)'s reports rarely criticised his superiors, leaving the Air Ministry to read between the lines and depriving them of important nuances concerning the sensitivity of coercive effects to local conditions. As Biddle observed:

the cause and effect relationship between bombing and civilian morale were complex and not conducive to ready generalization. The public reaction to bombing might vary a great deal according to local circumstances.<sup>12</sup>

The Air Staff(India) were aware of this complexity, yet constrained from fully articulating it by the Indian command structure. The Air Staff(India) understood that different techniques were required to control the democratic Wazir tribes than the dictatorial northern NWF states, so the Air Staff(India) would have recognised that the loose leadership of Pink's War's highly democratic Mahsuds would be more susceptible to popular pressure from the coercion of their subjects than the centralised Nazi dictatorship.<sup>13</sup> Indeed, Churchill warned Portal in 1940 that: 'Even if all the towns of Germany were rendered largely uninhabitable, it does not follow that the military control would be weakened'.<sup>14</sup>

Given the apparent success of the few occasions when pure RAF doctrine was applied in India, and the difficulty in passing detailed feedback to the Air Ministry, this loss of fidelity is perhaps understandable. The Air Ministry could blame the Army's

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<sup>11</sup> As late as February 1938, AOC(India) found himself constitutionally unable to respond to a request from DCAS concerning the misemployment of air forces in India. See AIR 2/2051, Air Marshal Sir Philip Joubert de la Ferte, *Letter, Air Officer Commanding, India, to Deputy Chief of the Air Staff*, 16 February 1938.

<sup>12</sup> Biddle, *Rhetoric and Reality*, 65-66.

<sup>13</sup> See, for example, Mallam, "The NWF Problem": 390.

<sup>14</sup> AIR 19/186, Portal Archive 1, Box 1/2, File 2, Folder 5, Item 2g, Winston Churchill, *Personal Minute, Prime Minister to Chief of the Air Staff*, 7 October 1941, 1.



lack of adherence to RAF doctrine when air action was inconclusive. Overall, the RAF's intuitive belief in the efficacy of morale bombing was reinforced by the broad lessons gleaned from coercive air operations in India, but restrictions on free communication obscured vital nuances. Nonetheless, the effectiveness of moral effect remained largely unverified; its wider employment may have provided evidence of the true effectiveness of moral effect. Notwithstanding this paucity of evidence, morale bombing nested comfortably with the RAF's political aspirations to retain a strategic capability that the RAF alone could provide – the ability to directly target the enemy population and leadership's morale. This reinforced the need for an independent air force. As Saundby reflected in 1961:

the preservation of the Royal Air Force as a separate Service had resulted in its bombing activities becoming specialized along the lines needed for successful air control.<sup>15</sup>

A strategic bomber force supported an Imperial policy of deterring a European war, rather than fighting one. Furthermore, even within the Indian theatre, the RAF apparently viewed strategic bombing as the *sine qua non*, despite the day-to-day focus on tribal control. Thus, by 1933, the contingency plan if Afghanistan invaded India allotted six of RAF India's eight squadrons to an independent striking force against Kabul to seize the initiative and 'force AFGHANISTAN to sue for peace'.<sup>16</sup> This indicates that the Air Staff(India) understood air power's role in constraining Afghan tribal support; Afghanistan not only offered sanctuary to trans-border tribes, but also provided intermittent tribal sponsorship, be it ideological or physical. The RAF's long-range strike capability (which included bomber-transports, reminiscent of Halley's 1919 raid) provided a deterrent to encourage the Afghans to maintain any support below a threshold level, thereby limiting conflict to a low level. This is an early

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<sup>15</sup> Saundby, *Air Bombardment*, 46. Saundby had been Deputy AOC-in-C Bomber Command from 1943.

<sup>16</sup> Air Staff (India), *Pink Plan*, Sections I & II - Appreciation and Plan, 1, 5.

example of strategic air power being used to stabilise an insurgency by deterring the sponsors from escalating the level of warfare.<sup>17</sup>

The inter-War focus on morale effect did little to encourage the RAF to improve its bombing precision; *AP1300* acknowledged the challenges of accurate delivery due to the lack of landmarks and the dearth of precise targets presented by 'semi-civilised' cultures.<sup>18</sup> Fortunately, the objective of morale effect was largely cognitive, rather than physical. Due to the close proximity of troops and tribesmen on the battlefield, the Army required army co-operation squadrons to deliver weapons accurately to avoid fratricide. This required aircraft to fly lower, increasing their exposure to ground fire.<sup>19</sup> However, army co-operation effects were instant and visible, if localised, providing the Army with instant gratification. Paradoxically, despite the aircraft being the Gol's fastest weapon, air blockades took longer to generate the necessary effect, although their effect was more widespread. In contrast, Bomber squadrons normally bombed from medium level to reduce the aircraft's vulnerability to ground fire. The concomitant degradation in weapon accuracy was acceptable if the objective was to target the enemy's morale, rather than their buildings, as was the case with air blockades; some commentators have failed to understand that, even though a building may have been centred in the bomb sight, the aim was to banish the inhabitant from his home, rather than destroy it. Therefore, any analysis based on the amount of physical damage inflicted misses the point by more than the bombs did.

This lack of precision had significant ramifications for subsequent European warfare; the RAF struggled to target German infrastructure which required pinpoint attack to inflict physical disruption. Indeed, despite the Air Ministry's continued belief

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<sup>17</sup> A more recent example of the use of air power to deter a sponsor from escalating a conflict was the deployment of RAF Vulcan and Victor bombers to RAF Tengah, Singapore, and RAAF Butterworth, Penang, between 1963 and 1966 during the Indonesian Confrontation. See Robert Rodwell, "Lo-Hi Victor: Mixed Mission over Malaya", *Flight International*, 6 May 1965.

<sup>18</sup> Air Ministry, *AP 1300*, Chapter XIV, paragraph 24.

<sup>19</sup> Roe, "The Troublesome 1930s: General Unrest, Intense Activity and Close Cooperation": 66.

in the bomber's ability to break civilian morale, a September 1941 Air Staff paper explained that:

The [bomber] force... is inadequate [in size] to achieve our aims by direct attack on morale, and [the COSs] have therefore... selected transportation as the focus of attack, combined as far as possible with area attack of important German cities.<sup>20</sup>

There were other reasons for the RAF's lack of bombing precision entering the Second World War. Whilst they do not all directly relate solely to India, they are worthy of discussion to place India's influence in perspective.

Notwithstanding some revisionist opinions, it is generally accepted that both civilians and the military during the 1930s feared that massed bomber formations could deliver a 'knock-out blow' (as it was often referred to at the time) by causing widespread damage to both material and the fragile morale of a city's population; as Smith described in 1997, 'Absenteeism from work, attendant losses of production and mass panic would force a government to sue for peace'.<sup>21</sup> Indeed, this fear was partially the impetus for the 1932 Geneva Disarmament Conference's theme of banning aerial bombardment. This belief was so widespread that, as late as 1943, Disney released the propaganda film *Victory Through Air Power*, based on Seversky's similarly-named book, which Disney later alleged had convinced Roosevelt to commit to long-range bombing.<sup>22</sup> Baldwin's famous 1932 House of Commons speech reflected a widely-held fear:

the bomber will always get through... The only defence is in offence, which means that you have to kill more women and children more quickly than the

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<sup>20</sup> Air Staff, *Development and Employment of the Heavy Bomber Force*, 1.

<sup>21</sup> Malcom Smith, "The Royal Air Force, Air Power and British Foreign Policy, 1932-37", *Journal of Contemporary History* 12, no. 1 (1977): 157. For analyses of the cultural and intellectual aspects of air bombardment on populations, see: Grayzel, *At Home and Under Fire*; Holman, *The Next War in the Air*; and Saint-Amour, *Tense Future*.

<sup>22</sup> James Algar et al., "Victory Through Air Power", (USA1943); Leonard Maltin, *The Disney Films*, 4th ed. (Disney Editions, 2000), Introduction. See further analysis in: John D Thomas, "Cartoon Combat: World War II, Alexander de Seversky, and *Victory Through Air Power*" in *Learning from Mickey, Donald and Walt: Essays on Disney's Edutainment Films*, ed. A Bowdoin Van Riper (Jefferson: McFarland & Co, 2011), 68.

enemy if you want to save yourselves. I just mention that ... that people may realise what is waiting for them when the next war comes.<sup>23</sup>

By 1936, the Government viewed the RAF's role in Trenchardian offensive terms, as 'the most terrifying deterrent' against German aggression, mindful of London's geographic vulnerability to air attack. This, in the parlance of the day, required 'parity' of numbers and a credible 'shop window'.<sup>24</sup> However, as Smith reflected in 1977, this policy was reinforced by the Treasury's desire for 'defence on the cheap' and the resultant bomber force was 'a politician's window dressing scheme': 'The RAF, though unconvinced, had been forced to accept an unreal distinction between a deterrent force and a force capable of fighting a war'.<sup>25</sup>

By December 1937, mindful of a German airborne knock-out blow, the Cabinet decided that the UK's first defence priority was an increase in home fighter strength. Nonetheless, the Air Staff warned that fighters were no sure means of defence; instead, an offensive counter-attack was the chief deterrent and defence and the RAF should maintain a striking force that could 'hit [Germany] as hard as they could hit us'. Importantly for India, overseas squadrons had to accept a lower priority.<sup>26</sup> The Air Staff's vision was massed, unescorted RAF bomber formations operating in daylight, fending off hostile fighter aircraft with co-ordinated, overlapping defensive machine guns and accurately delivering weapons onto their targets, exactly as Walt Disney later depicted in 1943. Nonetheless, in 1938, the RAF's Bombing Committee had recognised the need for enhanced defensive turrets to defend bombers against contemporary German fighters, a complication which raised the issue of co-ordinating

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<sup>23</sup> *Parliamentary Debate*, 10 November 1932, 632.

<sup>24</sup> Greg Baughen, *The Rise of the Bomber: RAF-Army Planning 1919 to Munich 1938* (Fonthill, 2016), 172; Smith, "Air Power and British Foreign Policy": 162; Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 107.

<sup>25</sup> Smith, "Air Power and British Foreign Policy": 162.

<sup>26</sup> Inskip, *CP 316*(37).

fire-control within both the aircraft and its formation.<sup>27</sup> Long-range fighter escort was perceived by the Air Staff as being impossible for several reasons: such aircraft would not hold their own against short-range fighters; the necessary development resources were not available; and the bombers would be able to defend themselves effectively.<sup>28</sup> This appears to have been a legacy of Trenchard's offensive policy; as far back as 1923, Trenchard had opined that unescorted bombers 'were able to bear heavy casualties better than any likely enemy'.<sup>29</sup>

Sticking with the late 1930s vernacular, an impressive 'shop window' was vital in maintaining an adequate deterrent. But, if deterrence failed and battle were to be joined, the combat effectiveness of the bomber would be critical. Ludlow-Hewitt was appointed AOC-in-C Bomber Command on return from India in 1937; he summarised that the RAF's rapid pre-War expansion had 'failed to address the crucial issues of night flying training, navigational aids, and the vulnerability of bombers to enemy fighter attack during daylight raids', concluding that Bomber Command was 'entirely unprepared for war, unable to operate except in fair weather, and extremely vulnerable... in the air';<sup>30</sup> This view has been widely supported.<sup>31</sup> Slessor summed up the situation in his autobiography:

A legitimate criticism of the Air Staff before the war is that we paid insufficient attention to the technique of bombing. Our almost passionate faith in the efficacy of the bomber offensive as a major war-winning factor was in the long run vindicated by results. But there is no doubt that we did underestimate the technical difficulties of modern air bombardment, and might have been more far-sighted in our efforts to develop the major weapon of air-power, the bomb.<sup>32</sup>

<sup>27</sup> RAF Air Historical Branch, *The RAF in the Bombing Offensive Against Germany: Volume I*, 217.

<sup>28</sup> Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 54, 116, 177.

<sup>29</sup> Allen, *The Legacy of Lord Trenchard*, 51.

<sup>30</sup> Website, "C-in-C Bomber Command 1937-40", ; Terraine, *The Right of the Line*, 82.

<sup>31</sup> See, for example: Terraine, *The Right of the Line*, 81-92; Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 100-101, 107-126; Jonathan Falconer, *The Bomber Command Handbook, 1939-1945* (Stroud: Sutton Publishing, 1998), 6-10; Norman Longmate, *The Bombers: The RAF Offensive Against Germany, 1939-1945* (London: Hutchinson, 1983), 55-57.

<sup>32</sup> Slessor, *The Central Blue*, 203.

Slessor expanded:

... our imagination was not sufficiently flexible and our experience too limited to comprehend quickly enough the very far-reaching technical requirements of a modern striking-force, capable of operating – of finding and hitting its targets – at long ranges in bad weather, lacking which capacity an air striking-force is virtually useless.<sup>33</sup>

The RAF's most recent experience of intense combat operations, referred to by Slessor above, was the NWF, the context and characteristics of which, as has been explained in this Thesis, was very different from war against an industrialised peer rival such as Germany. Slessor later reflected:

We in Plans were too optimistic on many counts... on our ability to bomb unescorted by day and hit targets at night; on the bombing accuracy to be expected... and on the results both moral and material to be expected from bombing of industrial objectives. We attached insufficient importance to things which afterwards became a commonplace, like bombing and navigation aids, signals equipment, D/F homing beacons and blind landing systems.<sup>34</sup>

Having briefly examined the strategic theory, it is useful to analyse the factors that contributed to the shortfall between theory and reality. Precision bombing with ballistic weapons has four principle components: the aircraft must be able to overcome the enemy's defences; it must navigate with sufficient accuracy for the target to fall within the field of view of the weapon aiming system; the aiming system must then acquire the target and manoeuvre the aircraft to the weapon release point sufficiently accurately for the weapon to fall ballistically to within its lethal radius of the target, taking into account the necessary environmental variables; and, finally, the weapon must have the desired effect on the target. The second and third sequential processes are known as 'navigation' and 'bomb aiming', both of which a peer opponent will endeavour to disrupt.

It is apparent that, until immediately before the Second World War, inter-War RAF bomber squadrons were trained for peacetime flying rather than combat

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<sup>33</sup> Ibid., 203-204.

<sup>34</sup> Ibid., 205.

operations against a peer opponent, something that was reinforced by the conditions experienced in theatres such as India and the Middle East. This is perhaps understandable to an extent; as Ayliffe highlighted in a 1996 seminar: 'Navigation did not seem difficult or important to most RAF pilots, who flew by day and in good weather... The approach to navigation was practical and entirely suited to the nature of the flying machines of the day'.<sup>35</sup> On his return to Britain in 1937, Richardson recorded that 'despite having thumbed my way for four years around some of the wilder parts of the Middle East... I scarcely knew anything about the theory of navigation and also very little about its proper application'.<sup>36</sup> Webster situated the RAF's challenge thus: 'it was harder to discover in peacetime what were the obstacles which had to be overcome [in war]'.<sup>37</sup>

A synopsis of the development of air navigation reveals the reasons for the RAF's poor navigation skills entering the Second World War. During the FWW, the RAF had made the non-pilot aircrew specialisation known as 'air observers' responsible for both navigation and bomb aiming. However, in 1920 the Air Ministry announced that there was to be no provision for observers in the permanent Air Force and that pilots would fulfil all necessary airborne duties. Nonetheless, the RAF supplemented the use of pilots in non-flying crew positions by recruiting ground tradesmen to be part-time corporal air gunners. While UK-based air gunners underwent a six-week armament and gunnery course, overseas units (including those in India) recruited tradesmen from their own establishment who were then trained at squadron level without an endorsed syllabus.<sup>38</sup> Despite their job title, these part-time

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<sup>35</sup> Flight Lieutenant Alec Ayliffe, "RAF Navigation Between the Wars" (paper presented at the History of Navigation in the Royal Air Force: RAF Historical Society Seminar at the RAF Museum, Hendon, 21 October 1996, RAF Museum, Hendon, 1996), 13, 18.

<sup>36</sup> Richardson, *Man is Not Lost*, 133.

<sup>37</sup> Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 108.

<sup>38</sup> Jefford, *Observers and Navigators*, 128-141. See also Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 110. This was not to say that all air gunners were incapable of bomb aiming, as explained later.

air gunners were also employed as wireless operators, photographers and bomb aimers, despite receiving no formal tuition and having to also complete their trade's ground duties. In 1924, it was suggested that the demands of long-range reconnaissance and the complexity of bomb sights called for specialist commissioned officers, a move that was resisted by the Deputy Director of Manning, Group Captain Joubert de la Ferte. In a 1926 review chaired by Sir Ivo Vesey, Squadron Leader de Crespigny (just returned from commanding 60(B) Squadron on the NWF) argued that airmen air gunners could be competent at photography and bomb aiming if employed on a full-time basis, although their training was more difficult and longer than a pilot's. The same year, Sir John Steel, then AOC Wessex Bombing Area, concurred that air gunnery needed to be a full-time role, a move which was ratified the next year, although air gunners were not career aviators and still reverted to their previous ground trades after their flying tour. In 1935, these inadequacies were partially addressed by re-introducing properly-trained air observers (albeit still part-time tradesmen) to gradually replace air gunners, with the 'flying-O' observers brevet being re-introduced in 1937. Interestingly, several 1936 papers concluded that bombing accuracy was dependent almost entirely on the skill of the air observer in the formation leader's aircraft, reducing the number of observers required and illustrating the tactic of massed formation flying.<sup>39</sup> In 1937, Ludlow-Hewitt argued to remove part-time tradesmen and replace them with multi-skilled pilots proficient in all aircrew roles, an impractical idea for an expanding force due to the concomitant initial and ongoing training burden.<sup>40</sup>

Navigation was slightly different in inter-War two-engined bombers which all had two pilots, one of whom would be responsible for navigation and bomb aiming, leaving their air gunners to their job-titled role. Limited numbers of pilots had attended the

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<sup>39</sup> Jefford, *Observers and Navigators*, 128-141, 145-149, 157-158. Champion de Crespigny's biography is at [Annex 7](#).

<sup>40</sup> Terraine, *The Right of the Line*, 87-88.



short and long courses at the School of Aerial Navigation and Naval Co-operation since 1919, but with few specialist appointments for officers above the rank of flight lieutenant, those promoted squandered their navigation skills.<sup>41</sup> In 1933, the Air Pilotage School was opened to provide a two-week course for all flight commanders to enhance their navigate while leading their flights. However, by 1937 it became generally acknowledged that it was unreasonable to expect pilots to navigate while 'cloud flying', so the observer became increasingly responsible for navigation.<sup>42</sup> Nevertheless, even in the Second World War, pilots on Heavy Conversion Units flew their first few sorties as navigators, rather than pilots.<sup>43</sup>

The lack of focus on inter-War navigation training was mirrored in the RAF's token interest in navigation techniques. Navigation along featureless Imperial air routes was accomplished by following pipelines or furrows ploughed across the deserts.<sup>44</sup> Similarly, in the UK, pilots often navigated by following railway lines. In his 2014 book, Jefford described these techniques as 'not the answer to navigation so much as a substitute for it'.<sup>45</sup> 'Dead reckoning' was assessed to only be accurate to about 50 miles and pre-War attempts to develop astro-navigation were frustrated by its complexity and the poor supply of sextants, something which Churchill later took a personal interest in.<sup>46</sup> It was not until 1940 that the RAF's navigation manual (AP1234 *Air Pilotage*) began to be updated with modern techniques; standardised navigation

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<sup>41</sup> David Page, "The Early Years" (paper presented at the History of Navigation in the Royal Air Force: RAF Historical Society Seminar at the RAF Museum, Hendon, 21 October 1996, RAF Museum, Hendon, 1996), 10; Jefford, *Observers and Navigators*, 140. See also Richardson, *Man is Not Lost*, Chapter IX.

<sup>42</sup> Jefford, *Observers and Navigators*, 155-156; Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 111-112.

<sup>43</sup> Squadron Leader Lawrence 'Benny' Goodman, Interview, 30 April 2017.

<sup>44</sup> Jefford, *Observers and Navigators*, 142-143.

<sup>45</sup> Following railway lines was known as 'Bradshawing' after the name of the timetable publishers. See: Ibid., 143; Richardson, *Man is Not Lost*, 133.

<sup>46</sup> Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 112-113, 204-205; Richardson, *Man is Not Lost*, 145, 163; Portal Archive 1, Box 1/2, File 2, Folder 5, Item 13a, Air Chief Marshal Sir Charles Portal, *Minute, Chief of the Air Staff to Prime Minister*, 5 November 1941.

drills were only instigated in 1942.<sup>47</sup> In 1937, Ludlow-Hewitt had contrasted the RAF's lack of navigation aids, homing devices and direction-finding systems with civil aviation's ability to operate over long distances in poor weather.<sup>48</sup> The RAF's pre-War lack of focus on 'cloud flying' and night flying left the challenges of navigating and bombing under these conditions largely unanswered.<sup>49</sup>

Turning now to the challenges of weapon aiming, the RAF's inappropriate provision of bomb sights at the outset of the Second World War can be explained by examining the development of inter-War bombing. During the period under consideration, bomb sight development was slow, principally because the equipment largely met the requirements of operational air policing and UK peacetime practice. The Course Setting Bomb Sight (CSBS), designed in 1917, remained the principal RAF sight until proven ineffective in the Second World War, the only improvements until 1939 being to cater for higher performance aircraft. The CSBS was a complicated geometrical brass instrument that had to be manually adjusted for aircraft flight parameters (height above target, speed, etc), the bomb's ballistic characteristics, and environmental conditions (principally, the wind). The instrument was unstabilised, being fixed to the airframe, and only provided a correct sighting solution in 'steady' straight and level flight; even small excursions outside steady flight would invoke significant geometric sighting errors. The principal corrections required during a bomb-run were turns to correct the aircraft's course towards the bomb release point. Because of the geometric sighting errors invoked by banking the aircraft, these turns were ideally made using the rudder to generate a 'flat' turn. However, progressive inter-War aerodynamic improvements in aircraft design increased the aircraft's directional stability, rendering flat turns impracticable; as a result, any turns had to be

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<sup>47</sup> Richardson, *Man is Not Lost*, 145-168, 226-227.

<sup>48</sup> Terraine, *The Right of the Line*, 83.

<sup>49</sup> In 1937, 6% of Bomber Command's flying hours were at night. This increased to 9% in 1938. See Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 113.

estimated before they were commenced and the CSBS re-aligned with the aircraft's compass afterwards. Furthermore, the CSBS was completely dependent on the correct wind being available and set on the sight. Nevertheless, during peacetime daylight practice in fair weather on bombing ranges where the crew were familiar with the target (and its range procedures) and with the wind provided by the Range Safety Officer on the ground, an accuracy of 50 yards was commonly achieved from 10,000 feet. Thus, under the inter-War conditions experienced during air policing and peacetime practice camps, the CSBS was largely effective; as the RAF reflected, with a steady run-in to the release point and an accurately-determined wind, 'in practical hands, astonishingly accurate results could be obtained'.<sup>50</sup> However, as Black observed in 2001, 'Flying conditions in the armament training camps did not reflect in any way the operational flying conditions to be anticipated in the coming war'.<sup>51</sup>

Allen claimed that, in air policing theatres, bombs were normally released from gentle dives and bomb sights were hardly used, resulting in the stagnation of bomb-aiming techniques.<sup>52</sup> On the NWF, this was true for army co-operation squadrons, where the proximity of friendly troops required precision weapon delivery that could only be achieved by low-level attacks. However, bomber squadrons, whose targets were often distant from Government forces, mostly bombed from medium altitudes in level flight to remain above tribal ground fire, albeit at the expense of precision. In these latter cases, the air gunner lay prone in the rear cockpit to use the bomb sight through a sliding door in the aircraft's floor.<sup>53</sup> Despite their lack of formal training,

<sup>50</sup> RAF Air Historical Branch, *SD719*, 278-279.

<sup>51</sup> Black, "Major Bomb Sights Used in WW2".

<sup>52</sup> Allen, *The Legacy of Lord Trenchard*, 50.

<sup>53</sup> The DH9a was equipped with a Mark 1A High Altitude Drift Sight attached to the starboard side of the fuselage and a Mark IIA or IIB CSBS in the fuselage floor accessed via a sliding shutter. The Wapiti was equipped with a Mark IIG CSBS in the air gunner's floor, while the Audax air gunner initially used a Mark VI CSBS in his floor bombing aperture (although the fragile, aluminium, Mark VI was swiftly replaced with the brass Mark VII). See Air Ministry, *AP 878: The DH9A Aeroplane. Liberty Engine.*, 2nd ed. (1928), 58; ———, *AP 1333: Wapiti. Jupiter VI Engine*, 1st ed. (1928), 68; ———, *AP 1429: The Audax Aeroplane (Two-Seater*

some air gunners became very proficient.<sup>54</sup> Nonetheless, it is not surprising that, as Longmate stated in 1983, the Air Ministry argued for simple bomb sights that the average bomb-aimer could use.<sup>55</sup>

Looking now at weapons, RAF stocks of general purpose bombs at the outbreak of the Second World War were limited almost exclusively to 250 and 500-pound variants.<sup>56</sup> The RAF's Air Historical Branch described the period 1919 to 1930 as 'the lean years of armament development';<sup>57</sup> it took from 1929 to 1938 to develop a replacement for the FWW 20-pound anti-personal 'Cooper' bomb, while a 1924 requirement for 1,000 and 2,000-pound bombs had been shelved in 1932 due to pressure from aircraft designers and lack of Air Staff support.<sup>58</sup> Furthermore, the existing weapons had been tested in largely unrepresentative conditions, concealing their susceptibility to failure when penetrating multi-floored European buildings.<sup>59</sup> It was not until 1935 that the Ordnance Board instigated a tri-service Aircraft Bomb Sub-Committee, which decided there was no use for the 120-pound bomb but did instigate a new 30 to 50-pound bomb for use against vehicles, houses, billets and parked aircraft, indicating the sort of targets envisaged at that time.<sup>60</sup> Finally, in 1938, the shelved 1000-pound bomb requirement was reinstated for use against dams, railway bridges, aqueducts and canals, with the keen avocation of AOC-in-C Bomber Command, their large-scale production commencing in December 1939; this indicates the changing target set associated with the shift in focus from air policing to European

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*Army Co-operation*). *Kestrel IB Engine*, 2nd ed. (1932), 73); RAF Air Historical Branch, *SD719*, 279.

<sup>54</sup> In 1939, a 60(B) Squadron corporal air gunner was awarded the Air Force Medal for being 'an exceptionally good bomb aimer' who, as leading air gunner in his flight, had been 'largely responsible for the accuracy of attacks during punitive bombing' (see Dix Noonan Webb, 2016, "A Rare North West Frontier 'Wapiti Air Gunner's A.F.M.", [https://www.dnw.co.uk/auction-archive/past-catalogues/lot.php?auction\\_id=448&lot\\_id=284363](https://www.dnw.co.uk/auction-archive/past-catalogues/lot.php?auction_id=448&lot_id=284363) (accessed 1 May 2017)).

<sup>55</sup> Longmate, *The Bombers*, 55.

<sup>56</sup> Huskinson, *Vision Ahead*, 68. Huskinson was the RAF Member of the Ordnance Board.

<sup>57</sup> RAF Air Historical Branch, *SD719*, 278.

<sup>58</sup> Huskinson, *Vision Ahead*, 67-68; RAF Air Historical Branch, *SD719*, 6, 10-11.

<sup>59</sup> Huskinson, *Vision Ahead*, 65-68; MacBean and Hogben, *Bombs Gone*, 39-62.

<sup>60</sup> MacBean and Hogben, *Bombs Gone*, 45; RAF Air Historical Branch, *SD719*, 12.

warfare.<sup>61</sup> Webster reflected that:

When it is remembered how much effort was expended to get an aircraft over a target to drop a bomb on it, it seems surprising that more was not done to make the bomb as effective as possible.<sup>62</sup>

As Robinson noted in 1999, the 250 and 500-pound bombs 'seemed adequate for the Imperial policing role' while Hadaway recorded in 2009 that tribal targets 'were for the most part less solid, and destruction of property was not necessarily the aim'.<sup>63</sup>

However, 'Dizzy' Allen had pointed out in 1972 that the RAF failed to draw lessons concerning the relatively high failure rate of bombs from its air policing experience, largely because enough ordnance detonated to achieve the desired effect.<sup>64</sup>

The reality of contemporary peer warfare challenged Bomber Command when it commenced daylight attacks in September 1939. As Webster and Frankland summarised:

Bomber Command was confronted with modern high-speed fighters supported by radar early warning devices and concentrated anti-aircraft fire. More was learnt about the potentialities and limitations of the day bomber formation in a few months of war experience than had been gained from the previous twenty years of theorising on the basis of fragmentary and often obsolete evidence'.

The initial raids as part of Britain's policy of restrictive bomber against the German Navy were of 'immense significance'.<sup>65</sup> On 5 September 1939, six of ten Blenheim bombers were lost to anti-aircraft fire during a low-level attack on the Admiral Von Scheer off Wilhelmshaven. To the RAF, this reinforced the necessity for close

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<sup>61</sup> RAF Air Historical Branch, *SD719*, 15-16. A concurrent requirement for a 2000-lb bomb was assigned second priority to the 1000-lb version.

<sup>62</sup> Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 124-125.

<sup>63</sup> Air Vice-Marshal Michael Robinson, "Training the Bomber Force for WWII", *Journal of the Royal Air Force Historical Society*, no. 20 (1999): 9; Stuart Hadaway, "The Development of RAF Bombs, 1919-1939", *Journal of the Royal Air Force Historical Society* 45 (2009): 16; RAF Air Historical Branch, *SD719*, 6. As an example of the perceived increased effectiveness of the 500-lb against German targets, see: Portal Archive 1, Box 1/2, File 1, Folder 2, Item 4, Lord Beavoursbrook, *Letter, Minister of Aircraft Production to Prime Minister*, 30 December 1940.

<sup>64</sup> Allen, *The Legacy of Lord Trenchard*, 50. This book was republished as: ———, *British Bombing Policy During the Second World War*.

<sup>65</sup> Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 190.

formation and intercommunication within each aircraft.<sup>66</sup> The next significant engagement was 14 December, when twelve Wellingtons attempted to attack three German destroyers below a very low cloudbase; five Wellingtons were lost to well-co-ordinated naval anti-aircraft fire and German fighters. Bottomley, by now SASO Bomber Command, doubted that the fighters had shot down any aircraft during the 26-minute engagement, ascribing this 'success' to tight formation flying. In contrast, German pilots claimed to have shot down five Wellingtons and another probable; whilst this is clearly an over-estimate, Bottomley's faith in the self-defending formation appears an unjustified dogged attachment to the RAF's core belief in the self-defending bomber formation.<sup>67</sup> On 18 December, twenty-two Wellingtons tasked against naval targets at Wilhelmshaven were engaged at medium level in good weather by twenty-five fighters and heavy anti-aircraft fire. Twelve Wellingtons were shot down, the Germans claiming only one to anti-aircraft fire. The fighters had used their longer-range cannons to remain outside the effective range of the bombers' 303 machineguns and reported that the formation's rigid retention of course was of great assistance in enabling them to manoeuvre onto beam attacks against the Wellingtons' blind spot. This caused the temporary cessation of attacks against naval targets and the realisation that 'heavy' bombers could not economically be used by day. Although Ludlow-Hewitt (amongst others that included Harris), initially attributed the losses to poor formation-keeping, by January he expressed doubt to the Air Staff about the efficacy of contingent plans to bomb the Ruhr's industry and population by day. The RAF's *Official History* concluded that these initial raids were among the most important of the war because 'the whole conception of the self-defending formation...

<sup>66</sup> RAF Air Historical Branch, *The RAF in the Bombing Offensive Against Germany: Volume II*, 57; Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 192-193.

<sup>67</sup> RAF Air Historical Branch, *The RAF in the Bombing Offensive Against Germany: Volume II*, 60; Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 193-195.

had been exploded'.<sup>68</sup> In contrast to these daylight losses, Whitley bombers had been dropping leaflet throughout the period over Germany by night with extremely light losses due to a lack of German opposition.<sup>69</sup> By May 1940, Bomber Command's 'heavy' bombers had to operating exclusively by night.<sup>70</sup>

Bomber Command had been designed as a precision daylight force. However, daytime operations had demonstrated the vulnerability of unescorted bombers to the superior firepower and manoeuvrability of fighters. The switch to night operations as a force protection measure then demonstrated the bomber's lack of night precision. As the war escalated, Bomber Command was tasked against a variety of targets as policy developed, distractive events occurred and experience was gained.<sup>71</sup> Despite doubts by some senior officers, and the lack of reliable battle damage assessment, some crews reported good results.<sup>72</sup> One revealing series of raids illustrated what Webster and Frankland described as 'the gulf between assumptions and the reality';<sup>73</sup> in December 1940, the largest raid of the war so far was launched against the city of Mannheim with the objective of causing the maximum damage in retribution for the recent German raid on Coventry. Despite crew reports of success in near-perfect conditions, subsequent reconnaissance by the recently-established Photographic

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<sup>68</sup> RAF Air Historical Branch, *The RAF in the Bombing Offensive Against Germany: Volume II*, 60-61, 68-69; Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 136, 192, 195-202; Terraine, *The Right of the Line*, 105-107.

<sup>69</sup> RAF Air Historical Branch, *The RAF in the Bombing Offensive Against Germany: Volume II*, 43-52; Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 202-204.

<sup>70</sup> Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 213.

<sup>71</sup> The 'distractions' endured; in 1941, for example, Peirse, as AOC-in-C Bomber Command, complained to CAS that the raids on Naval targets to support the Royal Navy's battle of the Atlantic were casting hundreds of tons of bombs 'on to the quays and into the waters of Brest Harbour... We are not designed for this purpose and we are not particularly effective in execution' (see Portal Archive 1, Box 1/2, File 1, Folder 3, Item 11a, Air Marshal R E C Peirse, *Letter, Air Officer Commanding-in-Chief, Bomber Command, to Chief of the Air Staff*, 15 April 1941).

<sup>72</sup> Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 215-223.

<sup>73</sup> *Ibid.*, 223.

Reconnaissance Unit revealed a disappointingly wide scattering of bombs.<sup>74</sup> This lack of precision became critical when, in January 1941, the Chiefs of Staff directed a policy of targeting German synthetic oil plants; these relatively small, but potentially vulnerable, targets required precision attack that was reliant on good weather and moonlit conditions, which severely limited the opportunities.<sup>75</sup>

As described throughout this Thesis, the Air Staff's primary desired offensive effect during air policing was to degrade tribal morale by the disruption of everyday life. There is evidence that the RAF considered morale effect to be a significant factor throughout the War. Even during the 1941 campaign against synthetic oil, the Cabinet directed that the secondary aim was the lowering of German morale.<sup>76</sup> Peirse, while AOC-in-C Bomber Command, told CAS in November 1940 that small, 250-pound delayed-action bombs had great value in dislocation and that the Prime Minister needed to 'appreciate the dislocations, political and material, within Germany brought about by continuous hammering of industries, communications and populations'.<sup>77</sup> Indeed, in January 1941 he reminded the Prime Minister that, despite the priority of German oil, it was still necessary to target industrial towns to cause 'moral and material dislocation'.<sup>78</sup> In April 1941 Peirse informed CAS that that 'Every shred of evidence emphasises German fears of air attack and their vulnerability. Why else

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<sup>74</sup> Ibid., 226-228; Longmate, *The Bombers*, 94-97; RAF Air Historical Branch, *The RAF in the Bombing Offensive Against Germany: Volume II*, 145; ———, *The RAF in the Bombing Offensive Against Germany: Volume II*, 153-154. The policy background behind the 'ABIGAIL' raids which aimed to use large amounts of incendiary bombs to destroy buildings, gas and water mains, and electrical cables (the targets in order of priority being Hanover, Mannheim, Cologne and Dusseldorf) is at: Portal Archive 1, Box 1/2, File 1, Folder 1, Item 29, Air Chief Marshal Sir Charles Portal, *Letter, Chief of the Air Staff to Prime Minister*, 7 December 1940.

<sup>75</sup> RAF Air Historical Branch, *The RAF in the Bombing Offensive Against Germany: Volume II*, 145-146.

<sup>76</sup> Ibid., 145.

<sup>77</sup> Portal Archive 1, Box 1/2, File 1, Folder 9, Item 5a, Air Marshal R E C Peirse, *Letter, Air Officer Commanding-in-Chief, Bomber Command, to Chief of the Air Staff*, 13 November 1940; Portal Archive 1, Box 1/2, File 1, Folder 9, Item 6, ———, *Letter, Air Officer Commanding-in-Chief, Bomber Command, to Chief of the Air Staff*, 27 November 1940.

<sup>78</sup> Portal Archive 1, Box 1/2, File 1, Folder 9, Item 3a, Air Marshal R E C Peirse, *Letter, Air Officer Commanding-in-Chief, Bomber Command, to Prime Minister*, 1 January 1941.



their feverish activity in camouflage?'.<sup>79</sup> In the same month, Portal passed Churchill a report from the wife of an American diplomatic in Berlin that stated:

... she had never seen such panic as existed among the Civil population. There was complete chaos and disorganisation and... it seemed to her to lead to the most serious influence on morale. More attacks of this nature would help materially in shortening the war.<sup>80</sup>

In July, Portal explained to Churchill that Bomber Command's first principle was to 'repeat our attacks on successive nights to get the maximum moral and material value out of them'; he also emphasised 'the disturbance effect of our bombing', which has strong echoes of the desired effects of the air policing's 'air blockade'.<sup>81</sup> Later, in 1943, Harris told Trenchard that 'I do not believe in panacea targets...The answer is to attack the most important industrial-political-morale objectives with all one has'.<sup>82</sup>

Bomber Command's inadequacies were highlighted at the highest level in August 1941 by the *Butt Report*, initiated by Lord Cherwell. Butt examined 650 bomb-release photographs taken during 100 raids over 48 nights in June and July 1941.<sup>83</sup> It revealed that, in a full moon, only one-third of aircraft claiming to have released successfully were in fact within five miles of their target; during the new moon, the proportion dropped to one-twentieth. Cherwell told the Prime Minister that the Report made 'depressing reading', while Churchill told Portal that 'I await your proposals for action'. Despite acknowledged inaccuracies, Cherwell, CAS and AOC-in-C Bomber Command agreed that the *Report* emphasised 'the supreme importance of our

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<sup>79</sup> Peirse, *AOC-in-C Bomber Command to CAS*, 15 April 1941.

<sup>80</sup> Portal Archive 1, Box 1/2, File 1, Folder 3, Item 18, Air Chief Marshal Sir Charles Portal, *Letter, Chief of the Air Staff to Prime Minister*, 25 April 1941.

<sup>81</sup> Portal Archive 1, Box 1/2, File 1, Folder 4, Item 16, ———, *Letter, Chief of the Air Staff to Prime Minister*, 22 July 1941.

<sup>82</sup> Harris Archives, File H50, Item 30, Air Marshal A T Harris, *Letter, Air Officer Commanding-in-Chief, Bomber Command, to Viscount Trenchard*, 27 January 1943.

<sup>83</sup> AIR 14/1218, D M B Butt, *Night Photographs in June-July 1941: A Statistical Analysis*, 18 August 1941. See also Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 178-180; Longmate, *The Bombers*, Chapter 10.

navigation methods'.<sup>84</sup> The Air Staff's own analysis highlighted the 'exceptionally bad' weather and that only ten percent of aircraft were equipped with bomb-release cameras, which often failed to activate until well after bomb release. Furthermore, the Air Staff considered Butt's statistics to be in line with German operations against Britain.<sup>85</sup> However, the *Report* catalysed action; Portal told Churchill he had instigated steps to expand Bomber Command's Operational Research Section, improve the standard of astro-navigation, develop the radio-navigation aid 'Gee' and marker bombs, and investigate the use of airborne radar to identify built-up areas.<sup>86</sup> The most important of these was the Operational Research Section, as it underpinned the other requirements with critical scientific scrutiny, rather than Air Staff intuition. Although the Air Ministry had established a parallel, offensive committee to Fighter Command's Scientific Survey of Air Defence in 1937, it had proved less effective.<sup>87</sup> Nonetheless, the *Butt Report* had undermined the Prime Minister's previous confidence in the bombing offensive; he wrote to Portal in September that:

It is very disputable whether bombing by itself will be a decisive factor in the present war. On the contrary, all that we have learnt since the war began shows that its effects, both physical and moral, are greatly exaggerated.

Churchill continued that 'an increase in the accuracy of bombing would in fact raise our bombing force to four times its strength'.<sup>88</sup> Portal replied reminding Churchill that both he and all the Chiefs of Staff had agreed that German morale had to be destroyed before victory could be attained and that 'informed opinion is that German

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<sup>84</sup> Portal Archive 1, Box 1/2, File 1, Folder 4, Item 24a, Lord Cherwell, *Minute, Lord Cherwell to Prime Minister* 1941; Portal Archive 1, Box 1/2, File 1, Folder 4, Item 24, Winston Churchill, *Minute, Prime Minister to Chief of the Air Staff*, 3 September 1941.

<sup>85</sup> Portal Archive 1, Box 1/2, File 1, Folder 4, Item 24c, Air Staff, *Notes on Lord Cherwell's Paper dealing with the Analysis of Night Photographs taken by Bomber Command during their Attacks in June and July, 1941*.

<sup>86</sup> Portal Archive 1, Box 1/2, File 1, Folder 4, Item 24b, Air Chief Marshal Sir Charles Portal, *Minute, Chief of the Air Staff to Prime Minister*, 11 September 1941.

<sup>87</sup> Wakelam, *The Science of Bombing*, Chapter 3; Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 119-121.

<sup>88</sup> Portal Archive 1, Box 1/2, File 2, Folder 5, Item 2d, Winston Churchill, *Minute, Prime Minister to Chief of the Air Staff*, 27 September 1941.

morale is much more vulnerable to bombing than our own'.<sup>89</sup> So, the Operational Research Section's potential to increase bombing efficiency was key to regaining the Prime Minister's confidence by increasing Bomber Command's effectiveness. Not only did Operational Research provide statistical feedback on bombing results, but it provided tactical and technical advice that underpinned the development and effectiveness of radio navigation aids (such as Gee, Oboe and H2S), 'Pathfinding' and target marking techniques, defensive techniques (such as massed bomber raids to saturate German defences, RAF night fighters and electronic jamming techniques) and the required force size to achieve specific aims. As Webster and Frankland concluded, 'Lord Cherwell had rendered a service to Bomber Command which was second to none'.<sup>90</sup>

The correspondence between Portal and Harris from 1942 reveals the issues of greatest concern. It had quickly become apparent in 1940 that aircraft could not navigate accurately at night and that, even when they did, targets could be difficult to acquire due to darkness, haze and searchlight glare, something that was not easily resolved. Less than two months after becoming AOC-in-C Bomber Command in February, Harris informed CAS that he was 'not at all happy about the standard of navigation... or the status and prospects of the navigator' due to the 'Cinderella-like neglect of navigation'; Harris requested the establishment of squadron and station navigation officers to improve standards.<sup>91</sup> In June, he highlighted a further 'two very urgent matters'. First, the requirement for the new, stabilised, Mark XIV bomb sight because 'Our present Sights are impracticable junk. Under prevailing tactical conditions they exaggerate errors rather than resolve sighting problems'; the CSBS's

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<sup>89</sup> Portal Archive 1, Box 1/2, File 2, Folder 5, Item 2e, Air Chief Marshal Sir Charles Portal, *Minute, Chief of the Air Staff to Prime Minister*, 2 October 1941.

<sup>90</sup> Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 180.

<sup>91</sup> Portal Archive 1, Folder 9, Item 15; Harris Archives, File H81, Item 38, Air Marshal A T Harris, *Letter, Air Officer Commanding-in-Chief, Bomber Command, to Chief of the Air Staff*, 17 April 1942.

requirement for a steady run towards the target had proved completely impractical when weaving to avoid anti-aircraft fire, whereas the new Mark XIV CSBS was a stabilised sight that allowed the aircraft to manoeuvre until the last ten seconds before weapon release. Harris' second point concerned the requirement for dedicated bomb aimers as, at this stage of the Second World War, navigators still operated the bomb sight:

At present, T.R. [Gee] Navigators often have to leave their T.R. at the critical moment to dash to the bomb sight. They fail in accurate T.R. as one consequence, and, as another, are not night-accustomed when using the Sight. Hence, they frequently cannot see a target which would be visible if they were night-accustomed.

Harris continued that 'Any fool can work a Mark XIV with an hour's practice. The old types of Sights take weeks or months, and are no good anyhow'.<sup>92</sup> This did not quite reflect reality. Wing Commander John Bell, a bomb aimer on 617 Squadron, described how, upon first using the Mark XIV on his Wellington Operation Training Unit in 1943, his scores were worse than during his previous training on the standard, unstabilised, Mark IX CSBS due to the increased complexity of the Mark XIV's operation. Nonetheless, the Mark XIV could be very accurate with a well-trained crew and appropriate maintenance of the equipment, but results were still dependent on an accurate wind being available. For this latter reason, it was known as the 'area sight'.<sup>93</sup> Furthermore, the Mark XIV's technical complexity was challenging for mass production.<sup>94</sup> Extrapolating this important theme for a moment, the RAF's ultimate Second World War sight was the Mark II Stabilised Automatic Bomb Sight (SABS), which was deployed from 1943, but production of this complex instrument was only

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<sup>92</sup> Portal Archive 1, Folder 9, Item 32, ———, *Letter, Air Officer Commanding-in-Chief, Bomber Command, to Chief of the Air Staff*, 12 June 1942. The Mark XIV began to arrive on front-line squadrons in early 1943; Harris told Trenchard that it would 'make a very great difference to the accuracy of our bombing' (see Harris, *AOC-in-C Bomber Command to Trenchard*, 27 January 1943).

<sup>93</sup> Wing Commander John Bell, Interview, 30 December 2016.

<sup>94</sup> The Mark XIV was subsequently built under licence in the USA as the 'T1' where its construction was simplified to allow mass production. See Black, "The T1-Bomb Sight Story".

sufficient for one squadron.<sup>95</sup> In contrast to all CSBSs, the SABS was a tachometric sight that automatically compensated for the wind by the bomb aimer constantly tracking the target. This greatly increased its accuracy. However, it required the crew to fly very precisely, something which needed significant training and co-ordination; as a result, the Squadron dedicated a significant amount of time to bombing practice, which reduced its operational availability.<sup>96</sup> Reflecting back on the inter-War years, the contrast between the SABS and its highly-trained crew and the Wapiti's CSBS, operated by a part-time, locally trained air gunner, is stark. Yet both systems largely fulfilled the requirements of the time.

As highlighted previously, personalities and their professional backgrounds can be critical. An examination of Harris' previous experience of air policing during the 1920s is revealing. As previously described, while OC 45 Squadron in Iraq from 1922, he develop the Vickers Vernon transport into a bomber by local improvisation. He subsequently introduced night bombing as a psychological weapon against Iraqi tribesmen, making a point of describing 45 Squadron as 'Night Bombers' in his 1929 Army Staff College lecture. But he had a legacy of night flying on 39, 44 and 50 Squadrons during and immediately after the FWW; indeed, when 50 Squadron was disbanded, he applied to the School of Navigation for a course of navigation and night flying.<sup>97</sup> In Iraq, he also developed a makeshift bomb incorporating a Verey flare to be dropped by his most expert crew to mark the target for the rest of his Squadron, and even attempted night formation practice bombing in late 1924.<sup>98</sup> Harris' biographer,

<sup>95</sup> After development delays, which caused the Prime Minister to launch a formal inquiry, the SABS was employed by 617 Squadron alone. See PREM 3/76/1.

<sup>96</sup> The SABS required the aircraft to maintain  $\pm 50$  feet and  $\pm 5$  MPH. Crew co-ordination required the bomb aimer to keep the target tracked through the Sight, while the pilot focussed on following the left/right commands automatically displayed on his Pilot Direction Indicator. The flight engineer maintained speed via the throttles while the navigator monitored the altitude. RAF Air Historical Branch, SD719, 284-288; Bell, *Bell Interview*, 30 December 2016; Goodman, *Goodman Interview*, 20 April 2017.

<sup>97</sup> Probert, *Bomber Harris: His Life and Times*, 43, 45-46.

<sup>98</sup> Seward, *'Bomber' Harris*, 39-40; Probert, *Bomber Harris: His Life and Times*, 52-53. See also Randall Wakelam, "Bomber Harris and Precision Bombing – No Oxymoron Here", *Journal*

Saward wrote that:

Even more than laying the keel of the future long-range heavy bomber, Harris had already conceived the principle of long-range night bombing, employing pathfinding and target marking techniques.<sup>99</sup>

During his time commanding 58 Squadron from 1925 to 1928 operating Vickers Vimys and Virginias, Harris emphasised not only day and night bombing, but also long-range formation navigation, including a 'raid' on London;<sup>100</sup> he wrote:

I reckon we did more night flying than all the rest of the air forces in the world put together... I had in the back of my mind that the larger and therefore slower aircraft... would have better chances of escaping the fighter, and reaching its destination, if it could have the cover of darkness.<sup>101</sup>

Given this background, it is of no surprise that Harris expressed his disappointment to CAS in March 1942 at the RAF's lack of target marking capability:

In my view the provision of an efficient "Marker" bomb is still as urgent a requirement as ever, and I only hope that you will add your weight to the demand for its immediate production.<sup>102</sup>

What is superficially more surprising is that Harris objected to an Air Staff proposal to form a Target Finding Force in 1942. Despite the acknowledged necessity to use expert crews to identify and mark the target through the haze and glare of searchlights to allow the remaining aircraft to concentrate their bombs on the target area, Harris preferred to use 'Raid Leaders' from each squadron, rather than create a *corps d'élite*. Portal had to persuade him that forming the best crews into a 'Pathfinding' force would ensure leadership, continuity and the continued development of marking

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of *Military and Strategic Studies* 14, no. 1 (2011): 4; Harris, "Air Control in Iraq, and Elsewhere".

<sup>99</sup> Saward, *'Bomber' Harris*, 40.

<sup>100</sup> Messenger, *'Bomber' Harris and the Strategic Bombing Offensive*, 17; Probert, *Bomber Harris: His Life and Times*, 56.

<sup>101</sup> Saward, *'Bomber' Harris*, 41-42.

<sup>102</sup> Portal Archive 1, Folder 9, Item 3c, Air Marshal A T Harris, *Letter, Air Officer Commanding-in-Chief, Bomber Command, to Chief of the Air Staff*, 2 March 1942.

techniques.<sup>103</sup> This, perhaps, reveals Harris' contempt for anything outside his own immediate control.

Harris appears to have been a very determined disciple of Trenchard and his offensive policy.<sup>104</sup> The two maintained a close relationship throughout the Second World War, lunching, dining and spending family weekends together and frequently corresponding to the extent that Trenchard appeared to mentor Harris at times, tempering some of his more extreme, single-minded views.<sup>105</sup> Harris' letters frequently articulated his frustration at any distraction from the strategic offensive. Indeed, in October 1942, Portal had to counsel Harris to 'take a rather broader view of the problems and difficulties confronting the Air Ministry and the other Commands'.<sup>106</sup> Notwithstanding Harris' inability to place Bomber Command's campaign within its wider perspective, this did not mean he was inflexible. Ludlow-Hewitt described him as having 'an exceptionally alert, creative and enterprising mind balanced by long practical experience'.<sup>107</sup> As Wakelam noted in his 2009 study of Bomber Command's Operational Research Section, Harris trusted the Section's data (presumably because it was under his control) but often synthesised their scientific conclusions with his own operational intuition.<sup>108</sup> Overall, Wakelam's study underlines Harris' willingness to

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<sup>103</sup> Portal Archive 1, Folder 9, Item 31, ———, *Letter, Air Officer Commanding-in-Chief, Bomber Command, to Chief of the Air Staff*, 12 June 1942; Portal Archive 1, Folder 9, Item 31a/Harris Archives, File H81, Item 69, Air Chief Marshal Sir Charles Portal, *Letter, Chief of the Air Staff to Air Officer Commanding-in-Chief, Bomber Command*, 14 June 1942; Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 418-436.

<sup>104</sup> Russell Miller, *Boom: The Life of Viscount Trenchard - Father of the Royal Air Force* (London: Weidenfeld & Nicolson, 2016), 363.

<sup>105</sup> Their personal correspondence is in the Harris Archives, File H50. As an example of Trenchard's counselling, see Harris Archives, File H50, Item 29, Marshal of the Royal Air Force Viscount Hugh Trenchard, *Letter, Viscount Trenchard to Air Officer Commanding-in-Chief, Bomber Command*, 26 January 1943.

<sup>106</sup> Portal Archive 1, Folder 9, Item 63/Harris Archives, File H81, Item 139, Air Chief Marshal Sir Charles Portal, *Letter, Chief of the Air Staff to Air Officer Commanding-in-Chief, Bomber Command*, 10 October 1942.

<sup>107</sup> Probert, *Bomber Harris: His Life and Times*, 95.

<sup>108</sup> Wakelam, *The Science of Bombing*, 192.

innovate and the flexibility of Bomber Command's headquarters staff.<sup>109</sup>

By 1944, Bomber Command had developed into the weapon that had been envisaged in the late 1930s, demonstrating the need for actual combat to reveal weaknesses and catalyse improvements, something which was largely absent in the inter-War years. As Webster and Frankland commented in 1961, Bomber Command was, in 1939, 'to a certain extent a 'shop window' force'.<sup>110</sup> In 1941, following the *Butt Report*, Churchill rebuked the Air Staff: 'Before the war we were greatly misled by the pictures they painted of the destruction that would be wrought by Air raids'.<sup>111</sup> Slessor however, with the benefit of hindsight, reflected in 1956 that: 'The strategic theory ultimately worked out almost exactly according to plan except in point of time; it took much longer than we then thought probable'.<sup>112</sup>

One interesting contrast, looking back to Chapter 2's discussion on the morals of warfare, is the different approaches that the RAF and United States took towards the strategic bombing offensive. In 1945, the Allies conducted an all-out area attack on Berlin (Operation Thunderclap) 'to influence the minds of the German authorities in such a way that they prefer organized surrender to continued resistance'; it was also a reprisal for German V-weapon attacks and supported a recent Russian offensive. It was co-ordinated with Allied propaganda directed against the German High Command, Army and civilian population. The raid was in contrast to the by-then policy of precision attack on economic and military objectives.<sup>113</sup> Doolittle, Commander of the US Eighth Air Force, had objected, stating that the raid would:

... violate the basic American principle of precision bombing of targets of strictly military significance for which our tactics were developed and our crews trained and indoctrinated. It is therefore recommended that the area bombing of this

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<sup>109</sup> This also evident from Harris' despatch on Bomber Command's operations. See Martin Mace and John Grehan, *Bomber Harris: Sir Arthur Harris' Despatch on War Operations 1942-1945* (Barnsley: Pen & Sword Aviation, 2014).

<sup>110</sup> Webster and Frankland, *The Strategic Air Offensive Against Germany, Volume I*, 107.

<sup>111</sup> Churchill, *PM to CAS, 7 October 1941*.

<sup>112</sup> Slessor, *The Central Blue*, 204.

<sup>113</sup> Davis, "Operation 'Thunderclap'": 93.



target be accomplished by the RAF who are trained and indoctrinated in this type of attack.<sup>114</sup>

This was an interesting statement, given that the August 1941 (pre-Pearl Harbour) US war plan had included a massive strategic bombing campaign against Germany, one of the aims of which was the ‘undermining of German morale by air attacks of civil concentrations’. In contrast, Eisenhower had stated in July 1944 that ‘we will continue precision bombing and not be deflected to morale bombing’.<sup>115</sup> Doolittle’s statement about the RAF being ‘indoctrinated’ over area bombing reveals the different National perspectives; US cities had never been bombed by the Germans.

Nonetheless, after much consideration, the raid was eventually executed on 3 February 1945. In the same month, the US firebombed Japanese port and urban targets; Japan had, of course, bombed the US at Pearl Harbor. This episode illustrates the complexity of National perspectives and strategic cultures, which can generate different policies in different theatres.

Having analysed the reasons for Bomber Command’s unpreparedness at the outbreak of the Second World War, it is appropriate to reflect again on the influence of air policing, and particularly the NWF, on this situation. Critically, the archive indicates that, from the Air Staff’s perspective, the NWF was the most influential and highest profile Imperial theatre in the mid and late-1930s due to the number of squadrons deployed, the high tempo of operations and concomitant weapon expenditure associated with containing the Fakir of Ipi. It therefore represented the largest source of operational experience. But, paradoxically, it was also the theatre that was least understood by the Air Staff due to India’s command and control relationships. Additionally, despite their adaptability, the tribesmen did not rely heavily on

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<sup>114</sup> Air Force Historical Research Agency, Reel B5046, Lieutenant General J H Doolittle, *Telegram, Commander Eight Air Force to Commander US Strategic Air Forces in Europe*, 30 January 1945. Interestingly, Doolittle’s famous reprisal raid on Japan in April 1942 following Pearl Harbor had only attacked industrial and military targets.

<sup>115</sup> Davis, “Operation ‘Thunderclap’”: 94, 95.

technology, so given the asymmetric characteristic of the conflict and India's financial constraints, there was relatively little incentive to develop aviation technology.<sup>116</sup>

The RAF's inter-War levels of navigation skill were adequate for daylight operations in the generally clear skies encountered in Imperial theatres policed by air. When weather precluded flying, operations could normally be delayed as the British authorities generally held the initiative. As a result, there was little reason to develop techniques for accurate navigation in poor weather. While the morale effect of bombing tribes at night was understood and RAF(India) developed a marginal night capability, night flying was not sufficiently important to dedicate the necessary resources required to properly develop the capability, all the more so because the Indian Armies, who controlled the budget, rarely conducted night operations themselves.

Bomb sight technology was influenced even more than navigational techniques by the characteristics of air policing. Firstly, the relatively permissive air environment that resulted from the tribesmen's lack of significant surface-to-air weapons meant that aircraft could bomb largely at their leisure from medium level, allowing a relatively stable approach to the target. This masked the advantages of a stabilised bomb sight which, within the context of air policing, would have been unnecessarily complicated to train and maintain. Furthermore, the relatively simple CSBS nested comfortably with skill levels of the locally-trained air gunners. As explained in Chapter 4's analysis of *AP1300*, the lack of vulnerable infrastructure in most semi-civilised theatres meant that precision was nugatory, leaving morale effect through the disruption of everyday life as one of the few coercive tools; the tribal villages which formed the ideal target for NWF bomber squadrons were sufficiently large to match the precision achieved with

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<sup>116</sup> As described in Chapter 7, the obsolescence of RAF(India)'s aircraft in the early 1930s brought the RAF into conflict with C-in-C(India), who considered the aircraft adequate for their tribal role, despite calls for their replacement; this conflict increased throughout the 1930s with looming war as RAF(India)'s role within the wider metropolitan Air Force became increasingly critical.

the early CSBS, especially since the aim of a blockade was not so much to destroy buildings but rather to dissuade villagers from returning to their homes. Furthermore, as the desired effect was morale rather than materiel, small bombs were sufficient; there was no requirement for absolute precision and no incentive to refine it. Indeed, the doctrine of targeting villages evolved to some extent because they were susceptible to the available weapon system technology. Longmate observed that the Air Ministry deliberately constrained bomb sight development to ensure it was simple enough for an average crew to use and that:

the RAF's success in policing the empire had misled its leaders into vastly under-estimating the difficulties in delivering a bomb in poor visibility against vigorous opposition.<sup>117</sup>

Nonetheless, RAF(India)'s medium level precision was insufficient for the requirements of army co-operation tasks where the proximity of friendly troops on the battlefield was a significant factor. As a result, army co-operation squadrons normally delivered bombs from low-level shallow dives with the pilot releasing the weapons visually without using a bomb sight. The required precision could be achieved due to the aircraft's relatively slow speed and low release altitude. Although this made army co-operation aircraft vulnerable to Western automatic weapons, the relatively low threat posed by tribal rifles resulted in an acceptable level of survivability.

Probably the most misleading characteristic of air policing was the lack of a hostile air threat which created a largely permissive operating environment. This obscured the true vulnerability of the bomber to modern fighters and the need for defensive armament, armour and fighter escort. Starved of practical evidence, the myth that 'the [unescorted] bomber will always get through' could not be disproven. Furthermore, the permissive environment allowed operations to be conducted by day which greatly simplified the challenges of both navigation and acquiring the target,

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<sup>117</sup> Longmate, *The Bombers*, 55.

allowing the unstabilised CSBS to appear adequate. In India, the threat from the Russian (and potentially Afghan) Air Forces was never perceived to be high enough to be worth developing an in-theatre air defence capability; as a result, obsolescent aircraft were deemed able to fulfil the everyday task at hand. On a wider perspective, it became convenient to assume that almost all operations would be accomplished by day, allowing the complications of night operations to be left largely unaddressed. As Longmate concluded, 'Most misplaced of all was the assumption that most operations would be conducted by day'.<sup>118</sup>

On the NWF, despite the Army's preference for punitive bombing rather than the more sophisticated methodology of the coercive air blockade, it is clear from the archive that the Air Staff remained wedded to the concept of morale effect and dislocation as the primary tactic, despite its infrequent employment. When it was employed, it proved effective; when punitive bombing was used and proved ineffective, the Air Staff could opine that an air blockade would have worked. Sadly, the Indian chain of command denuded the quality of information available to the Air Staff, prevented them from identifying significant lessons. This allowed the concept of morale bombing to remain in the forefront of the Air Staff's minds into the Second World War. Even the revisionists agree that colonial operations impacted on the RAF's Second World War strategy; to quote Baughen: 'The colonial 'air control' policy encouraged the Air Staff to pursue strategic bombing', which was "air control" policy on a grand scale'.<sup>119</sup> Many authors have identified that the RAF's lack of precision at the outset of the Second World War was caused by rudimentary navigation techniques and poor bomb sight technology, exacerbated by the defensive move to night operations, all of which combined to leave area bombing as the only effective strategy. However, fewer authors have identified the root cause of the low standards

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<sup>118</sup> Ibid.

<sup>119</sup> Baughen, *The Rise of the Bomber*, 236, 172.

of inter-War navigation and bombing, which were set by the standards required for daylight air policing in uncontested airspace. Night air policing was too difficult and largely unnecessary. Given that the general aim of the RAF's preferred air policing technique was to inflict morale effect rather than focused, material damage, the bar of precision was set low.<sup>120</sup> This beguiled the Air Staff into an inappropriate self-belief over the validity of the RAF's inter-War capability and veiled most incentives for improvement until it was too late. 'Good enough' was good enough in the inter-War era of tight budgetary constraints. However, from 1939, the bomber's daytime vulnerability in contested airspace was exposed, forcing a move to night which changed the paradigm. A striking parallel is that RAF small wars doctrine focused on morale effect because of the lack of vulnerable targets in semi-civilised theatres; when, during the Second World War, the RAF was forced to operate at night alone, it was unable to hit the potentially vulnerable industrial point targets and was forced instead to try and generate morale effect through area bombing.<sup>121</sup> Thus, in both theatres, morale bombing was adopted due to the inaccessibility or lack of more tangible targets. The NWF was particularly influential on the Air Staff because it was the RAF's most operationally-focused inter-War Theatre. Significantly, because NWF air power has not previously been examined in detail, India's influence on pre-Second World War bombing strategy has not previously been highlighted.

### **British Expeditionary Force, 1940**

The relationship that developed between the Army and RAF in India may have had further implications. Byford has highlighted that the British Expeditionary Force (BEF)'s defeat in 1940 was partially due to a lack of empathy between the Army and

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<sup>120</sup> Several authors, without the benefit of a practitioner's perspective, have focused on the material effect achieved by air policing without realising that this was, literally, relatively immaterial.

<sup>121</sup> For a discussion on the lack of vulnerable targets in small wars and the resultant focus on morale effect, see Chapter 4's discussion on *AP1300*.

RAF commanders.<sup>122</sup> Career background analysis reveals that forty-five percent of the BEF's field-ranking Army officers had previously served in India.<sup>123</sup> Additionally, the BEF's Air Component SASO, Air Vice-Marshal Capel, had commanded 5 Squadron during Pink's War and subsequently specialised in army co-operation.<sup>124</sup> It is possible that the Indian Armies' authoritarian approach to the RAF may have coloured these pivotal officers' expectations of inter-Service co-ordination, something which proved inappropriate when conducting complex, fast-moving operations with an independent air force in Europe.

## CONCLUSIONS

The Indian Armies' early enthusiasm for an in-theatre organic air arm indicates that they were not opposed to air power *per se*. Instead, inter-Service friction focused on financial and operational control, particularly the competition over relative force structures and the concomitant political influence. Nonetheless, by the late 1930s, inter-Service tactical co-operation was well developed.<sup>125</sup> The high-level debate then switched to RAF(India)'s wider role as the Second World War loomed, with the GS(India) adopting a parochial perspective.

Churchill's critical 1919 decision that RAF(India) would be funded by the Government placed Indian air power under the constitutional control of C-in-C(India), sidelining the Air Ministry. India's critical financial position throughout the period provided a further source of friction, especially given the demonstrable economies of air control in Iraq.

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<sup>122</sup> Group Captain Alistair Byford, "The Battle of France, May 1940: Enduring, Combined and Joint Lessons", *RAF Air Power Review* 11, no. 2 (2008): 70.

<sup>123</sup> See [Annex 18](#).

<sup>124</sup> He was captured during Pink's War and awarded a DSO. His career is described in [Annex 7](#).

<sup>125</sup> This has been widely recognised. See, for example: Major D A L MacKenzie, "Operations in the Lower Khaisora Valley, Waziristan, in 1937", *JRUSI* LXXXII, no. 528 (1937): 822; Roe, "The Troublesome 1930s: General Unrest, Intense Activity and Close Cooperation": 53; Coningham, "Air/Ground Cooperation between the RAF and the Indian Army in Waziristan 1936-37", 7; ———, "Air-Ground Cooperation between the RAF and the Indian Army in Waziristan 1936-37", 131; Moreman, "Development of Frontier Warfare 1914-39".

However, the strategic contexts of Iraq and NWF were very different: Britain had limited interest in Iraq under its League of Nations mandate and used air control as part of a gradual withdrawal policy; the NWF's Modified Forward Policy, in contrast, required ever-increasing commitment and contact with the tribal population. Issues over AOC(India)'s right-of-access to the Viceroy and the Air Staff's recognition as air advisors to the IO were never fully resolved.<sup>126</sup> This was exacerbated by the IO's lack of influence over the Gol.<sup>127</sup> Consequently, the Air Staff(India) were placed in an unenviable position; the Air Ministry provided official RAF doctrine but were outwith the Air Staff(India)'s chain of command, with tactics normally dictated by the local GOC.

As Roe highlighted, the introduction of the aircraft 'had the greatest impact on tribal control'.<sup>128</sup> The fundamental disagreement between the Army and RAF focused on the perceived effectiveness of 'morale effect'. To the airmen, this was an intuitive 'matter of faith';<sup>129</sup> to the soldier, it was unproven and threatened the *status quo*. Townshend described this as 'a straightforward opposition of beliefs'.<sup>130</sup> Prior to the aircraft, the Army had been constrained by short-range weapons, limiting its tactical sphere of influence to the range of cavalry reconnaissance; most effects were delivered on the battlefield and were visible, and therefore tangible, to the commander. The introduction of the aircraft offered the opportunity to change this paradigm. Airmen quickly developed a sophisticated understanding of the panoply of both lethal and non-lethal air effects that could be applied in a variety of different contexts to influence specific tribal behaviour. However, the conservatively-natured Indian Armies were slow to recognise the conceptual shift required to fully exploit the

<sup>126</sup> See, for example, AIR 2/2051, Enclosure 20A, Squadron Leader L Darvall, *Note on Meeting at India Office with Military Secretary* 23..11.37, 24 November 1937, 2.

<sup>127</sup> See The Earl Winterton, *Memo to SoS(Air) and CAS*. See Chapter 6.

<sup>128</sup> Roe, *Waging War in Waziristan*, 143. See also Robson, *Crisis on the Frontier*, 254.

<sup>129</sup> See Slessor, *The Central Blue*, 204.

<sup>130</sup> Townshend, "Civilization and 'Frightfulness': Air Control in the Middle East Between the Wars", 150.

aircraft's capabilities. The Army merely employed air power as an auxiliary to augment its existing capabilities and deliver traditional effects on the battlefield. While the 1933 Disarmament Conference ultimately came to nothing, it exposed that C-in-C(India) was content to abolish independent air action, but not army co-operation.<sup>131</sup> Even when the Army began to use aircraft as the main offensive weapon from 1938, they were employed akin to punitive columns to swiftly inflict material damage as punishment for previous misbehaviour. This effect was very tangible and, therefore, easy to appreciate.

Early RAF small wars doctrine initially focused on lethality to generate shock and moral effect to undermine the will of the recalcitrants. Villages provided ideal targets as they were static, identifiable, susceptible to RAF weapons and generated moral effect over a significant proportion of the tribal population; in contrast, *lashkars* in the field quickly learnt to hide and disperse when targeted by aircraft. However, criticism of the legitimacy of bombing non-combatants drove the Air Ministry's doctrine towards ethically-defensible, minimum-force tactics which evolved into the 'air blockade', whereby notices announced terms and forewarned tribesmen to abandon their villages until terms were conceded.

The air blockade's coercive mechanism relied on inducing duress via discomfort generated by the dislocation of everyday life, achieved by excluding inhabitants from their homes. This relied on the displaced populace having sufficient influence over the belligerents to assure their compliance. Although Islamic clerics had wider trans-tribal influence than tribal leaders, the British relied on reinforcing the *maliki* hierarchy to control tribal behaviour; *maliks* were paid inducements, or were coerced, to secure their tribesmen's compliance. Under the concept of collective tribal responsibility, the *maliks* were held responsible for the behaviour of their clansmen, irrespective of their

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<sup>131</sup> Paper by General Staff, covered by AIR 8/145, General Sir Kenneth Wigram, *Letter, Chief of the General Staff, India, to Air Officer Commanding, India, Air Marshal Sir John Steel*, 12 September 1933.



true influence. Aerial coercion was most effective when the tribal leaders had instigated and actively directed unrest. However, the fiercely democratic nature of the Wazir tribes meant that this causal chain was often fragile, especially when the belligerents were disaffected or fringe tribal elements in deliberate defiance of their *maliks*, who often claimed plausible deniability. Additionally, the Modified Forward Policy gradually broke down the tribal structure, further diminishing the *maliks'* influence.<sup>132</sup> Thus, Pink's 1925 air action against the Mahsud tribes was decisive, whereas the post-1937 low-level guerrilla campaign by the FoI's disaffected renegades proved more enduring.

The fundamental incompatibility between the independent 'air method' and military action generated significant friction. The aircraft's relative invulnerability denied the tribesmen the opportunity to retaliate effectively, and to collect loot, which enhanced their feeling of helplessness and frustration. However, the concurrent presence of troops offered the tribesmen an avenue of retaliation and loot, bolstering their morale and undermining the blockade's morale effect. The Air Ministry charged that the Army ensured they were involved in all major operations to deny the RAF being able to claim the success of independent air operations, something that CGS(India) described in 1938 as 'absolute bunkem!'.<sup>133</sup> Additionally, since a variety of coercive economic, air and land mechanisms were often applied simultaneously, it was difficult to definitively isolate air power's decisive role while, conversely, sceptics could easily besmirch it.

<sup>132</sup> Mallam, "The NWF Problem": 388.

<sup>133</sup> Vesey, *Letter, CGS(India) to CAS*, 2. CAS had described Vesey as 'reasonable and progressive... and has undoubtedly some sympathy with our point of view', having been loaned to the RAF as Director of Organisations and Staff Duties during 1923-28 as a temporary Air Vice-Marshal (see AIR 8/529, Air Chief Marshal Sir Cyril Newall, *Letter fragment*, 16 September 1938; *The Monthly Air Force List*, (London: HMSO, 1924) to *The Monthly Air Force List*, (London: HMSO, 1928). Hyde described the WO's lending of staff officers to the AM to form a staff at Hyde, *British Air Policy Between the Wars*, 141. Vesey's biography is at [Annex 7](#).

The air blockade differed fundamentally from punitive operations in that the tribesmen could concede to terms and stop the discomfort at any stage, thereby moderating ongoing tribal behaviour. In contrast, no terms were associated with proscription; the tribesmen simply had to endure the punishment, imposed for ‘past misdeeds’, until bombing ceased.<sup>134</sup> Nonetheless, punitive destruction was visible and measurable, whereas the discomfort of the inverted blockade was less tangible and easier to refute. Importantly, some Politicals disliked dictating terms in advance because of the concomitant commitment and potential loss of prestige if they weren’t achieved, unlike proscription which could be halted at any time; the vagary of proscription provided more latitude than the prescription of the blockade.<sup>135</sup>

The Army repeatedly highlighted the injustice of bombing the innocent, preferring direct land action.<sup>136</sup> Soldiers appeared constrained from understanding the blockade’s coercive mechanism (to evacuate, rather than destroy, villages), viewing ‘the bomb’ in terms of their own punitive paradigm. The GoI understood that tribesmen often exaggerated non-combatant casualties to reduce the fines associated with misbehaviour.<sup>137</sup> Nevertheless, the RAF investigated various methods of ‘frightfulness’ to annoy and frighten, rather than kill, something which several contemporary observers have chosen to interpret as ‘moral hideousness’ rather than its contemporary, non-lethal, meaning.<sup>138</sup> Despite the Air Ministry’s attempts to paint air action as morally defensible, its unacceptability with the public and international community influenced the Army and Politicals, eventually leading to the demise of air

<sup>134</sup> See, for example, AIR 2/2051, Enclosure 16C, *Draft Letter from Secretary of State for India to his Excellency the Viceroy*, 2.

<sup>135</sup> See Chatfield, *Expert Committee Report*, 16. This is discussed in Chapter 6.

<sup>136</sup> See, for example: Chetwode, *C-in-C(India) to Viceroy*, 20 August 1935, 1-2, which he later withdrew, and; AIR 23/687, General Sir Kenneth Wigram, *Letter, General Officer Commanding-in-Chief, Northern Command, to Chief Secretary to Government, NWFP*, 26 February 1936.

<sup>137</sup> See, for example, AIR 2/2051, H A F Rumbold, *Letter, India Office to Lieutenant Colonel A E B Parsons, External Affairs Department, Government of India*, 14 July 1937.

<sup>138</sup> See Chapter 7 and [Annex 16](#).

control.<sup>139</sup>

The soldier's emotional engagement with the fight also influenced their use of punitive air action. The Army's frustration during the 1930s over the tribesmen's evasion of a decisive fight, combined with the Pathan's barbaric treatment of Government casualties, resulted in a policy of inflicting maximum casualties.<sup>140</sup> This undermined the Gol's legitimacy, consolidating support for India's nationalist movement. The RAF, in contrast, suffered fewer casualties and were physically dislocated from the fight by height, so were less emotively engaged and could retain a more objective, minimum-force approach.<sup>141</sup>

This generated a conundrum. RAF(India) Bomber squadrons were consistently tasked by the Army with punitive action which was difficult to legitimise and which the Army shied from publicising. The Air Ministry, in contrast, believed its worldwide minimum-force doctrine was publicly defensible, but were constrained from applying it and frustrated by the GS(India)'s 'misapplication' of air power; a 1937 Air Staff paper stated 'we continue to subordinate our new weapons to old tactics'.<sup>142</sup> The archive reveals contradictions. The Viceroy had recognised air power's potential to mitigate his garrison's depleted strength during the FWW.<sup>143</sup> However, the Indian Armies subsequently denied the effectiveness of 'the bomb' when their organisational structure and status were threatened by RAF substitution during the inter-War era, despite tasking widespread punitive air action during the late-1930s enduring insurgency.<sup>144</sup> Indeed, the Army could dissociate itself from any unpopular punitive air

<sup>139</sup> See, for example, Lunt, "Air Control: Another Myth?": 68.

<sup>140</sup> This was apparent in both formal orders and the soldier's accepted practice. See: "Official History of NWF Ops, 1936-37", 204 and; Masters, *Bugles and a Tiger*, 208-209.

<sup>141</sup> In 1937, the Air Staff drafted a letter to the Viceroy which stated 'the first object [of an air blockade] is to inflict no casualties at all'. See *Draft Letter from Secretary of State for India to his Excellency the Viceroy*, 3.

<sup>142</sup> AIR 8/529, Air Staff, *Untitled Paper*, 1937, 2. A copy is also archived in AIR 9/11, E60.

<sup>143</sup> Under Secretary of State for India, *Telegram, Viceroy to SoS(India)*, 20 August 1915.

<sup>144</sup> See, for example, the GS(India)'s criticism of the acceptability of bombing in Deverell, *Examination of Air Staff Proposals for the NWF*, 1931, 1.

action by implicating the RAF.<sup>145</sup> Furthermore, with air action's Frontier reputation already tainted, differentiating between punitive bombing and the inverted blockade required a sophisticated narrative which was beyond easy public or Army comprehension.<sup>146</sup> Other contradictions included *volte-faces* by both the Army and RAF according to incumbent circumstances. For example: India was denied additional squadrons during the FWW, but reassured it could be reinforced from Egypt if necessary; yet, immediately following the War's cessation, the RAF petitioned the GoI to fund a 12-squadron army co-operation and strike force; subsequently, as the Second World War loomed, the RAF viewed India as an Imperial air reserve, rather than a region to be reinforced.<sup>147</sup>

Although early Air Ministry small wars doctrine drew on experience from the Third Afghan War and subsequent unrest, it developed in isolation from NWF tactics. The RAF was reticent to constrain its core doctrine to accommodate Indian requirements because, as Salmond signalled in 1932:

...policy adopted in India will have to be applied to other countries where R.A.F. is employed, and ... the capacity for R.A.F to control semi-civilised countries will be jeopardised.<sup>148</sup>

As described in Chapter 5, operations on the NWF were under closer scrutiny than other areas under air control, such as Iraq, Transjordan and Aden, and were therefore politically constrained to a greater degree. There were several scrutinisers; most of India was administered with a highly structured society which included political parties, a Legislative Assembly and an active press, all gradually gaining more influence.

Therefore, the Air Staff were reticent to adapt their core doctrine to accommodate the

<sup>145</sup> For example, in 1935, C-in-C(India) retrospectively criticised the punitive proscription of Bajaur, which had been tasked by the Army, as described in Chapter 6 (see Chetwode, *C-in-C(India) to Viceroy*, 20 August 1935, 2).

<sup>146</sup> See, for example, the Indian Foreign Secretary's confusion between punitive proscription and air blockades in AIR 23/687, H A F Metcalfe, *Letter, Indian Foreign Secretary to Finance Member of Council*, J C Nixon 27 May 1937.

<sup>147</sup> See Chapter 6.

<sup>148</sup> AIR 8/145, Air Chief Marshal Sir John Salmond, *Telegram, Chief of the Air Staff to Air Officer Commanding, India*, 26 July 1932, 1.

sensitivities of India if it unnecessarily constrained the application of air power in its core areas under air control. *CD22* provided the initial doctrine for air control in Iraq which underlined the requirement for an independent air arm. It emphasised AOC-controlled independent air action, with military support largely limited to protecting airfields. It advocated targeting villages, while cautioning against the temptation of using aircraft to inflict punishment. While over 25% of the subsequent *AP1300* small wars chapter was dedicated to direct support or co-operation with land forces, it highlighted how troops allowed the enemy to retaliate and capture loot from its vulnerable lines of communication. Subsequently, *AP1300* recommended the application of minimum force against habitations to disrupt the tribesmen's normal life until the discomfort became intolerable.

In contrast, Air Staff(India) doctrine was promulgated by separate pamphlets which focused on independent air action that was rarely employed.<sup>149</sup> Air action was regulated from 1928 by the Army Department's *Instructions* and Gol's *Grey Book*, which ignored independent air action.<sup>150</sup> This lack of agreed guidance undermined doctrine's objective of providing mutual inter-Service understanding; it gave great latitude to local commanders, but confused the Politicals, who received contrary advice from their Army and RAF advisors. Over time, local Frontier air tactics developed, such as punitive proscription, which the Air Ministry refused to recognise. In the late 1930s, the mutual respect and willingness to compromise for in-theatre purposes by commanders such as Auchinleck, Ludlow-Hewitt, Peck and Slessor resulted in the *Combined Frontier Manual*. Despite this in-theatre accord, the *Manual* took three years to publish due to high-level inter-Service discord. The IO's sensitivity to potential press criticism over the air blockade chapter and a desire not to promote

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<sup>149</sup> These pamphlets were the Air Staff(India)'s 1924 *Employment of Aircraft on the NWF of India* and their Air Staff(India) Memo No 1 (see: Air Staff, *Employment of Aircraft on the NWF*; and 1935 *Air Staff (India) Memo No. 1*).

<sup>150</sup> Army Department, *Instructions Regarding the Employment of Aeroplanes on the NWF*, 1928, replaced in 1931 by ———, *Control of Operations on the NWF*, 1931.

independent air action was only resolved by Ministerial intervention. Similarly, the Air Staff(India), GS(India) and IO had to collude to convince the Air Ministry to accept the inclusion of punitive proscription, which they deemed necessary to address local challenges. This conflicted with the Air Ministry's global perspective and its desire for a worldwide, ethically-defensible doctrine.<sup>151</sup> As the Second World War loomed, the Army's parochial view of the Indian squadrons as a counter-insurgency tool clashed with the Air Ministry, who viewed them as an Imperial reserve. This theme of differing perspectives, responsibilities and priorities between 'home', 'in theatre', the RAF and Army was a significant and almost continuous source of friction. Generally, where circumstances and time-critical objectives coincided, the RAF and Army co-operated effectively, as the in-theatre forces did during the late-1930s unrest; unsurprisingly, where agendas and budgets clashed, there was friction.

The archive reveals the key role of personality. Some senior Army personalities were fundamentally anti-RAF, due to extreme traditionalism and emotional attachment to cavalry, but lacked the strength of their convictions and tried to obfuscate their role and blame others.<sup>152</sup> Trenchard collided with this trait when he rushed the publication of his 1929 'swansong' concerning substitution on the NWF. This single-Service paper poisoned high-level Indian Army-RAF relations for much of the decade; the Army's reluctance to allow the RAF to employ tactics that increased the likelihood of substitution curtailed any chance of expanding the use of independent air action. Indeed, subsequent C-in-C(India)s, accustomed to demi-official guidance from their WO colleagues, became overly defensive to formal Air Ministry technical advice from little-known officers concerning the most effective use of what one C-in-C(India) described as 'my air forces', and attempted to use constitutional protocols to ostracise

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<sup>151</sup> In 1937, the Air Staff considered the general principles of air control to be ubiquitous, but appreciated that the need for different methods of application according to local principles. See Saundby, *Air Ministry to AOC Aden, 17 September 1937*.

<sup>152</sup> For example, Sir Henry Rawlinson, C-in-C(India) and Sir Roger Wilson, Military Secretary to the IO.

the Air Ministry.<sup>153</sup> A Government-sponsored independent commission would have probably found more traction; Tribal Control Committee recommendations to expand air power's Frontier role were beyond the Committee's remit and so easily dismissed. The spectre of substitution was kept alive by Air Ministry zealots such as Darvall, who took most opportunities to criticise the Army's strategy, sometimes erroneously due to lack of understanding of the context of NWF operations. As CGS(India) explained to CAS in July 1938: 'the further one is away from the realities of a situation the more liable one is to adopt a distorted view of the "rights and wrongs" of any case'.<sup>154</sup> Within the Air Staff, this context was provided by airmen with recent NWF experience, such as Slessor and Embry. One can only imagine how inter-departmental collaboration could have been improved if the Air Staff's India desk officer had been embedded in the IO's Military Department rather than the Air Ministry. He would have gained a fuller appreciation of Indian issues and, once accepted as part of the team, would have been able to educate the IO on air power's utility and influence its application.

However, Air Staff(India) officers found themselves in an unenviable position, balancing the Air Ministry's formal doctrine against the exigencies of combined air-land insurgent warfare. Steel (AOC(India), 1931-35) had to manage Trenchard's 'testament' and had a poor relationship with C-in-C(India), although he helped convince India's Executive Council to retain independent air action during the 1933

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<sup>153</sup> See, for example, Chetwode, *C-in-C(India) to PUS(India)*, 14 March 1932. The nature of communications between the WO and GS(India) is described at: IOR/L/PS/12/3260, Sir Stuart Brown, *Letter, Joint Secretary, Military Department, India Office, to Military Secretary, Military Department, India Office (Major-General Sir Sydney Muspratt)*, 23 December 1931, as described in Chapters 6 and 7. The WO had a hubric approach to the Air Staff, at least initially; in 1923, SoS(War) told the Prime Minister that 'It is no use thinking you can have an Air General Staff unless the quality of the men on it is of sufficiently high standard to make their decisions acceptable both to the Army and the Navy, and such is not the case now' (see Hyde, *British Air Policy Between the Wars*, 140).

<sup>154</sup> Vesey, *Letter, CGS(India) to CAS*.

Geneva Disarmament Conference.<sup>155</sup> Interestingly, Steel was the first ex-Naval AOC(India); his lack of soldiery may have restricted his intuitive empathy for, and credibility with, the Army.<sup>156</sup> His replacement, Ludlow-Hewitt, an ex-Irish Rifleman, distanced himself from substitution and developed a more productive relationship. While disagreeing with the Army's NWF strategy, Ludlow-Hewitt, Peck and Slessor nevertheless endeavoured to prove air power's worth within the extant constraints. They developed an efficient army co-operation system that ultimately contained the 1936-39 insurgency, largely by local innovation, rather than top-down, Air Ministry direction. They had the resolve to consistently rebut the Air Staff's misinterpretation of NWF events, yet strived for doctrinal convergence, leading to the *Combined Frontier Manual*. These Air Staff(India) officers appreciated the Army's perspective and developed close interpersonal relationships and a willingness to compromise to achieve pragmatic tactical solutions.

The 1936-39 Waziristan insurgency was the last significant RAF operation prior to the Second World War, underlined by the significant amount of ordnance expended, as shown in [Annex 2](#). As such, its influence on subsequent bombing policy is worthy of analysis, especially since it required more Governmental control than the rest of the NWFP due to the trans-border tribes' ability to intervene in Afghan affairs and draw Afghans into their own.<sup>157</sup> The Foli politicised local issues using religion to unify the fiercely independent *nang* tribes. However, the Foli lacked the organisation of mainstream nationalist movements. The Foli's followers suffered disproportionately to British conventional all-arms firepower when finally outflanked and surrounded in May 1937. This forced Ipi to withdraw to the Afghan border, where he exploited its sanctuary. Gol stipends to the *maliks* and *Khassadars* ultimately incentivised them to

<sup>155</sup> See AIR 8/145, Air Marshal Sir J M Steel, *Letter, AOC(India) to CAS*, 18 September 1933, 3.

<sup>156</sup> See [Annex 7](#) and [21](#).

<sup>157</sup> See Warren, *Waziristan, the Faqir of Ipi, and the Indian Army*, 247.



remain largely loyal to their sponsors.<sup>158</sup> This changed the character of the conflict, leaving the Foli reliant on disaffected or outlawed tribesmen outside the influence of the Gol's benefit system, denying him sufficient mass and forcing him into low-level insurgent warfare which, nevertheless, required costly, enduring, Gol engagement to contain.

An enduring Frontier issue was the search for the ideal location of the air commander during army co-operation operations. Despite RAF in-theatre efforts, ground-to-air and ground-to-ground tactical communications remained fragile and immature. Slessor advocated deploying the air commander with the column, allowing him to co-ordinate army co-operation support for the column commander. While this worked well during simple, single-column exercises, it isolated the air commander from his other squadrons during more complicated, theatre-level operations. Poor communications were exacerbated by the reactive nature of army co-operation operations; this failure was recognised locally and appropriate mobile communications were gradually developed in theatre, rather than by the RAF at large.<sup>159</sup>

The theme of local innovation also applied to the bomber-transport. This aircraft could support the Army by aerial re-supply and casualty evacuation, yet its long endurance and high payload allowed it to loiter over the battlefield for reactive army co-operation tasking or deliver large weapons at long range during independent air action. Nonetheless, despite the Tribal Control Committee recognising these facets, the Air Ministry's enthusiasm appears muted. It was left to in-theatre personnel to develop the necessary bombing capability, such as Harris as OC 45 Squadron in

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<sup>158</sup> Warren records that few *maliks* or *Khassadars* were found amongst rebel casualties. See *Ibid.*, 277.

<sup>159</sup> In 1935, while attached to the Air Staff(India), Slessor emphasised the 'overriding importance of adequate signal equipment' (see Slessor, *The Central Blue*, 129).

Iraq.<sup>160</sup> Had the Air Ministry more actively sponsored this capability, the bomber-transport's ability to overcome the enduring logistical challenges that had constrained mountain warfare would have been difficult for the Army to deny (as demonstrated by the decisive 1937 Iblanke Pass operation) and would have simultaneously introduced a potent vehicle for independent air action. It was, perhaps, the bomber-transport's recognised vulnerability to fighter aircraft which made it only suitable as a bomber in undeveloped countries that tempered the Air Staff's enthusiasm.<sup>161</sup>

There is significant evidence that small wars and morale effect influenced the development of the RAF's subsequent strategic bombing doctrine and lack of focus on precision. The Air Staff's enduring attempts to impose air control on the NWF underlines that they recognised India's political significance. Indeed, despite the apparent success of air control in Iraq and Aden, much of the GS(India)'s objection to air control was based upon the potential loss of Service prestige, underlining India's Imperial status. NWF bombing operations featured far more frequently in the contemporary British press and public domain than other RAF-controlled theatres, generally because they were often discussed in the Indian press and Legislative Assembly.<sup>162</sup> Additionally, every CAS up to 1937 had served in India, as had each AOC-in-C Bomber Command up until 1945.<sup>163</sup> Therefore, small wars, and India in particular, are likely to have shaped the intuitive beliefs of these critical Second World War leaders. These factors, combined with the significant magnitude of NWF bombing operations during the latter 1930s and the archival records of the Air Staff's

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<sup>160</sup> See: Jefford, "The Bomber Transport and the Baghdad Air Mail": 25-26; Harris, *Bomber Offensive*, 22; Saundby, *Air Bombardment*, 46; Embry, *Mission Completed*, 35; Saundby, "No 45 Squadron in Iraq, 1922": 112.

<sup>161</sup> AIR 69/17, Wing Commander Ronald Ivelaw-Chapman, *The Role of the Bomber Transport Aircraft: Lecture to Higher Commanders' Course, Old Sarum*, 3 May 1939, 15.

<sup>162</sup> The RAF's perspective of the sensitivity of NWF air action is given at Pirie, *Letter from Air Ministry to Air Officer Commanding, Aden Command*.

<sup>163</sup> See [Annexes 19](#) and [20](#). Trenchard had served in India during his Army service with the Royal Scots Fusiliers. Additionally, Newall (CAS, 1937-40) had been AOC Middle East and Portal (CAS, 1940-46) had been AOC Aden. Bottomley's role as Deputy CAS/ACAS(Ops) from 1941 to 1945 was also pivotally influential towards Second World War bombing policy.

discussions of RAF(India) reports, suggest that India had a strong reinforcing influence on the RAF's adherence to Trenchardian morale effect and therefore, on the development of the RAF's strategic bombing doctrine, even though air control was never imposed. The NWF appears to be a 'missing link' in the development of the RAF's strategic bombing doctrine.

It is currently in vogue to conceptualise strategy in terms of 'ends', 'ways' and 'means'. In this model, the 'ends' are the policy objectives or endstate trying to be achieved, the 'means' are the resources available, while 'ways' are the tactics, techniques and procedures used to orchestrate the available assets to achieve the required endstate. Good strategy needs to balance the ends, ways and means; a strategy that sets an over-ambitious endstate that cannot be achieved with the available resources or methodology is unlikely to be successful. Using this model, it can be seen that the Gol never had an effective frontier strategy for Waziristan. The Modified Forward Policy, which aimed to pacify Waziristan by the garrisoning of troops and building of roads, schools and hospitals, was never supported by sufficient resources to convince the tribes of the advantages of civilisation. Against a background of financial austerity, the Gol chose to resource the Army, rather than develop infrastructure to benefit the tribes, as demonstrated by the lack-lustre approach to Mallam's 1944 five-year plan. Thus, Frontier strategy fixated on treating the symptoms rather than finding a solution. Indeed, substitution could have released the finances required to fund such an enduring solution.

Although the controversial Modified Forward Policy was predicated on anticipated savings from the introduction of air power, Frontier strategy was never comprehensively re-assessed in terms of balancing the endstate against the new 'means' available (the aircraft and tank) and the new 'ways' these could be employed. The Air Staff(India) consistently petitioned for direct political, rather than military, control of air forces, as was the case in theatres under formal air control; in 1931, C-

in-C(India) had to remind AOC(India) that: 'I, and not a civilian, am in charge of all operations... the orders for operations emanate from me, and not from the Foreign and Political Department'.<sup>164</sup> Indeed, in the early 1930s the Air Staff(India) believed that the Politicals handed over control of operations to the Army too freely.<sup>165</sup> Conversely, the WO were against 'dual control' in India, with CIGS commenting that he was 'getting rather tired of the interfering attitude of the Air Council' – a hubric comment, given that the WO and Air Ministry had similar formal rights of access to the IO and GS(India).<sup>166</sup> India's constitutional command structure allowed the conservative Army, haunted by the spectre of substitution, to employ the new 'means' in their traditional 'ways'; while most senior RAF commanders of this era had served previously in the Army and understood Army tactics, Army commanders lacked an appreciation of air power beyond the immediate battlefield.<sup>167</sup> Following Partition in 1947, Pakistan re-appraised Frontier strategy and successfully employed a modified close border policy, supported by air power; Pakistan's low-cost strategy used new means (the aircraft) in new ways (politically-controlled independent air action) to achieve a different endstate (local self-determination for the tribal areas).<sup>168</sup> This appeasement strategy was largely successful until 2001 when the lack of governance provided a sanctuary for international terrorism to flourish. In summary, air power's timing was unfortunate. Whilst a superficial appreciation of air power could conclude that its alleged 'inhumanity' was inconsistent with the Modified Forward Policy's 'peaceful penetration', air power would have nested very comfortably with the

<sup>164</sup> AIR 8/129, Air Vice-Marshal J M Steel, *Letter, AOC India to CAS*, 24 July 1931.

<sup>165</sup> Steel, *Letter, AOC(India) to CAS*, 18 September 1933, 1.

<sup>166</sup> WO 32/3526, Thomas Shaw, *Letter, Secretary of State for War to Secretary of State for India*, Wedgewood Benn, 20 May 1931; WO 32/3526, Minute 15, Field Marshal Sir George Milne, *Minute, Chief of the Imperial General Staff to Secretary of State for War*, 14 May 1931.

<sup>167</sup> See [Annex 19](#) and [21](#).

<sup>168</sup> Slessor noted the irony of Pakistan's successful policy, claiming the British Army's objections had been due to 'ignorance and prejudice, not untinged by jealousy' (see Slessor, *The Central Blue*, 36-37). Burt-Andrews recorded being told by a young Pakistan Air Force pilot in 1960 that it was still occasionally necessary to rocket 'troublesome' villages; 'It soon stops the trouble' (see Burt-Andrews, "Guarding the Mountain Wall": 217).

preceding Modified Close Border Policy and was demonstrated to be generally effective during Pakistan's subsequent implementation of Tucker's close border policy.

Despite the supposedly 'sporting' nature of Frontier conflict, some aspects of Pathan behaviour were barbaric. Although the financial rewards of 'gooly chits' meant that most captured aircrew were ultimately treated well, captured troops were less fortunate.<sup>169</sup> When the body of one Highlander was recovered, the top of his skull and brain had been removed and his skull filled with earth. Burnt cigarettes had been pushed up his nostrils and his genitals sewn into his mouth.<sup>170</sup> Prisoners sometimes fared no better; one torture was to stake a captive to the ground with his mouth propped open by splints, after which the tribal women would urinate in his mouth until he drowned.<sup>171</sup> However, the enduring high-level internecine conflict between the Imperial land and air forces during the inter-War period was, in some ways, even more distasteful and resulted in the squandering of both resources and the invaluable opportunity to test independent air power prior to the Second World War.

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<sup>169</sup> Slessor noted that 'as far as I know, there was no case when [captured aircrew] were killed or even seriously ill-treated', a statement that the archives support. See Slessor, *The Central Blue*, 67-68.

<sup>170</sup> Warren, *Waziristan, the Faqir of Ipi, and the Indian Army*, 184.

<sup>171</sup> Masters, *Bugles and a Tiger*, 211.

## ANNEX 1 - DEFINITIONS

*We love our categories and our subcategories. Their invention gives us an illusion of intellectual control. We think we can improve our understanding of a subject as diffuse and richly varied as irregular warfare and insurgency by hunting for the most precise definition and subdefinitions.<sup>1</sup>*

### AIR BLOCKADE

The term 'air blockade' was first mentioned in Air Ministry correspondence in the early 1920s.<sup>2</sup> By the mid-1930s, the term was common parlance in British aeronautical circles; a 1936 article in *The Aeroplane* described it as 'the latest method of dealing with truculent tribes in the Aden Protectorate' and was described in RUSI presentations.<sup>3</sup> The confusion between the tactic of 'air blockade' and the control system of 'air control' was already evident, with the Air Ministry reminding units that the term 'air blockade' had 'perhaps unfortunately, come to be confused with what is known as air control although it is properly only the method normally used by air force commanders when, under an air control system, recourse has to be made to direct coercion to enforce the orders of government'.<sup>4</sup> Furthermore, the term was also confused with 'proscription' by IPS Politicals and the Armies in India. Although the technique was described in official doctrine, the term itself was left undefined. AOC Aden in 1936, having been officially chastised for bombing an intransigent tribe rather than applying the officially endorsed 'air blockade' doctrine, responded that '*the term "air blockade" seems to me to be a very misleading one*' and '*is rather a misnomer... what I am concerned about is how literally I am to interpret the term*'.<sup>5</sup>

For the purposes of this Thesis, the term 'air blockade' refers to the coercive technique of using aircraft to blockade tribes out of their tribal territory until they had conceded to terms. In contrast, no terms were associated with proscriptive air action.

<sup>1</sup> Colin S Gray, "Irregular Warfare: One Nature, Many Characters", *Strategic Studies Quarterly* 1, no. 2 (2007): 40.

<sup>2</sup> Air Staff, *Employment of Aircraft on the NWFI*, 11-13.

<sup>3</sup> "Operations in the Aden Protectorate". RUSI presentations include Portal, "Air Force Co-operation in Policing the Empire", in which he used the term 'inverted blockade'.

<sup>4</sup> Air Ministry, *Air Blockade*, 1936.

<sup>5</sup> McClaughry, *Letter from Air Officer Commanding, Aden Command, to Air Ministry (Wing Commander G C Pirie)*.

## AIR CONTROL

Omissi defined 'air control' as the system of control whereby the Air Ministry assumed responsibility for the defence or internal security of a particular region of the Empire.<sup>6</sup> This is the definition used in this Thesis.

Although this system of control was first adopted in 1922, the term 'air control' was not used in RAF literature until the late 1920s, and did not appear in the official doctrine manual, AP 1300, until after the Second World War. Nevertheless, an Air Staff Memo in 1930 stated that 'the term "air control" implies that control is applied by aircraft as the primary arm, usually supplemented by forces on the ground'.<sup>7</sup> In a 1933 lecture, DCAS challenged Sir Henry Dobb's following air control definition:

the Royal Air Force shall be considered the predominant arm, and that general control of all forces in that region shall lie with the Air Headquarters, in consultation with responsible representatives of other forces employed, whether naval, military or police.<sup>8</sup>

DCAS recounted that he used the term in a broader sense, 'namely to describe the use of air forces for the purpose of maintaining good order and security in certain districts irrespective of whether the Commander-in-Chief is an Air officer or an Army officer'.<sup>9</sup> Thus, the term 'air control' was common RAF parlance from at least the very early 1930s, but used in a broad sense.

## AIR POLICING

The term 'air policing' did not appear in official RAF doctrine. However, some 1930s articles referred to it in passing. Rather confusingly, Kingston-McCloughry's 1937 article entitled 'Policing by Air' actually described air control.<sup>10</sup> Amongst the first mentions of 'policing' in official RAF doctrine was in 1957, when 'air operations in undeveloped Countries' were described as 'generally of a "police" nature against people for whose administration or protection we have some responsibility'.<sup>11</sup> The use of the term 'policing' may have reflected the doctrine of the time which accepted that, while air control was an effective and economic way to maintain the internal security of an Imperial protectorate, it was far less effective at countering an external threat to the

<sup>6</sup> Omissi, *Air Power and Colonial Control*, xv.

<sup>7</sup> Air Staff, ASM 46, paragraph 1.

<sup>8</sup> AIR 10/2173, *Air Staff Memorandum 52: Air Control: A Lecture by the Deputy Chief of the Air Staff at the Imperial Defence College, April, 1933*, June 1933, 3.

<sup>9</sup> Ibid.

<sup>10</sup> Kingston-McCloughry, *Winged Warfare: Air Problems of Peace and War*, 201.

<sup>11</sup> Air Ministry, *AP 1300: Royal Air Force War Manual: Operations*, 4th ed. (1957), 87.

territory. Indeed, Omissi defined 'air policing' as the 'use of aircraft to uphold the internal security of a state'.<sup>12</sup> A more recent definition of 'air policing', proposed by Boehm and based on Kingston-McCloughry's article, is 'the use of airpower as the primary weight of effort to influence operations, either in the air or on the ground, within a permissive air environment'.<sup>13</sup> Simpson examined air power as a mechanism of repression and the blurring of martial law and aggressive policing in his 2001 book.<sup>14</sup>

## AIR SUBSTITUTION

'Air substitution' is a term referring to the replacement of army or naval units used in Imperial defence by aircraft. This happened when, for example, air control was imposed and RAF units replaced Army formations.<sup>15</sup>

## GUERRILLA WARFARE

The term 'guerrilla warfare' is derived from the Spanish phrase for 'little war' and was first used to describe the tactics used by irregular Spanish forces against Napoleon's army of occupation during the Peninsular War of 1808 to 1814. It has been consistently defined in UK, US and NATO doctrine since 1973 as 'military and paramilitary operations conducted in enemy held or hostile territory by irregular, predominantly indigenous forces'.<sup>16</sup> Thus, while the historic UK meaning of 'small wars' could include regular troops invading 'semi-civilised' territory, a guerrilla campaign is, by definition, always fought by irregular combatants in territory held by regular forces.

## IMPERIAL POLICING

'Imperial policing' is a generic and once widely used phrase, although it was not used in official RAF doctrine. In his book 'Imperial Policing', Gwynn described it as 'when

<sup>12</sup> Omissi, *Air Power and Colonial Control*, xv.

<sup>13</sup> Boehm, "'Air Policing'", 1.

<sup>14</sup> Simpson, *Human Rights and the End of Empire: Britain and the Genesis of the European Convention*, 71-75.

<sup>15</sup> Omissi, *Air Power and Colonial Control*, xv.

<sup>16</sup> The UK now uses the NATO definition at: NATO Standardization Agency, *NATO Glossary of Terms and Definitions*, AAP-6 (2015). The US dropped the term 'guerrilla warfare' from its formal definitions in 2010, but still defines 'guerrilla force' in similar terms (see US Joint Staff, "Dictionary of Military and Associated Terms", *Joint Publication 1-02* (2016)).



the normal civil control does not exist, or has broken down to such an extent that the Army becomes the main agent for the maintenance of or for the restoration of order'.<sup>17</sup> However, the imposition of air control in some theatres following the FWW resulted in the concomitant substitution of Army units by RAF squadrons. For some, Imperial policing became increasingly associated with the use of air power to manage and overawe areas of the globe which had hitherto required garrisons.<sup>18</sup> This reflects Churchill's 1919 declaration that 'the first duty of the RAF is to garrison the British Empire'.<sup>19</sup> In this Thesis, the phrase is used in its broader sense to refer to the use of military forces (i.e. Royal Navy, Army or RAF) to uphold the internal security of a state.

## INSURGENCY AND COUNTER-INSURGENCY

Until recently, Western military use of the term 'insurgency' was remarkably consistent, with the UK and US both adhering to the 1980 NATO definition of 'an organised movement aimed at the overthrow of a constituted government through use of subversion and armed conflict'.<sup>20</sup> The more recent UK definition widens the meaning to the 'prevention of political control' rather than 'overthrow' of the established authority, but unhelpfully replaces 'movement' with 'subversion', without defining the latter.<sup>21</sup> The US definition has evolved similarly, using the term 'seize, nullify or challenge', rather than 'overthrow' political control.<sup>22</sup>

Yet previous doctrinal definitions of the term have been more descriptive, using the phrase 'political struggle' instead of 'movement' in the current definition.<sup>23</sup> During the 1980s, the US Central Intelligence Agency used the following definition which shied away from the desired effect on the government and instead emphasised the required endstate: 'a protracted political-military activity directed toward completely or partially controlling the resources of a country through the use of irregular military

<sup>17</sup> Gwynn, *Imperial Policing*, 3.

<sup>18</sup> John Buckley & Richard Holmes. "Imperial Policing". <http://www.answers.com/topic/imperial-policing> (accessed 10 Nov 09).

<sup>19</sup> *Pay of the Air Force*, col 137.

<sup>20</sup> *Joint Doctrine Publication 0-01.1: United Kingdom Glossary of Joint and Multinational Terms and Definitions*, 7th ed. (Shrivenham: Development, Concepts and Doctrine Centre, 2006); US Joint Staff, "Dictionary of Military and Associated Terms", *Joint Publication 1-02* (2009); NATO Standardization Agency, *NATO Glossary of Terms and Definitions*, AAP-6 (2008).

<sup>21</sup> *Joint Doctrine Publication 0-01.1: UK Supplement to the NATO Terminology Database*, 8th ed. (Shrivenham: Development, Concepts and Doctrine Centre, 2011).

<sup>22</sup> US Joint Staff, "JP 1-02, 2016": 113.

<sup>23</sup> *Field Manual 100-20/Air Force Pamphlet 3-20: Military Operations in Low Intensity Operations*, (US Department of the Army and the Air Force, 2009), 2-0.

forces and illegal political organizations'.<sup>24</sup>

The definition of 'insurgency' used within the context of this Thesis is of 'an organised, protracted movement aimed at obtaining political concessions or the overthrow of the constituted government through use of subversion and violence', the key words being 'organised', 'protracted', 'political', 'subversion' and 'violence'. It can be seen that, while the term 'insurgency' can be used to describe a body of people (a 'movement') or a tactic (subversion and armed conflict), the aim is always political change. There was also multi-national agreement over the even older definition of 'counter-insurgency' from 1973: 'those military, paramilitary, political, economic, psychological, and civic actions taken to defeat an insurgency'. The UK/NATO definition has evolved to not only defeat the insurgency, but also to address the cause: 'Comprehensive civilian and military efforts made to defeat an insurgency and to address any core grievances';<sup>25</sup> the current US definition is almost identical.<sup>26</sup>

## **INSURRECTION, REBELLION AND UPRISINGS**

'Insurrection', 'rebellion' and 'uprising' are all non-doctrinal, yet commonly used, terms. In this Thesis, all three terms are synonymous and refer to an organised and significant element of the population who rise in arms or open resistance against the established authority or governmental restraint'.<sup>27</sup> Note that this is very similar to an insurgency, but lacks the subtlety of employing subversion.

## **IRREGULAR WARFARE**

The term 'irregular warfare' is a relatively new, overarching term used to encompass a large field of conflict. Irregular warfare has existed for centuries and has at various times been labelled as 'low-intensity conflict', 'small wars', 'military operations other than war', 'limited warfare', 'unconventional warfare', 'asymmetric warfare' and, most

<sup>24</sup> Quoted in Daniel Byman et al., *Trends in Outside Support for Insurgent Movements* (Santa Monica: RAND, 2001), 4.

<sup>25</sup> NATO Standardization Agency, *AAP-6, 2015, 2-C-16*.

<sup>26</sup> US Joint Staff, "JP 1-02, 2016": 53.

<sup>27</sup> Exact descriptions from the Shorter Oxford Dictionary, 3<sup>rd</sup> ed. (1973) are: Insurrection: 'the action of rising in arms or open resistance against established authority or governmental restraint; an armed rising; an incipient or limited rebellion'; Rebellion: 'Organised armed resistance to the ruler or government of one's country; insurrection; revolt'; Uprising: 'an insurrection'.

recently, 'unrestricted warfare'.<sup>28</sup> In some ways, irregular warfare is perhaps best, albeit somewhat vaguely, described by its antithesis – 'regular' warfare. It can also be defined by the legal or political status of the combatants (i.e. 'regular' soldiers who are under the direct control of a state, or 'irregular' combatants, who are not) or by the tactics employed.<sup>29</sup> The latter is a more useful concept within the context of this Thesis, as 'irregular combatants' can conduct both 'regular' (conventional) and 'irregular' warfare. Some sources define 'irregulars' as 'not belonging to the established army organisation or not forming an organised military force'.<sup>30</sup> Other sources 'do not limit the participants... to easily identifiable military organizations of a nation-state'.<sup>31</sup> The terms 'organised' and 'military force' refer to a force's ability to mobilize support for its own political interests and its ability to generate violence on a scale sufficient to have significant political consequences.<sup>32</sup> The UK MOD definition 'irregular activity', used in this Thesis as 'irregular warfare', is:

The use, or threat, of force, by irregular forces, groups or individuals, frequently ideologically or criminally motivated, to effect or prevent change as a challenge to governance and authority. It could include a mix of insurgency, terrorism, criminality, disorder and illegitimate regimes.<sup>33</sup>

## PROSCRIPTIVE AIR ACTION

Proscriptive air action was a local technique not formally recognised by the Air Ministry. There were two forms described in the *Combined Frontier Manual*.<sup>34</sup> 'Tactical proscription' involved clearing tribesmen from specific geographic areas for the following purposes:

- (i) To stop them visiting hostile leaders;
- (ii) To disperse *lashkars*; or

<sup>28</sup> *Multi-Service Concept for Irregular Warfare*, (US Marine Corps Combat Development Center & US Special Operations Command Center for Knowledge and Futures, 2006), 7. An even more comprehensive list is provided by M R L Smith, "Guerrillas in the Mist: Reassessing Strategy and Low Intensity Warfare", *Review of International Studies* 29, no. 1 (2003): 1-2.

<sup>29</sup> 'Irregulars' are defined in the Shorter Oxford Dictionary as 'not belonging to the established army organisation; not forming an organised military body'. Neither NATO nor the UK defines 'irregulars', while the US recently removed its previous definition of 'irregular forces' ('armed individuals or groups who are not members of the regular armed forces, police, or other internal security forces') from its official lexicon; compare US Joint Staff, "JP 1-02, 2009", and ———, "JP 1-02, 2016".

<sup>30</sup> *Shorter Oxford Dictionary*, 3rd ed. (Oxford: Oxford University Press, 1973).

<sup>31</sup> *Multi-Service Concept for Irregular Warfare*, 7.

<sup>32</sup> *Marine Corps Doctrine Publication 1: Warfighting*, (US Marine Corps, 1997), 3.

<sup>33</sup> *JDP 0-01.1*, I-4.

<sup>34</sup> Defence Department, *Frontier Warfare - India*, 30-31.

(iii) To protect troops.

In contrast, 'punitive proscription' aimed to punish a recalcitrant tribe by denying them access to an area of economic value, such as grazing grounds. In both cases, evacuation warnings were issued; anyone remaining in the area could be considered hostile and could be targeted. The important distinction between the air blockade and proscription was that terms of compliance for the cessation of air action were never declared. Thus, proscription was not coercive, as there were no terms to comply with. The IPS Politicals often preferred proscription over the air blockade because they balked from declaring terms in advance; proscription, in contrast, could be discontinued at any stage without loss of prestige at any stage.

## **SMALL WARS**

The term 'small wars' became common in the 1890s to describe the UK's contemporary use of military forces in policing the British Empire. It remains in use as an occasional, 'quaint' term which serves to highlight the antiquity of irregular warfare.<sup>35</sup> In his seminal book 'Small Wars', Callwell admitted that the term was 'somewhat difficult to define' but that it 'has in reality no particular connection with the scale on which any campaign may be carried out; it is simply used to denote... operations of regular armies against irregular, or comparatively speaking irregular, forces' (with obvious parallels to some modern interpretations of the term 'irregular warfare').<sup>36</sup> The expression remained in widespread doctrinal use in the UK into the 20th Century; by 1939, Gwynn was defining small wars as 'deliberate campaigns with a definite military objective, but undertaken with the ultimate object of establishing civil control'.<sup>37</sup> In the US, the term was interpreted slightly differently. The 1940 US Marine Corps manual 'Small Wars' admitted that the term is 'a vague name for any one of a great variety of military operations' but that for the US 'small wars are operations undertaken under executive authority, wherein military force is combined with diplomatic pressure in the internal or external affairs of another state whose government is unstable, inadequate, or unsatisfactory'.<sup>38</sup>

<sup>35</sup> For example, there is the Small Wars and Insurgencies Journal as well as the on-line Small Wars Journal (<http://smallwarsjournal.com/>).

<sup>36</sup> Colonel Charles E Callwell, *Small Wars: Their Principle and Practice*, 3rd ed. (London: HMSO, 1906), 21.

<sup>37</sup> Gwynn, *Imperial Policing*, 3.

<sup>38</sup> *Small Wars Manual*, (US Marine Corps, 1940), 1.

## SUBVERSION

Subversion is an implicit element of an insurgency. It has been claimed that the term is so vague and subjective as to be meaningless.<sup>39</sup> The term has often been used in a self-righteous manner to describe underhanded tactics only employed by an adversary. Thus, the UK Security Services described 'subversion' during the Cold War as 'overthrow or undermine parliamentary democracy by political, industrial or violent means'.<sup>40</sup> Both Moscow and Washington publicly denied using subversion during the Cold War, although such statements were aimed at shaping domestic, diplomatic, and political perceptions; in reality, all sides used the technique.<sup>41</sup> In 1952, Selznick described subversion as 'non-violent terrorism', making a very useful distinction.<sup>42</sup> In 1971, Kitson defined subversion as 'all illegal measures short of the use of armed force taken by one section of the people of a country to overthrow those governing the country at the time'.<sup>43</sup> He also claimed, unjustifiably, that subversion has been employed on its own to effect regime change.<sup>44</sup> The non-violent definition of subversion is in accord with the current doctrinal definition for an insurgency, i.e. 'subversion and armed conflict'. Thus, subversion can be used in the early stages of an insurgency to undermine the legitimacy of a government, while armed conflict can be used later to undermine a government's credibility (by showing their inability to subdue violence). Certainly, subversion can be used to foment riots, bridging the gap between non-violent and violent conflict. The current UK/NATO doctrinal definition of subversion is:

action or a coordinated set of actions of any nature intended to weaken the military, economic or political strength of an established authority by undermining the morale, loyalty or reliability of its members.<sup>45</sup>

The US Department of Defence (DOD) definition is more descriptive, adding 'psychological' to the list of undermined strengths.<sup>46</sup>

<sup>39</sup> Charles Townshend, *Making the Peace: Public Order and Public Security in Modern Britain* (Oxford: Oxford University Press 1993), 116.

<sup>40</sup> William Rosenau, *Subversion and Insurgency* (Santa Monica: RAND, 2007), 4.

<sup>41</sup> Ibid.

<sup>42</sup> P Selznick, *The Organizational Weapon: A Study of Bolshevik Strategy and Tactics* (New York: McGraw-Hill Book Company, 1952), 238.

<sup>43</sup> General Sir Frank Kitson, *Low Intensity Operations: Subversion, Insurgency & Peacekeeping* (London: Faber and Faber, 1971), 3.

<sup>44</sup> Ibid., 83. See also Sir Robert Thompson, *Defeating Communist Insurgency: The Lessons of Malaya and Vietnam* (St Petersburg: Hailer Publishing, 1966).

<sup>45</sup> NATO Standardization Agency, *AAP-6*, 2015, 2-S-13.

<sup>46</sup> US Joint Staff, "JP 1-02, 2016": 228.

The US definition ('action designed to undermine the military, economic, psychological, or political strength or morale of a regime') is used in this Thesis.

## TERRORISM

The term 'terrorism' carries significant emotional and political baggage which makes a precise definition difficult. The phrase 'one person's terrorist is another person's freedom fighter' emphasises the differing perspectives of the participants. Over a hundred different definitions have been identified.<sup>47</sup> Terrorism and insurgencies share some similar features, both involving illegal violence by sub-state actors to achieve political ends. However, most definitions infer that terrorism is a tactic or action, while an insurgency is a political-military strategy.<sup>48</sup> Nonetheless, the divide between terrorism and insurgency can appear to be blurred, as insurgents often employ terrorism as a tactic. However, terrorist groups tend to be smaller than insurgency movements (hence their need to produce a psychological effect out of proportion to their numbers) and often have to target the vulnerable, innocent civil population. Unlike insurgents, few terrorists groups employ subversion, probably because they lack the personnel to achieve any substantial subversive effect.<sup>49</sup> Terrorist action is normally used to highlight a political grievance, but rarely results, on its own, in the overthrow of the government. Importantly, terrorism has been described as a 'monstrous trap' to provoke a government into over-reacting, undermining its own principles and losing its legitimacy.<sup>50</sup> States normally categorise terrorism as an 'unlawful' criminal act in order to undermine the legitimacy of the perpetrators. Terrorists do not generally consider themselves to be criminals; they recognise neither the legitimacy of the government nor its authority to impose laws. The UK Terrorism Act 2000 defined terrorism as 'the use or threat of action... designed to influence the government or to intimidate the public... for the purpose of advancing a political, religious or ideological cause'.<sup>51</sup> The UK and US doctrinal definitions are effectively

<sup>47</sup> ... according to surveys by both Schmid (see A Schmid and A Jongman, *Political Terrorism: A Research Guide to Concepts, Theories, Data Bases and Literature* (Amsterdam: North-Holland Publishing, 1988) and Walter Laqueur, *The New Terrorism: Fanaticism and the Arms of Mass Destruction* (Oxford University Press, 1999), 6.

<sup>48</sup> Rosenau, *Subversion and Insurgency*, 2.

<sup>49</sup> Ibid., 5.

<sup>50</sup> Parker, "Terrorism 101".

<sup>51</sup> *UK Terrorism Act 2000*, Chapter 11, Part 1, Section 1, Subsection 1, downloaded from [http://www.legislation.gov.uk/ukpga/2000/11/pdfs/ukpga\\_20000011\\_en.pdf](http://www.legislation.gov.uk/ukpga/2000/11/pdfs/ukpga_20000011_en.pdf) (accessed 21 April 2016).

the same as this.<sup>52</sup> However, the US Federal Criminal Code, Federal Bureau of Investigation, Central Intelligence Agency and State Department all have their own definitions.<sup>53</sup> All these definitions are valid within their organisational contexts.

This Thesis uses the UK doctrinal definition, 'the unlawful use or threatened use of force or violence against individuals or property in an attempt to coerce or intimidate governments or societies to achieve political, religious or ideological objectives'.

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<sup>52</sup> UK/NATO doctrine defines terrorism as 'the unlawful use or threatened use of force or violence against individuals or property in an attempt to coerce or intimidate governments or societies to achieve political, religious or ideological objectives', while the DOD currently defines it as: 'The unlawful use of violence or threat of violence, often motivated by religious, political, or other ideological beliefs, to instil fear and coerce governments or societies in pursuit of goals that are usually political'. See NATO Standardization Agency, *AAP-6, 2015*, 2-T-5 and US Joint Staff, "JP 1-02, 2016": 241.

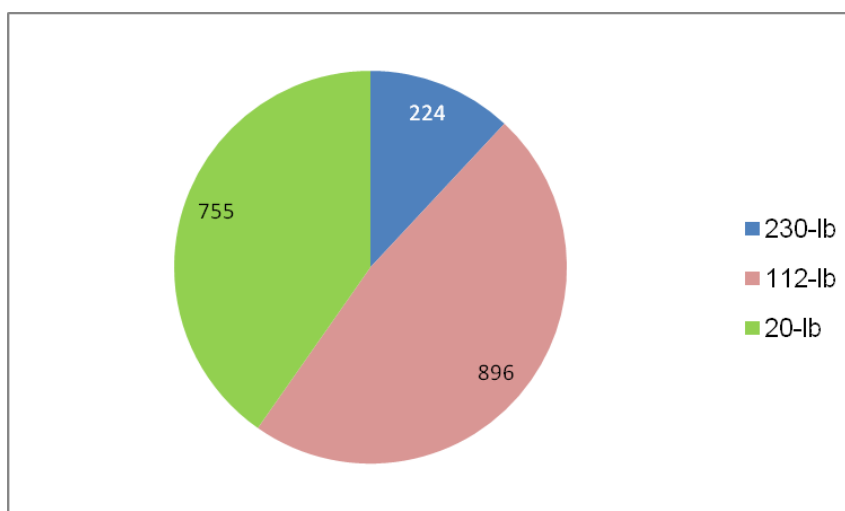
<sup>53</sup> See G Martin, *Understanding Terrorism: Challenges, Perspectives, and Issues*, 3rd ed. (Los Angeles: Sage Publications, 2009), 44.

## **ANNEX 2 - RAF WEAPON EXPENDITURE OF VARIOUS NWF OPERATIONS, WAZIRISTAN, 1932-1939**

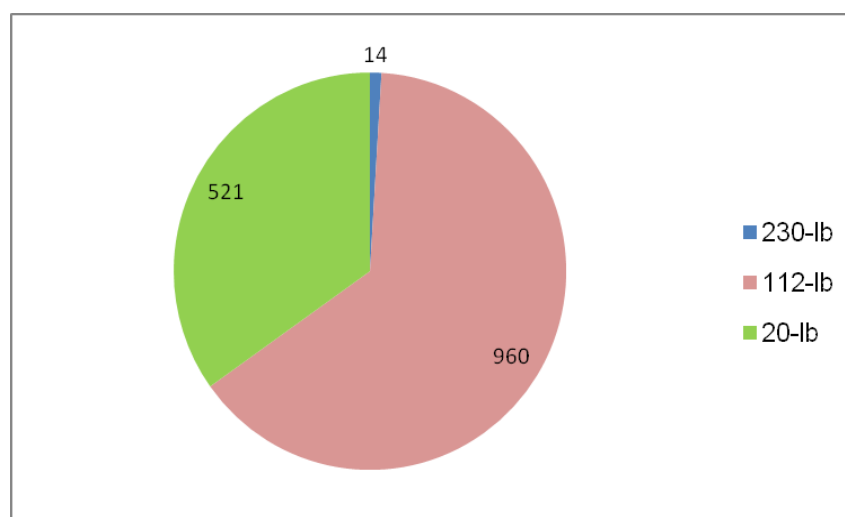
### **Notes:**

1. The decode on the right refers to the weight of the individual variety of bomb.
2. Baby Incendiary Bombs (BIBs) were dropped in containers of either 198 or 272 bombs.<sup>1</sup> These were gradually replaced by 25-lb incendiary bombs in 1939.<sup>2</sup>
3. 230-lb bombs were replaced by 250-lb bombs in 1937.

### **Chitral Relief, 1932 – Destructive Phase (17 to 23 September)<sup>3</sup>**



### **Chitral Relief, 1932 – Harassment Phase (24 September to 16 October)<sup>4</sup>**



<sup>1</sup> See Air Vice-Marshal Peter Dye, "RFC Bombs & Bombing 1912-1918", *Journal of the Royal Air Force Historical Society* 45 (2009): 13. For more details of the BIB, see Air Ministry, *Details of Aerial Bombs* (1918), Leaflets 12, 12A and 12B.

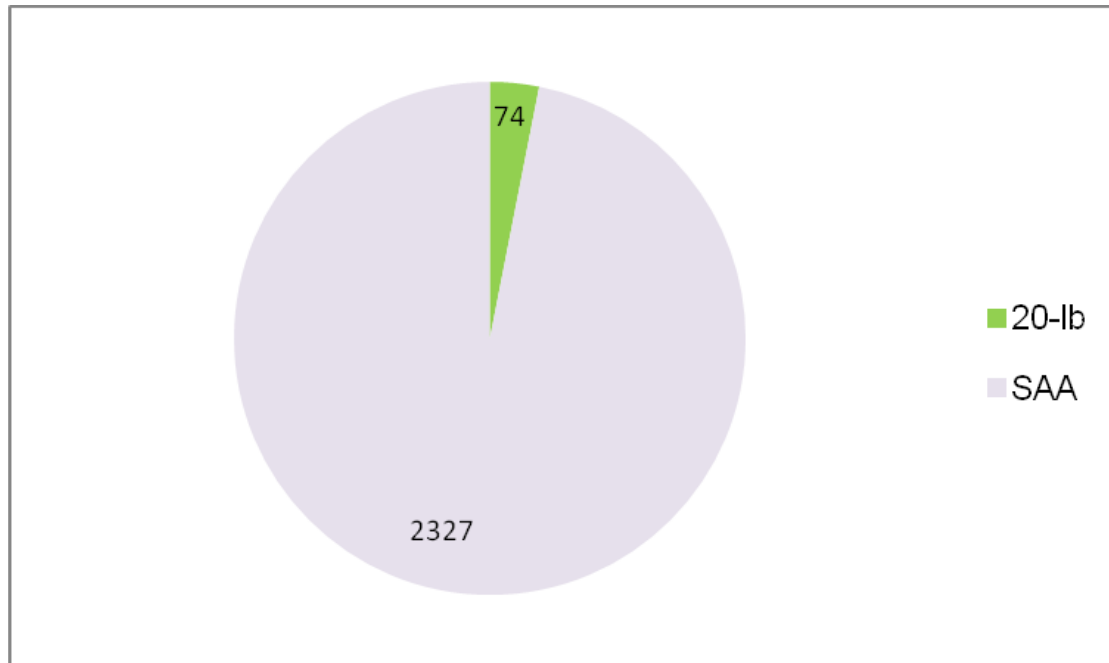
<sup>2</sup> Hadaway, "The Development of RAF Bombs": 19. See also RAF Air Historical Branch, *SD719*, 73-74.

<sup>3</sup> AOC RAF India, *Summary of Work No 167*, 1; Donald, *Memo, OC 1(Indian) Group to AOC(India) dated April 1935*, 1.

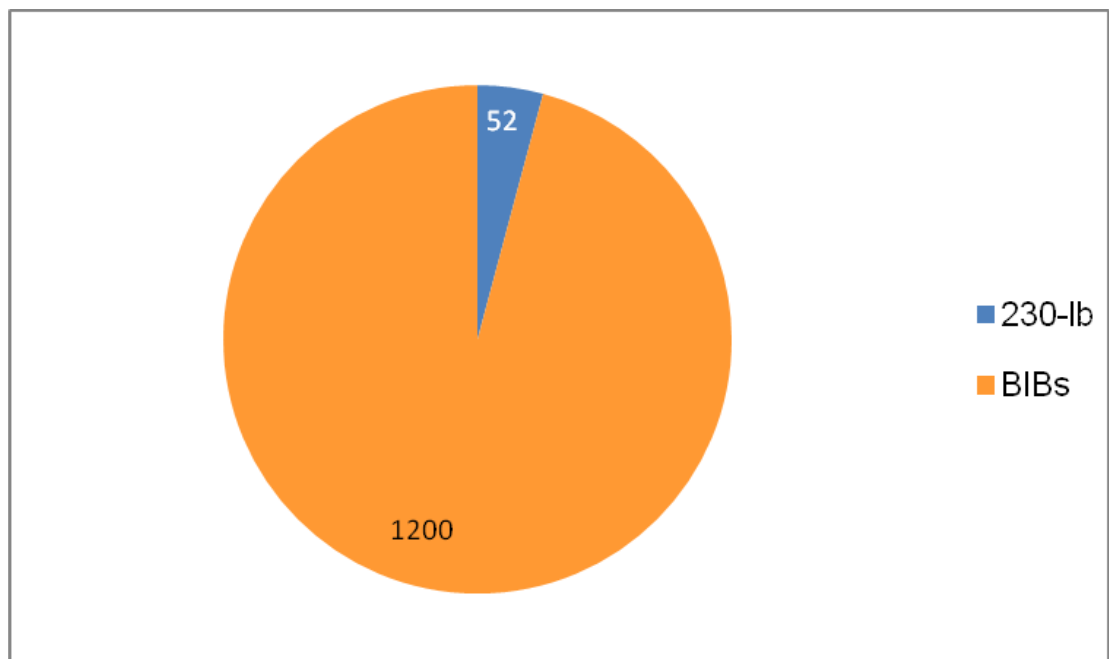
<sup>4</sup> AOC RAF India, *Summary of Work No 167*, 1-2.



**Second Khaisora Operation – Up to 21 December 1936<sup>5</sup>**



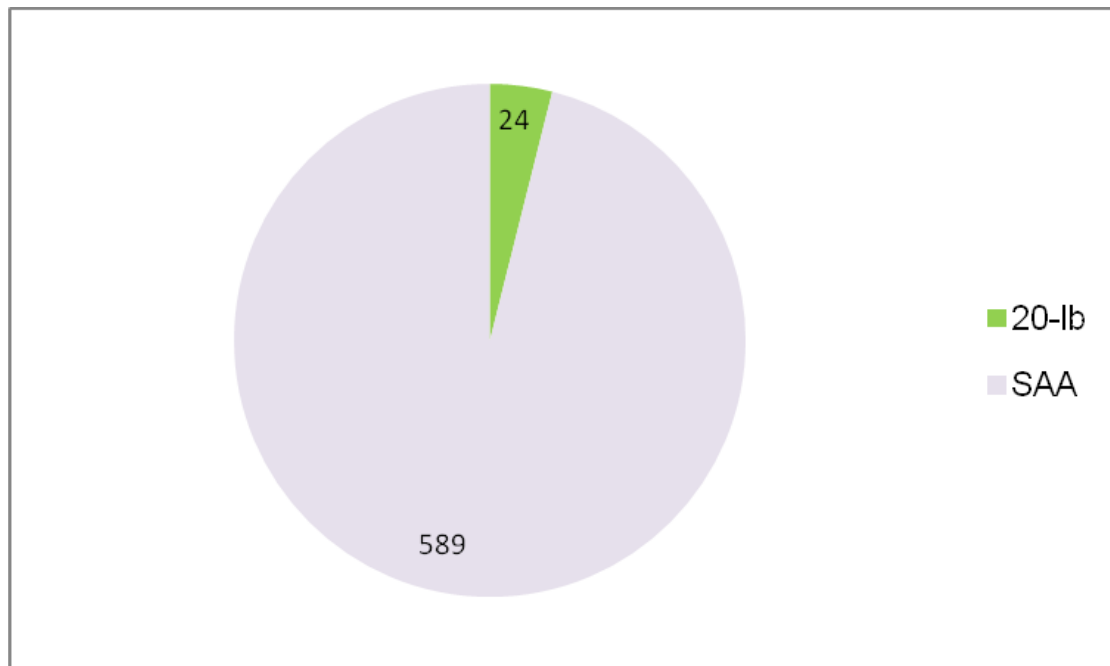
**Punitive Destruction of Aarsal Kot (Fakir of Ipi's Residence) – 31 December 1936 to 1 January 1937<sup>6</sup>**



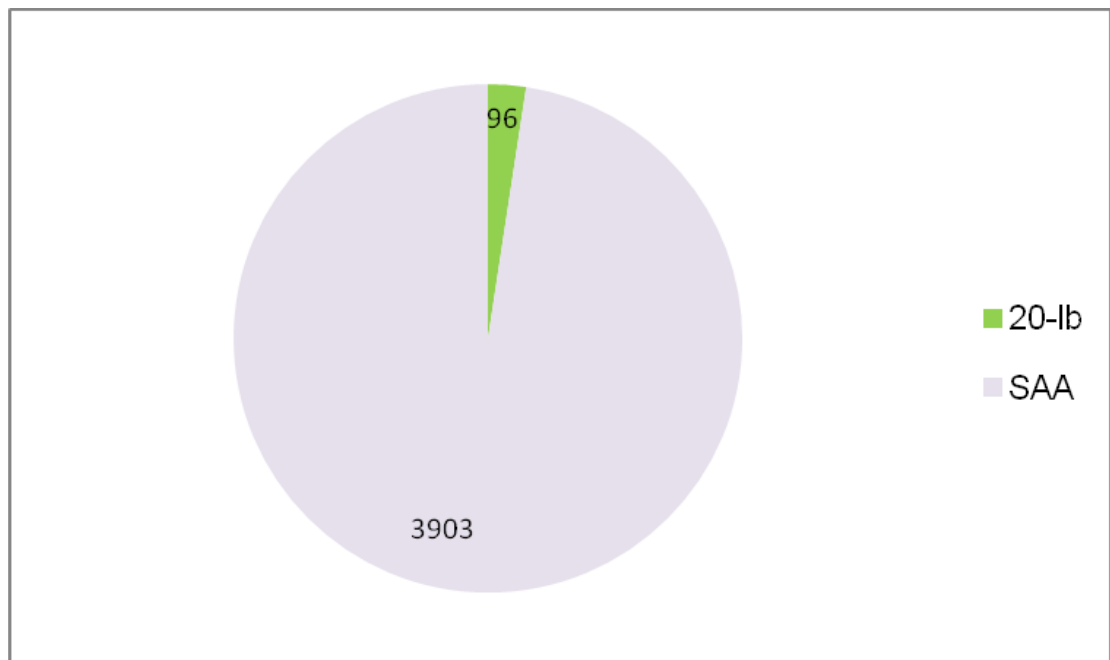
<sup>5</sup> \_\_\_\_\_, *Summary of Work No 217*, 4.

<sup>6</sup> Ibid., 5-6.

**Wana Column Support – 17 February 1937<sup>7</sup>**



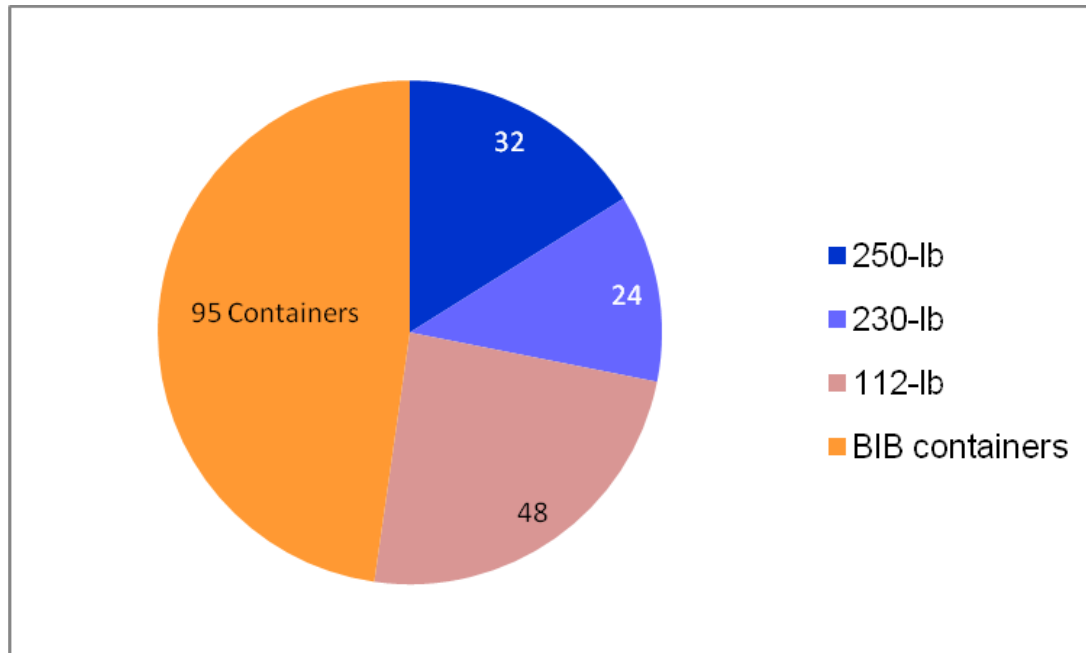
**Third Khaisora Operation – 29 April 1937<sup>8</sup>**



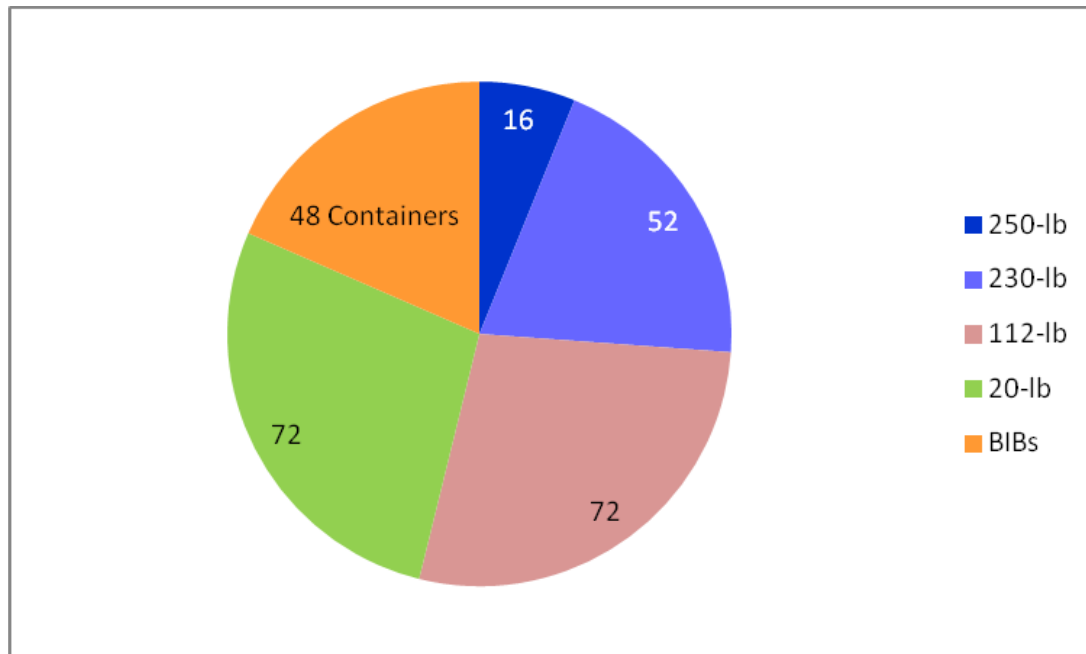
<sup>7</sup> AIR 5/1335, ———, *RAF India Monthly General Summary of Work No 219: February 1937*, 3-4.

<sup>8</sup> ———, *Summary of Work No 221*, 8.

**Punitive Bombing of Bhitanni Villages** (Raghzai Kile, Bara Kile and Lowazhi) – 1 to 2 June 1937<sup>9</sup>



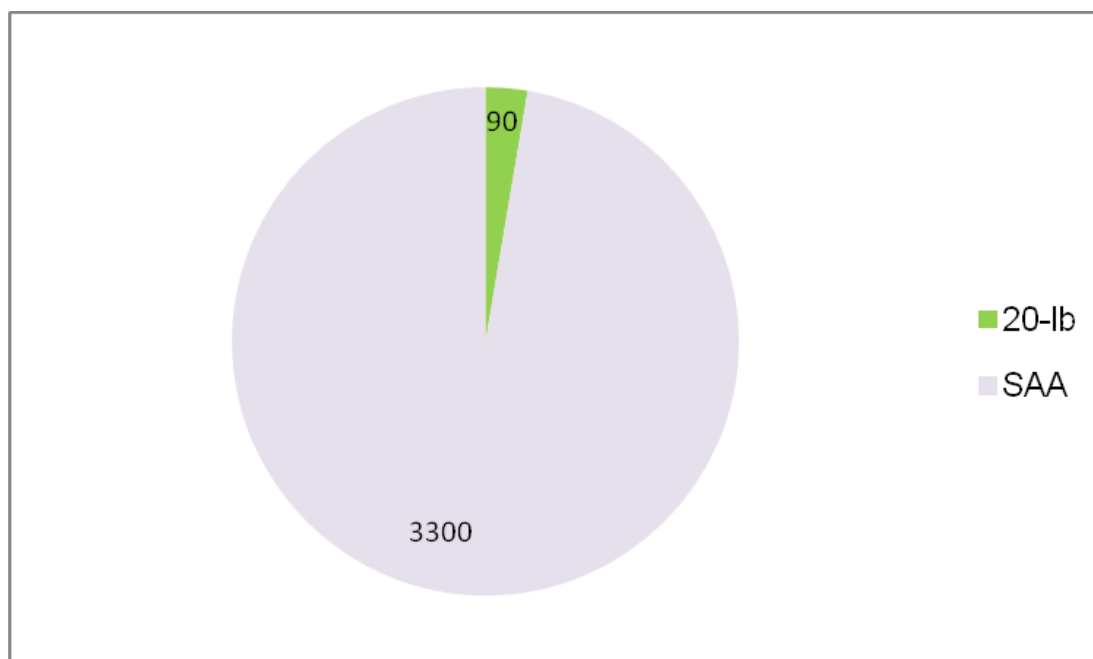
**Punitive Bombing of Razin**– 8 to 11 July 1937<sup>10</sup>



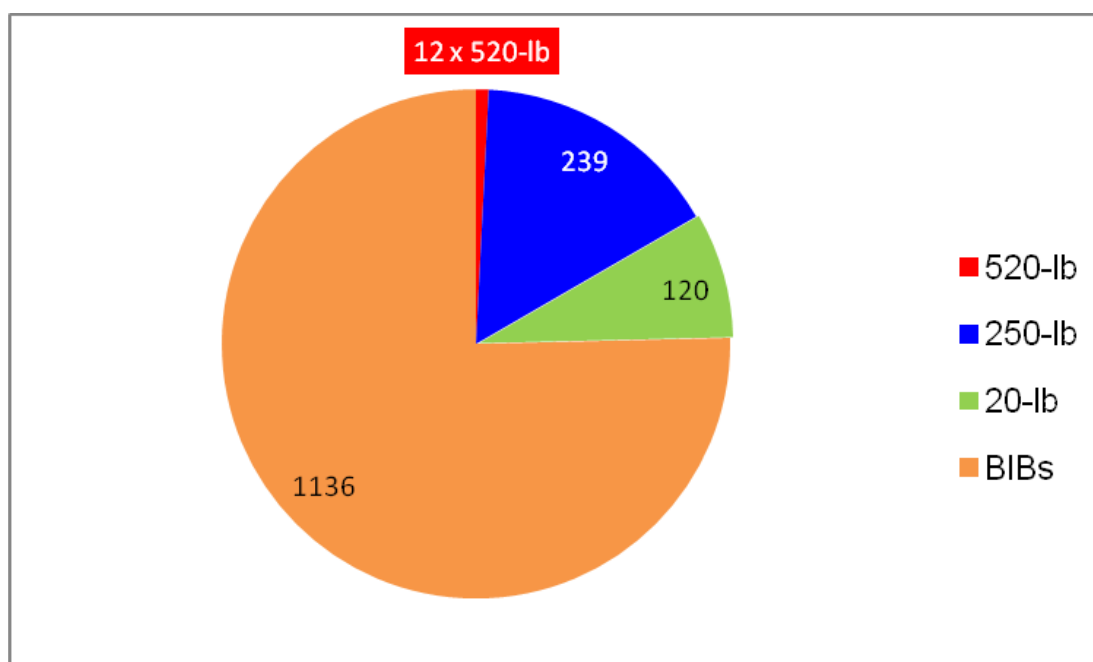
<sup>9</sup> —, *Summary of Work No 223*, 5.

<sup>10</sup> —, *Summary of Work No 224*, 4-5.

**Army Co-operation by 3(Indian) Wing – September 1937<sup>11</sup>**



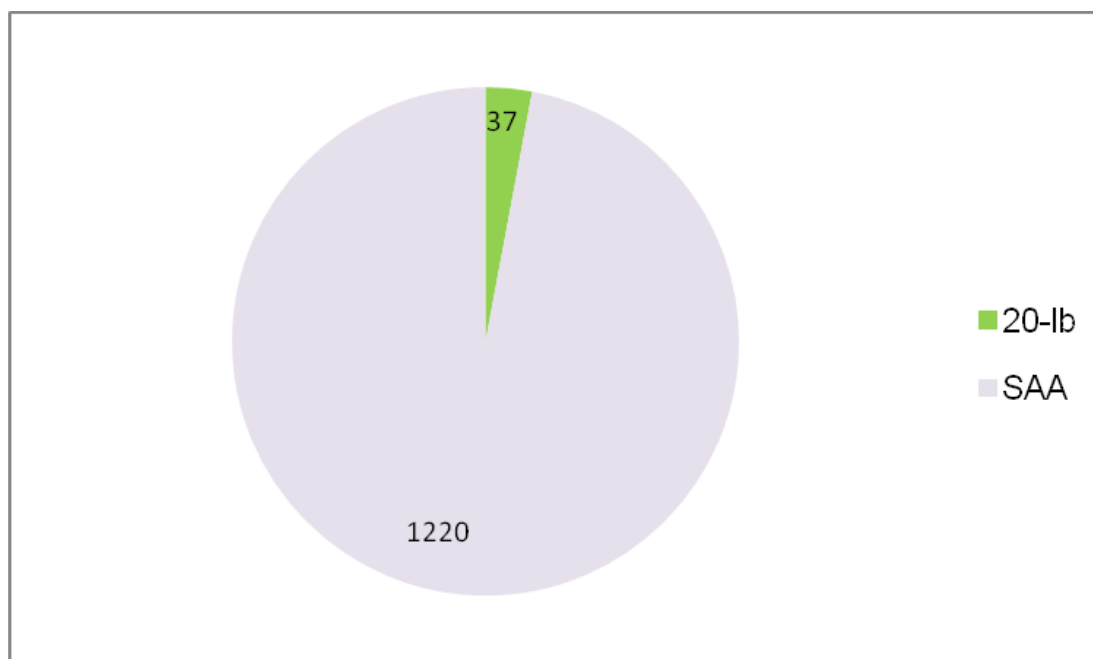
**Madda Khel Punitive Bombing – 5-8 March 1938<sup>12</sup>**



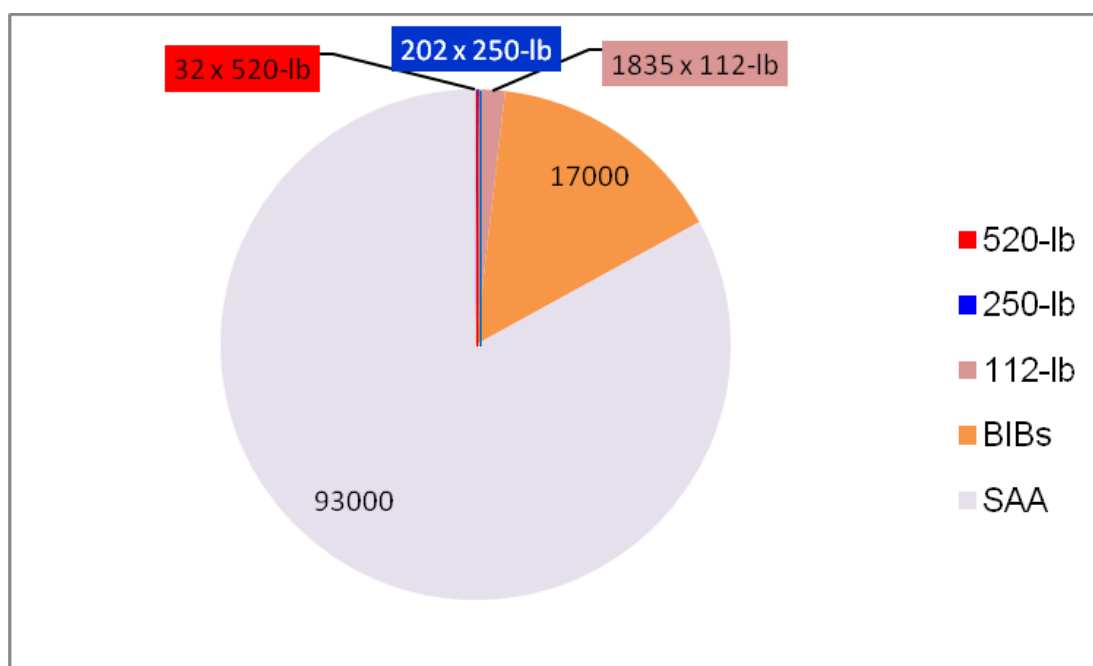
<sup>11</sup> ———, *Summary of Work No 226*, 4, 10; Darvall, *Minute to Summary of Work No 227*, 7.

<sup>12</sup> AOC RAF India, *Summary of Work No 232*, 6-7; Darvall, *Minute to Summary of Work No 231*.

**Dargai Sar Emergency Air Support – 14 April 1938<sup>13</sup>**



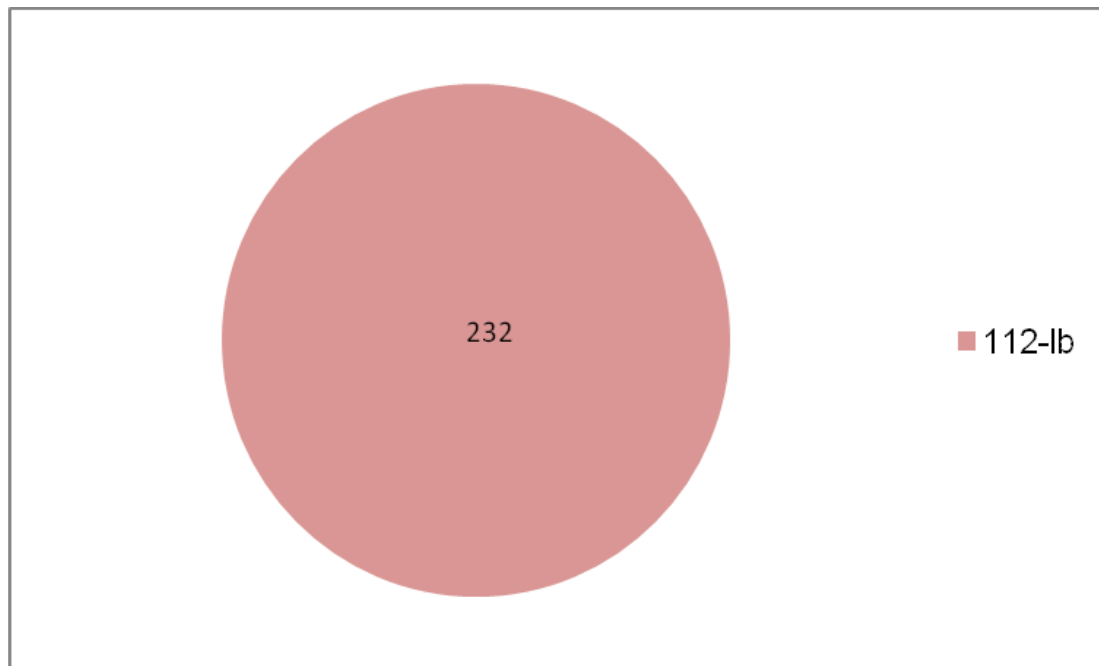
**Madda Khel Proscription and Progressive Destruction of 6 Villages – May 1938<sup>14</sup>**



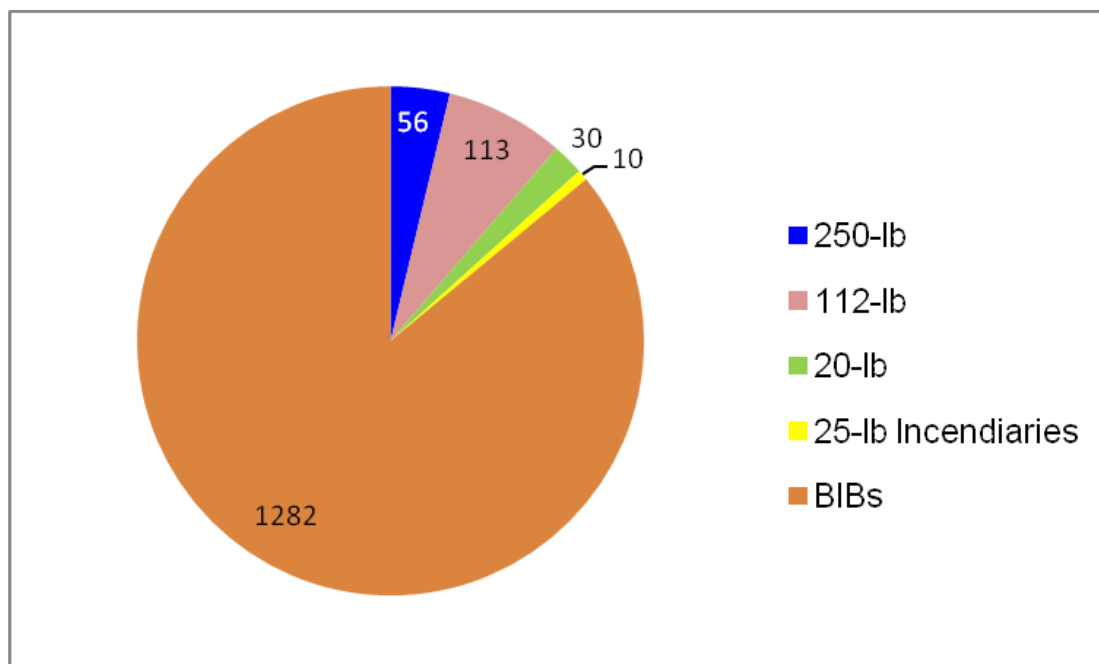
<sup>13</sup> AOC RAF India, *Summary of Work No 234*, 11; ———, *Summary of Work No 233*, 6.

<sup>14</sup> AOC RAF India, *Summary of Work No 234*, 6-7; ———, *Summary of Work No 235*, 5-6.

**Punitive Action against Madda Khel Villages – 21 to 24 August 1938<sup>15</sup>**



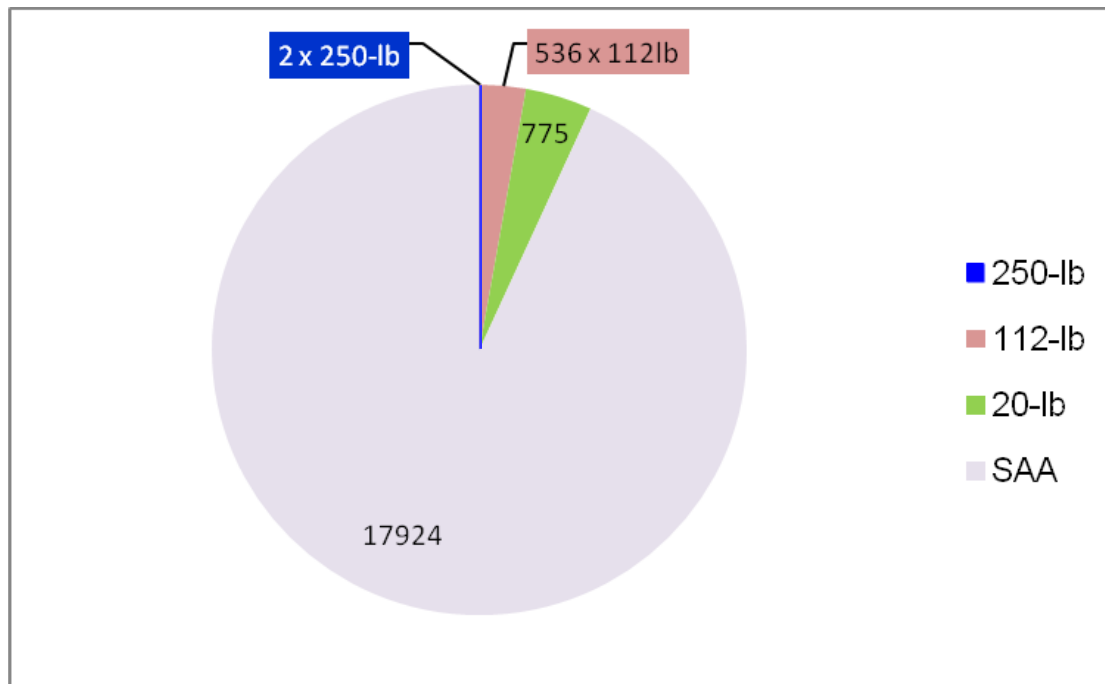
**Punitive Destruction of Tamora – 5 to 9 January 1939<sup>16</sup>**



<sup>15</sup> AOC RAF India, *Summary of Work No 237*, 7.

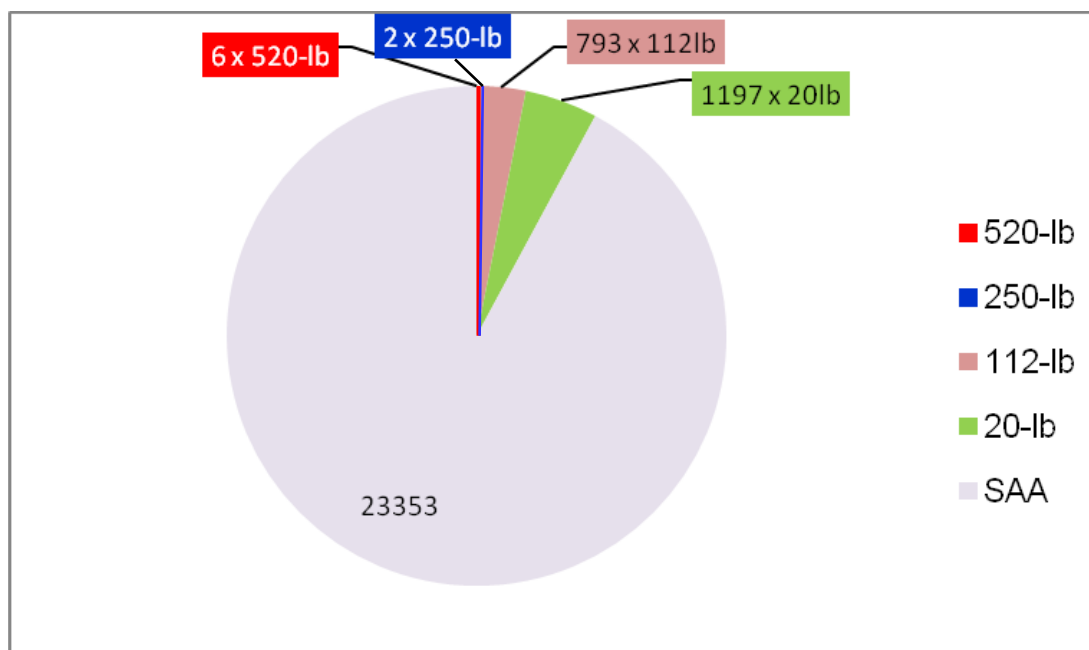
<sup>16</sup> AIR 5/1337, ———, *RAF India Monthly General Summary of Work No 242: January 1939*, 8-9.

**Punitive Air Proscription of Karesta Algad – 23 January to 22 June 1939<sup>17</sup>**

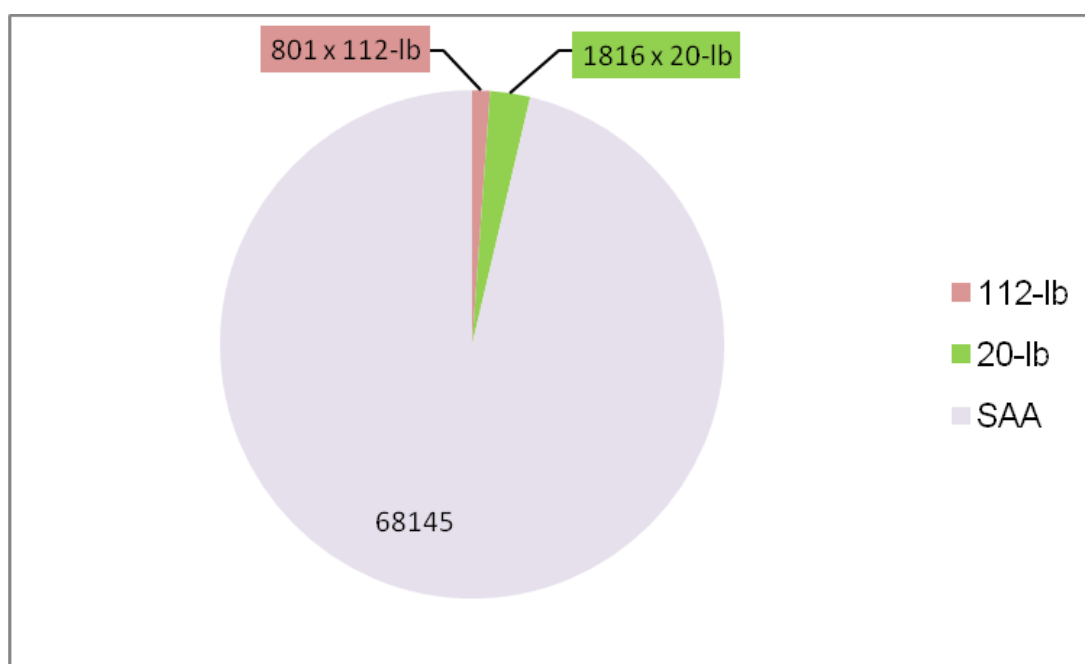


<sup>17</sup> ———, *Summary of Work No 241*, 8; ———, *Summary of Work No 242*, 8; ———, *Summary of Work No 247*, 5.

**Madda Khel Air Blockade – 26 February to 10 April 1939<sup>18</sup>**



**Tori Khel Punitive Air Proscription – 11 October 38 to 14 May 39<sup>19</sup>**

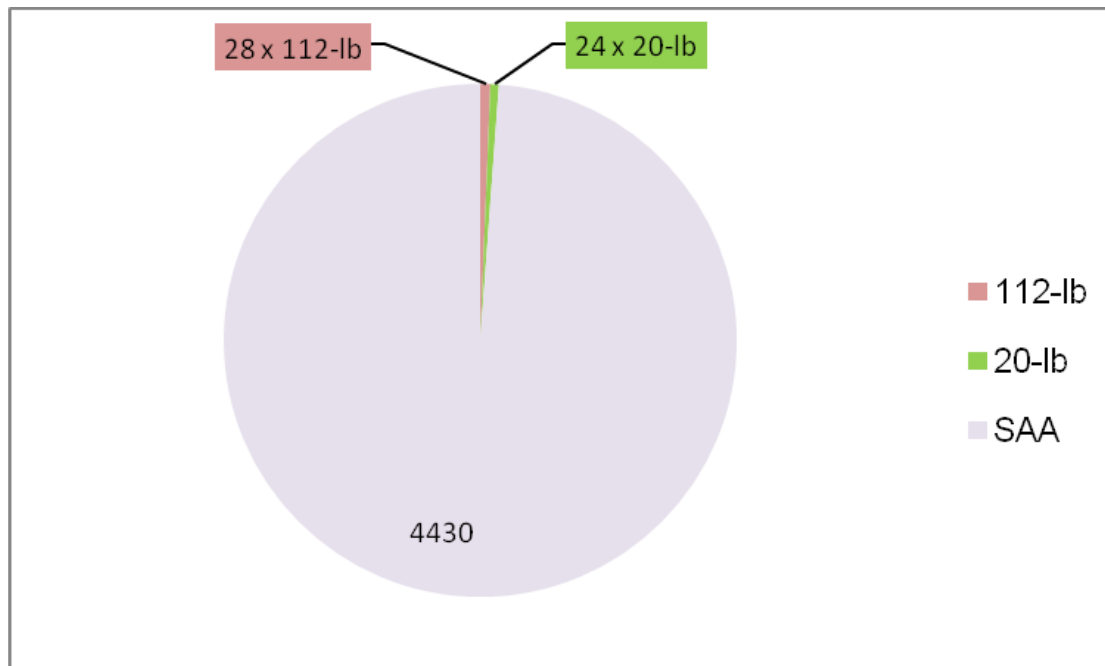


<sup>18</sup> AOC RAF India, *Summary of Work No 245*, 8-9.

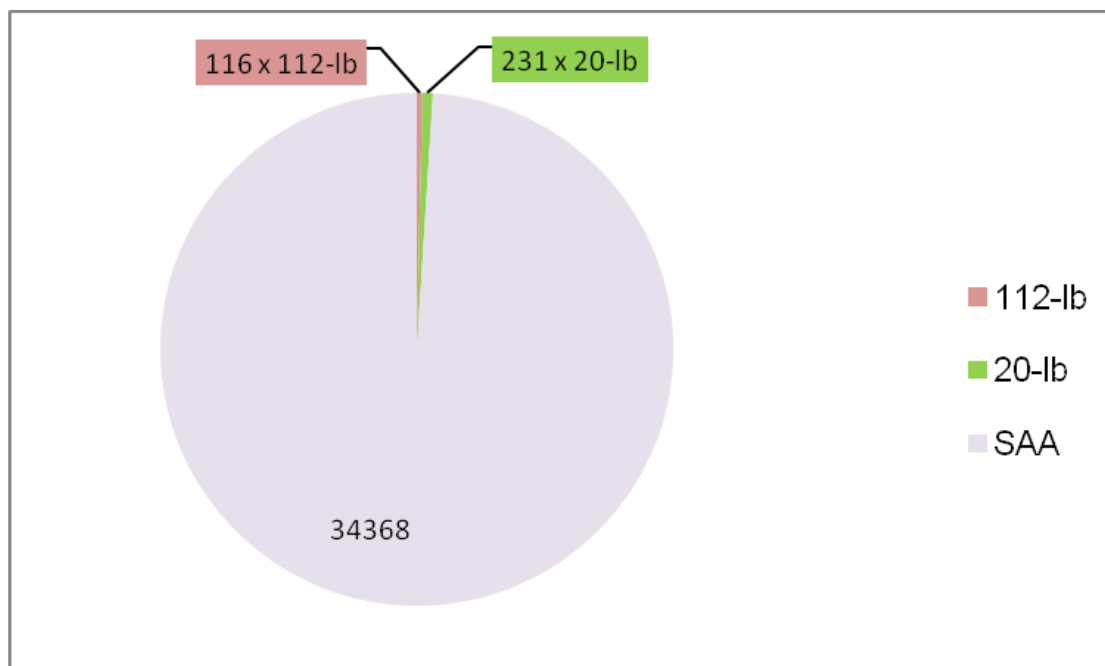
<sup>19</sup> ———, *Summary of Work No 240*, 5; ———, *Summary of Work No 246*, 7.



**Razmak Road Proscription – 5 to 11 July 1939<sup>20</sup>**



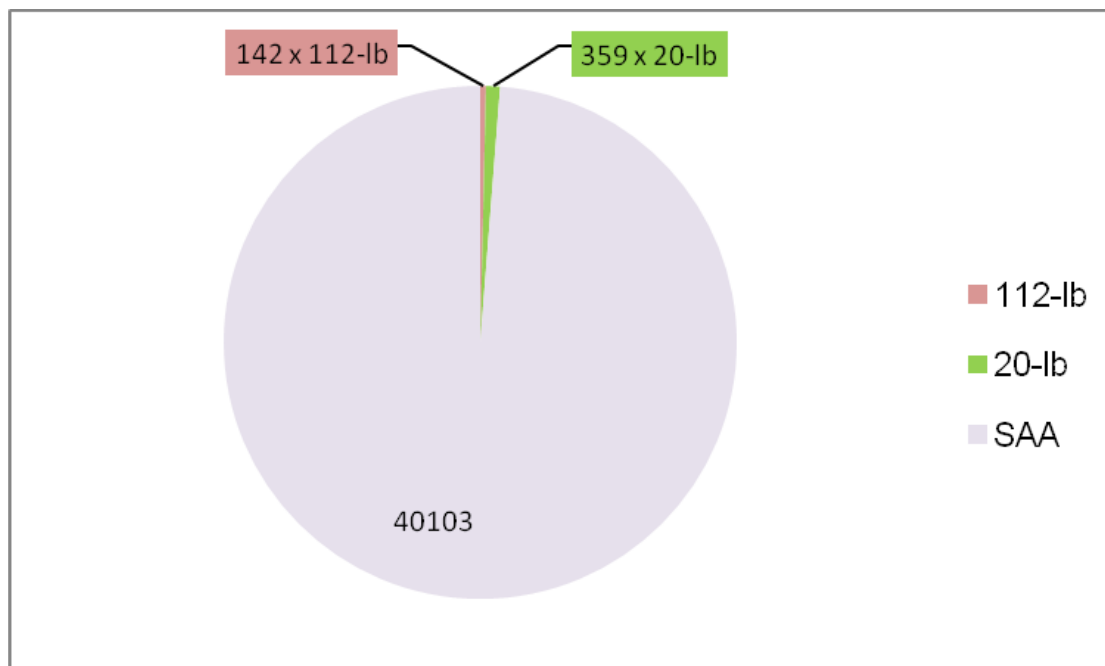
**Proscription of Fakir of Ipi at Kharre – August 1939<sup>21</sup>**



<sup>20</sup> AOC RAF India, *Summary of Work No 248*, 3, 6.

<sup>21</sup> ———, *Summary of Work No 249*, 7.

**Proscription of Fakir of Ipi at Kharre – 15 to 17 September 1939<sup>22</sup>**



<sup>22</sup> Ibid.; ———, *Summary of Work No 250*, 8.

### ***ANNEX 3 – TRANSCRIPT FROM ‘BIRDS OF DEATH’ TV DOCUMENTARY – NWF EXCERPTS<sup>1</sup>***

#### **NWF Tribesman #1**

‘Some people were told by the government ...that the bombing was taking place. Only a few people – the head men of the area... were told about the bombing. That was one of the reasons why we took the brunt of it. Many people were killed in the mountains because they hadn’t been told’.

#### **NWF Tribesman #2**

‘Not everyone knew about the bombing. We were scattered over a large area. The three villages of [Bhitanni] were bombed because the [Bhitannis] were resisting the British. And so they were the ones who were bombed. In our area there was a village called Darklay. A man there - a stranger to our land - was killed by a bomb. In our village, when the bombs came between 60 and 80 sheep were killed by machine guns. The bombing also killed some calves and our camel. During the raid, a bomb hit our house and my mother died’.

#### **NWF Tribesman #3**

‘I was on my way from Sharin ...when about 11 shots were fired at me from the air I was hit three times in the back. They were also bombing in the area in Mazdek. A piece of shrapnel flew past me. It was a near miss’.

#### **NWF Tribesman #2 (again)**

‘When they saw five or six people in a group ...the government used to order its planes to shoot them. It was assumed they were rebels and they would bomb them’.

#### **NWF Tribesman #4**

‘When we saw the aeroplanes appear without warning in the sky... ...we would hide in caves, gorges, in the undergrowth and wherever we could find shelter. Some dug trenches and hid in them’.

‘When we heard the noise of the plane... ...we rushed into these caves to take shelter. We sat at the mouth of the cave, a gun in our hands, watching the plane. We aimed at it, and fired’.

#### **NWF Tribesman #5**

‘The bombings took place in winter. That was hard. There was snow, and our families suffered from the severe cold. We were forced to leave our villages ...and

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<sup>1</sup> George Case, “Birds of Death”, (UK: Channel 4, 1996). The transcript is available at: ----, 1996, “Birds of Death”, Channel 4, [http://www.cambridgeclarion.org/birds\\_of\\_death/transcript.html](http://www.cambridgeclarion.org/birds_of_death/transcript.html) (accessed 26 April 2016). The programme is available to watch at: ----, 1996, “Birds of Death”, Channel 4, <https://www.youtube.com/watch?v=Y4g5pFggpVQ> (accessed 26 April 2016).

spend the night in the forest. You can imagine how difficult it was for us and our families’.

**NWF Tribesman #6**

‘We had to leave most of the food behind in the villages. Many people died of hunger. People had to leave their homes at night... and that wasn’t easy. Especially for the elderly, the women and children, some of them died on the way to the mountains. Many children died... ...due to the cold and the harsh weather. People faced many difficulties. Hunger was a big problem. The food we had was only enough to last us for two or three days. The children suffered the most. The difficulties were limitless for everyone. The hardship went on for years’.

**NWF Tribesman #1 (again)**

‘To understand what we had to put up with ...think of Kuwait and the problems they faced. Their oil was burned. Our livestock was killed, our homes and our crops destroyed. When you don’t have a home... how can you farm and look after your livestock?’

**NWF Tribesman #3 (again)**

‘We have faith in God. He gives us patience. At a time of fighting... ...it is important for us Pathans to be strong Pathans. Never cry, not like Punjabis or people from other tribes. The more you irritate a Pathan, the angrier he becomes. The bombing didn’t frighten us. A Pathan is strong in times of difficulty... ...has patience and is never driven to despair’.

**NWF Tribesman #7 – referring to Shahur Tangi ambush, 9 April 1937<sup>2</sup>**

‘We decided we should take revenge... on behalf of our two boys killed in the bombing. Then another person was killed on this road... not by a bomb... but by an army truck. After this incident, we moved with our families to Shoga in [Bhitanni] and then to Massoud in Waziristan’.

‘When we saw the trucks, we shouted to our men to roll stones on the road. They did this and managed to stop the leading truck. At the same time we started firing. Nobody was left alive’.

**NWF Tribesman #6 (again)**

‘We resent it to this day. Our livestock was destroyed. Our children our women were killed. The British never did anything good for us. They only created havoc and distress. How can we say it was good? It was the worst thing the British could have done to us’.

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<sup>2</sup> See Chapter 6.

## ANNEX 4 - RAF STAFF COLLEGE PRE-COURSE READING LIST, 1933<sup>1</sup>

9. All officers should have studied the following books before going to the Staff College :—

"Operations of War" ... ..	Hamley.
*"Some Principles of Maritime Strategy" ...	Corbett.
*"Small Wars, their Principles and Practice" ...	Caldwell.
"A Short History of the British Commonwealth," Vol. II.	Ramsay Muir.
"Imperial Military Geography" ... ..	Cole.
"The Art of Writing" ... ..	Quiller Couch.
"The Writing of Clear English" ... ..	Westaway.

### *Manuals.*

R.A.F. War Manual, Part I (Operations), Part II (Organisation).  
Manual of Map Reading and Field Sketching, 1929, Parts I and II.  
Signal Manual, Part I.  
Flying Training Manual, Parts III and IV.  
R.A.F. Manual on Army Co-operation.

10. For officers who wish to pursue a more extended course of reading, the following additional books are recommended :—

### *Strategy and tactics.*

"The Science of War" ... ..	Henderson.
"The Principles of War," Chapters I to IV ...	Foch.
"The Influence of Sea Power upon History" ...	Mahan.
"The Navy and Sea Power" ... ..	Hannay.
"Air Power and War Rights" ... ..	J. M. Spaight.
"Air Power and the Cities" ... ..	J. M. Spaight.
"Imperial Defence" ... ..	King-Hall.

### *Histories.*

"Periods of European History," Part VIII ...	Alison Phillip.
"A Short History of the British Commonwealth," Vol. I.	Ramsay Muir.
"Official History of the War," comprising :—	
(i) "War in the Air," Vol. I... ..	Raleigh.
(ii) " " " " Vols. II and III ...	Jones.
(iii) "Naval Operations" ... ..	Corbett.
(iv) "Military Operations" ... ..	Edmunds.
"The World Crisis" ... ..	The Right Hon. Winston S. Churchill.
"British Strategy" ... ..	Maurice.
"Real War" ... ..	Liddell-Hart.
"Life of Nelson" ... ..	Mahan.
"Stonewall Jackson" ... ..	Henderson.
"Life of Napoleon" ... ..	J. Holland-Rose.
"Marlborough and the Rise of the British Army."	Atkinson.
"Navies and Nations" ... ..	Bywaters.
"British History in the Nineteenth Century" ...	Trevelyan.
"World History, 1815-1920" ... ..	Eduard Fueter.
"The Development of European Nations" ...	J. Holland-Rose.

11. It should be clearly understood that the recommendations in paras. 9 and 10 above are made primarily with the intention of securing a uniform standard of reading by students before they arrive at the Staff College. Although the books mentioned cover certain portions of the examination syllabus, candidates should realise that examination questions will not necessarily be set on any particular text-book.

<sup>1</sup> Air Ministry, "Regulations for the Entry of Students to the R.A.F Staff College", *Air Ministry Order (Admin) 212* (1933).

**ANNEX 5 - RAF STAFF COLLEGE SMALL WARS SYLLABUS, 1922-1938<sup>1</sup>**

Cse No	Year	Lecture Title	Presenter	Type of Presenter
1	1922-23	Organisation of the Army in India	Col Villiers Stewart	External
		British Policy in India	Lord Meston	External
		Palestine	Gp Capt Joubert/Wg Cdr Freeman	DS
		Army Co-operation	Sqn Ldr Portal	Student
		Small Wars	Gp Capt Joubert de la Ferte	DS
		Topography & meteorology of the NWF of India and Afghanistan	Sqn Ldr MacLean	Student?
		Imperial Strategy	Air Cdre Clark Hall	Dep Commandant
		Iraq	Gp Capt Joubert de la Ferte	DS
		Fighting on the N W Frontier of India	Lt Col Macleod	External?
		CD22 (chapter by chapter)	Various	DS

Cse No	Year	Lecture Title	Presenter	Type of Presenter
2	1923-24	Palestine Campaign	Gp Capt Freeman/Air Cdre Borton	DS/External
		Imperial Strategy	Air Cdre Clark Hall	Dep Commandant
		The Campaign in Mesopotamia	Gp Capt Freeman	DS
		Small Wars	Wg Cdr Edmonds	DS
		Fighting on the N W Frontier of India	Capt Braide	Student?
		The Army in India	Maj Moss	Student?
		The RAF in Somaliland and the Caspian	Gp Capt Bowhill	External
		The RAF in Iraq since 1918	Flt Lt Thomas	Student?
		The RAF in Ireland	Flt Lt Harris	Student?
		The RAF in India	AVM Game - ex-AOC RAF India	External

<b>Key</b>	Flt Lt	Flight Lieutenant	Air Cdre	Air Commodore	Capt	Captain	Maj Gen	Major General
	Sqn Ldr	Squadron Leader	AVM	Air Vice-Marshal	Maj	Major	Dep	Deputy
	Wg Cdr	Wing Commander	AM	Air Marshal	Lt Col	Lieutenant Colonel	DS	Directing Staff
	Gp Capt	Group Captain			Col	Colonel		

<sup>1</sup> All information from AIR 69 files.

Annex 5 - RAF Staff College Small Wars Syllabus, 1922-1938

Cse No	Year	Lecture Title	Presenter	Type of Presenter
3	1924-25	Palestine Campaign	Gp Capt Freeman	DS
		The Darfur operations 1916	Sqn Ldr Slessor	Student
		Some problems of Iraq	AM Sir J Salmond	External
		The operations in Kurdistan 1922	Sqn Ldr Collishaw	Student
		Small Wars	Maj Ismay	Student
		The NWF of India	Maj Ismay/Capt Ellis	Students
		The RAF in Baluchistan 1918-20	Flt Lt Hollinghurst	Student
		The RAF on the NWF of India	Flt Lt Dearlove	Student
		Imperial Strategy	Wg Cdr Sutton	DS?

Cse No	Year	Lecture Title	Presenter	Type of Presenter
4	1925-26	Army Co-operation	Wg Cdrs Evill & Leigh-Mallory	DS/Student
		Mesopotamia	Gp Capt Courtney	DS
		Palestine	Wg Cdr Evill	DS
		Air operations Palestine & Syria 1919-20	Sqn Ldr Medhurst	Student
		Small Wars	Maj Pim & Wg Cdr Evill	Student/DS
		NWF	Maj Pim	Student
		Army Co-operation in India	Flt Lt Thompson	Student
		Air Operations on the NWF of India	Flt Lt Foster	Student
		The Sudan	Flt Lt Whitham	Student
		Palestine & Transjordan, 1920-25	Flt Lt Blackford	Student
		Imperial Strategic	Wg Cdr Sutton	DS?

NB: Course 5 programme of work destroyed

Annex 5 - RAF Staff College Small Wars Syllabus, 1922-1938

Cse No	Year	Lecture Title	Presenter	Type of Presenter
6	1927-28	Army Co-operation	Wg Cdr Leigh-Mallory	External
		Afghanistan and its problems	Maj Parminter	Student
		The Army in India	Maj Maltby (Indian Army)	Student
		Mesopotamia	Gp Capt Courtney	DS
		Palestine	Wg Cdr Evill	DS
		Aircraft in Palestine Campaign	Sqn Ldr Hanmer	Student
		RAF in the Middle East	Flt Lt Blackford	Student
		The military aspect of Small Wars	Maj Maltby (Indian Army)	Student
		Small Wars	Wg Cdr Evill	DS
		The rebellion of Shaikh Mahmoud	Flt Lt MacGregor	Student
		Imperial Strategy	Sqn Ldr Graham	DS

Cse No	Year	Lecture Title	Presenter	Type of Presenter
7	1928-29	Mesopotamia	Wg Cdr Tedder	DS
		Palestine	Col Wavell/AVM Borton	External
		Imperial Strategy	Maj Gen Bartholemew/ Sqn Ldr Graham	External/DS
		India	Capt Free (Indian Army)	Student
		Air Control of Uncivilised Countries	Flt Lt Crowe	Student
		Small Wars	Capt Free/Wg Cdr Murray	Student/DS



Annex 5 - RAF Staff College Small Wars Syllabus, 1922-1938

Cse No	Year	Lecture Title	Presenter	Type of Presenter
8	1929-30	Aden	Sqn Ldr Cochrane	DS
		Palestine	Sqn Ldr Pirie	DS
		India	Maj Bird (Indian Army)	Student
		Small Wars	Sqn Ldr Pirie	DS
		Small Wars - Sudan	Wg Cdr Reid	Student
		Small Wars - Iraq	Flt Lt Bussell	Student
		Mountain Warfare	Maj Bird (Indian Army)	Student
		RAF on NWF	Flt Lt Davidson	Student
		Imperial Strategy	Maj Gen Maurice/Commandant	External/DS
		Mesopotamia	Wg Cdr Tedder	DS

Cse No	Year	Lecture Title	Presenter	Type of Presenter
9	1930-31	Army Co-operation	Sqn Ldr Medhurst	DS
		India	Capt Webb	Student
		Palestine Campaign	Sqn Ldr Pirie	DS
		Small Wars	Sqn Ldr Pirie	DS
		Sudan	Lt Col Nosworthy/Wg Cdr Reid	External
		Kurdistan	Sqn Ldr Mackay	DS
		Iraqi Operations in Southern Desert	Sqn Ldr Lock	Student
		Operations on the NWF	Flt Lt Baker	Student
		Aden	Sqn Ldr Cochrane	DS
		Mesopotamia	Gp Capt Tedder	DS
		Imperial Defence	AM Brooke-Popham/Commandant	External/DS

Annex 5 - RAF Staff College Small Wars Syllabus, 1922-1938

Cse No	Year	Lecture Title	Presenter	Type of Presenter
10	1931-32	Small wars: the military problems of the Sudan	Col B T Wilson	External
		The air aspects of the military problems of the Sudan	Gp Capt W S Douglas	External
		Small wars: Iraq	Flt Lt Rankin	Student
		Small wars: the RAF and the NWF of India	Flt Lt Darvall	Student
		Small wars: Aden	Sqn Ldr Vachell	DS
		Some notes on the NWF of India	Air Cdre Joubert de la Ferte	Commandant

NB: Course programme of work destroyed; recreated from partial evidence

Cse No	Year	Lecture Title	Presenter	Type of Presenter
11	1932-33	Army Co-operation	Wg Cdr Medhurst	DS
		Empire Defence	AVM Joubert de la Ferte	Commandant
		Palestine	Wg Cdr Medhurst	DS
		India	Capt Goode (Indian Army)	Student
		Aircraft in Small Wars	Wg Cdr Bottomley	DS
		Air operations on the NWF	Flt Lt Russell	Student
		A NWF problem	Flt Lt McKeever	Student
		Air operations in Iraq	Flt Lt Brookes	Student
		Indian affairs	Rt Hon Lord Lloyd	External
		Air operations in Aden	Flt Lt Elliott	Student
		Air operations in the Sudan	Flt Lt Bowen-Buscarlet	Student
		Mesopotamia	Sqn Ldr Fiddament	DS

Annex 5 - RAF Staff College Small Wars Syllabus, 1922-1938

Cse No	Year	Lecture Title	Presenter	Type of Presenter
12	1933-34	Operations on the NWF of India, February to September 1930	Flt Lt MacDonald	Student
		Small wars: Iraq	Flt Lt Guest	Student
		The operations against Shaikh Ahmed of Barzan, Kurdistan, 1931/1932	Flt Lt Combe	Student
		Small wars: Aden	Flt Lt Harris	Student
		Defence problems of India	Capt Reynolds (Indian Army)	Student
		Small wars: summing up	Wg Cdr Saundby	DS

NB: Course programme of work destroyed; recreated from partial evidence

Cse No	Year	Lecture Title	Presenter	Type of Presenter
13	1934-35	Small Wars - Air control in undeveloped countries	Wg Cdr Saundby	DS
		Air operations at Aden	Flt Lt Davies	Student
		Air operations at in Somaliland	Flt Lt Barnes	Student
		Air operations on NWF of India	Flt Lt Collingwood	Student
		Small wars: summing up	Wg Cdr Saundby	DS
		Palestine	Wg Cdr Colyer	DS
		Defence problems of India	Capt Angus (Indian Army)	Student
		Mesopotamia	Wg Cdr Hollinghurst	DS
		Developments in co-operation between the RAF and Army	Air Cdre Le Brock	External
		Persia	Flt Lt Harris	Student

Cse No	Year	Lecture Title	Presenter	Type of Presenter
14	1935-36	The Sudan	Flt Lt Allinson	Student
		Air operations in the Aden Protectorate	Flt Lt Boyle	Student
		Air operations in Iraq I	Sqn Ldr Inglis	Student
		Air operations in Iraq II	Sqn Ldr Pelly	Student
		Air operations on the NWF of India	Flt Lt Atcherley	Student

NB: Course Programme of work destroyed; reconstructed from partial records

Annex 5 - RAF Staff College Small Wars Syllabus, 1922-1938

Cse No	Year	Lecture Title	Presenter	Type of Presenter
15	1936-37	Army Co-operation	Wg Cdr Hollinghurst	DS
		Air participation in Small Wars	Wg Cdr Hollinghurst	DS
		India and its defence problems	Maj Forman (Indian Army)	Student
		Air operations - India	Sqn Ldr Hancock	Student
		Air operations - Aden	Sqn Ldr Montgomery	Student
		Air operations - Iraq	Sqn Ldr Macfadyen	Student
		Palestine	Wg Cdr Harris	DS
		Mesopotamia	Wg Cdr Hollinghurst	DS
		Small wars: Ethiopia; air operations, Italo-Ethiopian Campaign 1935-6	Wg Cdr Hollinghurst	DS
		Control of the NWFP	Col Sir Ralph Griffith	External

NB: Reconstructed from partial records

Cse No	Year	Lecture Title	Presenter	Type of Presenter
16	1937-38	India and its defence problems	Maj Stephenson (Indian Army)	Student
		Air participation in small wars	Wg Cdr Ellwood	DS
		Air operations on the NWF of India	Gp Capt Bottomley - OC No 1 (Indian) Gp	External
		Air operations in the Aden Protectorate	Sqn Ldr Wheeler	Student
		Air operations in Iraq	Flt Lt Casey	Student
		Mesopotamia I	Wg Cdr Ellwood	DS

NB: Course Programme of work destroyed; reconstructed from partial records

**ANNEX 6 – CLASSIFICATION OF TARGETS – AP1300<sup>1</sup>**

Type of Bomb	Target for which suitable
Heavy-weight H.E. bombs designed for penetration	Armoured ships and specially constructed concrete works.
General purposes heavy and medium-weight bombs	Strong constructions of a permanent nature, machinery and mechanical apparatus such as power stations, machine shops, loading and unloading equipment, rolling stock, engine sheds, and unarmoured or lightly armoured ships.
General purposes light weight bombs	Unprotected or lightly protected targets such as hutments, billets, personnel and transport
Light cased high charge-weight ratio bombs	Submarines
Baby incendiary	Combustible targets such as stores of coal, gas or oil factories producing certain chemicals, explosives or other inflammable produce, dumps or buildings which have been opened up by H.E.

In *AP1300*, targets were grouped roughly into the five classes according to their susceptibility to different types of bomb, as shown in the table above.

<sup>1</sup> From Air Ministry, *AP 1300*, Ch VIII, para 36.

**ANNEX 7 - KEY PERSONALITY BIOGRAPHIES**

Postings which impact on Thesis highlighted in blue

**Biography - Air Chief Marshal Sir Norman Bottomley<sup>1</sup>**

1914 August	Officer, 3 <sup>rd</sup> Battalion, East Yorkshire Regiment
1915 December	U/T Pilot, 6 Reserve Squadron RFC
1915 December	U/T Pilot, 15 Reserve Squadron RFC
1916 April	47 Squadron RFC (Beverley)
1917 January	Instructor, 50 Reserve Squadron RFC
1917 April	Instructor, British Flying School, Vendome
1917 August	Flight Commander, British Flying School, Vendome
1919 August	Awarded Permanent Commission as a Captain
1919 November	Staff Officer 2nd Class, HQ Northern Area
1919 October	Reverted to Aeroplane Officer from Staff Officer
1920 April	Staff Officer, HQ No 1 Group
1921 March	Air Staff, HQ Middle East Area
1921 May	Staff Officer, HQ Egyptian Group
1921 November	Staff Officer, HQ Middle East Area
1922 December	No 4 FTS
1924 May	Attended RAF Staff College
1925 May	Staff, Directorate of Operations and Intelligence
1928 October	Officer Commanding, 4 Squadron (Farnborough)
1930 January	Attended Imperial Defence College
1930 December	Directing Staff, RAF Staff College
1934	Officer Commanding, Aircraft Park, Lahore
1934 October	Officer Commanding, No 1 (Indian) Group
1938 February	SASO, HQ Bomber Command
1940 November	AOC, No 5 Group - Bomber Command
1941 June	Deputy Chief of the Air Staff/ Assistant Chief of the Air Staff (Ops)
1945 September	AOC-in-C, Bomber Command
1947 January	Inspector-General of the RAF

<sup>1</sup> <http://www.rafweb.org/Biographies/Bottomley.htm>.

**Air Commodore Charles Beresford Eaton Burt-Andrews<sup>2</sup>**

1936 May	Pilot, 2 Squadron, RAF Hawkinge (Audax)
1937 March	Pilot, 28 Squadron, Ambala (Audax)
1937-1941	?
1941 June	Air Staff, HQ Air Forces in India
1942 December	Officer Commanding, No 613 Squadron (Mustang I)
1943	Served on Special Operations
1945 August	Air Attaché, Warsaw
1948	Attended RAF Staff College
1951 January	Director of Administration, HQ Air Forces Western Europe
1951 January	Secretary-General, HQ Allied Air Forces Central Europe
1953	Directing Staff, RAF Staff College, Bracknell
1955	Head of Far East Defence Secretariat
1958 June	Officer Commanding, RAF Bridgnorth
1958 October	Commandant, Royal Pakistan Air Force Staff College
1962 January	UK National Military Representative, SHAPE
1965 April	Deputy Commandant, RAF Staff College

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<sup>2</sup> <http://www.rafweb.org/Biographies/Burt-Andrews.htm>.

**Biography - Air Vice-Marshal A J Capel<sup>3</sup>**

1914 November	Officer, Somerset Light Infantry
1915 November	Observer, 4 Squadron RFC
1916 April	Flight Commander, ? Squadron RFC
1917	Flight Commander, 1 Squadron RFC (Western Front)
1917 July	Officer Commanding, 94 Squadron RFC
1919 February	Officer Commanding, 92 Squadron (Germany)
1919 August	Officer Commanding, 43 Squadron (Germany/Spittlegate)
1919 December	Staff, Ground Wing, RAF (Cadet) College
1922 April	Adjutant, HQ RAF Cranwell
1923 January	Instructor, RAF (Cadet) College
1923 November	Officer Commanding, 5 Squadron (Bristol F2B, India)
1925	'Pink's War'; captured by tribesmen and awarded DSO
1929 March	Senior Administrative Officer, School of Army Co-operation
1931 January	Attended Army Staff College, Camberley
1933 January	Staff, HQ 22 Group
1934 December	Directing Staff, Army Staff College, Camberley
1936 July	Commandant, School of Army Co-operation/OC, RAF Old Sarum
1939 January	Attended Imperial Defence College
1939	Senior Air Staff Officer, HQ Air Component, British Expeditionary Force
1940 June	Director of Operational Training
1941 March	AOC, 20 (Training) Group
1941 July	Air Officer, Training, HQ Bomber Command

<sup>3</sup> <http://www.rafweb.org/Biographies/Capel.htm>; see Imperial War Museum interviews at <http://www.iwm.org.uk/collections/item/object/80003152>.



**Biography - Air Commodore Sir John Chamier<sup>4</sup>**

1902 August	Commissioned into <a href="#">Indian Staff Corps</a>
<a href="#">1904 January</a>	<a href="#">Officer, 33rd Punjabi Regiment, Indian Army</a>
1915 August	Flying Officer, RFC
1915 December	Flight Commander, No 34 Sqn RFC?
1916 January	Officer Commanding, No 34 Sqn RFC, (BE2c/BE2e/RE8)
1917 April	Commandant, Wireless & Observation School
1917 October	Officer Commanding, Artillery and Infantry Co-operation School
<a href="#">1919 August</a>	<a href="#">Staff Officer, Directorate of Operations and Intelligence</a>
<a href="#">1921 January</a>	<a href="#">Deputy Director of Operations and Intelligence</a>
1921-22	British delegate at Washington Disarmament Conference
<a href="#">1922</a>	<a href="#">Accompanied Sir John Salmond on Review of RAF in India</a>
<a href="#">1923 February</a>	<a href="#">Chief Staff Officer, HQ RAF India</a>
1927 May	Deputy Director of Technical Development
1927 December	Director of Technical Development
1928-32	Director on board of Vickers (Aviation) Ltd Secretary, Air League of the British Empire
1938	Commandant, Air Defence Cadet Corps
1939 September	HQ Balloon Command
1941 February	Commandant, Air Training Corps
1943-44	Inspector of the Air Training Corps

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<sup>4</sup> <http://www.rafweb.org/Biographies/Chamier.htm>.

**Biography - Air Vice-Marshall Hugh Vivian Champion de Crespigny<sup>5</sup>**

1915 July	Pilot, 11 Squadron RFC (Western Front)
1916 January	Flight Commander, 11 Squadron RFC (Western Front)
1917 March	Flight Commander, 60 Squadron RFC
1917 March	Officer Commanding, 29 Squadron RFC (Western Front)
1917 July	Officer Commanding, 32 Training Depot Station
1917 October	Officer Commanding, 29 Squadron RFC (Western Front)
1918 June	Officer Commanding, 65 Squadron (Western Front)
1918 December	Officer Commanding 65 Wing
1919 January	Officer Commanding 65 Wing
1920 January	Flight Commander, 97 (renumbered 60) Squadron (DH10, Risalpur)
1922 March	Officer Commanding, 60 Squadron (DH10, DH9, Risalpur)
1924 February	Staff/Instructor, 3 School of Technical Training
1925 January	Officer Commanding, 39 Squadron (DH9A, Wapiti, Spittlegate/ Risalpur)
1930 January	Officer Commanding, 2 (Indian) Wing Station, Risalpur
1934 March	Air Staff, HQ Inland Area
1936 January	Officer Commanding, 8 FTS
1939 February	AOC, 25 (Armament) Group
1942 February	AOC, Air HQ Iraq
1943 January	AOC, Air HQ Iraq and Persia
1943 October	AOC, 21 (Training) Group

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<sup>5</sup> <http://www.rafweb.org/Biographies/Champion.htm>.

**Biography - Air Marshal Sir Lawrence ‘Johnny’ Darvall<sup>6</sup>**

1916 August	Officer, The Green Howards.
1916 November	Attached to 14th King's (Liverpool) Regiment (Salonika)
1917 November	Seconded to RFC (Macedonia)
1919 December	Supernumerary (Flying Duties), HQ RAF Halton
1920 May	Administrative Officer, HQ RAF Halton
1921 November	Granted Permanent RAF Commission
1924 February	Pilot, 20 Sqn (DH9A, Quetta, Peshawar, Kohat)
1927 April	QFI, 2 FTS
1930 June	Pilot/QFI, 504 Squadron
1931 July	Pilot/QFI, 500 Squadron
1932 January	RAF Staff College
1933 January	Air Staff, HQ Iraq Command
1935 May	Air Staff, Deputy Directorate of Operations (FO5, India)
1939 April	Officer Commanding, RAF Hawkinge
1940 January	Air Staff, Directorate of Plans
1940 September	Officer Commanding, 2 Flying Instructors School, RAFC Cranwell
1942 March	Deputy SASO, HQ Air Forces in India
1943	Director of Air Transport Policy and Operations
1944 September	AOC, 46 Group
1945 June	AOC, 216 Group
1946 July	AOC, AHQ Italy
1947 March	AOC, 3 Group
1949 January	AOA, HQ Flying Training Command
1950 February	AOC, 23 Group
1951	Commandant, Joint Services Staff College
1953 November	Commandant, NATO Defence College, Paris

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<sup>6</sup> <http://www.rafweb.org/Biographies/Darvall.htm>.

**Biography - Marshal of the RAF Sir Edward L Ellington<sup>7</sup>**

1897 September	Commissioned, Royal Field Artillery
1908	Attended War College, Portsmouth
1909 August	Staff Capt, War Office
1910 August	GSO 3, War Office
1912 November	Secretary to the Air Committee
1913 May	GSO 2, Directorate of Military Aeronautics
1913 December	Attended Central Flying School
1914 October	Deputy Assistant Quartermaster-General, HQ BEF, France
1915 March	Assistant Adjutant & Quartermaster-General, 2nd Cavalry Division
1915 July	GSO 1, 2nd Army, BEF
1916 February	GSO 1, Department of the Chief of the Imperial General Staff
1917 January	General Staff, VIII Corps, France
1917 November	Deputy Director-General of Military Aeronautics
1918 January	Director-General of Military Aeronautics
1918 April	Acting Controller-General of Equipment
1918 August	Controller-General of Equipment
1919 April	Director-General of Supply and Research
1919 August	Awarded Permanent Commission as a Major-General
1922 March	<a href="#">AOC, Middle East</a>
1923 November	<a href="#">AOC, RAF India</a>
1926 November	<a href="#">AOC, Iraq Command</a>
1928 November	<a href="#">Supernumerary, HQ Iraq Command</a>
1929 February	AOC-in-C, Air Defence of Great Britain
1931 September	Air Member for Personnel
1933 May	<a href="#">Chief of the Air Staff</a>
1937 September	Inspector-General of the RAF

<sup>7</sup> <http://www.rafweb.org/Biographies/Ellington.htm>.

**Biography - Air Chief Marshal Sir Basil Embry<sup>8</sup>**

1921 March	U/T pilot, No 1 FTS
1922 May	Pilot, 4 Squadron, Farnborough
1922 September	Pilot, 45 Squadron, Iraq
1925 December	Pilot, 30 Squadron, Iraq
1927 December	QFI, No 1 FTS
1929 May	'D' Flight Commander, Central Flying School
1932 January	Air Staff, HQ No 23 Group
1933 January	RAF Staff College, Andover
1934 February	Staff, No 1 (Indian) Wing, Kohat
1936 March	Air Staff, HQ RAF India
1937 November	Officer Commanding, No 20 Squadron, Peshawar/Miranshah
1938 September	HQ RAF India (training Indian officers for the IAF)
1939 April	Air Staff, Deputy Directorate of Operations (Overseas)
1939 September	Officer Commanding, 107 Squadron, Wattisham
1940 May	Evading capture
1940 September	SOA, HQ No 6 Group
1940 October	Air Staff, HQ Fighter Command
1940 October	Officer Commanding, Nightfighter Wing, Rochford
1940 December	Officer Commanding, RAF Wittering
1941 October	Seconded on Special Duty to Middle East
1941 December	Senior Air Staff Officer, HQ Desert Air Force
1942 January	Officer Commanding, RAF Wittering & Sector
1942 November	Staff Officer - Night Fighter Operations, HQ Fighter Command
1943	Senior Air Staff Officer, HQ No 10 Group
1943 June	AOC, No 2 Group
1945 October	Director-General of Training
1947 January	ACAS (Training)
1949 April	AOC-in-C, Fighter Command
1953 July	C-in-C, Allied Air Forces Central Europe

<sup>8</sup> <http://www.rafweb.org/Biographies/Embry.htm>; Jefford, *RAF Squadrons: A Comprehensive Record of the Movement and Equipment of all RAF Squadrons and their Antecedents since 1912*.

**Biography - Air Vice-Marshal Sir Philip Game<sup>9</sup>**

1895 November	Officer, Royal Artillery
1902 July	Adjutant, Royal Artillery
1908 January	Attended Army Staff College
1908 October	Staff Captain Royal Artillery, 4th Division, Eastern Command
1910 December	General Staff Officer, War Office
1913 September	General Staff Officer, Directorate of Military Training
1914 November	General Staff Officer, HQ 4th Army Corps
1915 July	General Staff Officer, HQ 46th Division
1916 March	General Staff Officer, HQ RFC in the Field
1916 October	General Staff Officer, General Staff
	Senior Staff Officer, HQ RFC in the Field
1918 April	Senior Staff Officer, HQ RAF in the Field
1918 October	GOC, South Western Area
1919 March	Director of Training and Organisation
1922 December	<a href="#">AOC, RAF India</a>
1923 November	Air Member for Personnel

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<sup>9</sup> <http://www.rafweb.org/Biographies/Game.htm>.

**Biography - Marshal of the RAF Sir Arthur Harris<sup>10</sup>**

1914 October	Bugler, 1 <sup>st</sup> Rhodesian Regiment (South-West Africa)
1916 January	Pilot, 11 Reserve Squadron RFC
1916 February	Pilot, 19 Reserve Squadron RFC (Northolt)
1916 March	Flight Commander, 39 Squadron RFC (Hornchurch)
1916 July	Officer Commanding, 38 Squadron RFC (Castle Bromwich)
1916 September	Flight Commander, 70 Squadron RFC (Western Front)
1917 March	Flight Commander, 51 Squadron RFC (Hingham)
1917 June	Flight Commander, 45 Squadron RFC (Western Front)
1917 August	Officer Commanding (acting), 45 Squadron RFC
1917 September	Flight Commander, Pilot's Pool, Joyce Green
1917 November	Officer Commanding, 191 Squadron RFC/RAF (Marham)
1918 June	Officer Commanding, 44 Squadron (Hainault Farm)
1918 December	Officer Commanding, 50 Squadron (Harrietsham/Bekesbourne)
1919	Officer Commanding, Brooklands
1919 August	Awarded Permanent Commission as a Major
1920 April	Officer Commanding, No 3 FTS, RAF Scopwick
1921 January	Officer Commanding, 31 Squadron (NWF India)
1922 July	Supernumerary, HQ RAF Iraq
1922 November	Officer Commanding, No 45 Squadron (Hinaidi)
1924 October	Supernumerary, RAF Depot
1925 May	Officer Commanding, No 58 Squadron (Worthy Down)
1928 January	Attended Army Staff College, Camberley
1930 January	Senior Staff Officer to AOC, Middle East Command
1932 August	Supernumerary, RAF Depot
1932 October	Flying Boat Pilot's Course, RAF Base Calshot
1933 March	Officer Commanding, RAF Pembroke Dock/No 210 Squadron
1933 August	Deputy Director of Operations and Intelligence
1934 April	Deputy Director of Plans
1937 April	Officer Commanding, No 4 Group
1937 June	AOC, No 4 Group
1938 July	AOC, Palestine and Transjordan
1939 September	AOC, No 5 Group, Bomber Command
1940 November	Deputy Chief of the Air Staff
1941 May	Head of RAF Delegation to the USA
1942 February	AOC-in-C, Bomber Command

<sup>10</sup> <http://www.rafweb.org/Biographies/Harris.htm>.

**Biography - Air Chief Marshal Sir Philip Joubert de la Ferte<sup>11</sup>**

1907 July	Officer, Royal Field Artillery
1913 March	Appointed Flying Officer, RFC
1913 April	Pilot, No 2 Squadron RFC (Montrose)
1913 June	Pilot, No 3 Squadron RFC (Netheravon)
1914 August	Flight Commander, Squadron RFC. (Western Front)
1915 May	Officer Commanding, 15 Squadron RFC. (Hounslow/Dover)
1915 August	Officer Commanding, 1 Squadron RFC (Western Front)
1916 January	Officer Commanding, 33 Squadron RFC (Filton/Midlands/Yorkshire)
1916 July	Officer Commanding, 5th Wing RFC (Middle East)
1917	Officer Commanding, 21st Wing RFC (Western Front?)
1917	Officer Commanding, 14th (Army) Wing RFC (Western Front/Italy)
1918 March	Officer Commanding, RAF in Italy (No 6 Group?)
1919 June	Officer Commanding, No 2 (Training) Group
1920 January	Attended Army Staff College, Camberley
1921 March	Officer Commanding, MT Repair Depot, Harlescott
1922 April	Directing Staff, RAF Staff College
1921 December	Staff, Air Pilotage School
1923 April	Deputy Director of Personnel
1924 May	Deputy Director of Manning
1926 May	Chief Staff Officer, HQ Fighting Area
1926 September	Directing Staff, Imperial Defence College
1929 December	AOC, No 23 Group
1930 September	Commandant, RAF Staff College
1934 January	AOC, Fighting Area
1936 July	AOC, No 11 (Fighter) Group
1936 September	AOC-in-C, Coastal Command
1937 September	AOC, RAF India
1938 December	AOC, Air Forces in India
1940	Air Adviser on Combined Operations
1940	Assistant Chief of the Air Staff (Radio)
1941 June	AOC-in-C, Coastal Command.
1943 February	Inspector-General of the RAF
1943 November	Deputy Chief of Staff (Information and Civil Affairs), SEAC
1945 November	Retired List
1946-47	Director of Public Relation

<sup>11</sup> <http://www.rafweb.org/Biographies/Joubert.htm>.



**Biography - Air Vice-Marshal E J Kingston-McClaughry<sup>12</sup>**

1915	Officer, Australian Engineers
1916 December	Pilot, 23 Squadron RFC
1917	Flying Instructor
1918	Flight Commander, 4 Squadron, Australia Flying Corps
1922 December	Student, School of Naval Co-operation
1923 September	Staff, School of Naval Co-operation
1925 September	Staff, Directorate of Scientific Research and Technical Development
1927 September	Attended RAF Staff College
1929 April	<a href="#">Air Staff, HQ RAF India</a>
1932 March	<a href="#">Flight Commander, 20 Squadron</a>
1934 January	Attended Army Staff College, Camberley
1936 January	Officer Commanding, 4 Squadron
1937 March	Chief Ground Instructor, RAF College
1938 January	Assistant Commandant, RAF College
1939 January	Staff, Deputy Directorate of War Organisation
?	Staff Officer, South Africa?
1941 June	Officer Commanding, Overseas Air Maintenance Control Unit?
1941 August	AOC, No 44 Group
1943 December	Chairman, Allied Expeditionary Air Force Bombing Committee
1944 June	Liaison Officer to Field Marshal Montgomery
1944 October	<a href="#">Air Staff, India</a>
1945	<a href="#">Air Member, Taker Frontier Committee</a>
1946 April	<a href="#">SASO, India</a>
1947 January	AOC, No 18 Group
1948 January	SASO, HQ Fighter Command
1950 January	AOC, No 38 Group
1951	Chief Air Defence Officer, MoD

<sup>12</sup> <http://www.rafweb.org/Biographies/Kingston-McClaughry.htm>;  
<http://adb.anu.edu.au/biography/mccloughry-edgar-james-7788>.

**Biography - Air Chief Marshal Sir Edgar Ludlow-Hewitt<sup>13</sup>**

1905 August	Officer, 1 <sup>st</sup> Battalion Royal Irish Rifles
1914 August	U/T Pilot, Central Flying School
1914 September	Flying Officer, RFC
1914 November	Flight Commander, 1 Sqn RFC (Farnborough/Western Front)
1915 September	Officer Commanding, 15 Sqn RFC (Western Front)
1915 November	Officer Commanding, 3 Sqn RFC (Western Front)
1916 February	Officer Commanding, 3rd (Corps) Wing RFC
1917 October	Brigadier-General Commanding, ? Brigade
1917 November	Inspector of Training, HQ Training Division
1918 April	GOC, Training Division
1918 May	GOC, X Brigade
1918	Chief Staff Officer, HQ RAF in France
1919 June	Deputy Director of Training
1919 August	Awarded Permanent Commission as a Lieutenant Colonel
1921 July	Air ADC to The King
1922 February	<a href="#">Air Secretary to the Secretary of State for Air</a>
1923 October	President of the Aerodrome Board
1925 October	<a href="#">Attended RN Staff College</a>
1926 March	<a href="#">Commandant, RAF Staff College</a>
1930 September	Placed on half pay list
1930 October	<a href="#">AOC, Iraq Command</a>
1932 September	Supernumerary, RAF Depot
1932 December	Placed on half pay list
1933 February	<a href="#">Director of Operations and Intelligence/DCAS</a>
1935 February	Placed on half pay list
1935 March	<a href="#">AOC, RAF in India</a>
1937 September	<a href="#">AOC-in-C, Bomber Command</a>
1940 April	Inspector-General of the RAF

<sup>13</sup> <http://www.rafweb.org/Biographies/Ludlow-Hewitt.htm>.

**Biography - Air Vice-Marshal Sir Norman McEwen<sup>14</sup>**

1901 March	Princess Louise's (Argyll and Sutherland Highlanders) Station Staff Officer, Transvaal & Cape Colony
1909 August	Adjutant, 6th (Renfrewshire) Battalion, Princess Louise's (Argyll and Sutherland Highlanders)
1915 August	ADC, GOC Southern Command
1916 February	Seconded to RFC
1916 April	Adjutant, Central Flying School
1916 August	Deputy Assistant Director of Aeronautics
1917 April	Chief of Staff, RFC Middle East
1918 April	Colonel (Administration), HQ South-Eastern Area
1918 August	Brigadier-General (Administration), HQ South-Eastern Area
1919 May	GOC, RAF in Afghanistan
1919	OC, RAF India
1920 May	Commandant, Flying Instructors School
1920 April	Commandant, Central Flying School
1923 April	Officer Commanding, RAF Transjordan
1926 May	Deputy Director of Training
1929 April	AOC, 22 Group
1931 October	AOC, HQ RAF Halton
1935	Commandant, Central Flying School
1939 September	AOC, 22 Group
1941- 43	Regional Air Liaison Officer (Retd)

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<sup>14</sup>[http://www.rafweb.org/Biographies/MacEwen\\_NDK.htm](http://www.rafweb.org/Biographies/MacEwen_NDK.htm).

**Biography - General Sir Sydney Frederick Muspratt**

1898	Commissioned into Indian Staff Corps
1900 April	12 <sup>th</sup> Cavalry, India
1906 June	Staff Captain Intelligence, Army HQ, India
1908	Mohmand and Zakka Khel expeditions
1914 September	General Staff Officer, France and Belgium
1920 November	Deputy Director (Intelligence), Army HQ, India
1920 December	12th Cavalry, India
1922 February	Staff Officer, War Office
1925 November	Brigade Commander, 4th Indian Infantry Brigade
1927 November	Director of Military Operations, Indian Army HQ
1929 December	Deputy CGS(India) and Director of Staff Duties, Indian Army HQ
1931	Military Secretary to the India Office
1933 November	GOC Peshawar District
1935	Mohmands Campaign
1937-41	Military Secretary to the India Office

**Biography - Air Marshal Sir Richard Peck<sup>15</sup>**

1914 December	Officer, 11th Battalion, East Surrey Regiment
1915 November	Appointed Flying Officer, RFC
1916 June	Flight Commander, ? Squadron RFC
1917 August	Officer Commanding, ? Squadron RFC
1918 March	Officer Commanding, 117 Squadron RFC/RAF
1918 December	School of Wireless Telegraphy
1919 July	CFI, Netheravon Flying Training School
1919 August	Awarded Permanent Commission as a Major
1919 December	CFI, 1 FTS
1922 May	Air Staff, HQ Iraq Command
1924 May	Officer Commanding, No 84 Squadron (DH9A, Shaibah)
1926 January	Attended Army Staff College, Camberley
1927 November	Air Staff, Deputy Director of Plans
1930 December	Supernumerary, HQ Coastal Area (attached from DD Plans)
1931 August	Air Staff, Directorate of Operations and Intelligence
1932 January	Officer Commanding, 3 FTS
1933 January	Attended Imperial Defence College
1934 January	Deputy Director of Operations and Intelligence
1936 January	SASO, HQ RAF India
	Acting AOC, RAF India
1939 March	Director of Operations
1939 September	Director-General of Operations
1940 February	Assistant Chief of the Air Staff (General)

During most of the last war he was the anonymous "Air Ministry spokesman" who gave information on RAF affairs to members of the Press.

<sup>15</sup> <http://www.rafweb.org/Biographies/Peck.htm>;  
<https://www.flightglobal.com/FlightPDFArchive/1952/1952%20-%202755.PDF>.

**Biography - Air Chief Marshal Sir George Pirie<sup>16</sup>**

1916 May	Flying Officer (Observer), RFC
1916 September	Transferred to Machine Gun Corps; seconded to RFC
1917 April	Flight Commander, 34 Squadron RFC (RE8, Italy)
1918 March	Squadron Commander, RFC
1918 July	Officer Commanding, 6 Squadron (RE8, Western Front)
1920 June	<a href="#">HQ Mesopotamian Wing</a>
1921 May	Staff, Inspector of Recruiting
1922 March	<a href="#">Attended School of Army Co-operation</a>
1922 May	Flight Commander, 4 Squadron (F2B, RAF Farnborough)
1922 September	Air Staff duties, HQ Inland Area
1924 May	Attended RAF Staff College
1925 April	<a href="#">Air Staff, Directorate of Operations and Intelligence</a>
1926 December	Attended Imperial Defence College
1928 January	<a href="#">Air Staff - Intelligence, HQ Iraq Command</a>
1929 May	<a href="#">Officer Commanding, 10 Squadron (Hinaidi, RAF Upper Heyford)</a>
1930 January	Directing Staff, RAF Staff College
1933 June	Officer Commanding, RAF Tangmere
1936 September	<a href="#">Deputy Director of Operations</a>
1937 October	Air Attaché, Washington
1941 August	AOC, RAF in Northern Ireland
1941 September	AOA, HQ Middle East Command
1943 April	Director of War Organisation
1943 July	Director-General of Organisation
1945 July	Deputy Air C-in-C, Air Command South East Asia
1946 April	AOC-in-C, Air Command South East Asia
1946 November	AOC-in-C, Air Command Far East
1948 January	Inspector-General of the RAF
1948 September	Air Member for Supply and Organisation
1950 March	Head of RAF Staff, British Joint Services Mission – Washington

<sup>16</sup> <http://www.rafweb.org/Biographies/Pirie.htm>; Jefford, *RAF Squadrons: A Comprehensive Record of the Movement and Equipment of all RAF Squadrons and their Antecedents since 1912*.

**Biography - Marshal of the RAF Sir John Salmond<sup>17</sup>**

1901 March	Officer, King's Own Royal Lancashire Regiment (South Africa)
1903 November	Officer, West African Frontier Force
1904 April	Seconded to Colonial Office
1907 April	Territorial Battalion of Royal Lancashire Regiment
1912 August	Wings Course, Central Flying School
1912 November	D Flight Commander, Central Flying School
1913 May	Squadron Commander, Central Flying School
1914 May	Officer Commanding, 7 Squadron (Farnborough)
1914 August	Officer Commanding, 3 Squadron (Western Front)
1915 April	Officer Commanding, Administrative Wing, Farnborough
1915	Officer Commanding, Advanced Wing/2nd Wing RFC
1916 February	Brigadier-General Commanding, II then V Brigade RFC
1916 March	Brigadier-General Commanding, VI Brigade RFC
1916 July	Brigadier-General Commanding, Training Brigade RFC
1917 August	GOC, Training Division
1917 October	Director-General of Military Aeronautics, War Office
1918 January	GOC, RFC in the Field
1918 April	GOC, RAF in the Field
1919 May	Officer Commanding, Rhine HQ
1919 August	Awarded Permanent Commission as a Major-General
1919 August	AOC, South-Eastern Area?
1919 September	AOC, Southern Area
1920 April	AOC, Inland Area
1922 May	<a href="#">Special Duties, India</a>
1922 October	<a href="#">GOC/AOC, Iraq Command</a>
1924 October	Placed on half pay list
1925 January	AOC-in-C, Air Defence of Great Britain
1928 May	Loaned to Australian Government
1929 January	Air Member for Personnel
1930 January	<a href="#">Chief of the Air Staff</a>
1933 April	Relinquished his appointment as CAS
1933 April	Additional (temporary) member of the Air Council
1933 May	Relinquished appointment as additional (temporary) member of the Air Council

<sup>17</sup> <http://www.rafweb.org/Biographies/SalmondJ.htm>.

**Biography - Air Chief Marshal Sir W Geoffrey H Salmond<sup>18</sup>**

1898 June	Officer, Royal Artillery (South Africa - 1899-1902)
1900 November	Seconded for service in China (Boxer Rebellion)
1907 July	Supernumerary Captain, Royal Field Artillery
1908 February	Adjutant, Royal Field Artillery
1911 January	Attended Army Staff College, Camberley
1913 April – 1914 August	RFC Reserve
1913 July	General Staff Officer, War Office
1913 August	General Staff Officer, Directorate of Military Aeronautics
1914 August	General Staff Officer, HQ RFC - France
1915 January	Officer Commanding, 1 Squadron RFC
1915 November	Officer Commanding, 5th Wing RFC, Middle East
1916 July	Brigadier-General Commanding, Middle East Brigade, RFC
1917 October	GOC, HQ RFC Middle East/Palestine Brigade
1917 November	Recalled to England
1918 January	GOC, RFC Middle East
1918 April	GOC/AOC, Middle East Area
1919 August	Awarded Permanent Commission as a Major-General
1922 February	Director-General of Supply and Research
1923	Air Member for Supply and Research
1926 December	AOC, RAF India
1931 February	Supernumerary, HQ RAF India
1931 September	AOC-in-C, Air Defence of Great Britain
1933 April	Chief of the Air Staff

<sup>18</sup> <http://www.rafweb.org/Biographies/SalmondW.htm>.



**Biography - Marshal of the RAF Sir John Slessor<sup>19</sup>**

1915 June	Pilot training, Brooklands
1915 July	Pilot, 14 Squadron, RFC (Shoreham)
1915 September	Pilot, 23 Squadron, RFC (Gosport)
1915 December	Pilot, 17 Squadron RFC (BE2c, Egypt/Sudan)
1916 December	Flight Commander, 58 Squadron RFC (Cramlington)
1917 April	Flight Commander, 5 Squadron RFC (BE2, RE8, Western Front)
1918 February	Artillery and Infantry Co-operation Officer, HQ No 28 Wing
1918 July	Officer Commanding, 'A' Squadron - Central Flying School
1918 August	Assistant/Acting Commandant, Central Flying School
1919	Station Commander, Druid's Lodge
1919	Officer Commanding, 14 (Training) Squadron
1919	Officer Commanding, 201 Squadron
1920 February	Flight Commander, No 1 Flying Training School
1921 May	Flight Commander, 20 Squadron (F2B, Parachinar/Ambala)
1923 February	Staff, Directorate of Training and Staff Duties
1924 May	Attended RAF Staff College
1925 April	Officer Commanding, No 4 Squadron (F2B, Farnborough)
1928 Oct	Air Staff - Plans, Directorate of Operations and Intelligence
1930 October	Staff, School of Army Co-operation
1931 January	Attended Army Staff College, Camberley
1932 January	Directing Staff, Army Staff College, Camberley
1935 March	Officer Commanding No 3 (Indian) Wing, Quetta
1937 May	Air Staff, Deputy Director of Plans
1938 December	Air Staff, Director of Plans
1941 May	AOC, No 5 Group - Bomber Command
1942 April	Assistant Chief of the Air Staff (Policy)
1943 February	AOC-in-C Coastal Command
1944 January	Deputy Air C-in-C, Mediterranean Allied Air Forces/ C-in-C, RAF Mediterranean and Middle East
1945 April	Air Member for Personnel
1948 January	Commandant, Imperial Defence College
1950-53 January	Chief of the Air Staff

<sup>19</sup> <http://www.rafweb.org/Biographies/Slessor.htm>.

**Biography - Air Chief Marshal Sir John Steel<sup>20</sup>**

1897	Officer, Royal Navy
1912	Officer, Grand Fleet
1914 February	2 i/c, HMS Conqueror (Battle of Jutland)
1917 February	Officer Commanding, RNAS Eastchurch
1918	Officer Commanding, No 58 Wing - Eastchurch
1918 April	GOC, No 8 Group
1918 November	Officer Commanding, No 29 Group
1919	Director of Air Division, Admiralty
1919 August	Awarded Permanent Commission as a Colonel
1919 September	Director of Operations and Intelligence
1920 January	Awarded Permanent Commission in RAF
1926 April	AOC, Wessex Bombing Area
1931 February	<a href="#">AOC, RAF India</a>
1935 July	Half pay list
1935 August	AOC-in-C, Air Defence of Great Britain
1936 July	<a href="#">AOC-in-C, Bomber Command</a>
1937 September	Retired List
1939 August	AOC, Reserve Command
1940 May	Retired List
1941 April	Controller-General of Economy, Air Ministry
1945 September	Retired List

<sup>20</sup> <http://www.rafweb.org/Biographies/Steel.htm>.

**Biography – General (Air Vice-Marshal) Sir Ivo Vesey<sup>21</sup>**

1897 February	Officer, The Queen's (Royal West Surrey Regiment)
1899-1902	Served during Second Boer War
1909 January	Attended Staff College, Camberley
1911 June	The Queen's (Royal West Surrey Regiment)
1911 August	Brigade Major, 18th Brigade, Northern Command
1913 October	General Staff Officer, Directorate of Staff Duties
1914 November	Assistant Military Secretary
1917 May	Assistant Adjutant-General, War Office
1917 Dec	Deputy Director of Organisation (War Office)
1919 June	Director of Recruiting and Organisation (War Office)
1923 June	Colonel on the Staff i/c Admin
1923 August	<a href="#">Temporarily commission as Air Vice-Marshal<sup>22</sup></a>
1923 August	<a href="#">Director of Organisation and Staff Duties (Air Ministry)</a>
1928 September	Reverted to the Army
1930 April	GOC, 48th South Midland Division, Territorial Army
1931 June	Director of Staff Duties (War Office)
1935 June	<a href="#">GOC in C, Western Command, India</a>
1936 March	<a href="#">GOC in C, Southern Command, India</a>
1937-39	<a href="#">Chief of the General Staff, Indian Army</a>
1939-45	Colonel, 2 <sup>nd</sup> (The Queen's Royal) Regiment of Foot Battalion Commander, Home Guard

<sup>21</sup> <http://www.rafweb.org/Biographies/Vesey.htm>.

<sup>22</sup> For the background of Vesey's secondment to the Air Ministry, see Hyde, *British Air Policy Between the Wars*, 141.

**Biography - Air Vice-Marshal Sir Tom Webb-Bowen<sup>23</sup>**

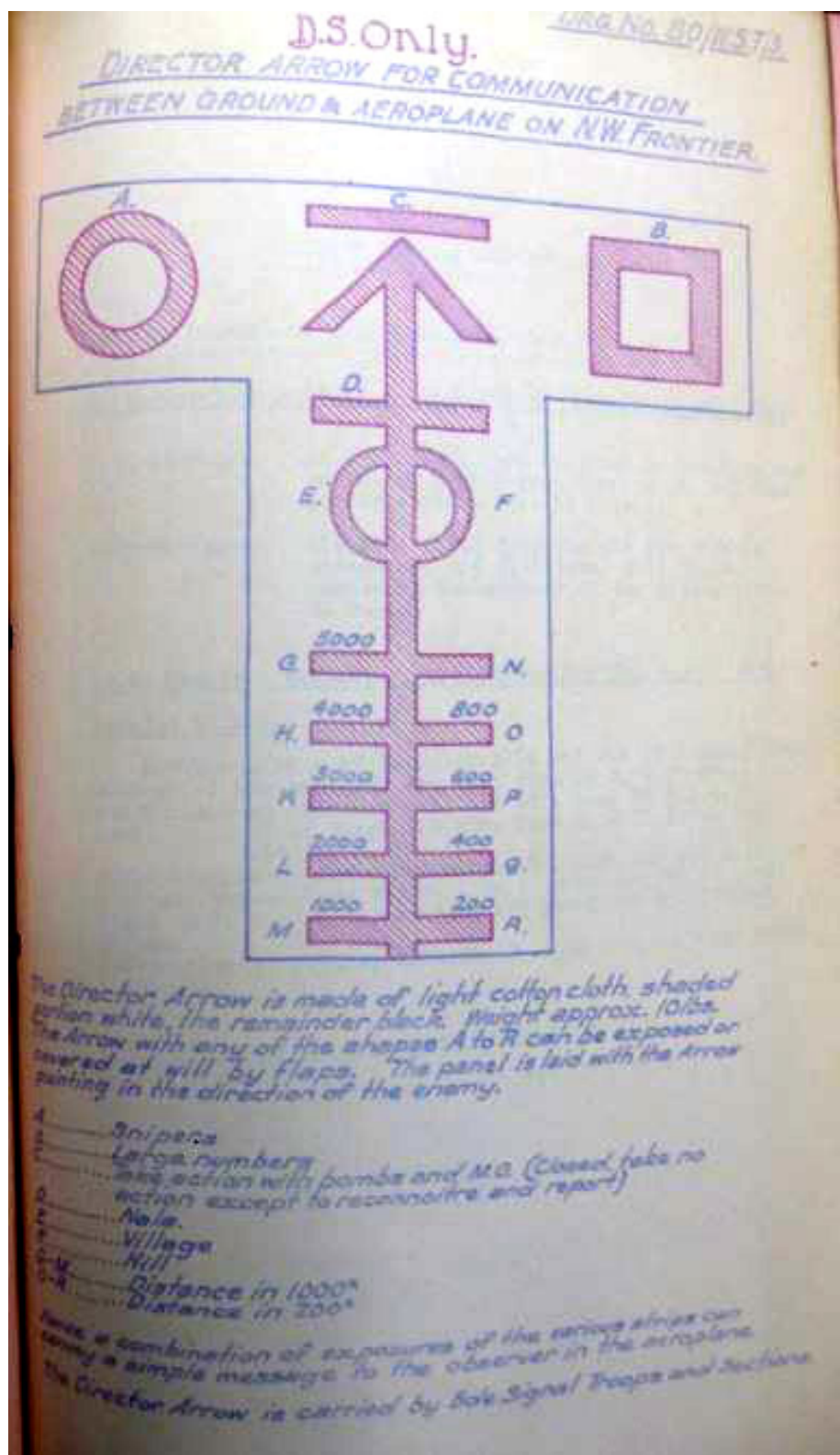
1899 May	Officer, Bedfordshire Regiment
1906 November	<a href="#">Adjutant, Madras Volunteer Corps</a>
1908	Supernumerary Captain, The Bedfordshire Regiment
1909 February	Reinstated to the establishment of The Bedfordshire Regiment
1909 April	Adjutant, The Bedfordshire Regiment
1912 April	Attended 'Wings' Course, CFS
1912 December	Flight Commander, 4 Squadron RFC
1913 June	Instructor, Central Flying School
1914 August	Assistant Commandant, CFS
1915 March	Officer Commanding, 2 Squadron RFC (Western Front)
1915 May	Officer Commanding, No 3 Wing RFC
1916 February	Brigadier-General Commanding, II Brigade RFC
1917 November	Brigadier-General Commanding, VII Brigade RFC (Italy)
1918 April	Brigadier-General Commanding, II Brigade
1919 February	GOC/AOC, South Eastern Area
1919 September	<a href="#">AOC India</a>
1923 April	AOC, No 3 Group
1924 March	AOC Inland Area
1926 November	<a href="#">AOC Middle East</a>
1930 January	Air Member for Personnel
1931 September	<a href="#">AOC, Wessex Bombing Area</a>
1933-1938	Retired
1938	Commandant, Cambridge District, RAF Volunteer Reserve
1939 October	Duty Air Commodore, Ops Room, HQ Fighter Command

<sup>23</sup> <http://www.rafweb.org/Biographies/Webb-Bowen.htm>.

**Biography - General Sir Roger Wilson**

1901	Commissioned, Cheshire Regiment
1904	Transferred to 117th Mahrattas
1904-1926	?
1926	Commander, Wana Brigade
1931	Commandant, Staff College, Quetta
1934	GOC Rawalpindi District
1936	Military Secretary to the India Office
1937	Adjutant-General, Indian Army

# ANNEX 8 - GROUND-TO-AIR 'DIRECTION ARROW'<sup>1</sup>



<sup>1</sup> Army Staff College, "Mountain Warfare Ex, 1933": 76.



## **ANNEX 9 – DEVELOPMENT OF ARMY STAFF COLLEGE MOUNTAIN WARFARE EXERCISE AIR COMMENTS**

1929 – Lieutenant Colonel B H Matheson<sup>1</sup>

The Air. You could of course deal with the whole problem up to a point – by air. You could bomb the two villages. But you can only knock them down – you can't burn the beams that way, which is what matters. Also the people will scatter and you won't kill many. We are, by hypothesis, committed to the plan of a ground and air raid – so we want a ground and air fight with a view to killing, and secondly to burn thoroughly and destroy villages by hand. That being so we want the enemy to stand. Hence, not too much pressure till he does. I suggest only once C.R. Machine up on first day to watch developments – remainder ready at an hours notice in case required, if thought advisable.

1933 – Lieutenant Colonel J G Smyth<sup>2</sup>

The Air. Punitive operations against a tribe of this nature could, of course, be undertaken by the R.A.F. but we are, in this case, by hypothesis, committed to combined ground and air action. That being so, we want the enemy to stand and fight. Therefore not too much pressure from the Air until he does. Suggest only one C.R. machine up on first day to watch developments – remainder ready at an hours notice in case required.

1935 – Lieutenant Colonel W J Slim<sup>3</sup>

The Air.

Suggest only one C.R. machine up on first day to watch developments – remainder ready at an hours notice in case required.

1937 – Lieutenant Colonel H R Swinburn<sup>4</sup>

The Air.

Suggest only one Tactical R. machine up on first day to watch developments – remainder ready at an hour's notice in case required.

Names refer to Indian Army Directing Staff responsible for writing the Exercise.

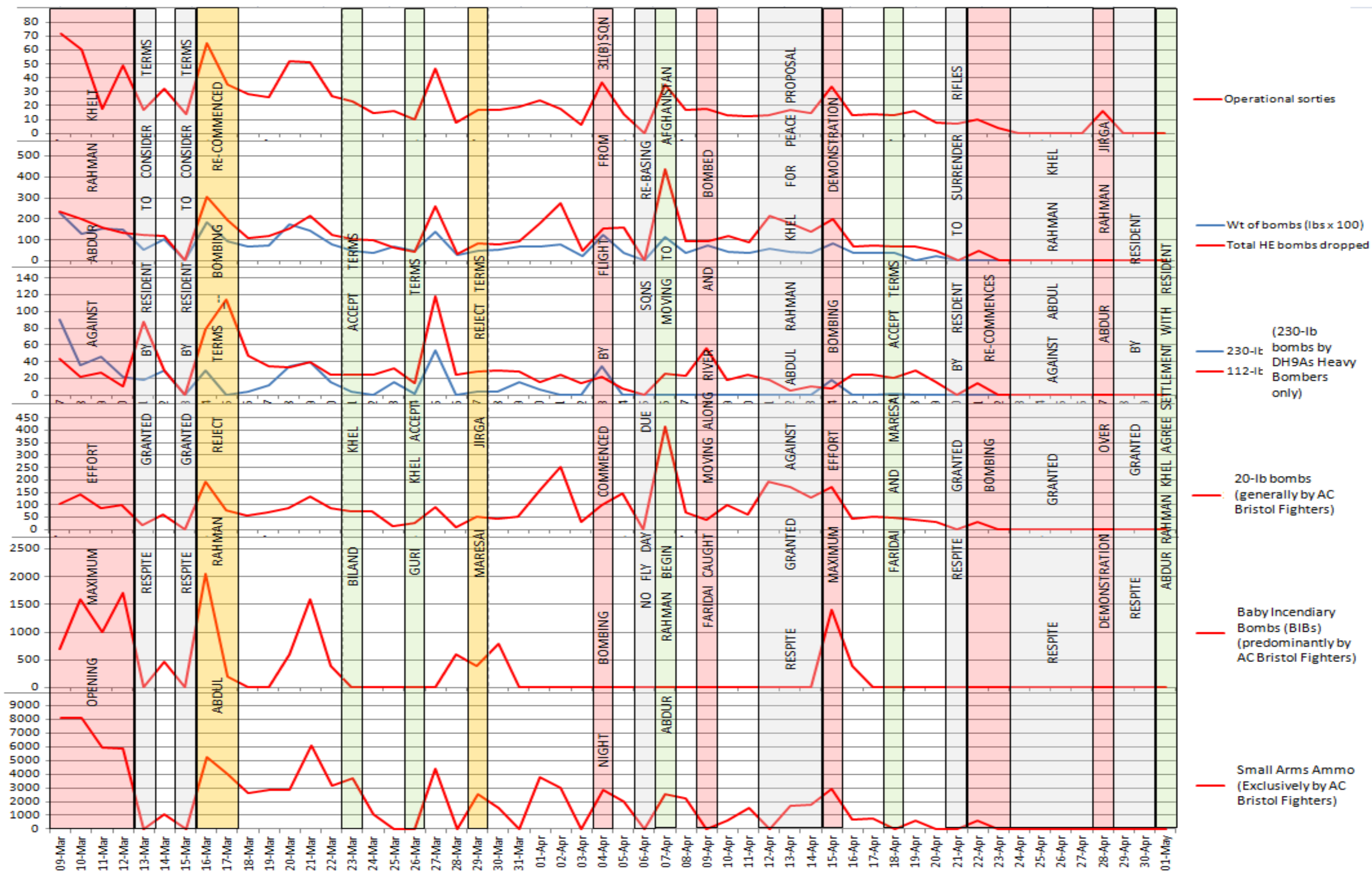
<sup>1</sup> ———, "Mountain Warfare Ex, 1929": 25.

<sup>2</sup> ———, "Mountain Warfare Ex, 1933": 27.

<sup>3</sup> Camberley Army Staff College, "Mountain Warfare Exercise", *Senior Division Directing Staff Lecture Notes* (1935): 27.

<sup>4</sup> Army Staff College, "Mountain Warfare Ex, 1937": 35.

## ANNEX 10 – PINK'S WAR OPERATIONAL STATISTICS – MARCH-APRIL 1925





**ANNEX 11 - EXAMINATIONS OF THE CONSTITUTION OF THE RAF AS A SEPARATE SERVICE  
BETWEEN 1917 AND 1929<sup>1</sup>**

NO	INVESTIGATING BODY	DATE OF FINDING/DECISION
1	Committee on Air Organisation	July 1917
2	War Cabinet	August 1917
3	Lord Balfour's Sub-Committee of the Committee of <i>Imperial Defence</i>	July 1921
4	Committee on National Expenditure ('Geddes Committee')	December 1921
5	Cabinet of the Day (following a detailed examination by a special Cabinet Sub-Committee)	March 1922
6	Committee on the Amalgamation of Services common to the Navy, Army and Air Force	January 1923
7	Cabinet of the Day	March 1923
8	Sub-Committee of National and Imperial Defence	July 1923
9	Cabinet of the Day	July 1923
10	Committee of the Navy, Army and Air Force Expenditure ('Colwyn Committee')	December 1925

<sup>1</sup> From Secretary of State for Air, CP 365(29).

## **ANNEX 12 - MADDA KHEL WARNING NOTICE, FEBRUARY 1939<sup>1</sup>**

N O T I C E

To:-  
THE MADDA KHEL.

1. WHEREAS you have failed to comply with your agreement of June, 1938, and have committed many hostile acts, including several attacks on DATTA KHEL Post, and have interfered with communications on the TOCHI ROAD, Government has decided that you will be punished by air action.
2. You have already been punished recently by the bombing of the SHAWAL TANGI and by the destruction of your villages of TARMORA and NARAKKI and of the villages in the MASTOI.
3. Air action in the MASTOI area will continue and, in addition, 48 hours after the dropping of this notice, the whole of your country with the exception of two sanctuaries named below will be subjected to an air blockade and your villages and habitations not in the sanctuaries may be destroyed by bombing if Government think fit to do so.
4. This air action will continue until Government are satisfied of the good intentions of your tribe.
5. The two sanctuaries named above are:-
  - (a) The SPIN KHAK RAGHEZHA area between the east bank of the MAIDAN ALGAD and the south-west bank of the GURGURAI ALGAD from MAZARAME to the junction of the MAIDAN and GURGURAI ALGADS and thence the country half mile north and south of the RABAI TANGI and DUGA KHULLA from the junction of the MAIDAN and GURGURAI ALGADS to the junction of STARE DARBALAI KWAR and DUGA KHULLA.
  - (b) All land draining into the SHAWAL TANGI from RAMA inclusive down to its junction with the KHIMA ALGAD. All land draining into the KHIMA ALGAD from KANRAI to its junction with the SHAWAL. All land draining into the south bank of the TOCHI between SANDEPAL ALGAD and CHARMINA, excluding DWA TOI.
6. You will not be attacked in either of these sanctuaries unless you allow the PAQIR of IPI into them. If you allow him to enter air action against the sanctuary effected will be taken after due notice.
7. For 48 hours after the dropping of these notices, you will be allowed to move into the sanctuaries without molestation and aircraft will fly over your country to see that you are complying with this order. You are NOT allowed to leave MADDA KHEL territory or take shelter with any other WAZIR or MAHSUD tribe; if you do so you and those who shelter you outside your territory will be liable to punishment.
8. If you wish you may ask for an interview with the P.A. but air action will not be suspended for this purpose, and you are hereby warned that the P.A. will not interview your representatives unless they represent your tribe as a whole.

9./-

<sup>1</sup> AOC RAF India, *Summary of Work* No 243, 18.

## **ANNEX 13 – EXTRACTS FROM 1928 ‘INSTRUCTIONS REGARDING THE EMPLOYMENT OF AEROPLANES ON THE NORTH-WEST FRONTIER OF INDIA’<sup>1</sup>**

*‘Paragraph 2. Definition of “air action” – The various forms that “air action” may take are defined as follows:-*

- (a) Reconnaissance.* – This does not include any offensive action nor does it commit the Government of India in any way to offensive action. It is merely a protective measure taken when the situation demands as an insurance against surprise.
- (b) Demonstration.* – This is not offensive action nor does it commit Government to such action, but its employment is a question of policy and is not dictated by the immediate military requirements of the troops or other Government forces.
- (c) Local air offensive.* – Action taken in this category is purely of an emergency nature for the immediate protection of troops or other Government forces.
- (d) Warning.* – This is quite distinct from a “demonstration” and although it does not include offensive action, it definitely commits the Government of India to such action if the warning is ignored or is not considered to have achieved its object.
- (e) General air offensive.* – Such action definitely commits the Government of India to a war of a major or minor character.

*Paragraph 3. Air action which does not require the previous sanction of the Government of India –*

- (a) Air Reconnaissance.* – When political or military information indicates that bodies of tribesmen are on the move or collecting with hostile intent *so as to constitute an immediate threat to military or civil forces*, air reconnaissance may be called for by any of the civil or military forces specified in Appendix A without reference to higher authority.
- (b) Air Demonstrations.* – These can be ordered by the civil officials mentioned in Appendix B on whom will rest the responsibility for calling out aeroplanes for this purpose.
- (c) Local Air offensive action.* – This can be taken under the following circumstances: -
  - (i)* In all cases where tribesmen are sniping or offering active opposition to any body of regular troops. In such cases aeroplanes may act offensively against such tribesmen without reference to Army Headquarters. It must, however, be understood that action in such cases is to be confined to the tribesmen actually engaged. Responsibility for employing aeroplanes offensively on such occasions rests on the general Officer Commanding District concerned who may delegate this responsibility to selected subordinate Commanders.
  - (ii)* Similarly, where scouts, militia or Frontier Constabulary are seriously engaged by hostile tribesmen, the responsibility for employing aeroplanes on such occasions rests with the Political authorities under whom the civil forces are acting. As in the case of regular troops, action is to be confined to the tribesmen actually engaged.

*Paragraph 4. Air action which requires the previous sanction of the Government of India. –*

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<sup>1</sup> Army Department, *Instructions Regarding the Employment of Aeroplanes on the NWF, 1928.*

*Warnings and offensive air action.* – When land operations are not in progress, warnings of offensive action or general offensive action [as opposed to local offensive air action as already defined...] requires the previous sanction of the Government of India...’.

*Paragraph 6. Use of Bombs.* – In all cases in which offensive action is authorised under these orders or is authorised by the Government of India, such action includes bombing and is not confined to the fire of automatic or other weapons.

## **APPENDIX A**

*List of authorities who may call for air reconnaissance without reference to higher authority.*

1. *Military* –

GOC-in-C, Northern Command.

GOC-in-C, Western Command.

GOC, Peshawar District.

GOC, Kohat District.

GOC, Waziristan District.

2. GOC-in-C, Northern Command and GOC-in-C, Western Command may, at their discretion, delegate their authority to any selected subordinate Commanders.

3. *Civil* –

Chief Commissioner, North-West Frontier Province.

Resident in Waziristan.

Agent to the Governor General, Baluchistan.

And such Deputy Commissioners and Political Agents as the above officials may wish to delegate this authority to.

4. Whenever possible, the ordinary channels of communication will be adhered to and every opportunity will be taken for consultation between the civil, military and Royal Air Force authorities concerned. The sanction to dispense with reference to higher authority is accorded solely to avoid delay in an emergency.

## **APPENDIX B**

Air Demonstration can only be called for by :-

Chief Commissioner, North-West Frontier Province.

Resident in Waziristan.

Agent to the Governor General, Baluchistan.

## **ANNEX 14 – EXTRACTS FROM 1931 ‘PROVISIONAL INSTRUCTIONS REGARDING THE CONTROL OF OPERATIONS INCLUDING THE EMPLOYMENT OF AIR FORCES ON THE NORTH-WEST FRONTIER OF INDIA’<sup>1</sup>**

‘4. In applying these principles in times of peace the following procedure which does not require the previous sanction of the Government of India will be followed :-

- (a) *Civil Armed Forces.* – The normal watch and ward duties of the civil armed forces will continue to be controlled by the Political authorities as heretofore including the rounding up of outlaws, laying ambushes for raiders or un-runners, intercepting raiding gangs and *baramta*<sup>2</sup> against hostile tribes.

*Such activities of these forces are not operations within the definition of paragraph 5 below.*

- (b) *Air Reconnaissance.* – This does not include any offensive action nor does it commit the Government of India in any way to offensive action.

It is merely a protective measure, taken when the situation demands, as an insurance against surprise. The military or civil authorities mentioned below may call for an air reconnaissance without reference to higher authority :-

- (i) *Civil* –

Chief Commissioner, N.W.F.P.

Resident in Waziristan.

Agent to the Governor General, Baluchistan,

and such Deputy Commissioners and Political Agents as the above officials may wish to delegate this authority to.

- (ii) *Military* –

General Officer Commanding-in-Chief, Northern Command.

General Officer Commanding-in-Chief, Western Command.

General Officer Commanding-in-Chief, Peshawar District.

General Officer Commanding, Kohat District.

General Officer Commanding, Waziristan District.

- (iii) General Officer Commanding-in-Chief, Northern Command and General Officer Commanding-in-Chief, Western Command, may, at their discretion, delegate their authority to any selected subordinate Commander.

- (iv) Air reconnaissance shall not be called for by any military authority except after consultation with the political officer concerned.

- (v) Whenever possible, the ordinary channels of communication will be adhered to and every opportunity will be taken for consultation between the civil, military and Royal Air Force authorities concerned. The sanction to dispense with reference to higher authority is accorded solely to avoid delay in an emergency.

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<sup>1</sup> Ibid.

<sup>2</sup> The Pashtun word *baramta* refers to the recovery or restitution of property, etc. Under *baramta*, hostages are held to ransom till the accused returns the claimed property.

- (c) *Air Demonstration*. – This is not offensive action nor does it commit Government to such action.

Its employment is a question of policy and is not dictated by the immediate military requirements of the troops or other Government forces.

It can be ordered by the undermentioned civil officials on whom will rest the responsibility for calling out aeroplanes for this purpose :-

Chief Commissioner, N.W.F.P.

Resident in Waziristan.

Agent to the Governor General, Baluchistan,

- (d) Should any *unforeseen emergency* arise such as the sniping of or the offering of active opposition to any force, whether irregular or regular, by the tribesmen, the authority under whom the civil forces are acting or in the case of a regular force the District Commander may call for air assistance without reference to higher authority. In such cases aeroplanes may take offensive action provided such action is confined to the tribesmen actually engaged.

For the above purpose calls for air assistance will be made to the nearest Wing Commander, Royal Air Force, or to the Officer Commanding, squadron or detachment, Royal Air Force, if the nearest Royal Air Force unit is a detached squadron or portion of a squadron. Such calls will be repeated through the usual channels to superior authority, political, military and Royal Air Force[...]

- (f) *Retaliation against rifle fire from the ground*. – When aeroplanes carrying out any of the duties described above are subjected to deliberate and definitely hostile fire from the ground and the individuals responsible for such firing can be clearly discerned, they may, in the absence of specific instructions to the contrary issued beforehand by competent authority, retaliate in their own defence with machine gun fire or bombs against such individuals. This action must not be taken indiscriminately and is never to be used against villages.

5. When a more serious situation arises involving offensive action not provided for in paragraph 4 such action will be classified as “an operation” and will require the orders of the Government of India as soon as they can be obtained.

6. Operations fall into two classes :-

- (1) those which are deliberately undertaken against the tribes,
- (2) those which are forced upon the local officers by tribal action.

7. In dealing with operations forced upon them by tribal action local officers of all services, political, military and air will –

- (a) consult together as fully as circumstances allow,
- (b) make the best arrangements that the means at their disposal admit,
- (c) report the facts and submit their recommendations to higher authority as fully and promptly as they can.

8. In such cases or where the deliberate initiation of operations is advocated, the Government of India, on receipt of a recommendation from the Chief Commissioner, North-West Frontier Province or Agent to the Governor General, Baluchistan which is made in the manner prescribed in paragraph 9 below, will decide whether operations are to be undertaken, or continued if they are already in progress, and specify the general objective.

9. The following procedure will be observed :-

- (i) Whenever the Chief Commissioner, North-West Frontier Province or Agent to the Governor General, Baluchistan, either on receipt of a report from an officer subordinate to him or of his own motion, is of opinion that operations whether by

land, or air or both should be undertaken against a tribal enemy in the area for which he is responsible, he shall after consultation with the appropriate military and air Commander, forward his recommendation by telegram to the Secretary to the Government of India in the Foreign and Political Department, repeating to the Secretary to the Government of India in the Army Department.

- (ii) The Secretary to the Government of India in the Foreign and Political Department on receipt of such recommendations will at once bring it to the notice of the Government of India and the Secretary to the Government of India in the Army Department will similarly bring it to the notice of His Excellency the Commander-in-Chief and inform the General and Air Staffs.
- (iii) When the Government of India have decided that operations are to be undertaken, control of those operations vests automatically in His Excellency the Commander-in-Chief who has power to delegate control of operations to such officer as he may select.
- (iv) "Control" of operations includes the selection of local objectives with the concurrence of the political authorities, the initial framing of the plan, the selection of the forces required to carry out that plan, the dispositions of these forces both in the initial stage and subsequently in order to deal with developments as they arise, and the allocation of tasks to the several components of the force.
- (v) Such delegation of control does not transfer to the officer selected either the executive command of units of another service or give him power to interfere with the methods adopted by executive commanders of such units to carry out the tasks assigned to them.
- (vi) Should the operation entail offensive action of land forces, whether regular or irregular, with or without the co-operation of aircraft His Excellency the Commander-in-Chief will normally delegate the control of such operations to a Military Commander.
- (vii) Should an objective be beyond the reach of land forces and necessitate air action, His Excellency the Commander-in-Chief will normally delegate the control of such operations to the Air Officer Commanding with whom the military forces will co-operate as required.

10. Air Action against villages must never be undertaken except after due warning as in paragraph 11 below and with the previous sanction of the Government of India.

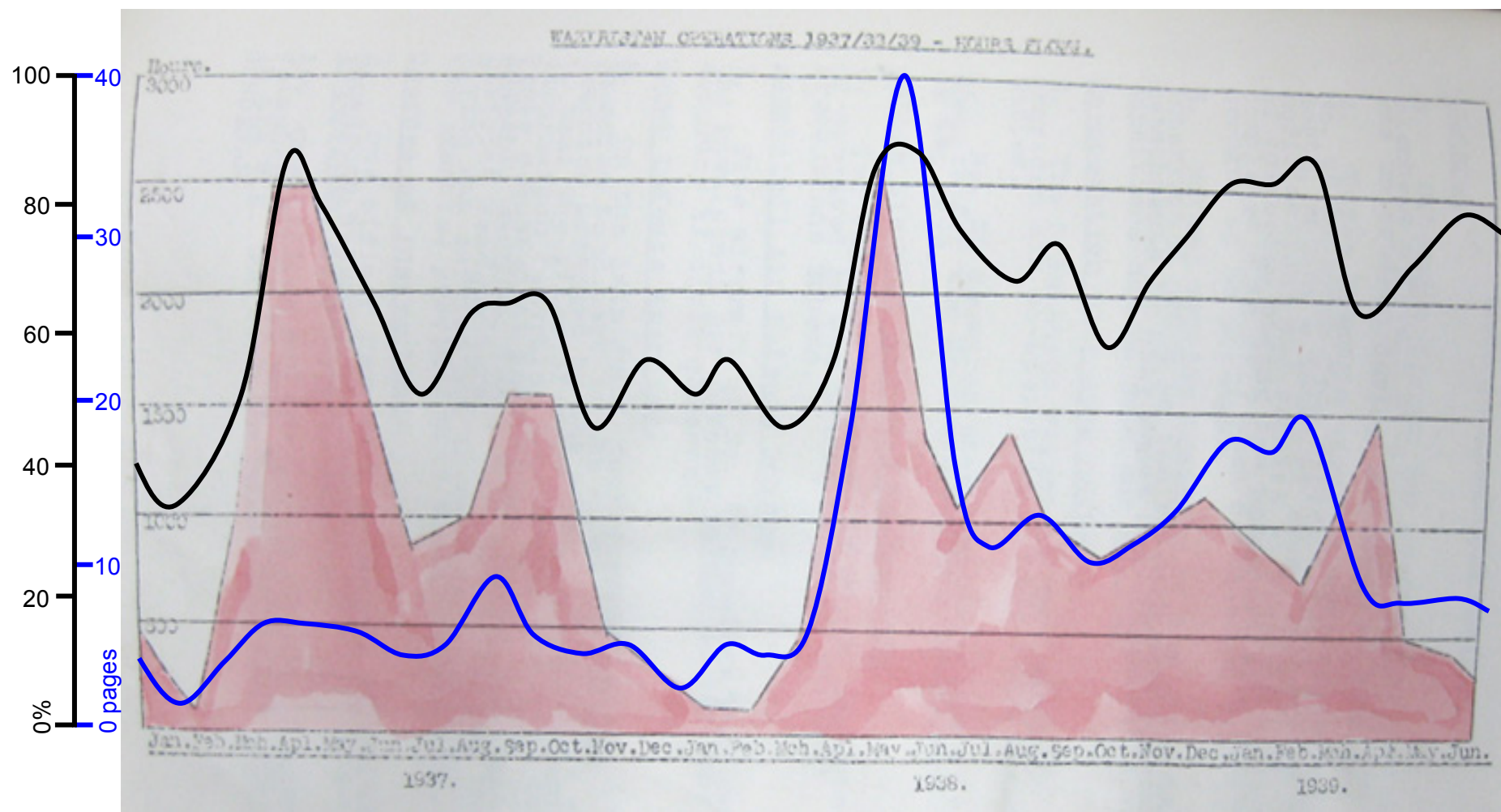
11. *Warnings.* – These are quite distinct from "demonstrations" [paragraph 4 (c)] and although they do not include offensive action, they definitely commit the Government of India to such action if the warning is ignored or is not considered to have achieved its object. These require the previous sanction of the Government of India. The normal minimum period of a warning is 24 hours.

12. In order that the fullest use may be made of the air arm, to act rapidly in any direction that may be required, central control is necessary, and the control of squadrons, other than those detailed to co-operate with the land forces, will not normally be delegated except for a definite and limited operation.

### 13. *Prohibited Flying Zone During Operations.* - ...

Unless a state of war with Afghanistan exists or unless the Government of India's sanction has been accorded in a special emergency, no tribal air operation justifies the violation or the risk of violation of the Afghan Frontier. The serious political consequences which are liable to result from such infringement should be strongly impressed on all concerned and in no circumstances may the prohibited zone be entered by aircraft without the special permission of the Government of India.'

# ANNEX 15 - RAF INDIA MONTHLY SUMMARY STATISTICS - WAZIRISTAN OPERATIONS – 1937-39<sup>1</sup>



— Percentage of body of text of RAF India monthly *General Summaries of Work* dedicated to operations in Waziristan

— Number of pages of RAF India monthly *General Summaries of Work* dedicated to operations in Waziristan

<sup>1</sup> Graph of Waziristan flying hours from AOC RAF India, *Summary of Work* No 247, 9. Additional data from *Summaries of Work*, 1936 to 1939.



## **ANNEX 16 - AIR STAFF ANALYSIS OF POSSIBLE FORMS OF 'FRIGHTFULNESS' - 1922<sup>1</sup>**

The Air Staff believed as early as 1922 that the pacification of the trans-Frontier tribes depended less on destruction than on affecting their morale via aerial-delivered coercive effects. Following his report on the RAF in India in August 1922,<sup>2</sup> AVM Sir John Salmond believed that the effect would be enhanced by employing a variety of methods (of varying lethality) to maintain the impact of novelty for as long as possible.<sup>3</sup> The Deputy Director of Operations and Intelligence, Group Captain John Chamier, prepared a list of possible 'forms of annoyance' for DCAS (Air Commodore John Steel).<sup>4</sup> These were passed to the Director of Research (D of R) for a technical (rather than ethical) assessment.<sup>5</sup>

The methods described below were considered during the 1922 study. The information was deemed sufficiently sensitive that the file was closed for 75 years.

**Long Delay Bombs.** With a delay of several hours, long delay bombs were intended to deter villagers from returning to their homes at night when night bombing was impossible.<sup>6</sup> Eighteen-hour delays were being trialed in Iraq.<sup>7</sup>

**Phosphorus Bombs.** It was thought that time-fused phosphorus bombs, which produced a 200-yard 'umbrella' of burning pellets should produce great moral results if used sparingly. However, the bombs were considered to be too dangerous to handle or carry on aircraft due to the risk of fire, especially during crash landings.<sup>8</sup> Additionally, there were technical difficulties in developing the required time fuses to detonate the bomb at a given height above the ground, whatever the release height, allowing 80% of the phosphorous to be expended before it landed. Deployed in this manner, they were assessed to cause little physical damage and were very much a 'show bomb'.<sup>9</sup> The D of R assessed that it might take up to a year to develop an acceptable bomb, but overall did not favour them.<sup>10</sup>

**War Rockets.** Multi-rocket salvos were thought to be useful for searching scrub and for making tribesmen move.<sup>11</sup> However, ensuring simultaneous ignition was complicated and difficult. Additionally, it was thought that the novelty of shock might not last long.<sup>12</sup> The D of R thought rockets would be impractical to employ, 'In other words, are they worth while?'<sup>13</sup>

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<sup>1</sup> *Suggested Systems of Attack Against Uncivilised Tribes.*

<sup>2</sup> Salmond, *1922 Report on RAF India.*

<sup>3</sup> AIR 5/264, Group Captain J A Chamier, *Minute, Deputy Director, Operations and Intelligence, to Deputy Chief of the Air Staff* 1922.

<sup>4</sup> Chamier became Senior Air Staff Officer at HQ RAF India in 1923. See his biography in [Annex 7](#).

<sup>5</sup> AIR 5/264, Group Captain J A Chamier, *Minute, Deputy Director, Operations and Intelligence, to Director of Research*, 18 December 1922; Chamier, *DD Ops & Intel to DCAS*, 1922.

<sup>6</sup> Chamier, *Forms of "Frightfulness"*.

<sup>7</sup> AIR 5/264, *Forms of Frightfulness: Enclosure 2(A)*, 1922.

<sup>8</sup> ———, *Forms of "Frightfulness"*.

<sup>9</sup> *Forms of Frightfulness: Enclosure 2(A)*.

<sup>10</sup> Bagnall-Wild, *Minute, D of R to DDOI*, 18 December 1922.

<sup>11</sup> Chamier, *Forms of "Frightfulness"*.

<sup>12</sup> *Forms of Frightfulness: Enclosure 2(A)*.

<sup>13</sup> Bagnall-Wild, *Minute, D of R to DDOI*, 18 December 1922.

**Crow's Feet.** Also known as "cal throps", these lightweight, four-pointed metal spikes were originally designed for making fords impassable for cavalry, but were thought to be able to lame cattle if dropped in thousands on hillside paths.<sup>14</sup>

**Aerial Darts.** Although aerial darts were trialed but discarded during the FWW, Chamier nevertheless proposed that a single aircraft could carry 10,000 'whistling' darts would have a significant moral and physical effect against tribesmen hiding in *nullahs* and scrub.<sup>15</sup> However, the technical assessment was that releasing thirty 20-pound Cooper bombs (which weighed the same as 10,000 darts) would be more effective.<sup>16</sup> The D of R pointed out that FWW experience had found them ineffective and they had been superseded by bombs.<sup>17</sup>

**Stink Cartridges.** Of a harmless nature, these were thought to keep tribesmen on the move and annoy them when hiding in caves, but could only be delivered by low-altitude attacks.<sup>18</sup> However, the lachrymatory ingredient was deemed to be a category of chemical warfare and the technical assessment was that, if chemical warfare was to be sanctioned (which was 'an open question'), Mustard gas would be more effective, as it would persist for weeks, denying tribesmen use of their villages (although there was no mention about the challenges on decontaminating an area once a tribe had capitulated). Work on stink bombs had been halted after the 1921-22 Washington Conference and further development would be required before they could be deployed to India.<sup>19</sup> The D of R commented that 'There is not the slightest doubt in my mind that mustard gas is the most satisfactory, if we are going to use any form of stink or gas'.<sup>20</sup>

**Throwdowns.** A large number of 4-oz versions of schoolboys' crackers could be used, mixed with high-explosive bombs, to generate an significantly enhanced moral effect and give the impression of a much larger bombing raid.<sup>21</sup> However, the technical assessment was that they were too unstable and dangerous for use in aircraft.<sup>22</sup>

**Liquid Fire.** The desired effect was to drop ignited oil drums where, on impact. Chamier thought that the burning liquid would flow rapidly down hillsides until it found level areas where, often, crops and houses would be located.<sup>23</sup> However, the technical assessment was that only small quantities of oil could be carried by aircraft which would rapidly be absorbed by the ground on impact.<sup>24</sup> The D of R thought that the weight of oil would prohibit this method's practicality.<sup>25</sup>

**Crude Oil.** Chamier wanted to spread oil over ponds to inconvenience tribesmen by making them travel further to source drinking water for their livestock and

<sup>14</sup> Chamier, *Forms of "Frightfulness"*.

<sup>15</sup> Ibid.

<sup>16</sup> *Forms of Frightfulness: Enclosure 2(A)*.

<sup>17</sup> Bagnall-Wild, *Minute, D of R to DDOI*, 18 December 1922.

<sup>18</sup> Chamier, *Forms of "Frightfulness"*.

<sup>19</sup> *Forms of Frightfulness: Enclosure 2(A)*.

<sup>20</sup> Bagnall-Wild, *Minute, D of R to DDOI*, 18 December 1922.

<sup>21</sup> Chamier, *Forms of "Frightfulness"*.

<sup>22</sup> *Forms of Frightfulness: Enclosure 2(A)*.

<sup>23</sup> ———, *Forms of "Frightfulness"*.

<sup>24</sup> *Forms of Frightfulness: Enclosure 2(A)*.

<sup>25</sup> Bagnall-Wild, *Minute, D of R to DDOI*, 18 December 1922.

themselves.<sup>26</sup> However, it was assessed that oil would not make the water undrinkable (only tainted) and that it would be difficult to deploy effectively against a collection of small pools.<sup>27</sup>

**Man Killing Shrapnel Bombs.** Smaller shrapnel bombs were thought to be valuable, as the 20-lb bomb was considered too heavy and ineffective.<sup>28</sup> Development was proceeding, but the limited funds available and staffing process had slowed progress.<sup>29</sup> The D of R reported that they were being developed as fast as possible.

**Gliding Bombs.** These were thought to be potentially useful for targeting hillside caves due to their low angle of impact.<sup>30</sup> However, the technical assessment pointed out that glide bombs had previously been rejected by the Air Staff and caves were likely to present too small a target given their likely accuracy. Instead, low-altitude bombing was recommended.<sup>31</sup>

**Smoke Bombs.** Against small targets, it was often necessary to attack at low altitude to positively identify the target. However, DH9A bombers were considered too unmanoeuvrable for low-altitude bombing inside steep-sided valleys. It was thought that more manoeuvrable Bristol Fighters could precision-drop smoke bombs from low level on small targets, after which DH9As could bomb the indicated target from a convenient height with their accurate bomb sight.<sup>32</sup> Smoke bombs were in the process of being developed, but progress had been slow.<sup>33</sup>

**Tracer Ammunition.** Tracer was thought to have a greater moral effect than plain ammunition.<sup>34</sup> Large quantities of deteriorating stock were available from the FWW which could be deployed to India.<sup>35</sup>

**In-Service Weapons.** Both these types of bombs were already in service and would continue to be employed. The Baby Incendiary had 'a very great moral as well as material effect'.<sup>36</sup>

Overall, the D of R considered high explosive or shrapnel bombs to be the most effective weapon for a given weight although, if acceptable in 'savage warfare', 'mustard gas should prove more efficient than any other known form of frightfulness'.<sup>37</sup>

<sup>26</sup> Chamier, *Forms of "Frightfulness"*.

<sup>27</sup> *Forms of Frightfulness: Enclosure 2(A)*.

<sup>28</sup> ———, *Forms of "Frightfulness"*.

<sup>29</sup> *Forms of Frightfulness: Enclosure 2(A)*.

<sup>30</sup> ———, *Forms of "Frightfulness"*.

<sup>31</sup> *Forms of Frightfulness: Enclosure 2(A)*.

<sup>32</sup> ———, *Forms of "Frightfulness"*.

<sup>33</sup> *Forms of Frightfulness: Enclosure 2(A)*.

<sup>34</sup> ———, *Forms of "Frightfulness"*.

<sup>35</sup> *Forms of Frightfulness: Enclosure 2(A)*.

<sup>36</sup> ———, *Forms of "Frightfulness"*.

<sup>37</sup> Bagnall-Wild, *Minute, D of R to DDOI*, 18 December 1922.

**ANNEX 17 - CORRESPONDENCE TO INDIA OFFICE FROM THE PUBLIC REGARDING POLICY  
(INCLUDING AIR ACTION) ON THE NWF – 1935 TO 1938<sup>1</sup>**

DATE	ORIGINATOR	THEME
05 Oct 38	Selfridge & Co	Enquiry if there was a factual basis that bombing policy maintains order.
20 Jul 38	The editor of 'The Aeroplane', C G Grey, addressed to Capt A Evans MP	Anti-bombing theme. Enquires if there any alternatives existed.
26 Aug 38	Article in 'The Friend' (London) entitled ' <i>Bombing in India</i> ' <sup>2</sup>	Anti- bombing theme. Quotes Dr Khan Sahib (PM of NWFP) saying "I am convinced that the whole system of air-bombing defenceless villages is immoral.. I can assure you the first warning they get is the first bomb'.
12 Aug 38	Article in 'Christian Science Monitor' (Boston, USA) entitled ' <i>Police Bombing in India</i> ' by C F Andrews	Contrasts Britain's objections to 'recent events in Spain and China' about 'the bombing of open towns' with bombing on NWF.
28Jun 38	Preston Branch of Women's Intl League for Peace and Freedom <sup>3</sup>	Resolution by members to cease the use of aerial bombing for police purposes on NWF.
25 Jun 38	Acton Labour Party	Resolution by members to cease the use of aerial bombing for police purposes on NWF.
20 Apr 38	Pamphlet published by Carl Heath, Friends' Peace Literature Committee, ' <i>The North-West Frontier of India</i> '	Letter extolling pacifism.

<sup>1</sup> Collated from letters in IOR/L/PS/12/3251, *Policy: Correspondence with Members of the Public Regarding Policy (including Air Action) on the NWF, 1935-42.*

<sup>2</sup> *The Friend* was a Quaker magazine.

<sup>3</sup> The Women's International League for Peace and Freedom was founded in 1915 when 1200 women from a diversity of cultures and languages came together in The Hague during the First World War to study, inform and eliminate the causes of war.

Annex 17 - Correspondence to India Office from the Public Regarding Policy (Including Air Action) on the NWF – 1935 to 1938

DATE	ORIGINATOR	THEME
07 Sep 37	Manchester Guardian ' <i>The North-West Frontier - India's Problem</i> ' by 'ECH'	Article précis of C F Andrews' book recommending alternative solutions to bombing policy. <sup>4</sup> This book questioned the necessity for a large army on the Frontier and condemned aerial bombing, urging greater expenditure on 'constructive methods of peace'.
03 Jun 37	National Peace Council	Request to discuss NWF policy with SoS(India) (Marquess of Zetland).
04 Jun 37	Peace Committee of the Society of Friends, London	Resolution against bombing of Guernica & NWF.
18 May 37	Letter from Miss Agatha Harrison, London	Demanding an enquiry into NWF policy as suggested by various Peace Societies.
24 May 37	East Fulham Divisional Labour Party	Resolution protesting at action against natives on the NWF.
26 Apr 37	Edinburgh University Socialist Society	Informing that a motion was unanimously passed: 'This Society protests against the continued bombing of the NWFI, and the invasion of the territory of independant [sic] tribes for militaristic purposes'.
20 May 37	Cambridge Daily News, letter from Exec Committee of the Women's International League (Cambridge Branch)	Protest about methods used on NWFI, highlighting the UK's hypocritical criticism of Spanish aerial bombing. Identically worded to Women's International League letter dated 6 May 37.
11 May 37	Women's International League (Brighton & Hove Branch)	Protest about methods used on NWFI, highlighting the UK's hypocritical criticism of Spanish aerial bombing. Identically worded to Women's International League letter dated 6 May 37.
14 May 37	Synod of Newcastle upon Tyne District Methodist Church	Expressed abhorrence at continued use of bombing on the NWFI.
06 May 37	British Section of Women International League for Peace & Freedom	Protest about methods used on NWFI, highlighting the UK's hypocritical criticism of Spanish aerial bombing

<sup>4</sup> Andrews, *The Challenge of the North-West Frontier: A Contribution to World Peace*.

Annex 17 - Correspondence to India Office from the Public Regarding Policy (Including Air Action) on the NWF – 1935 to 1938

DATE	ORIGINATOR	THEME
26 Apr 37	National Peace Council	Stated that the cause of the NWF disturbances are economic and urged an investigation into the human needs of the NWF tribesmen. General Wilson (Secretary of the Military Department of the IO) responded in a memo that 'I agree that the cause of trouble in the tribal territory is economic. For yrs the Gofl [sic] have with considerable success been trying to cure this by improving communications, by paying the inhabitants for their services & by encouraging them to indulge more freely in agriculture. The Present trouble is not with those who have fallen in with this programme but with those who, rather than work for their living prefer to get it by raiding their neighbours'.
17 Mar 36	British Section of Women International League for Peace & Freedom	Informed that a resolution had been passed: 'This Annual Council meeting of the Women's Intl League deprecates the dual policy of the Government of India on the NWFI which, while seeking to bring civilisation to the disturbed areas by road-making and other means, yet continues the method of military expeditions, and especially the use of aeroplanes...'
17 Dec 35	British Section of Women International League for Peace & Freedom	Highlights an article in Manchester Guardian, drawing an analogy with Italian bombing in Abyssinia, asking for alternative methods to be explored.
14 Oct 35	Geoffrey Hithersay Shakespeare, MP for Norwich, Parliamentary Secretary to the Ministry of Health	Shakespeare's election competitor (Archibald Fenner Brockway, Labour pacifist) had written a critical article about NWF policy in the 'New Leader' [27 Sep 35; 'Britain's Abyssinia'], alleging 6000 bombs dropped in a day. Shakespeare requested the facts.

**ANNEX 18 - BRITISH EXPEDITIONARY FORCE 1\* CAREER BACKGROUNDS<sup>1</sup>****General Headquarters**

Post	Name	Indian Service	Source
Commander-in-Chief	General The Viscount Gort (Late Foot Guards)	Director of Military Training, India, 1932-36	S
Chief of the General Staff	Lieutenant General H.R. Pownall (Late RA)	NWF, 1930-31 Chairman, Pownall Committee (see Chapter 6)	S
Vice Chief of General Staff (From 12 May)	Major General T.R. Eastwood (Late Infantry) (Commanded Rustyforce, 24-26 May)	?	
Deputy Chief of General Staff (From 12 May)	Brigadier Sir Oliver W H Leese, Bt.	Chief Instructor, Quetta, 1938-40	S
Director of Military Intelligence	Major General F.N. Mason-Macfarlane (Late RA) (Commanded Macforce, 17-25 May)	Afghanistan, 1919 Staff College Quetta, 1920 AHQ, 1922-26 RA Training Centre, Muttra, 1926-28 Staff Officer, Eastern Command, 1928-30	S
Adjutant-General	Lieutenant General Sir W Douglas S Brownrigg (Late Infantry)	NIS	AL
Quartermaster-General	Lieutenant General W.G. Lindsell (Late RA)	NIS	AL
Military Secretary	Brigadier Sir Colin Jardine, Bt.	Northern Command, India, 1920-23 7th Indian Brigade, Razmak, 1926-27	S
Major General Royal Artillery	Major General S.R. Wason	Staff Officer, AHQ, 1933-35	S
Major General Anti-Aircraft Artillery	Major General H.G. Martin	Afghanistan, 1919 India, 1922-27 Directing Staff, Staff College, Quetta, 1928-31	S
Engineer-in-Chief	Major General R.P. Pakenham-Walsh	NIS	AL
Signals Officer-in-Chief	Brigadier R. Chenevix-Trench	Chief Signals Officer, India, 1927-31	AL
Armoured Fighting Vehicles (Adviser)	Brigadier V.V. Pope	NIS	AL
Director of Supply and Transport	Brigadier G.K. Archibald	NIS	AL
Director of Medical Services	Major General J.W.L. Scott	NIS	AL

Key overleaf

<sup>1</sup> Order of Battle and staff list derived from: Gregory Blaxland, *Destination Dunkirk: The Story of Gort's Army* (London: William Kimber, 1973), 398-403.

**Key**

Description of Indian service
No Indian Service (NIS)

AHQ - Army HQ

GSO - General Staff Officer

S - Smart, Nick. *Biographical Dictionary of British Generals of the Second World War*. Barnsley: Pen & Sword, 2005

AL - Army List for appropriate years

WWW - Who Was Who for appropriate years

**GHQ Troops - Royal Armoured Corps**

Post	Name	Indian Service	Source
1st Light Armoured Reconnaissance Brigade	Brigadier C.W. Norman	Indian service	S
2nd Light Armoured Reconnaissance Brigade	Brigadier A.J. Clifton	Armoured Vehicles, 1918-25	AL
1st Army Tank Brigade	Brigadier D.H. Pratt	NIS	AL

**GHQ Troops - Royal Artillery**

1st Anti-Aircraft Brigade	Brigadier E.D. Milligan	NIS	AL
2nd Anti-Aircraft Brigade	Brigadier E.W. Chadwick	NIS	AL
4th Anti-Aircraft Brigade	Brigadier J.N. Slater	NWF, 1919	S, AL
5th Searchlight Brigade	Brigadier E. Rait-Kerr	NIS	AL

**I Corps**

GOC	Lieutenant General M.G.H. Barker (Late Infantry)	GSO2 India, 1920-21 Instructor, Senior Officers' School, India, 1921-24	AL
BGS	Brigadier W.C. Holden	NIS	AL



**I Corps - 1st Division** (with II Corps from 18-23 May)

Post	Name	Indian Service	Source
Divisional Commander	Major General The Hon H.R.L.G. Alexander (Late Foot Guards)	OC Nowshera Brigade, NWF, 1935-37	S, AL
1st Guards Brigade	Brigadier M.B. Beckwith-Smith	OC Lahore Brigade, 1938-39	S, AL
2nd Brigade	Brigadier C.E. Hudson	NIS	AL
3rd Brigade	Brigadier T.N.F. Wilson	NIS	AL

**I Corps - 2nd Division** (with Rustyforce from 24-26 May, with III Corps from 26 May)

Divisional Commander	Major General H.C. Lloyd (Late Foot Guards) (To 16 May)	NIS	AL
	Brigadier F.H.N. Davidson (Late RA) (Acting from 16-20 May)	Staff College, Quetta, 1924 GSO2, AHQ, 1925-27 Brigade Major, 12th Indian Infantry Brigade, 1927-29	S, AL
	Major General N.M.S. Irwin (Late-Infantry) (From 20 May)	GSO2, Border Regiment, India, 1929-33	S, AL
4th Brigade	Brigadier E.G. Warren	NWFI, 1936-37	AL
5th Brigade	Brigadier G.I. Gartlan	NIS	AL
6th Brigade	Brigadier N.M.S. Irwin (To 20 May)	<i>Previously mentioned above</i>	
6th Brigade	Brigadier D.W. Furlong (From 20 May)	Waziristan Ops, 1921-24	AL

**I Corps - 48th (South Midland) Division, TA** (under GHQ from 25 May)

Post	Name	Indian Service	Source
Divisional Commander	Major General A.F.A.N. Thorne (Late Foot Guards)	NIS	AL
143rd Brigade	Brigadier J. Muirhead (With 5th Division from 26 May)	NWF, 1930-31	AL
144th Brigade	Brigadier J .M. Hamilton	NIS	AL
145th Brigade	Brigadier A.C. Hughes (To 15 May)	?	
145th Brigade	Brigadier The Hon N.F. Somerset (From 15 May)	Afghanistan & NWF, 1919 Staff Captain Auxiliary & Territorial Force, India, 1925-26 Assistant Military Secretary India, 1926-29	AL

**II CORPS**

GOC	Lieutenant General A.F. Brooke (Late RA)	India, 06-14	S
BGS	Brigadier N.M. Ritchie	SO Northern Command, 30-34 GSO2 India, 33-37	S, AL

**II CORPS - 3rd Division**

Divisional Commander	Major General B.L. Montgomery (Late Infantry)	NWF & Bombay, 1908-12? 1st Battalion, Royal Warwicks, 1931-33? Chief Instructor (GSO1), Staff College, Quetta, 1934-37	S, AL, M
7th Guards Brigade	Brigadier J.A.C. Whitaker	NIS	AL
8th Brigade	Brigadier C.G. Woolner	GSO2 India, 1930-32 Brigade Major, India, 1932-34	S, AL
9th Brigade	Brigadier W. Robb	2nd Battalion, King's Own Yorkshire Light Infantry, India, 1922-25 GSO3 India, 1926-30	S, AL

**II Corps - 4th Division** (with III Corps from 18-23 May)

Post	Name	Indian Service	Source
Divisional Commander	Major General D.G. Johnson (Late Infantry)	Brigade Commander, India, 1933-36	AL
10th Brigade	Brigadier E.H. Barker	NIS	AL
11th Brigade	Brigadier K.A.N. Anderson	NWF, 1930-31 GSO1 India, 1936-37	AL
12th Brigade	Brigadier J.L.I. Hawkesworth	NIS	AL

**II CORPS - 50th (Northumbrian) Division TA** (with Frankforce 20-24 May, with III Corps 24-26 May)

Divisional Commander	Major General G. le Q. Martel (Late RE and RTC)	Instructor (GSO2) Quetta, 1930-34	AL
150th Brigade	Brigadier C.W. Haydon	NIS	AL
151st Brigade	Brigadier J.A. Churchill	GSO2 India, 1929-32	AL
25th Brigade (With 2nd Division from 24 May)	Brigadier W.H.C. Ramsden	Commissioned into West India Regt, 1910 Regimental duties, India, early 1920s Senior Officers School, India, 1926-30 NWF, 1936-37	S, AL

**III Corps**

GOC	Lieutenant General Sir Ronald F Adam, Bt. (Late RA) (To 26 May)	Early career in India	S
GOC	Major General S.R. Wason (Acting from 26 May)	GSO2, AHQ, India, 1933-35	S, AL
BGS	Brigadier D.G. Watson	Special Employment, India, 1936-37 Commandant, Senior Officers' School, India, 1937-39	S, AL

**III Corps - 42nd (East Lancashire) Division TA** (with I Corps from 19 May)

Post	Name	Indian Service	Source
Divisional Commander	Major General W.G. Holmes (Late Infantry)	NWF, 1919-24	S, AL
125th Brigade	Brigadier G.W. Sutton	NIS	WWW
126th Brigade	Brigadier E.G. Miles	NIS	AL
127th Brigade (With Macforce from 17-21 May)	Brigadier J .G. Smyth VC	Commissioned 15th Sikh Regiment, 1912 Brigade Major, India, 1918-19 Afghanistan 1919 Brigade Major, Waziristan Force, 1919-20 GSO3 India, 1922 GSO2 India, 1925-29 Indian Army Instructor, Camberley, 1931-34 Commandant, 45th Rattray Sikh Regiment, 1936-39	S, AL

**III CORPS - 44th (Home Counties) Division - TA**

Divisional Commander	Major General E.A. Osborne (Late Royal Signals)	NIS	AL
131st Brigade	Brigadier J .E. Utterson-Kelso	NIS	AL
132nd Brigade	Brigadier J .S. Steele	Staff Captain, India, 1919-20	S, AL
133rd Brigade	Brigadier N.I. Whitty	NIS	AL

**5th Division** (with I Corps 16-19 May, with Frankforce 20-24 May, with III Corps 24-25 May, with II Corps from 25 May)

Divisional Commander	Major General H.E. Franklyn (Late Infantry) (Also commanded Frankforce, May 20-24)	Inspector General, West Indian Land Forces, 1930	S
13th Brigade	Brigadier M.C. Dempsey	NIS	AL
17th Brigade	Brigadier M.G.N. Stopford	NIS	AL

**23rd (Northumbrian) Division** (with Petreforce 18-21 May, subsequently with Rustyforce and III Corps)

Post	Name	Indian Service	Source
Divisional Commander	Major General W.N. Herbert (Late Infantry)	GSO1 Rawalpindi District, 1920-21 Asst Dir Auxiliary & Territorial Forces, India, 1922-24	S, AL
69th Brigade	Brigadier The Viscount Downe	NIS	WWW
70th Brigade	Brigadier P. Kirkup	NIS	WWW

**46th (North Midland and West Riding) Division TA** (with Polforce, Rustyforce, and III Corps, 20-30 May, with I Corps from 30 May)

Divisional Commander	Major General H.O. Curtis (Late Infantry) (Also commanded Polforce, 20-24 May)	Staff College, Quetta, 1920	S, AL
137th Brigade	Brigadier J.B. Gawthorpe	NIS	WWW
138th Brigade	Brigadier E.J. Grinling (With Macforce, 19-25 May)	NIS	WWW
139th Brigade	Brigadier H.A.F. Crewdson (To 22 May)	?	
139th Brigade	Brigadier R.C. Chichester-Constable (From 22 May)	NIS	WWW

**12th (Eastern) Division**

Divisional Commander	Major General R.L. Petre (Late Infantry) (Commanded Petreforce, 18-24 May)	Afghanistan, 1919 GSO2 India, 1919-20	S, AL
35th Brigade	Lieutenant Colonel A.F.F. Young (Acting to 13 May)	?	
35th Brigade	Brigadier V.L. de Cordova (From 13 May)	Staff Capt India, 1924-28	AL
36th Brigade (With Petreforce, 19-20 May)	Brigadier G.R.P. Roupell	NIS	AL
37th Brigade	Brigadier R. J. P. Wyatt	?	

**From England**

Post	Name	Indian Service	Source
20th Guards Brigade	Brigadier W.A.F.L. Fox-Pitt	NIS	AL
30th Brigade	Brigadier C.N. Nicholson	NIS	AL

**1st Armoured Division** (began to arrive 20 May, under French command from 25 May)

Divisional Commander	Major General R. Evans (Late Cavalry)	Brigade General Staff, India, 1935-38	S, AL
2nd Armoured Brigade	Brigadier R.L. McCreery	NIS	AL
3rd Armoured Brigade	Brigadier J.G. Crocker	NIS	AL
1st Support Group	Brigadier F.E. Morgan	Staff College, Quetta, 1927-28 Staff Officer Royal Artillery, India, 1931-32 GSO2, India, 1932-35	S, AL

**51st (Highland) Division TA** (in Maginot Line, 1-23 May, with French Tenth Army from 1 June)

Divisional Commander	Major General V.M. Fortune (Late Infantry)	NIS	AL
152nd Brigade	Brigadier H.W.V. Stewart (Until wounded, 6 June)	NIS	AL
152nd Brigade	Lieutenant Colonel I.C. Barclay (Acting from 6 June)	Air Ministry, 1918-19 Waziristan, 1921-24 NWF, 1930-31	AL
153rd Brigade	Brigadier G.T. Burney	NIS	AL
154th Brigade	Brigadier A.C.L. Stanley Clarke	NIS	AL

**Lines of Communication**

Post	Name	Indian Service	Source
	Major General P. de Fonblanque (Late RE) (Until 23 May and from 13-17 June)	Commander Royal Engineers, India, 1930-32 & 1933	AL
	Lieutenant General Sir Henry Karlake (Late RA) (From 23 May to 13 June)	GSO1 India, 1920-23 Brigadier Royal Artillery, Western Command, India, 1928-31 Major General Royal Artillery, AHQ, 1931-33 Commander Baluchistan District, 1933-35 Lieutenant General, Quetta reconstruction	S, AL
3rd Anti-Aircraft Brigade	Brigadier W. R. Shilstone	NIS	AL

**Beauman Division** (formed 31 May)

Divisional Commander	Major General A.B. Beauman (Late Infantry)	GSO2 India, 1921-25	AL
A Brigade (with 51st Division from 6 June)	Brigadier M.A. Green	NIS	AL
B Brigade	Brigadier A.L. Kent-Lemon	NIS	AL
C Brigade	Lieutenant Colonel L.W. Diggle (To 12 June)	?	
C Brigade	Lieutenant Colonel F.G. Brittorous, Light Infantry (From 23 June)	Staff Captain India, 1922-26	AL

**With the advanced Air Striking Force**

12th Anti-Aircraft Brigade	Brigadier W.T.O. Crewdson	NWF, 1915	AL
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**Arrived during the Final Phase**

Post	Name	Indian Service	Source
Acting Commander-in-Chief (From 13-17 June)	Lieutenant General Sir Alan Brooke	<i>Previously mentioned above</i>	
Chief of Staff	Major General T.R. Eastwood	<i>Previously mentioned above</i>	
52nd (Lowland) Division (TA)	Major General J .S. Drew (Light Infantry)	NIS	AL
155th Brigade	Brigadier T. Grainger-Stewart (TA)	NIS	AL
156th Brigade	Brigadier J .S.N. Fitzgerald	NIS	AL
157th Brigade	Brigadier Sir John Laurie, Bt.	NIS	AL

**Missions at Allied Headquarters**

At GHQ French Army	Major General Sir Richard Howard-Vyse	NIS	AL
At GHQ North-East Theatre	Brigadier J.G. des Reaux Swayne	ADC GOC-in-C Western Command, India, 1921-23	S, AL
At GHQ Belgian Army	Major General H. Needham	District Commander India, 1931-?	AL
At HQ French Tenth Army (From 29 May)	Lieutenant General J.H. Marshall-Cornwall (Commanded Normandforce from June 15)	NIS	AL



### **ANNEX 19 - CHIEFS OF THE AIR STAFF - AIR CONTROL AND MILITARY EXPERIENCE**

<b>Year</b>	<b>CAS</b>	<b>Tours involving Air Policing</b>	<b>Pre-RAF Military Experience</b>
1918	Sir Hugh Trenchard	Nil	<a href="#">Royal Scots Fusiliers, Punjab</a>
1918	Sir Frederick Sykes	<a href="#">Intelligence Staff, Simla, India (1905)</a> <a href="#">Staff College, Quetta (1908-10?)</a>	15th Hussars West African Regiment
1919	Sir Hugh Trenchard	Nil	<a href="#">Royal Scots Fusiliers, Punjab</a>
1930	Sir John Salmond	<a href="#">India Review (1922)</a> AOC Iraq (1922-24)	King's Own Royal Lancashire Regiment
1933	Sir Geoffrey Salmond	OC/GOC/AOC Middle East (1915-18) <a href="#">AOC India (1926-31)</a>	Royal Artillery
1933	Sir John Salmond	<a href="#">India Review (1922)</a> AOC Iraq (1922-24)	King's Own Royal Lancashire Regiment
1933	Sir Edward Ellington	AOC Middle East (1922-23) <a href="#">AOC India (1923-26)</a> AOC Iraq (1926-28)	Royal Field Artillery
1937	Sir Cyril Newall	AOC Middle East (1931-35)	2nd Gurkha Rifles, Indian Army
1940	Lord Portal	OC Aden Command (1934-35)	Royal Engineers
1946	Sir Arthur Tedder	OC 38th Wing, Egypt (1918)	Dorset Regiment
1950	Sir John Slessor	17 Squadron, Egypt/Sudan (1915-16) <a href="#">20 Squadron, NWF (1921-22)</a> OC 3 (Indian) Wing (1935-37)	Nil. But served as Directing Staff at Army Staff College, Camberley, 1931-34
1953	Sir William Dickson	<a href="#">RAF Kohat (1929)</a> <a href="#">HQ RAF India (1930-34)</a>	RN Air Service

**ANNEX 20 - AIR OFFICER COMMANDING-IN-CHIEF, BOMBER COMMAND  
- AIR CONTROL AND MILITARY EXPERIENCE**

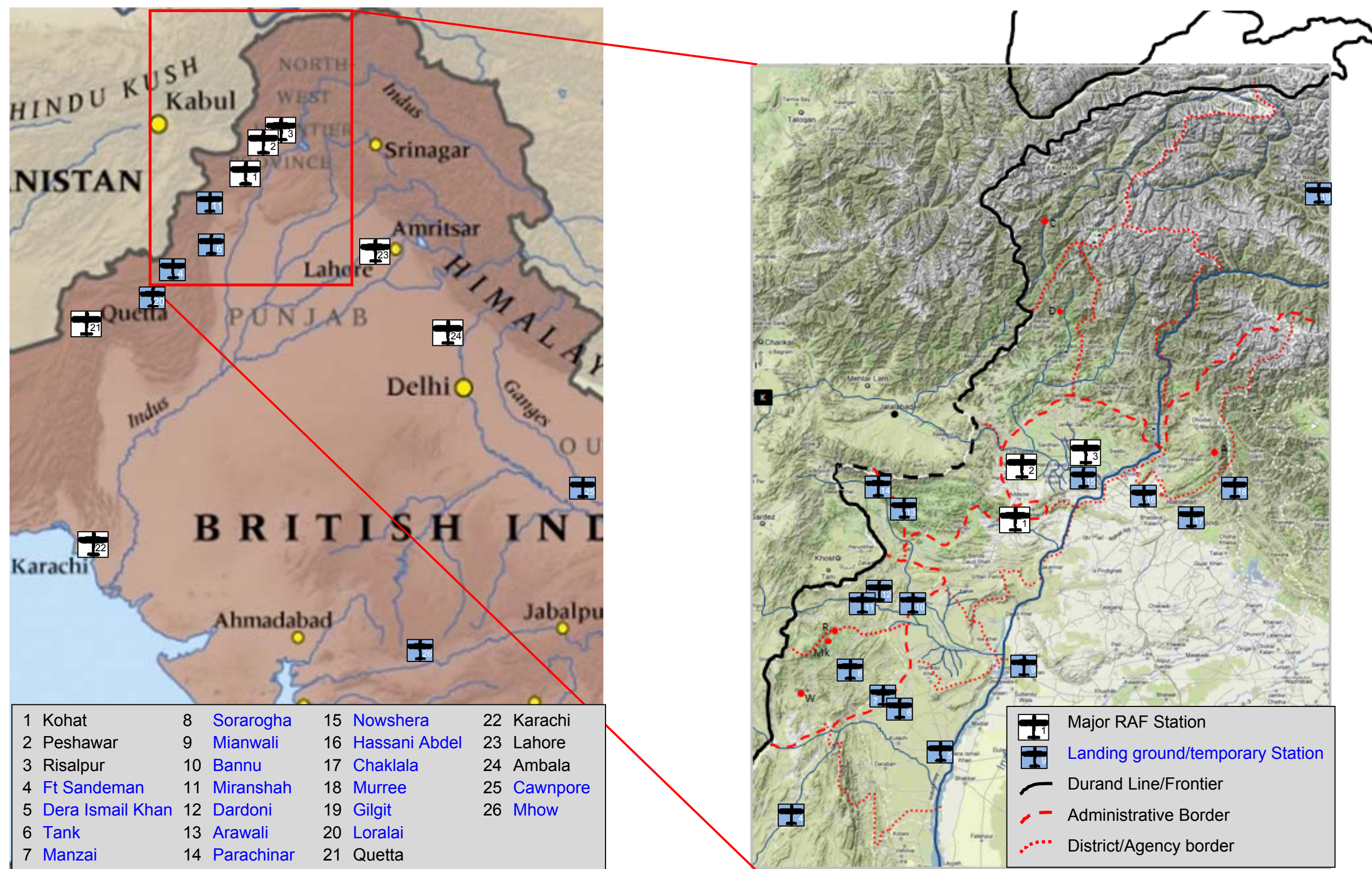
Year	AOC-in-C Bomber Command	Tours involving Air Policing	Pre-RAF Military Experience
1936	ACM Sir John Steel	<a href="#">AOC India (1931-35)</a>	RN
1937	ACM Sir Edgar Ludlow-Hewitt	AOC, Iraq Command (1930-32) <a href="#">AOC India (1935-37)</a>	Royal Irish Rifles
1940	AM Sir Charles Portal	OC Aden Command (1934-35)	Royal Engineers
1940	AM Sir Richard Peirse	HQ RAF Middle East (1928-29) OC RAF Heliopolis (1929-30) AOC Palestine Transjordan (1933-36) <a href="#">AOC India/South-East Asia (1942-44)</a>	RN Volunteer Reserve
1942	AVM Jack Baldwin (Acting AOC-in-C)	HQ RAF Middle East (1923-28) Deputy AOC India (1942-43)	King's Royal Irish Hussars
1942	ACM Sir Arthur Harris	<a href="#">OC 31 Squadron, NWF (1921-22)</a> OC 45 Squadron, Iraq (1922-24) SASO, Middle East Command (1930-32) AOC Palestine and Transjordan	1st Rhodesian Regiment
1945	AM Sir Norman Bottomley	HQ Middle East Area <a href="#">OC Aircraft Park, Lahore</a> <a href="#">OC No 1 (Indian) Group</a>	East Yorkshire Regiment

**ANNEX 21 – AIR OFFICER COMMANDING, RAF INDIA - AIR CONTROL AND MILITARY EXPERIENCE**

Year	AOC(India)	Post	Pre-RAF Military Experience
1919	Brig-Gen Norman D K McEwen	OC RAF India	Princess Louise's (Argyll and Sutherland Highlanders)
1919	Air Cdre Tom I Webb-Bowen	AOC India Group, then AOC RAF India	The Bedfordshire Regiment Madras Volunteer Corps
1922	AVM Philip W Game	AOC RAF India	Royal Artillery General Staff Officer, War Office General Staff Officer, HQ 4th Army Corps & HQ 46th Division
1923	AVM Edward L Ellington		General Staff Officer, War Office Deputy Assistant Quartermaster-General, HQ BEF Assistant Adjutant & Quartermaster-General, 2nd Cavalry Div General Staff Officer, 2nd Army, British Expeditionary Force General Staff, VIII Corps, France
1926	AVM W Geoffrey H Salmond		Royal Artillery General Staff Officer, War Office
1931	AVM/AM Sir John Steel		Royal Navy
1935	AM Sir Edgar Ludlow-Hewitt		1st Battalion Royal Irish Rifles
1937	AM Sir Philip Joubert de la Ferte		Royal Field Artillery
1940	AM Sir Patrick Playfair	AOC-in-C, Air Forces in India	Royal Field Artillery
1942	ACM Sir Richard Pierse	C-in-C Air Command SE Asia	Royal Naval Volunteer Reserve
1943	AM Sir Alfred Guy Roland Garrod	Acting C-in-C Air Command South East Asia	3rd Battalion Leicester Regiment
1944	AVM Meredith Thomas	AOC, AHQ India	The Queen's Westminster Rifles The Welsh Regiment
1945	AM Sir Roderick Carr	AOC-in-C, RAF India	Royal Naval Air Service
1946	AM Sir Hugh Walmsley	AOC-in-C, RAF India	Royal North Lancashire Regiment



# ANNEX 22 - GEOGRAPHICAL DISTRIBUTION OF MILITARY AIRFIELDS IN INDIA, 1918-1939<sup>1</sup>



<sup>1</sup> Data taken from *The Monthly Air Force List*, 1920-1938.

**ANNEX 23 - RAF STATIONS AND SQUADRONS IN INDIA, 1920-1938<sup>1</sup>**

	RAF STATIONS																										
Year	Lahore (23)	Karachi (22)	Peshawar (2)	Manzai (7)	Bannu (10)	Kohat (1)	Quetta (21)	Chaklala (17)	Risalpur (3)	Nowshera (15)	Parachinar (14)	Dardoni (12)	Ambala (24)	Mhow (26)	Cawnpore (25)												
1920	Ac Depot Ac Factory	Ac Depot Detachment	1 Indian Wg HQ		20 Sqn		5 Sqn		1 Sqn 27 Sqn 60 Sqn				2 Indian Wg HQ 3 Sqn 28 Sqn	31 Sqn													
1921	Ac Park	Ac Depot Ac Factory		1 Indian Wg Advanced HQ						27 Sqn 60 Sqn			20 Sqn		2 Indian Wg HQ 28 Sqn RAF School (3 Sqn)		31 Sqn										
1922		Ac Depot											2 Indian Wg HQ 20 Sqn RAF School														
1923													1 Indian Wg HQ 28 Sqn								31 Sqn	5 Sqn					
1924													1 Indian Wg HQ 28 (AC) Sqn 5 (AC) Sqn						3 India Wg HQ 20 Sqn		2 Indian Wg HQ 27 (B) Sqn 60 (B) Sqn		5 Sqn	31 (AC) Sqn			
1925													1 Indian Wg HQ 20 (AC) Sqn					1 Indian Wg Stn 5 (AC) Sqn	3 India Wg HQ 28 (AC) Sqn		2 Indian Wg HQ 27 (B) Sqn 5 (AC) Sqn						
1926																											
1927																		1 Indian Wg Stn 60 (B) Sqn	3 India Wg HQ 31 (AC) Sqn						28 (AC) Sqn		
1928																											
1929																											
1930																											
1931																											
1932		Ac Park, Heavy Transport Fit	Ac Depot 31(AC) Sqn	1 (Indian) Gp HQ 20 (AC) Sqn			1 (Indian Wg) Stn 27 (B) Sqn 60 (B) Sqn	3 (Indian) Wg HQ 5 (AC) Sqn 31 (AC) Sqn		2 (Indian Wg) Stn 11 (B) Sqn 39 (B) Sqn																	
1933	Ac Park, BTF																		(Earthquake)	3 (Indian) Wg HQ 5 (AC) Sqn							
1934																											
1935																											
1936																											
1937																											
1938		Ac Depot 31(AC) Sqn 1 Sqn IAF							2 (Indian) Wg Stn 5 (AC) Sqn 11 (B) Sqn 39 (B) Sqn				30 (AC) Sqn														

**Key:** (AC) Sqn Army Co-operation Squadron  
 (B) Sqn Bomber Squadron  
 BTF Bomber Transport Flight  
 Airfield (1) Airfield (number refers to [Annex 22](#) maps)

NWF Station

Station outside  
NWF

**Note:** Detachments to advanced airfields not shown.

<sup>1</sup> Data from Ibid.



ANNEX 24 - RAF STATIONS, AIRFIELDS, SQUADRONS AND DETACHMENTS ON NWF, 1914-1939<sup>1</sup>

Stn	Loralai	Quetta (3 (Indian) Wg Stn, 1930)	Fort Sandeman	Dera Ismail Khan	Tank	Manzai (RAF India Advanced HQ, 1920-21)	Sorarogha	Miranshah	Dardoni	Bannu	Arawali	Parachinar	Kohat (1 (Indian Wg) Stn, 1928-39+ )	Peshawar (1 Indian Wing HQ, 1921-28)	Risalpur (2 Indian Wing HQ, 1927-28) (2 (Indian) Wg Stn 1928-39+ )	Nowshera	Mianwali	Hassani Abdel / Wah	Gilgit	Murree		
<a href="#">Annex 22</a> Ref	20	21	4	5	6	7	8	11	12	10	13	14	1	2	3	15	9	16	19	18		
Years	1919-22	1917-39+	1927-42	1917-20	1917-25	1925-39+	1919	1923-41+	1920-24	1917-20	1923-39+	1919-22	1919-49+	1921-39+	1916-46	1915	1919-1923	1923-36	1929-39	1916		
1914																31 BE2C						
1915																						
1916																31 (A+B Flts) BE2C						31 BE2C
1917																31 BE2E						
1918																31 BE2E						
1919	48 det F2b 114 det BE2C/E	48 F2b 114 BE2C/E	31 det BE2E	31 det BE2E	20 det F2b 31 det F2b	20 det F2b	20 det F2b	20 F2b 31 det BE2E 114 det BE2C/E	27 det DH9A 60 det DH10	20 F2b 31 det BE2E	20 F2b	114 det BE2C/E+F27	20 F2b 31 BE2E+F2b 97 det DH10	1 SE5A? + Snipe 27 DH9A+F2b 60 DH10/10A 97 DH10	20 F2b	28 F2b	31 F2b	97 det DH10 99 det DH9A	27 DH9A 60 det DH10/10A 99 det DH9A	60 det DH10/10A	28 det F2b 60 det DH9A	
1920	5 det F2b	48/5 F2b (48 became 5 Sqn)			20 F2b (1 flt) 31 det F2b 60 det DH10			20 F2b 31 det BE2E		20 F2b 31 det BE2E			27 DH9A 60 det DH10/10A 99 det DH9A									
1921		5 F2b 48 F2b			28 det F2B 31 det F2b 60 det DH10			27 det DH9A 28 det F2B 31 det F2b 60 det DH10		28 F2b 31 det BE2E 114 det BE2C/E			27 DH9A 60 det DH10/10A 99 det DH9A									
1922	20 det F2b	5 FE2B 20 F2b	27 det DH9A 28 det F2B 31 det F2b 60 det DH10		28 F2b 31 det F2b 60 det DH10	27 det DH9A 60 det DH9A		5 FE2B 20 det F2b 27 det DH9A 60 det DH9A	5 det FE2B 20 det F2b 27 det DH9A 60 det DH9A	5 det FE2B 20 det F2b 27 det DH9A 28 det F2b 60 det DH9A	60 det DH9A	27 DH9A 60 DH9A	20 F2b 27 DH9A 60 DH9A	5 F2b 20 F2b 27 DH9A 60 DH9A	5 F2b 27 DH9A 60 DH9A	5 det F2b 20 det F2b 60 det DH9A	28 det F2b 60 det DH9A					
1923		20 F2b 60 det DH9A	28 F2B 31 det F2b 60 det DH10		28 det F2B	27 det DH9A 60 det DH9A		5 FE2B 27 DH9A 28 det F2B 60 det DH10	5 det FE2b 20 det F2b 27 det DH9A 60 det DH9A	5 det FE2b 20 det F2b 27 det DH9A 28 det F2b 60 det DH9A	60 det DH9A	27 DH9A 60 DH9A	20 F2b 27 DH9A 60 DH9A	5 F2b 20 F2b 27 DH9A 60 DH9A	5 F2b 27 DH9A 60 DH9A	5 det F2b 20 det F2b 60 det DH9A	28 det F2b 60 det DH9A					
1924		20 F2b 31 det F2b 60 det DH9A	28 F2B 31 det F2b 60 det DH10		28 det F2B	27 det DH9A 60 det DH9A		5 FE2B 27 DH9A 28 det F2B 60 det DH10	5 det FE2b 20 det F2b 27 det DH9A 60 det DH9A	5 det FE2b 20 det F2b 27 det DH9A 28 det F2b 60 det DH9A	60 det DH9A	27 DH9A 60 DH9A	20 F2b 27 DH9A 60 DH9A	5 F2b 20 F2b 27 DH9A 60 DH9A	5 F2b 27 DH9A 60 DH9A	5 det F2b 20 det F2b 60 det DH9A	28 det F2b 60 det DH9A					
1925		5 det F2b 20 det F2b 28 F2b 31 det F2b 60 det DH9A	28 F2B 31 det F2b 60 det DH10		28 det F2B	27 det DH9A 60 det DH9A	5 FE2B 27 DH9A 28 det F2B 60 det DH10	5 det FE2b 20 det F2b 27 det DH9A 60 det DH9A	5 det FE2b 20 det F2b 27 det DH9A 28 det F2b 60 det DH9A	60 det DH9A	27 DH9A 60 DH9A	20 F2b 27 DH9A 60 DH9A	5 F2b 20 F2b 27 DH9A 60 DH9A	5 F2b 27 DH9A 60 DH9A	5 det F2b 20 det F2b 60 det DH9A	28 det F2b 60 det DH9A						
1926	31 det F2b		31 det F2b		20 det F2b	27 det DH9A 60 det DH9A	5 FE2B 27 DH9A 28 det F2B 60 det DH10	5 det FE2b 20 det F2b 27 det DH9A 60 det DH9A	5 det FE2b 20 det F2b 27 det DH9A 28 det F2b 60 det DH9A	60 det DH9A	27 DH9A 60 DH9A	20 F2b 27 DH9A 60 DH9A	5 F2b 20 F2b 27 DH9A 60 DH9A	5 F2b 27 DH9A 60 DH9A	5 det F2b 20 det F2b 60 det DH9A	28 det F2b 60 det DH9A						
1927		5 det FE2B 20 det F2b 31 F2b 60 det DH9A	31 det F2b		20 det F2b	27 det DH9A 60 det DH9A	5 FE2B 27 DH9A 28 det F2B 60 det DH10	5 det FE2b 20 det F2b 27 det DH9A 60 det DH9A	5 det FE2b 20 det F2b 27 det DH9A 28 det F2b 60 det DH9A	60 det DH9A	27 DH9A 60 DH9A	20 F2b 27 DH9A 60 DH9A	5 F2b 20 F2b 27 DH9A 60 DH9A	5 F2b 27 DH9A 60 DH9A	5 det F2b 20 det F2b 60 det DH9A	28 det F2b 60 det DH9A						
1928		5 det FE2B 20 det F2b 31 F2b 60 det DH9A	31 det F2b		20 det F2b	27 det DH9A 60 det DH9A	5 FE2B 27 DH9A 28 det F2B 60 det DH10	5 det FE2b 20 det F2b 27 det DH9A 60 det DH9A	5 det FE2b 20 det F2b 27 det DH9A 28 det F2b 60 det DH9A	60 det DH9A	27 DH9A 60 DH9A	20 F2b 27 DH9A 60 DH9A	5 F2b 20 F2b 27 DH9A 60 DH9A	5 F2b 27 DH9A 60 DH9A	5 det F2b 20 det F2b 60 det DH9A	28 det F2b 60 det DH9A						
Key:									Station with permanent squadron	Airfield with squadron detachments	Squadron Number 'det' – detachment Aircraft type											

<sup>1</sup> Jefford, *RAF Squadrons: A Comprehensive Record of the Movement and Equipment of all RAF Squadrons and their Antecedents since 1912.*

Stn	Loralai	Quetta	Fort Sandeman	Dera Ismail Khan	Tank	Manzai	Sorarogha	Miranshah	Dardoni	Bannu	Arawali	Parachinar	Kohat	Peshawar	Risalpur	Nowshera	Mianwali	Hassani Abdel / Wah	Gilgit	Murree
1929		5 det FE2B 20 det F2b 31 F2b 60 det DH9A	31 det F2b			20 det F2b		11 det Wapiti 20 det F2b 28 det F2b 39 det DH9A 60 det DH9A			11 det Wapiti 60 det DH9A		27 DH9A 60 DH9A	20 F2b 39 det DH9A	5 det F2b 11 Wapiti 39 DH9A/Wapiti 60 det DH9A			20 det F2b 60 det DH9A	11 det Wapiti 39 det DH9A	
1930		60 det DH9A 20 det F2b 31 F2b	31 det F2b			20 det F2b 27 det Wapiti 60 det Wapiti		5 det FE2b 11 det Wapiti 20 det F2b 27 det Wapiti 28 det F2b 60 det Wapiti					5 F2b ftr 27 Wapiti 60 Wapiti	20 F2b 28 det F2b	5 det F2b 11 Wapiti 28 F2b 39 Wapiti 60 det DH9A				11 det Wapiti 27 det Wapiti 60 det Wapiti	
1931		5 FE2B/Wapiti 20 det F2b 31 Wapiti						11 det Wapiti 20 det F2b 27 det Wapiti 39 det Hart 60 det Wapiti			11 det Wapiti 27 det Wapiti 60 det DH9A				11 Wapiti 39 Wapiti+Hart			20 det F2b	11 det Wapiti 27 det Wapiti 39 det Hart 60 det Wapiti	
1932		5 Wapiti 31 Wapiti	5 det Wapiti 31 det Wapiti					20 det F2b 27 det Wapiti 39 det Hart 60 det Wapiti					27 Wapiti 60 Wapiti	20 Wapiti	11 Hart 39 Hart				11 det Wapiti 27 det Wapiti 60 det Wapiti	
1933						27 det Wapiti 60 det Wapiti		27 det Wapiti 39 det Hart 60 det Wapiti			27 det Wapiti 60 det DH9A									
1934								5 det Wapiti 27 det Wapiti 39 det Hart 60 det Wapiti												
1935		Earthquake						5 det Wapiti 20 Audax 27 det Wapiti 39 det Hart 60 det Wapiti			20 det Audax 27 det Wapiti 60 det DH9A		5 det Wapiti 27 Wapiti 60 Wapiti	20 Audax	5 det Wapiti 11 Hart 20 det Audax 31 det Wapiti 39 Hart					
1936			31 det Wapiti			27 det Wapiti 60 det Wapiti		5 Wapiti 20 Audax 27 det Wapiti 39 det Hart 60 det Wapiti			27 det Wapiti 60 det DH9A		5 det Wapiti 27 Wapiti 60 Wapiti		11 Hart 31 det Wapiti 39 Hart			20 det Audax		
1937		31 det Wapiti						5 det Wapiti 20 Audax 27 det Wapiti 39 det Hart 60 det Wapiti											27 det Wapiti 60 det Wapiti	
1938			5 det Wapiti 31 det Wapiti			27 det Wapiti 60 det Wapiti		5 det Wapiti 20 Audax 27 det Wapiti 28 det Audax 39 det Hart 60 det Wapiti			5 det Wapiti 27 det Wapiti 60 det DH9A		5 det Wapiti 27 Wapiti 28 Audax 60 Wapiti		5 Wapiti 11 Hart 31 det Wapiti 39 Hart A Flt, 1 Sqn IAF					
1939		5 det Wapiti 28 det Audax	5 Wapiti 28 det Audax			20 det Audax 27 det Wapiti 28 det Audax 60 det Wapiti					5 det Wapiti 27 det Wapiti 28 det Audax	20 det Audax	5 det Wapiti 20 Audax 27 Wapiti 28 Audax 60 Wapiti	20 Audax 28 det Audax 31 Wapiti 60 det Blenheim I	5 Wapiti 11 Hart/Blenheim I 27 Tiger Moth +Hart 28 det Audax 31 det Wapiti 39 Hart/Blenheim I					

ANNEX 25 – SENIOR APPOINTMENTS, 1914-1940

	SoS(Air)	CAS	CIGS	SoS(India)	Mil Sec, India Office	Viceroy	Chief Commissioner/ Governor, NWFP	C-in-C India	CGS India	AOC India	Senior Air Staff Officer, India															
1914			Gen Sir Charles <b>Douglas</b>	Marquess of <b>Crewe</b>	Gen Sir Edmund <b>Barrow</b>	Lord <b>Hardinge</b>	Sir John <b>Donald</b> (acting)	Gen Sir Beauchamp <b>Duff</b>	Lt-Gen Sir Percy <b>Lake</b>																	
			Lt-Gen Sir James <b>Wolfe-Murray</b>																							
1915			Gen Sir Archibald <b>Murray</b>	Austen <b>Chamberlain</b>		Sir George <b>Roos-Keppel</b>	Gen Sir Charles <b>Monro</b>	Lt-Gen Sir George <b>Kirkpatrick</b>																		
1916			Gen Sir William <b>Robertson</b>	Edwin Samuel <b>Montagu</b>					Lt-Gen Sir Herbert <b>Cox</b>			Lord <b>Chelmsford</b>	Sir Hamilton <b>Grant</b>													
1917	Lord <b>Rothermere</b>	Sir Hugh <b>Trenchard</b>	FM Sir Henry <b>Wilson</b>		The Viscount <b>Peel</b>	Lt-Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Reading</b>	Sir John <b>Maffey</b> (Lord Rugby)		Gen Sir Claud <b>Jacob</b>	Brig-Gen Norman <b>McEwan</b>			Wg Cdr Reginald <b>Mills</b>												
1918	Lord <b>Weir</b>	Sir Frederick <b>Sykes</b>		Sir Hugh <b>Trenchard</b>					The Lord <b>Olivier</b>		Sir Norman <b>Bolton</b>	Gen Henry <b>Rawlinson</b>	Gen Sir Andrew <b>Skeen</b>		Air Cdre Tom I <b>Webb-Bowen</b>											
1919	J E B <b>Seely</b>	Sir Samuel <b>Hoare</b>													The Viscount <b>Peel</b>	Earl of <b>Birkenhead</b>	FM Sir Claud <b>Jacob</b>	Lord <b>Irwin</b>	Sir Norman <b>Bolton</b>	FM Sir William <b>Birdwood</b>	Gen Sir Philip <b>Chetwode</b>	AVM Philip W <b>Game</b>				
1920	Winston <b>Churchill</b>																					FM Rudolph <b>Lambart</b>	The Lord <b>Olivier</b>	Earl of <b>Birkenhead</b>	FM Sir Claud <b>Jacob</b>	Lord <b>Irwin</b>
1921	Frederick <b>Guest</b>		FM Sir George <b>Milne</b>		The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>		Sir Ralph <b>Griffith</b>				FM Sir Philip <b>Chetwode</b>												
1922	Sir Samuel <b>Hoare</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
1923	Lord <b>Thomson</b>	The Viscount <b>Peel</b>													William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>	FM Sir Philip <b>Chetwode</b>	Lt-Gen Sir Cyril <b>Deverell</b>	AVM W Geoffrey H <b>Salmond</b>					
1924	Lord <b>Thomson</b>																					The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>
1925	Sir Samuel <b>Hoare</b>		The Viscount <b>Peel</b>		William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>		FM Sir Philip <b>Chetwode</b>				Lt-Gen Sir Cyril <b>Deverell</b>												
1926	Lord <b>Thomson</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
1927	Lord <b>Thomson</b>	The Viscount <b>Peel</b>													William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>	FM Sir Philip <b>Chetwode</b>	Lt-Gen Sir Cyril <b>Deverell</b>	AVM W Geoffrey H <b>Salmond</b>					
1928	Lord <b>Thomson</b>																					The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>
1929	Lord <b>Thomson</b>		The Viscount <b>Peel</b>		William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>		FM Sir Philip <b>Chetwode</b>				Lt-Gen Sir Cyril <b>Deverell</b>												
1930	Lord <b>Amulree</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
1931	Lord <b>Amulree</b>	The Viscount <b>Peel</b>													William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>	FM Sir Philip <b>Chetwode</b>	Lt-Gen Sir Cyril <b>Deverell</b>	AVM W Geoffrey H <b>Salmond</b>					
1932	Lord <b>Amulree</b>																					The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>
1933	Lord <b>Amulree</b>		The Viscount <b>Peel</b>		William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>		FM Sir Philip <b>Chetwode</b>				Lt-Gen Sir Cyril <b>Deverell</b>												
1934	Lord <b>Amulree</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
1935	Lord <b>Amulree</b>	The Viscount <b>Peel</b>													William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>	FM Sir Philip <b>Chetwode</b>	Lt-Gen Sir Cyril <b>Deverell</b>	AVM W Geoffrey H <b>Salmond</b>					
1936	Lord <b>Amulree</b>																					The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>
1937	Lord <b>Amulree</b>		The Viscount <b>Peel</b>		William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>		FM Sir Philip <b>Chetwode</b>				Lt-Gen Sir Cyril <b>Deverell</b>												
1938	Lord <b>Amulree</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
1939	Lord <b>Amulree</b>	The Viscount <b>Peel</b>													William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>	FM Sir Philip <b>Chetwode</b>	Lt-Gen Sir Cyril <b>Deverell</b>	AVM W Geoffrey H <b>Salmond</b>					
1940	Lord <b>Amulree</b>																					The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>
	Lord <b>Amulree</b>		The Viscount <b>Peel</b>		William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>		FM Sir Philip <b>Chetwode</b>				Lt-Gen Sir Cyril <b>Deverell</b>												
	Lord <b>Amulree</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
	Lord <b>Amulree</b>	The Viscount <b>Peel</b>													William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>	FM Sir Philip <b>Chetwode</b>	Lt-Gen Sir Cyril <b>Deverell</b>	AVM W Geoffrey H <b>Salmond</b>					
	Lord <b>Amulree</b>																					The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>
	Lord <b>Amulree</b>		The Viscount <b>Peel</b>		William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>		FM Sir Philip <b>Chetwode</b>				Lt-Gen Sir Cyril <b>Deverell</b>												
	Lord <b>Amulree</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
	Lord <b>Amulree</b>	The Viscount <b>Peel</b>													William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>	FM Sir Philip <b>Chetwode</b>	Lt-Gen Sir Cyril <b>Deverell</b>	AVM W Geoffrey H <b>Salmond</b>					
	Lord <b>Amulree</b>																					The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>
	Lord <b>Amulree</b>		The Viscount <b>Peel</b>		William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>		FM Sir Philip <b>Chetwode</b>				Lt-Gen Sir Cyril <b>Deverell</b>												
	Lord <b>Amulree</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
	Lord <b>Amulree</b>	The Viscount <b>Peel</b>													William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>	FM Sir Philip <b>Chetwode</b>	Lt-Gen Sir Cyril <b>Deverell</b>	AVM W Geoffrey H <b>Salmond</b>					
	Lord <b>Amulree</b>																					The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>
	Lord <b>Amulree</b>		The Viscount <b>Peel</b>		William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>		FM Sir Philip <b>Chetwode</b>				Lt-Gen Sir Cyril <b>Deverell</b>												
	Lord <b>Amulree</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
	Lord <b>Amulree</b>	The Viscount <b>Peel</b>													William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>	FM Sir Philip <b>Chetwode</b>	Lt-Gen Sir Cyril <b>Deverell</b>	AVM W Geoffrey H <b>Salmond</b>					
	Lord <b>Amulree</b>																					The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>
	Lord <b>Amulree</b>		The Viscount <b>Peel</b>		William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>		FM Sir Philip <b>Chetwode</b>				Lt-Gen Sir Cyril <b>Deverell</b>												
	Lord <b>Amulree</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
	Lord <b>Amulree</b>	The Viscount <b>Peel</b>													William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>	FM Sir Philip <b>Chetwode</b>	Lt-Gen Sir Cyril <b>Deverell</b>	AVM W Geoffrey H <b>Salmond</b>					
	Lord <b>Amulree</b>																					The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>
	Lord <b>Amulree</b>		The Viscount <b>Peel</b>		William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>		FM Sir Philip <b>Chetwode</b>				Lt-Gen Sir Cyril <b>Deverell</b>												
	Lord <b>Amulree</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
	Lord <b>Amulree</b>	The Viscount <b>Peel</b>													William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>	FM Sir Philip <b>Chetwode</b>	Lt-Gen Sir Cyril <b>Deverell</b>	AVM W Geoffrey H <b>Salmond</b>					
	Lord <b>Amulree</b>																					The Viscount <b>Peel</b>	William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>
	Lord <b>Amulree</b>		The Viscount <b>Peel</b>		William Wedgwood <b>Benn</b>	Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>		FM Sir Philip <b>Chetwode</b>				Lt-Gen Sir Cyril <b>Deverell</b>												
	Lord <b>Amulree</b>			The Viscount <b>Peel</b>					William Wedgwood <b>Benn</b>		Gen Sir Alexander <b>Cobbe</b>	Earl of <b>Willingdon</b>	Sir Ralph <b>Griffith</b>													
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See Annex 7 for biographies of personalities in blue.



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