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THE NUCLEAR-CONVENTIONAL NEXUS
IN WESTERN MILITARY PLANNING
FOR EUROPEAN CONTINGENCIES

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This thesis is my own original work.

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THE NUCLEAR-CONVENTIONAL NEXUS IN WESTERN
MILITARY PLANNING FOR EUROPEAN CONTINGENCIES

Abstract

The nuclear-conventional nexus is central to many peacetime intra-Alliance debates, and it is a critical reference point for military planners. The linkage between nuclear and conventional military power also provides a distinctive dimension to the control of military operations during crisis and war. The management of this nexus is dependent on evolving political and operational factors (such as: trans-Atlantic diplomacy and European political developments; the modernisation of theatre nuclear forces and doctrine; and the prospects for nuclear proliferation).

It is argued that planning for nuclear and conventional military units in and around Europe should be reviewed within the context of a shift in doctrine that more clearly addresses the requirements of crisis management. For this to occur strategic analysis should recognise how regional political factors both reflect, and help to mould, the juxtapositioning of nuclear and conventional military power. Such analysis would show that, within Europe, nuclear and conventional forces have acquired overlapping but not coterminous roles.

These ideas are developed within an analytical framework which brings together: a discussion of the nature of strategy; a history of the nuclear-conventional nexus; and an examination of factors affecting the character of the linkage between nuclear and conventional forces in Europe.

PREFACE

This thesis was completed soon after the Soviet-American agreement of December 1987 to phase out certain types of nuclear weapons. Some of these weapons (such as Ground Launched Cruise Missiles) have been surrounded by controversy since their origins. The development, deployment, and planned removal of these weapons kept alive a long-standing, but tangled, debate over the relationship between nuclear and conventional forces in Europe.

For example, the prospect of reductions in NATO's nuclear arsenal prompted many observers to argue that a greater burden would now fall onto conventional forces in Western defence planning. This line of reasoning reinforced the view that NATO, particularly its European members, should significantly increase expenditure on conventional military power.

It is one purpose of this thesis to offer a perspective from which the above ideas can be critically assessed. More broadly, the intention is to map-out the strategic context within which planning for the linkage between nuclear and conventional forces in Europe has evolved, and may perhaps be modified.

Note

The debate over European defence has been marked by confusing terminology. In particular, nuclear weapons deployed to the Continent have been given a range of labels. These have included: Tactical Nuclear Weapons (TNW), Theatre Nuclear Weapons (TNW), Theatre Nuclear Forces (TNF), Intermediate Nuclear Forces (INF), shorter range missiles, and battlefield nuclear weapons.

This thesis employs the designation TNF. Theatre Nuclear Forces may be loosely defined as nuclear weapons deployed to the potential theatre of military operations, in this case Europe, in which they might be used. All of the above weapons-types (e.g., INF and battlefield weapons) fall into the category of TNF. Where appropriate, range is indicated. For example, long range TNF (such as Pershing II missiles) are referred to as LRTNF, and short range TNF (like artillery) are labeled SRTNF.

CONTENTS

	Page
CHAPTER ONE: INTRODUCTION	
A) The nuclear-conventional nexus as an issue.	1
B) Methodology.	5
C) Looking at strategy.	8
(i) Strategy and war.	12
(ii) Strategy and deterrence.	16
(iii) Strategy and the Alliance.	19
CHAPTER TWO: THE STRATEGIC STUDIES LITERATURE AND THE NUCLEAR-CONVENTIONAL NEXUS.	
A) Introduction.	27
B) Early responses to the atomic bomb.	30
C) The refinement of theory.	34
D) A continuing debate.	53
E) The nuclear threshold in Europe.	57
F) Summary.	63
CHAPTER THREE: US/NATO WARPLANNING TO 1976; THE EVOLUTION OF THE NUCLEAR-CONVENTIONAL NEXUS	
A) Introduction.	73
B) The strategic background to the formation of NATO, 1945-1949.	73
C) Establishing NATO's military machine, 1950-1953.	90
D) Massive retaliation, 1954-1960.	97
E) The move to flexible response, 1961-1965.	108
F) The development of flexible response, 1966-1976.	120
G) The doctrinal inheritance and strategic framework of the mid 1970s.	132

**CHAPTER FOUR: THE VIEW FROM WASHINGTON 1977-1980:
MANAGING THE NUCLEAR-CONVENTIONAL NEXUS**

A) Introduction.	151
B) Establishing a basis for policy.	155
C) The focus on conventional forces.	160
D) Patching together an "evolutionary upward adjustment" in TNF.	168
E) Revising strategic nuclear war doctrine.	184
F) The linkage between nuclear and conventional forces.	192
G) The legacy.	206

**CHAPTER FIVE: THE NATO FRAMEWORK: PLANNING FOR THE
NUCLEAR-CONVENTIONAL NEXUS**

A) Introduction.	221
B) Political background.	221
C) The organisational framework.	223
D) The peace-to-war threshold.	230
E) The Alliance concept of operations.	238
F) Conventional strategy.	242
G) The nuclear-conventional threshold.	246
H) Doctrine for theatre nuclear war.	257
I) NATO and central strategic warplanning.	261
J) The pattern of NATO planning.	264

**CHAPTER SIX: A EUROPEAN DIMENSION TO THE NUCLEAR-
CONVENTIONAL NEXUS**

A)	Introduction.	273
B)	The independent Western nuclear deterrents.	279
	(i) Origins.	280
	(ii) The deterrents and the Alliance.	283
	(iii) Doctrine.	286
	(iv) Implications for the nuclear-conventional nexus.	292
C)	The Soviet factor.	301
	(i) Soviet security and Eastern Europe.	301
	(ii) The Soviet planning framework.	304
	(iii) Soviet views on the nuclear-conventional nexus.	309
	(iv) Implications for NATO strategy.	320

**CHAPTER SEVEN: STRATEGY AND THE NUCLEAR-CONVENTIONAL
NEXUS**

A)	Introduction.	328
B)	Defining strategy in the NATO context.	328
C)	Philosophical aspects of the nuclear-conventional nexus.	331
D)	Political aspects of the nuclear-conventional nexus.	336
E)	The doctrinal dimension of the nuclear-conventional nexus.	344
F)	The operational dimension of the nuclear- conventional nexus.	348
	(i) Crisis management.	348
	(ii) Conventional war.	355
	(iii) Nuclear escalation.	357
	(iv) Theatre nuclear war.	361

CHAPTER EIGHT: CONCLUSION

A)	Descriptive conclusions.	368
B)	Implications for policy.	375
C)	Implications for strategic analysis.	386
D)	Summary.	388

BIBLIOGRAPHY

CHAPTER ONE

INTRODUCTION

A) The nexus between nuclear and conventional strategy as an issue

The contingency that has dominated US defense planning for 35 years has been...a massive Soviet invasion of Western Europe. Because of that concern...a strategic nuclear exchange has [usually] been envisaged, not as a separate and independent phenomenon, but as a part...of a much larger and more traditional campaign of the kind we had experienced in World War II. (US Secretary of Defense, Harold Brown, 1980)¹

[T]heatre nuclear forces...should be employed against the most threatening of enemy targets in ways which best complement the conventional operation. (US Secretary of Defense, James Schlesinger, 1975)²

Political purpose, consultation, political decision and control, therefore are the key terms characterizing the nuclear planning of NATO. The military effect of the use of nuclear weapons is secondary to its political purpose but indispensable as a component of its political effectiveness. (West German Defence White Paper, 1985)³

The relationship between nuclear and conventional military forces is central to United States and NATO planning. In the context of superpower conflict, and Western Alliance diplomacy, the linkage between nuclear and conventional forces lies at the heart of attempts to match military power to political objectives. For the West this pairing of military forces with political purpose has been attempted primarily within the framework of the "containment" of Soviet power.

From the beginnings of containment in the 1940s it was unclear whether Soviet power posed more of a political than a military threat to Western Europe. And it was uncertain what degree of reliance could and should be placed on nuclear, rather than conventional, forces to deter Soviet aggression in Europe. It was realised that both issues were connected. Perceptions of Soviet military preponderance on the Continent might aggravate political problems in Western Europe. This could lead to greater political instability and, conceivably, an opening for Soviet political penetration and military advances. It was in this light that United States economic aid to Western Europe, its vast conventional mobilisation base, and its monopoly of nuclear weapons, were seen as stabilising factors -almost as a stabilising package. Western Europe could get on with post-war reconstruction, shielded and nurtured by American power. Skepticism regarding the dangers of immediate Soviet attack, and the US possession of the atom bomb, allowed for rapid conventional de-mobilisation as politico-economic development was given priority over military expenditure.

Obviously circumstances have changed markedly since the 1940s. Even so, the two issues mentioned above (the nature of the Soviet threat, and the relative roles of nuclear and conventional forces in countering this threat) are still very much alive in political and strategic debate. Underlying them is a third issue: What should be the continuing role of the United States in the security of Western Europe? Not surprisingly, American dominance in Western nuclear war planning has provided a focus for the discussion of these issues.

This, in turn, has led to debate on the type and level of conventional forces required to either complement or substitute for United States nuclear firepower.

Defence planning within NATO, and the controversy surrounding it, often pivots around the effect of nuclear strategy on conventional strategy and vice versa. This nexus between conventional and nuclear forces is directly relevant to the following long-standing, and interlinked, debates on:

- (1) 'Burden sharing' and the appropriate level of United States leadership of the Atlantic Alliance. This concerns the distribution among members of the costs, risks, and advantages incurred in the defence of NATO. Among other things, burden sharing has come to imply the need for Western Europe to increase its expenditure on conventional forces while continuing to accept American control of most of NATO's nuclear weapons.

- (2) The efficacy and dangers of the NATO strategy of flexible response. Flexible response, as adopted by NATO, envisages the threat of escalation (e.g., a move from conventional to nuclear operations) to prevent a NATO defeat. At the same time the strategy recognises the desirability of limiting conflict to low levels. Both the threat of escalation and the wish to keep war limited are thought to require limited and flexible nuclear targeting options.

- (3) Raising the nuclear threshold - i.e., lessening the likelihood of a conventional war escalating into a nuclear war.

Strategic linkage between nuclear and conventional forces is a highly charged political subject. It is also a critical reference point for military planners. In addition, it provides an important dimension to the issue of possible nuclear war. But, despite its importance, the relationship between nuclear and conventional strategy has rarely been subjected to sustained systematic analysis. Rather, the importance of the relationship is more implied or assumed, than examined. This area of strategic analysis (where nuclear and conventional forces either come together, or are kept apart) is, paradoxically perhaps, both central and often neglected.

One corollary of this neglect is the tendency for those focusing on conventional forces to treat the nuclear threshold as being on the untidy fringe of their subject. Similarly, analysts of nuclear strategy often treat conventional defence in a cursory or platitudinous way. The following chapters will both support and qualify these observations; for the moment though it will simply be stated that there is a disjunction in many published studies.

This deficiency is carried over, in part at least, into the sphere of defence planning. Such a discontinuity in analysis and planning (between nuclear and conventional forces) is probably not conducive to either good strategic theory or to sensible policy. Moreover, as already suggested, this deficiency in analysis leaves an important area of international relations inadequately examined. If a Third World War breaks out it may do so as a result of a process of

superpower rivalry played out on the Eurasian periphery. The pairing of nuclear threats with conventional forces deployed along this periphery is part of this process. Thus the nexus between nuclear and conventional strategy may be a factor in the origins and development of armed conflict between the United States and the Soviet Union. At the very least, this nexus is an important issue in intra-Alliance diplomacy and therefore (by extension) is also relevant to questions of international stability.

B) Methodology

This study examines the relationship between nuclear and conventional strategy as reflected in the academic literature and in US/NATO planning for European contingencies. The central thesis is that:

Strategic analysis has often been marred by an inadequate focus on the relationship between nuclear and conventional strategy; this has been paralleled by defence planning which dangerously mismanages the linkage between nuclear and conventional military forces.

A case study showing how the Carter administration dealt with the linkage between nuclear and conventional forces is included in the thesis. The Carter administration has been chosen here because it attempted to revise areas of the West's defence posture that are directly relevant to the nexus between nuclear and conventional

forces in Europe. The case study therefore illustrates some of the issues faced by officials in trying to manage this key aspect of military power. The study is set within a framework of theoretical discussion (concerning the nature of strategy), historical background (covering the period 1945-1977), a description of relevant Alliance political factors, and strategic analysis.

Following this brief outline of the organisation of the thesis, the concept of strategy is discussed. Next, **Chapter Two** looks at some of the ideas developed in the strategic studies literature. Here academic treatments of the nexus between nuclear and conventional military forces are outlined.

Having mapped out some of the relevant conceptual terrain, the next part of the thesis examines Western military planning. **Chapter Three** is essentially a chronological description of the development of American and NATO strategy between 1945 and 1977. The chapter ends with a description of some of the defence planning issues, and the doctrinal responses to them, inherited by the Carter administration in 1977.

Chapter Four examines the ways in which the Carter administration tackled some of the constraints and opportunities facing United States leadership of NATO. The chapter concentrates on the strategic reviews of the administration. The impact of these reviews on conventional, theatre nuclear, and central strategic nuclear forces is discussed. Thus the following issues are looked at: The Long Term Defence Programme, designed mainly to bolster NATO's conventional forces; TNF modernisation (involving Enhanced Radiation Warheads/'Neutron bombs', Ground Launched Cruise Missiles, Pershing II missiles, and short range theatre nuclear forces); and the adoption of the 'Countervailing' strategy (the administration's development of flexible response).

Chapter Five describes NATO's planning framework. Chapter Six examines the nuclear weapons doctrines of Britain, France, and the USSR. It discusses the implications of these doctrines for both the linkage between nuclear and conventional forces, and for the likely degree of US control over escalation in any European conflict. Chapter Seven identifies the different levels of strategy as it operates in Europe; these levels are psychological, philosophical, political, doctrinal, and operational. These chapters place the linkage between nuclear and conventional forces into the geopolitical and strategic context of the European theatre.

In conclusion, Chapter Eight briefly restates the main themes of the thesis, draws out some implications for strategic analysis, and suggests some changes that might be made to improve the management of the nuclear-conventional nexus.

C) Looking at strategy

The notion of strategy occupies a central role in this thesis, so it is necessary to examine what is meant by the concept. Strategy is the use of military power for political purposes. The primary elements of strategy are military means, political ends, and the connections between them.

On an abstract level this appears to be a straightforward and rather neat formulation. However, in practice strategy is more problematical. For example, political objectives may be inadequately formulated for direct translation into military planning, and military power may be poorly coordinated. In other words, the connection between military means and political ends is not necessarily clear-cut. What may seem like a coherent strategy (flexible response, for example) may be little more than an assortment of strategies developed by different groups. What can appear as a unified strategy methodically relating means to ends can also hide inconsistent assumptions held by various policy makers and planners; it may also obscure bureaucratic muddles or compromises.

For instance, United States defence planning takes place in an arena of constrained anarchy; political pluralism and bureaucratic fracture hinder the achievement of a coherent or monolithic defence policy. Ball has described some of the decision-making associated with the American adoption of flexible response in the early 1960s as occurring amid "intramural bureaucratic bargaining" between "quasi sovereignties", in Washington.⁴ United States defence policy making

is partially fragmented. Given the additional needs to coordinate defence policy with foreign policy one might speculate that the United States may be incapable of formulating and pursuing a rigorously consistent national security policy. In addition, American membership of NATO adds to the complexity of its defence posture and resultant strategy. Membership of the Alliance involves complex decision-making and diplomatic compromise married to far-reaching security commitments.

To make sense of this complex mix of factors it is useful to sharpen the analytical focus onto the relevance of strategy to defence planning. Howard has described four "dimensions of strategy":⁵ the logistical, operational, social and technological. His starting point is Clausewitz's analysis of war and strategy. Clausewitz focused his analysis on the operational dimension of strategy; that is, he concentrated on how military power was actively used. The violent aspect of war - fighting - was central to the very notion of strategy as far as Clausewitz was concerned.

Howard complements, rather than rejects, Clausewitz. One of the first points Howard makes is that operations may be dependent on logistics. The American Civil War is used to illustrate this:

Ultimately [operational skills] were ground down in a conflict of attrition in which the logistical dimension of strategy proved more significant.⁶

Howard continues his analysis by stating that this logistical capacity,

depended upon a third dimension of strategy, and one to which Clausewitz was the first major thinker to draw attention: the social, the attitude of the people upon whose commitment and readiness⁷ for self-denial this logistical power ultimately depended.

The fourth dimension of strategy is the technological. Here Howard quotes Belloz to make the point about the possibility of technological dominance: "Whatever happens, we have got the Maxim gun, and they have not."⁸ Howard's essay ends with some comments on the relevance of his analysis to contemporary issues. He writes that, in the case of nuclear strategy, the social dimension of strategy has, "if one is to believe the strategic analysts, vanished completely." He continues:

Works about nuclear war and deterrence normally treat their topic as an activity taking place almost entirely in the technological dimension. From their writings not only the socio-political but the operational elements have quite disappeared. The technological capabilities of nuclear arsenals are treated as being decisive in themselves, involving a calculation of risk and outcome so complete and discrete that neither the political motivation for the conflict nor the social factors involved in its conduct - nor indeed the military activity of fighting - are taken into account at all.⁹

Howard agrees that "the technological dimension of strategy has certainly become of predominant importance in armed conflict between advanced societies..."¹⁰ But:

...the question insistently obtrudes itself: in the terrible eventuality of deterrence failing and hostilities breaking out between states armed with nuclear weapons, how will the peoples concerned react, and how will their reactions affect the will and the capacity of their governments to make decisions? And what form will military operations take? What, in short, will be the social and the operational dimensions of a nuclear war?¹¹

It is not simply in terms of warfighting that the social dimension of strategy may be significant. As amply illustrated in the political controversy surrounding the 1979 decision to modernise NATO's theatre nuclear forces, the social dimension can be critical to peace-time defence planning.

In chapter seven Howard's analytical framework is modified. Different levels of the "social dimension" of strategy are identified; these levels are: psychological, philosophical, and

political. In addition, doctrinal aspects of warplanning are sketched-out. Thus the different layers of thought, upon which the "operational dimension" is built, are brought into the analysis. In this modified framework the "operational dimension" refers to military preparations for armed confrontation, and to the conduct of war. (Logistical and technological aspects of military planning are therefore subsumed within this definition of the operational dimension of strategy.) In this study it is the content of warplans, and the guiding ideas behind them, that provides the focal point of analysis. The interfaces between politics and strategy, and strategy and war, are therefore key areas of investigation.

1) Strategy and war

Probably the best place to begin an examination of the relationship between strategy and war is the work of Clausewitz. For Clausewitz, it is war which provides strategy with its central reference point, albeit in the context of politics. The starting point is that war is "an act of force to compel our enemy to do our will."¹² According to Clausewitz, war has three elements that interact in a dynamic way: war consists of violence, military decision making, and political purpose.¹³ Strategic theory therefore needs to examine the relationships between social forces, organised and violent means, and policy.

For the sake of analytical sharpness, Clausewitz identified two major forms of war: Absolute war and Real war. Absolute war is total war, war carried to extremes of violence. According to Clausewitz, Absolute war has a central theoretical role to play in that it forms a core or focal concept with which Real war can be compared and partly explained. Blind unlimited violent conflict is the 'Ideal' form of war - war closest to its 'essence'. This absolute form is disguised or whittled down when one moves from theory to practice for a number of reasons (which will be dealt with below). But while Real war might be limited, it has within it the germ of Absolute war.

From his simple statement that war is "an act of force to compel our enemy to do our will", Clausewitz derived the idea (similar to contemporary concepts of escalation) that war had an inherent tendency to increase in intensity. In theory the intensity of fighting might even eventually approximate Absolute war. In practice 'friction', historical patterns, and politics would almost certainly temper this tendency towards the Absolute. However, (following Gallie's interpretation) the idea of Absolute war would remain "the most important fact about war."¹⁴ Thus, in a limited war, statesmen and the military had to be prepared for a possible transition to unlimited war.

While On War is often quoted for its references to Absolute war, the substance of the work heavily qualifies the practical relevance of the concept. As mentioned earlier, moderating factors are evident in the real world. Thus, Clausewitz argues: "we must face the fact that war and its forms result from ideas, emotions, and conditions prevailing at the time."¹⁵ The concept which "more or less corresponds to the factors that distinguish real war from war on paper" is "friction". This is a "force that theory can never quite define." Clausewitz discusses friction in the following way:

Action in war is like movement in a resistant element. Just as the simplest and most natural of movements, walking, cannot easily be performed in water, so in war it is difficult for normal efforts to achieve even moderate results...Moreover, every war is rich in unique episodes. Each is an uncharted sea, full of reefs.¹⁶

If Absolute war was a focal point for theorising about war, war as a political instrument was an anchor helping to relate and moderate the abstract notion of unfettered violence with what normally happened. According to Clausewitz, war is:

A continuation of political intercourse, carried on with other means...War in general, and the commander in any specific instance, is entitled to require that the trend and designs of policy shall not be inconsistent with these means. That, of course, is no small demand; but however much it may affect political aims in a given case, it will never do more than modify them. The political object is the goal, war is the means of reaching it, and means can never be considered in isolation from their purpose...

The political object - the original motive for the war - will thus determine both the military objective to be reached and the amount of effort it requires. The political object cannot, however, in itself provide the standard of measurement. Since we are dealing with realities, not with abstractions, it can do so only in the context of the two states at war. The same political object can elicit differing reactions from different peoples, and even from the same people at different times. We can therefore take the political object as a standard only if we think of the influence it can exert upon the forces it is meant to move.¹⁷

So, the most effective brake to unlimited war might well be limited policy objectives. Even so, the spectre of Absolute war would continue to exercise an influence:

If war is part of policy, policy will determine its character. As policy becomes more ambitious and vigorous, so will war, and this may reach the point where war attains its absolute form...

That, however, does not imply that the political aim is a tyrant. It must adapt itself to its chosen means, a process which can radically change it; yet the political aim remains the first consideration. Policy, then, will permeate all military operations, and, in so far as their violent nature will admit, it will have a continuous influence on them. (Emphasis added.)¹⁸

Of course, controlling the violent nature of war, and its repercussions, presents problems. It is this that makes war both more of a danger and more of a gamble than peace. The idea that war is a continuation of political intercourse was not meant to suggest that there is little difference between peace and war. For Clausewitz war was about fighting. Military engagements were, for Clausewitz (as Howard says), "the constituent elements out of which strategy was constructed."¹⁹

Thus, peacetime posturing - as in intra-Alliance bickering over force levels and some views of deterrence and arms control - is not central to this conception of strategy, however critical to domestic or foreign policy it may be. Strategy works here primarily in the context of war rather than peace.

ii) Strategy and deterrence

It is now necessary to look at the impact of contemporary ideas of deterrence on the classical Clausewitzian perspective outlined above. This is because the demands of deterrence have been put on centre stage in many strategic and political debates. Deterrence in the nuclear era is sometimes seen to require the rejection of the 'Clausewitzian' approach, which is seen as anachronistic and dangerous.²⁰

This rejectionist view has important political and strategic repercussions. Controversy over the relevance of classical strategy contributes to problems in achieving an Alliance consensus on security issues and leads to some incoherence in planning. Perhaps the biggest single strategic problem in NATO is arriving at an agreed and coherent way in which to translate deterrence into warplans. It is within the context of this problem (of relating deterrence to plans) that the nexus between nuclear and conventional strategy can become a central issue. This is partly because, in the realm of perceptions, conventional forces are often seen in terms of defence, whereas nuclear forces are seen more in terms of deterrence. When these roles

are believed to be reversed - as in some expositions of flexible response - political controversy can surface. The idea of shifting the burden of deterrence to conventional forces, and of further developing plans for the use of nuclear weapons in defence, makes some people uncomfortable.

The basis of controversy is often disagreement over the nature of deterrence. Deterrence is essentially a matter of perception and psychology. Thus Western deterrence must work in the minds of the Politbureau in Moscow. This cognitive element makes it difficult to give a precise explanation of the relationship between deterrence and strategy. In broad terms it can be said that deterrence is about the threat of strategy as well as an ill-defined image of total disaster (and this image may well be fundamentally astrategic). In other words, one may see deterrence as resting on two apparently contradictory pillars. The first pillar is a plausible strategy for using military forces in a politically purposive way. This is needed to make the threat of war credible and it requires rational planning for using nuclear weapons in a restrained manner and in a way that has relevance to conventional operations. The second (astrategic) pillar is the prospect of mindless destruction; the politically blind, self-defeating, use of military power. This would not require particular warplans. Some formulations might divorce these two pillars in an 'either/or' proposition: deterrence, it might be argued, either works in one way (strategic) or in another way (astrategic). However, for the purposes of this introduction the two pillars will be treated as different aspects of deterrence; they are not mutually exclusive and may be complementary.

Even so, it stands repeating that differences of view on this matter can have serious political implications. A generalised, astrategic view of deterrence (based on horrifying images) leads to considerable skepticism over both the value of changes to warplans and calls to raise defence expenditure. Conversely, a narrow, explicitly strategic view of deterrence could lead to great concern over the details of warplans and the size of defence budgets. The non-strategic perspective tends to view war as inevitably catastrophic: war, and warplanning, may be considered unthinkable. On the other hand, the strategic perspective suggests that effective warplanning is both feasible and enhances deterrence.

Within NATO tension has arisen over the extent to which operational strategy can (or should) either reinforce or escape from the astrategic vision of deterrence. Should NATO planning emphasise the "unthinkable" or the possibly calculable and rational? Generally speaking, European attachment to symbols of disaster has been balanced by American interest in minimising the consequences if deterrence fails. Europeans have stressed the rhetoric of deterrence, while Americans have tended to focus on the content of strategies.

One way of minimising the consequences of deterrence failing is to try to reimpose deterrence after war has broken out. This intra-war deterrence is directly related to strategy in a way that peacetime, ante bellum, deterrence is not. Intra-war deterrence is

about the withholding, and impending threat, of increasing violence within the context of extant war. It is the other side of the coin of escalation.

Intra-war deterrence and ante bellum deterrence are qualitatively different. It is misleading to think of them as merely different points on a continuum, this is similar to clouding the difference between peace and war. To an extent this is, perhaps, an ethical prejudice being imposed on an awkward theoretical issue; but it rests on an assumption that the peace-to-war threshold is of a different order to subsequent thresholds. This is what makes ante bellum deterrence essentially a foreign policy matter while intra-war deterrence is also an urgent military concern. As Howard has written:

Whereas in Clausewitz's day human effort had been necessary to transcend the limitations imposed on the conduct of war by the constraints of the real world, now that effort is needed to impose such limits. ²¹

iii) Strategy, intra-Alliance diplomacy and defence planning

Strategy is unintelligible unless its political context is appreciated. Here the relationship between strategy and NATO politics is outlined, as are the broad implications for defence planning. The previous section has already highlighted one way in which Alliance

considerations modify the 'Clausewitzian' perspective - namely, by the salience attached to deterrence. This attachment is woven into most NATO policy decisions, including those dealing with how to plan to fight a war.

Perhaps the first point to be made concerning the interaction of politics and strategy in NATO is that Alliance strategy is essentially a compromise of American and European views. It is, however, an unequal compromise. It is often pictured as an exercise in European recalcitrance and resistance to American initiatives.

This view seems to hold true in the case of the NATO adoption of flexible response. It is one reason why the NATO version of flexible response (formally adopted in 1967) falls short of the preferred American version (articulated in the early 1960s and periodically ever since). The American version - prompted by the prospect of Soviet parity in nuclear weapons - placed greater stress on the nuclear-conventional firebreak, called for a greater concomitant improvement in conventional force levels, required more flexibility in nuclear warplanning, and was premised on a more traditional view of warfighting. The fuse to all-out nuclear war was to be lengthened by a build-up of conventional forces and the establishment of a limited nuclear war option. This type of thinking was clearly worrying to many Europeans; it appeared that the American definition of limited war was war in some one else's country, Germany for example.

It is necessary to place United States policy on NATO into a broad national security context. Containment has, among other things, provided the geopolitical and ideological framework for the attempted implementation of flexible response. As seen from Washington, flexible response is an exercise in combining American power projection with damage limitation. Power projection is integral to containment. Damage limitation normally refers to the ability to destroy enemy missiles before they hit you, and to civil defence, to minimise damage resulting from those enemy missiles which do get through. Here it also means containing war (e.g., to conventional operations). The need for damage limitation became more urgent as the USSR built up its own nuclear arsenal from the 1950s.

An early requirement of flexible response was tight central - in effect Washington - control of Western nuclear options, together with increased reliance on US and allied conventional forces. The political advantages of extending American deterrence to Europe (such as enhanced US leadership of the Alliance) were to be balanced by the need to limit damage to the American homeland should deterrence fail. This called for a theory of escalation, the establishment of firebreaks, and a counter-military strategy. It argued against a conventional 'tripwire' to automatic massive nuclear strikes, and against European nuclear proliferation.

Differences of view within NATO have many other complex causes. These include differences in the following: perceptions of the Soviet threat; economic and social priorities and their impact on defence expenditure; and judgements about the efficacy of proposed changes to NATO's defence posture (such as raising the nuclear threshold). In addition, there are various national idiosyncrasies such as those reflected in French Gaullism and German Ostpolitik. NATO also provides an arena for the play of different strands of the Atlantic coalition, such as: the 'Special Relationship' between the United States and the United Kingdom; the French critique, and qualified support, of the American role in European security; and the Washington-Bonn axis (which, arguably, provides the core of the Atlantic Alliance).

One result of this contextual complexity is that some NATO defence planning is not directly related to the relatively narrow requirements of operational strategy but is tailored more to political symbolism. One example of this was the 1979 NATO decision to modernise its Long Range Theatre Nuclear Forces (LRTNF) which led to the deployment of Ground Launched Cruise Missiles (GLCM) and Pershing II. The decision was justified in quasi-operational terms - the need to counter Soviet LRTNF (especially SS20 missiles) and couple NATO TNF targeting with United States central strategic targeting. But the degree to which this coupling was (and is) a planning problem is moot. Psychological factors were dominant: "coupling was whatever the Germans said it was." 22

One reason for this attachment to symbolism as a factor in defence planning has already been suggested in the discussion of deterrence. The widespread view of war as ethically repulsive and politically disastrous is critical here. This view grew out of Europe's internecine history, and became entrenched by the spectre of nuclear ruin. West Europeans, among others, tended to stress the following:

In terms of security Europe has achieved a status sui generis. An approach which looks at this region as just another theatre of military operations misses the essential point.²³

It was just this 'essential point' that some Americans appeared to be missing by advocating a strategy of flexible response premised on semi-traditional rationales of 'warfighting'. West Europeans have generally been reluctant to increase expenditure on 'useable' conventional forces and have been ambivalent about making nuclear warplans more 'credible'. The preference has often been to either ignore serious discussion of security issues or to rely on the 'unthinkable' - the threat of prompt, massive, use of American nuclear firepower. This has made US administrations uncomfortable with the prospect of mutually suicidal nuclear strikes and irritated with European backsliding over conventional force levels.

Areas of disagreement over NATO planning are significant but, ultimately, they are of secondary political importance. The raison d'être of NATO is the United States' presence on the Continent and the

stabilisation of inter-state relations within Europe. This, coupled with the view of World War Three as unthinkable and improbable, detracts from efforts to improve defence planning. This is especially so if such 'improvement' leads to a disruption of the underlying political basis of the Alliance. The overriding objective has been to maintain the Alliance, if necessary by fudging some issues and making a virtue out of compromise. The alternative, such as an American drive to impose a rigorously coherent strategy based more explicitly on US interests, might break the coalition.

Earlier it was stated that strategy is the use of military power for political purposes. It is now suggested that, for NATO, strategy can be understood as the balancing of nuclear options with conventional capabilities to achieve Alliance political and military objectives. These objectives are:

- (1) The stabilisation of European politics. This involves:
 - a) American reassurance of Western Europe.
 - b) Maintenance of a balance of power on the Continent.
 - c) Non-proliferation of nuclear weapons.
 - d) Pursuing detente within the context of collective security.
- (2) The deterrence of Soviet attack.
- (3) The defence of NATO.
- (4) Burden sharing.

These objectives underlie the present relationship between nuclear and conventional forces in NATO.

NOTES

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- 3 White Paper 1985 (FRG, Federal Minister of Defence), p. 78
- 4 Desmond Ball, Politics and Force Levels: The Strategic Missile Program of the Kennedy Administration (University of California Press, 1980), p. XXIII, XXVI.
- 5 Michael Howard, "The Forgotten Dimensions of Strategy", The Causes of War (Unwin Paperbacks, 1984).
- 6 Ibid., p. 103.
- 7 Ibid., p. 103.
- 8 Ibid., p. 105.
- 9 Ibid., p. 109.
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- 16 Ibid., p. 120.
- 17 Ibid., pp. 87, 81.
- 18 Ibid., pp. 606, 87.
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- 20 See, for example, the comments by Anatol Rapoport in his introduction to the Pelican edition ("Pelican Classics", 1968) of Clausewitz: On War.
- 21 M. Howard, Clausewitz, op. cit., p. 70.
- 22 Quoted in Richard Betts (ed), Cruise Missiles: Technology, Strategy, Politics (The Brookings Institution, Washington, D.C., 1983) p. 404.
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CHAPTER TWO
THE STRATEGIC STUDIES LITERATURE AND THE NEXUS
BETWEEN NUCLEAR AND CONVENTIONAL STRATEGY

A) Introduction

This chapter shows how the nexus between nuclear and conventional forces has been treated by the mainstream of the strategic studies literature. This is not an exhaustive survey of the field, such an undertaking is unnecessary for the purposes of the thesis. The objective is to describe how some of the major themes in the literature have been identified and articulated by their most prominent expositors.

* * * * *

It would be useful here if the issues raised in the previous chapter are briefly related to the following survey. Three of these issues are salient: the strategic element to containment; the relevance of the Clausewitzian or classical perspective on strategy; and the particular circumstances of European security. Strategic analysis has frequently concerned itself with prescription and policy advice, it has rarely been simply descriptive. Except for some of the very first attempts to draw out the implications of atomic weapons, Western strategic studies have been preoccupied with the putative Soviet threat and ways to counter it. In general, containment has

been taken as a given and debate has been on how best to achieve it. With regard to nuclear strategy, this debate has often focused on how to tie nuclear warplanning to theatre contingencies in Europe. In short, strategic analysis has frequently been about extended deterrence.

Thus the geopolitical circumstances of the West provide the common basis and theme for much speculation on nuclear strategy. Among other things this has entailed examination of how American nuclear firepower could augment regional conventional forces on the Eurasian periphery (especially, but not exclusively, in Europe). It was considered necessary to do this in order to establish an interlocking balance of power with the Soviet Union that would link the "central strategic" balance with regional balances. This overall balance was to be based on: a forward defence of the United States; a liberal-democratic core of an extensive alliance network; a dynamic Western oriented capitalist trading system; and provision for coalition war against the USSR.

The strategic studies literature necessarily concerns itself with the more military aspects of security. Thus, in terms of the above sketch, the literature has tried to grapple with ways of tailoring US military power to an ambitious foreign policy. The literature has usually been about means rather than ends. More particularly, there have been efforts to steer United States strategy towards a defence posture that approximates a Clausewitzian model where military means are clearly related to political ends. These efforts were largely a reaction to extreme interpretations of massive retaliation and

mutually assured destruction. It seemed unlikely that any political objective could be worth all-out nuclear war; the matching or gradation of military means to specific political ends was therefore an urgent policy requirement, not merely a theoretical nicety.

The rediscovery of, or continuing attachment to, classical ideas of strategy paralleled attempts to formulate and rationalise schemes for (a) limited war, and (b) elaborate nuclear targeting concepts for both limited and general war. Some of these attempts became entangled in the idea, developed during the 1960s, that nuclear strategy was essentially a form of signalling and bargaining; others were associated with ideas of warwinning. As this chapter will show, strategic analysis has become marked by two overlapping approaches. One of these (the "deterrent" approach) sees nuclear strategy as essentially a process of bargaining in the context of mutually assured destruction, although sometimes it is not clear whether the exponents of this approach give much consideration as to what should happen in the event of a break down of deterrence. The other approach ("warfighting") suggests the incorporation of nuclear weapons into a more traditional notion of strategy and warfighting.

The next three sections describe the development of these ideas in more detail. The format adopted here is essentially chronological. This is followed by an examination of some treatments of the nuclear threshold in Europe. The chapter ends with a summary of the contribution of the strategic studies literature to the analysis of the nexus between nuclear and conventional forces.

B) Early Responses

From the start of the nuclear era it was clear that the atomic bomb allowed a drastic increase in the destructiveness of war. Not only did the bomb appear to reinforce a historical trend towards total war, it was also realised that it added a new dimension to conflict - a qualitative break with the pre-atomic age. However the precise implications for the future of war and the development of strategy were not so immediately evident. Nevertheless, it did not take long for analysts to make general propositions about how the atomic bomb made deterrence both an urgent requirement and a pivotal aspect of future defence planning.

An early exposition of this view was provided by Brodie who wrote in 1946: "Everything about the atomic bomb is overshadowed by the twin facts that it exists and that its destructive power is fantastically great."¹ Brodie saw that although atomic weapons increased the power of military forces, this did not automatically translate into politically usable power: "the bomb is well adapted to the technique of retaliation", so the "prize" of war "would be ashes."² This condition of mutual vulnerability, noted Brodie, opened the way to deterrence.³ Deterrence would rest on the fear of retaliation.⁴

For Brodie the implications of all this were, in general terms, quite clear,

[T]he first and most vital step in any American security program for the age of atomic bombs is to take measures to guarantee to ourselves in case of attack the possibility of retaliation in kind. The writer in making that statement is not for the moment concerned about who will win the next war in which atomic bombs are used. Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose.

...Reducing vulnerability is at least one way of reducing temptation to potential aggressors. And if the technological realities make reduction of vulnerability largely synonymous with preservation of striking power, that is a fact which must be faced.⁵

But the urgency and salience of deterrence did not make war impossible. The military still needed to think about how to fight wars if deterrence broke down. This might require a radical approach to military planning. As Brodie noted,

Whatever may be the specific changes indicated, it is clear that our military authorities will have to bestir themselves to a wholly unprecedented degree in revising military concepts inherited from the past. That will not be easy, they must be prepared to dismiss, as possibly irrelevant, experience gained the hard way in the recent war...⁶

Military judgement would still be required as "scarcity [of atomic weapons] is likely to be sufficiently important to dictate the selection of targets and the circumstances under which the missile is hurled."⁷ The existence of atomic weapons would have a pervasive influence on strategy even if they lay unused:

It is of course always possible that the world may see another major war in which the atomic bomb is not used. The awful menace to both parties of a reciprocal use of the bomb may prevent the resort to that weapon by either side, even if it does not prevent the outbreak of hostilities. But even so, the shadow of the atomic bomb would so govern the strategic and tactical dispositions of either side as to create a wholly novel form of war...The conclusion is inescapable that war will be vastly different because of the atomic bomb whether or not the bomb is actually used.⁸

For one thing,

[H]overing over the situation from beginning to end would be the intolerable fear on each side that the enemy might at any moment resort to this dreaded weapon, a fear which might very well stimulate an anticipatory reaction.⁹

Brodie saw little reason to believe in large scale non-nuclear war between the superpowers, "it is difficult to see why a fear of reciprocal use should be strong enough to prevent resort to the bomb without being strong enough to prevent the outbreak of war in the first place."¹⁰ However, "the bomb may act as a powerful deterrent to direct aggression without preventing the political crises out of which wars generally develop."¹¹

Despite the dominance of the atomic bomb, Brodie still believed that conventional forces were needed,

[E]ven apart from the question of direct retaliation with atomic bombs, invasion to consolidate the effects of an atomic bomb attack will be necessary. A nation which had inflicted enormous human and material damage upon another would find it intolerable to stop short of eliciting from the latter an acknowledgement of defeat implemented by a readiness to accept control. Wars, in other words, are fought to be terminated, and to be terminated definitely.¹²

One of the earliest studies to focus on the warfighting implications of atomic weapons was also written in 1946. In There Will Be No Time, Borden elaborated on the offensive power of atomic weapons. Borden (while accepting the need for occupation troops) saw the atomic revolution as heralding the demise of conventional forces as traditionally understood: "G.I. Joe, with his beard and muddy boots, is the symbol of an age gone past."¹³ Borden argued that,

Normandy was a superb example of what has been called tridimensional warfare, involving land, sea, and air forces co-ordinated together. The growing irrelevance of ground armies, together with unlimited potentiality of rockets, denotes a trend toward one-dimensional warfare - that is, a struggle solely for sovereignty over the skies.¹⁴

The struggle for "sovereignty over the skies" would involve atomic strikes against the enemy's ability to retaliate with atomic weapons. Borden was articulating an early version of what would later be called a counterforce strategy. He can therefore be considered an early exponent of the warfighting school.

[T]here are cogent reasons for believing that an atomic bomb dropped squarely in the middle of an Alaskan air base would profit the aggressor more in his initial attack than one dropped squarely in the middle of Radio City, New York. Destruction of an air base would prevent the United States from delivering scores of retaliatory bombs to the aggressors vital installations, while chaos in New York City might have little practical effect upon the war's outcome. Since the use of one atom bomb to immobilise many of the opponents bombs is obviously worth while, an airfield is not the uneconomical target it at first seems...

Why squander the precious assets of surprise and the initiative in attacking cities, a mission which can so easily be carried out later, when the main obstacle to a lightning victory is American forces in being?¹⁵

So, in spite of the vulnerability of cities, atomic war could, according to Borden, offer the chance of military advantage; the effect of an initial success "would rapidly become cumulative."¹⁶

The security implications for the United States were connected to what Borden termed the "twilight of Geopolitics" brought about by the atomic revolution: "The atomic bomb shatters this particular frame of [geopolitical] reference..."

[T]he gigantic Red ground army has become relatively useless. The balance of power in Europe and Asia is being maintained far less by American forces overseas than by the uranium produced in Oak Ridge, Tennessee...A whole armoured division in Germany will probably influence Soviet policy less than three atomic bombs in California.¹⁷

C) The refinement of theory

It is clear from the above that by the end of the 1940s the significance of nuclear deterrence had been recognised (although not universally accepted). There had also been tentative attempts to analyse how a nuclear war might be fought. Some of the deterrent and warfighting potential of nuclear weapons was explicitly adopted by the Eisenhower administration during the 1950s in its policy of

massive retaliation. This "New Look" placed the emphasis in United States military planning on Strategic Air Command while conventional forces were downgraded in relative importance. The major American warplan suggested by massive retaliation was an all-out nuclear attack against the "Sino-Soviet bloc". The role of conventional forces, backed up by tactical nuclear weapons, was to be to hold ground (including SAC air bases) while the nuclear bombing onslaught took its toll. One of the incentives for massive retaliation was the prospect of using American nuclear strike power to redress local conventional weaknesses. The policy was intended to support the objective of extending deterrence to regions adjacent to the Communist bloc. Freedman has written that,

Contemporary strategic studies developed in the 1950s as part of the reaction to the Eisenhower administration's policy of "massive retaliation". This policy appeared to threaten nuclear hostilities in response to quite modest provocations. Once the Soviet Union acquired an equivalent capacity to deliver nuclear weapons, for the United States to implement a strategy of "massive retaliation" would be suicidal and so to threaten it would be incredible. The resultant combination of illogicality and recklessness was almost designed to incite academics...¹⁸

The critiques of, and alternatives to, massive retaliation were often framed in Clausewitzian, or at least quasi-Clausewitzian, terms. They were also geared to the requirements of extended deterrence. A common theme in the reaction to the "New Look" was the need for an understanding of the possibilities and advantages of war limitation.

Nitze provided a noted response to massive retaliation in early 1956; he argued that,

It is obviously to the interest of the West that war, and especially atomic war in any form, be avoided if that is possible without submitting to even greater evils. Furthermore it is to the West's interest, if atomic war becomes unavoidable, that weapons of the smallest sizes be used in the smallest area, and against the most restricted target systems possible, while still achieving for the West the particular objective which is at issue...it is to the interest of the West that the means employed in warfare and the area of engagement be restricted to the minimum level which still permits us to achieve our objectives. Our basic...policy must therefore be one of "graduated deterrence". (Emphasis added.)¹⁹

The injecting of rationality into nuclear war required a shake-up of ideas of winning (and, indeed, of rationality itself):

[T]he word "win" is [one] of our leathery words which can stand reexamination for precision of meaning. In one connotation the word "win" is used to suggest a comparison of the immediate postwar position of a country with its prewar position...

In another connotation the word "win" is used to suggest a comparison of the postwar position of one of the adversaries with the postwar position of the other adversary. In this sense it is quite possible that in a general nuclear war one side or the other could "win" decisively. Even a small initial imbalance in relative capabilities, other things being equal, could grow rapidly into a decisive imbalance as the war progressed...

[I]t is...of the utmost importance that the West maintain a sufficient margin of superior capability so that if general war were to occur we could "win" in the second sense.²⁰

This was made easier than it might at first appear because "the geographic factor should give the West the possibility of a continuing and decisive margin of superiority."²¹ The need was for an Alliance strategy that exploited geographical advantages and reduced dependence on nuclear weapons. Such a "common policy" might require the following:

- We should endeavour to meet aggression and restore the situation without the use of atomic weapons wherever this is possible.
- We should extend hostilities to other areas only if there is no other way effectively to restore the situation.
- Even if it becomes necessary to engage the USSR in atomic warfare, we should limit ourselves to **military objectives**, primarily to those which are necessary to achieve control of the air. We should not initiate the bombing of industrial or population centres.
- We should attempt to build non-atomic elements of strength and to encourage our allies to do likewise so that the residual reliance which must be placed upon nuclear weapons for our common security is reduced as far as may be feasible. (Emphasis added.)²²

This conceptual framework for alliance security was an early public exposition of flexible response. As such it both noted the need for nuclear counterforce targeting and called for a policy of city avoidance; it also pointed to the possibly pivotal role of conventional forces in the raising of the nuclear threshold. But this did not mean that pre-nuclear ideas of war could govern conventional operations:

[W]hether or not atomic weapons are ever again used in warfare, the very fact of their existence, the possibility that they could be used, will affect all future wars. In this sense Korea was an atomic war even though no atomic weapons were used. In this sense even the cold war is an atomic cold war.²³

Moreover, it was clear to Nitze that nuclear weapons had a key role to play in European security which could not be easily removed.²⁴

The nascent concept of flexible response received a further stimulus from writers who tried to add precision to the notion of limited war. Once again Clausewitzian ideas were either the indirect or ^{the} direct inspiration for many of these attempts. Osgood, for example, wrote:

[T]he principal justification of limited war lies in the fact that it maximises the opportunities for the effective use of military force as a rational instrument of policy.²⁵

The following framework for limited war thinking was outlined by Osgood,

1. Statesmen should scrupulously limit the controlling political objectives of war and clearly communicate the limited nature of these objectives to the enemy...
2. Statesmen should make every effort to maintain an active diplomatic intercourse toward the end of terminating the war by negotiated settlement on the basis of limited objectives...
3. Statesmen should try to limit the physical dimensions of war as stringently as compatible with the attainment of the objectives at stake, since the opportunities for the political control of war...tend to decrease as the dimensions of war increase and tend to increase as the dimensions of war decrease...²⁶

This last requirement was based on the idea that massive violence could undermine the rationality that is supposed to rule the use of force.²⁷

Osgood was trying to educate American policy makers. For, as he stated in his preface to Limited War,

[B]efore there can be an American strategy enabling the United States to employ military power rationally and effectively within a framework of feasible political objectives, there must also be a fundamental rethinking of traditional American attitudes concerning the nature of war and the relationships between force and policy.²⁸

The need was for a philosophy of war that was compatible with America's role in international relations,

The problem of limited war is not just a problem of military strategy but, more broadly, the problem of combining military power with diplomacy and with the economic and psychological instruments of power within a coherent national strategy that is capable of supporting the United States' political objectives abroad...To the extent that American strategy is supported by a diversified military capacity, capable of countering Communist aggression under a variety of contingencies the nation will enhance the flexibility of its diplomacy and promote favourable political positions. To the extent this diversified capacity is lacking, the nation will incur the serious political and psychological disadvantages that a rigid diplomacy is bound to impose in competition with the flexible and resourceful diplomacy of an unscrupulous power.²⁹

Osgood expanded on this analysis by arguing that the "logic of cold war" and America's international role pointed to a requirement for implementing containment with "a variety of means under a variety of circumstances..." Indeed, Osgood could "readily imagine" US

involvement in limited wars in "the Formosa Straits, the jungles and swamps of Southeast Asia, the mountains of Afghanistan, or the deserts of the Middle East..." This vision of containment required forces for both limited and total war: "The capacity to wage one kind of war is insufficient without the capacity to wage the other."³⁰ It was clear to Osgood that conventional forces could be valuable instruments of policy. They might be useful in total war, but, the greatest "dividends" from an expansion of ground forces would lie "in the direction of preparing the free world for the contingency of limited war."³¹

The value of nuclear weapons was not restricted to total war as, for Osgood,

nothing inherent in a wide range of atomic weapons renders them incompatible with limited war apart from the targets towards which they are directed and the political context in which they are employed. For this reason it is a serious mistake to equate nuclear warfare with total warfare and oppose them both to "conventional" warfare...³²

According to Osgood, the US government had a role to play in educating people to the potentially positive part that nuclear weapons might play in American foreign policy. The "stigma" of Hiroshima and Nagasaki could, wrote Osgood, be erased and the "widespread misunderstanding" of nuclear weapons effects could be countered by adopting tactical nuclear weapons to "a well conceived strategy of limited war, based upon a policy of graduated deterrence." The trick was to use nuclear weapons "within a carefully defined political

context of limited objectives, susceptible to the process of diplomatic accommodation."³³

Osgood recognised that the applicability of concepts of limited war to Europe was problematic. As he noted:

[T]he most serious obstacle to limited war in the [NATO] area is the vital immediate importance of the political objectives that would be at stake, combined with the inability of the NATO powers to check Communist aggression effectively on a local basis...

Under present conditions...it is difficult to imagine a limited war in the NATO area, and it is almost equally difficult to imagine a total or nearly total war remaining confined to this area. Nevertheless, the catastrophic consequences of all-out nuclear war compel us to examine every opportunity, however meagre, for limiting warfare in any area.³⁴

It was Kaufmann who focussed the spotlight on the role of conventional forces in limited war. In common with other analysts his starting point was the suicidal nature, and thus incredibility, of massive retaliation. Again, the emphasis was on the expansion of military (and hence diplomatic) options available to the United States in its policy of containment:

It is probably hopeless to expect that a single deterrent will cover the entire range of contingencies and still satisfy the criteria of credibility. The attempt to devise such a deterrent is likely to result in either a sparrow hunt with a cannon or an elephant shoot with a popgun...³⁵

America must "try to fit the punishment to the crime."³⁶ The overriding requirement was to be able to project United States power while minimising the probability of nuclear catastrophe:

Because the possibility of such [catastrophic] destruction now exists, it becomes necessary to examine more closely the problems of limited war, for conflicts of this character do have a powerful rationale under present conditions. They may not be adequate substitutes for victory - although victory is a word with many meanings - but, in principle at least, they enable us to escape from having to choose between retreat and the nuclear holocaust. They preserve us from the revolutionary and disorienting changes that are the products of great wars. They offer the prospect of bringing military means and policy aims into much closer relationship than they have enjoyed for many years. And limited warfare affords all these benefits, not at a trifling cost by any manner of means; but at a cost far smaller than a modern nuclear conflict would entail. Korea was a tragic and painful experience; with its 137,000 [American] casualties, it scattered suffering and grief throughout the country. But even so, a hundred Koreas would still be cheaper than an American-Soviet exchange of atomic and hydrogen blows.³⁷

But Kaufmann was careful to warn that it might be very difficult to keep war limited.³⁸ "The solution", it seemed to Kaufmann, "would appear to lie in playing upon the cost-consciousness of the belligerents", and a "policy which communicated...messages to the other belligerent."³⁹ Such a strategy would hinge on the dampening effect of American strategic nuclear firepower, even though it was likely to be actively implemented by conventional forces. As Kaufmann wrote,

SAC, whether it is used or not, is the keystone of the American defense system. Armed with nuclear weapons, it is not only the great instrument of last resort; it is also an absolute prerequisite to the conduct of limited war. It has the dual role of umpire and potential belligerent. As such it permits of military action on a lesser scale.

In 1957 Kissinger attempted to answer the question: "does the nuclear age permit the establishment of a relationship between force and diplomacy?"⁴⁰ Kissinger's answer was "yes", and it was centered on the putative efficacy of tactical nuclear weapons and ground rules covering their use. Kissinger added little to the theoretical or

intellectual insights of strategic analysis, he basically built on the concept of limited war articulated by others. His book attracted attention more because of its allegedly practical suggestions regarding tactical nuclear war. Once again, the threat of escalation provided the reason and, in part, the means for limiting war. Kissinger believed that,

limited nuclear war is...a strategy which will utilize our special skills to best advantage and...it may be less likely to become all-out than conventional war.⁴¹

The need was to change from the "rigidity of traditional tactics".⁴²

According to Kissinger,

The tactics for limited nuclear war should be based on small, highly mobile, self-contained units, relying largely on air transport...The proper analogy to limited nuclear war is not traditional land warfare, but naval strategy, in which self-contained units with great firepower gradually gain the upper hand by destroying their enemy counterparts without physically occupying territory or establishing a front-line.

While it is impossible to hold any given line with such tactics, they offer an excellent tool for depriving aggression of one of its objectives: to control territory. Small, mobile units with nuclear weapons are extremely useful for defeating their enemy counterparts or for the swift destruction of important objectives. They are not an efficient means for establishing political control.⁴³

To keep the level of destruction down required a "framework of war limitation".⁴⁴ This could be made easier than it seems at first sight because, according to Kissinger, "the target systems of nuclear war may lend themselves more easily to an effort at limiting war."⁴⁵ Establishing the right "framework" would require, "a diplomacy which seeks to break down the atmosphere of special horror which now

surrounds the use of nuclear weapons."⁴⁶ Among other things, this diplomacy would have to work out ground rules for the use of nuclear weapons (for example, dealing with weapon yields and targets). Some of these rules seem a little fanciful.⁴⁷

Further discussion of the impact of nuclear weapons on strategy followed theoretical elaboration of the nature of limited war. Schelling, in 1960, referred to limited operations as a "threat that leaves something to chance".⁴⁸ This was an attempt to get away from the traditional "warfighting" perspective - while nonetheless keeping nuclear weapons as instruments of policy. Schelling wrote about using threats to enhance credibility, and about limiting war by threatening escalation. For Schelling an enemy could be further deterred if he realised that the United States might not be in complete control of events:

The key to these threats is that, though one may or may not carry them out if the threatened party fails to comply, the final decision is not altogether under the threatener's control. The threat is not quite of the form "I may or may not, according as I choose", but has an element of, "I may or may not, and even I can't be altogether sure".⁴⁹

This could involve brinkmanship - "the deliberate creation of a recognizable risk of war, a risk that one does not completely control."⁵⁰ For Schelling, "limited war as a deterrent to aggression also requires interpretation as an action that enhances the probability of a greater war."⁵¹ The danger of escalation can be used because "a limited war can get out of hand by degrees."⁵²

Clearly the existence of nuclear weapons raised the stakes and sharpened the threats. But this did not mean that they should be readily resorted to; the "tradition for their nonuse" was valuable. Even so, limited nuclear war was possible and so had to be thought about in advance. For one thing,

We should recognise that - at least on the first occasion when nuclear weapons are used in limited war - the enemy too will really be engaged in at least two different kinds of limited-war activity at the same time. One will be the limited struggle over the original objectives; the second will be the tacit negotiation or gamesmanship over the role of nuclear weapons themselves.⁵⁴

The strategists' conceptual armoury was enhanced in 1961 by Snyder. His starting point was that:

The central theoretical problem in the field of national security policy is to clarify and distinguish between the two central concepts of deterrence and defense. Essentially, deterrence means discouraging the enemy from taking military action by posing for him a prospect of cost and risk outweighing his prospective gain. Defense means reducing our own prospective costs and risks in the event that deterrence fails. Deterrence works on the enemy's intentions... Defense reduces the enemy's capability to damage or deprive us...⁵⁵

For Snyder, "the need to choose between deterrence and defense",

is largely the result of the development of nuclear... weapons and long-range airpower. Prior to these developments, the three primary functions of military force - to punish the enemy, to deny him territory (or take it from him), and to mitigate damage to oneself - were embodied, more or less, in the same weapons.

[T]he most striking difference between nuclear and pre-nuclear strategy [is] the partial separation of the functions of pre-attack deterrence and post-attack defense, and the possibility that deterrence may now be accomplished by weapons which might have no rational use for defense should deterrence fail...⁵⁶

However, deterrence might extend into war as a process of bargaining; Snyder believed that,

in the modern concept of limited war...force may be threatened and used partly, or even primarily, as a bargaining instrument to persuade the opponent to accept terms of settlement or to observe certain limitations. Deterrence in war is most sharply illustrated in proposals for a strategy of limited retaliation, in which initial strikes, in effect, would be threats of further strikes to come, designed to deter the enemy from further fighting.⁵⁷

The way that different levels of force were linked required careful, and qualified, examination. Snyder offered the following framework for such a study:

The traditional balancing process continues to operate as a balance between conventional forces...in all situations in which there is no significant possibility that nuclear weapons will be used...

[I]n the strategic balance, quantitatively matching the enemy's capabilities is virtually irrelevant as a criterion for balance. A balance of terror exists when neither side can eliminate enough of the other's forces in striking first to avoid an unacceptable retaliatory blow...

In the tactical balance, the requirements for deterrence and for effectively fighting a war more or less coincide; this is not the case in the balance of terror...

[However,] the strategic and tactical balancing processes do not function independently, but impinge on each other in various ways.⁵⁸

Snyder formulated concepts that could later be applied to flexible response; for example he wrote of a "spectrum of violence" leading from low-level limited conflict to all-out war.⁵⁹ This echoed Nitze in its ideas of graduated deterrence; however, the implications for defence planning were closer to the ideas outlined by Schelling:

[M]ethods of communicating intent have become more important means in the balancing process than they have been in the past...[T]he function of military forces themselves may be shifting in the direction of a demonstrative role: the signalling of future intentions to use force in order to influence the enemy's intentions, as opposed to being ready to use or using, force simply as a physical means of conquest or denial...Warfare itself may in the future become less a raw physical collision of military forces and more a contest of wills, or a bargaining process, with military force being used largely to demonstrate one's willingness to raise the intensity of fighting, with the object of inducing the enemy to accept one's terms of settlement.⁶⁰

Snyder attempted to apply his ideas to NATO security issues in the following way:

Under...conditions of stalemate at the massive level and inadequacy at the tactical level, threats of limited retaliation may take on increasing importance in the power struggle, restoring to strategic nuclear power a more positive or active function than merely deterring the massive use of strategic power by the opponent...Although the notion of combining diplomatic bargaining with the slow-motion lobbing back and forth of nuclear missiles seems a rather bizarre application of the Clausewitzian dictum about war being the continuation of politics with an admixture of other means, it at least does inject an element of rationality and politics into the conduct of strategic nuclear war.⁶¹

The need would be for some kind of escalation map, or escalation ladder, tied to both military needs and - more importantly - the requirements of bargaining:

Limited reprisals against tactical military targets inside the boundaries of the Soviet Union would seem more "natural" than strategic strikes, in that they could be considered simply an extension of a limited nuclear war which was going on in the forward ground combat zone. The targets would be traditional "interdiction" targets, attacks upon which would contribute directly to weakening the enemy's strength in ground combat...

[B]ut the primary reason for starting limited reprisals against the enemy's forces rather than against his cities is not to wear down his forces...but to signal an eventual willingness to inflict more severe damage, with minimum immediate cost and risk to ourselves.⁶²

This strategic bargaining might largely hinge on the "interdependent utilities" of nuclear and conventional forces.⁶³

These sorts of ideas were taken a step further by Read in 1962.

Read argued that:

Much of the analysis of tactical nuclear war is an extrapolation from experience with conventional war. Such extrapolations from experience are useful in the degree that the number of available weapons is severely limited so that nuclear detonations constitute a perturbation superimposed on a primarily conventional combat...But it is hazardous to extend such analyses to the case where nuclear weapons provide the bulk of the firepower...[W]e must look beyond the special subject of battlefield tactics and consider limited nuclear war in the context of a general theory of conflict.⁶⁴

Tactical nuclear war is a "radically different form of conflict" from conventional war.⁶⁵ For one thing the levels of destruction may be much greater; moreover, tactical nuclear war has a "built in escalation mechanism".⁶⁶ Nevertheless, if nuclear weapons were to be used, such use, stated Read, should follow a bargaining strategy backed by strong conventional forces,

if the Soviets had pushed us back, they would prefer to settle for the status quo and retain their gains. We, on the other hand, would want a return to the original boundaries. The closer these two solutions are to one another the easier it would be to reach agreement. In short, a strategy of limited strategic reprisals is not a substitute

for conventional ground forces. Rather, its usefulness depends on having a strong conventional shield that could limit, and if possible prevent, Soviet territorial gains while the bargaining went on... Furthermore, a willingness on our part to leave territory undefended indicates a lack of interest in it that is incompatible with a determination to suffer and inflict heavy punishment on anyone who takes it. (Emphasis added.)⁶⁷

For Read, tactical nuclear weapons ought to be used in ways that paralleled the use of strategic systems. Indeed, it might even be better to use strategic systems for theatre bargaining as command and control problems would be eased (relative to TNF).⁶⁸ The tactical implications for conventional forces were not easy to precisely define; according to Read:

Perhaps the role of nuclear weapons in future ground combat will be to establish ground rules for conventional combat and especially to rule out massive concentrations...

[But] conventional war with troop concentration limited by the nuclear threat is subject to all the ambiguity, arbitrariness, and instability of tactical nuclear war. The limits that the nuclear shadow could impose on conventional war are no more clear or viable than the limits in limited nuclear war.⁶⁹

NATO presented a special case which made the requirements of strategy particularly stringent. For example, Read stated that,

the concept of victory in Europe becomes politically meaningless at high levels of nuclear violence, and even allowing the war to reach such levels is a political defeat for NATO.⁷⁰

Put plainly, nuclear weapons should be weapons of deterrence and reprisal - not weapons for winning a war. The implications for nuclear deployments were described by Read as follows:

If the doctrine is not to play the game of tactical nuclear war, but to concentrate on deterrence and reprisal, there is no requirement for parity, much less superiority, over a spectrum of nuclear weapons. Rather, it is sufficient to have enough total destructive power and enough variety in weapons to carry out reprisals for any level of nuclear attack. This requirement leaves enough flexibility so that the exact distribution and deployment of weapons could take into account considerations such as security from attack, effective command and control, the attitudes of local populations and governments, and arms-control agreements, either explicit or tacit.⁷¹

The relationship between nuclear and conventional strategy is obviously central to many questions about escalation. Kahn wrote a widely read analysis of escalation in 1965, which achieved some notoriety as it allegedly put too much emphasis on the possibility of controlling nuclear escalation. However, Kahn, in his analysis, noted the significance and value of the firebreak between conventional and nuclear operations and advocated a policy of no-first-use of nuclear weapons. Kahn believed that the United States should

not try to get any "positive" benefits from its nuclear weaponry, but be content to use this weaponry only as nuclear deterrence, not attempting to exploit it to redress differences in conventional capability.⁷²

Kahn recognised that firebreaks could be valuable and should not be crossed hastily.⁷³ In any case, Kahn believed that, "there do not seem to be any...very pressing reasons for us to depend on initiating the use of nuclear weapons."⁷⁴ However,

we must not neglect the possibility that a sustained military use of nuclear weapons might present the side that was prepared to fight this kind of campaign with a very large advantage...[T]hat side which is more willing to escalate, and most capable of winning at the higher levels, may have a great advantage.⁷⁵

Kahn was interested in asking: how should escalation be looked at, how could the US manage or use escalatory pressures, and what are the alternatives to looking at escalation? The perspective he offered was that, within the framework of escalation, thresholds are real, important and potentially useful. By the same token the process of escalation, or of threatening or deterring escalation, might be an important instrument of strategy. Accordingly, the ability to dominate or control the process of escalation might lead to political and military advantages. Escalation dominance suggested the need for military superiority; however,

mere military superiority will not necessarily assure "escalation dominance". Escalation dominance is a complex concept in which the military calculations are only one element. Other elements are the assurance, morale, commitment, resolve, internal discipline, and so on, of both the principals and their allies.⁷⁶

Kahn mentioned forty-four levels of superpower conflict, leading up a ladder from "ostensible crisis" to "spasm war".⁷⁷

According to Kahn, limits in warfare might be imposed by escalation dominance. One side in a confrontation might be able to dictate the scope of conflict by its superiority at various hypothetical levels of hostilities. War limitation appeared to require a conceptual framework outlining potential levels of escalation. Within this framework, thresholds might provide reference points for military operations. This idea was taken up by Schelling and married to his earlier work which suggested that war was essentially a bargaining process. This process might be characterised

by the manner in which the nature of particular thresholds (e.g. their salience) could be manipulated.⁷⁸

By the mid-1960s strategy had been equated by some analysts with the idea of bargaining within the framework of potential escalation. The notion of tying bargaining to escalation was used to link deterrence to defence. Questions over this linkage were perhaps sharpest with regard to deterrence and defence in Europe. For Schelling bargaining was - or ought to be - the dominant element in a strategy intended to couple local war with the prospect of central strategic conflict.

According to Schelling, international relations "often have the character of a competition in risk-taking;" an important dimension to military relations was the "manipulation of risk".⁷⁹ The implications for NATO planning were clear: destroying the enemy's forces was a secondary objective, the requirement was to affect his calculations of risk:

Once nuclear weapons are introduced, it is not the same war any longer. The tactical objectives and considerations that governed the original war are no longer controlling. It is now a war of nuclear bargaining and demonstration...

The life expectancy of the local war may be so short that neither side is primarily concerned with what happens on the ground within the next day or two. What each side is doing with its strategic forces would be the main preoccupation. It is the strategic forces in the background that provide the risks and the sense of danger; it is they whose disposition will preoccupy national leaders as much as anything that is going on in Europe itself. It is the strategic forces whose minute by minute behaviour on each side will be the main intelligence preoccupation of the other side.

Limited and localized nuclear war is not, therefore, a "tactical" war. However few nuclears used, and however selectively they are used, their purpose will not be "tactical" because their consequences will not be tactical. With nuclears, it has become more than ever a war of risks and threats at the highest strategic level.⁸⁰

Such bargaining would require local conventional forces. These forces would not be wanted to win a war, but to support nuclear bargaining, to "create and prolong a genuine sense of danger, of the potentiality of general war."⁸¹

D) A continuing debate.

By the end of the 1970s the strategic studies community appeared to be roughly divided into two broad, pluralistic, and overlapping schools of thought - "deterriers" and "warfighters". As shown above, elements of both approaches can be found in earlier writings; however, they became more easily defined during the 1970s. Both were premised on deterrence but each apparently had different views as to how best achieve it. At times the debate between the two was quite heated, it was certainly politically loaded. As Freedman put it: "In the 1970s the strategists became populists",

The strategists, or at least forms of strategic analysis, have appeared on the expert wings of broad political movements rather than as independent servants of policy.⁸²

The "warfighting" school tended to advocate an ambitiously large and flexible US force structure that, when married to suitable doctrine and plans, might enable America to win a general war with the

USSR. Such a posture, it was argued, would be the best means of achieving deterrence. This approach suggested the need to maintain a balance (or preferably superiority) across a range of forces corresponding to different levels on a hypothetical escalation ladder. The "deterriers" on the other hand, associated themselves with Mutually Assured Destruction; they stressed the novel and awesome nature of contemporary deterrence. This, it was suggested, brought into question (a) the need for very large forces, (b) the feasibility of winning a large-scale war, and (c) the realism and desirability of elaborate warplans. The implication was that - given MAD - some asymmetries in force posture between the Soviet Union and the United States were tolerable.

Perhaps the best representatives of these two schools are Brodie and Jervis for the "deterriers", and Nitze and Gray for the "warfighters". Nitze has already been quoted from a 1956 article advocating an early form of flexible response. The need to maintain a spectrum or range of forces able to fight and win a war at various levels of intensity remained a concern for Nitze through the 1970s and into the 1980s. For Nitze, an assessment of projected war outcomes provided a useful guiding principle for force structuring and warplanning. After all,

the objective of military strategy under the circumstances of actual conflict would be to bring the war to an end under conditions less disastrous than other possible outcomes.

Even if it was difficult for the United States to win, it was necessary to disabuse hawkish Soviet planners of the notion that the USSR might be able to win. There was also a need to structure US strategic forces so as to maintain the West's geopolitical position; in particular, strategic forces could "offset Soviet military superiority at the periphery [of the Soviet bloc] and...deter its offensive employment."⁸⁴ Nitze therefore recognised an important linkage between US central strategic forces and American foreign policy and defence goals in Eurasia. An important component of this linkage, according to Nitze, are Theatre Nuclear Forces.⁸⁵ The essence of the argument was that, "any significant level of deterrence left largely uncovered constitutes an invitation to one's opponent to exploit the gap."⁸⁶ In addition to the requirement for plugging as many gaps as possible, such as in TNF, it was important to "always keep in mind that the central task of an effective US defense is to maintain stability and overall equivalence within the intercontinental countervalue and counterforce levels."⁸⁷ One reason for an emphasis on central strategic counterforce was that:

By and large, it can be said that the Soviets look upon a relationship favourable to them at the intercontinental nuclear levels...as being the fulcrum upon which all other means of influence, coercion, or deterrence depend.⁸⁸

Gray echoed many of Nitze's points; one of his premises was that: "One of the essential tasks of the American defense community is to help ensure that in moments of acute crisis the Soviet general staff cannot brief the Politburo with a plausible theory of military

victory."⁸⁹ According to Gray there was a requirement to target the Communist Party's control of the USSR. Deterring the USSR, wrote Gray, requires the prospect of a Soviet defeat, and defeat "has to entail the forcible demise of the Soviet state" - as well as the effective countering of Russian military campaigns.⁹⁰ (Gray also argued that stability might best be assured by Western military superiority.⁹¹) Gray's hawkish views came in for criticism, to which he replied that his critics' analyses were deficient in that they appear "to stop when the buttons are pushed." He continued:

The point of stressing the need for a theory of victory is to provide some overall political integrity to strategic planning - in short, we need a vision of the end game as well as of the opening moves.⁹²

The provision of "some overall political integrity to strategic planning" sounded like an attempt by Gray to invoke Clausewitz. Indeed, the "warfighters" tended to lay claim to being proper strategists, while suggesting that their critics were essentially astrategic.

But the "deterriers" could also draw on Clausewitz. Brodie, for example, wrote that:

On the simple Clausewitzian premise...that a war must have a reasonable political objective with which...military operations must be reasonably consonant, we have to work back from the assumption that "general war" with the thermonuclear weapons must never be permitted to begin...

Clausewitz's meaning, which is in fact basic to everything that one thinks about nuclear deterrence...amounts to the idea that war would be only senseless destruction if it were not in pursuit of some valid political objective. It is precisely the fact that one finds it difficult if not impossible to find a valid political objective that would justify the destruction inevitable in a strategic nuclear exchange that makes the whole concept of nuclear deterrence credible.⁹³

Brodie and Jervis believed that nuclear weapons could deter not only full scale nuclear war but also armed conflict that seemed likely to lead to such wars. In short, there was little need to be superior at every level of potential conflict.

In the late 1970s strategic debate in the United States spilt-over (not for the first time) into Europe. What started as a debate over the warfighting/deterrent role of central strategic systems and the implications of parity for extended deterrence, became mixed up with the modernisation of NATO TNF and settled into questioning of the Alliance's policy of possible first-use of nuclear weapons.

E) The strategic studies literature and the nuclear threshold in Europe

As the previous sections have shown, the defence of Western Europe has attracted much attention from analysts. It is no coincidence that it is in Europe where the linkage between nuclear and conventional forces is seen as a critical defence planning issue. As former US Defense Secretary McNamara has stated: "Questions of the military utility of nuclear weapons are addressed most realistically in the context of the possibility of warfare in Europe."⁹⁴

Debate on the nuclear threshold in Europe has usually turned on the nature, feasibility, credibility and desirability of the NATO threat to use nuclear weapons first in response to a Warsaw Pact conventional invasion. Concern over the NATO policy of possible first-use of nuclear weapons goes back a long way. For example, it was a source of worry in the Kennedy administration of the early 1960s. Attempts were then made to raise the nuclear threshold by strengthening conventional forces. More recently, the controversy over the TNF modernisation decisions of the late 1970s sparked off a renewed debate. The entrenched nature of NATO's first-use option attracted a good deal of attention:

The concept of [first-use]...has become so imbedded in NATO doctrine and military posture, and has acquired such supposed sanctity in the US-Allied relationship that it is too sensitive a subject for official analysis by the US government...The government never has and probably never will seriously analyse the No First Use issue. Thus, any serious, honest analysis must be initiated and conducted outside the formal government structure.⁹⁵

One of the first articles in this renewed debate was written by Iklé in 1980. Iklé focussed on the politically corrosive effects of NATO's reliance on first-use, particularly as it might affect the Alliance in a crisis. According to Iklé, conventional war could

...bring into consciousness the terror of nuclear war. Enormous pressures would be mobilized and brought to bear on government leaders...to avoid at almost any price the risk of large-scale nuclear war.

[This] could shatter the political foundations of NATO. The long standing reliance of NATO governments on the nuclear back-up to a conventional defense would suddenly turn from an asset into a liability...Far from bolstering a full-scale conventional defense, NATO's nuclear threat of "first use" could turn inward to unravel the Alliance in the hour of crisis.⁹⁶

What was needed was to "make more out of the deterrent effect of a conventional defense".⁹⁷ The role of TNF could then be narrowed to the deterrence of a Soviet nuclear attack rather than the broader and more demanding deterrence of a Warsaw Pact conventional invasion.

Another important contribution to the debate was made by four prominent former American defence officials (Bundy, Kennan, McNamara, and Smith) in 1982. Their starting point was that,

no one has ever succeeded in advancing any persuasive reason to believe that any use of nuclear weapons, even on the smallest scale, could reliably be expected to remain limited. Every serious analysis and every military exercise, for over 25 years, has demonstrated that even the most restrained battlefield use would be enormously destructive to civilian life and property...Any use of nuclear weapons in Europe...carries with it a high and inescapable risk of escalation into the general war which would bring ruin to all and victory to none.⁹⁸

There was therefore a perceived need to move away from reliance on nuclear weapons to deter or defeat a conventional attack. It was argued that this reliance on nuclear threats was dangerous and incredible: Who would really carry the threats out, and who would believe that they would? Increased emphasis on conventional forces would help deterrence, crisis management and nuclear planning.⁹⁹

Indeed, the idea that improved conventional forces could substitute for some nuclear forces and missions spawned a separate genre in the strategic studies literature.
100

McNamara continued the debate in 1983 with another article in Foreign Affairs. Once again the argument was made that the US strategic nuclear umbrella over Western Europe was incredible and thus unreliable as a deterrent.¹⁰¹ And, McNamara continued, it was not at all clear that a doctrine and posture for limited theatre nuclear war could help the Alliance.¹⁰² Moreover, NATO plans for first-use might encourage Soviet pre-emption.¹⁰³ But the main point for McNamara was that "nuclear weapons serve no military purpose whatsoever. They are totally useless - except only to deter one's opponent from using them."¹⁰⁴

The case for maintaining a NATO first-use option, as articulated in the literature, rests largely on the arguments that (a) it lowers the probability of war breaking out, (b) that it is necessary to keep the Alliance together, and (c) that the West cannot defend itself with conventional forces only. These arguments were made in an article specifically written to counter the points outlined by the American "Gang of Four" quoted above. Significantly, this rejoinder was formulated by West German thinkers on defence issues. These defenders of the first-use option opined that, "what matters most is to concentrate not only on the prevention of nuclear war, but on how to prevent any war, conventional war as well."¹⁰⁵ The authors stressed the "war-preventing effect of nuclear weapons."¹⁰⁶ This argument was based on the idea that:

Wherever nuclear weapons are present, war loses its earlier function as a continuation of politics by other means...

The coupling of conventional and nuclear weapons has rendered war between East and West unwageable and unwinnable up to now.¹⁰⁷

In any case, according to these Europeans, advocates of no-first-use

considerably underestimate the political and financial difficulties which stand in the way of establishing a conventional balance through increased armament by the West...[And] there would always be the possibility...that, despite no-first-use, conventional war could in an advanced phase degenerate into nuclear war.¹⁰⁸

Earlier, in 1966, Brodie had also criticised attempts made to raise the nuclear threshold. Brodie outlined the possible advantage of a first-use posture in stopping a crisis or conflict in its tracks. He argued that: "We are interested...in tactical nuclear weapons primarily as a deterrent and, if they fail in that function, as a de-escalating device."¹⁰⁹ Among other things this required that:

For the sake of deterrence, and also to reassure our allies, it would seem appropriate to relate flexibility of response to discrimination of enemy intent.¹¹⁰

According to Brodie a massive attack would deserve a nuclear response.¹¹¹ And to defer nuclear use to the stage of large scale conventional war,

would be the best way to ensure that if nuclear weapons were indeed used they would be used on a large and extremely destructive scale rather than on a controlled demonstration scale.¹¹²

A lesser attack needed to be stopped from escalating, and, for Brodie, "The control of escalation is an exercise in deterrence".¹¹³ Nuclear

threats might dampen-down adventurism. No-first-use, on the other hand, had problems in this regard:

One of the great drawbacks of following the so-called firebreak theory is that the more that confidence in the firebreak is built up, the less is each side restrained from committing larger and larger conventional forces within the limits of its capabilities. In other words, the effect is to stimulate escalation on the conventional side of the barrier...¹¹⁴

Moreover, at high levels of conventional conflict the nuclear threshold could be under greater strain than at lower levels.¹¹⁵ Building up conventional forces did not therefore automatically translate into a raising of the nuclear threshold,

one cannot get away from nuclear weapons so easily. And because one cannot, their existence poses certain compensatory advantages that might as well be accepted.¹¹⁶

Brodie rejected the idea that parity had neutralized nuclear weapons, sealing them off from wider issues of international relations (such as the balance of power in Europe):

[One hears the idea that] nuclear weapons, being as obviously unfit for military use, have become effectively "decoupled" from diplomacy. They may be effectively decoupled from many kinds of problems that traditionally concern diplomatists, but hardly from problems concerning war and peace.¹¹⁷

One implication of this was that nuclear weapons helped to deter wars - any wars - that were likely to escalate to nuclear catastrophe. In

short, they helped to deter conventional war between the superpowers, especially where vital national interests are at stake, as in Europe.

F) Summary: academic strategists and the nexus between nuclear and conventional strategy.

The analytical insights provided by the strategic studies literature into the relationship between nuclear and conventional strategy are illuminating but limited. Generally speaking, the nuclear-conventional nexus has been implicitly central to the work of the authors quoted here, but it has rarely been salient in their writings. The importance of the linkage between nuclear and conventional forces is inferred in many analyses, rather than drawn-out; it is often a matter of vague assumption rather than close examination. General concepts (like signalling, bargaining, escalation, and thresholds) have been developed which are potentially inclusive of this nexus; but analyses have not often focussed on the details of this linkage.

Nevertheless, some analysts have indeed attempted to grapple with various aspects of the relationship between nuclear and conventional weapons. For example, Schwartz has examined how this relationship is largely rooted in the politics of the Atlantic Alliance.¹¹⁸ Charles has attempted to assess the relationship as it operates at the level of warplanning.¹¹⁹ Some potential "inadvertent" wartime interactions between nuclear and conventional forces have been suggested by Posen.¹²⁰ On a related level, Bracken claims that inadequacies in command and control would almost inevitably lead to the semi-automatic

escalation of conventional war in Europe to nuclear conflagration.¹²¹ Another source of study on the nuclear-conventional nexus has been analyses of Russian military doctrine; it has been suggested that this nexus is central in Soviet thinking on war.¹²² Questions about the linkage between nuclear and conventional forces can easily turn on concepts of escalation and thresholds. Attempts have been made by, for example, Freedman and Williams to relate these concepts to current policy issues.¹²³ One such issue has already been discussed: the calls, by commentators like McNamara, for improved conventional defences to raise the nuclear threshold. An alternative perspective has been provided by Cotter: he advocates a strategic synergism to be based on strengthened conventional defences and large numbers of modernised TNE, together with an "integrated concept of operations for nuclear and conventional forces."¹²⁴ The notion of integrated operations has been taken to extremes by, for example, Rose, who seems to treat nuclear weapons as little more than an improved form of artillery.¹²⁵

Each of these analysts have attempted to tackle particular aspects of the nuclear-conventional nexus. Their ideas will re-surface in the following chapters. For the moment though, it seems that we cannot move much beyond the statement made over twenty-five years ago by Snyder:

Two balancing systems - the strategic balance of terror and a truncated tactical balance of power - now operate simultaneously, each according to different criteria, but interacting in various ways which are not yet thoroughly understood.¹²⁶

As described above, different analysts have different opinions as to what these criteria are and to the nature of the interactions between them. Attempts to fill-out the kind of framework outlined by Snyder have included: Nitze's concern over possible gaps in the spectrum of deterrence (defined largely in terms of a series of levels of tactical balances); Brodie's emphasis on the pervasiveness of the balance of terror (where tactical imbalances are not necessarily accorded much importance); Schelling's treatment of bargaining (which makes the manipulation of risk more important than military operations as traditionally understood); and McNamara's attempt to enforce a conceptual and physical separation between nuclear and conventional military forces.

There is at least one other important element which needs to be added to this framework. This is the political context of defence decision making. The political basis of American and NATO defence planning needs to be brought into the analysis. The literature which deals with the political dimension of strategy is, compared to many of the works described above, less abstract, less rigorous in logic, and less conceptually elegant. But it is probably more to the point. The incorporation of the political dimension shifts the analysis away from generalised abstract principles or statements to an examination of the historical and bureaucratic processes behind politico-military decision making. Such a shift probably moves us away from establishing a lean and uncluttered conceptual framework for the

analysis of the nuclear-conventional nexus. There are probably too many variables to be contained within such a framework.

Nevertheless it would be wasteful to disregard the work of the "classical" nuclear-age strategists. In any case, partial insights can be valuable and may provide useful, if limited, analytical tools. Moreover, as Rapoport has stated, "the nature of war is itself to a large extent determined by how man conceives of it."¹²⁷

In summary, it can be seen that the efforts of academic strategists have described, and helped to mould, an evolving strategic environment marked by the following:

1. Wide acceptance of the general and vital importance of nuclear deterrence.
2. The importance of geopolitical factors and conventional military forces in setting the context for military confrontation, notwithstanding the salience of nuclear deterrence.
3. The focus on extended deterrence as a reference point for strategic analysis and debate.
4. The use of concepts of limited war in an attempt to inject some rationality into the use of force (even between the superpowers using nuclear weapons).
5. The use of concepts of escalation, thresholds and bargaining to help describe - and prescribe - the risks, threats, and opportunities faced by political decision makers and military planners.
6. Uncertainty as to how the above points converge. In particular, uncertainty as to the precise role and nature of the linkage between nuclear and conventional military power.

NOTES

- 1 Bernard Brodie, The Absolute Weapon: Atomic Power and World Order (Harcourt Brace, 1946), pp. 23, 52.
- 2 Ibid., p. 16.
- 3 Ibid., p. 17.
- 4 Ibid., p. 74.
- 5 Ibid., pp. 76, 77.
- 6 Ibid., p. 81.
- 7 Ibid., p. 52.
- 8 Ibid., p. 83.
- 9 Ibid., p. 86.
- 10 Ibid., p. 85.
- 11 Ibid., p. 85.
- 12 Ibid., p. 92.
- 13 William Borden, There Will Be No Time (Macmillan, 1946) p. 64.
- 14 Ibid., p. 64.
- 15 Ibid., pp. 69, 71, 72, 73.
- 16 Ibid., p. 84.
- 17 Ibid., pp. 161, 164.
- 18 Lawrence Freedman, "Indignation, influence and strategic studies" (Inaugural Lecture), International Affairs, Spring 1984.
- 19 Paul Nitze, "Atoms, Strategy and Policy", Foreign Affairs, January 1956, pp. 188, 189.
- 20 Ibid., pp. 189-191.
- 21 Ibid., p. 192.
- 22 Ibid., p. 196, emphasis added.
- 23 Ibid., p. 195.
- 24 Ibid., p. 198.

- 25 Robert Osgood, Limited War: The Challenge to American Strategy (University of Chicago Press, 1957), p. 26.
- 26 Ibid., p. 24.
- 27 Ibid., p. 24, 25.
- 28 Ibid., p. ix.
- 29 Ibid., p. 7.
- 30 Ibid., pp. 235, 237.
- 31 Ibid., pp. 236.
- 32 Ibid., pp. 248, 252.
- 33 Ibid., pp. 257-259.
- 34 Ibid., pp. 260, 261.
- 35 William Kaufmann (ed.), Military Policy And National Security (Princeton University Press, 1956), p. 26, 33.
- 36 Ibid., p. 29.
- 37 Ibid., p. 107, emphasis added.
- 38 Ibid., p. 112.
- 39 Ibid., p. 113.
- 40 Henry Kissinger, Nuclear Weapons and Foreign Policy (Harper, 1957), p. 131.
- 41 Ibid., p. 175.
- 42 Ibid., p. 179.
- 43 Ibid., p. 180.
- 44 Ibid., p. 185.
- 45 Ibid., p. 189.
- 46 Ibid., p. 190.
- 47 Ibid., p. 228.
- 48 Thomas Schelling, The Strategy of Conflict (Oxford University Press, 1960), p. 187.
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CHAPTER THREE

UNITED STATES AND NATO WAR PLANNING 1945-1976

THE EVOLUTION OF THE NUCLEAR-CONVENTIONAL NEXUS

A) Introduction

This chapter describes the development of American and NATO warplanning from the end of the Second World War to the beginning of the Carter administration's term of office. The first part of the chapter is organised chronologically into five sections. Each section covers an important stage in the evolution of Alliance warplanning: "The strategic background to the formation of NATO, 1945-1949"; "The establishment of NATO's military machine, 1950-1953"; "massive retaliation, 1954-1960"; "The move to flexible response, 1961-1965"; and "The development of flexible response, 1966-1976". Each of these sections describes the political context of planning, shifts in planning, and a brief summary of the doctrinal implications for the nexus between nuclear and conventional forces. The chapter ends with a discussion of some of the major themes in United States war-planning and an outline of the doctrinal inheritance of the mid-1970s.

B) The Strategic Background to the Formation of NATO 1945-1949

After the defeat of Nazi Germany in 1945 the American military was firmly established in western and central Europe, but its leaders had little idea of United States long-term policy goals regarding the

Continent. If strategy is the matching of military forces to political objectives, it can be argued that the US had no developed strategy at the end of 1945.

The post-war American move towards a policy of the containment of Soviet power was gradual; it represented an evolution of ideas about the balance of power, its applicability to the real world, and how to translate it into foreign and defence policy. Thus there was no "Year Zero" for United States military planning for war against the USSR.

Since the US lacked a single well-defined long-term perspective at the time, the American strategic position in Europe was dominated by immediate concerns. High on the list here were the prospect of European economic and possibly political collapse, occupation duties, and policy towards the country's erstwhile allies. In practice this meant that American strategic thinking was focused on formulating policy toward Germany, the UK, and the Soviet Union; in Asia, the parallel concerns were with Japan, areas under allied colonial rule, and the Chinese civil war. Broader foreign policy questions were related, most clearly in the issue of possible American support for European recovery. In the background were important domestic political issues that were directly relevant to American options overseas - such as pressures for prompt demobilisation.

Post-war US demobilisation was rapid. In June 1945 American armed forces stood at twelve million, by June 1946 they had been reduced to three million, and by June 1947 the figure was one and a half million. The respective numbers for ground forces were six

million in 1945, one and a half million in 1946, and six hundred thousand in 1947.¹ This demobilisation was possible because in the early post-war period there was no real, immediate, Soviet military threat to Western Europe, and no formal US security guarantee to the region. The most pressing problems in the area had more to do with economics and politics. It was not at first clear how, if at all, US military power was directly relevant to the resolution of the deep political crisis facing Europe. The preferred American instrument for tackling this crisis, and so provide a long-term solution to the European power vacuum, was economic policy. These politico-economic issues are beyond the scope of this chapter and will not be examined in detail here. The point to be made though is that early American warplanning must be placed into context: the first "warplans", of 1945 and 1946, were little more than superficial planning exercises lacking high political direction. In addition much of this planning was directed at projected or future threats and was based on hoped-for future force levels.

Uncertainty over political developments aside, the Soviet Union had been identified as a potential danger to the West by the end of the Second World War. However, the US military "had no fixed policy regarding the possibility of future war with the Russians", (nor did they have firm ideas about the role of the atomic bomb).²

It was not until 1947 that a firmer pattern of superpower antagonism emerged. The deepening of the Cold War was associated with, among other things, the American stake in Europe, reflected in its concern for the establishment of a balance of power on the

Continent. The focus was on US support of a weak and disorganised Western Europe apparently threatened by Soviet military intimidation and political warfare. By the end of 1947 the political hostility of the Cold War was being translated into serious warplanning, although the emphasis remained on possible future threat rather than immediate danger of invasion. The geopolitical basis for this planning was outlined in NSC 20/4 on 23 November 1948:

Soviet domination of the potential power of Eurasia, whether achieved by armed aggression or by political and subversive means, would be strategically and politically unacceptable to the United States.³

Eventual US military commitments to Europe arose out of a mix of factors. These included a negative view of the USSR, ideological and geopolitical competition, occupation responsibilities (centred in Western Germany and Berlin), and inchoate British attempts to establish a strategic framework for Western security. These factors sometimes converged - as in the 1948 Berlin crisis.

The US was linked to Europe by its close relationship with the United Kingdom, as well as its pivotal role in European recovery and its occupation duties. By 1943-44 the British war effort was largely integrated into the American war machine. This strategic integration was paralleled by British economic weakness and underpinned by American economic and military strength. Obviously the relationship was not equal; as one historian has noted, Britain was reduced to the status of a "warrior satellite" of the United States.⁴ At the end of the war in 1945 the UK was the strongest country in Europe, excepting

the USSR. But its economy was virtually exhausted and it is doubtful whether its Great Power status could have been sustained independent of - let alone in opposition to - American policy.

It was within this context that the Anglo-American link became a significant post-war strategic axis. Coalition warfare was an important element in American politico-military thinking. But at the end of 1945 the wartime alliance between the US and the UK amounted to little more than a shared interest in occupation and general concern with European recovery. Moreover, American policy towards the UK was ambivalent. There was little interest in giving Britain a blank cheque - especially if this meant underwriting British imperial ambitions; nor was there much eagerness to blindly accept British prescriptions on a balance of power in Europe. On the other hand, there was the (largely dormant) Combined Chiefs of Staff, a large British Joint Staff Mission in Washington, the Quebec agreement on nuclear weapons-use, and a conscientious effort by the British Foreign Secretary to entangle the US in European defence. There was also a recognition in the US Joint Chiefs of Staff (JCS) that, with Britain reduced to a second class power, America could no longer take a "free ride" in security.⁵

Thus the links between the UK and America were, eventually, important in terms of setting Western strategy along a particular direction. (This can be illustrated by noting the developments arising out of the Greek Civil War and the Western European Union.) According to Rosecrance, when it came to practical politics neither the US nor the UK "conceived of fighting a major conflict without the

assistance of the other" and, according to the same analyst,

Once developed...the Anglo-American alliance became a crucial reference point for both countries. Military strategy came to be considered within the context of alliance.⁶

Or as one commentator said in 1950, "If the Anglo-American alliance should be dissolved, every military plan in the Pentagon would have to be torn up."⁷

But, until the Korean war at least, American perceptions of the Soviet threat were essentially political rather than military in character. However, it was believed that a feeling of military imbalance on the Continent might help destabilise West European States. This suggested the need to reassure Europeans that America would somehow counterbalance the power of the USSR. It was this diagnosis that underlay the formation of NATO. As the Policy Planning Staff of the US Department of State put it in November 1948:

basic Russian intent still runs to the conquest of Western Europe by political means. In this program, military force plays a major role only as a means of intimidation.

The danger of political conquest is still greater than the military danger...The political war, is now in progress; and, if there should not be a shooting war, it is this political war which will be decisive.

A North Atlantic Security Pact will affect the political war only insofar as it operates to stiffen the self-confidence of the Western Europeans in the face of Soviet pressures.

We should have clearly in mind that the need for military alliances and rearmament on the part of the Western Europeans is primarily a subjective one, arising in their own minds as a result of their failure to understand

correctly their own position. Their best and most hopeful course of action, if they are to save themselves from communist pressures, remains the struggle for economic recovery and for internal political stability.⁸

NATO was created to "clarify American intentions regarding any Soviet attempt to change further the European balance of power."⁹ The US was formalising a political commitment, it was not committing itself to a particular strategy.

Even so, Congress had demanded the formulation of an Alliance "Strategic Concept" as a condition of US membership of NATO. The resulting document, known as DC 6/1, was entitled "Strategic Concept for the Defence of the Atlantic Area". One of the "principles" outlined was that,

North Atlantic Treaty planning should be that each nation should undertake the task, or tasks, for which it is best suited. Certain nations, because of the geographic location or because of their capabilities, will be prepared to undertake appropriate specific missions.

The "basic undertakings" of DC 6/1 expanded on this and included,

Insure the ability to carry out strategic bombing promptly by all means possible with all types of weapons, without exception. This is primarily a US responsibility assisted as practicable by other nations.

Arrest and counter as soon as practicable the enemy offensive against [NATO] by all means available, including air, naval, land and psychological operations. Initially, the hard core of ground forces will come from the European nations.¹⁰

The "Strategic Concept" was a little vague. This had something to do with its dependence on United States warplanning which was both

highly classified and in a state of evolution. It is now necessary to examine these plans in more detail.

By 1945 the US JCS had settled on deterrence as the basis for future planning; this required the maintenance of forces and the will to use them in order to prevent a war from breaking out. The JCS had also suggested the advantages of extensive global involvement; there was a need for "the maintenance of world peace, under conditions which insure the security, well being and advancement" of the US.¹¹ Another premise of the planning developed more slowly, but nonetheless clearly; this was the identification of the USSR as a plausible potential enemy.

As early as 1945 the US had a plan for war with Russia called "Totality";¹² however, it bore no real relation to available forces. Also in 1945, an American study entitled "Strategic Vulnerability of Russia to a Limited Air Attack" was produced which speculated on an atomic bomb attack against twenty Soviet cities.¹³

The emphasis on airpower, deterrence, and a world role pointed to a requirement for an extensive network of forward airbases. For one thing, a key American policy was to "fight our wars if they be necessary, in someone else's territory."¹⁴ As early as 1943 plans had been started on outlining future base requirements, these plans were incompletely up-dated in 1945.¹⁵

The first "Joint Basic Outline War Plan" was received by the JCS in April 1946. This "Outline" was called "PINCHER"; it was intended

to provide guidance for further planning. PINCHER was followed by work on BROILER, CHARIOTEER, BUSHWACKER, and FROLIC.¹⁶ In due course the development of US warplanning was aided by administrative changes.

Three categories of planning were established: **emergency** (capable of immediate implementation); **intermediate** (partly a budgetary and administrative category); and **long-range** (used to identify and help mould trends).¹⁷

High level guidance for warplanning was provided in NSC-30 ("Policy on Atomic Warfare") in September 1948 and NSC 20/4 ("US Objectives with Respect to the USSR to Counter Soviet Threats to US Security") in November of the same year. NSC-30 suggested some of the uncertainties of warplanning during the nuclear age, as well as the importance of matching military means to political considerations:¹⁸

The circumstances prevailing when war is joined cannot be wholly forecast with any greater certainty than can the arrival of war. It appears imprudent either to prescribe or to prohibit beforehand the use of any particular weapons when the character of future conflict is subject only to imperfect prediction. In this circumstance, a prescription preceding diagnosis could invite disaster.

If war itself cannot be prevented, it appears futile to hope or to suggest that the imposition of limitations on the use of certain military weapons can prevent their use in war.

The time and circumstances under which atomic weapons might be employed are incapable of accurate determination prior to the evident imminence of hostilities. The type and character of targets against which atomic weapons might be used is primarily a function of military selection in the preparation and planning of grand strategy. In this case, however, there is the additional requirement for blending a

political with a military responsibility in order to assure that the conduct of war, to the maximum extent practicable, advances the fundamental and lasting aims of U.S. policy.

The conclusions of NSC-30 were a little ambiguous but did recognise the need to plan for nuclear war:

It is recognised that, in the event of hostilities, the National Military establishment must be ready to utilize promptly and effectively all appropriate means available, including atomic weapons, in the interest of national security and must therefore plan accordingly.

The decision as to the employment of atomic weapons in the event of war is to be made by the Chief Executive when he considers such decision to be required.

In the light of the foregoing, no action should be taken at the present time:

- a. To obtain a decision either to use or not to use atomic weapons in any possible future conflict;
- b. To obtain a decision as to the time and circumstances under which atomic weapons might or might not be employed.

NSC 20/4 referred to American interests in eliminating Soviet domination in "areas outside the borders of any Russian state allowed to exist after the war" and in drastically reducing the military potential of any such remnant state.¹⁹

Early American warplans, partly developed from the PINCHER 'Outline' series, called for a withdrawal from Western Europe and a nuclear offensive against the USSR from airbases in the UK, Okinawa and the Cairo-Suez or Karachi areas. After some months the US was expected to take the offensive in ground operations. Not all American planners were happy about this sort of thinking. One senior American

admiral judged the plan as "completely at variance with US foreign policy and national objectives." As the official historian explains, Admiral Denfield believed that the plan was flawed because it exaggerated Soviet strengths, virtually conceded Western Europe and the Mediterranean, and left the Middle East vulnerable. The admiral advocated holding a defence line along the Rhine.²⁰

Indeed, it appears that warplanning and guidance may have been critically inadequate where it was most needed. For example, in the 1948 Berlin crisis, General Clay warned that conflict could arise with "dramatic suddenness",²¹ yet at the time there was apparently no NSC policy paper dealing with the occupied city. Moreover,

During the critical phase of the Berlin Blockade, when we were nose to nose with massive Soviet military power, the JCS were so poorly advised that we could not draw contingency plans.²²

It seems that the only developed US Army plan for war in Europe was "Operation Doublequick" - an evacuation from the Continent.²³ The crisis over Berlin was a factor behind the tightening-up of warplans.

The attempt to draft a unified warplan during 1948 led to "the bitterest interservice war in [US] history."²⁴ Problems arose over the level of Army readiness required, the appropriate size of the Air Force, and the contribution to be made by Naval airpower. The plan that came out of this was called HALFMOON (and, later, FLEETWOOD/DOUBLESTAR). According to Bradley, this was the "first formal and comprehensive enunciation" of what later became known as

"massive retaliation".²⁵ As he describes it, the plan took the following form:

If Russia launched all-out war, its huge Army overrunning Western Europe (as we assumed), we would respond by dropping atomic bombs on the Soviet homeland... with the aim of destroying the Soviet government and breaking the Kremlin's will to wage war... Air Force Studies had suggested that 133 atomic bombs dropped on seventy Soviet cities would be required. Since we then had only about fifty bombs, the plan was to launch the strategic air attack against Russia on D plus 9 with twenty-five bombs, follow up with another twenty-five then continue the attack with bombs coming right off the production line.

The Army's role in Halfmoon was to support the strategic air offensive. Our main job would be to protect our air bases at home and abroad... and in order to prevent "one-way" Soviet bombing attacks on the United States, deny the Soviets potential air bases in Greenland, Iceland, Spitsbergen, Alaska and Azores. (It was assumed that British ground forces would protect air bases in Britain and Egypt.) Much later, following a World War II-type general mobilization, the army would occupy Western Europe and Russia in order to help restore law and order and stable governments.²⁶

With regard to potential allies, HALFMOON was quite candid; it stated that the plan "does not provide adequate assistance to the countries of Western Europe..."²⁷

In August 1948 a decision was made by US officials to "more closely integrate" HALFMOON with European efforts (earlier, in July, US B-29 bombers were forward based to the UK).²⁸ This followed the formation of the European "Brussels Pact" and the Senate passing of the Vandenberg Resolution calling for,

the association of the United States by constitutional process with such regional and other collective arrangements as are based on continuous and effective self-help and mutual aid and as effect its national security.²⁹

American 'observers' were posted to the Western Union Defence Organisation (essentially an Anglo-French alliance based on the Brussels Pact) during 1948.³⁰ The European position was that,

...In the event of an attack by Russia, however soon it may come, the...powers are determined to fight as far east in Germany as possible. If Russia overruns the countries of Western Europe, irreparable harm will be done before they are liberated, owing to the Russian policy of deportation and pillage. Their preparations are therefore aimed at holding the Russians on the best position in Germany covering the territory of the five powers in such a way that sufficient time for the American military power to intervene decisively can be assured.³¹

However, the US did not give the Europeans (except, to some extent, the British) details of American plans. As noted above, US planners believed that the prospects of holding a forward line in Europe were bleak.

At the beginning of 1949 HALFMOON was superseded by TROJAN. The new plan expanded on the strategic bombing offensive by including, in an annex, a target list of seventy Soviet cities; first priority was given to twenty of these cities.³² This plan was followed by work on OFFTACKLE at the end of January 1949. OFFTACKLE tried to incorporate more of an emphasis on coalition war. It called for the holding of a bridgehead in Western Europe, if possible on the Rhine - although the feasibility of this was still in doubt. The plan represented a "Europe-first" strategy but had a strong fall-back position in the Western Hemisphere and oceanic fringes.³³

After consultation with the Canadians and British, OFFTACKLE was approved in December 1949. It was "the first strategic plan to be based on political guidance from the National Security Council".³⁴ In the plan the objectives of the strategic air offensive were "broadened and made more ambitious". The official historian has stated that:

OFFTACKLE also included, as a new objective, the "retardation" of Soviet advances in Western Europe...The new targeting plan, which had been prepared by the Air Force, was aimed at accomplishing the following objectives: disruption of controls of the Soviet Government over its people; undermining the will of the Soviet Government and people to continue the war; and disarming of the Soviet armed forces. These objectives were to be achieved by inflicting critical damage on petroleum refineries, electric power plants, submarine construction facilities, high octane aviation gasoline production facilities, and other war-supporting industries...the strategic air operations were expected to retard the Soviet advance into Western Europe by curtailing supplies of petroleum products, aircraft engines, tanks, self-propelled guns, and other items. Loss of most new production of these materials, plus the disruption of mobilization and a possible loss of morale, would force the Soviet High Command to reassess the strategic situation with immediate though unpredictable consequences for current military operations.³⁵

OFFTACKLE was superimposed onto the prior planning efforts of the Brussels Pact, hence the inclusion of the possibility of holding some ground.

Despite the projected massive bombing of the USSR it was still considered that large conventional forces would be required to hold or retake territory. This is clear from a reading of DROPSHOT - a plan

developed in 1949 for war in the mid-1950s.³⁶ Deciding on the balance between nuclear and conventional forces, and the linkage between them, was a central doctrinal question which had not yet been conclusively answered.

In 1945 there was no consensus in American military circles as to how to interpret the doctrinal inheritance of the previous years of total war. Debate over strategy often paralleled service prejudices and frequently turned on the impact of technology - particularly airpower and atomic bombs. The most technologically advanced war to date had not obviated the requirement to take and hold ground with mass armies. It was not clear that atomic bombs would change matters radically in this regard. It was not self-evident whether or not the nuclear revolution had precipitated an immediate strategic revolution.

Right from the start nuclear weapons were closely associated with airpower, which had its own highly polemical advocates (the army would not get nuclear weapons until the 1950s). The experience of Hiroshima and Nagasaki was used to bolster pre-existing dogma about the efficacy of strategic bombing. There was also a, perhaps inflated, belief in the importance of conventional bombing to the defeat of Germany. The rapidly developing independent US airarm could call upon a history of ideas, wartime experience, and new prospects to rationalise an emphasis on their own role at the expense of the other services.

The picture was complicated because it was not precisely clear how the demolition of enemy cities would affect the outcome of a battle for Western Europe. The linkage between strategic bombing and theatre ground campaign might - at least in the critical early phase - be tenuous.

For a number of reasons much of the defence planning during this period concentrated on conventional forces. First, many of the interservice and budgetary disputes involved conventional force-sizing. Second, the stockpile of atomic bombs was small (two at the end of 1945, nine in 1946, thirteen in 1947, and fifty in 1948).³⁷ In addition, the means and accuracy of atomic bomb delivery were limited and targeting intelligence was crude. According to a 1948 US Army study the "atomic warfare age" was not then a reality. Such an age was defined as,

arriving when two or more nations have available to them a significant [100-200] quantity of atomic bombs, together with suitable means of delivery.³⁸

Third, details of the atomic weapons arsenal were highly classified. Fourth, there was a poorly articulated need for the flexibility and hedge provided by conventional forces. Fifth, even exponents of atomic airpower usually saw a need for some conventional forces, albeit in a supportive role. Notwithstanding the polemics associated with some airpower advocates there was a broad consensus for some troops on the ground - although whether, in the long run, they should be American troops on European ground was another matter.

A 1945 report on the implications of nuclear weapons noted that such weapons did not allow "elimination of the conventional armaments or major modifications of the services that employ them".³⁹ By 1949 SAC was envisaging the devastation of 70 urban-industrial target areas in the Soviet bloc within 30 days; a second phase of bombing would then follow. According to the "Harmon" report, this sort of attack would "probably" affect the Soviet war effort.⁴⁰ From the perspective of US security the "advantages" of early use of nuclear bombs was thought to be "transcending". Even so, this report argued that:

The atomic offensive would not, per se, bring about capitulation, destroy the roots of Communism or critically weaken the power of Soviet Leadership to dominate the people.

Large conventional forces would still be needed to hold a defence line:

The capability of Soviet armed forces to advance rapidly into selected areas of Western Europe, the Middle East and Far East, would not be seriously impaired, but capabilities thereafter would progressively diminish.⁴¹

The limited utility of nuclear weapons was also recognised by American allies. Rosecrance has noted that,

it seemed wholly unlikely that the atomic bomb could determine the outcome of a conflict with Soviet Union. The British Chiefs were quite aware that a land invasion of Europe could only be staunched by troops in the field.⁴²

C) Establishing and Supporting NATO's Military Machine 1950-1953

By 1950 NATO "embodied a degree of military collaboration that was unprecedented among peacetime conditions".⁴³ One reason for the relatively close US collaboration with Western Europe was outlined by Acheson in May 1950:

We cannot scatter our shots equally all over the world. We haven't got enough shots to do that...If anything happens in Western Europe the whole business goes to pieces, and therefore our principal effort must be on building up the economic strength of Western Europe, and so far as Asia is concerned, treating that as a holding action...⁴⁴

The outbreak of the Korean war in June 1950 served as a powerful catalyst for the bolstering of NATO.⁴⁵ However pressure for a more assertive American posture and a more effective Alliance had been building up before the North Korean invasion. For example, NSC-68 (often seen as a militant codification of Cold War and Containment) was formulated before the Communist attack, although it was approved after it. NSC-68's "main purpose" was to,

impress upon its bureaucratic readership the Soviet threat to world peace, best blocked through increased military preparedness in the non-Soviet world.⁴⁶

This military build-up was to emphasise conventional forces, although not at the expense of a continued increase in nuclear weaponry. NSC-68 also alluded to an early form of flexible response and implied the need to move away from automatic large-scale atomic bombing of the USSR:

If we do not in the application of force demonstrate the nature of our objectives we will, in fact, have compromised from the outset our fundamental purpose. In the words of the Federalist (No. 28) "The means to be employed must be proportioned to the extent of the mischief". The mischief may be a global war or it may be a Soviet campaign for limited objectives. In either case we should take no avoidable initiative which would cause it to become a war of annihilation, and if we have the forces to defeat a Soviet drive for limited objectives it may well be to our interest not to let it become a global war. Our aim in applying force must be to compel the acceptance of terms consistent with our objectives, and our capabilities for the application of force should, therefore, within the limits of what we can sustain over the long pull, be congruent to the range of tasks which we may encounter.⁴⁷

The intensification of the Cold War increased pressure for the provision of the forces called for in the warplans. The gap between capabilities and requirements looked, for a time at least, dangerous. Apart from the exigencies of the Korean campaign this meant an emphasis on building up conventional forces in Europe. The cohesion of the Alliance required a commitment to defend its members, not merely a promise to liberate them. This, in turn, reinforced the requirement for a forward deployment of troops. Greiner has noted one difference between US and European perspectives that is relevant here:

Europeans were planning a defence for which they lacked the resources, expecting to receive them instead from the United States. These expectations excluded the Strategic Air Command and its atomic bomb, the actual employment of which was viewed by the continental Europeans with deep distrust, for fear of the nuclear destruction of Western Europe: they preferred the thought of American land forces directly defending their territories.

Because of the poor state of, in particular, its land forces, the US was on neither a short - nor a medium-term basis able to match these expectations.⁴⁸

More or less concurrent with the early NATO recognition of the need for enhanced conventional forces was the arrival of the age of nuclear plenty. Scarcity of atom bombs was previously "assumed as the basis of [US] planning."⁴⁹ But by June 1950 there were components for nearly three hundred US nuclear bombs (this was six times as many as in 1948); by 1953 the stockpile had grown to one thousand.⁵⁰ The growing arsenal of nuclear weapons opened the door to a structuring of target categories. As Rosenberg has described:

In August 1950, the JCS formally organized targeting categories and priorities for nuclear war. First priority was assigned to "the destruction of known targets affecting the Soviet capability to deliver atomic bombs". Second priority was assigned to fixed targets affecting the mobility of Soviet ground forces in Western Europe. Third priority was given to attacks on the Soviet liquid fuel, electric power, and atomic energy industries. These categories were subsequently codenamed BRAVO, ROMEO and DELTA, for blunting, retardation, and the disruption/destruction of war making capacity respectively. With some changes, particularly a broadening of the industrial targets category, they formed a basic framework for US nuclear targeting for nearly a decade.⁵¹

The retardation ("ROMEO") mission assigned to the USAF was to be superimposed onto a World War II sort of strategy. Retardation was intended to affect conventional force ratios at the front line (by disrupting Soviet reinforcements) and so was expected to provide a direct link between nuclear bombing and ground operations. But, a war was "likely to commence with a ground thrust which had to be resisted in its own terms",⁵² this was the reason for the ambitious 1952 Lisbon Agreement on NATO conventional force goals - goals which were never met.

Conventional devastation of Germany would parallel the nuclear destruction of the Soviet Union. West Germany was to be the forward battle area for conventional operations. According to Greiner,

There was agreement among all military leaders of the Western Union and NATO that the enormous quantitative and partly qualitative inferiority of the Western Allies' forces stationed in the glaxis, as compared with the Soviet forces deployed in Central and Eastern Europe, had to be compensated for by all available technical resources. Plans for destruction, obstruction, demolition and reinforcement of existing terrain obstacles were therefore given the highest priority in operational considerations. These were, in fact, the first fruits of Western Union and NATO military planning. There was rarely any doubt that destruction was planned on a vast scale, particularly on the eastern side of the Rhine but also in other parts of West German territory, in order to channel and stop a Soviet attack. Such plans showed very clearly the readiness with which Allied officers disposed of West German territory.⁵³

As already noted, the JCS did not believe it was sensible to plan on the basis of being able to hold a line forward in Germany. This was reflected in their wartime reinforcement plans:

With the forces available to SHAPE, in the immediate future it is believed that the Allied forces will not be able to contain a Soviet attack for a sufficient period of time to permit the deployment of additional United States ground forces to the Continental European area after the initiation of hostilities. In fact, the United States Joint Outline Emergency War Plan...provides for such a contingency by planning post D-day deployment to the United Kingdom and/or North Africa. Under this premise, the allocation to SHAPE of United States forces, prior to their arrival in the European area, might well prove to be meaningless since there would be no area to which they could be deployed.⁵⁴

Despite, or perhaps because of, these reservations, the NATO conventional force structure was significantly strengthened during 1951:

The strength available to SACEUR increased significantly during 1951. In April, General Eisenhower commanded 16 NATO divisions (in varying degrees of readiness) and fewer than 1,000 aircraft; by December, he could deploy 35 divisions (active and ready reserve) and nearly 3,000 aircraft. SHAPE and its several subordinate headquarters were functioning satisfactorily; autumn maneuvers had substantially improved cohesion and combat-readiness; airfield construction was well advanced, and communications facilities were being improved and extended. The nucleus of an international force now existed.⁵⁵

Eisenhower, despite JCS reservations, "forbade" open discussion of a fall-back position behind the Rhine-Ijssel line already agreed with the allies; he felt that "political reverberations would far outweigh any military benefits." Meanwhile the JCS was contemplating a defence line at the Pyrenees.⁵⁶

Thus the strategic concept outlined in OFFTACKLE at the end of 1949 persisted into the early 1950s. That is, conventional forces would try to maintain a foothold in Europe - although the feasibility of this was doubted - and the USAF would drop increasing numbers of atomic bombs on the USSR and Soviet military infrastructure. This initial phase would be followed by mobilisation and a counter offensive on the ground to push back the Soviet armies. At the same time operations in the Middle East ("of importance second only to Western Europe") were to be conducted; here it was a matter of correlating "US aspirations with British capabilities."⁵⁷

During this period planners saw the need for more atomic bombs to be programmed into the strategic framework just outlined, more conventional forces to increase confidence in holding a defence line, and for more direct nuclear support of conventional operations. This last requirement led to the development of the "retardation" mission

and, from 1953, the deployment in Europe of tactical nuclear weapons for the US Army.

The main strategic issue facing Western planners was a perceived conventional force imbalance with the East. Early estimates called for about one hundred NATO divisions to balance one hundred and seventy-five Eastern Bloc divisions. After further reflection it was realised that about fifty divisions was a more realistic goal for NATO to aim for, about half the force deemed necessary to carry out NATO's defence plan. A former SHAPE planner has outlined how the military responded to this dilemma:

A first effort to cope with this problem was the so-called Ridgway Plan of 1952 - 1953. The Plan's thrust was an effort to add atomic weapons to the projected NATO conventional defense forces in the hope of reducing requirements. What happened, not surprisingly, was that the force requirements went up instead of down. This occurred because under the plan classic NATO conventional formations and force concentrations were retained. Everytime a nuclear weapon was fired at them, a whole unit or air-base was wiped out, and therefore entire army units and airwings would have to be brought in as replacements. Obviously this plan did not solve the European security problem, and as such it never really saw the light of day...Having gone through this abortive exercise, the NATO planners then suggested three possible and previously ignored considerations which might ease the problem. There were three "soft" areas in the earlier NATO defense plans. One was the previous failure to consider the impact of U.S. strategic-nuclear forces on Soviet capabilities in Europe. This failure had been due in part to considerations of U.S. security, and in part because no one had calculated the effects which a concurrent strategic-nuclear campaign might have on NATO force requirements. The early NATO plans had been written as if NATO in Europe would be fighting its own separate war, while the Strategic Air Command was waging a war of its own. No degradation in Soviet capabilities in Europe was credited to the concurrent U.S. strategic effort. It was therefore agreed to look at this factor and its possible implications for force savings in NATO.⁵⁸

The two other "soft areas" addressed were (a) using tighter intelligence estimates to downgrade the threat and (b) considering the use of tactical nuclear weapons from the start of hostilities along with introducing the necessary doctrinal and tactical changes to the ground forces.⁵⁹ There was, then, clearly a need to coordinate nuclear and conventional strategy; the apparent gulf between these two strands in NATO's defence posture needed some attention.

In the light of ambitious, but unmet, conventional force goals and growing atomic airpower, it seemed that a "dual and inconsistent" strategy was being developed.⁶⁰ Perhaps one of the more thoughtful ideas on the broad policy issues underlying the linkage between nuclear and conventional forces in the early 1950s was given by Acheson; he stated, in 1951, that:

The best use we can make of our present advantage in retaliatory power, is to move ahead under this protective shield to build the balanced collective forces in Western Europe that will continue to deter aggression after our atomic advantage has diminished.⁶¹

However, the sentiment was not translated into subsequent policy. Economic factors prevented a major conventional build-up, and nuclear weapons were integrated with "general purpose forces".

D) Massive Retaliation 1953-1960

During 1953 the new Eisenhower administration formulated its policy of massive retaliation under the label of the "New Look". This policy placed greater reliance than previously considered desirable on United States nuclear striking power. As such it allowed for the trimming back of conventional forces. There were, however, important elements of continuity between the New Look and the posture developed under Truman. As one historian has noted:

The Truman administration established a pattern in force structure that gave the air force unmistakable primacy over its rival services. The New Look refined this pattern, but did not change it...

Massive retaliation gave a useful Republican label to a product₆₂ researched and developed by the opposition party.

But, despite the continuities, the New Look did shift the stress in military planning towards nuclear weapons; this had implications for the relationship between nuclear and conventional strategy.

The New Look was introduced by an administration heavily influenced by fiscal considerations, it was also anxious not to repeat the previous administration's painful experience in Korea. A politically and financially expensive protracted conventional war was to be avoided. The deterrent potential of relatively cheap nuclear weapons was to be stressed. On a declaratory level this was explained by Dulles, in early 1954, in the following terms:

...It is not sound to become permanently committed to military expenditures so vast that they lead to 'practical bankruptcy'...

We want, for ourselves and the other free nations, a maximum deterrent at a bearable cost...

The basic decision [is] to depend primarily upon a great capacity to retaliate, instantly, by means and at places of our own choosing...As a result, it is now possible to get, and share, more basic security at less cost.⁶³

The US was not prepared to continue the "cruel toll of American youth and the non-productive expenditure of many billions" in a bloody conventional sloggish match with the "mighty landpower of the Communist world" which was "glutted with manpower".⁶⁴ Two other political factors reinforced this emphasis on nuclear weapons: the US Army's wish to be "out from under" the Air Force by obtaining its own nuclear forces, and Allied pressure for access to American nuclear weapons.⁶⁵

Unilateral United States planning for massive retaliation was, of course, reflected in NATO planning, although there was a time lag before the Alliance formally endorsed the policy. Early US guidance for the New Look (as represented by NSC 162/2) pointed to the pivotal role of forward basing and allies in the execution of the strategy.⁶⁶ Indeed, the very raison d'etre of the New Look was extended deterrence: the linking of US nuclear strike power to local defences. To this end, in the words of NSC 162/2, "In the event of hostilities, the United States will consider nuclear weapons to be as available for use as other munitions."⁶⁷

Tactical nuclear weapons were introduced to US forces in Europe from 1953. Agreement over nuclear weapons information sharing was approved within NATO in March 1954. An Alliance version of massive retaliation was adopted between 1954 and 1957. By 1957 arrangements were in hand to share US nuclear weapons with the European allies. Three years later there were about two thousand five hundred tactical nuclear weapons in Europe.⁶⁸

Tactical nuclear weapons were mostly integrated with the conventional (or "general purpose") forces. They were used to stiffen NATO's so-called "Shield" which was to be used to buy time for the "Sword" of Strategic Air Command; they had a supportive, secondary, role in massive retaliation. Not only were general purpose forces supposed to buy time, they were deployed in Europe to act as a tripwire to escalation. NATO had agreed to plan to use nuclear weapons at the start of hostilities. Hence the following famous quote by Deputy Supreme Commander Montgomery in the mid-1950s:

I want to make it absolutely clear that we at SHAPE are basing all our planning on using atomic and thermonuclear weapons in our own defense. With us it is no longer: 'They may possibly be used'. It is very definitely: 'They will be used, if we are attacked'. In fact, we have reached the point of no return as regards the use of atomic and thermonuclear weapons in a hot war.⁶⁹

By the late 1950s the role of the general purpose forces was being refined - but still within the context of massive retaliation. Their purpose was to:

- 1) Hold the line in an all-out war whilst SAC's bombing onslaught took its toll.
- 2) Deter relatively small border incidents.
- 3) Provide NATO with some flexibility, by enabling a limited (including a limited nuclear) option in the event of a Soviet attack. In other words, general purpose, nuclear armed, shield forces might be used without triggering SAC - assuming a "less than ultimate incident".⁷⁰

These ideas were closely associated with the "pause" concept advocated by SACEUR General Norstad from 1957. It is unclear how the ideas were translated into planning.

Between 1952 and 1956 the "retardation" role (nuclear interdiction of Soviet conventional forces) was moved from SAC to SACEUR's tactical airforces,⁷¹ thus, presumably, facilitating theatre nuclear war planning.

The central element in massive retaliation was of course Strategic Air Command. By 1953 planning for strategic bombing was firmly in the hands of the Air Force - particularly SAC - with the other services having only nominal influence.⁷² Rosenberg has described SAC's role in massive retaliation as follows:

By 1954, SAC was preparing to launch a simultaneous, massive integrated strike against a combination of target systems

in the Soviet Union. In order to overwhelm Soviet air defenses, SAC planned to have the entire strike force of up to 735 bombers hit early warning screens simultaneously. Targeting categories and priorities set by the JCS were blurred in the interests of getting all the bombers into and out of Soviet air space as quickly as possible. There was no calculated strategy for war winning, beyond that of producing as much destruction as possible in a single, devastating blow. Increasing emphasis was placed on utilizing high yield weapons to cause bonus damage and destroy multiple targets simultaneously. This was facilitated by the entry into the American stockpile after the spring of 1954 of readily deliverable fusion weapons with yields ranging as high as fifteen megatons.⁷³

In the midst of this onslaught top priority was given to destroying Russian nuclear capabilities.⁷⁴

By the end of 1960 US strategic forces were being incorporated into the newly developed Single Integrated Operational Plan (SIOP) for Fiscal Year 1962. This SIOP was a scheme for,

the massive, coordinated attack on a combination of target systems - counterforce, military, industrial, and governmental - within the Soviet Union, China and the satellite nations planned for the first 24 hours of a general war.⁷⁵

"SIOP-62" called for the United States to fire between 1,459 and 3,423 nuclear weapons, depending on alert and readiness rates, at at least 654 targets (apparently there were 151 urban-industrial areas targeted). Between 2,164 and 7,847 megatons would be dropped, killing between 175 million and 285 million Russians and Chinese. The redundancy in targeting was such that in order to satisfy themselves that a target comparable to Hiroshima could be destroyed to the extent that the Japanese city suffered in 1945 (as a result of a single 12.5 kiloton bomb), the planners required SIOP-62 to assign three 80 kiloton warheads.⁷⁶

The SIOP - developed by the Joint Strategic Target Planning Staff (JSTPS) - was essentially under the control of SAC (although the other services did participate) and reflected SAC doctrine.

In terms of doctrine the New Look appeared to treat the nexus between nuclear and conventional forces as a continuum; nuclear weapons, particularly of the "tactical" variety, were seen by many as extensions of conventional firepower. For example, at a restricted session of the North Atlantic Council in April 1954, the US Secretary of State informed his audience that:

The United States considers that the ability to use atomic weapons as conventional weapons is essential for the defense of the NATO area in the face of the present threat.

In short, such weapons must now be treated as in fact having become "conventional", it should be our agreed policy, in case of [either general war or local] war, to use atomic weapons as conventional weapons against the military assets of the enemy whenever and wherever it would be of advantage to do so...

The Secretary went on to say that the "aggressor" must be denied a "sanctuary status"; however this did not mean that "every local war must automatically be turned into a general war", and local use of atomic weapons would not involve indiscriminate bombing of "civilian populations."⁷⁷

A NATO report of 1954 seems to have concluded that:

1. Warfare in the future would inevitably be atomic.
2. The first atomic targets would be armed forces and military installations rather than major centres of population.
3. The peak of destruction would come at the outset of the war.
4. Therefore, the outcome would be determined by the active forces-in-being.⁷⁸

The idea that the nuclear-conventional nexus was a continuum required a shift in US Army procedures and posture, hence the development of the "Pentomic" division which was supposed to be more able to fight in a nuclear war than its more traditional predecessor.

There was a problem at SHAPE in calculating the effect of the New Look on conventional force requirements.⁷⁹ The studies of 1952-53 already referred to (see previous section), suggested that more, rather than less, troops might be required in a nuclear war. Other studies have shown that, in such a conflict, "one side or the other invariably lost almost all its combat capability in a few days."⁸⁰ Nevertheless there was a body of opinion which believed that nuclear weapons would reduce manpower requirements. For instance, in 1954, General Gruenther stated that:

If seventy divisions, for example, are needed to establish a conventional line of defence between the Alps and the Baltic, then Seventy minus X divisions equipped with atomic weapons would be needed.⁸¹

If the nuclear armed general purpose forces went to war it was expected to be a short, highly destructive, conflict; "the tactics called for destruction instead of mobility and capture":

In an atomic defense, the brunt of needed forces are those to service the firepower, to force the enemy to form a target, and to identify the target.⁸²

But whether or not NATO forces fully incorporated the requisite posture for this type of atomic war is not clear; NATO seems to have stayed attached to more traditional conventional concepts (e.g. tactical nuclear warheads were concentrated in a few storage sites rather than routinely dispersed to field units).⁸³

An early investigation of tactical nuclear war - "Project Vista" - had, in 1952, advocated greater emphasis on local nuclear forces. The resultant report encouraged some debate but was not accepted (for one thing it was suppressed by the US Air Force). Vista advocated a theatre nuclear posture somewhat different from that developed by NATO under the New Look. It suggested nuclear strikes by dedicated forces behind enemy frontlines. In particular it called for a "Tactical Atomic Air Force", counter-air operations (i.e. attacks against enemy airbases) and close support no closer than 20-25 miles behind the lines. Nuclear and conventional operations would be simultaneous, related, but (to a degree) separate.⁸⁴

In contrast NATO adopted options for across-the-board nuclearisation, to the extent of deploying nuclear artillery and dual capable aircraft.

The relationship between nuclear bombing and the NATO theatre was the subject of a section of a 1955 report by the Weapons Systems Evaluation Group (WSEG) entitled "Evaluation of an Atomic Offensive in support of the Joint Strategic Capabilities Plan".⁸⁵ (The Joint Strategic Capabilities Plan - JSCP - replaced the Joint Outline Emergency War Plan. It is the JCS approved joint or coordinated plan for war should it break out in the near term).

It appears that a section of this report dealt with the objectives of halting the Soviet Bloc military offensive "as close to D-Day frontiers as possible"⁸⁶ and of securing allied lines of communication. To attain these objectives it was believed that the following conditions needed to be fulfilled:

- Allied ground strength must be adequate to force the Soviets to concentrate to the extent that they present good targets for atomic weapons;
- The Allies must have adequate ground forces to exploit the effects of atomic weapons by counterattacking;
- The Allies must be able to provide a defense in depth capable of breaking up such penetrations as the Soviets may make;
- The Allies must have adequate logistic support for their combat forces;
- The Allies must have air superiority.⁸⁷

In terms of meeting these conditions, Allied capabilities were considered "marginal". According to a briefing on the report:

It does not appear that the Allies have adequate forces in any area, except possibly Korea, to exploit the effects of atomic weapons by counterattack. Further, as of 1 July 1955 the Allies do not appear to have sufficient ground forces to provide a defense in depth capable of breaking up Soviet penetrations...

Interdiction of Soviet land lines of communications is a part of SACEUR's plan. If the Soviets employ the world-wide strategy, it is estimated that any reasonable Allied interdiction effort, both atomic and conventional, would probably not limit the Soviets logistically in Central Europe. However, the uncertainties involved in this estimate are so large that such a conclusion may be incorrect. The major contribution of the Allied atomic interdiction effort may be the initial imposition of a few days delay in which to attain their best defensive posture...

Allied air superiority is a must for successful ground operations in any of the theaters. Therefore, the allocation of additional atomic weapons to troop targets is not warranted at the expense of weapons required to gain air superiority.

With respect to the objective of securing Allied lines of communication, it appears that if planned Allied efforts to counter Soviet threats to sea transport are implemented, Allied merchant shipping losses will not cause a critical reduction in the support of the overseas theaters of operations. In addition to limiting Soviet submarine operations, the U.S. atomic strikes against Soviet naval bases and supporting facilities are expected to reduce substantially the Soviet's capability to conduct amphibious operations and to provide seaborne logistic support for their forces. In contrast to the foregoing favourable conclusions, we estimate that because of insufficient stockpiles and manufacturing rates, the Allied forces in Central Europe would become short of artillery ammunition during the third month of fighting.⁸⁸

The report noted the problem facing NATO as a result of Soviet stockpiling; this could mean a lag of some months between US strategic bombing and serious Russian supply shortages at the frontline. It also suggested assigning larger warheads to "some airfield targets, to some ports and naval facilities, and to about thirty-three of SACEUR'S interdiction targets, particularly bridges."⁸⁹

* * * * *

The more extreme interpretations of massive retaliation, such as the one apparently epitomised in SIOP-62, were subject to intense controversy, not least due to criticism from the US Army. Most of the alleged flaws of the New Look have already been outlined in the previous chapter. It is sufficient to say here that, during the 1950s, two successive Army Chiefs of Staff (Generals Ridgway and Taylor) had running battles in the JCS over the assumptions and implications of the New Look. General Taylor especially advocated a more flexible approach to warplanning in which ground forces would have a prominent role; he also called for "dual capable" forces that could be used in both nuclear and conventional war.⁹⁰ In particular, critics were concerned that the US option for conventional war was being undermined at the very time it might be needed: parity in nuclear weaponry with the USSR was looming which made strategic attacks suicidal and therefore incredible; tactical nuclear weapons had dangerous escalatory potential; "brush-fire" wars looked likely and nuclear weapons seemed somewhat inappropriate counters to them.

In reaction to massive retaliation some work was done in introducing flexibility into warplanning. In time this work, like the development of the New Look, was to have important implications for the nexus between nuclear and conventional forces. An early qualification of massive retaliation has already been mentioned - Norstad's "pause" concept, outlined in 1957. In the same year a Colonel at SHAPE formulated a precursor of flexible response -the so-called Stilwell Report. Rowny has stated that,

the study envisaged a forward defense concept whereby the use of conventional land, sea and air forces would be used. Should these forces-in-being be judged to be incapable of countering Warsaw Pact aggression, then tactical nuclear weapons would be used and additional forces would be rapidly transported to Western Europe.

Stilwell's study used the term "direct defense" as the concept for countering aggression on the level at which the enemy might choose to fight. It also introduced into NATO, for the first time, the notion of "deliberate escalation" whereby aggression would be countered by deliberately raising the scope and intensity of combat so as to make the threat of nuclear response more imminent. This would be done by intensifying the non-nuclear engagement, by taking offensive action on another front, or by using tactical nuclear weapons. This failing, strategic nuclear weapons released to SACEUR's control would be used initially against military targets.⁹¹

As Schwartz has noted, the report was, for the moment at least, shelved.

E) The Move to Flexible Response 1961-1965

In 1961 the new Kennedy administration directed a change in United States strategy away from massive retaliation to flexible response. Flexible response required the dividing up of the attack plan of SIOP-62 into separate, smaller, attack options, and the

expansion of conventional forces. The change was based on acceptance of the deep and wide-ranging critique of massive retaliation that had developed during the 1950s (this critique is described in the literature survey). There were three main reasons for the change, which will be briefly sketched here.⁹²

Firstly, the emerging international context seemed to demand a shift away from the allegedly all-or-nothing implications of the New Look. Instability in the Third World, the growing Soviet nuclear deterrent, and some, albeit limited, trends in NATO suggested the need for less-than-ultimate strategies; this need was linked to the search for "credibility" - believable threats arguably required usable military forces. Of these international factors the prospect of a devastating Soviet reprisal to massive retaliation was perhaps salient. The refinement and greater sophistication of the Kennedy-McNamara SIOP (SIOP-63, introduced in 1962), and the strengthening of general purpose forces, was intended to introduce balance and utility into US strategy in the face of the Soviet nuclear build up and disorder in the Third World. The attempt to enforce or manipulate thresholds (such as the nuclear-conventional, and counter force-counter city thresholds) was seen as an indication of strategic maturity. Whereas in the 1950s the threat to lower the nuclear threshold was seen, by the Eisenhower administration, as necessary to the security of American interests, it was now thought that the ability to raise various thresholds was necessary for the country's survival. Even so, the Kennedy administration did not go so far as to declare a policy of no-first-use of nuclear weapons, principally for reasons of Alliance politics.

Secondly, domestic political factors opened the door to a change in strategic policy. Kennedy had used the putative flaws of massive retaliation as a stick to beat the Republicans in his election campaign. So, reinforcing Kennedy's own feelings on the subject (which were in favour of flexible response), there was political pressure to move away from the New Look - which was, after all, a Republican label.

Thirdly, perceptions of the international-strategic context, and the entry into office of a dynamic new administration, converged to allow "defence intellectuals" - nurtured on reaction to the New Look - to move into areas of influence and advise on defence policy. These strategists were a significant force in shaping flexible response.

The adoption of flexible response represented an attempt to find diplomatically and militarily usable conventional and nuclear options. Despite real or approaching conditions of mutual deterrence, American military power was to be used as a key element in US foreign policy - by, for example, countering subversion in the Third World, and providing the cornerstone of extended deterrence, thereby reinforcing United States' leadership of the Western Alliance. This type of politico-military power projection had its dangers; in particular there was a risk of local disputes escalating to all-out nuclear war with the USSR. Flexible response attempted to minimise the likelihood of such escalation while retaining the threat of nuclear war to deter the Soviet Union and reassure the Alliance.

At the most basic level the shift away from massive retaliation required a change in the definition of "general war" (or all-out war with the Soviet Union). Kaplan states that, under massive retaliation, the JSCP (JCS approved warplan) had defined general war in the following terms:

"A general war is an armed conflict in which Armed Forces of the U.S.S.R. and those of the United States are overtly and directly engaged." In 1958, the Army had tried to add to this sentence the phrase, "as principal protagonists with the national survival of both deemed to be at issue," but the Air Force succeeded in removing the amendment. And in general war, the U.S. Emergency War plan - the nuclear war plan, which was superseded in late 1960 by the SIOP - would be executed.⁹³

The definition was changed in 1962 "so that", in Kaplan's words, "an armed conflict between the US and the Russians would not inevitably escalate into nuclear war of any sort."⁹⁴

SIOP-62 was an early issue for revision by the new administration. The first step was to try and move away from the all-or-nothing implications of the Eisenhower SIOP. As McNamara told a NATO meeting in Athens in 1962,⁹⁵

...the U.S. has come to the conclusion that to the extent feasible basic military strategy in general nuclear war should be approached in much the same way that more conventional military operations have been regarded in the past. That is to say, our principal military objectives, in the event of a nuclear war stemming from a major attack on the Alliance, should be the destruction of the enemy's military forces while attempting to preserve the fabric as well as the integrity of allied society. Specifically, our studies indicate that a strategy which targets nuclear forces only against cities or a mixture of civil and military targets has serious limitations for the purpose of deterrence and for the conduct of general nuclear war.

The Defense Secretary continued:

In the light of these findings the United States has developed its plans in order to permit a variety of strategic choices. We have also instituted a number of programs which will enable the Alliance to engage in a controlled and flexible nuclear response in the event that deterrence should fail.

Ball has described how the massive retaliation SIOP (SIOP-62) was altered to accommodate flexible response in the form of SIOP-63. This new SIOP "had a number of novel features":⁹⁶

1. China and the satellite countries were separated from the USSR for targeting purposes.
2. Soviet strategic forces were separated from Soviet cities on US target lists.
3. Strategic reserves were to be held by the US in accordance with the concept of intra-war deterrence.
4. US command and control systems were to be protected to allow 'controlled response'.
5. Soviet command and control was to be preserved, at least in the initial stages of any nuclear exchange.

The US SIOP was given five 'options', plus various sub-options with US attacks against the USSR to proceed along the following spectrum:

- I. **Soviet strategic nuclear delivery forces, including missile sites, bomber bases and submarine tenders.**
- II. **Other elements of Soviet military forces and military resources, located away from cities - for example, air defences covering US bomber routes.**
- III. **Soviet military forces and military resources near cities.**
- IV. **Soviet command and control centres and systems.**
- V. **If necessary, all-out urban-industrial attack.**

Ball goes on to show that US strategic planning was primarily counterforce in character.⁹⁷

In his 1962 NATO address in Athens, McNamara noted that the demands that the new strategy would place on the survivability, command and control of the nuclear forces committed to SIOP-63:

A large nuclear force is not enough to assure a politically responsible force, or to carry out a policy of controlled and selective response, or to permit us to fulfill all important general war missions. These vital properties depend on the survivability and endurance of the forces and their vital networks of command and control. The Alliance now possesses the ability to absorb a Soviet attack and go on to destroy a very high proportion of the targets of importance to the Sino-Soviet Bloc. This powerful, second-strike force will be maintained together with the ability to control and direct the forces as the military situation may dictate at the time. For this purpose, distance, dispersal, mobility, hardness, and alertness represent the most effective measures at our disposal. All are being exploited in current bomber and missile programs.⁹⁸

According to Enthoven and Smith, "Perhaps the most critical vulnerability problem...lay in the US high-level command structure."⁹⁹

Consequently:

An extensive program was undertaken to improve and protect the command and control facilities of U.S. strategic nuclear forces against a surprise attack.¹⁰⁰

A major assumption of SIOP level planning was that America's strategic nuclear arsenal might be held back, for a while at least, in a NATO conflict. This placed a heavier load on theatre nuclear forces and, more particularly, on conventional forces which were now expected to try to hold a Warsaw Pact invasion for as long as practicable without nuclear support. That was the theory, at least. According to the doctrine of flexible response, weak conventional forces represented a deterrent gap that might be exploited of by the USSR. As one intelligence report noted in the early 1960s:

The general implication of the Soviet military posture and the strategy which it supports would appear to be that the Soviets hope to confront us with continuing political pressure, subversion and various forms of unconventional warfare under the umbrella of their growing strategic power. At the same time, they would hope to capitalize on their conventional military power by the implicit threat of bringing it to bear on situations where they have a local conventional superiority. Thus -barring successful effort on our part to create additional options- such a strategy could, at worst, leave open to us the unpalatable choice of a first strike or swallowing our losses in a series of confrontations at local pressure points around the periphery of the Soviet Bloc. Increased Soviet ability to put direct pressure on the United States (through the threat of larger forces capable of hitting the US) would also open us to added Soviet efforts to separate us from our Allies, and to create divisions among them.¹⁰¹

Weak conventional forces might add to the pressure for early use of nuclear weapons - just the sort of situation that flexible response was intended to avoid. In the words of a State Department analysis: "We attach the greatest importance to 'raising the threshold' beyond which the President might have to decide to initiate the use of nuclear weapons."¹⁰²

To Kennedy and McNamara the solution was obvious: more money should be spent on conventional forces, and these forces should be capable of engaging in sustained conventional operations. To this end the President directed that the Army be expanded and that it abandon its Pentomic division structure (primarily orientated to the nuclear battlefield) and adopt a posture more capable of conventional combat.¹⁰³

Mako has described how the 1961 Berlin crisis spurred efforts to provide a more capable conventional defence for NATO:

The three training divisions in the active Army were brought up to full strength and made combat-ready. About 42,000 troops were sent to Europe, mostly to provide the U.S. Army in Europe with the combat and support units necessary for sustained conventional operations that had been lacking since the Army's 1956 reorganization for nuclear combat. The three infantry divisions in West Germany were mechanized and additional heavy divisions in the United States were activated, so that the ratio of heavy to light divisions in the ground forces was substantially increased...

To facilitate the deployment of U.S. based heavy formations the equipment for two divisions was also prepositioned in Europe. At the height of the crisis, a limited mobilization was carried out in which 119,000 Army reservists were called up...¹⁰⁴

Enthoven and Smith have outlined the build-up of conventional fire-power under Kennedy:

The number of active combat-ready Army divisions was increased from 11 to 16, and the number of active Air Force tactical air wings from 16 to 21. The annual rate of procurement of conventional weapons and ammunition and equipment was almost doubled. Over one hundred thousand additional men were added to the Army. The size of the Special Forces was greatly increased. The Marine Corp's strength was increased and the Marine Corps Reserve expanded to a full fourth division/wing team. A major expansion of airlift capabilities was undertaken. The tempo of modernization of naval and tactical air forces was greatly speeded up. Research and development funds for work on non-nuclear weapons and ordnance were significantly increased. Important improvements were made in organization, training, readiness, and particularly the balance among elements of our general-purpose forces. By 1963, the United States was well on the way to having a meaningful alternative to the choice between responding to nonnuclear aggression with nuclear weapons and surrendering.¹⁰⁵

This US build-up was paralleled by West German re-armament.

Despite the emphasis on the conventional force build-up, the US maintained an option to fire nuclear weapons first, rather than accept defeat in a conventional war. And, McNamara noted in his Posture

Statement for Fiscal Year 1966,

NATO should not only have an improved capability to meet major non-nuclear assaults with non-nuclear means and forces prepared for that option, but it should also achieve true tactical nuclear capability which should include a broad, flexible range of nuclear options, short of general nuclear war, and the means to implement them.¹⁰⁶

But, as contingency planning for Berlin had shown, it was not only distasteful but difficult to envisage how this tactical nuclear option might be used.¹⁰⁷ Several years later McNamara wrote that "there was great uncertainty as to whether and, if so, how nuclear weapons could be used to NATO's advantage."¹⁰⁸ McNamara stated that,

in long private conversations with successive Presidents - Kennedy and Johnson - I recommended, without qualification, that they never initiate, under any circumstances, the use of nuclear weapons. I believe they accepted my recommendation.¹⁰⁹

However, "private conversations" aside, McNamara had assured the Allies that "The United States is ... prepared to counter with nuclear weapons any Soviet conventional attack so strong it cannot be dealt with by conventional means."¹¹⁰ At the same time he made it clear that the administration did not find this a comfortable position.

Enthoven and Smith have described the conclusions of early studies on tactical nuclear war which indicated enormous problems in controlling escalation in such a conflict.¹¹¹ As an illustration of the level of destruction that might be expected in tactical nuclear war, Zuckerman refers to estimates of 200-250 nuclear "strikes" (with an average of 20 kiloton warheads) in an area of NATO territory "no more than 50 by 30 miles" within "a few days".¹¹² Such strikes could

be duplicated along the length of the front.

In spite of the dangers of tactical nuclear weapons - and in apparent contradiction to the demands of flexible response (such as: survivability, centralised command and control, and raising the nuclear threshold) - the numbers of these weapons in Europe went up dramatically during the 1960s. It seems that there were about 2,500 such weapons in 1960; 4,000 in 1963; 5,000 in 1965; 6,000 in 1966; and 7,200 in 1968.¹¹³ Rowen has offered an explanation of this growth in the arsenal which suggests that Kennedy and McNamara lacked the political motivation, power, and drive to reverse the trend in the expansion of NATO's nuclear arsenal.¹¹⁴ However, the rate of increase was slowed down.

The growth in the TNF arsenal partly overlapped abortive attempts to put together a system of collective NATO nuclear forces. This attempt, centred around the concept of a "Multilateral Force" (MLF),¹¹⁵ became a blind alley. The reason had much to do with the complexities of Alliance politics and Washington's maintenance of its veto over the use of "NATO" weapons. Meanwhile extended deterrence was to be reinforced by the arrival of thousands of additional US TNF to the Continent.

According to McNamara the first-use of NATO tactical nuclear weapons was to be "late and limited".¹¹⁶ The "late and limited"

formula for tactical nuclear weapons put pressure on conventional forces without answering the question of how to fight a theatre nuclear war should the conventional defense line look like collapsing.

The issue may have been intractable. It appears that "unresolved questions relating to the use of tactical nuclear weapons" helped prevent Kennedy from approving a statement of "Basic National Security Policy".¹¹⁷ In his 1962 Athens address McNamara spelt out to the allies some of the problems and dilemmas involved in tactical nuclear war:

NATO can no longer expect to avoid nuclear retaliation in the event that it initiates their use. Even a local nuclear exchange could have consequences for Europe that are most painful to contemplate. Further such an exchange would be unlikely to give us any marked military advantage. It could rapidly lead to general nuclear war.

To be sure, a very limited use of nuclear weapons, primarily for purposes of demonstrating our will and intent to employ such weapons, might bring Soviet aggression to a halt without substantial retaliation, and without escalation. This is a next-to-last option we cannot dismiss. But prospects for success are not high, and I hesitate to predict what the political consequences would be of taking such action. It is also conceivable that the limited tactical use of nuclear weapons on the the battlefield would not broaden a conventional engagement or radically transform it. But we do not rate these prospects very highly.

Highly dispersed nuclear weapons in the hands of troops would be difficult to control centrally. Accidents and unauthorised acts could well occur on both sides. Furthermore, the pressures on the Soviets to respond in kind, the great flexibility of nuclear systems, the enormous firepower contained in a single weapon, the ease and accuracy with which that firepower can be called in from unattacked and hence undamaged distant bases, the crucial importance of air superiority in nuclear operations - all these considerations suggest to us that local nuclear war would be transient but highly destructive phenomenon...

It is possible, as I have mentioned, that a small, demonstrative use of nuclear weapons could be contained locally, and possibly, distant nuclear operations in less vital locations outside the NATO area, or at sea, may be limitable. But there is likely to be no effective operational boundary, or set of mutual restraints, which could restrict large-scale nuclear war to NATO Europe and the satellites. As we understand the dynamics of nuclear warfare, we believe that a local nuclear engagement would do grave damage to Europe, be militarily ineffective, and would probably expand very rapidly into general nuclear war. (Emphasis added.)¹¹⁸

This probability of expansion or escalation required co-ordination of strategic and theatre forces because, as McNamara noted, "the indivisible character of nuclear war compels it".¹¹⁹

Clearly the avoidance of nuclear war with the USSR was a high priority and, to prevent the chain of events outlined above, some changes to the nuclear-conventional nexus were required. Unfortunately for McNamara this nexus was partly in the hands of the Europeans. The administration was very aware that the nuclear threshold was partly hostage to European action or inaction. European hesitancy over flexible response - particularly regarding expenditure on conventional forces (and the development of independent deterrents) - prevented a clear or smooth transition from massive retaliation to flexible response. This was paralleled by SACEUR General Lemnitzer's attachment to the old strategy¹²⁰ (as enshrined in MC14/2), and the US military's growing appetite for tactical nuclear weapons. Besides which, for reasons mentioned earlier, the practical application of limited war theories to European conditions looked doubtful.

At the "sharp end" of US strategy - NATO - US and allied forces seemed locked-in to a sort of de facto massive retaliation; while at the more abstract level of the SIOF the administration was able to effect the adoption of some kind of flexible response. The consequences for the nuclear-conventional nexus were, to put it mildly, ambiguous. Further movement on Alliance policy was needed to clarify the issue.

F) The Development of Flexible Response 1966-1976

The American adoption of flexible response in the early 1960s was a unilateral move presented to the allies as a fait accompli. One of the biggest obstacles to translating the concept of flexible response into practice was European recalcitrance. To the allies the conventional balance appeared heavily stacked in favour of the East. This made expensive improvements to NATO's conventional forces seem marginal. Also the UK and France were developing independent "minimum deterrent" nuclear forces which lessened the prospects for a centrally (US) controlled limited counterforce option in the event of a war with the USSR. And West Germany insisted on forward defence, which implied early recourse to tactical nuclear weapons - as territory was not to be traded for time. In addition the risks were high in Europe as vital national interests were at stake; this made the notion of limited war look doubtful. The crowded continent, which included the western portion of the Soviet Union, offered few natural firebreaks. To many Europeans (especially the French) historical, technical and geopolitical considerations suggested the absurdity and dangers of adopting limited war concepts to their defence, particularly if such a defence was to be centrally directed from Washington. On the other

hand, US officials found the European attachment to the threat of nuclear catastrophe more reckless, as well as short-sighted, than the American attempt to establish firebreaks to contain conflict.

In an attempt to get the allies behind flexible response, the United States, under McNamara's direction, opened up the nuclear planning process to European inspection and consultation. It was an exercise in persuasion that led to the establishment of the NATO Nuclear Planning Group (NPG) in 1966.¹²¹

NATO finally adopted flexible response as official doctrine in 1967. The doctrine was outlined in a document known as MC14/3 entitled "Overall Strategic Concept for the Defense of the NATO Area". The acceptance of flexible response was facilitated by the French withdrawal from NATO's integrated military command. MC14/3 was a watered-down version of American ideas of flexible response.

Despite European hesitancy over flexible response the United States stuck to the doctrine and, indeed, moved to build on it. A series of developments between 1969 and 1975 led to a new SIOP (SIOP-5), which entered the warplans in January 1976. One of these developments arose out of the Jordanian crisis of 1970. Kaplan has noted that during this crisis National Security Advisor Kissinger became "frustrated" about the lack of plausible US limited

nuclear attack plans.¹²² This frustration apparently encouraged further efforts to formulate more refined target packages. SIOP-5 was based on a Nuclear Weapons Employment Policy (NUWEP-1, signed in April 1974), itself a result of National Security Decision Memorandum 242 (NSDM-242). NSDM-242 called for the development of more limited and selective nuclear attack plans.¹²³

These developments were associated with Defence Secretary Schlesinger. According to Schlesinger, "Nuclear weapons now cast their shadow over all of us..." He continued:

Without a firm foundation of nuclear deterrent forces the rest of our power would not count for much in the modern world.

I cannot stress this last point too strongly. All wars since 1945 have been non-nuclear wars shadowed by the nuclear presence. The threat to use nuclear weapons has remained, for the most part, in the background, but belligerents and neutrals alike have known that, like the big stick in the closet, it was there.¹²⁴

Schlesinger argued that strategic analysis and planning should take into account the possibility of limited Soviet attacks, such as against the allies or US ICBMs:

Nuclear threats to our strategic forces, whether limited or large-scale, might well call for an option to respond in kind against the attacker's military forces. In other words, to be credible, and hence effective over the range of possible contingencies, deterrence must rest on many options

and on a spectrum of capabilities (within the constraints of SALT) to support these options. Certainly such complex matters as response options cannot be left hanging until a crisis. They must be thought through beforehand. Moreover, appropriate sensors to assist in determining the nature of the attack, and adequately responsive command-control arrangements, must also be available. And a venturesome opponent must know that we have all of these capabilities.¹²⁵

Schlesinger found the options developed in the 1960s unsatisfactory:

In the past, most of those options - whether the principal targets were cities, industrial facilities, or military installations - have involved relatively massive responses.¹²⁶

Cordesman has noted reports that until the mid 1970s the limited SIOP attack options involved at least 2,500 weapons and were so closely meshed with NATO plans that they would have "almost automatically triggered" an additional 1,000 NATO nuclear strikes.¹²⁷

Schlesinger saw a requirement for a force that,

...in response to Soviet actions, could implement a variety of limited preplanned options and react rapidly to retargeting orders so as to deter any range of further attacks that a potential enemy might contemplate... [Another] requirement is for a range and magnitude of capabilities such that everyone - friend, foe and domestic audience alike - will perceive that we are the equal of our strongest competitors. We should not take the chance that in this most hazardous of areas, misperceptions could lead to miscalculation, confrontation, and crisis.¹²⁸

The result of these moves was the development of Limited Nuclear

Options (LNO). It seems clear that a primary rationale for LNOs was possible use of strategic nuclear weapons in regional conflicts. Schlesinger had talked of "the importance of strategic forces in establishing a framework within which conflicts may take place at a lower level."¹²⁹ He also referred to the extended deterrent to NATO and the way that it demanded "both more limited responses than destroying cities and advanced planning tailored to such lesser responses."¹³⁰ The possible use of LNOs in regional war also implied the selective targeting of the Warsaw Pact conventional force structure.¹³¹ Schlesinger explicitly tied his notions of limited nuclear war planning to the security of Europe in a presentation to some apparently incredulous senators during congressional hearings.¹³²

Cordesman has described two types of options, closely related to LNOs, that developed out of the NSDM-242 process:

- Regional Nuclear Options (RNO) included the entire mix of countervalue and counterforce targets in areas like the Warsaw Pact or Persian Gulf that might be attacked by US strategic and theatre nuclear forces. In many parts of the world, the same type of options were most logically targeted on Soviet territory...
- Theatre Nuclear Options (TNO) included all the military targets in the theatre of operations directly involved in the conflicts. They could involve many different types of 'theatre' throughout the world, and they often overlapped RNO when the theatre involved conflicts as large as the entire Central Region. More attention was also devoted to the use of theatre nuclear weapons in TNO than in the other options, although it was clear that theatre weapons could be employed in LNO and RNO as well.¹³³

Of course, in the NATO context, regional military capabilities were already backed-up by thousands of deployed theatre nuclear forces (TNF). Since 1966-67 the Alliance had been consulting on ideas for limiting the use of TNF in the event of the West deciding to cross the nuclear threshold in response to a Warsaw Pact conventional invasion; but progress was slow. The Nuclear Planning Group had a prominent role in this consultation. Buteux has summarised the early work of the NPG as falling into the three broad categories concerning discussions over (a) circumstances of NATO use of nuclear weapons; (b) objectives and means of such use; and (c) emergency consultations regarding use of nuclear weapons.¹³⁴

One of the first concerns of the NPG was with policy for Atomic Demolition Mines (ADM). This issue was apparently raised by Turkey (perhaps with German backing) in 1967. It was followed by German feelers for veto power over the use of NATO weapons based in the Federal Republic.¹³⁵ During 1968-69 an Anglo-German report on possible first-use of TNF was produced. The first-use issue has long been a central one in NATO thinking, so Buteux's following description of the Anglo-German report deserves to be quoted at length:

The 65-page paper suggested a number of general principles which should be included in the proposed guidelines governing resort to nuclear weapons in defence of the NATO area. Among them, one, clearly reflecting German interests, was that any decision to use nuclear weapons should be taken in the last resort by those immediately concerned. This was understood to mean the possessor of the warhead, the possessor of the launcher and the country from which the weapon would be fired. However, again as a general principle, the likely issues, circumstances and consequences surrounding a decision to use nuclear weapons would be fully discussed and, where possible, agreed by the allies in advance. Another proposal was that initially nuclear weapons should be used very sparingly, the report stressed that nuclear weapons used tactically were not to be conceived simply as an extreme form of artillery, but rather as a means of demonstrating resolve and the willingness of the allies to escalate the level of conflict further if necessary. The overall intention of the paper was not to extend the authority or responsibilities of the NATO military commanders, but to provide the basis for political guidance in a crisis, and to indicate the underlying tactical and technical problems that needed to be resolved, including the problem of rapid consultation in an emergency.

Although there was apparently a broad degree of acceptance for the proposals contained in the Anglo-German paper, agreement seemed closer on questions involving arrangements for consultation in the event of the possible use of nuclear weapons being considered than on questions involving what stage in a conflict such weapons might be used and on what scale. The joint paper seemed to suggest a rather earlier resort to nuclear weapons in the event of conflict in central Europe than was envisaged by the Americans. In addition, the Anglo-German approach seemed to favour in these circumstances a limited demonstration use rather than the more massive use favoured by the Americans in order to secure a definite, if only temporary, military advantage. In essence the difference was the old one between the Europeans who argued that forward defence could only be accomplished by the deterrent threat to use nuclear weapons at a relatively early stage in a conflict, and the Americans who continued to seek a higher nuclear threshold through increased conventional force contributions from the European allies. No firm guidelines were suggested as to where the nuclear threshold might occur. It was widely appreciated that this would depend on the circumstances and scale of any attack, and no allied government would commit itself to any firm course of action in advance. ¹³⁶

Other reports written in the context of the NPG at the time dealt with maritime use of nuclear weapons, ADMs, nuclear anti-aircraft weapons,

the use of TNF on the battlefield, and the demonstration use of TNF.¹³⁷

At the end of 1969 the Anglo-German paper on first-use was revised and accepted as "Provisional Political Guidelines for the Initial Defensive Tactical Use of Nuclear Weapons by NATO".¹³⁸ These guidelines have been described as offering the military an idea "as to the circumstances in which initial tactical use of nuclear weapons might be authorised."¹³⁹ It seems clear that the most important such circumstance was probably the threat of an imminent Warsaw Pact breakthrough. Also at the end of 1969, a decision was made to try and speed-up procedures for consultation in a crisis.¹⁴⁰

In 1970 NATO adopted a document called "Concepts for the role of theatre nuclear strike forces in Allied Command Europe". This was an attempt to place TNF doctrine more firmly into the framework outlined by MC14/3; it was revised in 1972. The document apparently provided a basis for the development of Selective Employment Plans (SEPs) for TNF.¹⁴¹ A report submitted in 1974 suggested that (in the words of Legge):

Follow-on use [of TNF, assuming the failure of first-use] should have the same purpose as initial use (to persuade the enemy to cease his aggression and withdraw), and the nature of the use should therefore still be selective and be designed to meet this political requirement.¹⁴²

In 1975 an attempt to produce "consolidated" guidance (presumably bringing together the numerous separate NPG reports) failed.¹⁴³

This may have reflected the difficulty in achieving a consensus on details (compared to general concepts), at least as far as TNF were concerned.

Despite these limitations some changes were made to the plans.

According to Cordesman:

Tactical nuclear bomb yields and tactical missile yields were...cut back to levels more proportionate to the size of Warsaw Pact targets. NATO also adopted new Nuclear Operations Plans (NOP) to reduce collateral damage, and changed the Priority Strike Programme (PSP) within the NOP to provide additional lower-threshold strike options.¹⁴⁴

Schlesinger saw the development of TNF as paralleling the shifts in SIOP level planning. He laid down five conditions for a sound TNF posture:

First, we must reduce their vulnerability to sabotage, seizure, and conventional assault.

Second, the vulnerability of these forces to surprise nuclear attack should be reduced, and the more exposed dual-capable systems should have the capability to disperse quickly so as to match a surprise dispersal by the Warsaw Pact. And even after dispersal, all forces should remain under central command and control, which may imply the organization of new units with more specialized nuclear missions...

Third, we need to improve our centralized command and control and campaign assessment capabilities to the point where reliable and comprehensive information about both non-nuclear and nuclear attacks, and the status of defending forces, can be more rapidly and reliably communicated to those political leaders who hold the responsibility for nuclear decisions and the release of nuclear weapons.

Fourth, target acquisition systems that can survive at least the first phase of any nuclear use still remain essential if we are to be able to implement a range of selective and controlled options, and at the same time limit the collateral damage from their implementation.

Fifth, we should continue to develop selective, carefully controlled options that will permit us: (a) to enhance our ability to deal with major penetrations of an allied sector and achieve a quick, decisive reversal of the tactical situation; and (b) to engage, if necessary, in a highly discriminating interdiction campaign against enemy lines of communication. Both basic options are designed so as to minimize the incentives for the enemy to reply at all or to respond with controlled attacks.¹⁴⁵

During the early 1970s US Army doctrine moved towards an explicit adoption of limited theatre nuclear operations. In 1971 a new field manual stated that tactical nuclear warfare was defined as

...a conflict between the land forces and associated air and naval forces of two or more nations in which nuclear weapons are limited to the defeat of opposing forces in a theatre of operations. Implicit in this definition is the condition that a strategic nuclear exchange on the belligerents' homelands does not occur.¹⁴⁶

In May 1973 an Army policy paper called "Deployment and Employment for Tactical Nuclear Weapons" identified five "employment options":¹⁴⁷

- 1) Demonstration
- 2) Limited defensive use
- 3) Restricted battle area use
- 4) Extended battle area use
- 5) Theatre wide use.

Another Army manual stated that:

Unless the enemy uses them first, nuclear weapons will not be authorised before conventional defenses have been severely tested and found inadequate. The situation facing corps at the time nuclear weapons are requested must therefore be grave -- under sustained attack by superior

forces, own forces becoming fully committed and not likely to hold, reinforcements not available, insufficient combat support and combat service support available to sustain the defense, and the survivability of the force in question. One of the criteria to be followed by the corps commander in requesting release of nuclear weapons is that the corps defensive capability must not be allowed to deteriorate to the point where the corps could not defend conventionally. After the release and execution of the nuclear strike, the corps must have sufficient forces available to conduct a conventional forward defense against the remaining enemy forces. (Emphasis added.)¹⁴⁸

In other words, use of nuclear weapons had to be delayed until conventional defenses were approaching a desperate condition, however the delay could not be too long; after a defensive nuclear strike ground forces were expected to be able to maintain a viable defence line.

Schlesinger, like McNamara, put NATO on notice that the burden of deterrence was shifting away from US nuclear weapons towards allied conventional forces.¹⁴⁹ Just as changes to the SIOP reflected a hope for escalation control, so too did the importance attached to conventional forces:

In an era of world-wide US interests, power politics and nuclear parity, it is preferable to deter or to repel limited threats by limited means. To do that requires a capability to place boundaries on conflicts and exercise some degree of control over the escalation of violence in the event that deterrence should fail. The general purpose forces, it is generally agreed, are best suited to these purposes.¹⁵⁰

Schlesinger made an obvious statement on first-use, but one with contentious implications: "the decision to use nuclear weapons will be an agonizing decision not lightly entered into by anybody nor lightly concurred in by the member nations of NATO."¹⁵¹ This meant, as shown above, that the Americans would push for a raising of the nuclear threshold and an enforcement of a firebreak between conventional and nuclear weapons. But, as in the early 1960s (and for much the same reasons) the US did not adopt a formal policy of no-first-use of nuclear weapons. Alliance diplomacy made that step very awkward; besides, the option of first-use might come in handy. Indeed, the development of limited nuclear options could be seen as a way of possibly lowering the first-use threshold - but in a seemingly discriminate manner.

By the mid-1970s there was a recognition that the NATO TNF stockpile could, and probably should, be trimmed back; this view was apparently shared by Schlesinger, however political factors (primarily concerning the reassurance of the European Allies) acted as a break to such a policy.¹⁵² In short, NATO's military posture was at least as much a product of ill-defined political compromises as of a coherent strategic plan. The nature of the nexus between nuclear and conventional forces was partly defined, and partly obscured, by the attempted provision of multiple military options and the ambiguities of MCL4/3 which directed military commanders to,

...provide for the employment as appropriate of one or more of direct defense, deliberate escalation, and general nuclear response, thus confronting the enemy with a credible threat of escalation in response to any type of aggression below the level of a major nuclear attack.¹⁵³

TNF would be used to support a conventional defence line "as late as possible but as early as necessary".¹⁵⁴

G) Summary: The Doctrinal Inheritance and Strategic Framework Of The Mid-1970s

It now remains to show how the development of US warplanning from the 1940s to the 1970s was reflected in the way that strategy was thought about on the eve of the Carter administration's term of office. Mainstream strategic analysis of the mid-1970s can be described in terms of a loose conceptual framework. This framework was largely arranged around the demands of extended deterrence; that is, the American security commitments to its allies provided primary reference points in strategic thinking. It was within this context that concepts such as escalation and flexibility acquired practical meaning and relevance.

As the historical survey has shown, some issues have been more-or-less constant concerns of US policymakers since the 1940s. These include deterrence and coalition warplanning. Other issues surfaced over time as major preoccupations of planners - examples here are: the search for strategic flexibility and the development of options, and uneasiness over questions of credibility of threats.

Deterrence has been accepted as a key security concept since the start of the Cold War. Deterrence has been a long-standing theme in American policy and has provided an important rationale for military planning. Besides which, deterrence along with its attendant military planning, became enmeshed in what Howard describes as the American objective of "reassuring" the European allies. This was because American plans for deterrence were substantially rooted in the security guarantee to Europe offered in the 1940s. Extended deterrence, as an immediate planning issue, predated concern over "central strategic" deterrence; indeed, it can be argued that the latter grew out of the former.

Deterrence is about convincing the other side that it probably could not win a war and, or, that the costs of aggression would outweigh the benefits. An assumption of post-war deterrence thinking has been that general war would probably be disastrous, with incalculable consequences, and would involve a risk of the breakdown of the fundamental strategic equation whereby military means are supposed to be held in balance with political objectives.

Using these criteria it is possible to argue that the Soviet Union and United States may have been in a condition of mutual deterrence since the 1940s. The US has never been confident of beating the USSR in a "clean" war whose outcome could be comfortably predicted. A 1949 report on the "Evaluation of Effect on Soviet War Effort Resulting from the Strategic Air Offensive" noted that:

Atomic bombing would open the field and set the pattern for all adversaries to use any weapons of mass destruction and result in maximum retaliatory measures within Soviet capabilities.

Atomic bombing will produce certain psychological and retaliatory reactions detrimental to the achievement of Allied war objectives and its destructive effects will complicate post-hostilities problems.¹⁵⁵

In 1950 NSC-68 pointed out the problems of ending a war with the USSR on favourable terms. It stated that "even if [a US surprise attack] were successful":

It is clear that the United States would face appalling tasks in establishing a tolerable state of order among nations after such a war and after Soviet occupation of all or most of Eurasia for some years. These tasks appear so enormous and success so unlikely that reason dictates an attempt to achieve our objectives by other means...

A powerful blow could be delivered upon the Soviet Union, but it is estimated that these operations alone would not force or induce the Kremlin to capitulate and that the Kremlin would still be able to use the forces under its control to dominate most or all of Eurasia. This would probably mean a long and difficult struggle during which the free institutions of Western Europe and many freedom-loving people would be destroyed and the regenerative capacity of Western Europe dealt a crippling blow.¹⁵⁶

Kaplan has shown how reluctant the US was to use its nuclear superiority during the crises over Berlin and Cuba in the early 1960s; and this was "the last time that either side could seriously contemplate a 'splendid first strike.'"¹⁵⁷

From the military point of view deterrence has been seen to rest on warplans and the capabilities and will to execute them. Specific elements of the warfighting basis of deterrence have been subject to scrutiny because of a belief that relatively narrow factors (such as numbers of weapons) may be critical in the strategic balance which underpins deterrence. In short, narrow military factors have been analysed for their implications for warfighting utility and, by extension, deterrence. This happened in speculation over: SAC vulnerability and the "bomber gap" in the mid-1950s; the "missile gap" of the late 1950s; the conventional balance in Europe since (at least) 1961; the need for strategic nuclear flexibility in the early 1960s and mid-1970s. The fear was that a "gap" in the force structure could open a "window" of opportunity that the Soviet Union might be tempted to exploit either politically or militarily.

But there was also a broader view of deterrence which suggested that some "gaps" were more apparent than real, that deterrence in the nuclear age was quite strong (especially given invulnerable second strike forces capable of destroying the attacker's society in a retaliatory strike), and that deterrence was based on all sorts of factors - not merely numbers and types of weapons.

Despite this alternative broader view some planners and analysts saw merit in the more military demanding perspective; "gaps" in the spectrum of deterrence had to be plugged, every step in a hypothetical escalation ladder had to be covered by appropriate forces. This approach focussed a good deal of attention on Soviet capabilities and doctrine, and bred "worst case" thinking.

In a sense the relationship between Western nuclear and conventional forces was seen to represent a potential gap in the spectrum of deterrence. This type of thinking lay behind some of the developments of flexible response: it was one reason for the refinement of limited nuclear warplanning and the advocacy of a conventional force build-up. At least four assumptions were involved here:

- 1) Nuclear parity between the superpowers made conventional war between them more likely. The side best able to engage in conventional operations was therefore at an advantage.
- 2) There was a synergistic relationship between nuclear and conventional forces.
- 3) There should be a continuum of usable force, from low-level conventional operations to large-scale nuclear conflict -- not withstanding the importance of the nuclear threshold.
- 4) The Soviet Union had, or was developing, a force posture and doctrine that enabled it to exploit the nexus between nuclear and conventional forces. For example, it seemed to be better placed than NATO to fight a conventional war or to engage in combined conventional-nuclear operations. Some analysts believed that the USSR might also be able to manage the transition from conventional war to nuclear conflict better

than NATO. Moreover, the USSR, by the mid-1970s, seemed to be acquiring a military posture aimed at eventual escalation dominance.

The first two of these assumptions were outlined in the last US Annual Defense Report (for Fiscal Year 1978) submitted before the Carter administration took office,¹⁵⁸

with the reality of rough equivalence in nuclear forces, gains and losses in the international arena are largely determined by conventional military power, will, and resolve. To complete the paradox, conventional military power obtains authority from the nuclear capabilities underlying it.

The second and third assumptions were brought together by the Report in the following terms,

...there is no clear distinction between strategic and theater (or tactical) nuclear forces. For some years, the Soviets have based variable-range ICBM's in their IRBM/MRBM fields, now, with the prospective deployment of the SS-X-20 missile and the deployment of the Backfire bomber, they have introduced a further element of ambiguity as to the range of capabilities and missions of their various nuclear forces...[In addition] Aircraft and missiles designed to perform deep missions, and attack what used to be called strategic targets, may not necessarily have the decisive role in nuclear warfare currently attributed to them. The outcome of a nuclear conflict, as has been the case in more traditional warfare, could depend on an ability as much to hold or occupy territory as to destroy specific targets. (Emphasis added.)¹⁵⁹

This report reiterated the point that the putative deterrent gap between conventional and nuclear forces was to be bridged by the threat of first-use of TNF:

The United States has never ruled out a first use of nuclear weapons. If an enemy, whether by stealth and deception or by large-scale mobilization, should attempt to defeat U.S. and allied conventional forces, it is NATO and US policy to take whatever action is necessary to restore the situation. Thus, the theater nuclear forces provide a source of options and flexibility that would be difficult and perhaps inadvisable to incorporate exclusively into strategic nuclear forces.¹⁶⁰

TNF were to be targeted in a way that gave added firepower to the conventional defence:

The United States plans its theater nuclear forces on the basis of war-fighting missions. Both the posture and the contingency plans place proper emphasis on restraint rather than on indiscriminate damage, and on the achievement of traditional military and political objectives, rather than on the destruction of an enemy's society.¹⁶¹

Among other things this sort of thinking suggested a role for "mini-nukes" - such as Enhanced Radiation Weapons ("neutron bombs"). Three categories of TNF targets were identified in the Report quoted above:

- limited nuclear strikes designed to destroy selectively important, fixed military targets and at the same time demonstrate a determination to resist the enemy's attack by whatever means necessary;
- regional nuclear strikes intended, as one example, to destroy an attacking enemy force before it achieves a major breakthrough;
- and theaterwide strikes directed at counter-air and

counter-missile targets, lines of communication, and troop concentrations both at the front and in reserve.¹⁶²

The implications of US TNF doctrine, and improvements in Soviet capabilities, for TNF force posture modernisation were spelt-out by the Report as follows:

- improved survivability through well planned dispersal, greater mobility and hardening, and reduced vulnerability to sabotage, seizure or conventional attack;
- more accurate, timely, and discriminate operational intelligence and target information;
- doctrine and plans that allow the TNFs to support battlefield or theater-wide requirements more rapidly and effectively;
- weapons that would allow us to minimise collateral damage, while maximising damage to enemy targets;
- systems that more effectively complement conventional force capabilities.¹⁶³

Clearly the development of US doctrine was not taking place in a strategic or geopolitical vacuum. The demands of extended deterrence have already been mentioned as a driving force behind shifts in American warplanning. The other side of the coin, obviously, was a perception of the Soviet threat to NATO; and, indeed, the world beyond NATO. The Defence Report preceding Carter's inauguration (referred to earlier) claimed that the Soviet threat was growing more powerful; containment was now under threat and the USSR appeared to be developing a "warfighting capability".¹⁶⁴ In January 1977 Major General Keegan, head of US Air Force intelligence, wrote an alarming (some would say alarmist) description of the difference between US and Soviet views of deterrence and nuclear warfighting. The Russians,

apparently, had discovered, and were developing, the key to strategic advantage in the nuclear age; the US, by contrast, had not grasped certain fundamentals:

I am impressed by the soundness of the Soviet literature on these matters. The Soviets have correctly attended to the knitting of war and strategy. They have determined that a nation can survive a nuclear holocaust; and they have proceeded to get on with the business of being capable of initiating, waging and prevailing in a nuclear conflict.

I am convinced that the Soviet approach is more realistic than our own...

On the basis of hard evidence of equipment, training and doctrinal trends, it is my judgment that a Soviet war planner in charge of the Warsaw Pact battle plan could anticipate being able to defeat NATO in twenty-four to thirty-six hours, with or without nuclear weapons... (Emphasis added.)¹⁶⁵

An article entitled "Contrasts in American and Soviet Strategic Thought" was published in International Security in 1978. Its author, Fritz Ermarth, wrote the piece before becoming a member of President Carter's National Security Council staff; he referred to "the critical times in the US-Soviet strategic relationships we are facing." Ermarth went on to say that:

In our thinking about the actual prosecution of a strategic conflict, once conflict at that level begins we tend to forget about what might be the local outcome of the regional conflict that probably precipitated the strategic exchange.

The Soviets, on the other hand, appear to take a more comprehensive view of strategy and the strategic balance. Both in peacetime political competition and in the ultimate test of a central conflict, they tend to see all force elements as contributing to a unified strategic purpose, national survival and the elimination or containment of

enemies on their periphery. The U.S.S.R. tends to see intercontinental forces, and strategic forces more generally, as a means to help it win an all-out conflict in its most crucial theater, Europe...Soviet intercontinental strike forces are an outgrowth and extension of forces initially developed to cover peripheral targets. Land combat forces, including conventional forces, are carefully trained and equipped to fight in nuclear conditions... In any case, regional conflict outcomes seem not to lose their significance in Soviet strategy once strategic nuclear conflict begins.¹⁶⁶

In other words, the Soviets were apparently more serious about the strategic linkage between conventional and nuclear forces than Americans. They seemed to have a "more comprehensive view."

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CHAPTER FOUR

THE VIEW FROM WASHINGTON, 1977 - 1980 MANAGING THE NUCLEAR-CONVENTIONAL NEXUS.

A) Introduction

President Carter came into office with promises to restore America's vision and pride. The rhetoric suggested a fresh approach to defence and foreign affairs. The supposedly stale and morally questionable policies of the Nixon/Ford-Kissinger years were to give way to policies based on a more ethically sound and imaginative vision. Extravagant defence projects like the B-1 bomber were to be dropped and the defence budget was to be cut. Moves were to be made to rid the Earth of nuclear weapons. No longer was an "inordinate fear of communism" going to dominate America's view of the world. More attention needed to be given to the challenges of North-South relations, human rights, nuclear proliferation, and regional peace in the Middle East and Southern Africa.¹

But, for all the apparent novelty of the political rhetoric, national security policies were not radically altered. Establishment figures were appointed to key positions: Harold Brown as Secretary of Defense; Cyrus Vance as Secretary of State; and Zbigniew Brzezinski as National Security Advisor.² While these three central officials may have had differences of opinion from their predecessors (and between each other), it would be difficult to argue that their appointments

represented a fundamental break from long established perspectives or a deep seated shift in the American international relations paradigm.

As Gaddis has noted, "Carter in fact had few differences of substance with the Nixon-Ford-Kissinger policies." He adds that the Carter administration,

developed no new strategy, but they did graft onto the basic premises of the old one certain highly visible initiatives designed to make it appear as though the American approach to the World had changed when in fact it had not.³

The administration did not dramatically reorientate the management of core national security interests. It did not unilaterally abandon a balance of power with the USSR. Nor did it reject the view that this balance was largely hinged on the NATO-Warsaw Pact stand-off in Europe and the central strategic stalemate.

This balance of power was based on interlocking regional balances and the linkage between local conventional forces, often supported by a US military presence, and American nuclear strikepower. This helped underpin two much publicised elements in US foreign policy at the time: detente and trilateralism. Detente was a term used to describe a policy which attempted to balance East-West competition with cooperation - a form of Great Power management. Trilateralism was an emphasis on building closer links between the core democracies of

Western Europe, Japan and the USA. Within the context of detente and trilateralism, interdependence was to be stressed, but not at the cost of weakening America.

There was no question of retreating from NATO and despite some early signals suggesting otherwise, there was no serious question of abandoning nuclear deterrence or of drastically cutting the defence budget. Indeed, during the course of the administration's term, the conservative stand in US national security policy was reinforced. The administration was seen to move joltingly away from a soft centerist position on national security towards a more hawkish posture.

This move to the Right had three related causes: dissatisfaction with Soviet behaviour, most dramatically in the case of the invasion of Afghanistan; domestic US political forces; and the working-out of different strands of opinion within the administration. In due course Carter adopted a more explicitly negative view of the USSR and sponsored a stronger defence posture than the one he had inherited. Carter was bitterly disappointed by the actions of the Soviet Union. In his memoirs he stated that:

The fact was that when violence occurred in almost any place on earth, the Soviets or their proxies were most likely to be at the centre of it.⁴

Reinforcing the trend towards stronger defences was the military-industrial complex which Carter has described as "extremely powerful"

and, in some cases at least, "almost impossible to stop".⁵ These forces for change towards a tougher military stance were given a good deal of encouragement by highly publicised lobby groups such as the Committee on the Present Danger. These groups attempted to expose and resist perceived official softness on defence issues.⁶

Limited US public discussion of the nuclear-conventional nexus was occasioned by moves to modernise NATO's TNF posture, in particular with regard to Enhanced Radiation Weapons, Cruise Missiles and Pershing II. Among other things this led to renewed controversy over NATO's option for "First-Use" of TNF. This, of course, revolved around the wisdom, or lack of it, of linking the risk of nuclear holocaust to the possibility of conventional war in Europe. (As the turmoil in the Middle East was reaching a climax in 1979-1980 concern over the nuclear-conventional nexus was expressed with regard to possible American reaction to hypothetical events in Iran, Afghanistan or neighbouring countries -such as a Soviet take-over of the Persian Gulf oil fields.⁷)

This study necessarily focusses on particular aspects of Carter's national security policies and excludes areas of considerable importance, such as the American-Israeli-Egyptian talks and the Iranian revolution, which, at the time, had a high priority. It is therefore necessary to bear in mind the following words of Carter's National Security Advisor:

The general reader probably cannot imagine the extraordinary pressures of time under which those engaged in shaping America's global policy operate. The president's advisers are like jugglers: moving from meeting to meeting, from topic to topic, dealing with developments as they occurred in an increasingly disorganized world. There is probably no effective way of conveying this atmosphere, for which the overused simile of the pressure cooker is, if anything, an understatement...each problem, no matter how urgent, remained only one of a number of pressing concerns which had to be dealt with **simultaneously**.⁸

The rest of this chapter will describe the NATO related defence reviews of the administration and the extent to which the nuclear-conventional nexus was identified, conceptualised, and treated by decision-makers.

B) Establishing a basis for policy

In early 1977 the newly installed Carter administration was facing a strategic environment which, according to many conservative analysts, was becoming increasingly hostile and unfavourable to the United States.⁹ Across-the-board improvements in Soviet military power were allegedly pushing the US into an inferior strategic position. The Soviet threat appeared to be taking a more ominous shape consisting of Russian adventurism in the Third World, an emerging new generation of long range TNF, the deployment of heavy MIRVed ICBMs, and Warsaw Pact conventional force modernisation. Underlying all this was the worrying argument that the USSR had a comprehensive nuclear warfighting doctrine.¹⁰

These concerns were heightened by parallel reports on Soviet conventional military power and the Soviet nuclear posture. In January 1977 the influential Senator Sam Nunn, and his colleague Dewey Bartlett, submitted a report to the US Senate Committee on Armed Services entitled "NATO and the New Soviet Threat". The report stated that "the Soviet Union and its Eastern European allies are rapidly moving toward a decisive conventional military superiority over NATO". Moreover, the Warsaw Pact was developing a "standing start" invasion capability: they were developing the forces and doctrine to overwhelm NATO defences quickly and with little warning. The significance of this, the report warned, "cannot be exaggerated".¹¹

Adding to the atmosphere of concern over Soviet capabilities and intentions was a highly alarming semi-official intelligence report inherited by the Carter administration. This was the so-called "B Team" report, a product of hawkish analysts brought into the intelligence system to offer an independent assessment of the Soviet threat¹³ (some of these analysts were to become members of the Committee on the Present Danger). According to Prados,

The B Team argued that the Soviet Union's ultimate intentions were to develop forces able to interfere with the free flow of ocean transport, to deny raw materials to the West, and to disrupt fuel supplies; it aimed for the projection of power on a global scale and strategic forces that would have a first-strike "war-winning" capability.¹³

Faced with these alarming interpretations of the Soviet threat, and keen to develop its own policies, the Carter administration embarked on a review of the strategic environment. As Prados notes, "the new administration did all it could to put the B Team episode behind it."¹⁴

Presidential Review Memorandum 10 (PRM-10) was ordered on 18 February 1977. It was entitled "Comprehensive Net Assessment and Military Force Posture Review". According to Harold Brown,

One part of it, the comprehensive net assessment, looked at the world in general, and the evolving relationship between the United States and the Soviet Union in particular. The second part addressed the capabilities of the current US defence posture under various assumptions and constructed a range of defense postures for the US, along with rough estimates of their costs and what they could accomplish.¹⁵

The comprehensive net assessment was conducted by the National Security Council (NSC); the Force Posture Review was produced by the Department of Defense.

The closest that PRM-10 came to analysing the nuclear-conventional nexus seems to have been in its treatment of defence options for NATO forces in West Germany. One of these options - which was officially rejected - appeared to back away from forward defence and first-use. This option outlined a potential fall-back position

for conventional forces along the Weser-Lech line running up to eighty miles deep inside West German territory. When news of this potential option leaked it added to America's political problems in Europe (particularly with regard to the relationship with the German Federal Republic).¹⁶

The controversy over the possible fall-back position in Europe raised questions over the military feasibility and political significance of forward defence. It also suggested a qualification of the pledge to maintain an option for the first-use of TNF. However it appears that no high level studies or defence reviews were specifically addressed to the "first-use" issue during the PRM-10 exercise, nor does it seem that the linkage between nuclear and conventional forces was explicitly focussed upon.¹⁷

PRM-10 has been described as "an organisational monstrosity". Elements of it have been referred to as "conceptually unsound" and "an exercise in confusion". PRM-10 led to Presidential Directive 18 (PD-18). PD-18 was, reportedly, only "marginally useful".¹⁸ It did not provide a firm basis for policy.¹⁹ Essentially it endorsed inherited policy, noted the rising strategic importance of the Middle East, and called for follow-on studies dealing with strategic nuclear weapons policy. The PRM-10/PD-18 exercise had fulfilled one task however: it

qualified the more worrying conclusions of some earlier estimates of the strategic environment.

PD-18 noted, in general terms, the significance of the nuclear-conventional nexus. According to one report,

Mr Carter...asked that the Soviet Union be prevented from attaining enough strategic power to deter or coerce the United States from taking action with conventional forces in areas considered vital to United States interests.

The President's directive made clear that because an era of nuclear equivalence had dawned, increasing significance must be given to conventional military power.²⁰

Thus the nuclear umbrella would not only be a deterrent to war, it might also be a shield behind which United States conventional forces might fight. The "increasing significance" of conventional military power was reflected in the Carter administration's decision to strengthen NATO's ground and air forces. In particular, PD-18 called for an improved NATO capability for quick response to a potential Warsaw Pact invasion.²¹

C) The focus on conventional forces

The idea that NATO should significantly strengthen the conventional element of its defence was hardly new. As mentioned in earlier chapters, it has been a recurrent theme in strategic debate since at least 1950. And, as also discussed, since the early 1960s conventional force improvements had been seen as a way to raise the nuclear threshold.

The particular form in which the Carter administration developed its policy on NATO conventional defence improvements had its roots in various studies undertaken in the early to mid-1970s. These included a classified RAND study calling for an integrating framework, collectively formulated by NATO, to provide direction for long term programmes.²² As a result of this and other efforts the administration pushed for the adoption, by NATO, of the Long Term Defence Programme (LTDP) and the parallel Alliance commitment to increase defence expenditure by three percent in real terms per year.

An important driving force behind these initiatives was Robert Komer. Komer was appointed by the incoming administration as advisor on NATO affairs to the Secretary of Defense; subsequently he moved over to become Under-Secretary of Defense for Policy between 1979 and 1981. Prior to his work in the administration Komer had shown a special interest in NATO conventional defence improvements.

In a 1973 RAND publication, Komer stated that, "the myth of inevitable Pact superiority is to a great extent a self-inflicted

wound."²³ According to Komer, NATO was underestimating its own inherent strength and exaggerating Soviet capabilities. Further,

Ironically, the sedulous fostering of this image of an overwhelming threat by generations of NATO military authorities to buttress their pleas for higher defense spending has had the opposite effect. Instead, it has helped convince their civilian masters that only nuclear deterrence makes sense.²⁴

Komer was keenly aware of cost constraints in any attempt to strengthen the conventional element of flexible response,

the normal answer to NATO's security dilemma - to buy more forces to meet the full spectrum of threats - is not a viable answer these days. For the other horn of NATO's dilemma in the seventies is that just when a credible conventional capability is becoming more essential, it is becoming more expensive.²⁵

"New approaches" were required which, "avoid politically unrealistic budget increases...The Alliance will have to find ways of doing more with less."²⁶ The solution, according to Komer writing in 1973, was a rationalised force structure streamlined to meet a Soviet armoured blitzkrieg, rather than a protracted sea-land war. The requirement was for more cadre/reserve units, quick reinforcement, more anti-tank weapons, barriers, enhanced Alliance cooperation, and leaner divisions with a greater tooth-to-tail ratio. By 1976 Komer's thinking had become more focussed on the requirements for "preparation for coalition war". In particular this necessitated an enhanced ability of the allies to fight together - especially in and over West Germany.²⁷ The following year he wrote "Rationalization is a concept

whose time has come in NATO".²⁸ It was to be a way of enhancing effectiveness while limiting costs.

The Carter administration centered its NATO conventional force improvement initiative around the LTDP. According to Harold Brown,

The LTDP was developed to bring increased efficiency to the use of limited resources by explicitly increasing the levels of coordination, joint planning, equipment compatibility and mutual support among NATO forces.²⁹

Brown has described the nine primary elements of the LTDP as follows (a tenth element - dealing with TNF - will be discussed in the next section):³⁰

1. Readiness

NATO will increase its ability to respond with the maximum possible combat capability in the face of short warning time. Specific programs to increase readiness include: improvement in anti-armor units; modernization and increased holdings of air-to-surface weapons; improved defense against chemical warfare; enhanced support from the civil sector; increased holdings of tanks, anti-armor weapons and missiles, and armed helicopters; increased ability to upload ammunition at short notice; and a larger commitment of national forces to NATO.

2. Reinforcement

NATO will develop an increased capability for rapid and effective reinforcement of the Allied Command Europe. This will include: the greater commitment of civil air, sea, and land national infrastructure resources to the reinforcement task, more effective arrangements to co-ordinate the flow of reinforcements; and new measures to accelerate movement of significant fighting units and tactical air forces to the forward areas in the critical early phase of any potential conflict with the Warsaw Pact. Central to these efforts is the US commitment to more than double its ground reinforcement

rate in the first week after mobilization by adding prepositioned equipment for three additional prepositioned divisions by the end of FY 1982.

3. Reserve Mobilization

Additional measures will be taken to ensure that reservists and reserve formations are properly equipped, trained, and deployable where they are required. Programs include: bringing national reserve forces up to established NATO standards; improving the operational readiness of certain reserve units; and, for some European countries possibly forming additional units over the long term from uncommitted reserve manpower.

4. Maritime Posture

NATO will develop a stronger and better-coordinated maritime defense. This effort will involve: enhancing maritime command, control, and communications; increasing capabilities for air defense of naval units; improving anti-submarine capabilities; developing better surface-to-surface and anti-ship missile capabilities; increasing mine warfare capabilities; and cooperating in the development of key weapon systems. The correction of shortfalls in the number of ships will be sought under established NATO planning procedures.

5. Air Defense

Improvement of NATO's air defense capabilities will include: improvement in capabilities of identification of hostile aircraft; enhancement of the control of NATO's own combat aircraft; improvements in fighter aircraft; and the acquisition of better surface-to-air weapons and more air-to-air missiles.

6. Command, Control and Communications (C³)

Overall capabilities will be improved by: implementing the second phase of the NATO Integrated Communication System (NICS); more co-operation in the field of maritime communications; and improvements in combat net radios, NATO/ national area interconnections, automatic data processing and war headquarters improvements.

7. Electronic Warfare (EW)

Increasing our ability to counter the sophisticated electronic warfare threat posed by the Warsaw Pact to NATO's forces is particularly important. Both offensive and defensive improvements in organization and procedures for NATO's EW forces, as well as closer cooperation in EW research and development, are included in the LTDP.

8. Rationalization of Armaments Production

The alliance can enhance its military efficiency by increased standardization and interoperability of weapons and munitions, resulting in savings that could be applied to an increase in forces.

9. Logistics

NATO will improve its policy and organization for enhancing the logistical support of combat forces. A position of NATO Assistant Secretary General Infrastructure and Logistics has been created. Improvements will be facilitated by: defining more clearly the logistics support responsibilities of NATO commanders and member nations; providing improved logistics structures within NATO military commands; developing a logistics master planning system for better planning and management of NATO logistics functions; increasing war reserve stocks of combat equipment; seeking ways to improve flexibility in the use of ammunition stocks in war; and building up war reserve stocks of primary fuels, ammunition and supporting equipment with improved storage facilities.

The LTDP was complemented by "a programme of short-term measures in areas of anti-armour, war reserve munitions, and readiness and reinforcement."³¹ Paralleling the LTDP, efforts were made to strengthen the NATO infrastructure programme (which covers collectively financed projects such as some communications systems) and host nation support (whereby European support is given to US forces in NATO).³²

An important aspect of these improvement measures was, of course, the promise they held out for greater cost effectiveness. However, despite this, there was also pressure to increase defence expenditures. This was to lead to heavy-handed US pressure on its European allies to commit themselves to sustained real growth in their defence budgets of about three percent per year.

The three percent goal emerged from Washington in time for a NATO meeting in May 1977. According to a report by the Foreign Policy Research Institute, the "three percent" objective,

asked nothing impractical of the Europeans, who were already doing that much or better in many cases; it was close to the estimated Soviet increase; and it accorded with anticipated economic growth so that no increase in the percentage of GNP or of the portion of the national budget devoted to defense would be necessary. The Three Per Cent appeared to strike a balance between what seemed feasible on the one hand and what seemed prudent on the other.

Indeed, according to the same report,

the burden of the Three Per Cent fell first and foremost on the United States. It was an American initiative, and it promised to sustain a reversal of the trend toward reduced defense allocations in the United States. Along with the LTDP it would signify a change in American priorities, a return to the basics of the North Atlantic Alliance after the disastrous foray into Southeast Asia.³³

But Carter was not disposed to higher defence expenditure (not this early in his term anyway) and had, in his election campaign, talked of cuts. One way around this problem was to hold the defence budget down and assign NATO a higher priority within it. Although the administration considered this idea, it finally decided, at the end of

1977, to apply the three percent formula to the budget as a whole. Nevertheless, the defence budget was rearranged in favour of conventional forces at the expense of the strategic nuclear arsenal (for example the B-1 bomber was cancelled and the MX and Trident programmes were slowed down).³⁴

The Alliance agreement to increase defence expenditure in real terms at an annual rate "in the region of three percent" was outlined in an annex on "Ministerial Guidance" after the May 1977 meetings of NATO. The increases in expenditure were necessary, according to an Alliance communique, because "the disparity in conventional military capabilities between NATO and the Warsaw Pact continues to widen". An "emphasis placed on conventional force improvements" would "avoid the need to use nuclear weapons at an early stage of a conflict." Thus,

Priority should be given to those capabilities which contribute directly to deterrence and to NATO's ability to withstand the initial phases of attack and, in particular, to measures which will enhance readiness and reinforcement capabilities and promote a collective approach to equipping, supporting and training Alliance forces.³⁵

It is clear that one motive for strengthening NATO's conventional forces was to raise the nuclear threshold. Carter wanted to buy time in a potential European conflict by lengthening the fuse between an outbreak of conventional hostilities and a decision to use nuclear weapons.³⁶ The LTDP and the three percent goal were, in a limited sense, attempts to weaken the linkage between conventional and nuclear

strategy. A consequence of stronger conventional forces was a lower probability of escalation from conventional to nuclear war - or so it was suggested.

Another reason behind the measures to improve conventional forces was the idea that nuclear stalemate between the superpowers opened the door to conventional war - especially if there was a conventional force imbalance. This reasoning closely echoes similar American policies in the early 1960s. Then the European response was a mixture of ambivalence and recalcitrance. The allied position was, in general terms, that the linkage between nuclear and conventional deterrence should be reinforced not (as seemed to be the American preference) weakened. The European view pivoted on the concept of "coupling" - the integration of the European and North American theatres of operations. US moves to raise the nuclear threshold were seen as "decoupling"; preparing to fight a conventional war in Europe was seen as separating the European theatre from the US nuclear guarantee. It was not that the allies wanted to abandon firebreaks and encourage rapid escalation. On the contrary, in a war the Europeans would probably be desperate to contain conflict. But they were unsettled by the prospect of public declarations of strategy built around firebreaks which might encourage Soviet adventurism and domestic protest.

To help fend-off some of these doubts the Carter administration added consideration of TNF modernisation to the LTDP. This aspect of the LTDP was to assume an unintended dominance in NATO's defence debate, overshadowing the primary purpose of the programme. The inclusion of TNF modernisation in the LTDP was part of an American attempt to sell conventional defence improvements to its allies.³⁷

D) Patching together an "evolutionary upward adjustment" in NATO's

TNF

Despite the essentially political nature of measures to modernise NATO's TNF, there were also technical and military reasons for a review of the Alliance's nuclear position. These reasons were apparent before the Carter administration took office. For example, a 1974 Brookings Institution report noted that:

An alternative to the present US tactical nuclear posture in Europe, a posture now ill suited for credible deterrence or defense, is clearly in order. Both the number and the destructive power of US TNW on the continent are excessive for either purpose, and the deployment is needlessly vulnerable to both preemption and the threat of unauthorized use. Moreover, the doctrine governing the use of US TNW in Europe is incongruent with the character of the weapons themselves.³⁸

This report advocated a large cut in the numbers and explosive yields of TNF, the elimination of artillery-delivered nuclear warheads and a greater reliance on missiles for nuclear missions.

Before Carter came into office the US Defense Department had outlined criteria for TNF modernisation. As discussed in chapter three, the Departments Annual Report for Fiscal Year 1978 (published in January 1977) called for: (a) improved TNF survivability; (b) changes to doctrine to allow more effective use of TNF; (c) improved command and control; (d) better TNF target intelligence; (e) TNF that would maximise military effect while minimising unintentional damage; and (f) TNF that "more effectively complement conventional force capabilities." To this end, "renewed planning efforts [focussed] on

improving operational procedures for the TNF and enhancing coordination of nuclear and conventional forces."³⁹

Measures to modernise TNF represented an attempt to put some operational substance into doctrinal statements. A member of Carter's NSC staff, James Thomson, has noted that, by the mid-1970s, little had been done in terms of force structure to implement the flexible response doctrine agreed to by NATO in 1967. An additional motive was concern over the new generation of Soviet TNF (including Backfire bombers and SS20, SS21, SS22, and SS23 missiles).⁴⁰ In the background was, of course, strategic parity which, as discussed above, appeared to neutralise central strategic forces and refocus attention on regional balances. The relationship between central strategic and theatre nuclear forces was brought into political prominence during the course of SALT, especially in the wake of the 1974 Vladivostok agreements. The suggestion that SALT might restrict future Western TNF deployment options caused particular concern among the European allies. For all these reasons (the requirements of flexible response, the perceived need to counter new Soviet TNF, and allied concern over SALT), the Carter administration, in the words of Thomson, "inherited a looming strategic and political problem..."⁴¹

The first manifestation of this problem faced by Carter was the controversy over Enhanced Radiation Warheads (ERW) - or "neutron bombs". In the NATO context ERW were intended to maximise the

military effectiveness of short-range or battlefield TNF in combined nuclear-conventional operations. At the same time ERW were supposed to minimise unintentional (or "collateral") civilian and military damage. This was to be done by modifying a nuclear warhead so that short term radiation effects are increased ("enhanced") while blast effects are decreased. The most suitable delivery system for ERW were considered to be Lance surface-to-surface missiles and nuclear-capable artillery. Lance has a range of 125 km, and the artillery a range of up to 30 km. Both weapons are more-or-less integrated into the conventional posture of US and allied forces in Europe. It was expected that the primary target of NATO ERW would be Warsaw Pact conventional forces, particularly armoured concentrations, that threatened to break-through NATO's defences.⁴²

In November 1976 President Ford approved research and development of ERW.⁴³ In June 1977 the Washington Post published a critical, sensationalist "expose" of the ERW programme. This was the first of a series of "Killer Warhead" headline stories. According to Wasserman, "in a sense, the press made the neutron bomb a political issue."⁴⁴ The ERW was presented as a peculiarly evil device - "a supercapitalist weapon." The effects of an ERW detonation would, according to exaggerated press reports, be to kill and sicken people in a uniquely grotesque way while leaving buildings undamaged. A different level

of criticism of ERW concerned their putative effect on the nuclear threshold. Being relatively small 'clean' nuclear weapons it was suggested that they might be more easily used than older weapons in the stockpile. In other words it was argued that ERW might lower the nuclear threshold. It was also suggested that although ERW might appear to provide an option for limited 'clean' nuclear operations, their use would almost certainly set off a chain of escalation leading to all-out war. According to this view, the availability of ERW might well lead to a dangerous misreading of the possibilities for escalation control.

These ideas were fuelling a lively public debate within the USA and Europe.

Within the Carter administration there was a good deal of "excruciating" bureaucratic politics over the ERW.⁴⁵ One example of this occurred when the Arms Control and Disarmament Agency (ACDA) was required - largely through Congressional pressure - to submit an "Arms Control Impact Statement" (ACIS) on the proposed Lance ERW. This had the effect of putting the ACDA in an adversarial role vis-a-vis the Pentagon and NSC, with the ACDA taking a somewhat negative view of the proposed weapon.⁴⁶

Doubts surrounding the planned ERW development were reinforced by the personal ambivalence of President Carter. An early sign of this occurred during the first half of 1977 when Carter requested Congress to approve ERW funding before he had reached a decision on whether or not to go ahead with its production.⁴⁷ In the event qualified

approval was granted in July. The President's concerns over ERW both fed, and were being reinforced by, a similar ambivalence on the part of America's NATO allies. Allied doubts were important because Carter was to make his decision partly conditional on a publicly declared NATO request for the new weapon. Europe was, after all, the place where the new weapons would be deployed and, possibly, used. (Although there was also clearly the potential to deploy ERW in Korea, as well as anywhere else the US Army might be deployed.)

In 1977 TNF modernisation was a contentious issue in Europe, creating public disquiet and media interest. This, in turn, encouraged caution among European leaders anxious not to alienate their constituents. So, not only was Carter reluctant to give a firm lead on ERW, but the European allies were not ready for and did not welcome an open debate on such a distasteful and politically divisive subject.

But Carter's response to the ERW predicament was to attempt to share the burden of responsibility for any ERW development decision with the NATO allies. According to Wasserman, "Carter's handling of the ERW issue reflects his muddled perception of the allies' own domestic political constraints."⁴⁸ Muddled perception was paralleled by muddled policy. For example, the requirement to bring the allies into the ERW decision-making process necessitated State Department involvement in Alliance consultation; yet this consultation was initiated in the absence of a clear-cut Presidential directive and without an administration consensus on the merits of ERW.⁴⁹

A central element in the administration's efforts to get a shared Alliance decision on ERW was the special strategic relationship between the USA and the Federal Republic of Germany. West Germany is the Central Front; it probably represents the main prize and battle field of any future war in Europe. The country has a pivotal role in Alliance diplomacy and force structuring. This is partly due to its powerful conventional military forces - in 1977 the Federal Republic had 4,000 tanks (with another 1,000 on order) and 500 combat aircraft; its armed forces stood at half a million with more than a million in reserve.⁵⁰ The country also hosted over 3,000 TNF warheads and hundreds of "nuclear-related facilities"⁵¹ as well as allied armies (mainly American, British and French, but also Belgian, Dutch and Canadian). Underlying this concentration of military force, and potential targets, was, of course, the Federal Republic's special geopolitical position as one half of a nation divided by the Cold War.

American endeavours to share responsibility for ERW development with West Germany opened-up political problems in the European ally's ruling Social Democratic Party (SPD), encouraged Soviet propaganda efforts, and, ultimately, back-fired. The German Chancellor, Helmut Schmidt, initially took a publicly neutral stand on ERW issue. He apparently wanted Carter to reach a firm decision, one way or another, on production; afterwards he would then have wanted (presumably low-key) consultation over deployments to Europe. Meanwhile the SPD's executive secretary, Egon Bahr, was referring to the ERW as a "symbol of mental perversity".⁵²

Schmidt was anxious not to be seen as the prime mover behind the efforts to bring ERW into Europe as the issue was simply too controversial to be politically tied to; it was clear that a German request for the new warhead would alienate many of the SPD's members and supporters. By the second half of 1977 public opposition, along with the Soviet propaganda effort, was building up. By September the US administration was coming around to the idea that the ERW issue might best be managed as a way of demonstrating Alliance cohesion.⁵³ An Alliance decision to deploy would, it was argued, show how united NATO was and would demonstrate that the USSR did not have a de facto veto over NATO defence planning. On 11 and 12 October the NATO Nuclear Planning Group met in Italy; the US failed to get allied agreement on the deployment of ERW to Europe. In the words of the final communique: "They agreed that their Governments would continue their consideration of this subject."⁵⁴

The US administration next attempted to get ERW into Europe as a pseudo bargaining chip. Ostensibly ERW were to be deployed as part of an arms control move. According to Wasserman:

This was purely a political tactic...There was no intention whatsoever of halting the deployment of the weapon in exchange for a concession from Moscow...This manouver is a true case of arms control as a "fig leaf" to hide weapons acquisition.⁵⁵

Some thought was given to placing ERW in the context of the Mutual Balanced Force Reduction talks (MBFR). MBFR was primarily about the European conventional balance, and NATO TNF were supposed to help offset Warsaw Pact conventional force advantages; so there was obviously some sense in looking at the two in a linked and comprehensive way. However, the MBFR option was rejected as being too complex and difficult.⁵⁶

In the end the administration chose to link NATO ERW with the Soviet SS20⁵⁷ - despite the fact that the Russian missile was a different type of weapon unrelated to the original rationale for ERW. The SS20 was 'targeted' because it was new, excluded from SALT, aimed at Western Europe, and put some of the onus for TNF modernisation on the Russians. More particularly it was hoped that such a ploy might facilitate an allied deployment decision for ERW as it seemed unlikely that the USSR would give up its SS20s.

By early 1978 officials in Washington perceived a need to demonstrate leadership within the Alliance in the face of Soviet political warfare, the supposed weakness of President Carter, and the inability of NATO to agree on TNF modernisation. Once again it was a matter of Alliance cohesion, but this time there was the added ingredient of an image of a United States President who could not, or would not, manage events. In an effort to rectify this potentially debilitating state of affairs Western defence officials attempted to

put together an ERW package that they could publicly agree to.

It appears that, by the middle of March 1978, tacit agreement had been reached within NATO over ERW deployment.⁵⁸ This agreement was to be finalised on 20 March at a NATO meeting. However, the weekend before this meeting was scheduled, President Carter informed Brzezinski that he did not want the hard won agreement, nor did he want the NATO meeting to go-ahead the following Monday as planned. According to Wasserman: "The announcement struck [the State Department] like a thunderbolt, sending a shock wave through all those who had spent most of their working hours over the last few months trying to achieve an alliance-wide consensus..."⁵⁹ Schwartz wrote that: "It would be difficult to overstate the effect that Carter's decision had in Europe."⁶⁰ The primary political rationale for ERW - a rationale that, in time, had superseded the military role of the warhead - was unravelled.

Carter's cancellation, or "deferment," of ERW came despite what he was to call, with reference to the new warhead, "a major advantage over existing tactical nuclear weapons it would replace". According to the President, referring to events leading up to the cancellation:

It was becoming increasingly obvious to me that a sharp difference of opinion existed within [Britain and Germany]: the military commanders wanted the weapon to be deployed, but the political leaders did not.⁶¹

But underlying this was Carter's own thoughts on the matter. Brzezinski has written that the President "had a queasy feeling about

the whole thing". The National Security Advisor also stated that "I don't think that I have ever [up to March 1978] seen the President quite as troubled and pained by any decision item"⁶² (emphasis added).

One lesson for TNF modernisation that came out of the ERW affair was very sharply highlighted. This was that, for various domestic and international political reasons, it can be difficult to get politicians to publicly endorse specific TNF modernisation measures however much they may approve of deterrence in general terms.⁶³ One might speculate that this is directly related to the fact that TNF are seen to lie at the core of Western strategy - a strategy which links regional defence with the prospect of nuclear disaster. The ERW controversy exposed, to public, Congressional and Parliamentary view, two distasteful elements of NATO's strategy of flexible response: the preparation for regional conventional war; and the readiness to escalate, in stages, to large-scale nuclear conflict. The subject was further politicised because most Europeans realised that it was the US President that would (or would not) pull the "NATO" nuclear trigger.

These issues, revolving around the US role in NATO and the nexus between conventional defence and nuclear risk, continued to attract official and public attention following the collapse of the ERW proposals. After-all, the ERW fiasco had achieved nothing except to spotlight contentious areas of NATO policy and weaken the image of Alliance solidarity.

The NATO response to the ERW debate was to reinforce another TNF modernisation proposal that was already in the pipeline. The focus of this effort was the question of long range TNF (LRTNF) modernisation. Here, it was hoped, Alliance strength and unity could be demonstrated. It was in this context of LRTNF modernisation that the US would try to address European fears of "decoupling" (i.e. separation of US and European security) and put right some of the problems exposed during the ERW controversy.

The decision to push ahead with LRTNF modernisation was largely a political one. There appeared to have been few compelling military reasons for the move, although there were obviously some military advantages to be gained.⁶⁴ A US paper on cruise missiles (an early candidate for up-grading LRTNF) provided to the allies in 1977 pointed out its negative aspects and repeated American claims that US strategic forces covered all the necessary targets that might be reached by new LRTNF. According to Thomson, the US suggestion that cruise missiles were not needed by NATO was "preemptorily rejected" by its allies.⁶⁵

On 28 October 1977 the West German Chancellor, Schmidt, gave a well publicised speech⁶⁶ which was interpreted as calling for an "Eurostrategic" balance. He asserted that "SALT neutralizes [US and Soviet strategic] nuclear capabilities." This had implications for NATO as strategic parity "magnifies the significance of the disparities between East and West in nuclear tactical and conventional weapons." Schmidt was apparently calling for a balance at each level of threat faced by NATO. He went on to say that:

Strategic arms limitations confined to the United States and the Soviet Union will inevitably impair the security of the West European members of the Alliance vis-a-vis Soviet military superiority in Europe if we do not succeed in removing the disparities of military power in Europe parallel to the SALT negotiations.

According to the West German Chancellor, "the Soviet Union has given no clear indication that she is willing to accept the principle of parity for Europe..." The implication was that either the USSR should be made to accept theatre parity in the (preferred) context of arms control negotiations, such as MBFR, or NATO should counter Soviet military power with a limited build-up of its own.

These sorts of ideas were apparently tested within the NATO consultative machinery in late 1977 and early 1978. The discussions took place in meetings of the High Level Group (HLG) of the Nuclear Planning Group. Here, according to Thomson, the British and Germans pressed for an "evolutionary upward adjustment" in LRTNF.⁶⁷ Such an "adjustment" required a definite up-grading of NATO's TNF posture, the purpose being to insure that European based TNF were capable of credibly threatening Soviet territory (in the late 1970s NATO's LRTNF consisted of aircraft with a questionable ability to penetrate Soviet airspace).

The initial American response to this type of thinking was not clear-cut but, as described above, showed little enthusiasm. For the sake of facilitating discussion US officials floated three other

options, which were rejected largely for political reasons. These options were, in the words of Schwartz, (a) "do nothing", (b) "build a serious battlefield nuclear capability for the theatre, without the capability to strike targets in the Soviet Union", and (c) "develop a theatre capability to wage a [large scale] counterforce and countervalue strategic nuclear war against the Soviet Union" (emphasis added).⁶⁸ A consensus settled on the idea to "make a modest improvement" in LRTNF (i.e. to accept an "evolutionary upward adjustment"). Despite some reservations American officials decided to lead an attempt at getting this abstract agreement translated into something more tangible. The politically damaging failure of the ERW episode in the Spring of 1978 convinced US officials that a positive American response was needed to help repair the Alliance.

As a way of managing the US administration's response to the LRTNF issue an interagency study was undertaken, under the direction of the NSC, during June, July and August 1978. Known as Presidential Review Memorandum 38 (PRM-38/"Long Range Theatre Nuclear Capabilities and Arms Control"), the study suggested two possible ways forward. One -the "hardware" solution - advocated new LRTNF deployments to Europe; the other, "political", solution called for the assignment of more US strategic force to SACEUR, but no new deployments. By the end of 1978 the administration had resolved in favour of the hardware solution as a visible reiteration of the US nuclear guarantee. (It could also be rationalised in terms of filling a putative gap in the spectrum of deterrence - the gap between SRTNF and strategic forces - and as a counter to the SS20.) It was also suggested that modern LRTNF could help in the development of limited nuclear strike options.⁶⁹

By the middle of 1979 it was decided that any new deployments should be a mix of extended range Pershing missiles (Pershing II) and Ground Launched Cruise Missiles (GLCM).⁷⁰ These weapons would clearly have the range to destroy targets deep within Soviet territory, providing linkage between theatre and strategic war and, it was hoped, thereby deter a Soviet attack on Western Europe by threatening retaliatory escalation against Russia. The HLG of the NPG decided on a force of between 200 and 600 of the new missiles.⁷¹ (The eventual decision called for 572 weapons.) It was also decided that LRTNF modernisation should not lead to changes in the Alliance concept of flexible response, nor to an increased reliance on TNF in NATO's plans.⁷²

Thomson states that less than 200 missiles would have been considered a token force while more than 600 might have been thought of as decoupling - it may have looked like an attempt to create a Eurostrategic balance separate from the main US strategic forces.⁷³ **The emphasis was primarily on perceptions not military calculation:** Western Europe was to be made to appear more tightly integrated with the massive US deterrent. In Congressional testimony during 1983, SACEUR General Rogers stated that:

When I arrived as SACEUR in June 1979, I said "Show me the SHAPE staff study that supports there being 572 [INF]... in Western Europe;" and **there was no such study because we had not been asked**⁷⁴ (Emphasis added.)

It is worth quoting Brzezinski on some of the non-military aspects of LRTNF modernisation.

The intense bargaining, maneuvering, and recalculations involved in this issue demonstrates a problem which many outside the policy process frequently forget. **In the modern world, at the pinnacle of power, there is no pure, objective analysis of a strategic problem.** All decisions are made in a generalized decision-making process that is coloured by domestic politics, economics, and allied reactions. The question of an objective "need" for a credible response in Europe (TNF) had to be balanced against internal NATO politics, various numbers dictated by a variety of actors (both domestic and foreign), and the need for numbers high enough to give the US bargaining leverage with the Soviets. (Emphasis added.)⁷⁵

The arms control proposals which accompanied the LRTNF modernisation were primarily intended to facilitate deployment decisions by the allies not to allow the USSR a means of stopping the measures. In the jargon of the time, arms control was to be "a complement to not a substitute for force modernization."⁷⁶ Apart from possibly affecting the numbers (but not the presence) of the new LRTNF, arms control was introduced to ease the expected NATO debate.

NATO formally agreed to deploy the new generation of LRTNF on 12 December 1979. The deployment package consisted of 108 Pershing IIs to replace 108 Pershing IAs held by the US Army in West Germany, and 464 GLCMs (160 in the UK, 112 in Italy, 96 in West Germany, 48 in Belgium, and 48 in the Netherlands; Belgium and the Netherlands qualified their agreement pending the success or otherwise of arms control moves). At the same time it was announced that 1,000 old US SRTNF warheads would be withdrawn from NATO, in addition to the old weapons removed on a one-for-one basis as the new LRTNF were deployed.⁷⁷

As a result of these changes a NATO study was undertaken to examine "the precise nature, scope and basis of the adjustments resulting from LRTNF deployments and their possible implications for the balance of roles and systems in NATO's nuclear armoury as a whole."⁷⁸ This came to be known as the "shift study"; it resulted from a Dutch initiative. Holland's Defence Minister stated his governments "conviction" that,

...efforts to reduce the role of nuclear weapons would have to be reflected not only in the strengthening of conventional defense, the mutual limitation of nuclear arms through discussion on arms control and the search for conventional alternatives to certain nuclear weapons, but also in the entire nature and composition of NATO's nuclear potential.

This means the Netherlands government is endeavoring to see that, where possible, less emphasis is placed within the alliance on short-range weapons, in particular nuclear artillery.⁷⁹

In addition to reduced reliance on nuclear artillery the Dutch government believed that atomic mines and nuclear air defence weapons should be "dispensed with in the central region as soon as conventional alternatives become available."⁸⁰

By the time the Carter administration left office in early 1981 an important trend in TNF developments had been established: a precedent for a large reduction in old SRTNF has been established, while the emphasis had, for the moment at least, apparently been

placed on LRTNF (although thousands of SRTNF remained in-theatre).

E) Revising strategic nuclear war doctrine

The US government has a comparatively free hand when it comes to developing and planning strategic nuclear forces. This is in contrast to policy for NATO TNF (where the Americans have a predominant role but are largely subject to allied veto), or NATO conventional forces (where the US is a large contributor but its efforts are less than those of the allies in combination). Decision making over policy for strategic nuclear forces is therefore relatively simple and not open to serious Alliance input. On the other hand unilateral American strategic requirements are global in nature and are not restricted to the European theatre.

Nevertheless, despite greater direct Washington control over central strategic policy and extensive US unilateral security interests, the American strategic nuclear posture is largely configured to be compatible with NATO requirements. This is so for three reasons: (a) Europe is considered to be a critical theatre of operations in a large scale East-West war; (b) the existence of NATO-oriented strategic options helps reinforce US leadership of the Alliance; and (c) the present and projected strategic posture is thought to be useful for non-NATO contingencies (and, in any case, this posture clearly does not preclude the development of LNOs for other regions).

Carter's "Comprehensive Net Assessment and Military Force Posture Review" (PRM-10, discussed above) led, in August 1977, to Presidential Directive 18 on "US National Strategy". Ball states that

PD-18 both codified certain aspects of existing US strategic policy and called for further study of other aspects. Most important from the viewpoint of targeting policy, PD-18 reaffirmed the continued use of NSDM-242 and NUWEP-1 in "the absence of further guidance for structuring the US strategic posture". It insisted that the United States maintain the capability to inflict "unacceptable damage" on the USSR even if that nation struck first with nuclear weapons. It instructed the Pentagon to develop options for limited nuclear responses by the United States. It directed that a "reserve" of strategic forces be maintained, safe from attack, for use if nuclear war became relatively extended. And it stated that US forces should be strong enough to ensure that any possible nuclear war would end on the most favourable terms possible to the United States. Finally, it directed that three further major studies be undertaken: a Nuclear Targeting Policy Review (NTPR), a modernization of the ICBM force study, and a strategic reserve force study.⁸¹

With regard to the nuclear-conventional nexus, the most relevant of these studies was the Nuclear Targeting Policy Review. The NTPR covered a wide range of issues - such as strategic command, control, communications and intelligence (C³I); targeting flexibility; the targeting of Soviet post-war economic potential; the relationship between nuclear targeting and political objectives; and the relevance of Soviet perspectives to US nuclear targeting doctrine.

As confirmed by Leon Sloss, who directed the NTPR, perhaps the most significant aspect of the strategic review was the salience attached to Soviet views on nuclear

warfighting. The review "engendered a new appreciation of probable Soviet objectives and operations in a nuclear conflict." Sloss believed that: "Acknowledgement of these Soviet [nuclear war winning] views at senior levels of the US Government had a profound influence on the strategy that ultimately emerged..."⁸² One shift in targeting philosophy suggested by the NTPR was a greater emphasis on politico-military targets with less weight given to some economic targets. Specifically, Soviet post-war economic recovery was down-graded as a targeting priority. Instead, according to Sloss, "economic targeting focused on the better understood problems of destroying logistics and industries providing immediate support to the enemy war effort".⁸³ A general thrust of the NTPR was to try and sketch-out Soviet thinking on how a war might be conducted and then suggest ways which Soviet strategy might be thwarted by changes in America's defence posture. Thus, for example, Soviet acceptance of the possibility of protracted nuclear war pointed towards the need for a more survivable US strategic posture, one able to endure successive nuclear strikes.

Potentially at least, this politico-military approach provided a rationale for targeting the linkage between nuclear and conventional forces in the Warsaw Pact. In other words, Washington had a rationale

for targeting Warsaw Pact conventional forces with US nuclear weapons, especially if these conventional forces have been assigned a "strategic" role by Moscow.⁸⁴ It appeared that the Russians emphasised combined nuclear-conventional operations in their military doctrine. Moreover, to make SIOP-level planning more strategic, in the sense of politically purposeful, it was felt necessary to make it clear that the Soviet conventional force structure was at risk to nuclear destruction. After-all, conventional forces are a central element of the Soviet military establishment and would be used to seize Soviet political objectives during wartime.

The NTPR therefore suggested some ways of applying a neo-Clausewitzian approach to nuclear targeting (although I am not aware of the term being used in the review): nuclear strike options were, in theory, to be more closely related to political objectives. For example, analysts suggested using nuclear attacks to bring about the collapse of Moscow's control over the constituent regions of the USSR, and of exposing the Soviet Far East to Chinese attack by targeting the area's Russian garrison.⁸⁵

Once the relevance of Soviet perspectives was accepted, and married to US doctrinal development, certain implications for defence planning emerged. One of these was that US readiness to engage in protracted nuclear war might be a better way of deterring the USSR than a posture based on a short war. This, in turn, required a strategic C³I system that could survive attack and continue to support retaliatory forces for as long as such forces remained in operation.

Paralleling this attention to C³I was the perceived need for, in the words of Sloss, "a redefinition of the secure reserve force"⁸⁶ (this reserve consists of nuclear weapons held back from initial attacks to provide the US with an intra-war and post-war deterrent).

The policy that emerged from this thinking became known as the Countervailing strategy; it was the Carter administration's version of flexible response. Brown called it "a refinement, a codification of previous statements of our strategic policy."⁸⁷ The Countervailing strategy had a good deal of continuity with inherited policy. One reason for this was that it was a product of a politicised bureaucratic process in Washington. The "refinement" of US strategic doctrine was encouraged by an assortment of analysts with a previous association with ideas of limited and flexible nuclear war doctrine.⁸⁸ Those who formulated and pushed through the Countervailing strategy helped develop what might be described as the "flexible response paradigm" for strategic analysis. Moreover, these trends in the formulation of US strategic doctrine were underpinned by political pressures from both inside and outside the administration. From within, sections of the Defense Department and NSC provided support for Brzezinski's push for the revised nuclear doctrine;⁸⁹ outside the administration the Committee on the Present Danger lobbied hard for stronger defences based on a nuclear "warfighting" posture.⁹⁰

The NTPR exercise led to Presidential Directive 59 (PD-59) which Carter signed in July 1980, although it was drafted somewhat earlier. PD-59 resulted from an interagency effort, largely between DoD and

NSC, to encapsulate the policy implications of the NTPR. It was a directive from the President to the Secretary of Defense authorising changes to nuclear doctrine. This directive led to the issuance of a new Nuclear Weapons Employment Policy (NUWEP-2/NUWEP-80) in October 1980. The NUWEP instructed the military to make changes to the warplanning; it was longer and more explicit than PD-59 and dealt with target packages.⁹¹

The public expositions of PD-59 given by involved officials (principally by former Defense Secretary Brown, and his Deputy Undersecretary of Defense for Policy Planning, Walter Slocombe) are rather general in nature. A key element was acceptance of the NTPR view that Soviet perceptions should be more closely addressed by American planners. As Slocombe has noted, "our strategic doctrine, like our strategic forces, is designed to deter the Soviets, not some group of Western analysts"; he continued, "deterrence requires shaping Soviet assessments about the risks of war, assessments that will be made using their models, not ours..."⁹² In particular, the following Soviet views needed to be addressed:⁹³

- 1) Acceptance of the possibility of protracted nuclear war.
- 2) The critical importance of military targets.
- 3) The high value of maintaining Communist control over the USSR during wartime.
- 4) Acceptance of the possibility of winning a nuclear war.

Harold Brown has reiterated the point that the US objective in planning its nuclear forces was to "deter any adversary from any course of action that could lead to general nuclear war"⁹⁴ (emphasis added). This was a rather ambitious and ambiguous objective with direct relevance to extended deterrence. The Secretary of Defense noted that "deterrence must restrain a far wider range of threats than just massive attacks on US cities." He continued:

Our strategic forces also must deter nuclear attacks on smaller sets of targets in the US or on US military forces, and be a wall against nuclear coercion of, or attack on, our friends and allies. And strategic forces in conjunction with theatre nuclear forces must contribute to deterrence of conventional aggression as well...⁹⁵

US deterrent policy and Soviet perspectives on nuclear war suggested an American strategic posture in which, according to Brown, the US

Must have forces, contingency plans, and command and control capabilities that will convince the Soviet leadership that no war and no course of aggression by them that led to use of nuclear weapons, on any scale of attack and at any stage of conflict, could lead to victory, however they may define victory.⁹⁶

The United States would, according to Brown, continue to develop selective nuclear attack plans that would target political and military control centres, nuclear and conventional forces, and "the industrial capability to sustain

a war." In addition: "We are also acting to improve our ability to maintain effective communications, command and control of our forces, even in the highly uncertain and chaotic conditions that would prevail in a nuclear war."⁹⁷

The possibility of theatre war providing the context of escalation to nuclear strikes was clearly a significant element in the development of the Countervailing strategy. As Brown has stated,

The contingency that has dominated US defence planning for 35 years has been much less a surprise attack with strategic weapons on the United States than a massive Soviet invasion of Western Europe. Because of that concern...a strategic nuclear exchange has been envisaged, not as a separate and independent phenomenon, but as a part...of a much larger and more traditional campaign of the kind we had experienced in World War II.⁹⁸

One of the implications of this was that Warsaw Pact conventional forces may, "under many conditions",

be more time-urgent targets than residual missiles. So might the command-control, war reserve stocks, and lines of communication necessary to the conduct of theatre campaigns.⁹⁹

One of the special problems associated with the use of nuclear weapons during a theatre campaign is keeping track of mobile targets (both nuclear and conventional) that might be moving forward. There

was also a requirement to target mobilising or concentrating conventional forces. This may be the reason for the reports that PD-59 called for an improved capability to "find new targets and destroy them once a war begins."¹⁰⁰ Brzezinski states that,

C³I was treated as a broader requirement, for control of both strategic and general-purpose forces in a protracted conflict, and it [PD-59] called for a "Look-shoot-look" capability for identifying new and moving targets.¹⁰¹

The administration's view was that the countervailing strategy supported NATO strategy,

the effect of PD-59 on the selective employment and general strike planning of SACEUR will be that of complementing them because we will have the flexibility for employment of nuclear forces in support of NATO over a broad range of situations...The US countervailing strategy will contribute significantly to the strategy [of flexible response] by making available to NATO a large number of nuclear weapons employment options in defense of the Alliance.¹⁰²

F) The Carter Administration and the linkage between nuclear and conventional forces

As shown above, the linkage between nuclear and conventional forces lay at the heart of many of the strategic problems faced by the Carter administration. This was reflected in four of the administration's defence programmes: the LTDP, the ERW affair, modernisation of LRTNF, and the Countervailing strategy. The LTDP was intended to (among other things) raise the nuclear threshold; the ERW option arose as a direct consequence of the connection between

conventional defence planning and tactical nuclear weapons doctrine; the modernisation of LRTNF was largely a politico-technical response to allied fears of a growing separation between US nuclear strategy and regional security issues in Europe; PD-59 attempted to breath new life into extended deterrence by restating the link between strategic warplanning and American security interests on the Eurasian periphery (particularly in Europe, the Middle East and North East Asia).

Thus all four of these programmes were, in their own way, related to considerations of the linkage between US nuclear firepower and local conventional forces. Yet, despite its core importance, the linkage between nuclear and conventional forces was not subject to any high level, systematic and sustained analysis.¹⁰³ The general requirement for linkage lay implicit in the administration's policies and was largely taken for granted. And it was assumed that this linkage would operate within the framework of the long established doctrine of flexible response. US defence officials tended to accept the assumptions underlying the requirement for linkage rather than (a) challenge them, or (b) critically assess the implications for military planning. So, although the nuclear-conventional nexus was (and is) pivotal to US security, its precise nature and implications remained poorly articulated. The following questions were not brought together, in a single package, for official examination:

- 1) How are conventional force plans related to the formulation of nuclear options?
- 2) How does/should conventional strategy affect nuclear strategy and vice versa?
- 3) How interchangeable are nuclear and conventional weapons?
- 4) How do particular strategies, plans, and weapons affect the nuclear threshold?

- 5) What is the optimum size and shape for NATO's TNF posture? Is there a trade-off between the political and military value of forward-based systems?
- 6) At what, if any, stage in an escalating war is nuclear "signalling" likely to supersede the importance of combined nuclear-conventional operations in the minds of decision makers?
- 7) What level of nuclear attack could be absorbed by the conventional forces and military infrastructure of NATO and the Warsaw Pact?
- 8) What is the linkage between British and French nuclear forces and the operational environment of EUCOM?
- 9) Does the concept of flexible response adequately address these issues?

One reason for this official reticence was the highly charged political nature of the subject. This can be illustrated by looking at the issue of "First-Use" of nuclear weapons. Controversy over NATO's option for first use was fueled in 1979 following a speech by Henry Kissinger to a NATO audience in Brussels. Coming in the wake of the PRM-10 leak, the ERW muddle and deliberations over LRTNF, the speech struck some raw nerves among officials and politicians on both sides of the Atlantic. The former US National Security Advisor and Secretary of State said that

I would say, which I might not say in office, the European allies should not keep asking us to multiply strategic assurances that we cannot possibly mean, or if we do mean, we should not want to execute because if we execute, we risk the destruction of civilization.¹⁰⁴

The Soviet military build-up could produce "a period of massive crisis" for NATO. Nuclear parity and a US force posture which was not (according to Kissinger) sufficiently oriented to counterforce was jeopardizing extended deterrence. In Kissinger's words, "we are approaching a point where it is difficult to assign a clear military

objective to American strategic forces in a strategic nuclear exchange." The clear message was that the US nuclear guarantee to Europe was largely a bluff. Schwartz has described the reactions to Kissinger's speech as "a mixture of bafflement, outrage, and embarrassment...others reacted with deep uneasiness." He notes that the speech had a "profoundly negative effect...on European confidence in the United States."¹⁰⁵

As with the PRM-10 leak, the Carter administration publicly rejected the notion that the link between nuclear deterrence and conventional forces had been, or was about to be, broken. In his memoirs Carter mentions discussions between Brown, Vance, Brzezinski and the Chairman of the Joint Chiefs of Staff (Jones) over the "advisability of a mutual pledge of non-first use of nuclear forces". These discussions appear to have covered old ground; Carter writes that:

In Europe, the superiority of Soviet conventional forces now required the threat of our nuclear forces to deter aggression. I did not want to encourage an attack by promising the Soviets that a European war would be fought on their terms. I was convinced that if, as a result of Soviet aggression, a conventional war ever began in Europe, threatening the ultimate security or existence of our allies, it was likely to escalate into a nuclear war between the Warsaw Pact nations and Western Europe, despite any previous assurances to the contrary. Armed aggression would serve as the trip wire - the beginning of a war that might not be limited by any prior agreement on weapons. It was important to impress Brezhnev with this fact. A joint pledge with the Soviet leaders of nonfirst use of any military force in Europe would be acceptable for now. Later, success in balancing conventional military forces by mutual reductions, or a buildup in NATO forces to match Soviet non-nuclear capabilities, might make a pledge of nonfirst use of nuclear force advisable.¹⁰⁶

The fact was that the declared American willingness to use nuclear weapons in response to an overwhelming conventional invasion of Western Europe was ingrained in US national security policy. This aspect of the nuclear-conventional nexus was embedded in America's Alliance diplomacy. It would have been politically and psychologically harder to change or break this nexus than to live with it. To explicitly reverse declaratory policy on possible escalation would have required a reorientation of the Alliance and the rewriting of MCI4/3 - itself the product of a painfully worked-out consensus. (None of this is meant to suggest that the US would necessarily carry out its threat/promise to escalate.)

Operationally, little effort seems to have been made to change the character of the nuclear-conventional nexus in NATO. There is no evidence that the administration introduced significant changes in SHAPE, EUCOM or corps plans regarding contingencies for nuclear release, either in terms of timing, scale or objectives.

In retrospect the years of the Carter presidency represented an attempted tidying-up exercise as far as NATO defence planning was concerned. The LTDP, ERW episode, LRTNF modernisation, and Countervailing strategy reflected attempts to restate the requirements of flexible response in terms relevant to the late 1970s. As such Carter's NATO-related defence policies should be seen as allowing incremental changes within an inherited national and collective security framework.

Given this, it is not surprising that only marginal changes were made to the linkage between nuclear and conventional forces. Here I will summarise the effect on this linkage of the three principal NATO-related policy issues faced by the administration.

(1) Conventional force improvements.

At the end of his term in office Harold Brown noted that:

NATO has made real progress in a number of LTDP programs, especially readiness, maritime posture, consumer logistics, and command, control, and communications. Progress in other areas, however, is limited, and the Alliance must renew its efforts, particularly in electronic warfare, training and equipment of reserve forces, war reserve stocks of ammunition and fuels, mining and mine countermeasures, defense against chemical warfare, and the provision of additional European reserve brigades. National defense planning in the Allies also needs to be more closely aligned with the LTDP.¹⁰⁷

The following year (1982) the former Secretary of Defense spelt out the perceived implications of this continued putative inadequacy in conventional forces:

NATO needs enough conventional military capability to prevent a quick conventional Soviet victory, by stabilizing for at least some weeks a line much nearer the inner-German border than the Rhine. NATO cannot confidently expect to do this now. Although the Soviets are probably not sure of being able to drive to the Rhine, the North Sea, and the Channel in that time, their confidence of doing so probably exceed ours of being able to prevent it. That leaves NATO with an uncomfortable degree of reliance on the threat of nuclear escalation.¹⁰⁸

Brown called for more prepositioned equipment, better "interoperability of the national systems of communications, command and control" and improved force readiness and reinforcements; his first priority was to enhance immediate combat capability.

Perceived Western conventional weakness seems to be a perennial feature of Western strategic analysis and defence planning. Eight years after the LTDP was initiated, and after four years of overseeing burgeoning military expenditure, Defense Secretary Weinberger noted that,

with our present effort to increase our conventional strength, NATO is essentially seeking to secure a long-established but elusive goal [of reducing reliance on nuclear weapons].¹⁰⁹

The reason for the continued putative imbalance in conventional forces is threefold. First, the European allies (who bear most of the burden for the conventional defence of Europe) have not, as a whole and consistently, fully implemented the LTDP or the three percent real growth in defence expenditure.¹¹⁰ Second, the Warsaw Pact has continued conventional force improvements of its own.¹¹¹ Third, following the upheavals in Iran and Afghanistan, at the end of the 1970s, Europe was given less weight in US reinforcement plans as the Rapid Deployment Force was built-up.¹¹²

US conventional forces were overcommitted. To be able to fight the USSR and prevent escalation to nuclear war was believed to require substantial ground, sea and air forces capable of deployment to north, south and central Europe, north-east Asia and now the Middle East/south-west Asia.

By 1980 the US was putting increasing pressure on its European allies to do more in the area of conventional defence. According to David Greenwood: "Three Per Cent ceased to be an index of resolution and had become an issue in recrimination".¹¹³ One reason for American irritation over European recalcitrance was (aside from problems over burden sharing) an awareness that the nuclear threshold was partly

hostage to European action - or rather inaction - on conventional force levels. Not only was an American attempt to raise the nuclear threshold being confronted head-on by Warsaw Pact conventional defence improvements, and being out-flanked by events in the Middle East, it was also (from the US perspective) being undermined by allied foot-dragging.

(ii) TNF modernisation.

The Carter administration put in train TNF modernisation measures that might, in time, lead to significant changes in some aspects of the linkage between nuclear and conventional forces. More specifically, overall numbers of TNF were scheduled to decline. Also, more emphasis was placed on LRTNF at the expense of SRTNF. (Although this sensible trend has since been reversed.) In addition, the decision was made not to replace any atomic mines and nuclear air defence missiles retired, and to increase the range of nuclear artillery; an ERW option was also retained for Lance warhead replacements.¹¹⁴ Various aspects of C³I support for TNF were also improved. Communications links to US nuclear custodial units in Europe were upgraded. Redundancy was added to TNF communications to allow more reliable transmission of "emergency action messages". Some thought was also given to improving safety locks on TNF "which require a unique code to gain access to, or to arm a weapon". For the future, Brown noted in January 1981, the US had

completed a comprehensive plan for longer term improvements to theater nuclear weapons release procedures, communications, and command and control.¹¹⁵

A potential consequence of these hardware and command and control developments might be a less hair-trigger TNF posture and, somewhat more speculatively, greater possibilities for controlled, limited nuclear war in Europe. This is certainly a NATO planning objective, as described in the previous chapter. Brown has referred to the possibility of using a "few" TNF "as a way of signalling political seriousness"; such an attack might also have "an immediate effect on Soviet reinforcement with conventional forces."¹¹⁶ A further gain from TNF modernisation may be the release of more forces to the initial, conventional, battle. Brown has stated that

[TNF] readiness [to attack time urgent targets] should not be at the expense of our conventional firepower...We cannot afford to tie-up major conventional capabilities during an emergency in order to improve and expand our nuclear alert.¹¹⁷

This suggests disadvantages with dual capable aircraft, and a requirement for dedicated TNF such as GLCM as well as the freeing-up of some of the manpower needed to guard SRTNF near potential conventional battlefields.

The "evolutionary upward adjustment" of NATO's TNF can be seen in the context of attempts to streamline the Alliance's military posture. Despite the diplomatic and bureaucratic confusion and the ad-hoc decision-making, the LRTNF modernisation can be seen as part of an ill defined and poorly articulated package of measures to bring nuclear and conventional forces into balance with each other. TNF modernisation was a component of the LTDP which was largely concerned

with raising the nuclear threshold by strengthening conventional forces. Although the TNF issue soon developed an unwelcome life of its own, the result of the 1979 "adjustment" decision was consistent with ideas of how to improve the relationship between nuclear and conventional forces. The decision encouraged a trend towards fewer, more reliable, longer range TNF¹¹⁸ with improved command and control; and it set an example for Alliance agreement on withdrawing some of those TNF with relatively doubtful deterrent and operational efficacy (such as nuclear anti-aircraft missiles).

However, the decisions made on LRTNF were primarily based on perceived political requirements rather than military calculations. And, largely for political reasons, the conceptual and strategic framework for TNF planning was not precisely spelt-out for public consumption. Instead, simplistic general rationales were presented - such as countering the SS20. In so far as there was a strategic debate in public it led to a massive politicisation of NATO planning and sharpened some of the more negative public feelings towards the Alliance.

The TNF controversies brought into sharp relief the potentially explosive mix of conventional and nuclear forces that had been amassed on the Continent. They also brought into question the ability of the Alliance to sustain its political basis of support; it was, after all, partly this political base which underpinned the form in which nuclear and conventional forces were linked in Europe.

Political and psychological factors were therefore central to the TNF issue. This was reflected in Schmidt's relationship with the Carter administration. Brzezinski notes that, by 1980, "Schmidt had let it be known to all and sundry what a low opinion he had of the US President." It seems that Carter "had concluded that Schmidt was unstable, egotistical and unreliable."¹¹⁹ Carter has written of "an unbelievable meeting with Helmut Schmidt" in the midst of the LRTNF debate; Schmidt was "ranting and raving".¹²⁰ Of one meeting Brzezinski wrote:

It was an angry and at times an altogether unpleasant session, with Schmidt striking me as occasionally not being quite balanced.¹²¹

Personality clashes aside, it is hard to believe that the politically charged nature of the TNF issue did not contribute to this mutual antagonism.

(iii) The Countervailing strategy.

PD-59 attempted to reinforce the links between central strategic warplanning and regional contingencies. This was to be done on two levels: declaratory and operational. Operationally the emphasis was on the growth and refinement of limited nuclear attack options and the C³I to support them. Insofar as the provision of options makes it easier to use nuclear weapons, one may speculate that one consequence of PD-59 may have been to marginally lower the nuclear threshold.

But such a hypothetical consequence is probably more relevant to the Middle East than to Europe. The latter already has an established, in-place, TNF posture (with limited attack options) whereas the Middle Eastern theatre does not - unless one includes US naval forces with their on-board nuclear weapons. From a geopolitical perspective PD-59 might be seen as a way of projecting US nuclear strike power into the Middle East region to plug a gap in the ring of containment where there was little in-theatre alternative.

One of the reasons for the qualified tone of this discussion has been suggested by Brown (in 1979): "We have to admit that we have not developed a plausible picture of the conflict we are trying to deter."¹²² Another reason is uncertainty regarding whether PD-59 made much of a difference, or, indeed, whether it could be fully implemented. Two points need to be made here. Firstly, the SIOP was being refined even in the absence of PD-59: up-dating the SIOP seems to be almost routine. Secondly, it is not clear that any force posture and C³I improvements can ever make nuclear warfighting a feasible option - at least not above a certain, difficult to define, level of destruction. If strategic and theatre C³I systems break down after, say, 20-100 nuclear detonations, it might be prudent to plan for operations below this problematic threshold, but the value of escalatory options involving (for example) two hundred, one thousand, or five thousand nuclear warheads seems dubious;¹²³ in any case, the US already had a range of Major and Selective Attack Options.

Despite assertions to the contrary, SIOP level planning remained, perhaps inevitably, essentially astrategic after PD-59. That is, the US had "not developed a plausible picture" of the conflict it might have to fight with its nuclear options. Nor had it developed a convincing picture of how, in such a conflict, military means could be kept in line with political ends. Without these "plausible pictures" it is difficult to say anything precise about how, in extremis, PD-59 would affect the linkage between regional conflict and central strategic forces.

Nevertheless, the Countervailing strategy did help rationalise a growth in options and an improvement in C³I. And it did attempt to place these options - some of which were directly related to potential theatre war - into some kind of general geopolitical perspective. This perspective was apparently articulated by the NSC, in particular Brzezinski, but it was already implicit in post-war US national security policy. The administration's geopolitical thinking (which went back at least as far as PD-18) was somewhat sharpened by the Iranian revolution and the Soviet invasion of Afghanistan. These events led, of course, to the announcement of the "Carter doctrine" in January 1980. According to Brzezinski, the events of the late 1970s led to "a strategic revolution in America's global position". The National Security Advisor wrote that:

The President's words represented a formal recognition of a centrally important reality: that America's security had become interdependent with the security of three central and inter-related strategic zones consisting of Western Europe, the Far East, and the Middle East-Persian Gulf area. For me

it was a particularly gratifying moment because for more than a year I had been seeking within the US government the adoption of such a policy, based on a formal recognition of the interdependence of these three central strategic zones.¹²⁴

Carter has described how his response to the Soviet invasion required re-examination of the possibilities for horizontal and vertical escalation:

Some news reporters dubbed my decision the Carter Doctrine and called it an idle threat, because, they said, we could not successfully invade Iran if it were to be attacked by Soviet troops.

The fact was that mine was a carefully considered statement, which would have been backed by concerted action, not necessarily confined to any small invaded area or to tactics or terrain of the Soviets' choosing.¹²⁵

The relevance of this to PD-59 and the nuclear-conventional nexus has only been discussed in general terms. For example, Brzezinski has stated that

the new strategic doctrine would provide the necessary deterrence umbrella for the needed application of American conventional force if some regional interests vital to the United States were threatened.¹²⁶

What the United States had done was to restate its security interests in containing the Soviet Union while adding to its nuclear and conventional options. Conventional forces, where strong enough as in Europe, were to be the first line of defence, with an option to escalate to nuclear operations if necessary. However, this

conventional defence line was to be more than a tripwire to nuclear escalation. It was intended that US and allied forces would be able to absorb the shock of a Soviet attack, hold most of Western Europe, and sustain intensive combat operations for weeks. Where conventional forces were weak (as in south west Asia), they were to symbolise a commitment and, by their very presence, threaten to act as a potential trigger to nuclear strikes; here conventional forces could be used essentially as a signal rather than primarily as a way of matching the Soviet Union in a ground war.

The Carter administration attempted to reduce reliance on nuclear weapons while adding to its range of nuclear choices. Although nuclear options were designed to look credible, the administration did not want to pivot its defence policy around them. Indeed, it is an open question as to whether or not the proliferation of nuclear options under Carter was part of a bluff.

G) The Legacy

As already noted, Carter oversaw incremental changes to an inherited framework of collective security. The same may be said of Reagan. The broad pattern of Alliance planning has been remarkably resilient to change. Even so, the TNF controversies of the 1970s did fuel the defence debate. This has coloured NATO formulations of strategy. Five categories of proposals for change to NATO strategy will be identified here (not all of them are mutually exclusive).

First, some analysts have called for preparations for more integrated nuclear-conventional battlefield operations. It was suggested that TNF be made more freely available to local commanders to reinforce their conventional "fire-and-manoeuvre" plans: nuclear weapons were seen as a form of super artillery. This idea found no support in Europe; it was considered politically destabilising and strategically daft.¹²⁷

Second, it has been argued that NATO strategy is potentially destabilising as it (a) helps feed the arms race, and (b) would increase pressures for escalation during wartime. Many of these critics advocated "alternative defence" concepts. "Defensive defence", for example, stresses troops and barriers rather than long-range strike aircraft or armoured divisions geared to manoeuvre warfare on World War Two lines.¹²⁸

Third, some analysts criticised NATO conventional doctrine for being too passive. Their primary target for criticism was forward defence which was seen as overly dependent on static defences and lateral defence lines. These observers advocated an emphasis on mobile operations.¹²⁹

Fourth, calls have been made for a NATO declaration of no-first-use of nuclear weapons.¹³⁰

Fifth, NATO has been urged to raise the nuclear threshold by spending more on increasingly sophisticated conventional weapons (such as modern conventional ballistic missiles). This suggestion has

sometimes been made in association with calls for no-early-first-use of nuclear weapons. Here the wording of current NATO doctrine was to remain more-or-less intact, while the substance was changed to reflect a massive conventional defence effort.¹³¹

* * * * *

None of these proposals has been accepted unequivocally by the NATO bureaucracy, although the last/fifth suggestion came closest. Changes have had to be made within the long-standing Alliance framework. Three such changes merit attention.

First, NATO has adopted the "Follow-on-Force-Attack" (FOFA) concept. FOFA is about using conventional airpower to interdict Warsaw Pact reinforcements. Theoretically, FOFA would raise the nuclear threshold by lessening the weight of attack against NATO's forward defence line and thereby enhance the Alliance's ability to sustain the cohesiveness of its conventional defences. Conventional interdiction is hardly a novel idea. As General Rogers has stated, FOFA is "by no stretch of the imagination a new strategy."¹³² The endorsement of FOFA reinforced a trend towards adopting more sophisticated conventional weaponry. However, FOFA falls short of ambitious proposals to revamp NATO conventional capabilities with state-of-the-art and emerging technologies. (The adoption of FOFA was erroneously associated with the concept of "Airland Battle" as developed by the US Army. NATO authorities have stated that open offensive manoeuvre, integrated with nuclear fire support, as outlined in Airland Battle, has not supplanted Alliance doctrine.)¹³³

Second, NATO has reviewed its TNF posture. The trend, established during Carter's term, to retire obsolete/inappropriate warheads, has been continued. In 1983 the NPG decided to withdraw 1,400 such weapons.¹³⁴ This streamlining process was to include the modernisation of remaining TNF, and the correction of maldeployment. Once again it was recognised that the TNF posture should emphasise survivability and effective command and control.¹³⁵ These developments have been associated with SHAPE's classified five year "Nuclear Requirements Study" initiated in 1980.¹³⁶ By the end of 1986 NATO had even agreed on "General Political Guidelines" for the use of nuclear weapons.¹³⁷ These guidelines apparently clarified previous guidance and brought various relevant Alliance ideas together in one package.

Third, it has been decided to withdraw GLCM and Pershing 2 missiles. The constituencies for the weapons proved to be too narrow and/or fragile to sustain the original deployment rationale - which was to treat arms control as a complement to, not a substitute for, deployment of modernised LRTNF. The coupling issue, and concern over dependence on vulnerable aircraft, was obscured and then marginalised. Broader matters appeared to seize the public's, and the Reagan administration's, imagination. Few people wanted to publicly argue that GLCM improved Western security, especially if this looked like obstructing a new phase of detente. After misleading the public into believing that SS20s were the simple reason for new LRTNF deployments, it was politically awkward for NATO to refuse Soviet arms control initiatives.

The TNF agreement between the United States and the Soviet Union in 1987 threatened to unsettle NATO. West German leaders came under pressure as German Pershing 1 launchers were drawn into the arms control momentum catalysed by the "Rykjavik process". The focus on TNF planning apparently shifted back to short-range weapons which, to some observers, suggested a central European battlefield -rather than collective deterrence or enhanced scope for crisis management. As Les Aspin (Chairman of the House Armed Services Committee, US Congress) stated: "we're eliminating the safest weapons and leaving in the most dangerous...The whole thing worries me a very, very great deal".¹³⁸ It seemed that NATO might drift into a dispute analogous to the ERW muddle. It looked as if the wheel was going to turn full circle. Once again, as during Carter's presidency, the spotlight was on how to manage the link between nuclear risks and conventional defence within the framework of evolving conceptions of European security. It was clear that the problem had not been solved by the earlier rejection of ERW, the endorsement of the LTDP, or the decision to modernise LRTNF. Meanwhile, NATO warplanners continued to superimpose options for nuclear escalation onto a pattern of force deployment geared to conventional denial and political acceptability.

NOTES

- 1 See Carter's speech at the University of Notre Dame, 22 May 1977; reprinted in The Public Papers of the Presidents.
- 2 Harold Brown had been Director of the Radiation Laboratory at Livermore, Director of Defense Research and Engineering at the DoD, and Secretary of the Air Force. He had numerous other posts in the academic world and involving arms control.

Cyrus Vance was trained as a lawyer, he was a former Secretary of the Army and Deputy Secretary of Defense, he has had several diplomatic posts.

Zbigniew Brzezinski was an academic with special interests in Eastern Europe. Before joining the Carter Administration he was Director of the Trilateral Commission.
- 3 John Gaddis, Strategies of Containment (Oxford University Press, 1982), pp. 346, 347.
- 4 Jimmy Carter, Keeping Faith (Collins, 1982), p. 256.
- 5 Ibid., p. 213.
- 6 See Jerry Sanders, Peddlers of Crisis (Pluto Press, 1983) and Robert Scheer, With Enough Shovels: Reagan, Bush, and Nuclear War (Random House, 1982).
- 7 This case study does not deal with the development of the Rapid Deployment Force and related issues. For a discussion of US strategic options in the Middle East, see Joshua Epstein, Strategy and Force Planning - The Case of the Persian Gulf (The Brookings Institution, 1987).
- 8 Zbigniew Brzezinski, Power and Principle (Farrar, Straus, Giroux, 1985), p. xiv.
- 9 See the views of General Keegan, reprinted in Strategic Review, Fall 1978; referred to in the previous chapter; also, see note 6.
- 10 See Richard Pipes, "Why the Soviet Union Thinks it Could Fight and Win a Nuclear War", Commentary, July 1977.
- 11 Sam Nunn and Dewey Bartlett, "NATO and the New Soviet Threat", Report to the Senate Committee on Armed Services, 24 January 1977, pp. 1, 4, 6.
- 12 See John Prados, The Soviet Estimate (Dial Press, 1982).
- 13 Ibid., p. 252.
- 14 Ibid., p. 253.

- 15 Harold Brown, "Remarks" - speech given at the 34th Annual Dinner of the National Security Industrial Association, September 15, 1977, p. 2.
- 16 David Schwartz, NATO's Nuclear Dilemmas (The Brookings Institution, 1983), p. 213; Evans and Novak, "Carter Faces Defense Shift on W. Europe", International Herald Tribune, 3 August 1977; Kaiser, "Global-Strategy Memo Divides Carter's Staff", International Herald Tribune, 7 July 1977; Barber, "America not soft on Euro Defence, says Carter", Daily Telegraph, 5 August 1977; UPI, "Carter would use A-bomb in Europe", The Guardian, 4 August 1977.
- 17 Interviews.
- 18 Lawrence Korb, "National Security Organization and Process in the Carter Administration", in Sam Sarkesian (ed) Defense Policy and the Presidency: Carter's First Years (Westview, 1979), pp. 124, 131.
- 19 Interviews.
- 20 Mohr, "Carter orders steps to increase ability to meet war threats", New York Times, 26 August 1977.
- 21 Ibid.; Kaiser, op. cit.; Smith, "Carter study takes more hopeful view of strategy", New York Times, 8 July 1977; "Carter is said to back more NATO spending" International Herald Tribune, 28 August 1977; Burt, "US study asserts Russians could not win nuclear war", International Herald Tribune, 7-8 January 1978; Burt, "Pentagon Told to Review Strategy For a Nuclear War Against Soviets", New York Times, 16 December 1977; Z. Brzezinski, Power and Principle, op. cit., pp. 177-178; Samuel Huntington (ed), The Strategic Imperative (Ballinger, 1982), p. 7.
- 22 This is referred to by Robert Komer in "The Origins and Objectives", NATO Review, June 1978, p. 10.
- 23 R. Komer, "Treating NATO's Self-inflicted wound", (RAND, P-5092, October 1973), p. 2.
- 24 Ibid., p. 5.
- 25 Ibid., p. 7.
- 26 Ibid., p. 8.
- 27 R. Komer, "Needed, Preparation for Coalition War", (RAND, P-5707, August 1976.)
- 28 R. Komer, "Ten Suggestions for Rationalizing NATO, Survival, March/April 1977, p. 67.
- 29 Harold Brown, Annual Report to Congress for FY1980 (Washington, D.C., 1979), p. 211.

- 30 Ibid., pp. 212-214.
- 31 Final Communique, Defence Planning Committee meeting, 17-18 May 1977, NATO Final Communiques, 1975-1980 (NATO Information Service), p. 68.
- 32 H. Brown, Annual Report to Congress for FY1980, op. cit. pp. 216-217.
- 33 The Three Percent Solution and The Future of NATO, by the staff of the Foreign Policy Research Institute (Philadelphia, 1981), pp. 24, 33.
- 34 Ibid., pp. 39, 40, 56.
- 35 "Ministerial Guidance", NATO Final Communiques, op. cit., pp. 71-74.
- 36 Interviews. As shown in the previous chapter, there was nothing new in this.
- 37 See comments by Robert Komer and Walter Slocombe in R. Smith, "Missile Deployments Rail Europe" Science, 27 January 1984, p. 372.
- 38 Jeffrey Record, US Nuclear Weapons in Europe: Issues and Alternatives (Brookings Institution, 1974), p. 68.
- 39 Donald Rumsfeld, Annual Report to Congress for FY1978 (Washington, D.C., 1977), pp. 147, 150. These, and related, issues have been examined by, among others, the US Defense Department's "Defense Nuclear Agency" (DNA). During 1977 the DNA studied the NATO planning implications of Soviet combined (nuclear/conventional) options. In addition it investigated TNF survivability, and nuclear weapons effects on Allied Command Europe's communications systems. The DNA also developed the "Dual Criteria Aimpoint Selection (DCAPS) program for TNF targeting to help planners maximize military effect while "minimizing" unintended damage. See the statement by Lt. General Johnson (Director, DNA), in Senate Hearing before a Sub-Committee of the Committee on Appropriations for FY1978 (Washington, D.C., March 1977), pp. 1111, 1112, 1114.
- 40 James Thomson, "The LRTNF Decision: Evolution of US Theatre Nuclear Policy, 1975-9", International Affairs, Autumn 1984, p. 602.
- 41 Ibid., p. 603.

42 The development of ERW dovetailed into the debate over so-called mini-nukes. This debate included some incredible expert opinion which suggested that theatre nuclear war fought with ERW might not be so bad after all. For example, the RUSI and Brassy Defence Year Book for 1977/1978 stated, in welcoming tones:

"The President's decision [to escalate] becomes a much easier one. No longer will innocent civilians be killed and their property devastated... no longer need the President fear massive retaliation on his country... Permission for their use would be no more than asking to use an extremely large [high explosive] bomb..."

The writer opined that "the sooner the mini-nukes are in full service the better for all concerned" (no author given, pp. 268-269). The weapons scientist Samuel Cohen was a regular advocate of ERW: in a joint article with Brigadier General E. Black, it was claimed that:

"In a fast-moving armoured assault, where prompt radiation effects are likely to dominate the battle field, the most simple civil defence expedient would be to pile roughly 2 feet of earth-filled sandbags on top of all structures considered suitable for civilian shelters... [This] offers a potential of reducing civilian casualties by... close to 100 percent for ER weapons" ("The Neutron Bomb and the Defense of NATO", Military Review, May 1978, p. 60).

These types of advocacy ran a real risk of discrediting strategic analysis and of raising profound concern.

43 Sherri Wasserman, The Neutron Bomb Controversy (Praeger, 1983), p. 33.

44 Ibid., p. 38-39. But see note 42; some "specialist" journals hardly helped matters.

45 Ibid., p. 47.

46 Ibid., p. 43.

47 Ibid., p. 51.

48 Ibid., p. 57.

49 Ibid., p. 60-61.

50 The Military Balance, 1977-1978 (IISS, 1977), p. 24.

51 William Arkin and Richard Fieldhouse, Nuclear Battlefields: Global Links in the Arms Race (Ballinger, 1985), p. 236.

52 Cited in S. Wasserman, The Neutron Bomb Controversy, op. cit., p. 67.

- 53 Ibid., p. 80.
- 54 NATO Final Communiques, op. cit., p. 77.
- 55 S. Wasserman, The Neutron Bomb Controversy, op. cit., p. 89.
- 56 Ibid., p. 91,94. Wasserman has noted how putting ERW into the MBFR framework raised the following problems:
- 1) The MBFR talks were already quite complex enough. Asymmetrical reductions (eg ERW for Soviet tanks) would have further complicated matters.
 - 2) Limiting ERW posed considerable verification problems - it was difficult to distinguish between ERW and "normal" nuclear warheads.
 - 3) NATO did not want to rule-out qualitative improvements to TNF, even if over-all numbers were reduced.
- The task was to get ERW into Europe, not to get deployment held-up indefinitely in a cumbersome arms control process.
- 57 Z. Brzezinski, Power and Principle, op. cit., p. 303.
- 58 S. Wasserman, The Neutron Bomb Controversy, op. cit., p. 111.
- 59 Ibid., p. 112.
- 60 D. Schwartz, NATO's Nuclear Dilemmas, op. cit., p. 223
- 61 J. Carter, Keeping Faith, op. cit., pp. 225-226.
- 62 Z. Brzezinski, Power and Principle, op. cit., p. 304.
- 63 See G. Flynn and H. Rattinger (eds) The Public and Atlantic Defense (Croom Helm, 1985).
- 64 The major military advantage of GLCM and Pershing 11 was to increase confidence in penetrating Soviet air defences, while lessening the burden on NATO aircraft.
- 65 J. Thomson, "The LRTNF Decision", op. cit., p. 604. Also, see the comments by R. Komer and W. Slocombe, "Missile Deployments Roil Europe," op. cit., pp. 373-374. One concern of the European allies was that US-Soviet arms control might curtail a NATO Cruise Missile option; see D. Schwartz, NATO's Nuclear Dilemmas, op. cit., p. 210-212.
- 66 This speech is reprinted in Survival, January/February 1978.
- 67 J. Thomson, "The LRTNF Decision", op. cit., p. 605.
- 68 D. Schwartz, NATO's Nuclear Dilemmas, op. cit., p. 218.

- 69 This paragraph is based on R. Smith, "Missile Deployment Rail Europe", op. cit., p. 372; J. Thomson, "The LRTNF Decision", op. cit., p. 606; and D. Schwartz, NATO's Nuclear Dilemmas, op. cit., pp. 224-225.
- 70 J. Thomson, "The LRTNF Decision", op. cit., p. 609; D. Schwartz, NATO's Nuclear Dilemmas, op. cit., p. 226.
- 71 J. Thomson, "The LRTNF Decision", op. cit., p. 609.
- 72 Paul Buteux, The Politics of Nuclear Consultation in NATO, 1965-1980 (Cambridge University Press, 1983), p. 168.
- 73 J. Thomson, "The LRTNF Decision", op. cit., p. 610.
- 74 General Rogers before the Committee on Armed Services, Senate Hearings on the Department of Defense Authorization for Appropriations for FY1984 (May 1983), p. 2383.

The US JCS reportedly estimated a requirement for well over 1,000 new LRTNF warheads: see R. Smith, "Missile Deployments Rail Europe", op. cit., p. 375; R. Garthoff, "The NATO decision on TNF", Political Science Quarterly, Summer 1983, p. 205; A. Cordesman, "Deterrence in the 1980s: Part One, American Strategic Forces and Extended Deterrence", Adelphi Paper 75 (IISS, 1982), p. 37. The JCS apparently wanted SACEUR to be able to strike more targets out to the Erals in a kind of theatre equivalent of the SIOP.

New LRTNF could be aimed at a vast range of targets, such as Soviet TNF and related facilities, conventional force concentrations, lines of communication, fuel and ammunition dumps, airbases, and command posts. The European allies were not particularly interested in detailed targeted issues. LRTNF were seen as political symbols, not as a means to fight a nuclear war. Nonetheless new LRTNF were viewed as a way of easing the burden on F-111 bombers.

- 75 Z. Brzezinski, Power and Principle, op. cit., p. 308.
- 76 J. Thomson, "The LRTNF Decision", op. cit., p. 609. But see p. 612; under considerable political pressure it was noted, in December, that arms control might make it "theoretically possible" to avoid deployment of new LRTNF - however, this flew in the face of the primary rationale for GLCM and Pershing II.
- 77 NATO Final Communiques op. cit., pp. 121-122. Apart from their obsolescence and operational problems, the 1,000 TNF may have been withdrawn in order to recycle nuclear material into new warheads. See Gecler, "Pentagon Fears Future Shortage of New Nuclear Arms Material", International Herald Tribune, 7 April 1980; Burt, "Carter Said to Weigh Rise in US Plutonium Output", International Herald Tribune, 17 September 1980.
- 78 NATO Final Communiques, op. cit., p. 122.

- 79 Aviation Week, 17 November 1980, p. 53.
- 80 Ibid.
- 81 Desmond Ball, "The Development of the SIOP, 1960-1983", in D. Ball and J. Richelson (eds.), Strategic Nuclear Targeting (Cornell University Press, 1986), p. 76.
- 82 Leon Sloss and Millot, "US Nuclear Strategy in Evolution", reprinted in Current News, 18 March 1984, p. 6F.
- 83 Ibid.
- 84 Sloss and Millot have written that (Ibid., p. 6F):
- Given the sizes of forces on both sides and the increasing emphasis in both US and Soviet doctrines on strategic reserves, it seems highly plausible that substantial nuclear and conventional forces would remain even after a large-scale nuclear exchange. The actions and interactions of these forces would have to be taken into account in the development of our strategic war plans (emphasis added).
- 85 D. Ball, "The Development of the SIOP, 1960-1983", op. cit., p. 77.
- 86 L. Sloss and Millot, "US Nuclear Strategy in Evolution", op. cit., p. 6F.
- 87 Harold Brown "The Objective of US Strategic Forces", Address to the Naval War College, Washington, 20 August 1980, p. 5.
- 88 See Fred Kaplan, The Wizards of Armageddon (Simon and Schuster, 1983).
- 89 Andrew Marshall (Director, Net Assessment, DoD) and Colonel Odom (NSC) provided some impetus to the administration's refinement of doctrine. Both Defense Secretary Harold Brown and his Deputy Under-Secretary for Policy Planning, Walter Slocombe, agreed that the development of the Soviet force posture required some kind of doctrinal response from the USA. (Interviews.)
- 90 See note six.
- 91 Interviews; also, see D. Ball "The Development of the SIOP, 1960-1983", op. cit.
- 92 Walter Slocombe, "The Countervailing Strategy", International Security, Spring 1981. pp. 19, 20.
- 93 Ibid., this has been paraphrased by me. A considered appreciation of the relevance of Soviet perspectives to US doctrine is provided by H. Brown in his Annual Report for FY1981 (Washington, D.C., 1980), pp. 67, 82, 83.

- 94 H. Brown, "The Objective of US Strategic Forces", op. cit., p. 5.
- 95 Ibid., p. 5.
- 96 Ibid., p. 5.
- 97 Ibid., p. 6. The administration issued directives on wartime communications support (PD-53) and on the post-war continuity of government (PD-58); see D. Ball, "The Development of the SIOP, 1960-1983", op. cit., p. 78.
- 98 H. Brown, Annual Report to Congress for FY1981, op. cit., p. 91.
- 99 H. Brown, Annual Report to Congress for FY1980, op. cit., p. 78.
- 100 Richard Burt "Carter Said to Back a Plan For Limiting Any Nuclear War", New York Times, 6 August 1980.
- 101 Z. Brzezinski, Power and Principle, op. cit., p. 459.
- 102 "Nuclear War Strategy" Hearings before the Senate Committee on Foreign Relations, 16 September 1980 (sanitized, 18 September 1980), p. 34.
- 103 Interviews.
- 104 Henry Kissinger, speech reprinted in Survival, November/December 1979, p. 264 ff.
- 105 D. Schwartz, NATO's Nuclear Dilemmas, op. cit., p. 236.
- 106 J. Carter, Keeping Faith, op. cit., p. 245.
- 107 H. Brown, Annual Report to Congress for FY1982 (Washington, D.C., 1981), p. 78.
- 108 H. Brown, "Overview of Nuclear Arms Control and Defense Strategy in NATO", Hearings of a Subcommittee of the Committee on Foreign Affairs, House of Representatives, February-March 1982, p. 198.
- 109 Caspar Weinberger, Annual Report to Congress for FY1986 (Washington, D.C., 1985), p. 47.
- 110 Of course, the unwillingness of Europeans to meet force goals has a long history.
- 111 H. Brown, Annual Report to Congress for FY1982, op. cit., pp. 68-72.
- 112 Ibid., pp. 83-84. In addition, it was reported that the US Navy abandoned the "swing strategy" whereby, during a major European war, US forces were to be re-deployed from the Pacific to the Atlantic: see The Times, 15 April 1980; The Guardian, 15 April 1980; the International Herald Tribune, 26 May 1980.

- 113 David Greenwood, "NATO's Three Percent Solution", Survival, November/December 1981, p. 257. At the beginning of 1981 Harold Brown issued a thinly disguised warning to NATO, in his Annual Report to Congress for FY1982 (op. cit., p. 84), the Defense Secretary stated that:

Neither the Congress nor the American people will long be willing to carry an unfair share of the total burden. We cannot do it all. If our European and Asian allies will not increase their defense efforts appropriately, the American people are likely to demand some scaling down of our own [Alliance-related] plans and programs.

- 114 H. Brown, Annual Report to Congress for FY1982, op. cit., pp. 127-128.
- 115 Ibid., p. 128-129.
- 116 H. Brown, "Overview of Nuclear Arms Control and Defense Strategy in NATO", op. cit., p. 218.
- 117 H. Brown, Annual Report to Congress for FY1979 (Washington, D.C., 1978), p. 70.
- 118 Even so, several hundred SRTNF remained in Europe.
- 119 Z. Brzezinski, Power and Principle, op. cit., p. 461-462.
- 120 J. Carter, Keeping Faith, op. cit., p. 537.
- 121 Z. Brzezinski, Power and Principle, op. cit., p. 463.
- 122 H. Brown, Annual Report to Congress for FY1980, op. cit., p. 76.
- 123 With regard to PD-59, Brown talked of "selective, large (but still less than maximum) nuclear attacks" (emphasis added), see "The Objective of US Strategic Forces", op. cit., p. 5.
- 124 Z. Brzezinski, Power and Principle, op. cit., p. 443; also, see p. 454.
- 125 J. Carter, Keeping Faith, op. cit., p. 483.
- 126 Z. Brzezinski, Power and Principle, op. cit., p. 459.
- 127 For advocacy of integrated nuclear/conventional operations see John Rose, The Evolution of US Army Nuclear Doctrine (Westview Press, 1980). In addition, see the US Army Field Manual, FM100-5 (1982).
- 128 For a discussion of these issues see Jonathan Dean, "Alternative Defence: Answer to NATO's Central Front Problems?" International Affairs, Winter 1987/88.

- 129 See various articles reprinted in Steven Miller (ed), Conventional Forces and American Defense Policy (an International Security Reader, Princeton University Press, 1986).
- 130 See the section on the nuclear threshold in Europe, Chapter Two.
- 131 Ibid., and the Report of the European Security Study, Strengthening Conventional Deterrence in Europe (Macmillan, 1983).
- 132 General Rogers, testimony on "NATO Conventional Capability Improvement Initiatives," House of Representatives, Committee on Armed Services, Procurement and Military Nuclear Systems Subcommittee Jointly with the Research and Development Subcommittee (Washington, D.C.), April 26, 1983, p. 1782.
- 133 Ibid., p. 1782.
- 134 "The Montebello Decision: Annex to the Final Communiqué of the Autumn Ministerial Meeting of the NATO NPG, 27 October 1983, NATO Final Communiqués (NATO Information Service), p. 106.
- 135 Atlantic News, Number 1707, 4 April 1985, p. 2; "NATO Nuclear Planning Group Communiqué", Monterey, 4 November 1987, p. 2.
- 136 Transcript of Press Conference by General Rogers, Park Hotel, Sandefjord, Norway, 10 September 1986 (ACE Output, November 1986).
- 137 Atlantic News, Number 1860, 24 October 1986.
- 138 Les Aspin, quoted by M. Mathews, "Pact Could Raise Chances of War, Aspin Cautions", Baltimore Sun; 20 April 1987, p. 1. Also, see comments by General Rogers in: the International Herald Tribune, 19 June 1987; and The Times, 19 June 1987, p. 11. In this last article Rogers is quoted as saying that the so-called zero option on TNF was "a magnificent political ploy in 1981, but it gave me gas pains militarily and it still does...we have moved too damned fast...I think the United States has put too much pressure on the allies to get an agreement for agreement's sake."

CHAPTER FIVE

THE NATO PLANNING FRAMEWORK: PLANNING FOR THE NUCLEAR-CONVENTIONAL NEXUS

A) Introduction

This chapter provides a picture of NATO planning. It does not offer predictions of how a war in Europe will be fought. First, some very brief comments are made on the political context of Alliance policy-making. NATO's organisational framework is then outlined. Next, the pattern of NATO planning is described in a way that corresponds to a hypothetical and simplified escalation ladder. To this end, each of the following is looked at in turn: the threshold between peace and war, NATO's concept of operations, NATO conventional doctrine, NATO planning for the first-use of TNF, doctrine for theatre nuclear warfare, and the links between TNF and central strategic war.

B) Political Background

Alliance planning and doctrine is constrained by political considerations which attempt to balance the requirements of separate national sovereignties with the development of a collective view of European security issues. The Alliance, qua Alliance, view of the politico-military framework for defence planning therefore rests on a good deal of compromise and ambiguity.

The broad political perspective underlying NATO planning since the late 1960s was outlined in the Harmel Report of 1967 on the "Future Tasks of the Alliance". This report firmly tied detente and defence together: "Military security and a policy of detente are not contradictory but complementary."¹ NATO military preparedness was to help underpin Western solidarity and the stabilisation of political relationships on the Continent.

A series of developments since 1967 have changed the political landscape in Europe but have not drastically altered the formula sketched above and in the Harmel Report. These developments have included: the signing of a non-aggression treaty between West Germany and the USSR, and the normalisation of relations between the FRG and Poland in 1970; the Quadripartite Agreement on Berlin, the "Basic Treaty" between the FRG and East Germany, the initiation of the Helsinki process, and the signing of SALT I in 1972; the signing of the Final Act of the Helsinki Conference on Security and Cooperation in Europe in 1975; and the INF arms control process.

The consequences of this partial ratification of detente for military planning in Europe have not been clear-cut and are not easy to sharply define. Nonetheless it can be argued that the atmosphere of relaxed tensions - or even the aspiration for a relaxation of tensions - has reinforced other factors which have undermined the establishment of a stronger and more coherent Alliance war-fighting posture. It has also coloured the special role of West Germany in both East-West relations and in NATO deliberations.

At the very least images of detente have added to the complexity of the NATO planning context.

But it is not only political factors which have changed since the adoption of the Harmel Report in 1967. The military basis of NATO security has continued to shift. The previous chapters have shown how the trend towards strategic nuclear parity between the superpowers encouraged the move towards flexible response; the continuance of this trend added pressures to develop the new policy. Strategic nuclear parity was explicitly acknowledged by NATO in the 1974 "Declaration on Atlantic Relations", commonly called the Ottawa Declaration. This declaration referred to a "point of near equilibrium" in the "strategic relationship" between the US and USSR. This had produced a "different and more distinct" edge to NATO's defence problems. The European allies ("who provide three-quarters of the conventional strength of the Alliance in Europe, and two of whom possess nuclear forces capable of playing a deterrent role of their own") would have to note this difference. In support of its allies, and in the face of the Soviet strategic nuclear build-up, the US was to "reaffirm its determination" and state its "resolve" to help defend Western Europe.² US willpower and European troops would therefore remain key interlocking elements in NATO's defence posture.

C) The Organisational Framework

In the Alliance, defence policy is developed at many different levels. Two of these levels are salient in terms of the higher

direction of planning: the NATO and national levels. The NATO level of planning is represented at, for example, Supreme Headquarters Allied Powers Europe (SHAPE). National input can be provided at different levels. For example, policy developed in Washington can be fed into the North Atlantic Council, the NATO Military Committee, and SHAPE; it can also be fed directly into national military forces (in this case US forces in Europe) in a way that by-passes the NATO framework. A 'dual hat' system, whereby national force commanders have comparable and parallel NATO commands, facilitates the meshing of national and NATO policy. NATO is not a supra-national organisation, so national positions and initiatives dominate the Alliance defence posture. In addition, considerable input to the West's strategy is provided at lower levels such as various corps headquarters.

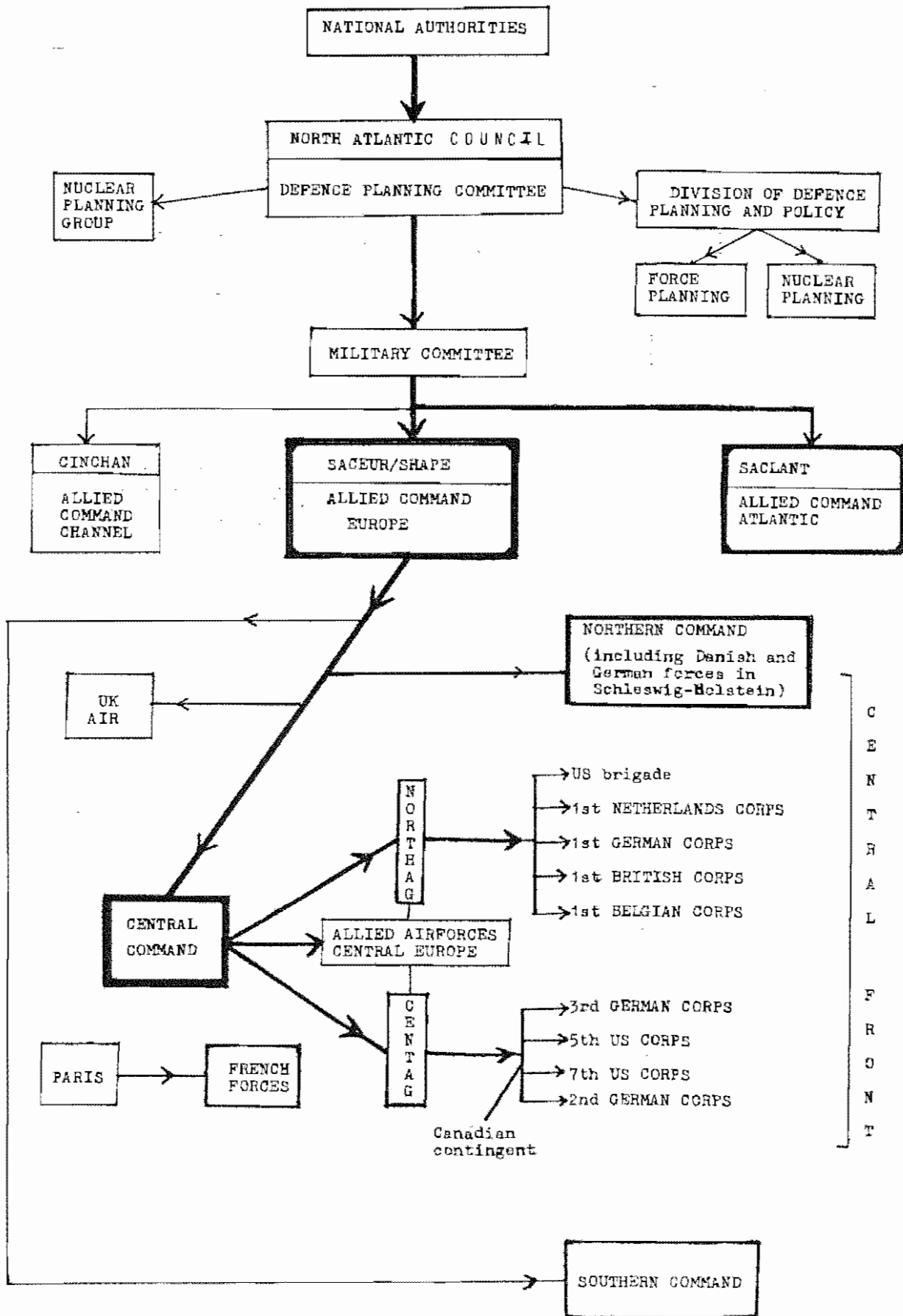
The highest decision making body in NATO is the North Atlantic Council (NAC). It is a forum for Alliance political consultation and coordination. A sub-group of the NAC - the Defence Planning Committee (DPC) - is the highest authority dealing with detailed aspects of NATO strategy; it excludes France. The NAC has routine meetings but can sit at about two hours notice if need be.³ The Council directs the work of numerous committees (such as those dealing with communications and logistics). Via the DPC, the NAC is linked to the Nuclear Defence Affairs Committee (NDAC), which is closely related to the Nuclear Planning Group (NPG).

The NAC and its committees are supported by the NATO International Staff. One branch of the International Staff forms the Division of Defence Planning and Policy; this division is divided into Force Planning, Nuclear Planning, and Civil Emergency Planning. The Assistant Secretary General for Defence Planning and Policy chairs the Defence Review and Alerts committees, and supervises the NPG Staff Group.⁴

The role of the NPG is to provide a forum for Alliance consultation over nuclear planning and the formulation of guidelines for the use of (mainly) TNF. The NPG is essentially a bureaucratic mechanism for granting the European allies access to US policy and concepts, and a platform from which the Europeans can respond to American thinking on TNF. The NPG does not draw-up warplans. The NPG is not meant to manage operational aspects of TNF planning and may be able to offer only somewhat general guidance to warplanners.⁵

The senior military authority in NATO is the Military Committee (MC). The MC is supported by the International Military Staff (IMS) and is responsible for strategic guidance for the defence of the NATO area; it is subordinate to the NAC/DPC. MC guidance is given to the Major NATO Commands (MNC); these MNCs are Allied Command Europe (ACE), Allied Command Channel, and Allied Command Atlantic (ACLANT).

NATO ORGANISATION (SIMPLIFIED) HIGHLIGHTING THE CENTRAL FRONT



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ACE is headed by the Supreme Allied Command Europe (SACEUR). In war SACEUR would direct and coordinate four subordinate commands: Northern European; Central European; Southern European; and UK NATO Airforces (UKAIR). In peacetime SACEUR has no operational command over forces (except some air defence systems - and perhaps in certain circumstances some Quick Reaction Alert TNP). National military forces have to be assigned to SACEUR by national political authorities during a crisis.

ACE therefore has three Continental commands under the direction of SACEUR: Northern (centred on Norway and Denmark); Central (centred on Germany); and Southern (centred on the central and eastern Mediterranean area). Most of ACE's ground combat power is to be allotted to the Commander-in-Chief Allied Forces Central Europe; this force is concentrated in West Germany and is divided into Northern Army Group (NORTHAG) and Central Army Group (CENTAG). These Army Groups coordinate corps. "The corps commander is at the top of NATO's battle management hierarchy", according to some analysts.⁶ Corps commanders direct multidivisional forces. Below division level are brigades, the cutting edge of NATO's conventional ground forces.

The Central front is divided into eight corps areas. From north to south these are (first under NORTHAG) the First Netherlands Corps, the First German Corps, the First British Corps - BAOR, and the First Belgian Corps; further south (under CENTAG) are the Third German Corps, the Fifth and Seventh US Corps' and the Second German Corps. There are additional US troops in NORTHAG (in the Bremen area) and limited Canadian forces in CENTAG. Adjoining Central European Command in the north (in Schleswig-Holstein) is another West German corps.

During a crisis these different national corps would, in theory, come under SACEUR's control. SACEUR has always been an American and is also the Commander-in-Chief of US forces in Europe; these American forces are organised as US European Command (EUCOM). EUCOM has a pivotal role in NATO nuclear war planning.⁷

Like the other US Commands (such as SAC and Pacific Command), EUCOM works under United States JCS guidance. The JCS "recommend missions and publish master plans whose express purpose is to join these...commands like pieces in a gigantic jigsaw puzzle."⁸ This jigsaw puzzle comes together in the form of the Joint Strategic Capabilities Plan (JSCP). Commanders of the Unified and Specified Commands take orders from the President via the Secretary of Defense and the JCS.

The JCS also oversees the development of strategic nuclear warplanning via the Joint Strategic Target Planning Staff (JSTPS). The JSTPS develops target lists and the major strategic nuclear warplans in the form of the SIOP. The SIOP Division of the JSTPS must consider, among other things, "the most likely conditions of [war] plan initiation."⁹ One of these conditions is clearly the possibility of conventional or theatre nuclear war in Europe. Since 1963 European NATO officers have been attached to the JSTPS to help coordinate or "deconflict" SIOP and TNF planning; SACEUR has been "designated as the NATO nuclear targetting coordinating authority."¹⁰

As previously noted, the NATO nuclear force structure is under review. The present NATO objective includes a ceiling of 4,600 TNF

warheads in Europe. This will enable NATO to deploy about 1,700 bombs, 750 artillery shells, 80 Lance surface-to-surface missile systems, and 200 anti-submarine depth charges; in addition, NATO may develop a new surface-to-surface missile (Lance 2?) and an air-to-surface stand-off missile. Most NATO TNF warheads have apparently been kept in about 50-100 storage sites; the majority of SRTNF warheads may be concentrated in about 20 such sites. About two-thirds of these sites house US warheads earmarked for allied (Turkish, Greek, Italian, German, British, Belgian, and Dutch) use. All these warheads are held in US custody. A significant proportion of Alliance nuclear firepower is held on airbases. Seventeen of these airbases house nuclear armed aircraft on "Quick Reaction Alert" (QRA). Some missiles have also been placed on QRA.¹¹

Whereas planning for conventional forces is primarily concerned with force levels, deployment patterns and logistics, nuclear planning is largely a matter of selecting and prioritising targets and assigning specific weapon systems to them. NATO nuclear planning is carried out at three major centres - ACE (Casteau-Mons, Belgium), ACLANT (Norfolk, Virginia, USA), and HQ EUCOM (Stuttgart-Vaihingen, West Germany) - and at various lower echelons, such as corps. Targeting of NATO TNF can best be described in terms of two dual categories: pre-planned and partially pre-planned, and selective and general attack. Pre-planned targets are mostly fixed targets (such as airfields), partially pre-planned targets are mostly mobile (such as armoured forces). The provision of selective attack plans covers contingencies for limited nuclear war, while general attack means all-out nuclear war.

NATO nuclear targeting is meshed into the Nuclear Operations Plan (NOP). LRTNF have played a pivotal role in the NOP. For example, the 1973 version of the NOP (then called the General Strike Plan -GSP) included land and sea based airpower, SLBMs, and Pershing 1 missiles. These forces were to be controlled by SACEUR during wartime. The GSP allowed for a range of selective nuclear attacks - from demonstration shots to "the theatre nuclear warfare option" (this option, presumably involving thousands of TNF, was nonetheless considered an example of "selective use").¹² As discussed in chapter three, planning for limited use of TNF has been incorporated in the development of Selective Employment Plans (SEPs). The NATO general response option calls for a massive and coordinated NATO/US nuclear attack against Eastern Europe and the USSR.

SRTNF or battlefield nuclear weapons (such as artillery) are, reportedly, not included in the NOP.¹³ For one thing they are not well suited to central pre-planning. SRTNF are most likely to be used against targets of opportunity after considerable Warsaw Pact force movements had got underway. SACEUR would, in theory, decide when and on what scale SRTNF should be released to local corps commanders in order to support particular sections of the front-line (assuming presidential approval). Such a use of SRTNF at corps level might involve 20-200 warheads. As outlined in chapter three, NATO is not expected to launch this type of attack early in a crisis or war.

The organisation of TNF is superimposed on a range of crisis management and conventional capabilities in a defence framework that attempts to maximise options at various stages in a confrontation. In theory NATO TNF could be used early or late in a war, in a measured first-use role or in calculated retaliation against Soviet nuclear attack. TNF strikes are supposed to be tailored to the special needs of any crisis at hand, including conventional war.

D) The Peace-to-War Threshold

NATO planning assumes a period of tension and political warning prior to an attack (although the Alliance does maintain some hedges, such as significant ready forces, in the event of a "bolt from the blue" surprise attack). NATO crisis management machinery and procedures are intended to maintain the firebreak between peace and war and, failing this, to ease the transition to war. They are partly centred around the NATO Situation Centre (SITCEN) and the Council Operational and Exercise Committee (COEC). The COEC develops crisis management policies and some NATO exercise procedures. SITCEN contains extensive communications and data processing capabilities. It is a joint military-civilian agency with "watch-keeping" responsibilities. SITCEN is tasked to "assemble, collate and disseminate" information "with regard to developing situations."¹⁴

The details of NATO planning for crises are secret; however, the general requirements of a crisis management system can be sketched. Such a system clearly requires an effective command, control, communications and intelligence (C³I) network; in NATO much of this network is keyed into SITCEN. Some national authorities have a need for national C³I/crisis management systems - most obviously the United States. As a US Defense Report has noted, there is a requirement for a C³I system that allows for the management of forces "during transition from a normal readiness posture through a crisis situation to the conduct of conventional or nuclear warfare." National decision makers and the military require "timely and accurate information critical to evaluation of crises and control of escalation."¹⁵ The special C³I demands of the US include management of theatre and central strategic nuclear weapons (and the linkage between them) and global coordination of conventional forces.

Effective crisis management, and the capability for an orderly transition to advanced stages of defence preparations, can be seen as complementary; almost as two sides to the same coin. Both require adequate warning of impending threats. This, in turn, calls for effective intelligence gathering, sensible interpretation of data based on sound political and military judgement, and an efficient system for passing information and assessments to higher levels. Betts has described some aspects of this issue. He notes the "quantitative trade-off" between "comprehensiveness in breadth and depth of monitoring and confusion or viscosity of the system."¹⁶

Intelligence agencies work with indicator lists covering Warsaw Pact military preparations. High on this list would, of course, be mobilisation of Soviet army units in the USSR. Betts has described other indicators, such as:¹⁷

- Intensified enemy reconnaissance in the battle area.
- Logistics vectors. How are military infrastructure and support trails being reoriented? Are supplies and fuel being moved forward?
- Dispersal of nuclear weapons from peacetime storage sites.
- Are troops leaving caserns moving into areas different from normal maneuver zones?
- Positioning of artillery, which is usually different if optimized for attack rather than defense.
- Forward movement of air defense units.
- Repositioning of headquarters and administrative centres.
- Coverage of flanks.
- Ammunition loading patterns.
- Mobilization of the rear and political preparation of the civilian population.
- A surge in reconnaissance satellites placed into orbit.
- Movement of additional aircraft to forward bases.
- Grounding of aircraft and cancellation of training exercises, for maintenance and readiness for coordinated mass operations.
- Sudden growth in naval deployments.
- Change in the volume of radio traffic, especially in command channels.
- The appearance of special code words in dispatches.

In addition, intelligence information would be gathered from out-of-theatre by national agencies (eg with respect to events in the Middle East or north-east Asia, and regarding maritime issues).

Warning time is of limited value if it is not used. In the NATO context use of warning time should facilitate crisis management and military preparation, possibly in a way that is interlinked and mutually reinforcing. A key component in the attempt to mesh warning time, crisis management, and military preparations is the NATO system of alerts, the details of which are classified. According to Betts some days are needed to get NATO's defence posture readied for a Soviet assault, and full readiness requires quite early political authorisation.¹⁸

The NATO crisis management/alert system is intended to reinforce deterrence at critical periods. To this end a series of measures could be taken regarding, say, the reinforcement of threatened areas. Crisis management therefore makes demands on force planning. For example, there is a requirement that Warsaw Pact mobilisation, readiness and reinforcement does not race too far ahead of NATO counter-measures; otherwise a window of opportunity might be opened for an attack. This criterion would apply to both a short-warning attack or an attack following a prolonged and sustained Soviet military build-up.

The measures taken by NATO in a crisis could, depending on circumstances, be cumulative with the Alliance progressively implementing its plans for a transition to a war footing. To facilitate such a move, each stage of the NATO alert system can be accompanied by specific preparatory measures (such as the transfer of operational command to SACEUR).

NATO has five steps in its alert system: five alert conditions - "LERTCONs" (these LERTCONs roughly parallel the US national system of Defence Conditions - DEFCONs).¹⁹ LERTCONs five and four correspond to the normal peacetime posture. LERTCONs three, two and one reflect progressively higher rates of readiness. LERTCON one would be declared in response to an expected imminent attack. Thus most preparatory moves could well occur with LERTCONs three and two. The NATO alert system appears to be flexible; it does not follow a rigid schedule and is not a contemporary equivalent of the Schlieffen Plan. In principle, it is possible to withhold, delay or accelerate specific measures (such as, presumably, the dispersal of TNF²⁰), depending on circumstances. This alert system may well be kept under review during a crisis and may be revised as necessary, if time and circumstances permit.

A mix of the following measures could be undertaken at various stages of alert (the measures and accompanying alert levels are illustrative, not predictive):²¹

Strategic C³I and forces.

a) DEFCON/LERTCON Three:

- Increased readiness of airborne command posts.
- In-port SSBNs readied for departure.
- Increased numbers of SAC bombers placed on airfield alert.

b) DEFCON/LERTCON Two:

- Enhanced survivability of National Command Authorities (NCA) by dispersal of officials.
- Mustering of SIOP dedicated tanker aircraft.
- Airborne alert of some SAC bombers.
- In-port, combat ready, SSBNs put to sea.
- Establishment/resting of wartime C³I systems.

c) DEFCON/LERTCON One:

- Reconnaissance activity maximised.

Theatre C³I

a) LERTCON Three:

- Additional (ACE) communications nets established.
- National forces prepare to "chop" to NATO command.
- Reconnaissance and intelligence activities intensified.
- CINCEUR's airborne command posts alerted and dispersed.

b) LERTCON Two:

- Allied national forces placed under the command of SACEUR/ACE.
- TNF release codes/procedures readied.
- Covert wartime communications system established.

c) LERTCON One:

- Reconnaissance activity maximised.

Theatre Nuclear Forces

a) LERTCON Three:

- Nuclear warhead custodial units alerted.
- Number of aircraft on QRA increased.
- Other LRTNF readiness measures increased at peacetime locations.

b) LERTCON Two:

- LRTNF dispersed.
- Covert dispersal of (some?) SRTNF warheads.

c) LERTCON One:

- Matching of SRTNF warheads and launchers in the field (e.g., nuclear shells with artillery).
- Readiness for combat completed.

Conventional Forces

a) LERTCON Three:

- Airbases put on increased alert.
- Naval activity intensified, in-port vessels readied for operations.
- Leave cancelled.
- Special security arrangements put into effect (e.g., guard points strengthened).
- Some initial mobilisation and reinforcement (e.g., forward deployment of US tactical airpower to Europe).

b) LERTCON Two:

- General mobilisation and reinforcement.
- NATO 'covering forces' (see below) in wartime positions along the East German and Czechoslovakian borders strengthened.
- General Defence Positions (see below) established.

c) LERTCON One:

- Special Forces readied for deployment behind enemy lines.
- Defence positions finalised.
- Naval activity intensified, possibly in forward areas (see below).
- Rules of engagement modified, readiness for combat completed.

It would appear that such a system of alerts has the potential to either weaken or strengthen the linkage between nuclear and conventional forces, depending, in part, on specific decisions being made at particular moments in a crisis. Thus the alerting of nuclear forces may be tightly coupled to the alerting of conventional forces or may, in principle at least, be kept as a separate and distinct process.

In terms of quickly adding firepower to the NATO defence line, the following moves would be most significant: West German mobilisation; the airlift of US troops to pre-positioned equipment on the Continent and the massive augmentation of US tactical airpower; an explicit French commitment to a forward defence of the FRG and/or, assignment of French forces to SACEUR as an operational reserve; and the dispersal of TNF to field units.²²

Obviously caution would have to be exercised in reaching these sorts of decisions; it might be a fine line between shoring-up a crumbling deterrent and precipitating preventive or pre-emptive attack by the Soviet Union.

A primary objective of these preparatory moves would be the timely implementation of a full forward defence posture. It has been estimated that 96 hours would be needed for NATO's active forces (not including many reserves) to move from peace-time deployments to their "General Defense Positions" with appropriate staffing and wartime communications support. However, there does appear to be an "emergency" plan which would allow a defence further back than that called for by the "full" plan. General Rogers has stated that he expects warning time measured in days, if not longer.²³

E) The Alliance's Concept of Operations

NATO planning takes place in the context of political guidance and military advice which come together in the form of the Alliance's concept of operations. The current concept was formalised in the late 1960s in document MCI4/3 entitled "Overall Strategic Concept for the Defence of the NATO area".²⁴ This concept has two key elements: forward defence and flexible response. Forward defence is the Alliance commitment to defend the territorial integrity of member nations as far forward as possible; flexible response is a policy of containing conflict, repelling attack, and threatening escalation. Major NATO warplans are therefore derived from a strategic framework which stresses the necessity to hold ground and, in certain circumstances, risk escalation.

The West German Defence White Paper for 1975-76 provides an official unclassified interpretation of MC14/3. Regarding forward defence, the Paper states that:

NATO's response must be such as to preclude sustained combat operations in the territory of the Federal Republic of Germany, for such prolonged combat would end by destroying the substance of what was to be defended.²⁵

Flexible response has been explained in terms of three types of options:²⁶

- 1) Direct defence. This means that an attack could be met on its own terms (eg conventionally). This might face an invader with defeat or the risk of escalation.
- 2) Deliberate Escalation. Here NATO could decide to initiate nuclear strikes, or otherwise increase the intensity or scope of military operations.
- 3) General Nuclear Response. This would require the massive use of US/NATO nuclear weapons.

The German White Paper noted that: "To an attacker the type, scope, and point of time of each form of response must be incalculable".²⁷ This would apply to the possible first-use of nuclear weapons as well. The doctrine for first-use has been described in the following terms:

The initial tactical use of nuclear weapons must be timed as late as possible but as early as necessary, which is to say that the doctrine of Forward Defence must retain its validity, the conventional forces of the defender must not be exhausted, and incalculability must be sustained so far as the attacker is concerned. The initial use of nuclear weapons is not intended so much to being about a military decision as to achieve political effect. The intent is to persuade the attacker to reconsider his intention, to desist in his aggression, and to withdraw. At the same time, it will be impressed upon him that he risks still further escalation if he continues to attack. (Emphasis added.)²⁸

MC14/3 attempts to rationalise a relationship between conventional, theatre nuclear, and strategic nuclear forces. The public German version stated that:

NATO's deterrent strategy calls for a balanced structure of the deterrent potential: conventional, tactical nuclear, and strategic nuclear, weapons. No single component in this triad can replace another. Its deterrent effect depends upon the escalatory interlinkage of all three components...

Conventional defence forces alone - especially in the light of the balance of power in Europe - would limit the risk to an attacker. This fact must be taken into account by preparedness and the ability to change from a conventional conflict to another quality of warfare - to nuclear war.

The tactical nuclear component, the centre-piece in the triad, links the conventional and strategic nuclear components in such a way that all three elements of deterrence form the overall spectrum without which the full deterrent effect would not be achieved. (Emphasis added.)²⁹

The link between US central strategic systems and TNF would be provided by limited strategic nuclear options:

The use of the strategic nuclear component need not be tantamount to all-out nuclear war, to the use of the entire strategic nuclear potential. The selective use of strategic nuclear weapons keeps destruction and risks within limits and enhances the deterrent value of strategic nuclear operations. Deterrence does not end once military conflict has broken out; at each step of the ladder of military response, it retains its political and strategic importance. (Emphasis added.)³⁰

The Paper noted that the US nuclear umbrella was partly conditional on a robust conventional force posture in Europe:

The parties to the Alliance must ensure by maintaining strong conventional forces in Europe that, if possible, the compulsion to use nuclear weapons is avoided. It is only on this condition that the United States can be expected to incur the risk of using nuclear weapons. (Emphasis added.)³¹

Nuclear threats and conventional defence provide the basis for NATO's strategic concept; as ex-SACEUR Goodpaster has noted:

What can be assured is that any attacking force would be subjected to heavy, continuing and increasing losses with no certainty of tactical success, and with rapidly escalating threat to rear areas and to the aggressor's homeland. An aggressor would have to face the risk of his offensive stalling and would have to ask himself, from a very early stage onwards, just what there is west of the Iron Curtain that could justify tremendous losses of his manpower and rising risk to his homeland. (Emphasis added)³²

According to public interpretations of MC14/3, the nuclear threshold is partly a function of the staying power of NATO's conventional defences. But there is apparently little real Alliance agreement on how long a conventional phase would last, or should be prepared for.³³

The "short-war" versus "long-war" debate obviously has important implications for the Alliance's maritime concepts. Any decision to prepare for a protracted war in central Europe would suggest a requirement for greater sea-lift capabilities, and a generous allowance for higher levels of naval attrition. Hundreds of merchant ship transits could be required to reinforce and sustain operations in Europe.³⁴ In addition, naval forces might have a critical role to play in the forward defence of Norway, Greece and Turkey. Moreover, during a conventional war in Europe, threats to NATO might develop out-side of the NATO area, and naval forces may be required to counter

them. However, it is not clear that NATO policy documents cover maritime doctrine in any great detail.³⁵

F) NATO Conventional Strategy

By the mid-1970s NATO conventional doctrine had settled into a pattern of "active defence". Active defence was outlined in the NATO Allied Tactical Publication number 35 (ATP-35). It was also reflected in the 1976 edition of the US Army Field Manual (FM) 100-5 Operations. Active defence was a doctrinal codification of forward defence; it was, therefore, in part at least, a military response to a political requirement. Despite interest in alternative approaches, NATO has remained officially committed to a forward defensive strategy encompassing limited barrier plans, attrition, tactical aggression, and limited offensive manoeuvre.

ATP-35 stated that:

Maximum attrition must begin as far forward and as early as possible to weaken the enemy, reduce his attack momentum, and hinder his movements. As the enemy closes, an active and elastic battle is fought in which combat power is repeatedly concentrated at the decisive points in the battlefield in order to unbalance, disorganise and block enemy attacks and to destroy his forces. In the active defence, the defender attempts to exploit the advantages of the terrain, optimise the use of his weapons, use initiative of commanders at all levels, use his mobility, fight the defensive battle offensively, seize the initiative and capitalise on enemy weaknesses.³⁶

This concept was built around the inter-relationship between positional and manoeuvre battle:

Although defence itself is an entity, all defence concepts contain two complementary elements; the static to provide the framework on the ground, and the dynamic, to provide the mobility to defeat the enemy...This results in two conceptual forms of defence - the positional defence and defences based on mobility, the extremes of which form the opposite ends of the spectrum.³⁷

The use of nuclear weapons would place greater emphasis on mobility; there would be a requirement to minimise the number and importance of concentrated and static targets.

NATO doctrine envisages three combat phases: covering force action, main defensive battle, and counter-attack. Forward defence requires the covering force to operate virtually on the inner-German border and for the main defensive battle areas to be as close to the border as feasible.

In practice this means that the West German frontier region with the Warsaw Pact could be the manoeuvre area for covering forces to a depth of perhaps four to forty miles.³⁸ According to doctrine:

Even before the covering force establishes contact, the enemy should be harassed and weakened by air attacks...

Covering forces should fight with enough intensity to force the enemy into revealing the strength, location, and general direction of his main attack.³⁹

Behind this covering force action NATO's heavy combat formations would prepare to meet and contain Soviet penetrations. Here, "defence must be conducted aggressively...the defence should...be fought with imagination, energy and offensive spirit."⁴⁰ In the "main defensive battle", the active defence "orientates on destroying the enemy force ..."⁴¹ According to the doctrine:

The defensive battle...constitutes a continuous cycle of action gradually absorbing the momentum of enemy offensive, destroying his forces and setting the stage for an offensive by the defender...⁴²

Counter-attacks should be conducted only when the gains to be achieved are worth the risks involved in surrendering the innate advantage of the defender. Limited objective attacks should be the rule rather than the exception.⁴³

SACEUR, writing in 1984, suggested that NATO counter-attacks would only be undertaken to regain lost ground and would not penetrate more than about 20 miles into Warsaw Pact territory.⁴⁴ This limitation would clearly not apply to NATO airstrikes.

NATO forces are supposed to tie-down a Warsaw Pact advance as far to the east as feasible and, by so doing, critically disrupt the Soviet offensive timetable.

* * * * *

Given a war lasting more than a few days or weeks NATO naval forces would have a vital role to play in Alliance plans. The most powerful naval force in NATO is, of course, the United States Navy (USN). The USN could be backed-up by considerable British and French forces as well as less powerful, but nonetheless significant, allied maritime elements (such as West German units covering the Baltic). The primary tasks of Allied Command Atlantic (ACLANT) in wartime would be to protect Atlantic sea lanes and deny them to enemy forces, keep ports open, conduct attacks against Warsaw Pact land-based targets (like naval bases and airfields) with both conventional and nuclear forces, support SACEUR, and maintain responsibility for specific Atlantic islands (such as the Azores).⁴⁵

Clearly a pivotal element of ACLANT's role would be to keep the Atlantic Ocean open. To this end two overlapping types of strategies would be available to SACLANT: defensive and offensive. The defensive strategies would place heavy emphasis on stopping Soviet naval forces from breaking through the Greenland-Iceland-United Kingdom gap (the GIUK gap), and on convoy operations. An offensive strategy could attempt to destroy Soviet maritime power at or near its source on the Kola Peninsula; it would require naval operations forward of the GIUK gap. Concurrent with the objective of keeping Soviet forces out of the Atlantic would be a requirement to support Alliance operations in Norway which might well require a more ambitious strategy than a defence of choke points like the GIUK gap.

Paralleling the defence of the Atlantic and the support of Norway would be concerns over the central strategic balance - involving, as it does, ballistic missile firing submarines, some of which may be within an area of conventional operations. However, this aspect of maritime strategy does not seem to figure much in Alliance deliberations over the role of ACLANT.

Given these demanding missions (to which must be added naval support of NATO operations on the southern flank) the USN had, during the mid 1970s, a "Swing Strategy". That is, in the event of major war, the US would adopt a type of "Europe-First" policy and swing naval power around from the Pacific Ocean to the Atlantic-European theatre. As discussed in the previous chapter, this policy seems to have been qualified following the Iran-Afghanistan crises of 1979-1980, and renewed American interest in the Pacific area.⁴⁶

G) The Threshold Between Conventional And Nuclear War

Clearly any decision to cross the nuclear threshold could well have enormous, and probably unpredictable, political consequences. Thus, NATO attempts to maintain firm links between its political decision-making and the operational use of nuclear weapons. The Alliance method for managing this linkage is partly provided for by a system of political consultation among the allies. This is potentially reinforced by accompanying safety measures (such as locks on nuclear warheads) and C³I networks.

The details of NATO's consultation processes are classified; they appear to be flexible. In some situations no consultation is required by NATO; it all depends on "time and circumstances". Even with consultation, unanimity among the allies is not necessary for nuclear release. NATO consultation on nuclear use (presumably dealing with the timing, targetting and scale of possible attacks) can take a "comprehensive" or "abbreviated" form.⁴⁷ One example of abbreviated consultation would be discussions between those allies directly involved in a particular limited nuclear strike: such a strike might involve US warheads, Belgian artillery and West German territory. Even more limited (Anglo-American) consultation might be possible in, for example, the use, by American aircraft, of airbases in the UK for interdiction strikes in Eastern Europe. Another example might be German-US consultation in the event of an American battlefield use of nuclear weapons on West German territory.

Regardless of the degree of Alliance consultation, the political decision-making element to nuclear release means that release time is indeterminate. A large group of allied leaders, or a small group of US leaders in the White House, might act very quickly, relatively slowly, or not at all. It all depends on circumstances.

Nuclear use may result from a "bottom-up" request by a local (possibly corps) commander, or from a "top-down" instruction from, say, the US national command authorities to SACEUR/CINCEUCOM and hence to lower echelons. The "bottom-up" method would be more time consuming (perhaps 24 hours or so) as it would require clearances and communications up various levels in the command chain as well as a subsequent "top-down" release. Both forms of nuclear use obviously require an appropriate C³I system.⁴⁸

NATO planning for the nuclear threshold takes at least two basic forms: retaliation against a Soviet nuclear attack, and first-use of TNF against an impending Warsaw Pact conventional breakthrough. (There may also be an option for an Alliance, or at least US, preemptive nuclear "first strike".)

Alliance guidance to SACEUR calls for him to request authority to release nuclear weapons in the event of an anticipated collapse of the "cohesiveness" of NATO's conventional defence. This request is not to be delayed to the point where NATO conventional forces have suffered an irreversible defeat. Sufficient conventional forces have to be available to exploit the political and military effects of Alliance nuclear use. It is not NATO policy to wait until the conventional defence line has been shattered and penetrated by massive Warsaw Pact assaults before resorting to first-use of TNF. Thus an anticipated breakthrough (projected, say, one, two or three days into the future) would require a request for nuclear release.⁴⁹

A former NATO Secretary General has stated that:

the selective and limited use of tactical nuclear weapons would not be deferred until our conventional defences were reduced to a desperate situation. [By then] it would be neither feasible nor effective to use them. The enemy would already have advanced too far and there would be a danger of hitting our own troops along with his or, worse still, the civilian population.⁵⁰

General Starry (as Commander-in-Chief, US Readiness Command) has made it clear that TNF use has to be considered well before an enemy has a chance to breakthrough NATO lines.

If we are to use [TNF] this [ie 100-200 km behind enemy lines] is probably the best place to use them...the delays that are attendant upon asking for and receiving nuclear weapons release always creates a situation in which if you wait until they get into your territory, to ask for the use of nuclear weapons, it is always too late. Several thousand simulations in actual exercises suggest to us that if you wait that long, it is too late...

A review has been made of a considerable number of planning services in which assumed enemy penetrations were drawn with great care to specify that line 'beyond which an enemy incursion would jeopardise the integrity of the defense'. It was found that, if the penetration was allowed to develop as was customary in the defended territory, it was **always** too late. If for no other reason, therefore, it is of paramount importance that the planning process begin while follow-up echelon targets are still deep in enemy territory, and that nuclear release be requested in sufficient time to allow weapons employment while the target is still 24 to 60 hours from the [forward line of own troops, ie 24-60 hours behind the enemy lines].⁵¹

US Army doctrine may provide some insight into how an **anticipated** enemy breakthrough can be fed into war plans. Doctrine states that:

Commanders normally consider the battlefield in terms of the time and space necessary to defeat an enemy force or to complete an operation before an enemy can reinforce. Commanders should review the battlefield as having two distinct areas: an area of **influence** on which commanders fight the current battle and a larger area of **interest** in which commanders carefully monitor enemy forces that might affect future operations.⁵²

Army staffs could develop advance planning (including, presumably, nuclear planning) using the following approximate schedules:⁵³

a) Areas of Influence

- i) Brigade - Out to 12 hours behind enemy frontline
- ii) Division - Out to 24 hours
- iii) Corps - Out to 72 hours
- iv) Above Corps level - Out to 96 hours

b) Areas of Interest

- i) Brigade - Out to 24 hours
- ii) Division - Out to 72 hours
- iii) Corps - Out to 96 hours
- iv) Above Corps level - beyond 96 hours

* * * * *

A frequently mentioned trigger to nuclear escalation is a threatened breakthrough by Warsaw Pact conventional forces employing numerical superiority and, or, surprise. Initial tactical success might enable the Warsaw Pact to threaten to overwhelm NATO defences and over-run large areas of NATO territory, leading to an Alliance first-use of TNF. NATO first-use would therefore be partly a function of weaknesses in conventional forces. In particular, first-use could, according to this scenario, result from an inability to cope with surprise and an incapacity to sustain conventional operations - leading to a potential failure to maintain a coherent defence line. Estimates of how long NATO could sustain a conventional defence vary; ten to twenty days seems to be a common guess.⁵⁴

The idea that Soviet armoured forces might breakthrough to the English Channel in 48 hours has been dismissed by a former head of NATO's Military Committee as a "wildly exaggerated assessment", and a "bizarre thesis".⁵⁵ Mearsheimer has argued that NATO stands a reasonable chance of maintaining a conventional defence line for some time.⁵⁶ Alford has related this issue to the arrival of Warsaw pact reinforcements; the second Soviet strategic echelon (possibly consisting of scores of divisions) might begin putting severe pressure

on NATO's defence line 30 days after mobilisation.⁵⁷ General Rogers has suggested that NORTHAG represents a limiting factor, or weak link, in NATO's defence line:

If I do not get [US] reinforcements to Northern Army Group in time, that will be the **determinate** as to how soon I am going to have to knock on the door of the political authorities and say 'I must resort to theater nuclear weapons'. (Emphasis added.)⁵⁸

Rogers has claimed that NATO has "a delayed tripwire strategy."⁵⁹ The former SACEUR has mentioned the possibility of nuclear escalation after "a few days".⁶⁰

According to this view of escalation, the following interlinked issues would be important in determining the chronological and geographical position of the nuclear threshold:

- 1) The ability of Alliance C³I systems to negate or manage a surprise Warsaw Pact attack.
- 2) The relative size and quality of the opposing side's active, in-place, forces.
- 3) The relative rates of mobilisation and reinforcement.
- 4) The relative rates of attrition.
- 5) The relative sustainability of forces.
- 6) The efficacy of interdiction.
- 7) The relative compatibility of capabilities and objectives between the Warsaw Pact and NATO; eg, are NATO forces less able to defend than Warsaw Pact forces are to attack?

- 8) The force-to-space ratio, especially with respect to NATO defences. Do individual units (corps, divisions, brigades, etc) have manageable frontages? If so a force imbalance may be tolerable; if not, even balanced forces may be inadequate to hold a line.
- 9) Strategic and tactical competence, can NATO close-off a threatening situation on the frontline faster than the Warsaw Pact can exploit it?

Underlying all of these factors would be the critical political dimension: how would combat operations effect the political will of both sides, and how would these political effects be reflected on the battlefield?

An Alliance decision to use nuclear weapons first, as a counter to a Warsaw Pact conventional attack, would be essentially political in nature, however much it may reflect the military situation. The primary objective of first-use would be to make a clear political statement about the risk of further escalation should the Warsaw Pact persist in its attack, the intention being to force a recalculation by Soviet leaders and a speedy termination of hostilities. NATO doctrine suggests that the best way to make a political impact is to ensure that nuclear attacks have militarily significant consequences.⁶¹

NATO's first-use options apparently cover a range of weapons and targets and vary in scale from one or a few warheads to hundreds and, possibly, thousands. Perhaps the most frequently mentioned example of first-use is the execution of a 'corps package' of one hundred or so SRTNF (mostly bombs, Lance and nuclear artillery). These battlefield nuclear weapons could be fired directly against an attacking armoured force. Given the range constraints involved, the enemy force might be very close - say ten miles - to some of the

allied nuclear weapons systems used. The authority to fire a "package" would include constraints concerning the number of nuclear warheads used, the area to be affected by the attack, and the timespan available in which to conduct the attack. These constraints would be imposed in an attempt by higher authorities to maintain command and control of lower echelons and to establish clearly perceivable limits to nuclear use and thereby, possibly, limit escalation.⁶²

However, the frequently given example of hypothetical first-use using artillery may not be the most likely jump across the nuclear threshold. SACEUR General Rogers indicated that SRTNF such as artillery would not be the preferred weapons to be used for first-use, and that their main function is the deterrence of Soviet use of SRTNF by the threat of reprisals in kind.⁶³ It seems that longer range weapons may be more suitable for first-use.⁶⁴

There would appear to be at least five reasons for Rogers' reluctance to use SRTNF early.

- 1) To make a decisive operational impact a nuclear attack against a major armoured thrust could require more nuclear warheads than politicians would be prepared to authorize as a first use. It is quite possible that they would be reluctant to release a hundred or so warheads to the (albeit limited) discretion of a local commander.
- 2) The use of scores of nuclear warheads on, or very close to, a volatile frontline could cloud the clarity of the intended signal represented by first-use. It is here that the "fog of war" could be at its thickest and most confusing.
- 3) The use of SRTNF may have to be against Warsaw Pact forces in NATO territory, thereby destroying what was supposed to be defended.

- 4) A situation supposedly requiring the use of SRTNF suggests that the conflict has passed beyond the point at which NATO doctrine calls for limited first-use. Indeed, employment of SRTNF may be reserved for a failure of first-use by longer-range systems. In other words the use of nuclear artillery barrages could be withheld until initial, clearer, nuclear "signalling" had been tried and found wanting.
- 5) Command and control problems might be too demanding.

Taking NATO doctrine at its word, the planning criteria for Alliance first-use might include the following:

- 1) The maintenance of command and control over initial nuclear operations.
- 2) Flexibility; this would include the provision of multiple first-use options for use in various circumstances.
- 3) Timeliness.
- 4) Clarity of intended signal.
- 5) The achievement of political effect through military impact.
- 6) The provision of nuclear support for conventional operations.
- 7) Sensitivity to Soviet doctrine (with respect to levels of pre-emption) and attack assessment capabilities.
- 8) The avoidance of urban areas.

An alternative, and arguably more plausible, first-use scenario than a nuclear artillery barrage could be an attack on a few Warsaw Pact airfields in East Germany using nuclear armed aircraft. Such an attack might be easier to manage than a corps package directed against armoured forces. It would also have an effect on the military equation while, inevitably, having an enormous - if unpredictable - political impact. Ballistic missiles might offer a more reliable and timely means of counter-air attack, but their use might be withheld in the initial stages of a conflict for fear of triggering possible Soviet launch-on-warning options.

There are, apparently, three types of "theatre nuclear options". They have been described, in a report to Congress, as:

Limited nuclear options designed to destroy selectively a number of fixed enemy military or industrial targets and, in so doing, to demonstrate a determination to resist attack by whatever necessary means.

Regional nuclear options intended, as one example, to destroy the spearheads of an attacking enemy force before they could disrupt the front and achieve a major breakthrough.

Theaterwide nuclear options directed at counter-air and counter-missile targets, lines of communication, and troop concentrations in the first and follow-on echelons of any enemy attack.⁶⁵

Presumably each type of option could be used in a first-use of TNF; however, it may be that the options represent three stages on a potential escalation ladder (moving from "Limited" to "Regional" and then to "Theatrewide" strikes). Perhaps the most definite thing that can be said here is that NATO has various options which may or may not be used in various circumstances.

This point needs to be stressed, NATO has not developed first-use options because it is convinced that they make military sense; these options exist primarily to complicate and burden the work of Soviet warplanners and thereby, it is hoped, strengthen deterrence. This has been thought to require a demonstrable ability to keep Soviet conventional forces at risk to nuclear destruction. Such a requirement has implications for the allocation of TNF within NATO. Rogers has outlined TNF planning as follows:

In the past, requirements were developed to attack each Forward Division, plus those of the follow-on Armies. Currently we are not developing requirements against each and every WP Division facing ACE. Rather, we now allocate capabilities to various ACE command levels to hold elements of the WP at risk...The purpose of allocating ACE resources within sectors and regions is to give flexibility at these levels to react to major threats which exceed the capability of a particular corps and/or sector. This approach provides requirements against [deleted] targets at both short and medium ranges, to include artillery...missiles and aircraft. Another major category, [deleted] includes targets for attack with medium and long range weapon systems.⁶⁶

H) Theatre Nuclear War Doctrine

Limited "follow-on" use of TNF by NATO would, according to Alliance doctrine, be intended to have the same objectives as first-use. That is, follow-on use would be directed at altering the political calculations of the Warsaw Pact leadership;⁶⁷ this could be done (in theory) by, inter alia, favourably affecting NATO's military situation. This might necessarily require a meshing of nuclear and conventional operations. Despite the escalatory pressures inherent in follow-on TNF strikes, attempts might (and, according to policy, would) be made to contain the scope of the conflict to manageable levels; the objective, after all, would be war termination short of either surrender or total catastrophe.

At some stage in a war (for example, after massive Soviet use of TNF) NATO forces may be authorised to engage in somewhat less constrained nuclear operations than the limited strikes already outlined. At such a stage, which may correspond to the level of conflict referred to as the "theatrewide nuclear option", local commanders may more directly manage nuclear attacks, which may be more closely geared to using nuclear firepower as an extension of conventional forces. Allied operations might then more closely follow

the pattern outlined in United States Army manuals for fighting nuclear war. This would be the so-called "nuclear warfighting" approach. These manuals include doctrinal statements that illuminate the way that the military is taught to think about nuclear combat and which indicate some of the input into nuclear planning.

Planning for retaliation against Soviet nuclear attacks on NATO is less constrained by Alliance policies on consultation, or by questions of credibility, than is planning for Western first-use. The scale and coherence of any retaliatory strike will obviously be influenced by the number and types of surviving nuclear forces and by the effectiveness of any remnant command and control system. Schlesinger described NATO objectives in retaliation for a Warsaw Pact theatre-wide nuclear attacks as being to

Blunt the WP armoured exploitation, to attack WP theater nuclear forces which continue to threaten NATO, and to attack or threaten WP targets of value.⁶⁸

This retaliatory task was to be carried out "in conjunction with surviving conventional forces". Alliance retaliation should occur with "shock effect and decisiveness". The intention would be to convince Warsaw Pact leaders of the cost of continuing war while minimising the probability of all-out nuclear holocaust. Retaliation would have a combination of "clearly perceivable limits" and the "threat of more extensive strikes".⁶⁹ For NATO to be able to survive Soviet theatre nuclear strikes,

NATO conventional forces should be able to operate satisfactorily in a nuclear environment. The theatre nuclear forces should be capable of complementing the conventional forces in combined conventional-nuclear operations.⁷⁰

NATO's TNF should be capable of destroying, in conjunction with other forces, the Warsaw Pact conventional force structure as a reprisal to Soviet nuclear attack. In addition, NATO would keep open the threat of intimidatory deep interdiction attacks against the territory of Soviet allies.⁷¹

US Army doctrine for nuclear forces repeatedly stresses the linkages between conventional and nuclear operations: "nuclear weapons cannot be used in isolation, but must be integrated with the rest of the fire and maneuver on the battlefield".⁷² Corps is the "critical level in planning for the employment of nuclear weapons on the battlefield."⁷³

A corps package is

a discrete grouping of nuclear weapons by specific yields for employment in a specified area during a short time period to support a corps tactical contingency.⁷⁴

Such a package would be managed as a "single entity" in terms of "request, release, and control". Doctrine states that: "At any given time, corps should have a preplanned nuclear weapon package to support each probable tactical contingency." If fired, the package should "positively alter the tactical situation and thus expedite accomplishment of the corps mission."⁷⁵ A corps package is directed at an identified "threat" - such as a potential conventional breakthrough. According to doctrine, the defeat of such a threat must be assessed in terms of combined operations; thus:

A threat is considered defeated by nuclear strikes when the resultant force ratios are such that the enemy forces are halted and can be controlled by conventional means throughout a sufficient pause for political channels to be utilized to terminate the conflict.⁷⁶

Package planning takes place on a rolling, continuous, basis: contingency planning for corps packages occurs in peacetime, during any conventional phase in a war (when it may have to be repeatedly updated to keep pace with the tactical situation), just prior to firing, and in anticipation of follow-up packages. Tactical nuclear operations planning is therefore a "continuous dynamic effort". In planning corps packages intelligence operations could play a vital role, both in terms of target identification and "post strike analysis". A critical objective would be to enable commanders to "respond to post strike situations in the least amount of time". Such a "post strike situation" could include "enemy reinforcement and a continuation of conventional efforts" or enemy nuclear retaliation.⁷⁷

A theatrewide nuclear war involving relatively free use of corps packages as well as interdiction strikes could mean the use of thousands of nuclear warheads. An enormous range of targets could be covered and destroyed by NATO in a theatrewide nuclear war. These include 90 division bases, and 170 airfields in Eastern Europe.⁷⁸ Other targets could be nuclear weapons and storage sites, command and control centres, conventional ammunition and fuel storage sites, ports, road and rail networks (including marshalling yards and bridges), and enemy manoeuvre forces. One hundred million civilians could be killed.⁷⁹

As explained in previous chapters, NATO has had a good deal of trouble in attempting to reach agreement on clear guidelines for how a war of this intensity should be fought. One obvious reason for this trouble is the widely held view that such a war would, almost inevitably, lead to catastrophic unintentional ("collateral")

destruction. It is difficult to imagine a Dutch or West German government formally approving detailed guidelines for a massive use of SRTNF which could lead to the devastation of their constituencies (especially if there was a risk of such approval leaking to the media). Of course, as shown above, this does not mean that NATO/USEUCOM lacks contingency plans for theatre nuclear war; nor does it mean that general guidelines do not exist.

I) The Linkage Between Theatre Operations And Central Strategic War

NATO employs the threat of escalation as a strategic instrument. This is clearly the case with the policy of possible first-use of TNF; it also applies to the constantly reiterated, but frequently qualified, linkage between central strategic - ie intercontinental range - nuclear forces and theatre/regional contingencies.

US strategic forces are often seen as the ultimate deterrent - the weapons which, in extremis, would destroy the Soviet state. Strategic forces also have a less-than-ultimate role. This evolved directly out of the requirements of extended deterrence and the suicidal/incredible nature of massive retaliation. The possibility of limited strategic strikes was to act as a potential, or at least theoretical, link between theatre combat operations and all-out nuclear war. It has been argued by successive Western governments that this linkage is needed for deterrent purposes. This linkage also helps consolidate US leadership of the Alliance.

In NATO the linkage, or "coupling", between US strategic weapons and theatre forces in Europe has been, in part, formalised. For example, numerous Alliance declarations proclaim US commitments to NATO with explicit reference to the role of American nuclear firepower. On another level, NATO is represented in Omaha where the JSTPS works on strategic warplans and their "deconfliction" - coordination - with TNF targeting. In addition, there is the US commitment of 400 SLBM warheads to NATO targeting requirements.⁸⁰

Apart from formal commitments and bureaucratic arrangements a degree of coupling between strategic nuclear weapons and TNF results from the inherently ambiguous implications of nuclear weapons given a 'theatre' or 'tactical' role. The distinction between strategic and theatre weapons is often based on an arbitrary choice of range (strategic weapons being those with intercontinental range; TNF accounting for the rest, especially if they are based in-theatre). This is a distinction which may be sharper on paper than in operational consequences. It is not obvious (and some NATO, as well as Soviet, declarations deliberately obfuscate the issue) whether or not academic conceptions of "strategic" and "theatre" nuclear war are reliable guides to contingency planning.

It is clear, for example, that some NATO LRTNF, such as F-111s, are capable of destroying targets deep inside the USSR in attacks that the Soviet Union might well consider "strategic". As described above, some NATO options for limited nuclear war may be quite massive. The extent to which Soviet territory is given a sanctuary status by NATO warplanners is somewhat unclear from public sources; however, the Soviet border would be an obvious, if tenuous, candidate for a firebreak.

As noted above, the United States has assigned hundreds of SLBM warheads to NATO for targeting purposes. These warheads may be withheld from early use, and perhaps only fired in conjunction with a massive strategic strike against the USSR. That is, although they could be used against targets threatening Western Europe, they might not be used in a limited theatre war - mainly out of fear of triggering unacceptable escalation. This fear could be real because SLEMs seem unsuitable for limited nuclear strikes: they might trigger Soviet strategic C³I systems; poor accuracy and "footprint" constraints (covering an area within which all the warheads from each missile will fall) would make surgical strikes difficult and high levels of unintended damage probable; and, last but not least, the US may not be prepared to use its strategic striking power incrementally, or deplete its potential strategic reserve forces. Nevertheless, Schlesinger once suggested that SLEMs might be used in limited strikes - against, for example, Warsaw Pact airbases.⁸¹

Planning for the use of American strategic nuclear weapons is a US responsibility with only limited allied input. As mentioned above, these weapons are meshed with targets and attack plans by the JSTPS. The centre-piece of JSTPS activity is the SIOP. An assumption of SIOP development seems to be that US strategic strikes might well be executed within the context of a theatre war, hence a putative requirement for different strategic options.⁸² Strategic forces provide the backdrop for TNF; their existence is meant to impose escalation control on theatre conflict.

J) Summary: The Pattern Of NATO Planning

NATO is organised to mesh together Alliance political requirements and operational planning. The NATO bureaucracy channels different national politico-military views into the same general direction and provides a skeleton framework for the management of operational matters. In peacetime NATO runs a dormant wartime command system.

Given political authorisation this dormant system would be activated: national forces would be allotted to NATO command. NATO forces would (in theory at least) then implement operational plans previously sketched-out under political guidance, this guidance being the product of intra-Alliance consultation.

NATO's defence posture is an aggregate of conventional and nuclear planning. It is based on capabilities for conventional denial and the provision of nuclear strike options. The nuclear options are, in effect, superimposed on the element of conventional denial. There is some uncertainty as to what nuclear options might be implemented by NATO in the event of a Warsaw Pact assault. This uncertainty is partly intentional (to complicate Soviet planning), partly inevitable (who, after all, can predict what would happen in a war?), and partly a diplomatic device (here ambiguity over nuclear options reflects an ill-defined Alliance compromise between the allies). In any event, prudence is thought to require a range of options which may or may not be used.

The notion of operational flexibility in the NATO context largely turns on the concept of thresholds. NATO policy on thresholds, especially between conventional and nuclear conflict, is two-pronged and, on the surface at least, contradictory. Firstly, and largely for the sake of deterrence, NATO proclaims its readiness to escalate across thresholds, and plans accordingly. Secondly, NATO has noted the disadvantages of reliance on escalatory threats, and has made efforts towards creating/reinforcing thresholds. For example, the Alliance has tried to strengthen its conventional defence option and back away from early first-use of TNF.

NATO has attempted to develop plans to make its TNF posture relevant to conventional operations and responsive to political direction. The potential theoretically exists for NATO to engage in both limited and massive combined nuclear/conventional operations. If political leaders refuse to authorise nuclear release, NATO conventional forces are supposed to be able to cope with Soviet conventional attacks on their own terms. But even in this case NATO forces would have to prepare for escalation and either a rapid or gradual transition to theatre-wide nuclear war. After all, nuclear escalation is not a NATO prerogative.

NOTES

- 1 The North Atlantic Treaty Organisation: Facts and Figures (NATO Information Service, Brussels, 1984), pp. 289-291
- 2 Ibid., p. 292-294.
- 3 Ibid., p. 91.
- 4 Ibid., p. 95-96.
- 5 Paul Buteux, The Politics of Nuclear Consultation in NATO, 1965-1980 (Cambridge University Press, 1983).
- 6 John Hines and Philip Petersen, "Is NATO thinking too small?" International Defense Review, 5/1986, p. 565.
- 7 See Daniel Charles, Nuclear Planning in NATO: Pitfalls of First Use (Ballinger, 1987).
- 8 John Collins, US Defence Planning: A Critique (Westview, 1982), pp. 65, 158.
- 9 M. Mariska, "The Single Integrated Operational Plan", Military Review, March 1978, p. 37.
- 10 J. O'Malley, "JSTPS: The Link Between Strategy and Execution", Air University Review, May-June 1977.
- 11 See the following:
 - a) William Arkin and Richard Fieldhouse, Nuclear Battlefields (Ballinger, 1985), Appendix A (re: TNF related facilities).
 - b) Bruce Blair, "Alerting in Crisis and Conventional War", in A. Carter, J. Steinbruner, C. Zraket (ed) Managing Nuclear Operations (The Brookings Institution, 1987), p. 91 (re: QRA).
 - c) SIPRI Year Book 1986 (Oxford University Press, 1986) pp. 43-45 (re: force structure post-Montebello).
 - d) The Military Balance, 1987/88 (IISS, 1987).
 - e) Leon Sigal, "No First Use and NATO's Nuclear Posture", in J. Steinbruner and L. Sigal (eds.), Alliance Security: NATO and the No-First-Use Question (The Brookings Institution, 1984), p. 112 (re: SRTNF storage sites).
 - f) Joshua Epstein, Measuring Military Power: The Soviet Air Threat to Europe (Taylor and Francis, 1984), p. 119 (re: NATO airfields).
 - g) International Herald Tribune, July 12-13 1986, p. 1 (re: QRA).

- h) Michael Legge, Theater Nuclear Weapons and the NATO Strategy of Flexible Response (RAND Corporation, R-2964-FF, 1983), p. 58 (re: a hint that NATO may have less than 50 TNF storage sites).
- i) Denis Gormley in "Power and Policy: Doctrine, The Alliance and Arms Control: Part Two", Adelphi Paper 206 (1986), p. 34, FN.44 (re: 50 storage sites).
- 12 "US Security Issues in Europe: Burden Sharing and Offset, MBFR and Nuclear Weapons", Staff Report for a Subcommittee of the Committee on Foreign Relations, US Senate (GPO, Washington D.C., 1973) p. 21.
- 13 Ibid., p. 21; and L. Sigal, "No First Use and NATO's Nuclear Posture", op. cit., p. 115.
- 14 The North Atlantic Treaty Organisation: Facts and Figures, op. cit., pp. 204-205.
- 15 Harold Brown, Annual Report to Congress For FY1978 (Washington, D.C., 1977), p. 254.
- 16 Richard Betts, Surprise Attack (The Brookings Institution, 1982), p. 193.
- 17 Ibid., p. 191.
- 18 Ibid., p. 173.
- 19 See D. Blair, "Alerting in Crisis and Conventional War", op. cit., D. Ball et al, Crisis Stability and Nuclear War (A report prepared under the auspices of the American Academy of Arts and Sciences and the Cornell University Peace Studies Program, Cornell University, 1987), p. 27 ff; R. Betts, Surprise Attack, op. cit., p. 173.
- 20 Former SACEUR Rogers wanted an option to disperse TNF "early in a crisis", see Armament and Disarmament Information Unit Report (Sussex University), September - October 1986, p. 8. Blair suggests that the number of NATO TNF on QRA could increase from peacetime level of about 450 to over 2,000 **without** a general dispersal; see B. Blair, "Alerting in Crisis and Conventional War," op. cit., p. 91. Dennis Gormley estimates that NATO TNF dispersal would increase the number of nuclear targets for Soviet planners "from 80 fixed installations to well over 300 mobile (and thus more survivable) field units", Adelphi Paper 206, op. cit., p. 31.
- 21 See note 19. This list is my estimate of possible measures, it is only partly based on source material.
- 22 The French have no formal obligation to assign their forces to NATO's integrated command.
- 23 Armed Forces Journal International, May 1984, p. 36; R. Betts, Surprise Attack, op. cit., p. 221; comments by General Rogers in International Defense Review, 2/1986, p. 150.

- 24 According to David Schwartz, MC14/3 has served "somewhat the same function as the ten commandments, and NATO nuclear planners are the theologians responsible for interpreting the sacred text..." see D. Schwartz, NATO's Nuclear Dilemmas (The Brookings Institution, 1983), p. 247.
- 25 Defence White Paper 1975-76, FRG, p. 85.
- 26 Ibid., p. 20; the descriptions in the text are in my own words.
- 27 Ibid., p. 20.
- 28 Ibid., p. 20, emphasis added. During the early 1960s FRG officials apparently spelt out the circumstances in which "nuclear support" might be required during a conventional war. These were:
- 1) "If an aggressor attacks with vastly superior forces and tries to gain as much space as possible and as quickly as possible".
 - 2) "When enemy reinforcements brought up to the front cannot be destroyed by any other means".
 - 3) "When the Western tactical nuclear potential is in danger of being lost".
- See Catherine Kelleher, Germany and The Politics of Nuclear Weapons (Princeton University Press, 1975), p. 214. Whether or not this formulation found its way into MC14/3 is unclear.
- 29 Defence White Paper 1975-76, FRG, p. 29, emphasis added.
- 30 Ibid., p. 21, emphasis added.
- 31 Ibid., p. 21, emphasis added.
- 32 Andrew Goodpaster, "NATO Strategy and Requirements 1975-1985", Survival, September/October 1975, emphasis added.
- 33 Ibid., p. 212; King-Harman, "NATO Strategy - A New Look", RUSI Journal, March 1984, p. 27. However, NATO does have a 30 day goal for stockpiles of war material; see note 54.
- 34 See Paul Nitze et al, Securing the Seas (Westview, 1979).
- 35 This does not mean that national authorities (especially the US) have ignored these issues. See "The Maritime Strategy", supplement to Proceedings (US Naval Institute), January 1986.
- 36 ATP-35, Annex A, Chapter Two (undated loose-leaf additions to 1978 edition). ATP-35 has been revised; in 1984 ATP-35 (A) was adopted. The role of manoeuvre and tactical aggression in ATP-35 (A) has been outlined by C. Bellamy in "Trends in Land Warfare:

The Operational Art of the European Theatre", RUSI and Brassey's Defence Year Book, 1985. In addition, see C. Bellamy, The Future of Land Warfare (Croom Helm, 1987), p. 124 ff. The revised document clearly does not go far enough to satisfy critics of forward defence. As noted in the previous chapter, NATO has not officially adopted the US Army's concept of "Airland Battle."

- 37 ATP-35, op. cit., paragraph 212.
- 38 See: Armed Forces Journal International, May 1983, pp. 34, 46; General Bagnall, "Concepts of Land/Air Operations", RUSI Journal, September 1984, p. 59; R. Betts, Surprise Attack, op. cit., p. 227.
- 39 ATP-35, op. cit., paragraphs 223b, 217.
- 40 Ibid., paragraph 202.
- 41 Ibid., Annex A, Chapter 2.
- 42 Ibid., paragraph 223.
- 43 Ibid., Annex A, Chapter 3.
- 44 General Rogers, Christian Science Monitor, 27 April 1984. However, some units (especially special forces) might carry out raids much deeper into Warsaw Pact territory, behind the frontline.
- 45 The North Atlantic Treaty Organisation: Facts and Figures, op. cit., p. 108.
- 46 During a crisis the US navy will probably be deployed and used in a manner decided by Washington and US naval officers - whatever the content of Alliance agreements. Whether or not Washington will, during a crisis, concentrate its naval efforts on the North Atlantic will depend on circumstances; clearly there will be pressures to maintain forces in the Far East and Indian Ocean.
- 47 B. Jackson, "The Roles of Strategic and Theatre Nuclear Forces in NATO Strategy: Part One", in "Power and Policy..." Adelphi Paper 205 (Spring 1986).
- 48 An interesting discussion of these and related issues can be found in Catherine Kelleher, "Managing NATO's tactical nuclear operations", Survival, January/February 1988. The "24 hour" estimate is from Jean Reed, NATO's Theatre Nuclear Forces: A Coherent Strategy for the 1980s (National Defense University Press, 1983), pp. 39-40.
- 49 General Rogers has outlined the way in which he would prepare his political superiors for a nuclear release request; see comments in International Defense Review, 2/1986 p. 151. SACEUR could send Alliance leaders a series of reports and warnings which indicated the sorts of nuclear weapons use decisions they might have to face. The machinery for nuclear release might have been "warmed-up" by conventional war.

- 50 Quoted in Paul Buteux, The Politics of Nuclear Consultation in NATO 1965-1980, op. cit., p. 92.
- 51 General D. Starry, testimony given in, "NATO Conventional Capability Improvement Initiatives", House of Representatives, Committee on Armed Services, Procurement and Military Nuclear Systems Subcommittee Jointly with the Research and Development Subcommittee (Washington D.C., April 26 1983), pp 1823, 1840.
- 52 FM 100-5 (US Army, 1982) p. 6-1
- 53 Ibid., p. 6-2. This is not a direct quote.
- 54 NATO has a goal of a 30 day stock of war material. However, it seems that there are differences of opinion over how to calculate this stock, and what priority to give it. See "Shortage of NATO Ammunition May Mean Speedy Use of Atom Weapons", Daily Telegraph, 6 June 1980.
- 55 Admiral Sir Hill-Norton, No Soft Option (C. Hurst, 1978), p. 107.
- 56 John Mearsheimer, "Why the Soviets Can't Win Quickly in Central Europe", International Security, Summer 1982.
- 57 Jonathan Alford, "Perspectives on Strategy", Steinbruner and Sigal (eds) Alliance Security: NATO and the No-First-Use Question, op. cit., pp 98-100.
- 58 General Rogers, "Posture and Requirements of Forces in the US European Command," House of Representatives, Committee on Armed Services (Washington, D.C., 10 March 1983), p. 1264.
- 59 Ibid., p. 1285.
- 60 General Rogers, quoted in the Los Angeles Times, 12 July 1983, p. 4. See also, the Washington Post, 26 September 1983, p. 15. There may well have been some polemic in the former SACEUR's comments; he has used the risk of escalation as a way of arguing for increased conventional defence expenditures.
- 61 ATP-35, op. cit., paragraph 503. And interviews.
- 62 Reed outlines a package of 200 warheads in NATO's Theatre Nuclear Forces: A Coherent Strategy for the 1980s, op. cit., p. 43. Charles gives an example of a smaller package (20-50 warheads); see Daniel Charles, Nuclear Planning in NATO: Pitfalls of First Use (Ballinger, 1987) pp 134-141. In addition see: Planning US General Purpose Forces: The Theatre Nuclear Forces (Congressional Budget Office, Washington, D.C., 1977), p. 19; and FM 101-31-1, Staff Officers Field Manual: Nuclear Weapons Employment Doctrine and Procedures (US Army, 1977).

63. General Rogers, testimony before the Senate Committee on Armed Services, Department of Defence Authorization for Appropriations for Fiscal Year 1984 (Washington, D.C., 1983), p. 2389.
64. General Starry, "NATO Conventional Capability Improvement Initiatives", op. cit., p. 1823; here it is suggested that the best TNF targets might be at a range of 100-200 km. Corps packages centered around artillery are criticised by a former EUCOM nuclear weapons employment officer in William Ryan, "An Alternative to Cannon Artillery Nuclear Weapons", Armed Forces Journal International, October 1987.
65. Harold Brown, Annual Report to Congress for FY79, p. 71.
66. General Rogers, Senate Committee on Armed Services, op. cit., p. 2409.
67. M. Legge, Theater Nuclear Weapons and the NATO Strategy of Flexible Response, op. cit., p. 27.
68. James Schlesinger, Report to Congress on The Theater Nuclear Force Posture in Europe (Department of Defence, Washington, D.C., 1975), p. 13.
69. Ibid., p. 14.
70. Ibid., p. 14.
71. Ibid., p. 15.
72. FM 101-31-1, op. cit., p. 3.
73. Ibid., p. 4.
74. Ibid., p. 4.
75. Ibid., p. 4.
76. Ibid., p. 5.
77. Ibid., pp. 26-30.
78. W. Kaufmann, "Nuclear Deterrence in Central Europe", in Steinbruner and Sigal (eds), Alliance Security: NATO and the No-First-Use Question, op. cit., p. 41.
79. This figure is based on studies conducted in the 1960s, it is mentioned in Alain Enthoven, "US Forces in Europe: How Many? Doing What?" Foreign Affairs, April 1975, p. 523. In addition, see "How to blow up the work", New Statesman, 27 June 1980. This article refers to a 1960s US Air Force Europe Nuclear Yield Requirements manual which listed targets associated with over a dozen cities in the FRG, it also listed more than a dozen targets in Schleswig Holstein, as an example of the sort of counter-attacks that might be conducted by EUCOM in the event of a Soviet invasion.

- 80 M. Legge, Theater Nuclear Weapons and the NATO Strategy of Flexible Response, op. cit., p. 35.
- 81 J. Schlesinger, The Theater Nuclear Force Posture in Europe, op. cit., p. 13.
- 82 The development of the SIOP, and its relationship to theatre war, is outlined in chapters three and four.

CHAPTER SIX

A EUROPEAN DIMENSION TO THE NUCLEAR-CONVENTIONAL NEXUS

A) Introduction

The previous chapters have shown how the United States has had a predominant role in, but not absolute control over, the development of NATO strategy. The strategic theory has been essentially American but the practical implementation has been partly subject to allied acquiescence or qualification. An important exception to this is the case of forward defence in central Europe: this is largely a European concept with formal US acceptance. However, the primary doctrinal concept underlying NATO is, as shown earlier, flexible response. Here, American ideas have provided the dominant theoretical input.¹ NATO's de facto strategy - as formulated at SHAPE and corps level - tends to follow US prescriptions, not least because American domination over NATO's nuclear options gives that country a central practical role in Alliance planning.

The pivotal US place in NATO strategy encourages a belief that American doctrinal prescriptions may provide a proper framework for strategic analysis. After-all, it might be suggested, is not the US strategic posture and flexible response the basis of the European strategic environment? As this and the following chapter show, such a statement is an oversimplification. Any attempt to explain the West's security posture in Europe in terms of flexible response will be misleading. The concept of flexible response does not adequately

explain what happens in the real world. Numerous extraneous political and operational factors severely constrain the explanatory and normative value of flexible response.

This chapter examines how the three nuclear-armed European countries (Britain, France, and the USSR) might approach the nuclear conventional nexus during a crisis. It also assesses how the behaviour of these three states might affect American notions of conflict management. But, first, some general introductory comments are made about how the strategic plans and assumptions underlying NATO's doctrine of flexible response could be upset by European factors. A feature of the following type of speculation is its unavoidably bizarre form. However, it does serve to highlight two important features of the contemporary strategic environment in Europe: its complexity and unpredictability.

The first point to note here is that the US cannot dictate NATO's peacetime defence preparations nor, probably, the course of a European war. NATO is a free and pluralistic alliance whose members tend to guard their sovereignty jealously. Consequently member nations can define their national interests, perceptions of threat, and defence planning priorities, differently. Indeed, in some cases member countries have opted for a policy of "semi-alignment".²

Allied reluctance to fully accept US prescriptions on strategy may have serious implications for that strategy. Ultimately, allied

recalcitrance may unravel some US/NATO defence plans. This is particularly true if the ally has nuclear weapons and refuses to accept Washington's preferences for the timing, scale and targeting of a first-use of nuclear weapons. But it also applies to other allies without national nuclear forces.

For example, in a crisis, Norway may have a critical role to play in the implementation of flexible response and forward defence. But a Norwegian decision to allow forward deployment of allied forces from, say, the US and UK may be seriously delayed by political factors. Such a decision may be somewhat complicated by notions of a "Nordic balance", Oslo's peacetime policy of distancing itself from the American TNF posture, and the fact that the country neighbours the USSR.

On NATO's other flank one may well speculate that Turkey will not necessarily identify with American policy during an intense East-West confrontation - whether or not this confrontation is centred in the north, on Berlin, on the Persian Gulf or on the frontiers of Turkey itself. And it seems improbable that Greek military preparations are primarily directed towards implementing the NATO version of flexible response. It is clear that the world looks very different from Athens and Ankara, compared to Washington.

Belgium and the Netherlands offer another example of how allied differences may hinder the implementation of flexible response.

Both countries are supposed to contribute significant forces for the forward defence of West Germany during wartime. They also provide a support base for the Central Front; they host major seaports, airfields, prepositioned US war material, and critical logistic lines. Political paralysis in these countries following a Soviet attack on West Germany could obviously have a very damaging effect on NATO's defence plans, especially if it was compounded by French non-belligerency. In particular, it is difficult to see how US, British and German forces could sustain protracted conventional operations without the active support of the Low Countries (especially in the area of logistics).

West Germany offers a special case. The operations of the Bundeswehr might be decisive in a NATO-Warsaw Pact war. West German forces may be capable of disrupting US/NATO warplans by being either too aggressive or too passive. For example, future domestic political strife in the FRG may cripple the morale of its armed forces, which could leave wide avenues of attack open to the Soviet army. It seems unreasonable to believe that US EUCOM could defend the Central Front in such a situation. On the other hand, West German forces may have the potential, depending on circumstances, to destroy attacking Soviet ground forces, unhinge a Soviet offensive thrust, destabilise central and eastern Europe and wreck American attempts at escalation control. In addition, the possibility of the German military being granted, or seizing, TNE warheads during a conventional war cannot be ruled out.

A critical factor in any future European war will be whether or not the major allies participate in the Alliance's integrated military structure. France has said it will not, while the others have stated that they will. As described in chapter five, this Alliance structure is skeletal in peacetime and requires national political commitments during a crisis or war to turn it into a unified military force. In particular, each ally will have to decide whether to assign its national military forces to SACEUR/ACE in the so-called NATO "chop".

It is not hard to see how this "chop" could be frustrated during an extreme emergency; political paralysis in Belgium and the Netherlands has already been cited as a hypothetical example. Nor is it hard to imagine how difficulties in national political decision making might have spill-over effects in other allied capitals or the North Atlantic Council, or SHAPE.

Disagreement over threat interpretation or security objectives could be a real problem which might hinder, or even prevent, the implementation of NATO's system of military alerts. Obviously a primary concern of national decision-makers will be national survival; there will almost certainly be an intense interest in damage limitation. Politicians from small countries like Denmark or Belgium will be acutely aware of their country's vulnerability. A dozen thermonuclear explosions on either country would be an unprecedented national disaster even if they were on ostensibly military targets.

Given the highly stressful circumstances that would probably prevail in any drift or move towards armed confrontation in Europe, it is possible that formal NATO arrangements may be by-passed in a crisis. The result may be a somewhat loose, ad-hoc coalition response by, say, the United States, West Germany, France and Britain; the other allies might abstain or equivocate. This is obviously very speculative; the point to note, though, is that in a crisis NATO might not work in practice as it is supposed to in theory.

In wartime, it might be very difficult to maintain doctrinal purity. In other words, peacetime planning and concepts may be very quickly overtaken by events. For one thing, the fog of war or "friction" might well handicap the smooth-running of operations. In addition, as already suggested, national preferences and policies could undermine Alliance considerations. Indeed, these two factors could converge to de-rail NATO/Warsaw Pact warplans. These problems might be compounded by European geopolitics: European geography offers few clear-cut natural "firebreaks" to warplanners, while it ensures that national perspectives will almost certainly differ during the course of an unfolding war. In wartime, the European theatre of military operations will surely be marked by unique features, many of which will be unpredictable, that have escaped the notice of analysts more comfortable with rather abstract notions.

B) THE INDEPENDENT WESTERN NUCLEAR DETERRENTS

The British and French each maintain nuclear forces capable of destroying Moscow and other area or soft targets within the USSR; both also have a limited number of nuclear warheads for tactical use on the battlefield.³ Although the two countries have different force structures and have adopted different relations with the Alliance, there are some important similarities between them.

For example, despite differences in public rationales and political rhetoric, both Britain and France developed and continue to maintain nuclear forces for comparable reasons. In particular, both states appear to have some kind of psychological attachment to "Great Power" status and traditions, although the French seem more explicit on this. Both view their nuclear weapons partly within the context of the Alliance. This picture is obscured and complicated by the fact that these two causative strands in political philosophy ("Great Power" and "Alliance") can seem contradictory. The important thing to note here is that the motives for the acquisition and maintenance of these independent deterrents have significant implications for the nuclear-conventional nexus in Europe. They suggest a particular way of looking at the relationship between nuclear and conventional forces on the Continent, a way which differs somewhat from standard interpretations of flexible response. It is therefore useful to briefly sketch the roots of the two states' deterrent policies.

(1) Origins

After 1945 Britain and France saw themselves as Great Powers in reduced circumstances. They were without the most modern weapons (i.e. atomic bombs) and might be wide open to devastating atomic attack once the USSR had developed its own nuclear arsenal. In the post-war period they lacked any firm US commitment to their defence; even after NATO was established the US nuclear guarantee was considered questionable, especially in France. Both Britain and France had important stakes in Europe which were vulnerable to the supposed Soviet superiority in conventional forces. In addition they both had access to scientific knowledge relevant to the production of nuclear weapons. Given these factors, together with the assumption in Paris and London that it was legitimate and unremarkable for them to acquire what was technically possible and politically expedient, it would have been surprising if either country had foregone the available option of developing ~~it~~ its own nuclear capability. A firm decision to eschew independent deterrents would have been symbolic of a psychological abandonment of Great Power values and surrender to second-rate status.

In the British case a negative decision on A-bomb development may have been especially awkward. The British saw themselves as one of the wartime "Big Three" (along with the US and USSR); they had a critical, if transitory, role in the development of the American bomb; and the national psyche had not been shattered by Nazi conquest and occupation. These and other factors encouraged an erroneous impression of Great Power continuity. (This impression should have

been qualified when the British war effort was contrasted with the sacrifices of the Russians, or was seen as an over-extended appendage of the US military machine, or when it was realised that the UK was in dire economic trouble). This assumption of Great Power status was, however, tinged with a deep foreboding about possible future vulnerability. As Sir John Anderson, a senior British Cabinet Minister, noted as early as 1943: "We cannot afford after the war to face the future without this [atomic] weapon and rely entirely on America should Russia or some other power develop it."⁴ The perceived need for an independent UK deterrent crystallised following moves by the USA to cut off British access to the American nuclear weapons research programme at the end of the war.

The French also maintained Great Power pretensions, but, in addition, they had a much sharper awareness of their vulnerability. The Americans may have gone to Britain's aid during the Second World War but they also sat back and witnessed the Nazi subjugation of France. While Britain might debate the "pros and cons" of a continental commitment, the French were faced with a long-standing continental vulnerability of which they were acutely conscious. French feelings of vulnerability were not eased by the American insistence on preventing allied access to US nuclear know-how. Moreover, the unilateral American character of the early "Alliance" nuclear defence plans were a special cause of concern; this was compounded by the initial American reluctance, or incapacity, to adopt forward defence on the Continent. (As described in chapter three,

early US warplans envisaged an American troop withdrawal from Europe to be followed by mobilisation and subsequent liberation of allied territory.) Thus the formative phase of the Alliance only went part way in the reassurance of France (and this reassurance was complicated by, for example, exclusion from the Anglo-American "Special Relationship" and the rearmament of Germany). More problems arose during the 1960s when the Americans pushed for an adoption of flexible response, a conventional force build-up, a raising of the nuclear threshold, and centralised Washington control of the West's nuclear options.

The notion of French sovereignty was more important to Paris than the technical details of NATO planning. This was epitomized in the person of General de Gaulle. According to Grosser, de Gaulle believed that:

The alliance arises from a transitory constellation, a conjunction, which may last for some time but is nonetheless merely a conjunction, a specific constellation in the life of the French nation. The Atlantic organisation can be justified by expediency. But expediency will never justify trans - or supranational structures which would change the substance of the nation as a whole, and permanently, simply because a particular conjunction exists.⁵

If France's destiny was to be a great nation it was, according to Gaullists, absurd to believe that its physical security and political sovereignty could or should rest on the qualified nuclear guarantee of a foreign state. It was not simply that the allies might abandon France. It was also the belief that dependence was in itself demeaning. This was particularly easy to believe if one had a

condescending attitude towards American statesmanship and, or, American culture.

It seems reasonable to assume that similar thinking (conscious or otherwise) affected the British attachment to their nuclear weapons. However, UK governments have been less explicit on this point than the French. There seemed little point in questioning or doubting American commitments especially as the British made use of US nuclear-related technology, and as the public voicing of doubt could rebound as a self-fulfilling prophecy. High profile critiques of the US might be gratuitous and self defeating. Indeed a long-standing British security objective has been to tie the US to Europe's defence. The same is true of France but, as shown above, Paris had a more traditional view of the Alliance as an aggregate of national interests rather than as a security community.

(ii) The independent deterrents and the Alliance

The British and French developed their nuclear forces as a way of, among other things, strengthening their positions within the Alliance. Another consideration was obviously that independent deterrents might provide some insurance against the failure or break-up of NATO.⁶

The French hoped that their national nuclear weapons program would: (a) symbolise superiority over West Germany; (b) ensure at least equality with the UK; (c) improve its bargaining position with the USA; and (d) create some diplomatic space between the superpowers,

thus facilitating the pursuit of French national interests. The British, on the other hand, seem to have been more interested in an independent deterrent as a way of cementing the so-called Special Relationship with the USA. (Even so, as suggested above, the British may have had other, largely unstated, motives that paralleled French concerns. London may have expected greater political leverage in Washington, Paris and Bonn.)

Reticence over publicly explicating an independent role for the independent deterrent was paralleled by the articulation of an Alliance function for British nuclear weapons. The British force, it was argued, provided a second centre of nuclear decision making within NATO's military structure. This would complicate Soviet planning, increase Soviet concern over nuclear escalation, and thereby enhance deterrence. Despite its small size the British force had a valuable deterrent role because the "separate centre of decision-making" controlling its use was "in Europe"⁷. Such a rationale looks very much like an attempt to maintain some kind of independence while endorsing the Alliance and the principle, but not the fact, of the indivisibility of NATO.

The apparent differences between Britain and France over the role of national deterrents within the Alliance has implications for defence planning. For example, while the UK hosts an enormous concentration of American nuclear and conventional fire-power, France does not. Also, whereas France refuses to rejoin NATO's integrated military structure, the UK has to some extent integrated its forces in the Alliance. For example, some British nuclear targeting is

coordinated with US plans; and most British conventional forces are earmarked for assignment to SACEUR/SACLANT during wartime.⁸ Moreover, in contrast to France, Britain has formally endorsed NATO's strategy of flexible response and forward defence. But to put the matter in better perspective, and to illustrate the point that there is perhaps not as much difference between the UK and France as there might seem, it is not at all clear that Britain would be more willing to fight for the Alliance than France. Peacetime pledges are one thing, crisis management is another.

Moreover, it must be remembered that France is still a member of NATO and has numerous other links with the West which have direct strategic significance. For example, France is a member of the Western European Union, has bilateral agreements with West Germany, stations over 40,000 troops in the FRG, and is one of the controlling powers in Berlin. The French have also gone along with NATO's 1979 LRTNF deployment decision (although, of course, it was not party to the decision or deployment package). Paris has also let it be known that it welcomes a strong US military presence in West Germany. As Grosser has noted, in the Gaullist vision, "What was valid for France was not valid for Germany..."⁹ In terms of possible joint military action, General Mery has stated that "It is a question of independence of decision, not necessarily leading to autonomy in action."¹⁰ Thus, for example, French army units straddling the Rhine may or may not be used as a de facto combat reserve for SACEUR depending on circumstances and depending on decisions made in Paris, not SHAPE or Washington. Ultimately, similar conditions may well be applicable to the British Army of the Rhine (BAOR).

(iii) Doctrine

Both Britain (in the 1950s) and France (in the 1960s) have considered the idea of national versions of massive retaliation. They have since drawn back from the all or nothing implications associated with the doctrine. The British modified their position in the context of the Alliance move towards flexible response, while the French did so for unilateral reasons.

Both Britain and France seem to have a policy of graduated response based, outside of the NATO framework, on a form of minimum deterrence. The first line of defence for both countries is the allied conventional defence line in West Germany. The British have committed the BAOR to this line. The French maintain an option to commit the "Force d'Action Rapide" (FAR) to fight in the forward battle. Behind this forward line or zone the UK has the English Channel; and the French maintain the First Army with the First Corps based in Metz, the Second Corps based in Baden-Baden, and the Third Corps centred on Lille.¹¹ The French First Army may be employed in conjunction with limited tactical nuclear weapon strikes.

Both Britain and France have only vaguely articulated their unilateral doctrines. British reticence is largely due to London's formal commitment to NATO - it would not look very loyal or reassuring to its allies if Britain explicitly stated a unilateral policy

(assuming such an option exists). French vagueness is partly explained by its de facto rejection of massive retaliation and its scathing critique of American notions of flexible response. French policy falls somewhere in the ill-defined area between these two doctrines, but it is not simply a response to American strategic concepts.

Both Britain and France appear to have adopted an "existential" view of nuclear deterrence.¹² According to this view the details of warplans are secondary to the simple existence of nationally owned nuclear weapons. The very existence of British and French deterrent forces is deemed to have a stabilising influence on the security equation in Europe. Added to this is the feeling that uncertainty over precise circumstances of use of nuclear weapons may have a deterrent effect in Moscow.

It is therefore unclear as to what the operational strategies for the two independent deterrents are. One may look at British nuclear forces as being integrated into the NATO strategy outlined in chapter five and as therefore being indivisible from the collective Alliance defence effort. But this would probably be an incomplete and simplistic assessment. The reason for saying this is obvious: in an extreme emergency British nuclear forces (like their French counterparts) would most likely be employed - or withheld - in accordance with national interests which may or may not coincide with Alliance requirements. As the 1962 US-UK Nassau Agreement on the subject states:

except where Her Majesty's Government may decide that supreme national interests are at stake, these British forces will be used for the purposes of international defence of the Western Alliance in all circumstances. (Emphasis added.)¹³

In terms of possible independent use of nuclear weapons, two things need to be said. First, it is difficult to envisage such use. Second, geopolitical factors and limited capabilities constrain the choice of strategies open to each European nuclear armed state. In effect both countries are limited to a policy of graduated minimum deterrence. Nuclear weapons are seen as political instruments, not military weapons. Neither Britain nor France has the capability for protracted tactical/theatre nuclear war. Such a war could well require massive combined nuclear-conventional operations spread over several weeks throughout Western/Central/Eastern Europe.

Moreover, neither Paris nor London shows any indication of believing that such a large scale independent tactical nuclear warfare capability could have any conceivable use. The idea of British or French forces engaging in large scale protracted combined nuclear-conventional operations against massive Soviet forces in Europe looks very silly. Not only would the USSR probably have a comparative advantage in such a conflict, but Western and Central Europe would be devastated.

At the level of theatre-wide nuclear war France and Britain would therefore be faced with a "no-win" situation. Hence, the independent deterrents would be, above all else, instruments of crisis management. This could translate into bluff, very limited tactical use, and/or, rapid escalation to strategic attacks.

In the first instance national nuclear forces hold out the hope of enforcing a sanctuary for British and French territory. Conceivably they may also provide a kind of extended sanctuary for vital interests (e.g. by covering a withdrawal of BAOR, or deterring a Soviet move into the Low Countries, or in providing a shield over the French First Army). In this secondary role tactical nuclear weapons may have a special function. However, all this is very speculative. For example, it is not publicly known if any independent doctrine even exists for British tactical nuclear weapons.

However, unlike the British, the French have openly considered the potential role of their tactical nuclear weapons in a crisis and they have developed a strategic concept for their use.¹⁴ This concept outlines a readiness to fire a nuclear warning shot against a hostile army approaching French territory. This threat of escalation had important implications for French conventional force planning. As De Gaulle noted in 1968:

[The] basic role of the air and land forces does not consist in joining a battle that they have no chance of winning in view of the balance of forces, but of obliging the adversary to face the risks of our nuclear response.¹⁵

French conventional forces would therefore be used to test Soviet intentions and demonstrate French resolve, if necessary in conjunction with French tactical nuclear weapon strikes. In short, the French First Army and tactical nuclear weapons would engage in the "national deterrent manoeuvre."¹⁶ Tactical nuclear weapons would be used as

"pre-strategic"¹⁷ symbols to halt, not necessarily defeat, an approaching enemy army.

As one defence ministry official has noted, use of tactical nuclear weapons "is more oriented to the political management of crisis than to military effectiveness."¹⁸ But, in addition, according to General Lacaze,

...the possible employment of tactical nuclear weapons as the ultimate warning which would be addressed to the aggressor before the use of strategic weapons, in order to lead him to renouncing his enterprise...must have a military effect, which is to say that it must be effective and brutal, which means a relatively massive employment and therefore limited in time and space. But above all this warning must be well integrated in the general deterrent manoeuvre.¹⁹

This, according to Hernu, was to amount to a "militarily significant tactical nuclear stopping blow".²⁰ Such a blow would have to be carried out in conjunction with conventional forces; as Chirac has noted,

putting into operation a nuclear weapon - in particular [tactical nuclear weapons] - requires an adequate and suitable conventional environment.²¹

Two types of tactical nuclear targets have been identified by a former French Chief of Staff:

...on the one hand, so-called targets of opportunity that concentrations of enemy units would form--acquiring these concentrations would necessitate a prior conventional manoeuvre--and, on the other hand, interdiction targets which are fixed infrastructure targets: crossing points, airfields, radars, etc. This second category of targets would be aimed at by our air-delivered tactical nuclear weapons, whose range clearly surpasses the territory of the Federal Republic [of Germany].²²

But, as indicated above, battlefield use of nuclear weapons would be a means to an end, and would not be judged merely in terms of its tactical effect.

In 1977 the then French Prime Minister Barre summed up the role of tactical nuclear weapons as follows:

In other words, by denying the adversary in advance all hope of keeping the battle's violence on the conventional level, through which he could progressively liquidate our conventional forces almost with impunity, and by thus forbidding him from starting such a battle, the tactical nuclear weapon considerably reinforces through its very existence our deterrent's effectiveness at all levels. Moreover, if in some extraordinary case the adversary were to face all these threats and decide to attack us, the tactical nuclear weapons would quickly give him the last and appropriately solemn warning before the apocalypse.

It is evident therefore that for us the tactical nuclear weapon is firstly and above all a weapon of deterrence just like all the others, from our strategic missiles to the rifles of our infantrymen; and that it would secondarily serve as a weapon of ultimate warning, in a case of extraordinary necessity. Its existence in our arsenal does not signify in any way that we would accept a prolonged conventional or tactical nuclear battle. On the contrary, we totally reject this possibility. That is why the number of our tactical nuclear weapons is and will remain limited.²³

If pre-strategic (or 'tactical') nuclear strikes failed to stop an enemy, British and/or French strategic forces might be unleashed against centres of Soviet power. Such an attack would probably be directed primarily, but not necessarily exclusively, against Soviet

cities, especially Moscow.²⁴ Alternatively, fear of probably catastrophic Soviet reprisals may induce London and Paris (assuming they still existed) to hold back. The independent deterrents could be threatened, but not used, in an attempt to keep either Britain or France out of a European war. As the British analyst, Professor Nailor, has noted:

I think that the possession of nuclear weapons...still gives us the ability to rat on some of our obligations if we want to. This is a significant attribute of Sovereignty.²⁵

(iv) Implications for the nuclear-conventional nexus

The operational implications of the independent deterrents for the linkage between nuclear and conventional forces can be grouped under five related headings: (a) crisis management; (b) conventional war; (c) pre-strategic nuclear signalling; (d) effect on the USSR; and (e) effect on the USA.

(a) Crisis Management

In a confrontation Britain and France may well attach great importance to the potential crisis management role of their nuclear weapons. This would probably stem from the belief that alternative centres of nuclear decision making in NATO might have a stabilising effect on European security developments. Although, depending on the circumstances, London might not consider the French nuclear arsenal stabilising, and vice versa. Given a disintegrating security

situation in Europe - such as a Soviet move against Berlin and political crisis in West Germany accompanied by perceived weakness in American political leadership - the independent European deterrents may or may not have a dampening effect on Soviet adventurism. This type of crisis management function is perhaps best seen in terms of the independent deterrents providing insurance against a break-up of NATO.

British/French crisis management can also be seen in terms of possible unilateral diplomatic manoeuvring in a NATO-Warsaw Pact conventional war, or even as a way of establishing sanctuaries during a limited theatre nuclear war. This conception of crisis management seems closer to French, rather than British, public speculation on the role of nuclear weapons. There are two reasons for this apparent difference. The first is diplomatic. Britain is formally committed to collective and integrated Alliance defence; France is not. Paris therefore has more political room within which to rationalise a national crisis management role for its military. The second reason for the more explicit crisis management role of the French nuclear weapons is historical and geopolitical. The French do not have the English Channel to shelter behind. Nor do the French have the history of half-hearted attachment to the Continent characteristic of the British experience. On the contrary, the French experience is one of vulnerability to land power and of shifting frontiers. Except perhaps for the Rhine, which only covers a portion of the French frontier, there is no substantial physical barrier between Soviet tanks and Paris. Thus French efforts to control events during a European war and prevent an advance on its territory have to rely heavily on

declarations and psychological pressure combined with whatever denial (or conventional) force is available. The preservation of homeland sanctuaries in the UK and France would ultimately depend on national will and the successful manipulation of Soviet perceptions, as well as the survivability of C³I.

This manipulation of Soviet perceptions may be more or less subtle: it may rest on existential deterrence (whereby the existence of British/ French nuclear warheads suffices) or direct military action - such as conventional denial, possibly followed by pre-strategic nuclear signalling. Thus both explicit and tacit nuclear threats may be used by Paris and London in efforts to contain conflict in Europe. Here crisis management could pervade the entire course of an armed struggle up to general release of nuclear weapons against major cities. This does not mean that crisis management would be easy, only that it would be imperative. It is a truism to say that this imperative could only be exercised in a limited war. The rest of this section will look at the possible impact of the independent deterrents during such a hypothetical conflict.

(b) Conventional War

The existence of independent European deterrents may severely constrain conventional operations on the Continent by inducing caution on political leaders anxious not to trigger nuclear escalation. The possibility of British or French battlefield use of nuclear weapons may also discourage Warsaw Pact conventional force concentration thereby inhibiting any offensive momentum that the Pact might

otherwise achieve.

However, the limited number of independent battlefield nuclear weapons (a few hundred) would not be able to offer the same level of threat to the Warsaw Pact conventional forces and infrastructure as the American TNF arsenal. Moreover, the implementation of an independent battlefield nuclear threat could invite a massive Soviet reprisal capable of destroying BAOR or the French First Army. In the worst case a British or French attempt at first use of a few battlefield nuclear weapons could trigger massive Soviet tactical and strategic preemption.

Perhaps the most plausible role for the independent deterrents during a conventional war may be the provision of sanctuaries for the support of the forward battle in West Germany. The UK/France may thus be able to provide a relatively sheltered mobilisation, logistic, maritime, and airstrike base. Such sanctuaries could be critical in terms of (for example) enabling a build-up of US Air Force units in the UK and in allowing SACEUR to direct ground-force reserves through France and around the rear of threatened NATO positions. In short, British and French sanctuaries may help provide more depth to NATO's conventional defence. However this is speculation. Would British nuclear weapons really act as a deterrent against Soviet conventional air attacks directed at USAF or RAF bases in the UK or the British Channel ports; and would French nuclear weapons deter attacks against the French railway system? Nobody really knows.

It is conceivable (but, I think, unlikely) that the independent deterrents may be used to extend a nuclear umbrella over national conventional forces in, say, West Germany. This could be a role for RAF Tornados armed with British nuclear bombs. The Warsaw Pact may be told, or might fear, that an attack on British troops in the FRG (or an attack too deep into the Federal Republic) would accelerate unwelcome pressures to escalate. Needless to say, such thresholds may be exceedingly tenuous and transitory.

It is unlikely that Paris or London would ever view their deterrent forces in narrow military terms. However, on-going assessments of unfolding conventional conflict may well be critical in determining the nature of any nuclear threats that might be made. This could be particularly true of French actions. A NATO collapse in the initial forward defence of Germany might bring powerful Soviet forces very close to French territory.

In such a crisis, French policy calls for the First Army to act as part of the "national deterrent manoeuvre." This would require French conventional forces to test Soviet intentions and demonstrate French resolve; the focus would be on covering the approaches to the French border. In this case the First Army would not have a primarily war-fighting function - their role would be to impress upon the Russians the dangers of provoking French strategic strikes against the USSR. According to doctrine, this would not indicate a conventional option in the sense used by NATO; French conventional forces are, in this case, supposed to be indivisible from the national deterrent manoeuvre and therefore inseparable from French nuclear threats.

(c) Pre-strategic nuclear signalling

Tactical nuclear weapons provide a link between conventional testing and strategic nuclear risk. As discussed above, French doctrine gives these weapons a warning-shot role. In an emergency Britain may adopt a similar posture. A decision to use these nuclear weapons (such as French Pluton missiles or RAF bombs) would almost certainly be taken only in extremely stressful circumstances and in the full knowledge that the intended signal may well have suicidal consequences.

The chances for crisis management may turn on two related factors. First, there would be a requirement to stop Soviet ground forces before they had over-run vital interests (such as French frontier forces or the Low Countries). Second, there may be a "competition in risk taking".²⁶ Decision makers may be involved in a test of nerves at the nuclear level and, on the primarily conventional level, a frantic effort to maintain a denial capability against Soviet armoured penetrations. The hope would be that the USSR would decline to pre-empt at the strategic level, hold back from tactical nuclear reprisals, and stop its ground forces. This hope may be little more than wishful thinking.

On the other hand, however, the Soviets may well halt an offensive in such circumstances. It would, after-all, have strong incentives to de-escalate given the enormous stakes involved. In terms of the French concept of "proportional deterrence"²⁷ the Soviet

Union may not be prepared to risk the destruction of Moscow, or even the Soviet state itself, for the prize of a war ravaged France.

(d) Possible effects on the USSR

Soviet military doctrine is the subject of the second part of this chapter, so only a few brief comments will be made here. In a crisis Soviet responses to the independent deterrents will depend on the circumstances prevailing at the time.

It may be useful to discuss two broad categories of possible war and then draw-out their relevance to this subject. Firstly there is total war. The USSR might resolve to treat a hypothetical future war as a critical geopolitical and ideological turning point in world history wherein compromise and limitations would be unacceptable or even impossible. Such a war would face the Soviet Union with a life or death struggle which could well approach genocidal proportions, if not intent. In this case British and French nuclear weapons may be seen as part of an indivisible Western threat. The independent deterrents would then have a distracting but not uniquely decisive role. If such a cataclysmic war eventuated the USSR would probably seek to employ massive preemptive nuclear strikes and very large scale combined conventional-nuclear operations to seize control of all Europe. Here the independent deterrents may have a marginal, redundant, role: Western targeting might overlap and be duplicated (eg a British warhead might hit a target already covered by French/US weapons).

The second category of war is limited war confined to somewhat narrower objectives than those just sketched. For example, the Soviet objective may be the conquest of West Germany, and/or, the neutralisation of NATO. This would suggest a good deal of recklessness but not necessarily suicidal fanaticism. In this case British and French nuclear forces may greatly complicate and constrain Soviet planning. Ultimately these independent deterrents have the potential to transform politically meaningful limited war into a senseless total war. Thus the West European deterrents may figure prominently in Soviet ideas of crisis management. Soviet crisis management would have two critical roles in this regard. First it would have to work at preventing unintended nuclear escalation (resulting from, say, overzealous Soviet field commanders or inept diplomacy). Second, it would have to decide if and when particular forms of escalation were probably inevitable; this assessment would affect Soviet incentives for various levels of preemption. In this type of conflict the independent deterrents could have two contradictory effects: stabilising or destabilising - they might encourage either caution or assertiveness in Soviet actions at various stages in a crisis. An important element in British, French and Soviet calculations of risks and interests would probably be US policy.

(e) Possible effects on the USA

American reaction to the use, or threatened use, of British or French nuclear weapons would depend on circumstances. But one thing

can be said with some confidence: a unilateral British or French first-use of nuclear weapons would probably be contrary to US policy and vital national interests. It could be seen as a reckless European move to escalate a conflict faster than Washington considered desirable.

Far from triggering massive US nuclear strikes against the USSR, independent use might provoke a speedy and radical reappraisal of American national interests, possibly leading to a sharp reversal of Alliance commitments. US crisis management might refocus away from the Soviet threat to America's erstwhile allies and towards containing its erring "friend". In extreme circumstances this might be done by the attempted elimination of British/French nuclear capabilities. On the other hand the US might get dragged into an escalating conflict with the Soviet Union as it tried to stay one step ahead of a widening crisis.

* * * * *

The practical consequence of British/French action may be catalytic superpower strategic war. On the other hand, use of British/French nuclear weapons might provoke sharp Soviet/American political, para-military, and military action to contain or eliminate independent, nuclear armed, states perceived to be behaving in a reckless manner. Alternatively, of course, neither of these events might occur. It is conceivable that a limited British or French nuclear strike could help frame the politico-military context for a

continuation of conventional East-West conflict, it might even prompt a ceasefire.

C) THE SOVIET FACTOR

It is clear that the West may not be able to dominate the threat or process of escalation in any future European war. Nor is it able to unilaterally determine the precise relationship between nuclear and conventional military power on the Continent - whether it be in the context of peacetime diplomacy, crisis management, or combat. The rest of this chapter examines Moscow's perspectives on the nexus between nuclear and conventional forces.

(i) Soviet Security and Eastern Europe

Eastern Europe has a central role in the security concerns of the USSR. This fact has profound implications for Russian perceptions of the utility of conventional ground forces, Soviet troop deployments, and the strategic environment in Europe. No account of the relationship between nuclear and conventional forces would be complete without an awareness of the Soviet stake in Eastern Europe.

Soviet security interests in the region have at least three elements: historical, geopolitical and ideological. These elements converge and encourage the Soviet suppression of independent and politically hostile developments in Eastern Europe. Soviet control over the region has many dimensions, including political, economic

and military. The security aspects of this control are manpower intensive - as illustrated by the intervention against relatively liberal forces in Czechoslovakia in 1968 and the more subtle form of intimidation used against dissident pressures in Poland in the early 1980s. A strong Soviet position in the region provides Moscow with an ideologically sound "commonwealth" and a major strategic asset.

Soviet domination of Eastern Europe gives the Socialist heartland a buffer against invasion from the West and a base for forward military action against NATO. The area between the Soviet frontier and Berlin/Prague/Vienna is thus of immense strategic and political importance to the USSR. In their study of Soviet strategic forces, Berman and Baker state, quite simply, that "Europe is undoubtedly the most important regional theatre of military operations for the Soviet Union."²⁸ This is important in broader, global, security terms because the USSR attaches an importance to Europe that US analysts might consider "strategic".

The geopolitical features of this potential theatre of war suggest the need for large ground forces. Some writers have offered almost primaeval motives for the Russian interest in European geopolitics. Arthur Schlesinger has described the Russian border as "crossed so often and so bloodily in the dark course of [Russian] history" he states that: "The history of Russia has been the history of invasion".²⁹ According to Kennan, behind Russian policy is "the age-old sense of insecurity of a sedentary people reared on an exposed plain in the neighborhood of fierce nomadic peoples."³⁰

The Western approaches to the USSR are dominated by the North European Plain. These approaches have offered opportunities for sweeping military manoeuvres covering vast areas and employing massive armies. One example is the 23 day Soviet Vistula-Oder campaign of 1945. Here the front of advance and depth of operations were both 500km; Soviet forces consisting of two and a half million troops with 7,000 tanks and self-propelled guns advanced at an average of 20-25km per day.³¹ This operation was conducted directly on the lines of communications to Moscow and followed similarly large campaigns on Soviet territory. These sorts of experiences have encouraged in Moscow a perspective on strategy, and the nuclear-conventional nexus, that is somewhat different to that prevalent in Washington.

These perspectives on strategy will be detailed below. First, though, more needs to be said about the geopolitical basis of Soviet perspectives on security. The Soviet Union would almost certainly interpret a forceful attempt to change Moscow's status in Eastern Europe as a threat to its vital national interests. Indeed, threats to what is loosely called the "Yalta" system may well provide the focus of any Soviet military action during a European war. This is important to bear in mind as the USSR has apparently adopted a Clausewitzian approach to strategy in which military operations are supposed to be tailored to specific political objectives.

The form and scope of a Soviet campaign against NATO could vary considerably depending on, among other things, the political stakes involved and their relationship to the Yalta framework. Obviously, Soviet strategy might not be simply defensive. It might be directed

more at extending Soviet power than preserving it (or it might start as the latter and develop into the former). Here geopolitical considerations might appear to dictate an attempt to seize NATO and neutral territory. A Soviet military push in Europe could well be accompanied by an attempt to establish a clearly demarcated frontline well inside Western Europe. According to Berman and Baker:

The Soviet interest in occupying certain portions of Europe probably results from a belief that conventional warfare would be important in ending regional conflicts in a prolonged worldwide nuclear war.³²

The Soviet geopolitical position makes it seem unlikely that Moscow would view a major war in terms of nuclear "signalling" which was unrelated to the conduct of ground warfare. Control over territory appears to be central to Soviet strategy.

(ii) The Soviet Conceptual Framework For Military Planning

In the USSR the primacy of the political leadership over the military is stressed. However, Soviet military writings do not seem to explore the possibilities for civilian "fine-tuning" of military operations - at least not to the same extent as in the West. This apparent contradiction can perhaps be explained in terms of Soviet cultural patterns and the Soviet conception of the nature of war. This conception appears to be essentially Clausewitzian, modified to incorporate Marxist-Leninist dogma. Thus, war is "the continuation of class politics...Any and every war is inextricably bound up with

that political order out of which it flows...It is a well known fact that politics is a relationship between classes."³³ According to the Soviet view, military operations are to be matched to specific political objectives **insofar as their nature allows.** That is, military means are, in theory, to be kept in line with political ends; but war may be a somewhat blunt instrument of policy. Moreover it is recognised that war in Europe would be a very risky option with immense escalatory potential. An acute awareness of the possibility of damaging escalation appears to breed caution in peacetime and, according to most interpretations of Soviet doctrine, assertiveness in wartime in an attempt to reduce the scope of NATO nuclear attacks.

Soviet writings suggest that Moscow would opt for war in Europe only in very grave circumstances; but, if war broke out, these writings indicate that it would probably be fought savagely. Even a politically successful war in Europe (assuming it was possible) could be extremely bloody, involve a vast range of military operations, and stress offensive action. In such a conflict political control at the frontline might be more theoretical than practical. Political control could have more to do with general objectives and the general line of offensive operations than with relatively tactical considerations. Soviet criticisms of US ideas of flexible response may have a lot to do with the notion that the nature of war is simply too dynamic, uncertain, complex, stressful and brutal to be susceptible to detailed political control of battle management.

As a way of integrating the imperative of political control with the operational requirements of warplanning and combat readiness (and, no doubt, as a consequence of domestic political factors) the USSR has developed an overarching, centralised framework for war preparations. (see chart)

Within this framework³⁴ **military doctrine** provides "both the accepted view on the nature of future conflicts, as well as guidance for the military to follow in preparing the armed forces for war".³⁵ Doctrine is the politically endorsed element of Soviet **military science** (which is essentially a diverse assortment of military thinking). **Strategy** concerns the implementation of doctrine as modified by the particular circumstances of the conflict at hand: compared to doctrine, strategy is more about actual, rather than hypothetical, fighting. Strategy is a subset of **military art**; **military art** is defined as "the theory and practice of preparing for and conducting military operations."³⁶ Within military art, strategy has a key role: it provides the link between the Soviet understanding of the nature of war and the execution of military operations.

According to Soviet doctrine war is about the "complex system of interrelated large simultaneous and successive strategic operations."³⁷ The connection between strategy and tactics is provided by **operational art**. Within the framework of a particular strategy, Soviet army operations would, in theory, be conducted according to the principles outlined by operational art (which, like

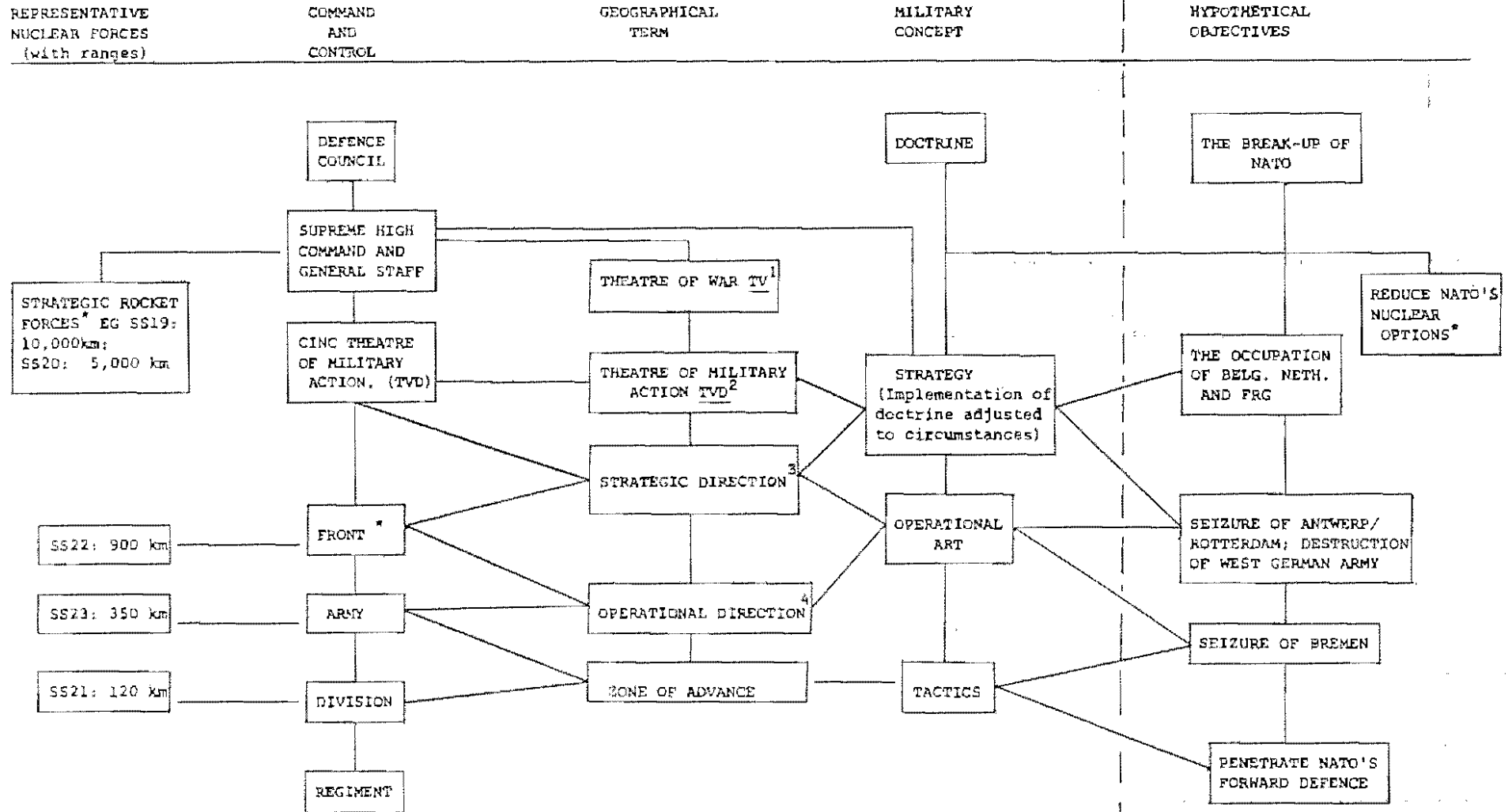
strategy and tactics, is also a subset of military art.) According to Petersen:

The conceptual framework created by the Soviet theory of military art is applicable to the waging of war regardless of whether the weapons of concern are non-nuclear or primarily nuclear. The impact of this framework is evident in the extensive body of written material discussing both weapon systems and force deployment. Thus combat activities are categorized as one or another of the following: (1) tactical, (2) operational, or (3) strategic. These terms, along with the terms operational-tactical and operational-strategic, cover the full spectrum of military objectives or goals as well as the scale of organizational form or the spectrum of weapon systems of means. Their utilization allows the Soviets to be comparatively precise in their discussions of force employment in any conflict and, again, may have a clarifying cognitive effect upon Soviet decisionmakers.³⁸

The different levels of Soviet combat - strategic, operational and tactical - correspond to different scales of effort, both in terms of territorial extent and the size of forces committed (each of the three levels can cover nuclear and, or, conventional operations).

In Soviet military science, "the broadest concept in military geography seems to be that of the theatre of war...(teatr voyny or TV)." A TV would cover the area of hostilities engaged in by, for example, NATO and the Warsaw Pact. It might therefore be relatively small at the start of hostilities and then rapidly grow. For the purposes of peacetime planning there appears to be three Eurasian TVs: Western (covering Europe); Southern (covering the middle East); and Far Eastern (covering the rest of Asia and including China, Korea and Japan).³⁹

SCHEMATIC OUTLINE OF SOVIET MILITARY THINKING



* To be used for first decisive use of nuclear forces. Strategic preemption in-theatre against NATO TNF.

* Eg, The Group of Soviet Forces Germany
5 armies, 20 divisions

- 1 Eg, Europe.
- 2 Eg, The area around NATO's CENTRAL FRONT
- 3 Eg, on axis across the north German plain
- 4 Eg, a flanking movement around Bremen

* By nuclear preemption and/or conventional attack against NATO TNF.

TVs would incorporate one or more "theatre of military action" (teatr voennykh deistvii or TVD). The TVD could cover a distinct geographical area with a more-or-less integrated politico-economic framework and with specific strategic objectives capable of seizure by Soviet forces. Thus within the Western (i.e. European) theatre of war there are, reportedly, three TVDs - one covering potential operations against Scandinavia, one covering NATO's Central Front, and one oriented against the Balkans.

Major warplans at TVD level would focus on the development of one or more strategic directions. A strategic direction essentially describes or outlines the path to be followed by the primary offensive thrusts of Soviet forces. Thus, within the TVD covering NATO's Central Front, one strategic direction might outline a massive assault towards the Channel ports through West Germany. Within a strategic direction would be one or more operational directions.⁴⁰ So, in the above example of a strategic direction focused on the Channel ports, there may be two operational directions: one describing an attack across the North German Plain via Bremen, and the other outlining operations to pin-down US forces in the central region of the Federal German Republic.

The control of these hypothetical operations would, in theory, be relatively centralised. At the highest level the Soviet Defence Council integrates political guidance and military advice. Below this is the Supreme High Command (VGK); the VGK directs the General Staff. According to Petersen, in wartime it is likely that separate, subordinate, High Commands would be established at TVD level. These

TVD commands would manage offensives along strategic directions (e.g. a drive to the Channel ports). Lower down, commands would also be established at the level of **fronts**. Front commands control one or more multi-division armies; fronts would be expected to move along the operational directions described above⁴¹ (e.g. against Bremen).

The possibility of theatre war in Europe has had a central role in the development of Soviet military concepts, force development, command and control, and (presumably) detailed warplanning. Over the years this has led to an enormous investment in conventional forces largely configured for rapid offensives against, among other things, Western nuclear forces based in Europe which are capable of devastating the USSR. The emphasis on theatre war in Soviet military doctrine is reflected in Russian perceptions of nuclear conflict. For example, Lee has noted that:

Soviet strategic targeting applies to both Eurasia and the United States...To the Soviets, Europe and adjacent areas in Asia are strategic dimensions of equal, if not greater, importance than the "transoceanic" [i.e. intercontinental] dimension.⁴²

(iii) Soviet Views On The Relationship Between Nuclear And Conventional Forces

Soviet military thinking is neither static nor entirely inflexible. Indeed, Soviet views of the relative roles of nuclear and conventional forces have shifted over the years.⁴³ The need for changing perspectives was outlined in the last words of Sokolovskiy's

Soviet Military Strategy:

It is necessary to take into account that the theories expressed in this work were cited in each individual case by relying on an evaluation of the political and economic conditions of today. Therefore, it is impossible to consider them as final and unchanging data. Only a creative approach from the position of Marxist-Leninist dialectics will enable Soviet commanding cadres to understand properly and use the various conclusions and recommendations of this work.⁴⁴

It was clear that "military affairs do not mark time, but continuously develop under the action of various conditions..." Moreover, according to Sokolovskiy:

War always was an extremely complex and varied phenomenon. This is even more true of a future nuclear war. In working out the forms and methods for conducting a future war, an entire number of questions should be considered: how will the war be unleashed, what character will it assume, who will be the main enemy, will nuclear weapons be employed at the very start of the war or in the course of the war, which nuclear weapons -strategic or only operational tactical -where, in what area or in what theatre will the main events unfold, etc... Some forms of strategic operations may take place in a nuclear war on a world-wide scale which arose as a result of a surprise enemy attack; other forms of operations may take place in a world nuclear war which arose as the result of the expansion of a local war into a world war, and a completely different form of operations will take place in local war.⁴⁵

Meyer has outlined three different possible Soviet views of paths to nuclear war that it might be useful to identify here. These are: surprise strategic attack or a "bolt from the blue"; anticipated strategic attack arising directly out of a crisis (over, for example, Cuba) and leading to massive nuclear preemption; and escalation from conventional war.⁴⁶ The last of these paths to nuclear war is the most relevant in terms of the treatment of the nuclear-conventional nexus in Soviet doctrine.

Russian assessments of the linkage between nuclear and conventional forces have probably been influenced by their changing views as to the probability of war between the superpowers in which some restraint is exercised. From at least the 1960s Soviet doctrine has recognised a requirement for escalation control in some circumstances. For example, Sokolovskiy has stated that:

Simultaneously with preparing for a decisive battle with the aggressor during a world war, the armed forces of the socialist camp must also be prepared for small-scale local wars which might be unleashed by the imperialists. The experience of such wars which have repeatedly arisen during the postwar period shows that they are conducted by ways and means which differ from those used in world wars. Therefore, Soviet military strategy calls for the study of the means for conducting such wars in order to prevent them from developing into a world war and to bring quick victory over the enemy.⁴⁷

As described below, some analysts believe that Soviet military developments are intended to give Moscow a conventional war option in Europe. Indeed, this view is becoming the orthodox interpretation of Soviet doctrine. Soviet TNF, it is argued, are meant to deter NATO first-use of nuclear weapons while Soviet conventional superiority is to be used to destroy Western defences. Why else invest vast sums in large, modern, armoured forces and associated support?⁴⁸

However, Douglass and Hoerber are skeptical of this conventional war proposition. They point out that Soviet doctrine attaches great importance to conventional forces in nuclear war; they also argue that Soviet doctrine emphasises the very high probability of a European war escalating to nuclear strikes. Douglass and Hoerber have summarised their interpretation of Soviet views of the nuclear-conventional nexus as follows:

Should a war in Europe...begin with a conventional phase, Soviet operations planning would be conducted with the possible sudden transition to nuclear operations as the primary consideration...and it is probable that the nuclear phase will be decisive and will determine the course and outcome of the conflict...

In the Soviet view, the main advantages of an opening conventional phase lie in the fact that it permits the more effective implementation of a surprise nuclear strike if NATO forces already have been alerted and dispersed...An initial conventional phase is seen as a mechanism that provides the opportunity a) to solve problems of mobilization, force deployment and readiness, force dispersal, target acquisition, and air-borne unit insertion, and b) to degrade NATO nuclear capabilities.

In general, the Soviet approach seems to be focused on determining the "most favorable time" to make the transition to nuclear operations. As identified in the Soviet literature, that time appears to be when a Soviet breakthrough first appears imminent...The commitment of second echelon and reserve units, itself a "culminating" moment of the offensive, is often linked to the initiation of nuclear operations. Surprise, a dominant factor in modern Soviet strategy, is especially important, and the drive to successfully achieve surprise tends to advance the timing of the nuclear decision. With these factors in mind, and making every effort to anticipate NATO moves, the Soviets would aim to preempt with an initial nuclear strike.⁴⁹ (Emphasis added.)

Throughout their study Douglass and Hoerber emphasise the combined-arms approach of Soviet doctrine. They stress that nuclear and conventional operations would be coordinated so as to achieve a synergistic effect (although they do not use this term). Thus they state that:

the Soviets have concluded that conducting a nuclear strike without a rapidly following exploitation by ground and air forces is the wrong approach. The heart of the Soviet approach to war is the use of combined arms, which relies most importantly on the combination of nuclear strikes plus exploitation...

If...ground and air units are not prepared to exploit the nuclear strike, then the timing for that strike is not optional.⁵⁰

It appears that conventional forces "cannot exploit a nuclear strike properly from their day-to-day postures..." A conventional phase would therefore be necessary for preparation of post strike operations.⁵¹

According to Meyer, Soviet views of nuclear escalation from conventional war in Europe have moved from seeing such escalation as "inevitable" to "most likely" and then "probable". "By the mid 1970s", Meyer states,

Soviet military doctrine held out the possibility that wars might even be fought with conventional weapons only. Yet the odds were still great that conventional war would escalate to nuclear war.⁵²

Some analysts suggest that the USSR has a preference for, and expectation of, conventional war in Europe that would not escalate to nuclear strikes. Petersen and Hines state that: "The Soviets would prefer to achieve a quick victory at the lowest possible level of intensity..."⁵³ From this unremarkable premiss, and their interpretation of Soviet thinking, Petersen and Hines construct a view of Soviet strategy that stresses preparation for conventional conflict. These analysts think that the Russians would prefer conventional war, rather than nuclear war, because geography "would work to the Soviet advantage in a conventional conflict but to their disadvantage in nuclear war."⁵⁴ In a conventional war the Soviet Union may be able to bring more reinforcements to bear in central Europe than the US, but in a theatre nuclear war the USSR may be more vulnerable to unintended nuclear escalation than the USA. An

additional reason for Soviet restraint in war is that the devastation of Western Europe does not appear to be a Soviet objective.

Meyer, Petersen and Hines (like Douglass and Hoerber) stress that Soviet perceptions of conventional war in Europe are profoundly affected by the existence of nuclear weapons. The ever present threat of nuclear strikes erupting out of a conventional war rules out a traditional form of ground war of the World War Two type. For example, the nuclear revolution has modified views of conventional force concentration. Soviet doctrine does, however, stress some traditional military values; it calls for surprise, shock action, speed of advance, and destruction of critical military facilities. According to doctrine, Soviet conventional forces should be capable of rapid concentration (for a breakthrough offensive) and speedy dispersal (to deny the West lucrative targets for nuclear attack). Soviet conventional forces are expected to smash or manoeuvre their way past NATO's forward defences as early as possible. Once into NATO territory a primary mission for Soviet conventional forces is the reduction of NATO's nuclear options; this is to be done by the destruction/disruption/capture of Western C³I systems and nuclear weapons. Throughout the conventional phase of operations Soviet conventional forces would, in theory, be prepared for a sharp transition to nuclear war.

In line with this last objective of being able to quickly transform operations, "each level of command [e.g. front, army, division] would maintain a nuclear strike plan against the same target set attacked under their respective conventional fire plans."⁵⁵ Ideally, from the perspective of Soviet doctrine, the transition to nuclear war would take the form of surprise Soviet preemption of anticipated NATO escalation: the USSR would try to beat NATO to the nuclear punch.

Not surprisingly, it is unclear precisely when the Soviet Union would initiate attacks. It would probably be if and when Soviet readiness to strike coincided with evidence of a Western move to escalate. As suggested above, conventional force readiness may be a consideration here. Except perhaps for retaliation, the primary objective of Soviet nuclear attacks would be to destroy NATO nuclear forces on the ground.

Just what Moscow would see as warning of an impending NATO nuclear offensive in the context of conventional war is uncertain. It may be one or more of the following indicators, some of which will be associated with the NATO alert levels already outlined in chapter five:

1. Open US/NATO nuclear threats.
2. US preparation for strategic nuclear war and the raising of US strategic alert levels (eg the withdrawal of tanker aircraft from theatre conventional roles and the airborne alert of bombers).
3. Intensified NATO anti-submarine warfare.

4. A NATO "demonstration shot" with a few warheads using two or three F-111s.
5. The widespread dispersal of TNF warheads from storage sites to allied (especially German) battlefield units.
6. The limited dispersal of TNF warheads to US EUCOM units.
7. Precise, unequivocal, signals intelligence like interception of NATO/EUCOM firing orders and confirmation of a firm western political decision to escalate.
8. Ambiguous signals intelligence (eg interception of messages raising TNF alert levels).
9. Human intelligence from well placed agents.
10. The standing-down of increasing numbers of aircraft from conventional missions and their arming with nuclear bombs.
11. A sharp change in the pattern of NATO electronic warfare.
12. NATO conventional force dispersal and limited troop withdrawals.
13. Cessation of the US airlift into major European airbases, and the holding back of Atlantic convoys from docking.
14. The diversion of US reinforcements from the Continent to the UK.
15. The initiation of anti-satellite warfare/intensified attacks against C³I.
16. The increased deployment of NATO special forces behind the front line.
17. The dispersal of Western political leaders and administrative staffs.
18. British/French preparation for independent nuclear strikes.

It is worth noting here that a Soviet preemptive attack against NATO TNF may be considerably easier if undertaken before, rather than after, a NATO dispersal of nuclear warheads and missiles. Gormley has estimated that NATO TNF dispersal would increase the number of nuclear targets for Soviet planners "from 80 fixed installations to well over 300 mobile (and thus more survivable) field units."⁵⁶ NATO TNF

dispersal, or any of the other indicators, may be especially salient if it appeared that NATO's conventional defence line was on the verge of collapsing.

It appears that Soviet doctrine concerns itself more with the first decisive (or mass) use of nuclear weapons than with the first-use of nuclear weapons per se.⁵⁷ According to Douglass and Hoerber: "It is difficult to define what constitutes a 'mass use' in terms of numbers of weapons..." These two analysts guess at a threshold of between 50 and 100 weapons; below this level an attack might be more demonstrative than militarily decisive.⁵⁸ Whether or not Soviet authorities would, in a crisis, agree with this assessment of the threshold to decisive nuclear operations is a moot point.

Meyer has described Soviet views of theatre nuclear warfare in some detail. He makes the important point that considerable political and military incentives exist for the USSR to try and maintain limitations on the destructiveness of even nuclear war. For example, he states that,

Soviet military planners reveal strong awareness and sensitivity to the disruptive effect that large-scale theatre nuclear use could have on troop control.⁵⁹

Meyer goes on to say that:

In the end, for all their studies and analyses (or perhaps, because of them), Soviet military writers do not appear to demonstrate confidence that they know how to manage a full-scale theatre nuclear war.⁶⁰

There is, then, good reason for keeping war limited (over and above ethical concerns or the need to maintain political control of the home front). There is also a concomitant need to maintain central control over nuclear attacks - at least in the early stages of a war. The USSR appears to approach these issues by (a) attempting to establish a homeland sanctuary for Soviet territory; (b) focussing initial Soviet preemptive strikes at a limited number of targets - in particular NATO TNF, especially if they are capable of hitting Soviet territory; and (c) by assigning this primary preemptive mission to the Strategic Rocket Forces under the V GK - rather than to the fronts. As Meyer notes, this type of operation is considered "strategic" by Soviet military planners. As such, it could be conducted by Strategic TNF;⁶¹ these currently include SS20 LRTNF and SS11/SS19 ICBMs.⁶² No doubt aircraft could also be used, albeit with less assurance of success.

Such a preemptive strike might be followed-up very quickly by Soviet use of so-called "operational-tactical" and battlefield nuclear weapons deployed with forward based ground forces. Thus Soviet nuclear attacks might commence with large-scale long-range attacks against NATO's LRTNF and supporting infrastructure, with shorter range missiles being used in selective follow-up strikes.⁶³

As discussed above, according to Soviet doctrine Soviet conventional forces would, in theory, engage in rapid, well coordinated offensive operations to exploit the shock and military effects of nuclear attacks. This attachment to combined (nuclear-conventional) arms operations (and the apparent Soviet objective of wanting to occupy, rather than destroy, Western Europe) places limits

on the level of nuclear attacks deemed acceptable to Soviet warplanners.⁶⁴ As already noted, massive indiscriminate nuclear warfare is considered inimical to the conduct of combined arms operations and the achievement of Soviet objectives.

Nevertheless, the possibility of rapid escalation is supposed to determine the nature of Soviet conventional operations during any conventional phase of war. As Douglass argues:

In effect, the Soviet approach can be viewed as learning how to fight a conventional war from a nuclear war posture, in contrast to the Western approach of fighting an initial phase of a nuclear war from a conventional posture.⁶⁵

Whether or not such theoretical perspectives can be translated into practical military operations is an open question.

A key determinant of the Soviet ability to implement its doctrine will be the leadership qualities of its officers and the efficacy of its command and control system. Soviet command and control is relatively centralised down to regiment level.⁶⁶ This could be advantageous in so far as coordination may be relatively easy, and in so far as flexible, decisive, decision making at the top is effectively channelled to lower echelons. On the other hand, centralised control might hamper the conduct of war. The chain of command might be disrupted or broken; rigidities in warplans might lead to paralysis or stupidity on the battlefield.

(iv) Implications for NATO strategy

Soviet perspectives on future war may have serious implications for NATO strategy and Western attempts at escalation control. For example, Soviet doctrine apparently does not endorse the notion of nuclear signalling characteristic of some Western ideas. Nor does it seem to give much attention to the concept of fine-tuning nuclear "options". While Soviet doctrine eschews gratuitously large and deliberately indiscriminate nuclear barrages, it does call for militarily decisive nuclear strikes. Militarily decisive nuclear attacks would probably have to be quite large - perhaps involving nearly 160 targets in the theatre⁶⁷ and, possibly, many hundreds more. To call such attacks a form of nuclear "bargaining" would be pushing language too far. The apparent Soviet emphasis on militarily effective -or war winning- nuclear operations would seem to cast doubt on the efficacy of any NATO attempts to treat war as an exercise in crisis management. For example, while NATO's limited first-use of nuclear weapons option is intended to be a tool of crisis management, it may well act as a trigger to large scale Soviet nuclear attacks and the subsequent breakdown of any constraints.

NATO plans may also be unraveled at the conventional level. This is primarily because of the apparently offensive orientation of the Soviet military. It is largely this putative offensive orientation that makes the prospect of Soviet mobilisation seem so daunting, and which gives Soviet special forces and chemical weapons a potentially de-stabilising role. Wide-ranging efforts to seize tactical and strategic advantages within the framework of an offensive concept of

conventional operations will put enormous strain on the political and military structures that would also be tasked with managing nuclear weapons.

One aspect of Soviet conventional doctrine that has attracted particular concern is the concept of "Operational Manoeuvre Groups" (OMGs).⁶⁸ A primary task of OMGs is to rapidly throw the main weight of battle onto the enemy's rear areas, in a contemporary equivalent of Blitzkrieg. OMGs would be employed with associated raiding groups directed against NATO TNF and command posts. In theory OMGs would be used to side-step the Alliance's doctrines of forward defence and flexible response. If the OMG concept worked, it would obviously undermine NATO strategy. Forward defence would be sliced open, and the chances of NATO effectively implementing a considered first-use of TNF might be drastically reduced. The consequences of such a Soviet offensive might be political paralysis in NATO leading to a collapse of the Alliance, or the desperate launch of all available TNF to no particular purpose.

Lebow has described Soviet doctrine for war in Europe as a contemporary equivalent of the Schlieffen Plan: flawed and reckless.⁶⁹ Soviet doctrine seems very escalatory. It apparently calls for massive offensive sweeps deep into NATO territory, possibly using chemical weapons, and the prompt destruction of NATO's TNF together with the widespread disruption of the Alliance's system of command and control.

During a European conflict Soviet forces may exert two contradictory pressures on the battlefield. On the one hand, the enormous nuclear firepower at the command of Moscow could have a profoundly stabilising (or even paralysing) effect in a crisis. On the other hand, the apparent emphasis on pre-emption, and the stress on decisive offensive conventional combat, could be catastrophically de-stabilising. As the next chapter shows, the linkage between nuclear and conventional operations could well be a critical factor in the balancing of combat instabilities and more stabilising deterrent pressures.

Wartime interactions between stabilising deterrent pressures and destabilising attempts to gain operational advantage may turn on the collaborative management (by Washington, London, Paris, and Moscow) of the linkage between nuclear and conventional military power. Since this "management" would have to operate in a climate of armed antagonism, the prospects are unpromising. States that could not decide to keep the peace may be unlikely to agree to a wartime code of conduct. This problem could be compounded because each of the four nuclear armed states has its own perspective on the nexus between nuclear and conventional military power. Each of these perspectives is rooted in history and geopolitical considerations.

NOTES

- 1 As discussed in Chapters 3 and 4, the Alliance form of flexible response is a vague, watered down version of the original American concept.
- 2 The term "semialignment" is taken from Nils Orvik (ed), Semialignment and Western Security (Croom Helm, 1986). Orvik argues that (p. 6.):

Fully aligned states are those that accept the major commitments implied in the [NATO] treaty, act accordingly, and to the best of their ability try to meet the obligations. A member which can accept only some of the commitments and rejects others would come in the category of "semialigned".

- 3 See William Arkin and Richard Fieldhouse, Nuclear Battlefields: Global Links in the Arms Race (Ballinger, Massachusetts, 1985), chapter three; John Simpson, The Independent Nuclear State (Macmillan, 1986); Shaun Gregory, The Command and Control of British Nuclear Weapons (Peace Research Report Number 13, Bradford University, 1986); Duncan Campbell, "Too Few Bombs to Go Round", New Statesman, 29 November 1985.

The British arsenal has been estimated at between 225 and 689 warheads. Simpson suggests that the UK has about 280 gravity bombs and 290 warheads for submarine launched ballistic missiles (op. cit., p. 254). UK tactical weapons may be delivered by naval helicopters, and Tornado, Buccaneer, Jaguar and Harrier aircraft. The British have four ballistic missile submarines, each equiped to fire 16 Polaris missiles (probably with two warheads each). During wartime the UK may be granted US warheads for British artillery and Lance missiles, they may also receive US gravity bombs.

France has six ballistic missile firing submarines with a total of 96 missiles. They have 18 land-based ballistic missiles capable of striking the USSR, and four squadrons of Mirage bombers capable of strategic nuclear missions. The French also have 120 tactical Pluton missiles, and about 120 tactical nuclear bombs assigned to five squadrons. The total French arsenal has been estimated at about 514 warheads.

- 4 Cited in Margret Gowing, Britain and Atomic Energy 1939-1945 (Macmillan, 1964), p, 168; also, see M. Gowing, Independence and Deterrence, 2 vols. (Macmillan, 1974).
- 5 Alfred Grosser, The Western Alliance: European-American Relations since 1945 (Macmillan/Papermac, 1980), p. 184.
- 6 For further information on the background to the independent deterrents see, for example, Lawrence Freedman, Britain and Nuclear Weapons (Macmillan, 1980); Wolfe Mendl, Deterrence and Persuasion (Praeger, 1970).

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- 67 Dennis Gormley has outlined the following target structure for Soviet planners; it consists of "critical NATO installations in the Central Region": TNF related (80), air defence (45), major command and control posts (9), and reinforcement related (25). Gormley believes that these facilities may be vulnerable to Soviet conventional ballistic missile attack. It is reasonable to assume that these targets are also covered by Soviet TNF. See D. Gormley, "A New Dimension to Soviet Theater Strategy", Orbis, Fall 1985, p. 560. S. Meyer refers to about 280 NATO facilities in the Soviet planners "primary target array"; see "Soviet Theatre Forces, part 2...", op. cit., pp. 24, 25.
- 68 See the Report of the European Security Study, Strengthening Conventional Deterrence in Europe (Macmillan, 1983), especially Christopher Donnelly, "Soviet Operational Concepts in the 1980s".
- 69 Richard Lebow, "The Soviet Offensive in Europe", International Security, Spring 1985, p. 144 ff. In addition, see D. Ball, "Soviet Strategic Planning and the Control of Nuclear War", in R. Kolkowicz, E. Mickiewicz (eds), The Soviet Calculus of Nuclear War (Lexington Books, 1986). Soviet warplanning may be locked-in to counter C³I strikes with potentially catastrophic consequences.

CHAPTER SEVEN

STRATEGY AND THE NUCLEAR-CONVENTIONAL NEXUS

A) Introduction

This chapter outlines the nature of strategy within the Atlantic Alliance. Following the classical dictum that strategy is the use of military means for political ends, the first part of the chapter describes what NATO's political objectives are. Next, five levels of strategy are identified. These are:

- (a) Psychological
- (b) Philosophical
- (c) Political
- (d) Doctrinal
- (e) Operational

The chapter then describes how the linkage between nuclear and conventional forces now occupies an important place in each of these five levels of strategy.

B) Defining strategy in the NATO context

In strategy the connection between military capabilities and political objectives is central. The particular form taken by strategy is dependent on specific political circumstances and on decisions regarding the appropriateness of particular deployments and applications of military power. Identifying 'strategy' in Western

Europe is a complex and awkward task. The ends of policy (e.g. stability) are often poorly articulated and can be implicit within relations between Western states. Moreover, strategy in Europe works on different organisational levels: national, SHAPE and corps for example. The result is as much an aggregate of different ideas as a single strategy.

The political arena for the formulation of strategy in NATO is dominated by domestic political pressures, Intra-Alliance diplomacy, and issues of East-West stability. For instance, in NATO debate over force structuring (e.g. regarding ERW and LRTNF), political questions concerning possible effects on Alliance cohesion and detente are often raised. Doctrinal initiatives (such as the introduction of flexible response during the 1960s) help feed controversy over such matters as US leadership of NATO and the role of the FRG. In such debates military logic can often take second place to political considerations.

Within NATO, strategy is as much about peacetime Alliance diplomacy as about fighting, or even deterring, war. Alarmist perceptions of the Soviet threat do not dominate Western politics. There is no widespread expectation of Soviet attack, nor does there seem to be a serious, pervasive, feeling that the USSR wants to take-over Western Europe. Defence budgets, to use one illustration, rarely have unqualified priority over welfare payments in West European states. (Even so, the West hedges against a conflict with the USSR by maintaining a large defence effort.) Politically persuasive questions

about the wisdom, or lack of it, of (say) TNF modernisation simply do not turn on their contribution to Western defence in the event of war.

Within NATO, nuclear and conventional forces have acquired overlapping political and deterrent roles. As already stated, their political functions seem paramount. Politically, NATO's nuclear forces help symbolise America's leadership of, and commitment to, the Alliance. Paralleling this US nuclear symbolism is the substantial European contribution to collective conventional forces and its exposure to nuclear risk, both seen as aspects of burden sharing within the Alliance. The military missions of NATO defence forces have been superimposed on this political framework.

As far as Western Europe is concerned, strategy consists of a unique blend of political and military factors. Current NATO strategy may be understood as the juxtaposition of nuclear strike options and conventional denial capabilities for the purpose of maintaining international political stability, East-West deterrence, and defence against Soviet attack.

It is now necessary to explore the various different levels of NATO strategy (psychological, philosophical, political, doctrinal, and operational). As the defence debates in Europe have shown, questions of Continental security are frequently approached, by different people, from different directions, and on different levels. Only rarely do these debates follow the lines of academic strategic analysis; even then the connection between debate and analysis may be

tenuous. At the heart of many defence debates are personal political beliefs and intuitive reactions to the risk of nuclear war. Intuition seems to be at least as important in framing attitudes towards strategy - and thus in framing strategy itself - as logical argument or academic speculation.

C) The psychological and philosophical aspects of the nuclear-conventional nexus in Europe

The psychological dimension of the nuclear-conventional nexus refers to general feelings about how, and with what consequences, nuclear and conventional forces are linked. The philosophical dimension refers to how these rather general feelings are translated into relatively coherent ideas concerning the nature of strategy.

An example of this inter-relationship is found in the proposition that war in Europe is 'Unthinkable'. This view may be based on a personal feeling that conventional war on the Continent would inevitably escalate to massive nuclear war with inconceivably horrific consequences. The details of this hypothetical chain of events may be literally inconceivable for many, or too painful or awkward to dwell on, or it may be considered too distasteful to think through systematically. This view of linkage may be central to one's understanding of contemporary deterrence; and it may very much colour one's commitment to either nuclear disarmament or to the maintenance of nuclear stalemate. Either way, a psychological disposition to see war as unthinkable probably encourages or reflects a philosophical

opinion that the exercise of strategy (or the politically purposeful use of military force) is, in the contemporary European context, impossible. Such thinking can have an important effect on political decision-making on defence matters. For instance, it may undermine popular or party political support for particular programmes (such as ERW) and constrain the policy options of politicians. Incredulity regarding the feasibility of the exercise of strategy might breed either panic or paralysis during a crisis; and it could encourage appeasement (as in "better red than dead").

As far as attitudes to the nuclear-conventional nexus are concerned, perceptions of the nuclear revolution are probably salient. In other words, the effect of the nuclear revolution on notions of defence probably has an overriding influence on perceptions of the linkage between nuclear and conventional forces. The nuclear component of the nuclear/conventional equation is often seen to dominate.

At least three broad types of strategically relevant responses to the invention of nuclear weapons can be identified. Firstly, there is the belief that the nuclear revolution represents a sharp break in world history, that classical strategic thinking offers us no guidance whatsoever to contemporary problems, and that war is unthinkable. According to this view the idea of 'nuclear strategy' is a contradiction in terms. Secondly, there is the idea that some kind of nuclear strategy is necessary (since war is, after all, possible) but that this strategy should not follow the pattern of conventional forms

of warfare. In particular, according to this view, nuclear strategy should not be concerned with war-winning in the traditional sense of defeating the opponents' armies. Here the dominant concern is how to devise a nuclear posture in the context of de facto mutually assured destruction. The emphasis is on signalling intent to resist aggression, rather than on destroying the aggressors' forces. A third response to the nuclear revolution has been to deny it, or to downplay its significance. According to this view the so-called nuclear revolution can be incorporated within a framework of classical strategic theory; here nuclear weapons are seen as essentially enhanced forms of military firepower.

The central premise of so-called hawks is that, as nuclear war is possible, and may perhaps be necessary, it is important to plan for it so that the chances of hostilities bursting the bounds of policy or sense are minimised. The best way of doing this, they argue, is to adopt a posture based on warfighting - rather than MAD or militarily irrelevant 'signalling'. Moreover, they suggest, such a posture provides a sound basis for deterrence; who, after-all, would dare attack a country or an alliance with the capabilities, doctrine and plans to win a nuclear war? Within this 'hawkish' perspective nuclear weapons can be understood as an extension of conventional forces. In this case the firebreak between nuclear and conventional forces is not seen as an unbridgeable chasm between traditional, conventional, war and senseless nuclear destruction. Rather it is viewed as a step on a potentially manageable escalation ladder. Some analysts clearly feel the need to claim that nuclear war might not be suicidal and that

risking it might, indeed, be preferable to (say) Soviet expansionism. Thus while the deterrent value of visions of nuclear disaster is to be harnessed to contain the USSR, these visions are not supposed to paralyse the efforts of Western warplanners.

But, generally speaking, the nuclear revolution in military technology has had a profound impact on perceptions of military power and has engendered scepticism regarding the whole idea of strategy. Nowhere has this impact been greater than in Europe. The spectre of nuclear catastrophe has reinforced a deep distaste for war on a continent with a long history of murderous conflict which culminated, during the 1940s, in attempted genocide.

The nuclear revolution threatened, or promised, to at last push the classical or Clausewitzian view of war into obsolescence. It seemed that the connection between military means and political ends might be broken; no war between nuclear-armed states could now realistically be expected to hold military means and risks in balance with sensible political objectives - or so it appeared. As to whether or not this state of affairs is 'good', opinions seem to differ. It appears that many people in European establishments are content to live within a framework of de facto mutually assured destruction; for these people nuclear weapons in Europe have banished war from the Continent. On the other hand, some hawks find a psychological attachment to MAD unsettling and inimical to sensible policy. Yet a third group - loosely labelled the peace movement - appears to be ambivalent on the matter. They see in MAD a target for protest; it is described as immoral and stupid. On the other hand, some members of

the peace movement seem to take comfort in MAD and defend it against so-called 'warfighters'.

* * * * *

NATO strategy is based on a blend of perspectives. These perspectives can be equated with three groups central to the formulation of NATO policy. These groups will be given the short-hand labels of "military planners", "political leaders", and "public opinion". Obviously these groups are not monolithic or fixed in their views; they are pluralistic, with a considerable overlap of opinion between them. These three groups can, with due qualification, be identified with the following attitudes:

- 1) **Military Planners** who view potential European war in semi-traditional terms. This appears to be reflected in some corps level planning. Such attitudes encourage calls for options to integrate nuclear weapons into the fire-and-manceuvre plans for combat units (such as corps, divisions, and aircraft carrier battle groups).
- 2) **Political Leaders** who view nuclear weapons primarily as political symbols. This perspective is echoed in NATO/NPG guidelines.
- 3) **Public Opinion**, a significant part of which seems to view military planning sceptically and believes that the idea of limited nuclear war is absurd and dangerous.

This mix of perspectives results in a compromise defence posture. Political leaders have allowed the military to develop partially integrated nuclear/conventional "fire-and-manoevre" plans. But guidelines for the use of TNF have apparently been kept vague with no delegation of authority to fire nuclear weapons being given to military commanders. Moreover, an optimum combined (nuclear/conventional) operations force structure has not been developed. Not only is the feasibility of such a military posture subject to intense doubt, but it seems electorally inausportable.

D) The political aspects of the nuclear-conventional nexus

It has been a long-standing, and highly politicised, self-appointed task of Alliance elites to stress the importance and desirability of the 'coupling' of American nuclear strikepower and regional defences in Europe. This coupling has been condemned by members of the Peace Movement and critically assessed by defence analysts. It has also been periodically qualified by some officials.

The political character of the nuclear-conventional nexus springs partly from Alliance diversity. Differences between and within numerous European political parties over perceptions of the Soviet threat, the sizing of defence budgets, and the desirability of US TNF deployments on the Continent are examples here. Controversy over these sorts of issues has led to a politicisation of the linkage between nuclear and conventional forces. With nuclear weapons around the stakes are too high for sovereign states (such as the Netherlands,

for example) to readily abrogate all responsibility for military planning, defence analysis, and strategic/political debate to a senior ally such as the US. The fact that Europe may provide the battlefield for nuclear war periodically sharpens allied consciousness of their vulnerability and responsibilities. This awareness is one reason why efforts have been made to introduce allied input into the planning for US TNF. It is also a reason for the evolution of agreements for limited nuclear sharing and consultation within the Alliance, and for allied input into the development of guidelines for the use of TNF during wartime. (Another reason for promoting allied access to TNF planning seems to be American efforts to head-off potential European pressures for nuclear proliferation.)

Since NATO represents an aggregate of national compromises (themselves a mixture of different domestic concerns), it might be useful to briefly outline the differing perspectives of two key Alliance members - the United States and the Federal Republic of Germany. American advocacy of flexible response is anchored on unilateral interpretations of US national interests. Flexible response can be seen as part of an attempt to project US diplomatic and military power into Europe in the pursuit of national objectives. In peacetime this effort has been remarkably successful. But the policy clearly has risks and the possibility of a catastrophic failure of policy -leading to massive intercontinental nuclear war - needs to be guarded against. This has led many in the US to develop the concept of firebreaks which might be used in a crisis as a way of allowing Washington to cut its losses.

Thus the US has tempered its nuclear guarantee to Europe. This promise of extended deterrence has been qualified so that it theoretically eliminates the automatic tripwire to nuclear retaliation in the event of a Soviet conventional invasion of Western Europe, and to the extent that some of the allies have been irritated or unsettled. But the qualification has not been pushed so far that NATO breaks-up or that deterrence collapses. Preserving NATO as an American led bloc, while maintaining unilateral US national security interests, has involved a diplomatic balancing act: US unilateralism has had to be traded against Alliance solidarity. This political balancing act has direct operational implications for the linkage between nuclear and conventional forces. For example, US policy calls for the deployment of American TNF to Europe but the maintenance of Washington's veto over their use (even though many of these weapons have been "assigned" to NATO).

The meshing of nuclear and conventional warplans arguably helps to cement the Alliance, reinforce Washington's leadership role, and deter the USSR. Another consequence may be that it provides a significant increment to US diplomatic and military power. Indeed, the perceived dependence of European military forces on US nuclear warplanning (as well as on American conventional reinforcement) strengthens the impression that European forces are in some sense appendages of the United States. This may be one reason why anti-nuclear/anti-war/anti-NATO sentiments often merge into anti-Americanism; at any rate, the American-nuclear connection has been a controversial issue among European publics.

Another example of how the nuclear-conventional linkage has direct political ramifications is the fact that the defence effort of the FRG has been largely tied to US diplomatic and military policies. West German security policy operates in a NATO framework heavily influenced by Washington and coloured by the US nuclear guarantee. A formal American abandonment of this guarantee would surely result in an altered form of US influence over Bonn and the Bundeswehr.

But, as stated above, it may be in America's interests to back away from this pledge of extended deterrence. National interests suggest that Washington would want to restrict the destruction arising out of a European war to below the level of attacks against the US. This, in turn, also suggests an American interest in restricting attacks against Soviet territory. This requires the establishment of firebreaks. From Washington's perspective the two most salient wartime firebreaks, or thresholds, are the one between conventional and nuclear war, and the one somewhere between tactical/battlefield use of nuclear weapons on or near the front line (in, say, Germany) and nuclear attacks against the USA/USSR.

The attempt, by Washington, to translate the concept of firebreaks into practical planning has put a premium on the development of more efficacious and robust command and control systems and procedures. This is because wartime firebreaks could partly be a function of the efficacy of battle-management. This requirement for firebreaks has also encouraged a belated reduction in the numbers of

TNF deployed in Europe - partly to ease problems of command and control.

US security policy has therefore called for a policy of **flexible linkage** between nuclear and conventional forces. There are strategic requirements for both promises (or threats) of extended deterrence and for escape routes from such promises. Washington requires 'switches' in the linkage between nuclear and conventional forces that it can 'turn-off' if necessary. In short, the US has developed a system of linkages and breaks in an attempt to manage the nuclear-conventional nexus. This system consists of the following:

1. A web of declatory policy reiterating the strength and value of extended deterrence.
2. SIOP planning for NATO-related contingencies.
3. Deployment of US TNF to Europe.
4. Deployment of US conventional forces to Europe.
5. The provision of TNF weapons systems - without their warheads - to allied forces (e.g., Lance to the Germans).
6. The partial integration of TNF and conventional forces.
7. US control over the deployment, dispersal and use of its nuclear warheads amounting to an American power of veto.
8. A system of military alerts that apparently allows for the separation of conventional and nuclear levels of readiness.
9. Superimposed on the above aspects of Washington's commitment to European security is the NATO/EUCOM/LANTCOM command system. This system gives US officers key positions in the command and control of Alliance TNF via "dual hat" arrangements (see chapter five).

All this should be seen in the context of American efforts to build-up a viable collective conventional defence for NATO. The United States has approached the nuclear-conventional nexus in Europe by endeavouring to develop options for the use **and non-use** of strategic weapons/TNF in the event of a theatre conventional war. It has been assumed that stronger conventional defences will enhance Washington's control over pressures for nuclear escalation. From Washington's perspective, the alternative to this form of flexible response is inflexible response - and that is deemed reckless and politically insupportable.

Generally speaking the European allies have gone along with American prescriptions, albeit with some reluctance on occasion. Presumably they have believed that they had more to gain than to lose by doing so. But, as outlined in the previous chapter, France has voiced its concerns over American attitudes to the nuclear-conventional nexus and, partly as a consequences of these concerns, developed its own nuclear deterrent and withdrew from NATO's integrated command. Britain also created a national deterrent as a hedge against a collapse of US commitments.

For historical and geopolitical reasons, the FRG has not found its way out of this vulnerability by developing a German, nationally owned and operated, nuclear strike-force. The Federal Republic operates in an international political and strategic environment largely created by others - and created, moreover, partly for the purpose of keeping the German nation (or German 'Problem')

under control. Being spawned by the Nazi inheritance and the Cold War has, so far, circumscribed the FRG's room for manoeuvre.

However, West Germany has been very sensitive to its diplomatic position within the Alliance and its role in NATO strategy and planning. Thus trends in US strategic thinking that have a bearing on the nuclear-conventional nexus (eg considerations of the timing, scale, and targeting of first-use of TNF) are automatically relevant to West German security concerns; they also have the potential to cause a considerable trans-Atlantic political stir and party political unease in Bonn. The simple point here is that the question of how to balance or mesh nuclear and conventional forces is seen, by the FRG, as a life or death issue, not merely as a matter of abstract academic debate.

German interpretations of strategic issues are not exclusively focused on military questions. One element of German strategic thinking has focused on assessing the political effects of defence questions. Political consequences are seen on three levels: domestic German, intra-Alliance, and East-West. These political factors make the Federal Republic sensitive to changes in American deployments of troops and TNF in Europe.

Attempts to break the US/nuclear-German/conventional nexus would undermine an important element of Bonn's diplomacy and defences. Such a break in the nexus might result from, for example, the de-nuclearisation of central Europe. On the other hand, attempts to cast this nexus in terms of plans to fight nuclear war on German soil are

also politically damaging. Hence German unease at the prospect of a tacit East-West agreement to restrict nuclear strikes, arising out of a regional conventional war, to central European targets. Apart from being disastrous in wartime, such a policy might seem to be diplomatically humiliating, or at least unhelpful, during peacetime. Bonn could view this sort of attempt to establish firebreaks over its head as harmful to future German interests and therefore as inimical to future European stability.

American interests in damage limitation and thresholds, and German concern over these US interests, have been managed by compromise and ambiguity. As discussed earlier, NATO declaratory strategy calls for the graduated use of nuclear weapons "as late as necessary but as early as possible". Thus flexible response is capable of interpretation in terms of both escalation (or coupling) and damage limitation/firebreaks (sometimes viewed as de-coupling).

Any radical transformation of NATO's TNF deployment/doctrine could well be paralleled by an evolution of East-West, intra-Alliance, and party politics. The linkage between nuclear and conventional forces in Europe reflects the political basis of both the Atlantic Alliance and the Cold War. A weakening of the linkage between nuclear and conventional forces could indicate a loosening of trans-Atlantic ties and a re-shaping of the East-West confrontation.

As attitudes to the nuclear-conventional nexus are politically loaded in peacetime, during an East-West confrontation such attitudes

could be very consequential indeed, possibly leading to various attempts at political realignment.

E) The doctrinal dimension of the nuclear-conventional nexus

The doctrinal dimension refers to the concepts used to prescribe how nuclear and conventional forces should be linked during wartime. This doctrinal dimension is partly derived from what I have termed the psychological, philosophical and political aspects of strategy. The principal difference between doctrine and these other matters is that doctrine is more directly oriented toward the development of specific strategies. This section will now describe how, in doctrinal terms, nuclear and conventional forces are linked by NATO.

Flexible response, as adopted by NATO, describes a military posture based on sizeable conventional forces and a range of nuclear options. The primary wartime role of Western conventional forces is to maintain the territorial integrity of the Alliance and thereby support the political cohesion of NATO. They are tasked with doing this without the active support of nuclear weapons for as long as practicable. If the conventional defence line appears to be in danger of collapsing, conventional forces must be prepared to operate in conjunction with limited nuclear strikes. Combined conventional-nuclear operations have to protect the territorial integrity of the Alliance while, on a related but different level, nuclear 'signalling' proceeds. NATO conventional forces also have to be prepared to absorb large-scale, but possibly limited, Soviet nuclear attacks, probably made in conjunction with a massive Warsaw Pact conventional assault.

NATO's nuclear weapons have three principal wartime roles. First, they have a part to play in intra-war deterrence; they are supposed to dampen down pressure for Warsaw Pact escalation. In particular they are to help deter Soviet use of nuclear weapons. Second, NATO nuclear weapons have to be able to support an otherwise conventional defence line; they are to be used in ways that can be exploited by conventional forces. Third, nuclear weapons have the task of signalling both a willingness to escalate to catastrophic levels of damage and a desire to bring hostilities to a rapid halt. The purpose of limited NATO first-use of nuclear weapons would be to demonstrate resolve while showing restraint. The Soviet Union would be given the option of withdrawal or of running into rapidly escalating costs culminating, sooner or later, in the destruction of the USSR.

Flexible response is therefore based on a mix of two propositions. The first is that nuclear strategy is partly a form of classical strategy geared to essentially traditional notions of warfighting. The second is that nuclear strategy is primarily a form of signalling and bargaining in a novel politico-military environment. Each of these propositions suggest different ways of looking at the nexus between nuclear and conventional forces.

The first proposition, premised on classical or traditional ideas of strategy, suggests that nuclear weapons provide conventional forces with added firepower for the purposes of fighting the opponents armed forces. The second, novel, rationale suggests that the use of nuclear

weapons would transcend conventional combat, radically altering the nature of the conflict. Thus, in the minds of decision-makers, conventional war may provide the context for initial nuclear attacks; but consideration of the ground war may quickly take second place to calculations of nuclear effects.

Some tension exists between these two ways of looking at nuclear strategy. The Alliance concept of flexible response reflects an attempt to manage this tension. Flexible response provides doctrine with a rickety bridge between the traditional and novel interpretations of strategy. In NATO doctrine and planning both the novel and traditional interpretations are taken as complementary elements in an untidy defence posture.

Doctrine for combined nuclear-conventional operations provides a pivotal, if poorly articulated, element to NATO strategy. It helps frame planning for operations below, on, and above the theatre nuclear threshold.

* * * * *

In the early stages of a conflict NATO policy (as reflected in MCI4/3 and NPG guidelines for TNF) may be closely followed. However, given a continuation of conflict beyond a few days or weeks, military exigencies, command and control problems, and political fragmentation could lead to a collapse of pre-war thinking -especially regarding escalation control, nuclear signalling, and the manipulation of thresholds. It seems reasonable to believe that some Western planning at fleet and corps level accepts that Alliance concepts of flexible response might be overtaken by events. Thus, unilateral or even service doctrine might provide a more influential input into the execution of plans than NATO policy statements. In other words, refinements of NATO doctrine might be useful for political reasons and for crisis management, but they might be less relevant in a protracted war.

Maybe the biggest single question mark here is Soviet military planning. Will NATO have the 'luxury' of picking the time and scale of first-use of nuclear weapons? Will the USSR be setting the pace for escalation and dictating the terms of nuclear 'signalling'? Would it make any sense at all to see a Third World War in terms of signals and bargaining and thresholds? Another complicating factor would be the response of allies in both NATO and the Warsaw Pact. In particular, the nuclear weapons employment decisions of Britain and France could be critical. But the actions of large conventional armies deployed in strategically sensitive regions, such as East and

West Germany, might also be significant in terms of the relationship between nuclear threats and risks on the one hand, and conventional confrontation on the other.

F) The operational dimension of the nexus between nuclear and conventional military forces

The operational dimension of strategy refers here to military preparations for war and their implications for the nature and course of armed conflict. This aspect of the nuclear-conventional nexus rests, to some extent, on the layers of thought represented by the various levels of strategy (psychological, philosophical, political, and doctrinal) just discussed. The focus here is on how conventional and nuclear forces might inter-act in a NATO-Warsaw Pact confrontation. Chapters five and six have already discussed some aspects of this issue - with regard to NATO's policy of flexible response, Soviet doctrine, and possible British and French operations. This section examines the nuclear-conventional nexus in terms of a broad overview; it discusses how this nexus might operate during crisis management, conventional war, the transition to nuclear conflict, and theatre nuclear war. A central question here is how are conventional operations likely to affect nuclear operations and vice versa?

i) Crisis Management and the nexus between nuclear and conventional forces

In a political crisis that threatened to erupt into war,

political leaders will be very conscious of the ease with which Europe could be destroyed by military action. There will be a keen interest in, and a sharpened focus on, the relationship between the Soviet/NATO nuclear postures and the behaviour of conventional combat units. For one thing, political leaders will want to control the ways in which nuclear risks are balanced against conventional readiness for war.

Fear is likely to be a significant element in the deliberations of decision makers during a crisis. One aspect of this fear might be a deep mutual concern over the potential for surprise military action by opposing forces. Both sides could then try to cover themselves against this contingency by raising the readiness levels of their own military units, thus reinforcing the concern of the opponent. This pattern of escalating and mutually reinforcing alert levels could be underpinned by psychological and political pressures to demonstrate resolve in the face of perceived attempts at intimidation. Alert levels of opposing armed forces could become interlocked, leading to increasing readiness for war and the build-up of pressures for pre-emption.¹

The most salient categories, or levels, of pre-emption and surprise attack are the following: central strategic counterforce; theatre nuclear counterforce (probably including attacks against conventional military targets); conventional ground attack; conventional air attack; and maritime strike. None of these categories is likely to be considered in isolation, and all of them may include high priority attacks against C³I targets (indeed, C³I

might be considered a specific target category for the purposes of planning pre-emptive attacks).

Depending on the intensity of the crisis -including its cause, the stakes involved, and the speed of developments- efforts might be made at national and Alliance levels to reassess and revise military doctrine and planning. Such re-evaluation might not be practical during a spontaneous and rapidly escalating emergency (for example in the case of a crisis that exploded out of an unpredicted civil war in East Germany). In such a contingency decision makers might be forced to rely on established doctrine, guidelines and warplans. However, a slowly unfolding confrontation would probably encourage a reappraisal of strategy. A hypothetical example here would be a crisis which started in the Persian Gulf, spread to the Turkish/Iraqi/Iranian frontiers, spilled over into the eastern Mediterranean, and then precipitated armed clashes in the Balkans.

Whether or not either side's command and control systems have sufficient flexibility to allow quick and fine-tuned adaption to shifting circumstances is uncertain. Nevertheless, Washington and Moscow (and SHAPE, Bonn, Paris, Rome, et al) might decide to modify chains of command and rules of engagement as an emergency developed. The consequences of these modifications for the management of the nuclear-conventional nexus could be either positive or negative; last minute changes might either muddle or tighten-up arrangements for controlling the linkage between nuclear and conventional forces. Chains of command might be altered to more sharply segregate or compartmentalise nuclear and conventional operations? (for instance,

nuclear artillery and Lance missiles could conceivably be removed from the authority of corps commanders). On the other hand, changes to established arrangements might, in practice, confuse lines of authority and lead to different, contradictory, strategies being employed by different commanders.

Moreover, effective crisis management is not simply a matter of good planning. Lebow has made the following point:

To emphasize unduly the actions of leaders and their policies during the crisis is to look only at the tip of the proverbial iceberg. Of greater importance for understanding crisis behaviour is the process by which such decisions are reached and implemented, for this process ultimately decides the substance of actual policy. Successful crisis management is therefore a function of cultural, organizational, and personal behavioral patterns established long before the onset of any crisis. These patterns and the expectations they create largely determine the performance of a system in a crisis.

Whatever the practical consequences of political intervention in military planning during a crisis, one intention would surely be to strengthen political control over the deployment, readiness, and targeting of nuclear weapons. One motive for this may be to regulate the salience of nuclear threats or risks: leaders may want to give the nuclear dimension a higher or lower profile than that suggested in pre-existing contingency plans. For example, politicians might be dissatisfied with the military's plans for the deployment of nuclear armed marine units (or nuclear-armed aircraft/ships). Consequently, counter-orders might be issued, or special command arrangements might be authorised.

During a crisis decision-makers might have to choose between a range of military options produced by commanders and their staffs. Or these decision makers might insist on a military plan devised by themselves or other civilians. The option chosen will depend on circumstances and the attitudes of leaders, but an important criterion in making the choice could be (to repeat the point) the degree to which the juxtapositioning of nuclear risk and conventional operations was deemed appropriate.

The following list illustrates this point. The list outlines some options that might present themselves to an American president faced with a hypothetical crisis involving the deployment of US troops to Turkey in response to a major Soviet conventional attack on that country. This list is not exhaustive, the purpose here is simply to illuminate ways in which considerations of the nexus between nuclear and conventional forces might impinge in crisis management.

- 1) The opening of special consultations within NATO.
- 2) The implementation of a specific NATO alert level (e.g. LERTCON ONE).
- 3) The unilateral changing of the proportion of US aircraft held on nuclear "Combat Alert Status".
- 4) The issuance of a warning to Moscow not to disperse its TNF warheads.

- 5) The early dispersal of TNF warheads throughout Western Europe.
- 6) The limited dispersal of TNF warheads to US conventional forces deployed to Turkey.
- 7) The restricted dispersal of some TNF warheads to selected Turkish units.
- 8) The airlift of additional TNF warheads (such as ERW for artillery/Lance) to Europe.
- 9) The declaration of a willingness to contain nuclear conflict to the battlefield (i.e. Turkey) and recognise a Soviet sanctuary.
- 10) The declaration of a policy of "no-first-use" of nuclear weapons.
- 11) The cessation of all TNF related activities.
- 12) The issuance of nuclear threats to Moscow (perhaps using the "hotline", public statements, or press "leaks").
- 13) The assertive use of naval forces to prevent the isolation of allies.
- 14) Preparations for: a general blockade of Soviet waters, world-wide anti-submarine warfare, and convoy operations.

- 15) The repudiation of Alliance understandings, possibly including a statement that US nuclear warheads will not be assigned to NATO commands.
- 16) The withdrawal of nuclear warheads from allied airbases, the airlift of warheads from vulnerable locations, and the reinforcement of US custodial forces guarding nuclear units stationed in areas of allied control.
- 17) The establishment of a special ad-hoc C³I system dedicated to TNF and tailored to the particular crisis at hand.
- 18) The refinement of limited strategic nuclear options oriented to the theatre/crisis.
- 19) The raising of strategic nuclear alert levels (such as ordering an airborne alert for SAC bombers).

The USSR would have to consider its own options. Command and control arrangements might be tightened-up. Rules of engagement for maritime forces and air defences could be reviewed. Levels of conventional mobilisation and nuclear dispersal would be up for discussion. A key question in Moscow could be the degree to which a regional conflict within the NATO area (in Turkey, for example) could be uncoupled from the Central Front and global maritime operations. Whether Moscow and Washington have the mutually compatible flexibility to compartmentalise a regional NATO war is moot.

During this sort of crisis, NATO frontline states would come under pressure to reevaluate their position. They might reject armed support from the US or selectively accept it. American troops could be welcomed while the deployment of land-based TNF was opposed. This might result in prominence being attached to (say) UK-based American bombers, off-shore TNF (carrier aircraft/sea launched cruise missiles) and limited strategic nuclear options.

(ii) Conventional war and the nuclear-conventional nexus

Once fighting between Soviet and American troops had actually started, the sort of issues raised above would, no doubt, be reconsidered. As Kaufmann (among others) has noted, conflict could become inherently escalatory:

[A]ttitudes based on prewar estimates and calculations can change very rapidly once a conflict has begun. War, in fact, is a process so dynamic that it positively invites the resort to increasingly destructive expedients. Even where the parties to a conflict may want to limit the struggle, events can occur which will alter radically their calculations...As the belligerents strive to gain a comparative advantage, the conflict undergoes an expansion. In doing so it mixes up means with ends, brings more values into jeopardy, and changes the very character of the participating societies.⁴

To temper this "resort to increasingly destructive expedients" both sides will want to maintain a powerful intra-war deterrent. In particular they will obviously want to prevent their opponent from being able to dictate the terms of any nuclear escalation that might occur. In a conventional war both sides will therefore want to preserve as full a range of nuclear options as practicable. But this might not be an absolute consideration. Under some circumstances it might be thought appropriate to sacrifice some nuclear options. It may be preferable to strengthen conventional strike power at the cost of running down some rather implausible TNF options. For example, some

aircraft may be withdrawn from their nuclear missions and thrown into conventional combat. Or some nuclear warheads deployed near the frontline, such as nuclear artillery shells, could be withdrawn or destroyed to facilitate a conventional defence in depth.

Reinforcing a critical point in the conventional battle (by, for example, diverting some nuclear assigned artillery units and releasing them for conventional combat), might seem more sensible than holding dual capable forces back, waiting for the conventional line to crumble, and then firing a nuclear barrage to retrieve the situation. On the other hand, battlefield commanders may want to employ a degree of nuclear threat during a conventional battle to deter Soviet escalation and to handicap Soviet conventional operations by, for example, inducing them to disperse their forces and eschew heavy concentrations of armour and artillery.

During the conventional phase, decisions will also have to be made regarding both the conventional defence of TNF and the offensive use of conventional forces against the enemy's nuclear weapons. Here the focus could be on the attack and defence of major airbases, missile launchers, submarines, aircraft carriers, nuclear storage sites, and C³I facilities. The primary means of preserving TNF during a conflict will include pre-emptive air attack, point defence, and the maintenance of a conventional defence line as far forward as practicable. A conventional offensive against TNF would probably be conducted by aircraft, special forces, and submarines. The purpose of such an offensive during a conventional conflict would presumably be to restrict the opponents' flexibility as well as reduce the number of

his warheads. This might make the opponent less confident of being able to conduct a theatre nuclear war and thus less likely to escalate.⁵ On the other hand, a side which saw its TNF posture being decimated and disrupted might decide to escalate while it still had the option.

Quite apart from the existence of any plans to deliberately destroy TNF with conventional forces, nuclear weapons are bound to get caught-up in a large European conventional campaign. This could happen both on land and at sea. Overlapping deployments of nuclear and conventional forces, and their partially integrated organisation, would probably make the segregation of conflict into two separate and sharply defined categories almost impossible.⁶ The dynamics of conflict, including the ubiquitous "fog of war", are not conducive to compartmentalisation in the use of armed force. Operations in Europe might also impinge on the capabilities needed to conduct central strategic warfare. For instance, tanker aircraft might suffer considerable attrition rates; and attacks against in-theatre C³I systems might also degrade the co-ordination of strategic attacks intended to support NATO operations.

(iii) Nuclear escalation and the nuclear-conventional nexus

Conventional war might well provide the context, or even the catalyst, for nuclear escalation. The effect of conventional operations on political assessments of the nature of the conflict could underpin a move across the nuclear threshold. The following

eight categories of escalation from conventional operations covers the most likely contingencies.

1) The flexible response model. Here a limited number of nuclear weapons is used to stave-off an impending conventional defeat. Nuclear escalation is seen as a function of projections of conventional combat, based partly on an assessment of conventional force ratios. The potential for a decisive enemy breakthrough on the conventional level is anticipated, leading to Alliance consultations and the use of TNF to (a) complement the conventional defence, (b) demonstrate determination to resist and, if necessary, escalate further, and (c) signal a willingness to terminate hostilities. Chapter five has covered this pattern of escalation in some detail. (It should be noted that not every one accepts the notion of an overwhelming Warsaw Pact superiority in conventional weapons.⁷ It should also be noted that the side with the largest forces might not be the side that breaks through the opponents defence lines in the most decisive way.)

2) The offensive combined-arms model. In this case nuclear weapons are used on a large scale to help blast a path through opposing defences and eliminate enemy TNF to allow a massive conventional breakthrough by armoured forces equipped and trained to fight in a nuclear environment. This approach is often ascribed to the Soviet Union (see chapter six).

3) The slide to nuclear pre-emption. Here mutually reinforcing fears

of surprise attack - aggravated by conventional conflict - triggers pre-emptive nuclear counterforce attacks. Conventional attacks against, for example, C³I and air-defence targets might be interpreted as precursor operations for nuclear strikes, thus precipitating pre-emption. As noted in chapter six, beating the enemy to the "nuclear punch" figures prominently in Soviet doctrine; there is little reason to doubt that such pressures would also influence Western behaviour.

4) Unauthorised firing of nuclear weapons. In this case conventional war leads to a break-down of the command and control of some TNF. Consequently (according to some arguments) the power to arm and fire TNF is likely to be devolved to relatively low ranking officers who, under the pressures of conventional battle, may act contrary to orders and initiate nuclear war. Such a breakdown of control might follow the dispersal of TNF warheads to field units.⁸

5) The "use-them-or-lose-them" dilemma. It has been suggested that Alliance and/or, Soviet leaders might prefer to cross the threshold to nuclear war rather than allow their TNF to be captured or destroyed during a conventional conflict. They would have to "use them or lose them". However, it is not very clear just why nuclear war would be preferred to the loss of a percentage of either side's nuclear arsenal. Nevertheless, "use-or-lose" sorts of pressures might compound other motives for escalation (such as fears of an imminent surprise TNF attack, or conventional breakthrough).

6) The signalling model. Here nuclear weapons are used to signal resolve and warn-off the opponent (to an extent this overlaps with the

flexible response model outlined above). An example of this is the French concept of "pre-strategic" use of TNF. As already noted (see chapter six), French doctrine envisages TNF use primarily in terms of "warning shots", not as an extension of conventional conflict or as a means to destroy opposing nuclear weapons. Another example would be a Russian nuclear warning shot in response to Western conventional attacks against Soviet territory. Moscow might employ such a policy (or threat) in an attempt to contain the spill-over effects of conventional conflict to, say, Germany, Turkey or the North Atlantic.

7) "Inadvertent nuclear war". This is a term used by Posen to describe nuclear escalation as "the unintended consequence of a decision to fight a conventional war".⁹ An example offered by Posen is nuclear escalation resulting from Western maritime activity against Soviet naval forces in the area around NATO's, and Russia's, northern flank; Posen points out that such activity could involve Soviet nuclear missile firing submarines. This "inadvertent" path to nuclear war could take the form of scenarios three, five or six sketched above ("the slide to nuclear pre-emption", "the use-them-or-lose-them dilemma", or nuclear "signalling").

8) Suicidal reaction. This would be the use of nuclear weapons as an act of revenge that invited retaliation, rather than as a way of winning or stopping a war. It could follow a collapse of conventional defence efforts.

iv) Theatre Nuclear War and the nuclear-conventional nexus.

In a European war interest in the course of the conventional campaign could, sooner or later, take second place to prospect of nuclear catastrophe. This dominance of the nuclear dimension in the minds of decision makers could have one of at least four possible consequences. First, it could encourage massive nuclear counterforce attacks in a desperate bid to minimise enemy retaliation. Second, it could lead to a form of limited nuclear bargaining in which each side attempted to intimidate and bluff the other. This bargaining with limited nuclear strikes may or may not be linked to the conduct of conventional combat. It is a moot point whether or not C³I systems could withstand much of this sort of nuclear poker. Moreover, as Clark has noted;

the limitationist has the unenviable task of explaining why belligerents have interests in common at that very moment when they attempt, by violent means, to prevail over each other. It is this uneasy juxtaposition, of a sophisticated perception of mutuality with the crass physical realities of combat, which provides the teasing paradoxes and contradictions in which the limitation of warfare abounds, especially when it is recalled that limitation requires a level of co-operation with the enemy in war that proved unattainable in averting recourse to hostilities.¹⁰

Third, both sides might be so scared of the thought of nuclear ruin that they are deterred from nuclear escalation, but are unable (or unwilling) to halt conventional warfare; "conventional" war might continue under extra-ordinary pressures in which nuclear risks and

threats might dominate. Fourth, leaders could be sufficiently terrified to bring all hostilities to a rapid halt, assuming they had the command and control capabilities to translate their wishes into action. As Schilling has written:

in the age of parity, once a nuclear war starts, the US and Soviet Union will limit damage, if at all, by the exercise of political, not nuclear, initiatives.¹¹

As discussed in previous chapters, the targeting of TNF (as well as some strategic weapons) is largely geared to the perceived requirements of combined conventional-nuclear operations. TNF can cover an enormous range of targets related to conventional combat: frontline units (such as armoured divisions); reinforcement assembly points; airbases; naval bases; logistic networks (including fuel supplies and lines of communication); communications facilities; and cities.

Beyond a limited first use of nuclear weapons it is not clear that follow-on strikes could be clearly defined, limited, controlled, and used in a positive way. Bracken has pointed out some of the dynamics that may be involved once military imperatives are seen to take over:

We can illustrate this by recalling the plans for blunting a Soviet ground attack on Western Europe. There the problem was not to destroy a number of bridges, ports, railyards, airfields, and stockpiles, it was rather to stop a Soviet ground invasion before it could penetrate deeply into Western Europe. Targeting for this purpose depends upon detailed understanding of the Soviet military organisation, of how its logistic branch supplies forward units, of whether rail or truck transportation would be selected for

moving tanks into staging areas, of how ground armies co-ordinate with airforces, of whether tank armies advance with mechanised infantry, of how long before second echelon units exploit the breakthroughs achieved by advance units, and of hundreds of other similar issues.

The military services alone can undertake targeting decisions about these matters, because they alone understand the details of military organisation. And they alone have been given the task of stopping a Soviet offensive into Europe. Targeting is not an exercise in killing individual Soviet missile silos and military units in some sort of Vietnam-style body count; it is instead an intelligence-based activity that seeks to turn an understanding of combat dynamics into a plan that breaks up the attack into manageable pieces. If this influences the Soviet leadership to change its behaviour then so much the better. But at the military-intelligence level where targets are selected, this is not likely to be an overriding concern.¹²

The scale of nuclear attacks chosen could depend on many factors. One of these factors would be the degree to which it was believed (or hoped) that nuclear conflict could be kept limited. Doubts about the controllability of nuclear war could easily turn into a self-fulfilling prophecy once the nuclear threshold has been crossed. If limited nuclear strikes are considered dangerous (in terms of offering the opponent the initiative) or naively hopeful (in terms of the confidence placed in C³I systems) then, once the nuclear threshold had been crossed, there could be considerable pressure for launching massive nuclear attacks to reduce the weight of expected enemy nuclear retaliation and to tear apart the enemy's conventional military posture.

Enthoven and Smith have referred to studies which indicate that between two million and one hundred million Europeans could be slaughtered in a nuclear war on the Continent. They state that:

In a tactical nuclear war, the problems of target acquisition and location are particularly difficult because

of the probable damage to friendly target-acquisition and communication systems and the need to maintain safe distances from friendly troops. Most of the major systems used in tactical nuclear warfare are highly vulnerable, particularly ground forces, aircraft, short-range nuclear delivery systems, target-acquisition capabilities, command and control facilities, lines of communication, and logistic support systems. Moreover, these systems tend to be highly interdependent...

One implication of these vulnerabilities and interdependencies is that the duration of any kind of controlled tactical nuclear battle is likely to be, at most, a few days. Another is that this vulnerability produces immense pressures for further escalation. The tendency toward area or terrain - rather than discrete - fire, higher yields, and deeper strikes would be reinforced by the desire to take out the enemy's delivery systems before he could use them. Where both sides have soft and concentrated forces, as is the case in Europe, enormous advantages accrue to the side that strikes first. The side that is losing at one level of conflict may thus be tempted to preempt to higher level in order to improve his prospects, especially if he fears a sudden escalation on the part of the opponent. Even under the best circumstances, the potential for escalation and large-scale collateral damage is enormous...¹³

At some point in a conflict the "nuclear-conventional nexus" might describe little more than a bloody, rubble-covered, and chaotic landscape. On the one hand might be groups of demoralised troops; on the other hand could be the mindless and sporadic firing of remnant nuclear weapons. Any fighting would probably be devoid of strategy: it may not be politically purposeful in the normal sense.

* * * *

It should be clear from the above that any future European war would follow a pattern set by interactions between political circumstances, military capabilities, and human reactions. Within such a three-sided strategic framework, the nuclear-conventional nexus might have a critical place. This nexus might help to mould political developments, define military capabilities, and sharpen psychological factors.

During a European conflict the choices available to decision-makers may be framed by the ways conventional operations are thought to affect nuclear options and vice versa. This issue will be superimposed on to traditional diplomatic and geopolitical concerns. The convergence of geography and politics will shape the nature of conventional military action taken. If this action releases political pressures for escalation, a momentum towards uncontrolled war could build up, compounded by those aspects of military doctrine and capabilities that encourage a widening of conflict to secure tactical advantage. Doctrine based on an assertive interpretation of forward defence, to be implemented by conventional combat units that act as platforms for TNF, might well aggravate matters.

NOTES

- 1 See: a) Bruce Blair, "Alerting in Crisis and Conventional War", in Carter, Steinbruner, and Zraket (eds) Managing Nuclear Operations (The Brookings Institution, 1987).
b) Desmond Ball, et al, Crisis Stability and Nuclear War, A report published under the auspices of the American Academy of Arts and Sciences, and the Cornell University Peace Studies Program (Cornell University, 1987).
c) Scott Sagan, "Nuclear Alerts and Crisis Management", International Security, Spring 1985.
- 2 Paul Bracken argues that NATO's command and control system is relatively inflexible; see: The Command and Control of Nuclear Forces (Yale University Press, 1983), chapter five. However, Bracken's account may be a little over stated. See Walter Slocombe, "Book Review", Survival, September/October 1984, p. 240; and James Thomson, "Nuclear Weapons in Europe: Planning for NATO's Nuclear Deterrent in the 1980s and 1990s", Survival, May/June 1983, p. 103: "Improved safety and security devices can mitigate security problems and reduce fears, already unfounded, about overrun and subsequent use by enemy troops and about unauthorized use by the proverbial mad colonel."
- 3 Richard Lebow, Between Peace and War: The Nature of International Crisis (John Hopkins, 1981), p. 335.
- 4 William Kaufmann (ed), Military Policy and National Security (Princeton University Press, 1956), p. 112.
- 5 This sort of thinking appears to be behind some aspects of the US Navy's "new" Maritime Strategy. See the Supplement to the January 1986 issue of Proceedings (US Naval Institute), especially p. 13.
- 6 See the following:
 - a) Paul Bracken, The Command and Control of Nuclear Forces, op. cit..
 - b) Barry Posen, "Inadvertent Nuclear War? Escalation and NATO's Northern Flank", International Security, Fall 1982.
 - c) William Arkin, et al, "Superpower Arms Race at Sea", Special Feature, Bulletin of the Atomic Scientists, September 1987.
 - d) William Arkin and Richard Fieldhouse, Nuclear Battlefields: Global Links in the Arms Race (Ballinger, 1985).
 - e) Daniel Charles, Nuclear Planning in NATO: Pitfalls of First Use (Ballinger, 1987).

- 7 For a discussion of the conventional military balance in Europe, see:
- a) William Kaufmann, "Nonnuclear Deterrence", in J. Steinbruner and L. Sigal (eds), Alliance Security and No-First-Use Question (The Brookings Institution, 1983).
 - b) Fen Osler, "Groping for Technical Panaceas: The European Conventional Balance and Nuclear Stability", International Security, Winter 1983/84.
 - c) Barry Posen, "Measuring the European Conventional Balance: Coping with Complexity in Threat Assessment," International Security, Winter 1984/85.
 - d) Assessing The NATO/Warsaw Pact Military Balance, Report by the US Congressional Budget Office (Washington, D.C., 1977).
 - e) Lutz Unterseher, Conventional Land Forces For Central Europe: A Military Threat Assessment, Peace Research Report Number 15, (University of Bradford, 1987).
- 8 Paul Bracken, The Command and Control of Nuclear Forces, op. cit., see note 2.
- 9 Barry Posen, "Inadvertent Nuclear War?" op. cit., p. 29. In addition, see note 6.
- 10 Ian Clark, Limited Nuclear War (Martin Robinson, 1982), p. 2.
- 11 Warner Schilling, "US Strategic Nuclear Concepts in the 1970s", International Security, Fall 1981.
- 12 Paul Bracken, The Command and Control of Nuclear Forces, op. cit., p. 93.
- 13 Alain Enthoven and Wayne Smith, How Much is Enough? (Harper and Row, 1971) p. 126.

CHAPTER EIGHT

CONCLUSIONS

A) Descriptive Conclusions

The linkage between nuclear and conventional military forces has a special place in the contemporary strategic environment in Europe. As previously described, this linkage works on many different levels - psychological, philosophical, political, doctrinal, and operational. Poorly defined perceptions of the nuclear-conventional nexus seem to act as a reference point in thinking on defence related issues. As discussed above, images of the relationship between nuclear and conventional military power can affect attitudes towards the the concept of strategy, the nature of trans-Atlantic relations, the future of European security, and the pattern of defence planning.

The connections between nuclear and conventional forces (in terms of doctrine, deployments, and likely strategies) may also provide a powerful impulse to the breakdown of control over military operations and the rapid escalation of conflict to high levels of nuclear destruction. On the other hand, these connections may breed extreme caution. At the very least, considerations of nuclear strategy may affect the conduct of conventional operations and vice versa.

* * * * *

Both NATO and the Soviet Union have tried to subsume the linkage between nuclear and conventional forces within their respective military doctrines. For example, conventional war is often believed to be ^{the} most likely contingency for the use of nuclear weapons; and nuclear threats are commonly thought to be relevant in moulding the strategic landscape for conventional operations. Nuclear forces have also been given an intra-war deterrent role; they are supposed to deter escalation by the opponent. TNF have been tasked with both constraining enemy flexibility and helping to shape the conventional wartime environment.

In current NATO doctrine there is a presumption of strategic synergism between nuclear and conventional forces. In other words, the meshing of nuclear and conventional warplans is assumed to provide a more powerful fighting machine, and a better deterrent, than having each type of military force managed in isolation. This is paralleled by the partly integrated deployment and organisation of theatre nuclear and conventional military units, particularly at fleet and corps level. This posture is supposed to allow for the exercise of various nuclear options at different levels of conventional conflict.

The Soviet Union also appears to have the doctrine and (it is often argued) the capabilities for different warfighting options - conventional only, and various levels of combined nuclear-conventional conflict. Russian leaders seem to believe in strategic synergism between nuclear and conventional planning. However, Moscow seems to be very skeptical of any one's ability to fine-tune this synergism.

The link between nuclear and conventional military power in a large-scale European war appears to have been widely accepted as a harsh fact, not as something that can necessarily be altered by changes to warplans, or at least not easily altered. This seems to be especially true of Soviet attitudes. It is reckoned that a bloody struggle over vital national interests in Europe will necessarily carry enormous risks of rapid nuclear escalation - however urgent it is to plan on the basis that escalation might not be automatic.

Soviet thinking appears to be more explicit than NATO doctrine in recognising a critical threshold to the decisive use of nuclear weapons. This threshold could be anywhere between, say, ten and a hundred nuclear detonations, depending on the targets destroyed and the psychological context of use (eg a counter C³I strike with ten missiles might be considered more threatening than the firing of a corps "package" of one hundred battlefield nuclear warheads on the inner-German border). It appears that, according to Soviet doctrine, the notion of nuclear signalling becomes vacuous once this threshold has been crossed, and the need for rapid decisive action then becomes urgent. In theory, large, but selective and carefully co-ordinated, nuclear strikes would then be used in conjunction with a sweeping conventional offensive designed to seize primary political objectives.

* * * * *

One should not read too much coherence into the military postures of East and West, notwithstanding their statements of doctrine. Doctrine has been stretched to cover the ambiguity and awkwardness that naturally accompany attempts to rationalise the use of nuclear weapons as a sensible act of policy. This false coherence may be especially pertinent to the nuclear-conventional nexus: attempts to bring nuclear and conventional forces together, in terms of an overarching doctrine, are almost bound to suffer a degree of inapplicability. (As previously described, Alliance doctrine on the nuclear-conventional nexus could be undermined in wartime by failures in command and control, recalcitrant French and British behaviour, contrary Soviet perspectives, and the stresses of armed conflict.)

In any case, military planning in Europe should not be explained simply in terms of military doctrine. Various extraneous and ad-hoc factors have had important consequences for this linkage. For example, the proliferation of US TNF in Europe during the 1950s and 1960s had as much to do with the fact that the production of these weapons was possible, as with any fine diplomatic or military calculations. In addition, it seems that the efforts made in 1987 to reduce the number of NATO's long range TNF were not simply the consequence of perceived diplomatic or military needs; the impetus seems to have come primarily from internal Washington politics, US unilateralism, media interest, and the resulting political momentum.

The conjectural and political character of contemporary strategy feeds animated debate. Ever since the 1940s this debate has often turned on the linkage between US nuclear forces and regional

conventional defences. As described in chapter four, this issue was raised during the late 1970s with European concern over SALT, ERW, LRTNF and the LTDP. A more recent example of this controversy surfaced in 1987 following the apparent keenness of Moscow and Washington to eliminate land-based LRTNF. Another instance of the salience and controversy attached to the nuclear-conventional nexus has been illustrated by recent NATO attempts to raise the nuclear threshold.¹ Part of this effort, noted previously, requires conventional force improvements to enable more powerful conventional air attacks behind Warsaw Pact lines, thus lessening a supposed NATO dependence on early first-use of TNF. This has been associated with calls to raise defence expenditures (sufficient in itself to encourage lively polemics).

Since at least the early 1960s successive American administrations have recognised a qualitative difference between nuclear and conventional military forces. They have tried to establish a clear fire-break between plans for nuclear and conventional warfare. Yet they have been compelled to assume that nuclear war may erupt out of a conventional conflict. Consequently they have adopted strategies that, to an extent, "conventionalise"² nuclear weapons. That is, American planners have decided that nuclear weapons might be used in ways which conform to semi-traditional strategic criteria. This implies a perception of nuclear weapons, especially TNF, as potential extensions of conventional firepower. This perception seems easier to maintain when the likely battlefield is thousands of miles from home, rather than one's neighbourhood; hence a commonly noted difference of view between many Europeans and some Americans.

NATO planning is rooted in a blend of different conceptions of strategy. Alliance doctrine allows some accommodation between a belief that nuclear weapons are essentially symbols of deterrence, and a view that TNF provide a possible extension of conventional firepower. This arrangement has been complicated because an alternative strand of opinion, which is essentially astrategic, doubts the wisdom and morality of nuclear deterrence. This rejectionist perspective is not a peripheral matter. Such beliefs form part of the basis of European security. These astrategic (or even anti-strategic) attitudes are obstacles to larger defence budgets and the implementation of a more coherent doctrine meshing nuclear and conventional forces.

* * * * *

East-West deterrence, together with the diplomacy and geopolitics of the Cold War, has provided an overarching framework for the linkage between nuclear and conventional military power. But this situation is changing - and largely for reasons which lie outside of Europe. The most far-reaching source of change is probably nuclear proliferation. This proliferation is creating new linkages between nuclear threats and conventional war. Developments in (for example) **South Asia** and the Middle East may, in time, recast the notion of strategy in such a way that the nuclear-conventional nexus acquires a widening and more ominous significance. Moreover, if and when nuclear weapons are ever used in modern war (by Israel or Iran for example) it seems very likely that American and European views of the nuclear-

conventional nexus in Europe will be radically affected, one way or another. The Cold War, as traditionally viewed, may then no longer provide the main perspective on linking nuclear and conventional forces.

For example, European states may eventually feel a requirement for a nuclear deterrent against certain north African/Middle Eastern countries; they might also develop special conventional intervention forces for use against hostile, nuclear-armed, third world countries. Nuclear proliferation could affect traditional notions of military presence and gunboat diplomacy with repercussions for Western and Soviet military activity in and around the Mediterranean. In addition, NATO military doctrine (and much else besides) might be revised in the light of any operational experience of nuclear war gained by "developing" countries.

Political developments may alter the character of the nuclear-conventional nexus in Europe. An American withdrawal from the Continent may give greater prominence to Anglo-French nuclear forces and Franco-German collaboration. The defence of central Europe might then hinge on the territorial defence of Germany, covered by a few hundred French and British TNF - to tie existential nuclear risk to any attack on the FRG. Norway and Turkey (to take just two examples) might then attempt some kind of realignment. Alternatively, Europe might become a strategic backwater, it might gradually become partially disarmed. European military forces might be restricted to policing operations in regions adjacent to the Continent. A minimum

deterrent might be retained to discourage nuclear blackmail. Another possibility is the Balkanisation of Europe. This could encourage nuclear proliferation and militarisation. New linkages between nuclear and conventional forces would then be created. The nature of these linkages would depend on the character of shifting coalitions, and a web of nationally determined military doctrines and deployments.

However, changes to European security are likely to be evolutionary, rather than radical. More of a defence burden may gradually fall on regional efforts, and less emphasis may be placed on large numbers of US TNF and troops. This assumption underlies the following proposals.

B) Implications For Policy

In the social sciences the urge to connect present reality with long-term goals is common. This urge can be especially acute in strategic/peace studies. Strategic analysis is often seen as inherently policy-oriented. After all, it is largely the exigencies of the nuclear age that have encouraged the growth of academic interest in strategy. Anything less than policy advice by specialists in strategic analysis has the aura of procrastination. But what, to an analyst, might seem like sensible policy advice, might also be politically unattainable. And a statement of the desirable (eg "the

peaceful resolution of all international conflict") might appear somewhat vacuous. On the other hand, second-best or provisional solutions, like those suggested below, may seem like a compromise with evil, or distasteful, and overly conservative.

Bridging the gap between security problems and political ideals (or even mere strategic goals) is essentially a political process. Building this bridge is not primarily a scholarly task; however its construction might benefit from some analytical and strategic insights.

What follows is an attempt to illuminate ways in which one particular strategic problem (i.e. the dangerous juxtapositioning of nuclear and conventional military forces) might be marginally reduced (to the slightly less dangerous juxtapositioning of these forces).

* * * * *

Suggestions for changing NATO's defence posture should take on board Freedman's observation that the idea of "a nuclear strategy that uniquely favours the West" is fundamentally "misguided".³ Holst has offered additional guidance for aspiring reformers of Western military doctrine:

In discussing doctrine, it is common to assume greater coherence and consistency than prevails in the real world of basic contradiction and tension between competing requirements and considerations. Doctrine cannot be approached as an abstract exercise in logic, nor does it constitute the product of a simple problem of maximization. Risks in several dimensions have to be traded off against each other in a world of political, economic and technological constraints. NATO does not face a straight choice between conventional denial and nuclear deterrence, but rather a task of orchestrating a credible doctrine and posture embracing both elements. There is an urgent and recognizable need to improve the capacity for sustainable conventional denial and to build down the forces for nuclear deterrence, particularly those elements of the nuclear posture which increase the danger of inadvertent escalation.⁴

Many analysts have suggested ways of improving the West's management of nuclear risks in Europe. These proposals have included the following:⁵

- 1) The reduction of the numbers of TNF deployed to Europe. Short range battlefield weapons have frequently been singled out for special criticism. It has been argued that the presence of numerous short range TNF near a conventional battlefield will make control more difficult and nuclear escalation more likely.
- 2) The improved survivability of TNF. This is to be achieved by, for example: the hardening of aircraft and missile bases; improved mobility for land based missiles; less reliance on a few fixed bases for both operations and storage; and greater reliance on seaborne weapons (such as cruise missiles carried by submarines). This is intended to lessen Soviet incentives for pre-emptive nuclear attack and reduce the chances of "use-them-or-lose-them" pressures developing.

- 3) The improved command and control of TNF. This could require better, more robust and redundant, command organisation and systems which are dedicated to the control of TNF. Among other things this is intended to enhance control over nuclear weapons during conventional warfare. Calls for the use of safety locks (similar to those used with, say, GLCM) on maritime nuclear weapons would also fit into this category.
- 4) The reduction, or even elimination, of overlapping nuclear/conventional missions for certain dual-capable weapon systems (such as F-111 bombers, and artillery). One purpose of such a change would be to ease command and control problems whilst adding to conventional firepower.
- 5) The improvement of conventional defences, to reduce reliance on TNF.
- 6) The modification of doctrine; in particular, the adoption of a policy of no-first/early-use of nuclear weapons in response to a conventional attack.
- 7) The creation of nuclear weapons-free zones (covering, for example, central Europe).

In making these suggestions, analysts have wanted to eliminate the conventional trip-wire to uncontrolled nuclear war.

NATO strategy ought to facilitate long-term security and crisis stability. Three criteria need to be incorporated into ACE and ACLANT planning. First, Alliance strategy should be seen as helping to provide a secure basis for the development of detente. Second, NATO should do what it can to make Soviet offensive doctrine seem, to Moscow, ineffective and anachronistic. Third, force structuring should allow more room for diplomacy in the event of an armed confrontation in Europe. In short, NATO should adopt a strategy of non-provocative barrier operations. These operations should not require the incorporation of SRTNF into the conventional front-line.

Political and military control over the nexus between nuclear and conventional military forces should be maximised. Sensible management of this linkage requires firm political control over nuclear weapons doctrine and deployments, and a system of continuous assessment regarding the effect of nuclear deployments/policies on conventional operations and vice versa. This should lessen the chances of the inadvertent application of military power and unintended escalation. However, no command and control arrangements can guarantee the effective regulation of the linkage between nuclear and conventional forces; this linkage is not simply a function of command and control. The nature of the relationship between nuclear and conventional military forces is just as much a product of international and domestic politics as of military organisation. In any case, the mere existence of nuclear weapons carries a degree of threat and a sort of linkage with conventional force (on the psychological and diplomatic levels at the very least). Nonetheless, despite these complicating factors, it is incumbent on the Alliance to improve its control over the coupling between TNF and conventional forces.

This improvement might require a politically acceptable mix of some of the seven measures listed above. Without access to classified information it would not be sensible to make detailed suggestions on (for example) nuclear weapons numbers, ranges, types, yields, targeting, safety locks, and locations; nor would it be prudent to pronounce, in detail, on particular modifications to chains of military command.

However, it is possible to offer some general ideas on how defence planning could be re-oriented to better manage the nuclear-conventional nexus. Firstly, though, it needs to be recognised both that we are in a condition of de facto Mutually Assured Destruction, and that it may be impossible to break the linkage between nuclear and conventional forces simply by altering military plans and deployments, or by public declarations on no-first-use of nuclear weapons. Moreover, some attempts to cut the linkage between nuclear and conventional military power may be dangerous, especially if they produce the appearance, rather than the substance, of "de-nuclearisation". Europe can, perhaps, be de-nuclearised in the limited sense of, for example, not hosting nuclear weapons; but it cannot be removed from nuclear danger.

The problem is how to minimise and manage risk, it is not to pretend to make these risks disappear. Military power should be directed towards the requirements of crisis management. Adopting crisis management, including wartime crisis management, as a criterion for defence planning reinforces the argument for improving command and control, and calls for a continued focus on limited war planning. In

practice this probably means that some aspects of the current doctrine of flexible response should be taken more seriously rather than simply rejected. While images of total disaster may strengthen deterrence, the automatic translation of these images into reality is not the role of responsible military planners. In any case, the prospect of catastrophe which underpins deterrence will continue to confront any potential attacker, regardless of changes to warplans that might lessen the probability of escalation.

A strategy based on conventional denial, firebreaks, and a form of nuclear warning shots seems more prudent than either attempting to de-nuclearise Europe, or in accepting the alleged feasibility of large-scale theatre combined (nuclear/conventional) operations. "Signalling" with a few nuclear weapons to demonstrate resolve or recklessness in the face of an attack would certainly be very dangerous; but any attempt to engage in theatre-wide nuclear war with thousands of warheads would raise the level of destruction exponentially while adding little or nothing to the efficacy of defence efforts. A strategy of warning shots is less silly than treating nuclear weapons as an extension of conventional firepower, and is more prudent than assuming that nuclear weapons will never be used or threatened.

Planning for the nuclear-conventional nexus should emphasise restraining deliberate escalation, and minimising unintended destruction. A robust conventional defence line and a secure nuclear deterrent may be necessary to achieve these objectives. Within the context of conventional denial, nuclear weapons could deter enemy

first-use and threaten to shatter the political context in which an aggressor hoped to win. An attacker's frame-of-reference would be the target, not merely his military power. The intention is to make war look like a dangerous and stupid option, not to fight battles on terms set by an attacker.

To implement such a strategy could require some of the measures discussed earlier, -better command, control, and survivability of TNF; and some improvements to conventional defences. The establishment of circumscribed nuclear weapons-free zones might also be useful; they could be restricted to particular areas east of the rivers Rhine-Ems, or Weser, to reduce the probability of unintended escalation near the frontline. SRTNF could be removed for the same reason. Remaining TNF warheads could be replaced with ERW, if such a move could ever be made politically palatable, this might lower the level of destruction resulting from limited nuclear war and marginally enhance prospects for control (the idea that ERW make nuclear war more likely is hard to believe, and the argument that they are more evil than "ordinary" nuclear warheads is questionable). To keep Soviet armoured forces exposed to the risk of nuclear destruction it might be useful to deploy some relatively survivable TNF dedicated to "tactical" missions; such a force might discourage Soviet conventional force concentration, thus facilitating NATO's conventional defence operations.

TNF and conventional weapons may have comparable targets but they are not similar things. Hawkish and liberal assumptions about the interchangeability of nuclear and conventional forces are

unconvincing. The Hawks' view that TNF be seen as extensions of conventional firepower is politically naive and militarily questionable; the liberal argument for replacing TNF with conventional forces misses the point of Alliance policy. NATO's objective is to manage the promise/risk of deterrence within a specific historical framework. Within this framework nuclear and conventional forces have acquired overlapping, but not coterminous, functions. The deterrent/defence role of conventional forces parallels, but is not equivalent to, the role of TNF.

This raises the vexing issue of possible first-use of nuclear weapons in response to a conventional invasion. Peacetime declarations on this (such as proclaiming a policy of no-first-use) can not delimit wartime dangers. Perhaps the most honest statement that leaders can make is that:

No one in their right mind will want to start a nuclear conflagration, even if a conventional war breaks-out. However, who knows what would happen in the midst of a European conflict? Nuclear weapons might or might not be used.

The question of how planners should deal with this uncertainty is awkward. It would be foolish to have plans that turned escalation to nuclear strikes into a self-fulfilling prophecy. But it would be imprudent to encourage the delusion that conventional war in Europe can be divorced from nuclear danger. Perhaps there is a requirement for weapons that symbolise the possibility of nuclear escalation from conventional war, but which do not add to pressures for such escalation. Once again, this would reinforce the need for as good a

C³I system as practicable. In short, current NATO strategy with respect to possible first-use needs modifying, rather than discarding; and NATO's capabilities should more closely reflect the needs of the strategy.

On the conventional level, NATO should retain its much criticised policy of holding a defence line as far forward as is deemed militarily practical. The political need for this is overriding. Another reason has to do with crisis management. Few things are more likely to de-stabilise a wartime crisis than the prospect of fluid and fast moving armoured battles moving back-and-forth across the Continent. The West should be wary of following a strategy that increases the likelihood of opening-up avenues of advance for rapid offensive operations deep into either side's territory. These avenues could turn into lightning rods for escalation.

Similarly, the Alliance should reduce the chances of being locked-in to excessively de-stabilising offensive maritime operations. Posen has examined the potential dangers of such operations, and has made some suggestions for a more considered defensive posture.⁶ Alliance concepts of maritime thresholds should be formulated. Within, and around, the European theatre there is a requirement for politically acceptable plans and strategies for coordinated land/sea barrier operations. Maintaining geographical limits to conventional conflict may be critical in preventing unwanted nuclear escalation.

Strengthened conventional forces might help close-off avenues of escalation and thus "raise the nuclear threshold" (that is, lower the probability of escalation to nuclear war). This does not necessarily mean that more money should be poured into the conventional force structure. Williams and Wallace have warned of the dangerous "illusion that new conventional systems will provide options that are somehow safe and non-escalatory".⁷ In any case, improved conventional defences might be leap-frogged by Soviet nuclear strikes. Moreover, any political decision to face nuclear war might have more to do with political circumstances than with assessments of the conventional military balance.

There is no theoretical limit to what can be spent to improve conventional defences. Even in the unlikely event of massive increases in defence expenditure, it could still be argued that extra funding might help raise the nuclear threshold. Fortunately, strategic "logic" does not dictate Western political economy. Political constraints will probably keep defence budgets to about their present levels. This should place the burden for improvement on to deployment/mobilisation plans, sustainability, and refinements to doctrine.

Hanging over these theatre forces, strategic weapons (belonging to Britain, France, America and Russia) provide a further threat of Mutually Assured Destruction. It seems unlikely that this threat will be removed. In practice, MAD may take the form of escalating nuclear interdiction or "bargaining". The relevance of MAD here is

that it may occur in the context of a theatre campaign, or as a consequence of a series of inter-locking theatre campaigns. To paraphrase Jervis: one must build a strategy on the risks and uncertainties inherent in nuclear bargaining, but this will not necessarily produce a sensible relationship between force and policy.⁸ It is therefore imperative that the burden of security is carried, to the greatest extent feasible, by foreign policy rather than by military planning.

C) Implications For Strategic Analysis

Strategic analysis should move away from isolated considerations of abstract force categories (such as the central strategic balance, or the conventional force balance in Europe) towards more focussed examination of the relationships between the forces and strategies represented by these categories. In particular, analysis should seek to describe, explain, and assess the nexus between nuclear and conventional forces. Ideally this analysis should apply to both the political context of defence decision making as it affects the linkage between nuclear threats and conventional defence, and to the operational dimensions of such strategies.

The intention here is to advocate a broadening of strategic assessments which, at the same time, provides depth to such analyses. Narrow, unqualified examination of such abstractions as the 'central strategic balance' can be very shallow. The full meaning of such balances or force categories is not to be found in their own terms

(for example, the major significance of the central strategic balance does not lie primarily in ICBM vulnerability, throw-weight, mobility etc). Rather, such meaning or significance lies primarily within the wider context of political role and possible use of military power. It seems obvious that the strategic framework for the threat and initial use of nuclear weapons may well be set by domestic political pressures, foreign policy considerations, and conventional military operations.

Analysts might examine the ways in which contingency planning for regional war between the superpowers (eg in north, central or southern Europe, eastern Turkey, Iran, Pakistan or Korea) reflect, and contribute towards, the linkage between nuclear and conventional forces. No doubt this will include assessments of how nuclear risks are likely to be intertwined with the conduct of conventional operations. This, in turn, suggests a need for disciplined speculation over how awareness of, and control over, the nuclear-conventional nexus might work during crises and war. An extra, and unfortunate, twist to this type of examination may be provided by continued nuclear proliferation. The creation of new linkages between conventional (or even unconventional) conflict and nuclear weapons as a result of proliferation is likely to greatly complicate strategic analysis just at the time when such studies may be required urgently.

The issues raised above - superpower contingency planning, and nuclear proliferation - should be examined in political context. Strategic analysis which has been abstracted out of international relations has also been gutted of meaning. Analysts should be aware

of how and why underlying political interests and developments might translate into military threats and action. This suggests the need for theatre-oriented case studies of how nuclear and conventional military power are linked.

D) Summary of Conclusions

Strategic developments in Europe may be partly understood in terms of how evolving political and operational factors affect the juxtapositioning of nuclear and conventional forces. The current linkage between these two types of military capability harbours some unnecessary dangers which can be reduced without diminishing deterrence. In particular, the command and control of nuclear units in and around Europe should be improved within the context of a change in military doctrine which stresses, to a greater extent than is currently the case, crisis management as a primary criterion for planning both nuclear and conventional forces. For this to occur strategic analysis needs to illuminate ways that nuclear warplanning acquires relevance from the conventional military and geopolitical milieu.

NOTES

- 1 A succinct survey of NATO's approach towards raising the nuclear threshold by improving conventional defences is presented in a North Atlantic Assembly Report by the Sub-Committee on Conventional Defence in Europe (October 1985).
- 2 The term "conventionalization" is expanded upon by Robert Jervis in The Illogic of American Nuclear Strategy (Cornell University Press, 1984).
- 3 Lawrence Freedman, "NATO Myths", Foreign Policy, Winter 1981-82, p. 56.
- 4 Johan Holst, "Denial and Punishment: Straddling the Horns of NATO's Dilemma", in Adelphi Paper 206 (IISS, 1986), p. 77.
- 5 The following sources provide a range of proposals:
 - a) J. Steinbruner and L. Sigal (eds) Alliance Security and the No-First-Use Question (The Brookings Institution, 1983).
 - b) F. Blackaby, J. Goldblat, S. Lodgaard (eds), No-First-Use (Taylor and Francis/SIPRI, 1984).
 - c) W. Heisenberg, "The Alliance and Europe: Part I: Crisis Stability in Europe and Theatre Nuclear Weapons" Adelphi Paper 96, (IISS, 1973).
 - d) D. Cotter, "NATO Theatre Nuclear Forces: An Enveloping Military Concept", Strategic Review, Spring 1981.
 - e) A. Frye, "Nuclear Weapons in Europe: No Exit from Ambivalence", Survival, May/June 1980.
 - f) Francois De Rose, "Updating Deterrence in Europe: Inflexible Response?" Survival, January/February 1982.
 - g) L. Martin, "Theatre Nuclear Weapons and Europe", Survival, November/December 1974.
 - h) J. Thomson, "Nuclear Weapons in Europe: Planning for NATO's Nuclear Deterrent in the 1980s and 1990s", Survival, May/June 1983.
 - i) D. Ball et al, Crisis Stability and Nuclear War, a Report published under the auspices of the American Academy of Arts and Sciences, and the Cornell University Peace Studies Program, 1987.
 - j) J. Dean, "Alternative Defence: Answer to NATO's Central Front Problems?", International Affairs, Winter 1987-88.
 - k) J. Baylis, "NATO Strategy: The Case for a New Strategic Concept", International Affairs, Winter 1987-88.

- 6 B. Posen, "Inadvertent Nuclear War?" op. cit.
- 7 P. Williams and W. Wallace, "Emerging Technologies and European Security ", Survival, March/April 1984; also see P. Williams, "The Nuclear Threshold in Europe and Emerging Technologies" in Bellamy and Huxley (eds) New Conventional Weapons and Western Defence (Frank Cass, 1987).
- 8 R. Jervis, The Illogic of American Nuclear Strategy, op. cit., p. 170.

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