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To what extent can knowledge management systems build and reinforce consensus around initiatives for change?: A self-reflective analysis of professional practice

Guy A. Duczynski
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To What Extent Can Knowledge
Management Systems Build And
Reinforce Consensus Around Initiatives
For Change? : A Self-reflective Analysis
Of Professional Practice

Guy A. Duczynski
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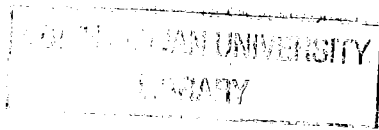
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*"To what extent can knowledge management systems build
and reinforce consensus around initiatives for change?:
A self-reflective analysis of professional practice".*

Guy Andrew Duczynski, MBA, MEd

**A Thesis Submitted in Fulfillment of the
Requirements for the Award of
Doctor of Philosophy**

November 2001

At the School of Management Information Systems,
Faculty of Business and Public Administration,
Edith Cowan University, Perth, Australia
Principal Supervisor – Dr. Mark Campbell Williams

DECLARATION

I certify that this thesis does not, to the best of my knowledge and belief:

- i. incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education;
- ii. contain any material previously published or written by another person except where due reference is made in the text; or
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Date 10 December 2001

ABSTRACT

This thesis reports on my attempts to 're-align' the purpose, behaviour and underlying culture of a large military organisation through heuristic, self-reflective enquiry - to 'find its future' - with and through its people. I use the word re-align with great care as I recognised that change would have been too ambitious and would (probably have) result(ed) in failure. Whilst I cannot claim total success, I have made new and valuable discoveries in knowledge elicitation and methods of integrating the views of a large number of people to 'build and reinforce consensus around initiatives for change'.

In the process of completing this research I developed a novel approach to strategic planning/policy making that advances the *ends, ways and means* construct of decision-making into a purer and more refined approach. One that anchors these elements firmly to the organisation and its environment simultaneously through a knowledge management system, enabling the strengths and weaknesses within the organisation to be drawn into sharp focus - an effects-based planning approach. I have also fused together the more systematic and disciplined approaches embodied within a knowledge management system with existing and more creative scenario planning/future focussed methods. Thus allowing organisations to undertake 'self-constructed' audits that have an immediate interest or are situated well into their future, doubling its value as a planning device.

As I report, the methods have been presented at the highest levels of Defence, attracting interest from the Australian Minister of Defence. The New Zealand Defence Force, Naval Warfare Development Command of the United States Navy and Australia's Chief of Air Force have also expressed an interest in the potential of an effects-based orientation to planning and policy-making.

Whether the concepts and underpinning ideas become established, leading to the discovery of a post-modern military is uncertain. What is clear is that there is a definite move away from a pre-occupation with the means, or the things that are done, towards a more comprehensive understanding of what are we trying to make happen as a guiding principle. This is certainly of value within military organisations and has potential for others involved in complex problem-solving in social settings.

A heuristic, self-reflective approach has enriched this search for focussed and 'change-finding' knowledge, allowing a more purposeful, complete and forthright account of the involvement of others.

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Major (later Lieutenant Colonel) Charles Knight, a colleague at Headquarters Special Operations during 1998-99, whose ability to read the mood of an audience during the many group sessions secured an harmonious, collaborative environment. Lieutenant Colonel Scott Terry, a man of considerable persuasive powers who, like Charles, ensured that the myriad subtleties lost amongst the noise of the moment within group sessions were integrated, leading to successful meetings.

Dr. Glenn Watkins for his guidance in the fields of Future Search, participative democracy and communities of action. Dr. Joanne Nicholson whose exposure to wider fields of science and futures thinking brought forth many valuable comments and advice on methodology and content, I am particularly grateful for

her work in developing the tables that allowed the futures to be fully described. Lieutenant Colonel Richard Bosi, my mentor and close friend whose faith in my abilities proved to be inspirational throughout this 'hero's journey'.

I wish also to thank my lovely wife Jo and our two beautiful children Rachel and Jeremy who offered me the love and encouragement that I so desperately needed throughout this research and the many disappointments that occurred.

Final thanks go to my wonderful father who died during the final weeks of finishing this thesis. His loss brings me the greatest sadness and disappointment that he was not able to share with me the celebration of completion. He was a man of compassion, patience, determination, courage and wisdom; his strengths that I carry have enabled me to finish this work. I love you Dad.

GLOSSARY

This glossary is a compilation of military and civil terminology drawn from a range of government, military (and necessarily not of a restricted nature) and open source locations. There are many terms that the reader will have encountered before, but it has been necessary to assign a slightly different meaning to align more completely with the focus and product of this thesis. Many may cause confusion on initial reading. This is to be expected, as the true meaning will only become clear after having read the entire thesis and understanding the contexts in which these terms are used. Many are also 'nested' within others to give a more complex expression.

As this work has proven to have wide applicability outside of the military the reader should also remain open-minded about how these terms may have relevance in the commercial or private sector.

In a departure from convention I have omitted the sources of these definitions. Although most are freely available from United States military web pages. Where a new term is introduced that the reader may not be familiar with, or one that has a specific meaning within this thesis, it will be contained within single quotations in its first appearance and presented as normal text from then on.

Active Adaptation

is the meta-learning state of ideal seeking, purposeful behaviour. It is synonymous with Kohlberg's 3.2 level of moral development. Changing, as an anticipatory response to stimuli not yet readily discernable.

ADFP

stands for Australian Defence Force Publication. It is usually combined with a number to indicate the specific publication, for example ADFP 25 Psychological Operations.

Campaign Planning

integrates both deliberate and immediate planning processes and seeks to orchestrate and sequence the ways for tactical means to achieve strategic ends.

Capability

is defined within the military as the combination of force structure and preparedness. More commonly taken to refer to the capacity of the military to conduct a particular type, or form of military activity. Capability is expressed within the three elements, or domains, of *physical*, *moral* and *intellectual*: the *means* to fight, the *will* to fight and the *knowledge* to fight.

Capacities

are the descriptors that bring additional information to the 'means', they are simple, action oriented phrases that bundle together in various configurations to enable means to be undertaken. The expressions used should have a competency orientation (see competencies). Whilst it could be reasonably expected that a capability secures the ability to undertake a means - a quality of being able, a capacity is more expressive of the state of possibility that attaches to various parts of the organisation. A simple example could be: capable of improvement, but not in the possession of the necessary capacity.

Clandestine Operations

accomplish intelligence, counterintelligence and other similar activities sponsored or conducted in such a way as to assume secrecy or concealment. They differ from covert operations in which emphasis is placed on concealment of the identity of the sponsor.

Competencies

are used interchangeably with capacities. In the formal domain of training it is the specification of knowledge and skill and the application of that knowledge and skill to the standard of performance required in the employment. I use the term here in a broader sense.

Components of Capability

are: the Physical, the Moral and the Intellectual.

- The Physical component - is expressed through six inter-linked elements of: people, organisation, support and facilities, training, equipment and doctrine. These are coupled in different ways through Battlespace Operating Systems (BOS) to generate military power. The mechanisms through which these abstract interrelationships occur has not been fully explained within the doctrine.
- The Moral component - combines all those individual, organisational and institutional aspects that ensures there is a morally sound, appropriate and defensible basis upon which action (of any type) is authorised. It governs and shapes the behaviour that is linked to a common purpose.
- The Intellectual component - combines professional mastery and innovative concepts. It is an expression of individual and team competence and striving for advancement through a concept-led approach.

Covert Operations

are so planned and executed as to conceal the identity of, or permit plausible denial by, the sponsor. They differ from clandestine operations in that emphasis is placed on concealment of the identity of the sponsor rather than on concealment of the operation.

Doctrine

is the fundamental principles by which military forces guide their actions in support of national objectives. Doctrine guides the development of tactics, techniques and procedures that allow soldiers and units to cooperatively channel their activities to the outcome being sought.

Effects

is an extension of the Clausewitzian approach to policy/politik in that it is necessary to 'impose our will' upon our opponent in order to secure success. Effects are, therefore, the (sometimes) behavioural expressions that indicate the directions of these changes in will. They can be coercive or seductive. They are the outcomes that we are endeavouring to bring about as a result of our actions. From an Effects-Based Operations (EBO) purist's perspective the effects should not be derived from a consideration of what actions can produce them. They must offer a solution, or change in the strategic conditions, that deliver the desired end-state.

Effects-Based Operations

or EBO is an approach to the planning and sequencing of actions to achieve objectives. I believe it is the next Revolution in Military Affairs (RMA). Its use is informed by a thorough understanding of Effects-Based Strategy, which forms the strategy/policy issues which occupy the problem space at a national or international level. EBO is gaining interest and a following throughout, at least, Western military planning. It has a critical point of origin for all analysis that demands an expression of "What is it that we want to have happen?" It lifts military planning out of the delivery of destruction-based (causing heat and blast) effects that have only a military consequence. The effect within EBO can be an expression of the physical, psychological, environmental, political, social, industrial, technical and/or economic. It allows for a more complete expression of the use of national power and a whole of government approach.

Effectiveness

has been variously described as the extent to which the area/item of interest is accomplishing its purpose. Whilst it is a simple concept, it is used in a multitude of contexts, but remains both a quantitative (albeit subjectively derived) and qualitative measure of fitness for purpose. Its meaning within this thesis will be dealt with at length in Chapter 4, aligning principally with the degree to which the area of interest fulfils its *raison d'être*.

Efficiency

although not dealt with in detail within this thesis, efficiency is a necessary partner to effectiveness and reflects the relative costs (not only in dollar terms) of undertaking an action.

Elite Conventional Operations

are those activities which, while requiring selected personnel, technology, training, and strategic direction, are conceived and planned from within the current universal military expectations for the conduct of operations. At their most sophisticated, these operations are strategically projected, high risk, short notice and politically sensitive. To maximise their chances of success, and in an effort to concentrate scarce resources, they are regarded as beyond the range and capabilities of conventional units. The fact that an adversary may expect these operations make them conventional, their need for specialist personnel and skills make them elite.

Ends

are similar to objectives, they are what we are in pursuit of, but within this thesis they have been combined with another word - *states* - to produce *end-states*: an expressive account of a changed (and ideally more

favourable) condition that results from undertaking a series of actions. This element will be fully explained in Chapter Four.

End-state

is the set of desired conditions which will achieve the strategic objectives. This definition is somewhat incomplete and almost a reversal of reality, the objectives could also be considered to be the embodiment of the end-state. Within this thesis the definition has been broadened to accommodate the fullest expression of conditional and contextual ingredients that provide an unambiguous account of the state arrived at following the successful deployment of an orchestrated series of actions. End-state describes the commander's desired outcome for the operation or the state that the commander wishes to exist when the operation is complete. It defines the success criteria for the operation and may include descriptions of status and locations of actors.

Environmental Textures

describe the existence of interdependencies between various elements around and within an organisation that create their own dynamic cause-effect behaviour.

Force Structure

is the term used to describe a grouping of physical capabilities into a particular arrangement that aligns against a specific task or allows training to be undertaken.

HUMINT

human intelligence is the specific information derived from the intelligence collection discipline that uses human beings as both sources and collectors, and where the human being is the primary collection

instrument. It is the only method that can capture information on the mood of a people or society - critical for the success of psychological operations.

Government Strategic Guidance

Government provides direction and guidance to the Chief of the Defence Force, which would include:

- a statement of the required national end-state;
- a definition of national interests which require a military response;
- a statement of the circumstances in which the Australian Defence Force (ADF) may be committed;
- constraints and limitations within which operations are to be conducted;
- the extent to which national resources would be devoted to the ADF;
- the legal basis for deployment; and
- a statement to allow the framing of National Policy (NATPOL) and subsequent Rules Of Engagement (ROE).

Campaigns and operations are planned and directed at the operational level to achieve strategic objectives. It is the level that links military strategic objectives and all tactical activity in the theatre. Operational planning cannot be accomplished in isolation from the strategic level; the two processes are inextricably linked. Ideally, operational and strategic level planning will be initiated at the same time with each process informing the other.

The link between the strategic and tactical levels must provide the ways of using the tactical means to achieve the required strategic/national ends.

Means

are the actions that can be undertaken that make a contribution towards the achievement of the desired effects. They are context-free and aid planning in a future-focussed manner; when a context is encountered then specific adjustments are undertaken to tailor the response using micro-alignments in the organisation, which are themselves informed by deeper levels of analysis. This element will be fully explained in Chapter Four.

Military Creativity

requires the constructive application of military expertise, broad educational influences, imagination, experimentation and critical analysis to produce novel solutions to unique problems which are timely, relevant and attuned to a commander's needs and intent.

Mission

is a clear concise statement of the task and its purpose. When used in a military context as a mission statement it must have a verb leading to afford an action-orientation and contain the phrase *in order to* as a prefix to the purpose.

National Interests

are the general and continuing ends for which a State acts.

National Military Strategy

is the art and science of distributing and applying military power to attain national objectives in peace and war.

National Security Strategy

is the art and science of developing, applying, and coordinating the instruments of national power (diplomatic, economic, military, and informational) to achieve objectives that contribute to national security.

National Strategy

is the art and science of developing and using the political, economic and psychological powers of a nation, together with its armed forces, during peace and war to secure national objectives.

Non-Government Organisation

is a transnational organisation of private citizens that maintain a consultative status with the Economic and Social Council of the United Nations. Non-governmental organisations (NGO) may be professional associations, foundations, multinational businesses or simply groups with a common interest in humanitarian assistance activities such as development and relief.

Operational Art

In seeking to structure campaigns and major operations in pursuit of strategic objectives, theatre commanders should design their plans around a number of building blocks, which help them to conceptualise how operations will unfold. Their skill at this stage forms the essence of operational art. The key elements of operational art are listed below:

Operational Objectives. These are the objectives that need to be achieved in the campaign to reach the military strategic end-state. Correct assessment of operational objectives is crucial to success at the operational level.

End-state. Will be identified at the national and military levels as follows:

The national end-state is the set of desired conditions, incorporating the elements of national power that will achieve the national objectives.

The military strategic end-state is the set of desired conditions beyond which the use of military force is no longer required to achieve national objectives.

Overt Operations

are conducted in such a manner that detection by a potentially hostile unit or force is either desired or is not a factor to be considered in the conduct of assigned missions.

Passive Mal-adaptation

offers a contrast to active adaptation. It describes a condition whereby subsystems seek to disengage in the interests of their own survival and benefit at the cost of the larger systems of which they are part (Crombie, 1972, p.119).

Peace Building

is a set of strategies which aim to ensure that disputes, armed conflicts and other major crises do not arise in the first place, or if they do arise that they do not subsequently recur.

Peace Enforcement

is the coercive use of civil and military sanctions and collective security actions, by legitimate, international intervention forces, to assist diplomatic efforts to restore peace between belligerents, who may not consent to that intervention.

Peacekeeping

is a non-coercive instrument of diplomacy, where a legitimate, international civil and/or military coalition is employed with the consent of the belligerent parties, in an impartial, noncombatant manner, to

implement conflict resolution arrangements or assist humanitarian aid operations.

Peacemaking

is diplomatic action to bring hostile parties to a negotiated agreement through such peaceful means as those foreseen under Chapter 6 of the UN Charter.

Preparedness

is the degree of readiness to undertake operations against an assigned notice to move, expressed in units of time.

Preventive diplomacy

is action to prevent disputes from developing between parties, to prevent existing disputes from escalating into conflict and to limit the expansion of conflicts when they occur.

Psychological Action

is the use of psychological media and supporting activities in peace and war designed to reduce the enemy's potential or actual prestige and influence in potentially hostile or neutral countries and to increase friendly influence and attitudes in these countries.

Psychological Operations

are planned psychological activities in peace and war directed to enemy, friendly or neutral audiences in order to influence attitudes and behaviour affecting the achievement of political and military objectives. They include strategic psychological activities, consolidation psychological operations and battlefield psychological activities.

Revolution in Military Affairs (RMA)

is a term used to describe the catastrophic changes that occur at key periods in technological development. The paradigm changes that result are massive, affect all participants and force considerable re-analysis of all existing doctrine. It is generally accepted that there have been nine RMA:

- Gunpowder Revolution.
- Infantry Revolution, whereby cavalry were defeated by foot soldiers.
- Fortress Revolution.
- Artillery Revolution, in which cannon fire could defeat stone fortifications, and later deliver exploding shells.
- Napoleonic Revolution in logistics and administration.
- Revolution in Sail and Shot, in which naval vessels were transformed into sail-powered gunnery platforms.
- Land Warfare Revolution in firepower, transportation and communication.
- Naval revolutions of steam, iron and submarine.
- Nuclear Revolution.

It is evident from this progression that the ability to wage war has undergone a gradual increase in sophistication and ability to strike with greater accuracy over greater distances. The RMA that I propose involves a massing of political, social, economic, psychological, technical and judicial effects to bring 'outcome precision' to planning, rather than the bluntness of violence and offensive action to coerce which is the stuff of all the revolutions above.

Special Forces

are specially selected military personnel, trained in a broad range of basic and specialised skills, who are organised, equipped and trained to conduct

special operations. Special forces can be employed to achieve strategic, operational or tactical level objectives across the operational continuum.

Special Forces Group

is a brigade strength organisation comprising the Special Air Service Regiment in Perth; 1st Commando Regiment with a headquarters in Sydney and sub-units in Watsonia and Williamstown in Melbourne, and Mosman in Sydney; 4th Battalion (Commando) in Sydney and a Special Forces Training Centre based in Singleton in New South Wales.

Special Operations

are those measures and activities conducted by specially trained, organised and equipped forces to achieve military, political, economic or psychological objectives by means outside the scope of conventional forces. These operations may be conducted during peacetime, conflict and war, independently or in conjunction with conventional forces.

Strategic

is used in many contexts. Within this thesis it refers to the application of measures to achieve political (diplomatic) ends. The strategic level of conflict is that level of war that is concerned with the art and science of employing national power.

Strategic Concept (NATO)

is the course of action accepted as a result of the estimate of the strategic situation. It is a statement of what is to be done expressed in broad terms sufficiently flexible to permit its use in framing the military, diplomatic, economic, psychological and other measures that stem from it.

Strategy

is the art and science of developing and using political, economic, psychological and military forces as necessary during peace and war, to afford the maximum support to policies, in order to increase the probabilities and favorable consequences of victory and to lessen the chances of defeat. See also military strategy and national strategy.

Unconventional Warfare

exploits military, political, economic or psychological vulnerabilities of an enemy. Special Forces implement it by providing support and direction to indigenous resistance forces where appropriate, or by unilateral offensive operations. The conduct of unconventional warfare involves the application of guerrilla warfare, subversion, sabotage, escape and evasion; and psychological operations is a general term used to describe operations conducted for military, political or economic purposes within an area occupied by the enemy and making use of the local inhabitants and resources.

Unconventional Operations

are those activities conducted by a military force in support of national policy which are outside contemporary military practices - an environment commonly termed the conventional. They may build upon, reapply or overturn accepted military fundamentals. This may involve reinventing techniques or methods long discarded or leaping beyond the bounds of established military activity. The strength of unconventional operations lie in their psychological nature, which may produce subtle influence, surprise and or shock. They aim to deter, disorientate, dislocate, or paralyse an adversary's will, and or support our nation's will. Their execution requires judgement and timing due to often-limited windows of opportunity.

Ways

are the means-effects pairs that result from a thorough and comprehensive effects-based analysis of a situation, problem or area of strategic concern. In the research reported in this thesis there were 306 pairs, or ways, each with their own unique, numerically expressed profile of political exposure, immediacy, totality and capability to undertake. These ways eventually read like a military mission statement that always contains the linking phrase - *in order to*: "undertake X *in order to* bring about Y". The development of these ideas is fully explained in Chapter Four.

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CHAPTER ONE INTRODUCTION

Preliminary Comments

Before beginning I must alert the reader to the three different writing styles that I use.

Firstly, there is pragmatism and a military preciseness that allows the expression of concepts dominated by a functionalist perspective. Things are as they are stated and understood to be. The ideas expressed are rich in fact and doctrine. Concepts are grounded in definition. There is no ambiguity. This style allows me to describe and "structure [an] organisational reality in a way that makes controlled performance possible" (Hassard & Pym, 1990, p. 16). My aim is not to confront the reader with objectivity but to bring depth to the story and draw in theories in use. I use arguments based on a pragmatic approach to set up thoughts and opinions that I later reinforce, remain neutral towards or strike down - a discourse with boundaries that I assist in the formation of, but simultaneously demand that these beliefs remain boundaryless and free-ranging. This pragmatic style also builds cohesion: ideas fit with those around them, relationships are ordered and knowledge is tightly bound to practice. This is the world and our understanding of it as we have constructed it.

Secondly, I use a heuristic style that primarily celebrates doubt and my own uncertainty and incompleteness. I am honest and open in my accounts of engaging with the subject, I seek the mystery and uncertainty that comes with learning. Its presence is not uncomfortable, it is vital, it is what makes me worthy. Mezirow's disorientating dilemmas is an apt description of the state that allows meaning to be made (Mezirow, 1990a). I objectify the new perspective through words that remain clumsy and inadequate when viewed in the third person. It is impossible to communicate the richness of personal experience. Interpretation, even into words

dulls the moment and leaves one with a somehow colourless duplicate that can never retain the qualities of the original. This heuristic style combines an interpretivist and radical humanist perspective, recognising that I "am attempting to understand and explain the social world primarily from the point of view of the actors directly involved in the social process" (Burrell & Morgan, 1979, p. 227). It invokes Kantianism and a search for intuition and involvement of the mind and human values. The radical humanist approach allows me to study "the self-laid traps that interpretive theory shows us that humans are so adept at constructing a world which they often experience as confining, and most importantly, with finding ways in which humans can exercise control over their own constructions that allow them to express and develop their nature as human beings" (Hassard & Pym, 1990, p. 20). It is a radical change that originates from within, from a cooperative inquiry (Reason, 1999, p. 207) of (almost like-minded) individuals who at least share a common curiosity that can bind their early efforts.

Finally, I use reflection as an aid to my own contemplation of personal growth and task progress. My work and focus *on* the problem needs to be balanced with (and moderated by) a recognition that I am bringing the information to the surface and exposing it to the attention of others for their own consideration. I am also *in* the problem space. It makes me pause, holding my gaze on the phenomenon of me being interdependent with the object of my interest (Willis, 1999, p. 25). The insights are personal and are juxtapositions to the main text. They are attempts to understand my position at a particular point, to keep myself within the topic yet aware of what this means, it is non-"adherence to the model [that] requires writers to silence their own voices and to view themselves as contaminants" (Richardson, 1994, p. 517). These "narratives of the self seek to [maintain] coherence [of me in the story and to] make a point without tedious documentation" (Richardson, 1994, p. 521). Although this speaks of a need to know oneself the caution comes from Nietzsche:

We knowers are unknown to ourselves and for a good reason: how can we ever hope to find what we have never looked for? There is a sound adage that runs: "Where a man's treasure lies, there lies his heart." Our treasure lies in the beehives of our knowledge. We are perpetually on our way thither, being by nature winged insects and honey gatherers of the mind. The only thing that lies close to our heart is the desire to bring something home to the hive. As for the rest of life - so called "experience" who among us is serious enough for that? Or has time enough?

(Nietzsche, 1956, p. 149)

This action research does not qualify as spiritual practice (Reason, 2000) when viewed solely in terms of its aims. At the level of an organisation though, it is an inquiry "worthy of our attention" as practitioners, and therefore, can be considered as "everyday spirituality" (Reason, 2000, p.1) for this researcher when these writing styles and content are blended together.

Overview of the Chapter

In this chapter I provide both the organisational and psychological origins of the research. I provide insights into the things that needed to be done for their own sake as part of broad human endeavour and enterprise. I describe my own role and motivation for simultaneously recognising the need and voluntarily stepping forward as an actor in what was to become the beginnings of a larger and swifter current of change.

Later, I will discuss in detail the heuristic guidance I received through the writings of Moustakas and his recognition that "when I persist in a disciplined and devoted way I ultimately deepen my knowledge of the phenomenon. In the heuristic process, I am personally involved. I am searching for qualities, conditions, and relationships that underlie a fundamental question, issue, or concern" (Moustakas, 1990, p. 11). It is a process of discovery, rather than verification and corroboration, "the result of the quest is a narrative portrayal of the experience" (Tesch, 1990, p. 35).

This guidance came to me slowly and (only) when I was in need of it, reinforcing the benefits of this (self-directed) educational method as one in which learning takes place through discoveries and experiences that result from investigations made by the student. It became a celebration of a series of Mezirow's "disorientating dilemmas" (1990, p. 13) of the self-reflective kind wherein "reflection serves a purpose, and purposes serve as organising principles that give coherence and order to activities" (1991, p. 13). Without this reflection, ordering within the mind may become distorted or delayed, the "incubation ... in which the researcher retreats from the intense, concentrated focus on the question [is a vital stage to secure deeper understanding and] enables the inner tacit dimension to reach its full possibilities" (Moustakas, 1990, p. 28).

I confess that the beginnings of this work were characterised by disorder, confusion and bewilderment; but offer that this condition lies at the heart

Throughout the thesis I will present my thoughts and reflections in text boxes like this one. The reader may discover that I express a point of view that is in direct conflict with the main body. At others I may support or express ambivalence. At all times though my aim is to provide a voice, a dialogue that goes beyond the extraction of meaning from the main text by the reader. "I should [also] warn my readers that [these chapters] must be read without haste, and that I am ignorant of the art of making myself clear to those who do not wish to concentrate" (Rousseau, 1762, p. 91).

Furthermore, my writing style makes use of bracketed additional text to introduce twin (and often opposing) thoughts. Sometimes I may even change the tense, enticing the reader to think of the subject in the past, present and sometimes future at the same time. I make no apology for this, recognising it as a necessary component of interweaving (more than one) self with the subject. It is an acceptable authorial style to insert material in square brackets within quoted text to show material by a person other than the author, why not a second (possibly contradictory) voice by the same author. This allows juxtaposition of self with self. It is a critical additional heuristic voice, as suggested by Reason (1988, p. 80) "...to make meaning manifest through expression requires the use of a creative medium through which the meaning can take form not a conceptual grid which divides up experience, it is rather the creation of an empty space".

of heuristic enquiry. It is a vital precursor state, a catalyst from which curiosity begins, an intense "critical interest and area of search" that engages the self with the topic (Moustakas, 1990, p. 27), eventually bringing order and understanding.

It is a story with two parts. One part tells of the discovery and development of a powerful new way of thinking and evaluating the performance of an(y) organisation, an objectively dominated field of enquiry that is process-focused and retains an appropriate fixation on "what are we trying to make happen through our actions". It is an attempt to build consensus, but not universality. It maintains difference, using this to accommodate diversity, but does not attempt total agreement as "actual consensus on at least some paradigmatic cases by a particular community is a better starting place than the fruitless alternative of seeking consensus about some a priori abstract principles" (Rest, Narvaez, Bebeau & Thoma, 1999, p. 27).

The other part is an autobiographical account of my role as the principal agent; rich in critical reflection and self-dialogue to fully expose my place in the research topic, in order to "derive a body of scientific knowledge that is guided by a conception that knowledge grows out of direct human experience and can be discovered and explicated initially through self-enquiry" (Moustakas, 1990, p. 17). It is research that honestly records consensus *and* conflict, thereby recognising the value and importance of dissent within a community of activists. Within this community of activists it fosters moral consciousness, communicative action and discourse (Habermas, 1990; Hersh, Paolitto & Reimer, 1979; Duska & Whelan, 1977; Rest, Narvaez, Bebeau & Thoma, 1990), ensuring that the grounds for dissent and consent are respected and ethically pure. It must encourage transformative and emancipatory learning, using the notion of disorientating dilemmas as vital triggers (Mezirow, 1990b) to enable one's mind to wander someplace new. Finally, it fuses the communities of/for change with planning methods that seek to align with the nature of the contextual environment (Emery & Trist, 1965), specifically the (foundational work of) identification (of) causal

textures within environments and the subsequent need to democratise the (social) planning process to secure success. It highlights the value of dialectical discourse and critical hermeneutics within an inquiry dominated by people, culture and a design purpose (Jenlink, 2001).

In this chapter I will also lay out the structure of the thesis, linking the major phases of the research using an adaptation of the rich picture form, combined with the seven-stage Soft Systems Methodology (SSM), (Checkland, 1972, 1980 and 1981; Checkland & Scholes, 1990).

As mentioned, the thesis reports two parallel but interwoven research projects conducted over the five-year period of 1997-2001. The first part of the research seeks to (objectively) answer the question *"To what extent can knowledge management systems build and reinforce consensus around initiatives for change?"* This question will be unpacked in a later section to reveal the five subsidiary (subjectively orientated) questions that progressively demanded my attention in order to achieve wholeness, balance and the vital component of critical reflection, later to advance into reflexion, a dynamic response inspired by personal discoveries of oneself.

These five subsidiary questions form the autobiographical account of my own reflective observations as the research project steadily expanded to include different groups, exhibiting various cultural and ideological perspectives, in different organisational contexts, seeking different outcomes.

The research is, therefore, highly qualitative; capturing much of the diversity embodied within the different groups and their environments. A characteristic that has enriched my own responses and reflections resulting from interaction with these groups; and one which shaped the knowledge management system in ways that could not have occurred had a purely technical, rationalist approach been

pursued throughout; an approach that would have been discourteous to the (vital) role that people played in this research.

It is a deeply personal story of my own 'honey gathering' (referring back to the initial quotation from Nietzsche within this chapter) against a background of purposeful, professional practice to bring about a transformation within an organisation. It is a story I had to tell for "what makes the story worth telling is its presumably out of the ordinary or unique character" (Van Maanen, 1988, p. 102). The uniqueness is not its content, nor the role of the researcher; it is the juxtaposition of these two that provides the character and depth. We can never separate ourselves from what interests us; in order to understand we must explore our curiosity which itself governs the patterns of our enquiry. As observed by Perry, "[we] social scientists should not be surprised to find [ourselves] as participants in all [our] observations of human behaviour [and] embedded also in the midst of our working concepts" (Perry, 1988, p. 143).

The difficulty of keeping these two research projects simultaneously anchored to each other and separate has proven to be somewhat problematic. In a later section within this chapter, dealing with reflective practice, I will draw a complex analogy using the Heisenberg uncertainty principle within physics of knowing both velocity and location at the same time using one of Escher's drawings. I use this to highlight the dilemma for myself as both a researcher and (simultaneously) a reflective practitioner interacting with a research topic.

At times the dominance of one, as my observations of the group and subsequent self-reflection was to uncover, built the foundations for failure. Being overly attentive to the needs of the group and their requirement for structure and order delayed the productive effort. Pressuring for more focussed, and quicker, analysis and discussion, a desire for ambiguity, led to breakdowns in group cohesion and purpose.

These two sources of failure are reported as positive outcomes. Firstly, for the ability to deepen and enrich my autobiographical account and quality of learning. And secondly, for the accelerated development and refinement of the database - a device which has proven to possess considerable originality of function and illustrates many complex relationships that convey powerful messages of criticality and dependency for decision-makers. It is this capacity to convey new insights into thinkers dominated by traditional perspectives that has fuelled my own creative enthusiasm for a knowledge management system to shape organisational change.

As the sole facilitator of many diverse groups there were many occasions of (what I perceived as) negative behaviour. Disagreement and resistance to move forward were common. This was overcome through an adjustment to the vocabulary contained within the database text and its manipulation by the group in ways that accommodated (built consensus around) their own wishes and concerns. What I came to see as a *seductive* process governed by the participants themselves who were motivated by 'ideal seeking' or self organisation and an unconscious acknowledgement that "new strategic direction can only emerge; it cannot be planned And the processes through which emergence occur are ones of political interaction and group learning" (Stacey, 1996, p. 331) became a powerful force to align opinion.

Indeed "the most distinctive attribute of the human ... [is the] capacity to be ideal-seeking and to alter goals and objectives in the service of ideals that he can never reach" (Trist, 1978, p. 533). This amounted to the preservation of a communicative action orientation (Habermas, 1990) and minimisation of a purely technical rationality. To this end the research provided a fertile plain on which to bring forth an emergent theory of group interaction, an interaction that was self-limited by the boundaries of the knowledge management system and its (in)capacity to accommodate the fullness of individual expression. This paradox was something I was never fully able to reconcile to myself. The broader the

boundaries became, the more those inside filled the space. A form of emancipation created through (a self and group-driven) expanding schema.

The research focus was positioned over national security; principally the role and purpose of a military organisation - Special Forces. A unique institution certainly in defence areas, but one that also exhibits many other unusual behavioural phenomena. My role as a planning officer within Headquarters Special Operations provided the focus for the research effort. It legitimised the need for the futures study to be undertaken and provided me with an opportunity to record and report on a practitioner's experiences.

A practitioner who was an active participant; a developer of a knowledge management system; a group facilitator and a builder of expressive languages and vocabularies to provide for productive discourse. One who was also able to 'disconnect' and become distanced from the research/organisational context to evaluate and reflect on my own (and others') learning, insights, emotional states and roles in the progress of the study. In particular, the potential for my own prejudices to pollute the purity of the participative (van Beinum, 1997) and 'ideal-seeking' environment that I sought to foster.

My Research Role - An Overview

In the beginning I gave myself a task to 'find the future' for the organisation. It had a past and a present, which provided valuable reference points. Its future, however, was uncertain, indeterminate and fluid. It would be a product of what it tried to make of itself and what external actors and actions would conspire to allow it to be and demand that it become. My role was to bring these together, to synthesise a method, and elicit knowledge, to alert significant others to the proposed reforms and above all maintain balance and composure in approach, progress and effort. "Do what you can, where you are with what you have" was

my subconscious companion. "Bring as many as you can along with you" was my governing consideration.

In endeavouring to act as a reflective practitioner (Schon, 1993), I provisionally researched my use of the knowledge management systems using journals (Clegg & Green, 1995; Clegg, 1996; Ballantyne & Packer, 1995), writing papers and exploring the use of heuristic inquiry (Moustakas, 1990; Tesch, 1990) and reflective phenomenology (Moustakas, 1994; Tesch, 1990). I have kept accounts of all group meetings, taken note of reactions and collected qualitative data and feedback. These have been referred to frequently to secure a continuing understanding and appreciation of the enormity of the undertaking. Although I seek consensus, it is not at any cost. There must be an enduring recognition that individuals are at the core of this work. Where the blurring between individual (and therefore possessing different views) and the subconsciously shared ideas of a mass occurred was the point of fascination.

Published military doctrine was my only stationary aid throughout the research. Whilst it contained the architecture of national security planning, it left the relationships between major items (the strategies) and the effectiveness of undertaking an action (the tactics) unresolved. The highest levels of strategy have been thoroughly described elsewhere in official publications dealing with national security, as have the numerous elements that comprise tactics, but the two have not been fused together, allowing an alignment of organisational fitness for purpose with the contextual environment. This is the task I set for myself - to build and reinforce consensus through communities of professional practitioners applying themselves to action research; creating the authority of a shared idea, whilst remembering that "an idea is a point of departure and no more. As soon as you elaborate it, it becomes transformed by thought" (Picasso, 1946), raising more questions. So this journey will never be complete(d). It is the bringing together of a stable group to explore possibilities, for others to ultimately determine the worth of.

The Research Approach

What does it mean to build and reinforce consensus around initiatives for change? Given the right conditions and employing a suitable process, which may itself have to be constructed by the participants, it should be possible to mobilise the creative talents of selected individuals to craft a unifying vision of what is possible within an organisation and its operating environment. This is in stark contrast to the individually experienced memories of the past that I believe characterise those who do not actively engage in 'building desirable futures'.

The thesis is about creating the conditions and building the processes for collaborative, action-oriented organisational transformation within an elite Australian military organisation - The Special Forces Group. It is my assertion that knowledge management systems can assist in *creating* these conditions and *building* the processes.

Creativity is a large part of the knowledge management system I devised. It was not assembled out of existing hardware, it is not manifested within information systems, computers, the 'communities' within the internet or the tacit-explicit debate that often dominates the field of knowledge management. These are quantitative orientations that are "prescriptive and formulaic" (Edwards, Braganza & Lambert, 2000, p. 29). They are the aids, processes, procedures and devices that were employed by the participants to secure progress.

It was not about how much knowledge the organisation has in its possession (whatever that might mean), a preoccupation with knowledge capital, but how to share that knowledge, requiring a "delicate marriage of technology with a keen sense of cultural or behavioral awareness. It involves creating an environment that supports learning, fosters social cohesion, openness and interconnectivity" (Ruddy, 2000 pp. 37), and to what use can that knowledge that emerges be put

that can advance the organisation (world?) - a qualitative orientation. "What do we know"? "What can we know"? "What does this mean for us and others"?

Qualitative research methods have an entirely appropriate obsession with the richness and diversity of social phenomena and will preserve the significance of every grain of sand within a field of enquiry to avoid (over)simplification. This richness and diversity is often lost with quantification and the transfer of textual language into a numerical representation - an often de-individualising coding exercise. This difficulty of dealing with a national security context, with its diplomatic complexities and causal relationships that spiral off into many areas combined with the role and purpose of an instrument of national power (possibly in need of a new post-modern understanding of its purpose) was to raise its head frequently, becoming a problem of isolating a suitable method(ology), informed by the availability of specific information, within which to proceed.

My first task was to assign appropriate methods to each part of the puzzle. Is it better to let the area under investigation be subjected to a proven methodology? One that is informed by a clear understanding of that particular problem space and has set processes and procedures to be adhered to in pursuit of a solution or answer, with the researcher remaining at a distance. Or is it more appropriate (and a more honest account of the phenomenon) whereby "the researcher must move beyond any confined or constricted attention to the data itself and permit an inward life on the question to grow, in such a way that a comprehensive expression of the essences of the phenomenon investigated is realized[?]" (Moustakas, 1990, p. 32).

Given the fluid nature of the topic and the extent of method/vocabulary construction required to win participation, combined with the difficulty of securing precise terms and expressions from others, I elect to be guided from within. The purpose and goal of the research will dictate the approach(es), I will

work with the subject, not upon it (Reason & Heron, 1995; Heron & Reason, 1977).

The Research Purpose

The purpose of the research is to locate a set of future operating characteristics for an Australian military organisation in order to secure its rightful position as an instrument of national policy. Its focus is to develop a set of sufficiently robust analytical tools to order thought and provoke novel solutions, forcing a (brief) departure from conservatism. The ability of the information to overcome dogma will then rightfully become the concern of executive decision-makers and leaders within the organisation.

Futures thinking and futures studies remain a valuable and important endeavor, the "scenarios [that result] are the most powerful vehicles ... for challenging our mental models about the world" (Schwartz, 1991, p. xv) allowing the contemplation of (complex) events that are often outside our capacity to generate spontaneously. If executed with thoroughness and discipline, they can link the most perplexing set of strategic dilemmas with a coherent grouping of capabilities and responses - what has generally become known as a characteristic or attribute of active adaptiveness (Emery, 1977a) - and what I shall call organisational poise.

Without a sufficiently rich and comprehensive understanding of what may eventuate in the future, one is simply left struggling with one surprise after another.

The Research Questions

Although I began with the simple question of:

To what extent can knowledge management systems build and reinforce consensus around initiatives for change?"

which was related primarily to the notion of organisational change and the role of individuals and groups, it quickly became evident that my own personal quest to reach an answer and the frequent and detailed interaction with others was a source of distortion. This distortion continually presented me with a hybrid that was somehow disfigured through my presence, approach, questioning and ultimately filtered by my own world-views.

To overcome this personally sourced bias I developed four subsidiary questions that firstly forced critical reflection and secondly demanded confession within the thesis to secure the warrant of honesty. These questions were:

To what extent did my adaptation of the Field Anomaly Relaxation (FAR) method assist in building and reinforcing consensus around initiatives for change?"

and also:

To what extent did the Effects-Based Planner assist in building and reinforcing consensus around initiatives for change?"

Having addressed the limitations resulting from what could be an overly technician style of information exploration in the use of these two models, I was then concerned by the possibility that my imposition of these two models, within

the style of meetings, may lead to an unethical corruption of the purity of intent within the group. I had to then ask:

“How was my involvement in the creation and use of these knowledge management systems beneficial or detrimental to the achievement of consensus?”

combined with:

“Could my biases, assumptions and prejudices interfere with the employment of knowledge management systems?”

Only then would I possess the warrants for honest, purposeful endeavor in action research.

A non-obtrusiveness observer orientation is unlikely to expose the full range of subtleties and nuances that are present - an entanglement and confrontation with the subject must be achieved if the researcher is to achieve the necessary depth of enquiry. Moreover, the "situation talks back and the practitioners reframe the situation once again. The situation comes to be understood through the attempt to change it, and changed through the attempt to understand it" (Heiskanen & Newman, n.d. p. 123) offering "fleeting awarenesses, but whose nature is largely unknown" (Moustakas, 1990, p. 13).

For me there was no single event, more a growing concern that a deeper, more penetrating analysis would offer insights that a superficial investigation would cause to remain hidden. The statements that follow embody many of my own perceptions are indicative of the general theme of concerns circulating within military and strategic planners over the period of this project.

Structure of the Thesis

In Chapter Two, I lay out the architecture and framework of the national security strategy and national military strategy. These will serve as backdrops when I later address the issues of 'organisational fitness for purpose'. I familiarise the reader with the subtleties and nuances that pervade an organisation of this nature and its purpose within defence and national security. I describe how it became evident to me that a disciplined, systematic approach to futures thinking was vital to establishing a solid foundation for change, redefinition and realignment and one that would win support and ownership. My aim is to alert the reader to the appeal of a 'post-modern' military, a military that is sensitive to the changes in the operational and contextual environments. I will delay any detailed consideration of how this may be achieved to later chapters.

In Chapter Three, I provide a comprehensive explanation of the use of Field Anomaly Relaxation - the method used to achieve a comprehensive, albeit abstracted view, of the world beyond the immediate planning and defence procurement horizons - a period extending from five years out to 25. This chapter also includes the use of twenty rich narratives that contained the 'stories' of future change. The interest that these scenarios, along with the methodology employed, attracted within the circle of more unorthodox thinkers at Australian Defence Force Headquarters was considerable and was the source of much lively debate. The rigor and thoroughness used to construct the scenarios will be discussed along with the confidence and legitimacy that flowed from the approach into the database application, the topic of the next chapter.

Chapter Four contains a detailed explanation of effects-based planning and operations - a new and novel approach (and reversal) to thinking about strategic planning. This chapter is about the knowledge management database, my primary engine for change. Discussions will cover its growth into a functioning model, the

personal insights and dynamic problem-solving that was characteristic of its development and the gradual population of the data - the expressive language - and its adjustment/refinement to capture or bridge across the full continuum of operational contexts. I also discuss its maturation into a true and comprehensive effects-based strategic, operational and tactical planning tool that maintains its architecture and functionality regardless of the scope or scale of issue being addressed.

The progressive exposure of this application to various audiences, its contents and the visualisation methods used to present organisational effectiveness and decision-aid information will be highlighted. Indeed, the opportunity to personally brief the Minister of Defence, Deputy Secretary Strategy and Deputy Chief of Army on separate occasions was a career highlight and one that I found immensely satisfying. Later developments springing from these briefings will be discussed in the final sections of the thesis as I draw the research to its conclusion and offer a way forward.

Also in Chapter Four I will discuss the discovery of similar, but trailing, work being undertaken in the United States by other military and civilian personnel confronted with an identical need to transform their approach towards national security. Although the communication and sharing of ideas that resulted from this discovery played no role in the continuing development of my own knowledge management application, the ability to exchange thoughts and gain confidence within my conclusions was vital. It was important for this thesis, recognising that this was possibly the beginning of a paradigm shift in thinking and planning was of immense value, bringing great personal satisfaction. It was the interaction with these individuals that gave rise to the notion of *remarkable people* as a vital ingredient in the birth of a movement for change. This chapter was where *ideals* and *idealists* collided.

In Chapter Five, titled 'Those Who Chose To See', I describe those who came to believe in the approach to solving problems set out in Chapters Three and Four. I set out the context in which they were exposed to the methods and their reactions, comments and conclusions. The empirical data derived from this analysis will be used to inform my creative synthesis in Chapter Seven.

In Chapter Six, titled 'And Those Who Didn't', I will provide a counterpoint to the previous chapter, offering a contrasting set of empirical arguments gained from the reactions of these 'non-believers'. My position throughout this exchange, as in Chapter Five should be viewed as neutral. I endeavoured to avoid a judgmentalist approach and hope that this has carried through into my personal account of these episodes.

Chapter Seven contains my assertions and is a synthesis of opposites. I say this because I harbored a temptation to over-generalise and stereotype those who participated in the research, despite my promises to the contrary. My experience has been one of success in many instances and failure at others. There were very few occasions that situated themselves between these two extremes. To attribute this to others and make claims against their perspectives, schema or mental models would be unfair, unproductive and unnecessary and in breach of the subsidiary research questions focussed on my own involvement and behaviour.

I did not wish to deceive, only design with what was there. I reflect on my approaches, I rejoice in the diversity. I complete what Carl Jung refers to as 'the hero's journey'. Understanding and knowledge will be equal (Jung, 1958, p. 52).

Significance of the Research

What we need are shared visions of the future, not individually experienced memories of the past.

The author in 1999, during an early planning workshop

Many planners within defence are undertaking long-term studies using futures thinking. Scenario planning, popularised by Wack (1984; 1985a; 1985b) and practically in the work at Royal Dutch Shell during the 1970s, is probably the most notable and referenced success story. Whether the Shell futures team got it right or whether conditions and events conspired to deliver an outcome to them that spontaneously coincided with their futures thinking derived recommendations will never be known. The fact remains that futures thinking is a vital element of strategic planning and contains many pitfalls and problems that cannot be handled using traditional planning processes.

Defence is now recognising the worth of the (Art of the) Long View (Shwartz, 1991). Scenario planning in particular is enjoying more frequent use at senior levels of defence strategic thinking. Indeed, there is now an organisation within Defence called Strategic Planning and Futures Studies where unorthodox and novel thinking is encouraged, to both inform decision-making and give an expanded view of possibilities. It allows the value-laden consideration and presentation of a complete set of desirable, undesirable and neutral outcomes from the interaction of many drivers.

These drivers can then be thought of as decisive points from which events can be coaxed into certain patterns that actively bring about desired outcomes or passively discourage the realisation of undesired outcomes, particularly where political sensitivity levels may be high. These drivers can also be considered as indicators for the transition points of change, providing for an anticipatory response from decision-makers that prevent getting 'caught short'.

In 1998, two research analysts visited from the New Zealand Ministry of Defence Capability Development Branch. They, unknown to me, had been engaged in a Special Forces capability review themselves and were in the early formative stages of constructing a methodology to move forward. Having been advised of my work they had traveled to Sydney for detailed discussions. This event and the

value of these discussions highlighted to me the value of my work. Their second visit in 1999, to review the functionality of the database, provided further reinforcement of the merit and value of the research approach.

The culminating moment occurred in late 1999, whilst on a visit to Canberra where several key functions within the database were employed by the highest level strategic planning division within the Australian Defence Force to aid completion of the White Paper for 2000. A later event was to eclipse this and will be discussed in detail later in this thesis, as it occurred at a critical point in the development of the application, and also coincided with a key stage in the strategic discussions occurring in Canberra.

The foundation knowledge on which much of my approach has been based can be found in the combined works of Checkland (1972); Checkland and Scholes (1990); Emery (1977a); Emery and Emery (1997); Emery and Trist (1965). These authors have defined the changing nature of contextual environments for organisations, promoted the use of an active adaptive orientation to planning and "fostered a collaborative, participative-democratic methodology" (McWhinney, 1992, p. 28). One that combines pluralism and free will, whereby "the objective world ... is the shared consensus among the perceptions and feelings of a population ... it is constructed through the interaction among individuals" (McWhinney, 1992, p. 35).

Only through the principle of democratisation can organisational design cope with turbulent social fields, developing and nurturing ideal-seeking individuals (Emery, 1993b, p. 221). These combine to make purposeful human action effective, exciting, satisfying, rewarding and most of all (usually) successful, (at least more frequently than other methods that do not contain these characteristics). Although not purely ethnographic, my role as a research instrument is guided by Van Maanen (1983, 1988).

In my attempts to use a soft-systems methodology, embodying rich pictures, I have been shaped by these authors and led willingly in a direction towards a systems-based methodology for real-world problem solving (Checkland, 1972) that secures emancipatory and transformative learning as part of the learning and change that results (Mezirow, 1990a and 1990b). Checkland's model has had a profound influence upon my methods, as it allows 'what is' and 'what could be' to exist simultaneously (Steps 1, 2 and 4 in Figure 1). What I have discovered to be a vital characteristic in any consensus building program.

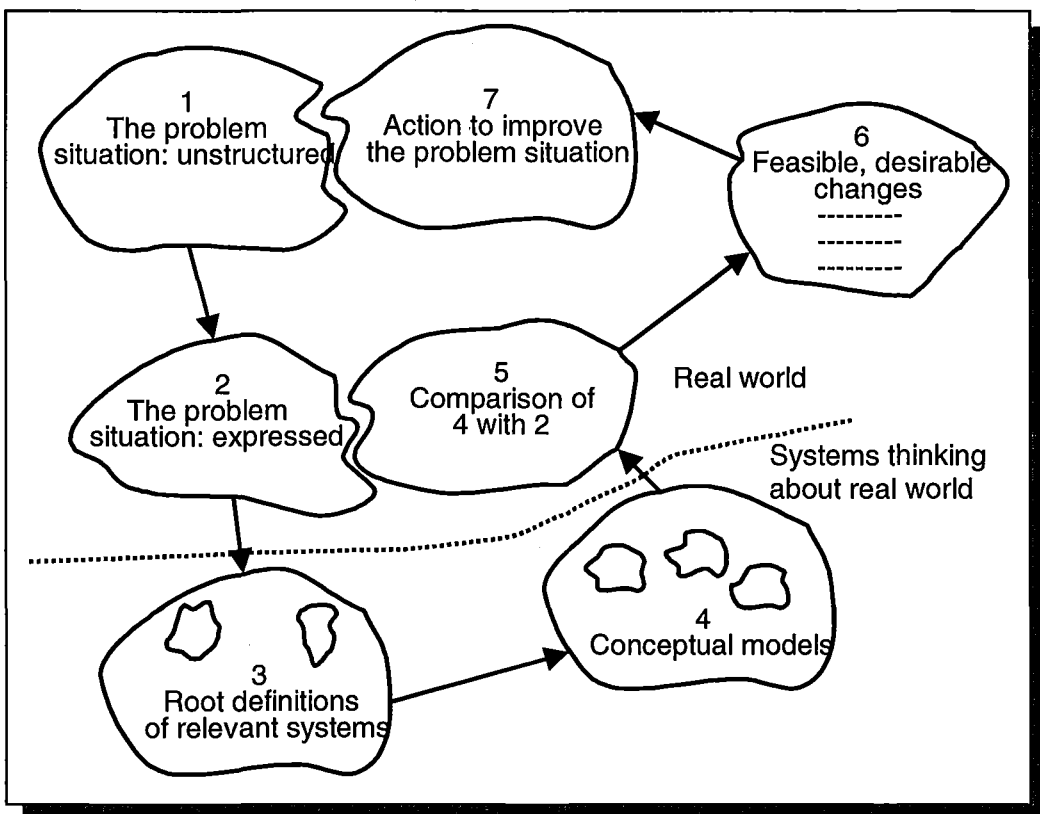


Figure 1. Checkland's conventional seven stages SSM model.

This allows the accommodation of a large number of ideas (as will become evident in Chapter Four), making progress towards consensus of ideas. The consensus of actions from these shared ideas occurs as a result of Step 5 and the formation of the list of feasible and desirable changes (actions) at Step 6.

Rich Picture

Rich pictures are receiving recognition and respect as a powerful form of imagery, a form that can blend the factual with the feel of a situation. They are valuable devices for allowing more complete expression of events and relationships. They stir emotions and interpretations that can be superior to written text. They convey meaning beyond the metaphorical; they encourage deeper and more personal levels of analysis. They encourage a qualitative analysis and expression of ideas, "they require the drawing [of] pictures as well as taking notes and writing prose" (Checkland & Scholes, 1990, p. 45). Where disassociation in research is often fostered to promote rigor, they celebrate involvement and demand subjectivity. The researcher is part of the picture, the central character as well as the drawer. There is no escaping this engagement.

My rich picture in Figure 2 is a characterisation of the problem I was faced with. Although it does not align totally with the original characteristic(s) of SSM, it was valuable to me as an aid to understanding the problem I was faced with. I have deliberately omitted the presence and influence of individuals; my problem is about groups, opinions, their ability to see the whole picture and my (in)ability to bring the whole picture into view. I have already said that my aim was to build and reinforce consensus and that a knowledge management system may contribute to this. The implication was that there was dissent, not consen(t)sus and that this could be overcome. The origins of this dissent were not my primary concern, it was not my wish to be drawn into countering an existing effect.

I knew there would be a difference of opinion. The planes within the diagram can explain this. For groups occupying a single plane it is reasonable to expect that their view of the whole vertical arrangement will be obstructed. Therefore their capacity to accommodate a broader set of issues will be eroded. Dissent is already

being set up. I (once) also adopted a point of view based on a narrow plane of vision.

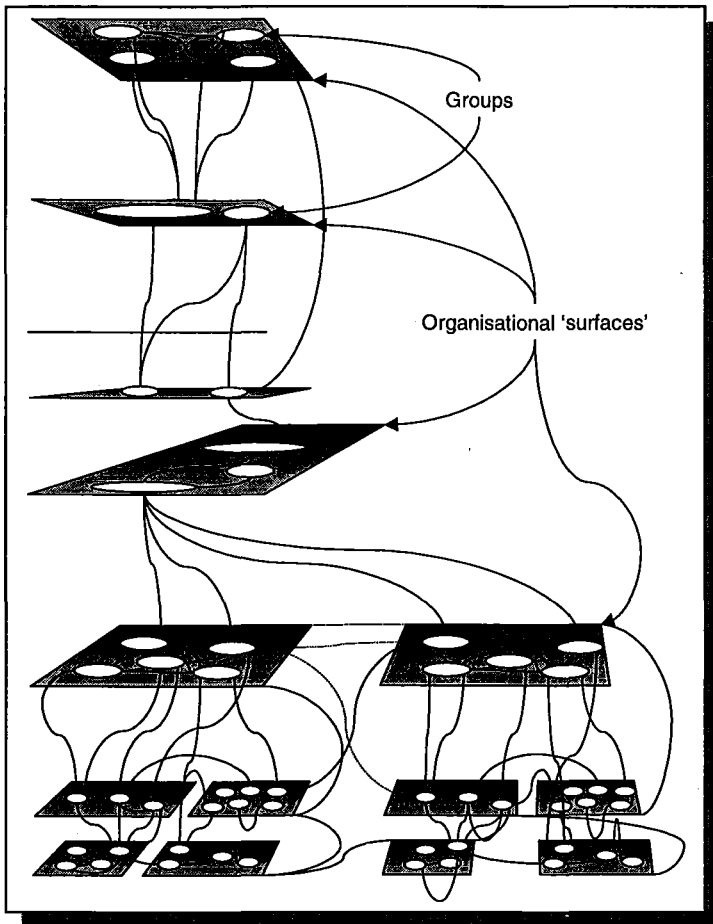


Figure 2. Rich picture of my research.

My primary concern relates to people and information. People occupy various positions within organisations and these positions offer various pieces of information for consumption, and conceal others. They operate on the surfaces. Rarely is the entire scene available to a single individual. The lines that link the various elements also point to information flows and relationships. My role was to secure a methodology for bringing the people and the information together, fusing them into a single (and hopefully) well functioning conglomerate that fosters shared understanding and knowledge. The layered elements associated with life in an organisation would need to be broken down and substituted with a series of

accepted statements that could be conveyed from top to bottom to inform purpose.

My diagram indicates the difficulty of bring this information into a single channel. Moving vertically changes the perspective, the links that are discernable, the degree of 'fit', and the ability of various levels to see what is above or below. Exposure of elements to the observer is always incomplete. To gain a wider view the individual must be brought out of the layered framework and be allowed to scan vertically up and down into areas that would remain hidden. They must be allowed to discuss issues with those above and below, in ways that do not constitute policy and regulation. The language and culture that applies on each of the surfaces must be viewed and experienced if any hope of understanding and collaboration is to be achieved.

The central argument that requires this dislocation is that everything is done in order to contribute to something else, to make something happen, which builds and grows vertically until it arrives at the top to bring about something which represents 'the ultimate purpose'. In a national security context, the reality for practitioners is that they are quite inwardly focused on their bit of the world and cannot see what the ultimate purpose may be when expressed in meaningful terms. I am not suggesting that people are ignorant, but at many times throughout this research it proved difficult for practitioners to form the statements that would normally originate at the highest levels of planning. These statements are what inform all effort below.

Without clouding these thoughts here the next section, containing three of Escher's drawings, also has some relevance. To a figure in Escher's landscape, the inability of the figure to see the neighboring twisted architecture results in an individual believing that everything is in order from where they see it. It is only when the observer can see that the hallways and arches are impossibly linked that an overall confusion is introduced about which way is up and which view provides the overall reference point.

Thoughts on Self Reflection

In his sketches, which are both beautiful and bizarre, Escher was able to capture simultaneously reality and unreality (Figure 3)...



Figure 3. Belvedere.

what something was, what it was transitioning into and what it had become (Figure 4)...

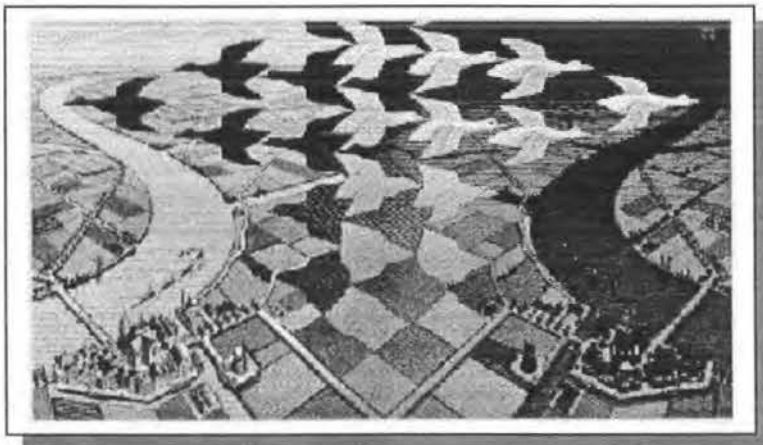
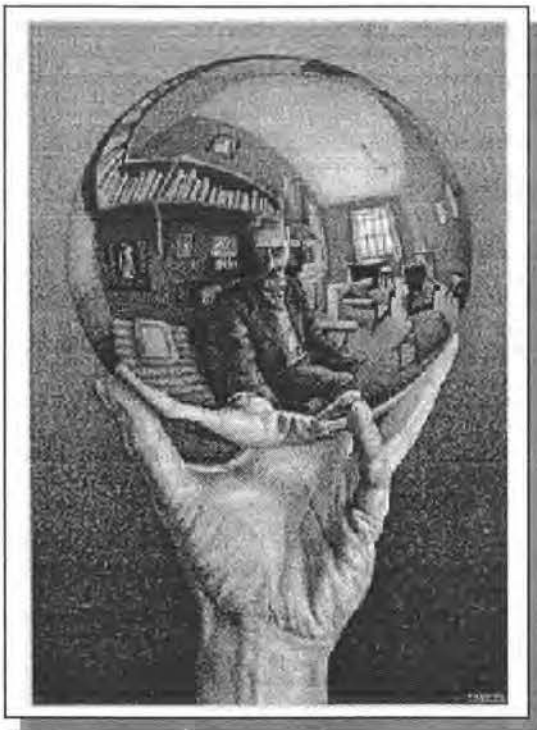


Figure 4. Day and night.

These mind-torturing images embody some key aspects of self-reflection. How is it possible to apprehend a thought, sight or some other sensory stimuli that is not stable, and arrive at a reasonable understanding of it within a factual framework that is fluid and ever-changing? The self-image in the mirrored sphere held at arm's length as Escher himself draws his reflection of himself drawing his own reflected image (Figure 5) is a moment frozen in time that can be deconstructed to pose a psychological conundrum - If I should pause to observe and contemplate myself I have changed the reality of the moment, and I am not looking at myself in the context of what I was doing, I am now considering myself in a paused state of *not doing* what I was doing moments earlier, but now doing an inwardly probing analysis of personal thoughts that had an external stimuli. The images and electro-chemical states within the brain that the mind preserves is like the fading



optical illusion seen when one stares at a bold pattern then quickly looks away. The more one moves the eyes to see the detail, the more the image evades discovery until it is lost from the memory. Heisenberg's problem of velocity and location, the physical manifestation of this paradox, has much wider application, possessing deep implications for those who seek to practice self-reflection.

Figure 5. Hand with reflecting sphere.

To apprehend the moment in order to judge oneself, thereby to *reflect* meaningfully, is to gain a distorted view. The velocity/location dilemma is transferred immediately from the physical world to the psychological. I am no

longer who I just was, I am now *not* a practitioner, I am an observer, *of myself*. But the observations I am part of (now) are not the events that formed the inspiration to look, the desire for deeper understanding. The observations are now vacant and lacking in any meaning or context. They are a suspension of experience that dilutes the purity and excitement of the moment before, the one in which the mind raced with eager anticipation towards an unknown goal that entertained a brief fascination. Moustakas (1967, p. 1) declares that "[this rich] experience is only real when it is being lived; as soon as it is talked about or defined, the living moment is lost.

Efforts to communicate the real self [even to oneself!] inevitably distort its reality and violate the integral nature of life". In going to these places where the self is fully exposed, something of the self must be left behind, but it is not left intact. It is fractured, broken and the edges of what stayed and what was taken briefly away can never be realigned. The subconscious is as precious as fine china. Its most intricate forms are elusive, protective of itself.

Whilst I remain uncertain how to deal with this, it remains a concern worthy of a reflective practitioner's attention and contemplation if one is to improve the ability to ultimately become *reflexive* - what should be the ultimate purpose of personal reflection.

The poem below from Moffitt (1971, in Moustakas, 1990, p. 12) provides a vivid account of the elusiveness of (the) pure(est) immersion into an experience.

*To look at any thing
If you would know that thing,
You must look at it long:
To look at this green and say
"I have seen spring in these
Woods," will not do - you must*

*Be the thing you see:
You must be the dark snakes of
Stems and ferny plumes of leaves,
You must enter in
To the small silences between
The leaves,
You must take your time
And touch the very place
They issue from*

Further guidance in how this can be achieved within a natural (uncontrived) state of human thought is offered in Roads (1987, p. 1). He questions "How can we write of unseen realities, hint of unheard concepts, or even demonstrate the practicality of inner truths, without disturbing the slumbering Self within?" and answers with his call to "Let go and fall into the river ... trust that I will guide you with care and love into a new stream of consciousness. Can you trust me enough to let go of the known and swim in an unknown current?" (Roads, 1987, p. 26). These thoughts remind me of a similar thought expressed by Christopher Columbus (circa 1472) when he stated that "man cannot hope to discover new oceans until he has courage to lose sight of the shore".

There have been many times that I have been without a shore to provide comfort and a navigational reference. It has been a deliberate and conscious act to locate a new stream of consciousness. I expect it may be some time before I glimpse a shore.

This human condition of willing acceptance and deep immersion into a subject that has called its attention to you is not restricted to deeply personal subjects. It can be a fruitful form of enquiry under any situation. Salk (1983, p. 7) recalled that "later, when I became a scientist, I would picture myself as a virus, or as a cancer cell. I would also imagine myself as an immune system engaged in

combating a virus or cancer cell", realising that what he called an 'inverted perspective' was capable of producing views and understanding that would be denied when one did not *become* the object of interest and look outward. This (need for) disembodiment seems to introduce a paradox into the human condition - experience intensely on a personal level, but remain open and 'unselflike' to gain maximum reception of (what may be) conflicting signals and disorientating dilemmas.

I will delay declaring my thoughts here. There is a quote at the end of this chapter that expresses the problem that I am now within. There is a need for a ubiquitous participative democracy of purposeful social (inter)action to overcome this. Morgan (1986, p. 176) has expressed this as (a style of) leadership, wherein the "democratic leader's influence is far more subtle and symbolic [fostering a co-operative inquiry?]. He or she spends time listening, summarising, integrating and guiding what is being said ... summoning images, ideas and values". These are actions that draw practitioners together.

An Initial Dialogue with the Self

In this section I present an early dialogue in which I sought to understand the meaning of conflict and how my career as a professional career officer within the nation's defence force and maturing years and outlook had altered my view on what it was to be an *instrument* of national policy.

Time for Some *Revolutionary* Thinking: The 21st Century, a Time Without Conflict?

We aeronauts of the spirit! All those brave birds [that] fly out into the distance, into the furthest distance - it is certain! Somewhere or other they will be unable to go on and will perch down on a mast or bare cliff-face - and they will be even thankful for this miserable accommodation! But who could venture to infer from that, that there was *not* an immense open space before them, that they had flown as far as one *could* fly!

Nietzsche, *Thus Spoke Zarathustra*, p. 16
Hollingdale trans. 1969

Nietzsche's words echo with the need for some to continue the journey that others have begun. We can only go so far. Every person's journey is, therefore, to some extent, never complete(d), it is (only) a part of a greater journey. Others must continue, for the way ahead is open and waiting for the brave birds that *must* continue, over and beyond the horizon that block our view.

History records periods of colonisation, invasion, domination over one culture by another and forced relocations as being the major macro-determinants of social structure at the level of the nation-state. These nation-states of the world, their different languages, customs, cultures, religions, systems of government; indeed, almost every facet of life that distinguishes one group from another has likely been the product of some form of conflict and its resolution into a position of balance. This is changing. The major disturbances are passed, I believe we are entering a new period.

We now find ourselves at an interesting threshold wherein what was once conflict *between* nations, is now conflict *within* nations. Micro-determinants within nations are creating fracture lines that are threatening the internal balance, the

diversity is beginning to coalesce into tightly-bonded community groups, each with needs that bring them into conflict with their neighbours. Horowitz (1985) provides a comprehensive account of how ethnic alliances fuel conflict, also dramatically simplified by Huntington (1996, p. 125) "Peoples and countries with different cultures are coming apart" from the result of forces within.

Does this represent a new form of conflict, or are we simply moving (returning?) conflict to a different scale? Are we destined to make many horrible decisions as we learn our way forwards? Will a new vocabulary develop to allow us to express the strangeness of it in ways that are abstracted and make it somehow 'not something I have to concern myself with' (the term 'ethnic cleansing' provides a vivid example, neatly employing two existing words to describe a new form of orchestrated and systematic murder. The victim is somehow 'different' and membership of this 'different from us' cultural group provides a partial explanation for these atrocities).

Is this a collision of opposing values and one that could realistically have no end? Must we then re-examine our own values to isolate the source of the conflict, hopefully allowing a solution to emerge that is about change and modification within the self?

This section aims to address these questions, but in a novel way. I contend that we must look to *revolutionary* thinking (I have borrowed this term from McWhinney (1992, p. 119) who explains that "revolutionary thinking has been mostly the province of those who felt themselves powerful enough to make changes in the affairs of man". I believe that this power has been now dispersed to the masses and a collective voice is (now) able to bring about difference.

A Need to Look Further Ahead

Has anyone at the end of the nineteenth century a distinct conception of what poets called *inspiration*? If not, I will describe it. - If one had the slightest residue of superstition left in one, one would hardly be able to set aside that idea that one is merely incarnation, merely mouthpiece, merely medium of overwhelming forces. The concept of revelation, in the sense that something suddenly, with unspeakable certainty and subtlety, becomes *visible*, audible, something that shakes and overturns one to the depths, simply describes the fact. One hears, one does not seek; one takes, one does not ask who gives; a thought flashes up like lightning, with necessity, unflinching formed - I have never had any choice.

Nietzsche, Hollingdale trans. 1979
Ecce Homo p.102

I am writing this section in the closing days of the 20th century. A century in which man simultaneously advanced the powers of destruction and creativity at a rate more rapid than ever before. From a Newtonian perspective which viewed the world as a clockwork, deterministic system, the giant century gear is about to grind forward one notch, the second wheel continues to spin blindingly fast, advancing the minutes, hours and days. The years seem to blend together with troubling events becoming inherited by those who have had no involvement in their beginnings, they simply become the custodians of a problem, carrying forward a taxonomy of superficial understandings in order to hand on - a 'Balkan stalemate' that exists on many levels in many nations with generations of participants (passive conspirators?).

So, as we hesitate on the brink of this new age, with many of the world's inhabitants enjoying wealth, prosperity, security and opportunity; but with the great majority still poor, hungry and affected by regional conflict (over one-thousand million human beings - a fifth of the world's population - live in absolute poverty), should we take a moment to

consider our 'work? In doing so we must consider whether our worldview is consistent with our inner values, for it is here that a great potential for change lies.

The Beginnings of Observance and Self-Reflection

The first requirement for the growth of the individual self is that the person remains in touch with his own perceptions. No matter how different one's experience is from that of others, he must trust in the validity of his own senses if he is to evolve as a unique being he will be open to new levels of learning, to new pathways of relatedness to others, and to a genuine respect for all life.

(Moustakas, 1967, p. 13)

As I look around and take in the world I see great happiness, a time of gift giving and the reunion of families and friendships; a time when the youngest are brought together with the oldest. For a few brief days bridges are built across differences and we find reason to hold others close once again.

I also see a world that has failed to halt war in many places. The fighting in Chechnya is renewed - a strange clash of cultures and ideologies contained within a single nation state. Indonesia continues to fragment with over 100 deaths in Ambon in the days surrounding Christmas. Kashmir continues to be fought over by India and Pakistan, with artillery exchanges occurring across one of the most remote and barren landscapes on Earth.

Solutions will be found to all these conflicts, why must it take so long, why do so many have to suffer and die - on all sides? How can the next generation of leaders in these places receive any education and sense of normality when gunfire has more place in their memories than laughter and play?

I see continuing environmental damage and disregard for the importance of diversity, a diversity that preserves a fragile ecological balance.

The kaleidoscope of images bound up in these events holds promise that the world can heal itself, but only if a conscious effort is made to avoid the downward spiral into conflict. If we can see no other avenue, then we have failed to learn a fundamental lesson; a lesson that must begin with the individual. From each individual communities must be formed.

A Further Dialogue with the Self

The following semi-fictional conversation is based upon an actual self-reflective dialogue spanning about five years concerning my impressions of conflict and the pursuit of peace. It represents a compilation of thoughts and ideas that grow and alter the direction of discovery and can, therefore, be considered to be a heuristic inquiry (Moustakas, 1990). To clearly signal the fictive nature of the dialogue, I have used the names Ixion, Friedrich Nietzsche and Jean-Paul Sartre. These participants from mythology and philosophy take on roles and conflicting views to enrich the story:

Ixion - in Greek mythology, the first man to murder one of his kinspeople. The violent act of killing his father-in-law to avoid paying him promised bridal gifts embodies the ultimate in materialistic motivations. I use his voice to provide expressions of selfishness, cruelty, and greed.

Nietzsche - to provide a point of departure from rationalism, his fundamental contention was that traditional values (represented primarily by Christianity) had lost their power in the lives of individuals, what he called passive nihilism; the masses, whom he termed the herd or mob, conform to tradition, whereas his ideal

'superman' (Zarathustra) is secure, independent, and highly individualistic - an iconoclast.

Sartre - He believed that the true, purest expression of (a creative) mankind was in the self-determination made available to every individual and that the acceptance of inescapable personal responsibility for their own decisions, unaided by morality, religious faith or society was what defined us as beings and was, therefore, the necessary condition for authentic human existence. He began to favour Marxism as a movement representing the revolt of the masses against the imposition of authority.

Concerning a Re-Orientation of Thought and Action

Nietzsche: *"So Guy, you say you have been thinking about this subject for many years. We are now at the end of the 20th century, a new century is only days away. Are we to expect the emergence of a new 'man'? Andre Reszler, when director of the Centre for European Culture, described earlier attempts to forecast the coming of a new type of human being, one that could lead us into the next great period of mankind (cited in Toffler, 1980, p. 390). Tell us what it is that you hope for".*

Guy: *"I look foremost to safety for my family. I pray for my children that they are able to grow old with their own children in a world that respects each individual's right to a simple life, free from the persecution of others. I will be old when they marry, older still when their own children take on the individual beauty, creativity and innocence that will define them and become the source of attraction that will draw others towards them. My last thoughts as I leave them to continue their lives will be a deep love for them and the dreams they carry, a hope that their efforts will be rewarded, I hope also that they may find quiet, peaceful moments to think fondly of their mother and I and that we were part of their lives".*

Ixion: *"Those are simple needs, ones that can be gained by isolating ones self from society. If that is all you and others like you seek then I urge you to move away from the towns and cities, let the rest of the world go on without you. There is a brutality to the world that we must harden ourselves against. Only the strong can survive. This is the way it must be".*

Sartre: *"I agree with some of what Ixion says. The strong amongst us do have a very important role and yes the world can be a harsh place, but is not a Darwinian process wherein the weak must die. It is the strong who bind individuals together with a common purpose, but this common purpose may be for good or evil. What about the need to be both strong to provide the necessary leadership and yet live peacefully alongside others? If we are to survive then we need to actively involve ourselves in the building of communities, but many times this is complicated by the need to openly disagree with the authorities or those who hold power - an unusual (unachievable?) mix of Hobbesian compliance coupled with Marxist revolt. This seems to be a dilemma that we cannot escape from".*

Nietzsche: *"Jean-Paul, you always were a Marxist, and I am glad you have introduced the topic of class struggle into our conversation. People may have been fooled by your existentialist beginnings, but your statements on group revolutionary activity and rebellion against authority are at the heart of what you have just called 'community building' - there can be no purely isolated human being with individual experiences, we are all shaped by those persons and events around us; as identified by Heiskanen and Newman (n.d, p. 122), when expanding the work of Schon's reflective-practitioner "Through their transactions with a situation where the practitioners shape it and make themselves part of it" they become agents within the body of their own enquiry. Moreover,*

you have always advocated conflict and the collision and interaction of wills, its presence is an essential ingredient in your philosophies. The very origin of (revolutionary) change is the existence of profound disagreement (McWhinney, 1992, p. 62) and is the natural order of things (King, 1981, pp. 13-22). A community is a gathering of individuals who exist at the edge of disintegration, at that narrow boundary between fragile stability and chaos. They oscillate between disagreement, cooperation and sometimes collaboration - but only when an external threat mobilises a collective frame of reference that unifies their values and efforts for a brief moment. Smith (1977, p. 446) states that "Whatever the form of the political systems, the differing sectional values within a plural society are a profound source of instability". Agreement is a fragile condition wherein activists have suppressed their concerns momentarily in the absence of any stimuli.

Guy: *"You are both right. We need to find a new democratism, on many different levels, one that can bind together (religious) diversity (Huntington, 1996, p. 193). Jean-Paul made a central theme of his work that people must rely on their creative powers, rather than the imposition of authority. Others have recognised that "the principles of democracy - such as the equality of human beings - cannot deny the immense variability of human experience and human attributes" (Diamond, 1995, p. 2). So democracy can certainly provide a forum for dialogue, but it alone is not enough. A 'new', deeper, democratism is necessary - because "the high ideals that characterise democracy are not readily transferable into practice" (Diamond, 1995, p. 3).*

"An interesting examination of 'participative democracy' can be found in van Beinum (1990) in Trist, Emery and Murray (1997, pp. 570-588). The article contains references to the holocaust - the darkest event in modern history - and "how it overtook man's imagination to conceive evil. So the

practical part must come from within, deep within us somewhere I believe are the answers. The core of our being conceals the good, the right thing to do; it needs to be exposed in order that we may cast aside our superficial layers that we use to mask our identity".

Ixion: *"You talk as if there were some kind of moral or guiding force at work. It doesn't know right from wrong. If my behaviours are consistent with my moral position then I am doing what I believe to be right, what I know to be right. If someone else is harmed because of it, then so be it. What am I to do, change my beliefs so that my moral outlook conforms to what somebody else expects of me? What you are really talking about here is moral conservatism, or ethics for the masses".*

Nietzsche: *"People may say they have ethics that guide their behaviour, but they have deluded themselves. I created my superman (Zarathustra) to counter this myth, he will provide the salvation - "the Superman feels deeply, but his passions are rationally controlled. Concentrating on the real world, rather than on the rewards of the next world promised by religion, the superman affirms life, including the suffering and pain that accompany human existence" (Microsoft Encarta, 1996) he is the voice of the 'will to power', the realisation that I am that which must overcome itself again and again. Many people look to a religion for guidance, for spiritual direction. Our gods have failed us, we must demolish their ancient habits of mind".*

Satre: *"We have always recognised that there is a vertical progression of ideals or goals that we seek, and the satisfaction of the ingredients at each level allow us to pursue those at the next level. Your earlier comments of your family Guy seem to me to be firmly anchored to the lowest set, where physiological and security concerns are the primary focus".*

Guy: *"Yes, although many philosophers have known this, it was Abraham Maslow, a founder of humanistic psychology, who developed and popularised a hierarchical model of human motivation, in which the highest need, ultimately that for self-actualisation, can only be expressed after lower needs are fulfilled. Rogers (1961, p. 35) also identified a "growth tendency, a drive towards self-actualisation, or a forward moving directional tendency [as] the mainspring of life".*

My question is "How do we transition between these levels?" What is happening to those around us as a result of our movement upward? In a world fuelled by greed I contend that it is at the expense of some other poor soul, often one who may be alongside us, family or friend; but equally some unknown individual in a distant land who is being affected indirectly by the combined effects of many he will never see. Their labour or resources are the enablers of our ascent - as long as we can detect movement upward then we are motivated to achieve, to strive further".

"Furthermore, we may view Maslow's model as a fractal structure. There are incremental levels that we are not aware of. For example, at the first level - the 'physiological needs' level of food and shelter - there are five internal levels: these can be thought of as the physical items at the first level, the sustainment, or security, of these needs at the next; the sharing and exchanging of food, warmth and shelter in a community or social grouping at the third level; and so on. Somewhere within this more complex model is the requirement to recognise, share and foster the achievements and successes of others. I think our simplified view of this complex model is allowing greed and individualism to dominate".

Satre: *"Our conversation so far seems to have bounded the notion of good and evil and the existence of morals or ethics that allow these to be defined within the individual or group. If the behaviour of others, guided by their own beliefs, do not accord with ours, and we believe them to be*

sufficiently insensitive to the needs of others, then we demonise them and call them evil if their behaviours are sufficiently extreme".

Ixion: *"I could ask you "What is evil"? I have been accused, and punished, for committing what others saw as an evil act. To me it was an acceptable course of action. Who are they to judge me".*

Guy: *"Evil acts or evil people. People can only be considered evil if they perform evil acts. There is no evil without a manifestation of it through people. Adolph Hitler is considered one of the most evil individuals of the twentieth century. His views were extremist and dictatorial, striking fear into many, for others he was a man of great vision who held the promise of profound change, prosperity and growth for Germany. Definitions are always awkward. Words really mean nothing in themselves, they simply conjure up additional meanings found in other words. If we look for an explanation of evil, part of the understanding can be found in what evil is not.*

Good is what readily springs to mind. But good for who? Hitler and his goals represented good for him and the like-minded supporters who surrounded him. He saw evil in those who didn't conform to his worldview, they represented barriers in his path to a righteousness that he passionately believed in. What we are really talking about here is an intolerance of diversity. The intolerance is what gives rise to a low threshold for action".

Ixion: *"Evil is a useless term. You get what you want and you use whatever means you must to achieve it. You talked earlier of a 'superman' Nietzsche - your 'Zarathustra' - one who has turned his back on Christianity. I don't understand how you can worship a god, yet abandon all the teachings of that god".*

Nietzsche: *"You twist my words Ixion. The philosophies of Zarathustra do not seek an abandonment of Christianity. They look to a grander "self-sufficiency-in-joy"; an emancipation from the teachings of religion. We have gone beyond religion. We have discovered new ways from within, an examination of the self that provides us with purer ideals and morals. A need to externalise the origin of these through orientation against a religious or spiritual plane would pollute the very purity that derives from their source - the human soul. Christianity is but a step to enlightenment, it is not enlightenment itself, it is not the object".*

Guy: *"You have all raised interesting points. My conclusion, and the main theme of our discussion it seems, is that there must be a deeper dialogue between the inner and outer worlds, the conscious and the unconscious. A lack of reflectivity, including lack of awareness (or choosing to blind oneself from an unpleasant reality) of the unconscious lies near the heart of many failures to act. If we are to change then the realisation must originate from within. This is evident in the words of McNiff (1995, p. 91) who makes the accusation that "so long as people believe it is sufficient to present their message only in conceptual forms, there will never be critical self-reflective practice, for practice will not be in the world, but in the imagination".*

Summary and Conclusions

In this chapter I have set out the framework for the thesis, providing some preliminary insights to my research approach and the major influences that have shaped my particular orientation. I have called upon the need for self-reflection throughout professional practice and explored some of the difficulties that must be overcome if success is to be achieved. My rich picture attempts to portray visually and symbolically the elements and relationships that bind the subject

together in a way that allows simultaneous expression of what is, what could be and possibly the paths that one may take.

I have concluded with an analysis of my own thoughts and the concerns I have for the inability of the human spirit to bring about action. The world of self-reflection and heuristic inquiry embodied within the dialogue probably seems strange to some, as does my writing style that is necessary to preserve (and convey) the depth and richness of the exchanges. I consider this as my pathway on the hero's journey and believe that it may lead us to new ways of understanding ourselves and the roles we can play in events.

I leave the reader with a powerful quote from Lieutenant Colonel Dave Grossman in his address to the Human Face of Warfare conference held in Canberra and hosted by the Land Warfare Studies Centre in 1999. It summarises the key theme of his address wherein a new breed of soldier must emerge - he/she is a peacekeeper who can not only bring offensive action to bear, if that is warranted and authorised, but primarily the role and purpose is *restorative* and *de-escalatory*. It is one of *constructive* not *destructive* measures.

For the rest of your lives you are going to be faced with individuals who are fleeing. They are fleeing drugs and crime and poverty and violence and oppression and the fear that lurks in the heart of every man and woman and you have the authority and the responsibility and the mission to stand up and say "*Friend, neighbour, brother, sister, are you looking for a safe place*"? And they'll tell you "*yeah*", And then you tell 'em "*then get behind me, because I'm a soldier and this is as far as the bastards are gonna get!*"

Lieutenant Colonel Dave Grossman, (1999)

CHAPTER TWO THE PHILOSOPHY OF (AUSTRALIAN) NATIONAL SECURITY: TIME FOR A POST-MODERN MILITARY?

Firstly, what business are we in? Well, in a superficial sense, we all know we are in the defence business. But what will that mean in the 21st century?

Lieutenant General Sanderson, Chief of Army
New Era Security, 1996, p. 99)

Overview of the Chapter

In this chapter I endeavour to provide an insight into the machinery of national security, with primary emphasis on attending to questions within the research topic. It will become evident that the situation is growing more complex and requires creative thought to develop options and solutions. Indeed, the sub-title for this chapter could have been: 'From Set Piece Engagements to Hot Peace Relationships, Where to From Here?' As will also become evident the need for the future scenarios presented in the next chapter, which serve to provoke unorthodox thinking and solutions, is drawn into sharp focus. It is my aim to make clear that we have yet to come to terms with where we now find ourselves, Grossman's earlier words of guardians protecting those who flee raises important questions. The final part of the chapter is devoted to the organisation over which the research is conducted - The Special Forces Group.

Security is like oxygen - you tend not to notice it until you begin to lose it, but then once that occurs there is nothing else that you will think about.

Joe Nye, former Assistant Secretary of Defense, USA (n.d.)

Motivation - A Post-Modern Military

Australia, in the closing months of 1999, stood astride a defining boundary in its military history; we witnessed the largest troop deployment since the Vietnam

War, coupled with the nearness of that deployment and the additional complication that Australia had no experience at leading large coalition peacekeeping operations, as INTERFET (International Force in East Timor) was ultimately to become. Leaping ahead almost two years to August 2001, we now witness a national resolve to deal effectively with people smuggling, involving a tense diplomatic situation between Australia, Indonesia and Norway and the primary involvement of the Australian Defence Force to contain and convey the illegal immigrants to a third country for processing.

The question we must now ask ourselves is, "Does this herald a new, more mature Defence posture that relies upon the strategies of peacekeeping, peace enforcement and military diplomacy (Hills, 2000) to bring about favourable outcomes"? Outcomes which interestingly, still (and possibly will always) amount to the imposition of one nation's will upon another (Clausewitz, 1832, Howard & Paret trans.), but without the high casualty figures that we seem (thankfully) to have grown a marked intolerance for.

It is also interesting to note that at the same time as this operational deployment occurred the Australian Government chose to subject the largest component of the ADF - Army - to a detailed examination of its role, purpose and primarily its suitability for peacetime, peacekeeping and war. Although this examination predates the East Timor operation by several months (the Minister of Defence officially announced on 27 April 1999, that the Joint Standing Committee on Foreign Affairs, Defence and Trade (JSCFADT) was to conduct this examination) it will lay bare many of the issues that have shaped the INTERFET deployment and hopefully expose many insights into the articulation of national security policy through to Defence.

In addition to questions of suitability, the Committee was directed to "review the current and proposed changes to Army to ensure that it provides viable and credible land forces able to meet a range of contingencies" (Joint Standing

Committee on Foreign Affairs, Defence and Trade, 2000, p. xv). These 'contingencies' that form the range have not been stated explicitly and, therefore, the range would appear to be open-ended offering little guidance for planners. Indeed, the report makes an early admission in their report that:

the approach taken by us during the inquiry was that peacetime, peacekeeping and war are not distinct and separable conditions. All armies must be able to operate within a conflict spectrum. To successfully resolve a dispute the Army must be able to be effective at both ends of this spectrum. In situations short of large scale coordinated violence, the Army must be adept at what we termed soft security measures. This includes an ability for negotiation, humanitarian relief and information dissemination....[it] must [also] be able to apply physical force in what we termed hard security measures [emphasis added].

(Joint Standing Committee on Foreign Affairs,
Defence and Trade, 2000, p. 5)

The need for these soft security measures is increasing and reflects the observations made by Hill (2000). It is inevitable that military forces will be placed in operational contexts in which their training is limited. This is attributable to the single-mindedness of military leadership on war and warfighting. It has its origins in the belief that the spectrum of conflict is narrow and dominated by statements related to what the military uses to define itself, its *raison d'être*. This conflict spectrum has been presented in a number of formats; all, however, resemble Figure 6 (Australian Army, 1998, p. 2-9).

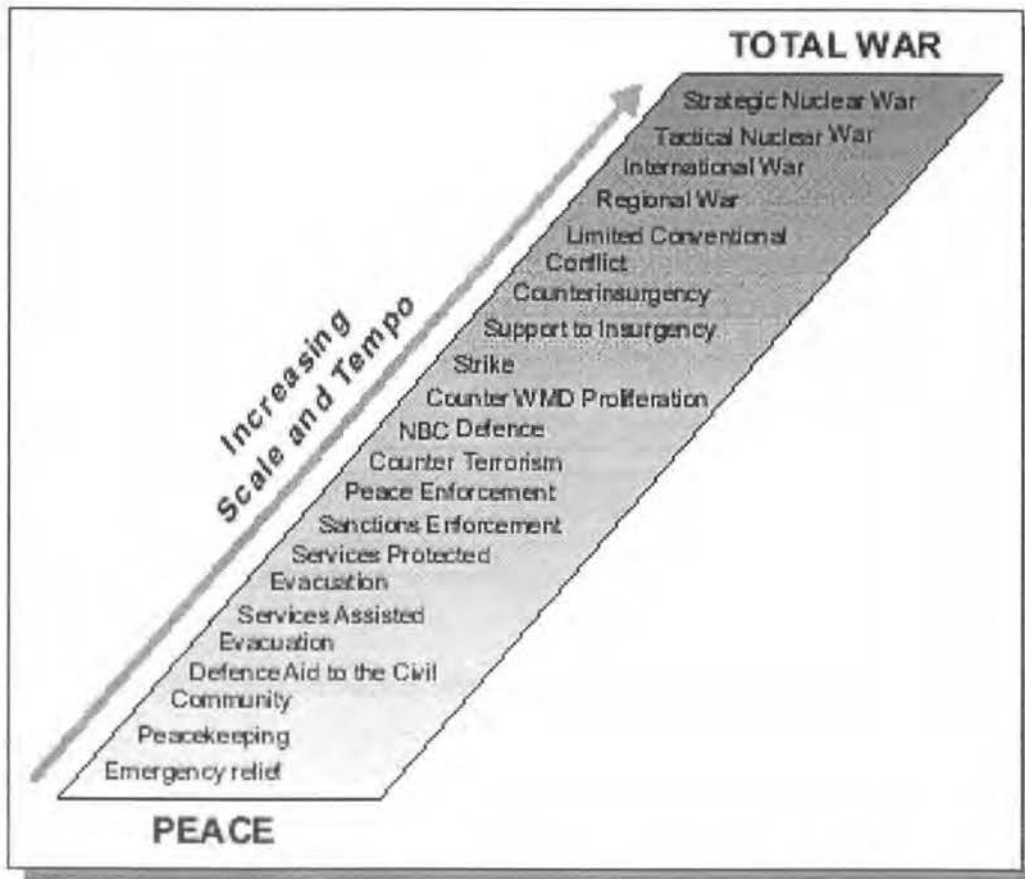


Figure 6. The spectrum of conflict.

It interesting to note that within this model, that contains the boundaries of what must be dealt with, 'non-conflict' elements are numerous. Although these are adequately described as 'military support operations' with the "focus on overcoming a problematic environment, be it physical, social or political" (Australian Army, 1998, p. 2-10) the measures undertaken remain entangled with those related to conflict (warfighting). Indeed, the words 'scale' and 'tempo' illustrated in Figure 5 have a pre-occupation (within their definitions) with the specifics of warfighting. *Scale* relates to "relative geographic range and/or political consequences of failure", whilst "tempo is the rate or rhythm of activity relative to that of the enemy, within tactical engagements and battles and between operations" (Australian Army, 1998, p. 2-9). These self-limiting descriptions,

containing words such as 'enemy', are unable to accommodate the complexities and ambiguities of non-conflict situations, wherever they are located on the spectrum or continuum. Discussions with Brunskill (1999) during a Defence Operations Research Conference in Adelaide (at which I co-presented a paper on scenario planning) indicated that 80% of the operational deployments over the last ten years have been non-warlike. Whilst it is uncertain what constituted the remaining 20%, it is clear that there is an imbalance and the ADF is being prepared, equipped and manned for tasks that it is (more) unlikely to undertake in the future.

A Fixation on Fighting

Given the above comments, it is uncertain whether a fixation with this paradigm, a confidence in a 'concept-led' approach that is dominated by responses to *conflict* (structured for war, adapted for peace) and *warfighting* postures can ever lead to more intellectual depth and rigor. The place for this intellectual depth, as a critical element, is illustrated in Figure 7 (Australian Army, 1998, p. 5-2) and one which is contained within a larger framework, labeled by Army as (unfortunately it seems to me) "The components of fighting power [emphasis added]".

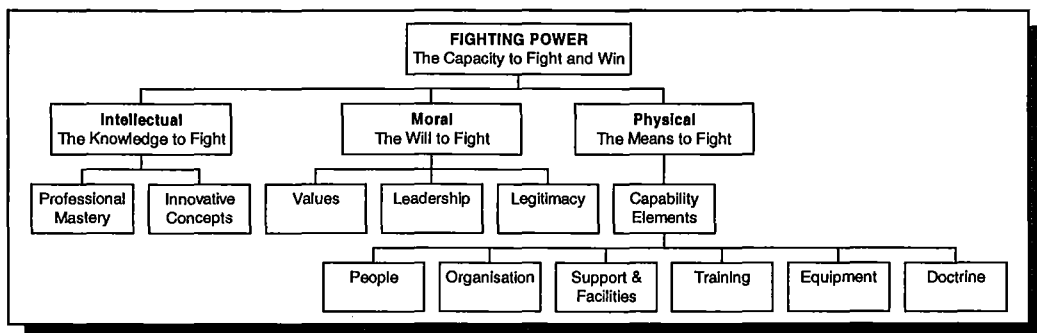


Figure 7. The components of fighting power.

It is evident then that the entire construct rests on and is reinforced by the application of coercive power as a principal endeavour. Doctrine repeats the

necessity for a warfighting capability to be retained, albeit with a (much more frequent) requirement for the adaptation to employment in non-conflict situations. We should hope that diplomacy can avoid a situation where aggression will (ever again) be directed against us. Our role would then become one of buffering between two opposing sides who are unable to engage effective diplomatic measures.

Notwithstanding all the above comments, any independent examination is warranted, indicates a healthy capacity for (national) self-evaluation and is not unlike that which is going on in other countries. Indeed, military forces worldwide are experiencing similar dilemmas as they are forced to recognise the importance of *peaceful* resolution and the associated structural changes that are imposed upon their primary role as instruments of national military power and policy. It is this subject, and the discovery of similar work being undertaken in the United States, that has confirmed the need for the development of the effects-based application discussed in Chapter Four.

The difficulty remains for leaders and policy-makers in that the thinking must break free of current boundaries. What we are drawn to recognise is that "part of the problem is that we tend to think of conflict as, simply, a breakdown in a particular system, rather than as the emergence of another alternative [and for others legitimate] system of profit and power" (Keen, 1996, p. 14). Conflict is the inability of a social system to accommodate 'tension' and represents a natural escalation.

Broad Progress

Gone are the days of large military forces standing ready to protect other allied nations through the mechanism of ironclad defence agreements - a policy of deterrence. We are now firmly in an era of engagement and transparency, but one that remains troubled by the need to implement, more frequently it is becoming

apparent, United Nations mandated coalition actions to impose the will of the international community upon rogue states that would otherwise upset the fragile balance of peacetime competition.

Furthermore, trade imperatives and the rapid expansion of the free market enabled through advances in communications technology have juxtaposed *diplomacy* and *national prosperity* as awkward bedfellows. This has introduced dilemmas in the provision of aid and infrastructure support to restore a working government and social framework as rapidly as possible following the withdrawal of peacekeepers. We can expect that the transitional phases in East Timor will be troubling for Indonesia, its major Asian partners and our Defence Force as we see and experience our way forward.

The test to our diplomacy and strategic posture in the region is under immense pressure. How we fare will depend largely on our military and its ability to act with tact, sensitivity and above all an enduring de-escalatory influence.

This chapter further addresses the core purpose of the Australian Defence Force as it is enshrined within the National Military Strategy, it further examines the difficulties arising from political and societal demands upon it to be a 'non-violent' military instrument of national policy. This oxymoron is one that continues to bother defence planners as they confront the (changing) core purpose of the ADF and observe similar trends in other countries. Indeed the "Strategic Defence Review of July 1998 proposes that one of the ways in which Britain should contribute to the maintenance of international stability is through the creation of a new core military mission, defence diplomacy" (Hills, 2000, p. 46). For developed Western nations this may prove to be their most effective (and productive) use and could be considered post-modernist, an ideological departure from the use of destructive, coercive means.

The moral imperative of purposeful (post-modern military) action has taken root and is expressed in the following quote:

Defending the New World Order will demand the collective use of military force, particularly to deal with some of the more violent convulsions of self-determination claims. This will require the political will to use military force for novel purposes: to defend democracy from violent overthrow, to protect the human rights of large groups of people (notably minorities) from egregious violations, to end humanitarian nightmares or to stop a devastating civil war.

Halperin, Sheffer and Small, (1992, p.6)
Self Determination in the New World Order

My use of the term 'military *post-modernism*' aligns with the explanation given by Hodge (1995, p. 38) in the "sense it gives of an open-ended receptivity to the unpredictably new, in particular its responsiveness to new themes and new ways of thinking, writing and producing knowledge". We need a military that can avert conflict through deeper levels of cooperation with the elements of national power, combined with an effects-based national security strategy.

National Security Strategy

From this point forward it is necessary to occupy the reader's mind with descriptions of strategy. The subject is confused and multi-faceted, with a large intellectual divide between the government and military. Without oversimplifying what is an enormously complex area I offer a quote from the Joint Standing Committee on Foreign Affairs, Defence and Trade that spells out quite crisply what (the role of) strategy is and for my purposes here it links strongly with language I will use later in Chapter Four. "Traditionally the role of strategy is to decide how military means can be used to achieve political ends [emphasis added]" (Joint Standing Committee on Foreign Affairs, Defence and Trade, 2000, p. 14). The reader may wish to return briefly to the glossary as these terms should start to clarify from this point forward.

In any consideration of Australia's military and its purpose it is necessary to understand the framework that positions the Defence effort - our National Military Strategy, which is distilled from a National Security Architecture. This is depicted in Figure 8 and clearly illustrates that Defence is but a single player in a complicated game.

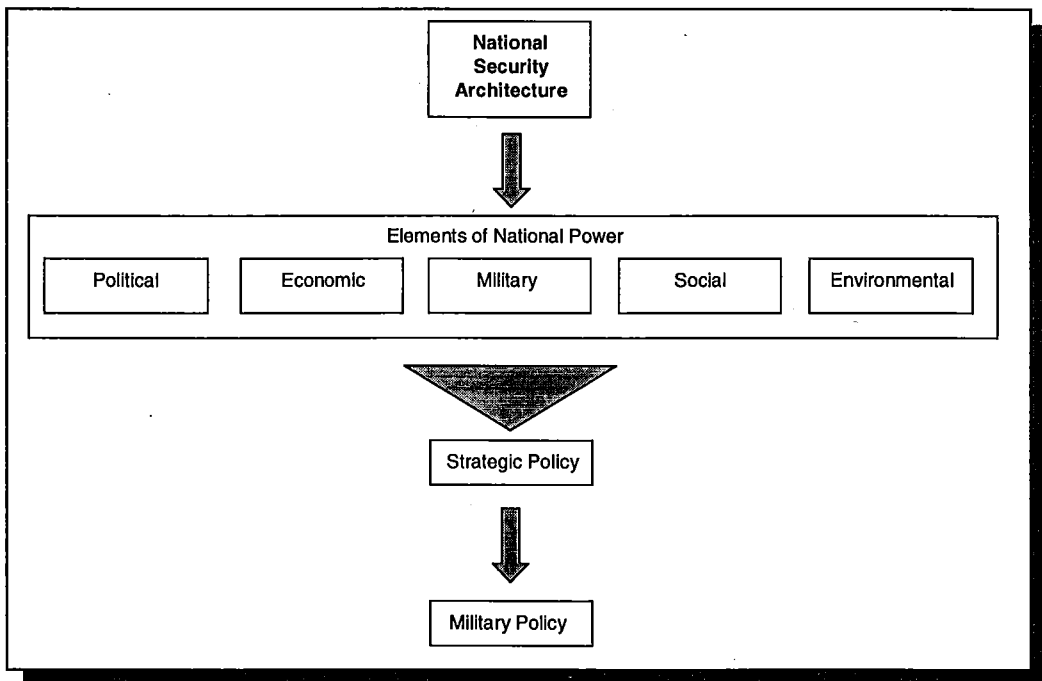


Figure 8. Australia's National security strategy.

The National Military Strategy

The ADF has a framework of military strategies, or endeavors, that set out ways that Government might employ the ADF to achieve national security objectives. The framework, which supports Australia's National Security Strategy, consists of Australia's National Military Strategy (NMS) and subsidiary strategies, which describe the military contribution to dealing with a wide range of threats in peace and war. This military strategy has five components, each with their own set of operational and tactical elements. These are set out in Figure 9.

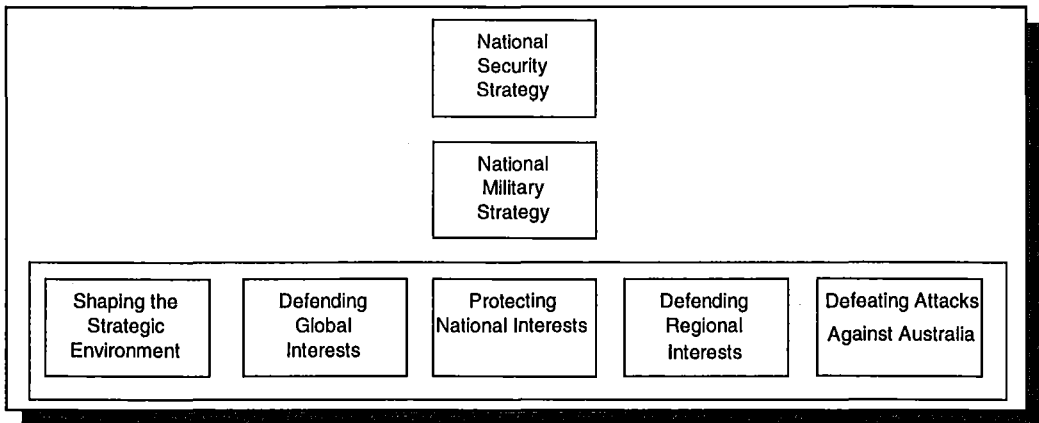


Figure 9. The National military strategy framework.

The mission of the Australian Defence Force is to *Prevent or defeat the use of armed force against Australia and its interests*. This mission involves, therefore, two key dimensions:

- the development and maintenance of the capacity to defeat any use or threat of armed force against Australia and its interests; and
- the promotion of a regional and global security environment which enhances Australia's security by reducing the likelihood of armed attack against Australia and its interests. Policy direction is embodied within the White Paper.

The focus of the White Paper (2000), which this chapter pre-dates the release of, will be on the development of military capabilities to meet the range of missions the Government wants Defence to perform at a given level of spending. In a Defence Portfolio document (Department of Defence 2000, p. 4) this was expressed whereby:

The aim is to expose, in as stark a way as possible, the relationship between the strategic outlook, the essential roles and missions the ADF must perform, the Defence capability implications and money. The White Paper will demonstrate much more clearly than in the past the relationship between specific potential missions and

the cost of being able to develop and maintain the capabilities
Defence needs to perform each mission.

(Department of Defence - Portfolio, Defence intranet, p. 4)

Having had several insights into the processes used to construct these relationships it is my belief that fundamental flaws prevented the discovery of new conclusions, therefore not offering decision-makers the starkness (of exposure) mentioned in the quote above. These flaws are beyond the scope of this thesis to address fully, but relate primarily to the inclusion of phraseology that denies the possibility of unconventional and asymmetric responses or measures. These unconventional and asymmetric measures will be explored in more detail within Chapter Four. In the meantime, the National Military Strategy will be laid out fully to provide a foundation on which to (strategically) analyse future capabilities.

The five elements of the National Military Strategy are:

- Defeating Attacks Against Australia.
- Defending Australia's Regional Interests.
- Defending Global Interests.
- Protecting National Interests.
- Shaping the Strategic Environment.

Each of these are discussed in detail.

Defeating Attacks on Australia - DAA

DAA is the ADF's primary task and, therefore, its primary force structure determinant (Department of Defence, 1997, pp. 29-31). The training, equipment, personnel and doctrine are bound up in the need to defeat attacks against Australia and thereby protect territory, population, resources, infrastructure or institutions

against a regional power. It is the essential foundation of Australia's wider defence posture and informs and shapes our major alliances. Defeating attacks against Australia is by definition a role that calls upon the full application of combat power to defeat an aggressor.

Any moves towards a defence posture characterised by peace operations would necessarily alter the balance and makeup of the ADF. The notion of 'structured for war, adapted for peace' as a recently introduced construct to reconcile this imbalance and limit its damaging effects will be introduced later.

Defending Australia's Regional Interests - DRI

Australia's security from armed attack depends on the security situation in its immediate neighbourhood and in the wider Asia-Pacific region (Department of Defence, pp. 31-32). Australia's defence posture, therefore, must include the means to influence strategic affairs in the region and the willingness to contribute to regional efforts to promote regional security. Alongside these diplomatic measures at securing stability Australia must maintain a credible capability to engage in any conflict within the region that threatens our security.

Defending Global Interests - DGI

Notwithstanding its strong focus on the Asia-Pacific region, Australia also has clear strategic interests at the global level (Department of Defence, 2000a, pp. 3 and Department of Defence, 2000b). The foremost of these is Australia's responsibility to support the United Nations. Australia also has strong interests in supporting its major allies in resisting aggression, where the United Nations is unable to achieve this outcome - multi-national operations and operations other than war, also referred to as military support operations (These are operations other than combat operations. The Army further divides military support

operations into peace and support operations. Examples of military support operations include disaster relief, humanitarian aid and peacekeeping operations).

Protecting National Interests - PNI

This covers a broad range of peacetime activities that may be directed by government as being in the national interest. These include ADF participation in international peacekeeping, humanitarian, and disaster relief operations; evacuation of Australian citizens abroad; counter-terrorist operations; and maritime surveillance and response operations. Examples of this component of the NMS have, for simplicity, been bundled into the broader subjects of Defence Force Aid to the Civil Power (DFACP), Defence Aid to the Civil Community (DFACC) and Counter-Terrorism (CT).

Shaping the Strategic Environment - SSE

This strategy has as its aim the building of Australia's relationships with its alliance partners and neighbours in the region, so that the chances of conflict are reduced or, if conflict does occur, the chances of Australian and allied success are increased. This strategy requires military credibility based on a combination of relevant professional attributes and reputation as an effective fighting force. Education and training of foreign military personnel, ship visits, and exercises and exchanges are examples of activities conducted under this strategy.

A review of the suitability of the Australian Army to provide viable and credible land forces able to meet a range of contingencies is timely in the light of Australia's present circumstances. The Army presently provides the ADF with a modest array of capabilities able to meet immediate needs. These capabilities are adequate for immediate peace and peace support operations, albeit with a constrained ability to sustain a commitment over time.

National Security Interests and Objectives

It was stated earlier that the National Military Strategy was a supporting component of the National Security Strategy. It is important to remember that the protection of Australia's national security interests is a matter of *national* policy, not just *defence* policy, and requires the application of a whole-of-nation and whole-of-government approach. It is equally important to appreciate that this national policy is embodied within broader democratic ideals of tolerance and the pursuit of peaceful resolutions to tension. Nevertheless, it remains a fundamental role of government to ensure the protection of Australia's:

- territory, airspace, territorial seas, and maritime resource zones;
- citizens; and
- national and international political and economic interests.

From the three points above it can be deduced that the over-riding security interests are to safeguard physical security, to preserve Australia's capacity for independent decision-making as a sovereign State, and to sustain the existence of a democratic system of government - a government that is actively engaged in regional and international affairs in order to win (its own) prosperity and growth.

This role requires protection against both military *and* non-military threats to national security.

- Military threats are those that might be posed by the military forces of other nation-states. These threats may be direct, for example, the threat or use of armed force on Australian shipping, aircraft, territory or population centres. Military threats may also be indirect, for example, the committing of military acts of aggression in other parts of the world that put global security, or Australia's regional security environment at risk.

- Non-military threats are those that might be posed by other than the military forces of other nation-states. These threats cover a very broad range of possible occurrences, including deliberate disruption of Australia's economic activity, especially of its international trade; illegal immigration; influx of refugees and externally-induced environmental degradation. Other threats include pandemics; threats to primary industries from imported animal and plant diseases; illegal fishing; international sabotage of the national information infrastructure and transnational crime.

Collectively these encompass a broad spectrum of situations involving both conflict and non-conflict - a question of risk, coupled with a level of likelihood - or 'probability of occurrence'. These two inter-related issues have been displayed at Figure 10 (Adapted from Engelbrecht, Bivins, Condray, Fecteau, Geiss, & Smith, 1996).

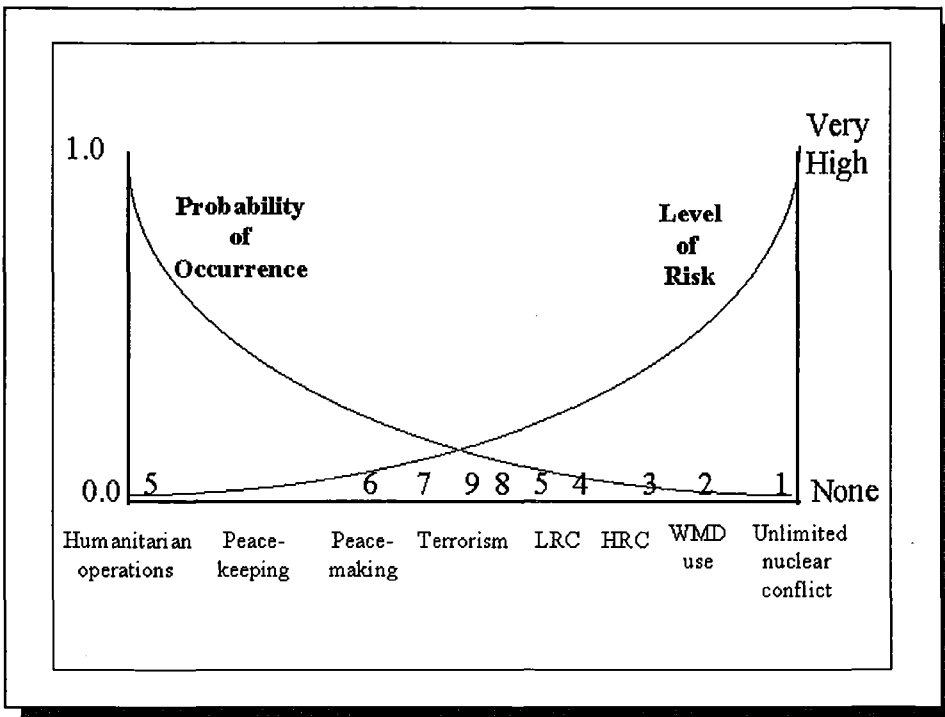


Figure 10. Conflict probability-risk functions.

1. High end global competitor
2. Low end global competitor
3. High end regional competitor
4. Low end regional competitor
5. Counterinsurgency
6. Peace enforcement
7. Dangerous nuclear/ industrial activities
8. Large-scale nuclear, biological and/or chemical proliferation
9. Non-state terrorism

If Figure 10 is an accurate representation on these two dimensions then positions 6, 7, 9, 8 and 5 on the horizontal axis contain the largest area under the intersecting lines and, therefore, should focus defence planners' thoughts on the force structures necessary to succeed in these types of operations. Clearly, the ADF's present posture is aligned against position 3 - high-end regional competitor and a combination of positions 1 and 2 as part of alliances with the United States and others.

It is uncertain whether any examination of the suitability of the Army for peacekeeping, peacemaking and war will consider the veracity and usefulness of a simple diagram such as this. The message is quite clear; the imbalance leads to an awkward organisational configuration that somehow is never able to match itself with the situations it finds itself in. This topic will be addressed in more detail within Chapter Four with several references to marketing orientation as a strategic organisational input.

Before dealing with how decision-makers cope with this complexity it would be useful to point out that the National Military Strategy is under review, is likely to change to accommodate other issues and will change again in the future. Indeed,

the Military Response Options (MRO are subject to the Official Secrets Act) that are a detailed account of actions and assigned force elements is also under review.

The unknowability of all this adds legitimacy to the 'structured for war, adapted for peace' theme that now demands our consideration. The source, level and complexity of threat will always pose considerable problems, if we position our approach firmly around conflict then we should not be surprised by events that confirm our lack of preparedness.

Structured for War, Adapted for Peace

The Chief of Army, in his address to the National Press Club on 14 April 1999, stated:

There should be no doubt about this: the Australian Army's focus is – and must remain – the delivery of warfighting capabilities that are world's best practice. To aim for anything less would be an insult to our people in uniform; and a betrayal of the nation. I have seen the results of a peacekeeping culture in several armies in recent years. Those are not the kind of Army that this country needs. They are not the kind of Army that will earn the respect that is the foundation of successful peacekeeping.

Lieutenant General F.J. Hickling, (1999) Chief of Army
Address to the National Press Club, Canberra.

Although Major General Hickling's words carry several messages, the key message is clearly that Army's posture and preparedness will remain one of warfighting and not peace keeping or peace-enforcement. To support this view an approach known as 'structured for war, adapted for peace' has been crafted by Army Headquarters staff that aims to secure confidence in our ability to adapt when warfighting skills are not called for. This is rather optimistic and fails to recognise that the skills are markedly different, as will be demonstrated in

Chapter Four where I present an effects-based analysis of defence capability planning.

In peace operations it is possible for a young, relatively inexperienced commander to make the right tactical decision in the field, but the result, in the fullness of time, is found to be politically disastrous and inappropriate. It is my view that the premise of 'structured for war, adapted for peace' will receive critical review during the Senate inquiry and be exposed as flawed and unachievable. This view is reinforced by a senior Department of Defence official who declared:

I do not think that we have yet got to the point of providing the Army with a really clear statement of what it is meant to be doing ... To my mind at least, one of the key objectives of the present process is to make sure that we do that.

Mr H. White, Deputy Secretary Strategy.

This statement has particular relevance to the layered model presented in Figure 2 whereby information flows are interfered with.

Some Thoughts from Kosovo

Briefly departing from the Australian context allows us to consider the confused events in other parts of the world. This perspective can enable us to better understand our themes. The former Yugoslavia is one area that cries out for a solution to relieve the suffering and endless political bickering that has crippled the country and destroyed the spirit of the people, although many would consider their resolve to have hardened it in ways that will inevitably lead to more violence - a spirit of anger and hatred. This example is also valuable in drawing attention to the complexity of the East Timor situation, illustrating that what one side values as being a favourable outcome may be totally inconsistent with what the other side perceives.

As a brief reminder, the conflict in Kosovo was:

- Not a major theater war like Desert Storm.
- Not like Korea, Iran or Iraq in terms of the operational planning guidance scenarios.
- Not supporting U.S. vital interests, but 'humanitarian' concerns.
- A return to Vietnam's 'gradual escalation' rather than Desert Storm's 'overwhelming force'.
- Not a fair fight: Major Power NATO vs. Third World Serbs.
 - NATO: 775 million people & 57% of world GDP.
 - Serbs: 11 million people & 0% of world GDP in a nation half the size of Victoria.
 - NATO: Essentially a live-fire military exercise (30,000+ air sorties were flown).
 - Serbs: No offensive or defensive weapons comparable to NATO.

But STILL it:

- *took* 1,100 aircraft and 70+ days to force Milosevic to concede (reinforcing the Clausewitzian doctrine that war is a clash of wills, the imposition of one nation's will upon another, or a search for asymmetry - a topic I will deal with more completely in Chapter Four).
- *allowed* the Serb Army to withdraw from the conflict with most tanks, artillery and intermediate air defence weapons intact.



Figure 11. A common effort concealing widely differing objectives.

Portrayed above (Figure 11, source unknown and circulated freely on the Defence intranet amongst planners) is a diagram that illustrates the divergence of opinion that can surround a single theatre. In this example, an internal conflict that is characterised by 'war' (an accurate definition has continued to trouble policy makers since the end of World War Two), is superimposed with a peace-enforcement operation by a multi-national force operating under United Nations authority. I propose that a similar confused arrangement could exist when examining the roles and objectives of the participant nations in INTERFET.

Staying with Kosovo for one further example, we can make several illustrative judgements about how the United States' effort has looked to allies and foes in other regions:

- Many observers believed that the US and NATO applied power recklessly against civilians for less than 'vital interests'.
- A reluctance to accept casualties and 'Poll as you fight' made the USA an unpredictable ally.
- There are clear limits to US global surge capability and 'numbers' still count, Kosovo was an example of insufficient numbers being mobilised.
- High-tech or not, the US can be fooled by good operational decisions.
- Easier to bomb the civilian infrastructure first - get the military targets when

you can as they will generally be well hidden and difficult to engage.

It is clear that many misunderstandings and misjudgments have occurred during the two peace enforcement operations highlighted in this section (Yugoslavia and East Timor). These are likely to increase in both frequency and consequence. The message for Australia and the focus of our attention here - the Australian Army - is whether we can begin to think through these complex situations, develop plans and responses that are alert to all possible perspectives and transform the organisation to one that is 'restorative' in goals and objectives, rather than destructive.

The Messages for Australia

The shift towards a peace enforcement/peacekeeping posture for the Australian Defence Force is undeniable, it is part of a larger international movement. How rapidly this shift occurs and how successful it ultimately proves to be is dependent upon many things, not least of which is the ability of the Defence Organisation to recognise that we have departed from an age of 'set piece engagements' to arrive in one of 'hot peace relationships'. The ends of the continuum that these points define are far apart and the zone between is complex, ill-defined, overlapping and problematic for diplomatic and military strategies. Different structures and postures are called for. I assert that these demand tact, diplomacy and the involvement of the *warrior diplomat* in winning a secure region.

Where to From Here

We should look carefully to the experiences of our larger partner nations as they deal with the same issues. There is grave danger in not remaining prepared for periods of increasing tension, there is also grave danger in inappropriate responses or misreading indicators. Clearly a balance must be struck between an ADF that is optimised for war and one that does not possess the capabilities to respond to

situations that involve skills more aligned with peace enforcement or peacekeeping.

The report of the Joint Standing Committee and the Defence White Paper 2000 may herald a new role that can span the gulf from peace operations to war, hopefully preparing us for more peaceful resolutions to conflict.

Here we will learn that each of us bears responsibility for our actions and our failure to act. Here we will learn that we must intervene when we see evil arise. Here we will learn more about the moral compass by which we navigate our lives and by which countries will navigate the future.

President George Bush, 15 February, 1991
Inscribed on the wall of the Holocaust Museum in Washington.

In considering the realignments that may deliver a 'post-modern' military, we must now look to the organisation that may offer a place for these changes - the Special Forces Group.

The Special Forces Group

The Special Forces Group is an organisation comprising 1200 personnel, spread over five Australian States and Territories in seven separate locations. It has the role within the Australian Defence Force of conducting operations beyond the range and capability of other force elements. This definition (essentially a definition by exclusion) has become less useful as world events continue to surprise security planners; with operational deployments becoming more complex, less defined militarily - with a warrior diplomat, humanitarian, peacekeeper, rescuer, coalition participant and possibly UN sponsored action becoming more commonplace.

The place for these developments to occur is within an unconventional organisation, where novelty is fostered. The novelty then must emerge on

multiple levels. It is not only about the behaviour of the people, it is also about the supporting training, doctrine, organisational structures and purpose. I have discovered that many of the business and institutional aspects contained within the broader field of organisational behaviour do not transfer to a military institution; there are cultural and ideological complexities that exist on many dimensions. These will also have to be discovered.

The views expressed here are derived from a consideration of domestic, regional and global trends, characteristics and policies. The points made are intentionally simple and direct, and represent core opinions of complex issues, which can be analytically sustained. Considered in total they provide a clear direction for the strategic development of the organisation.

It would be valuable for the reader to become familiar with the cultural subtleties and nuances that pervade an organisation of this nature, although not essential as they are mirrored in many unorthodox institutions (Rich, 1994). There is a growing fascination with these organisations, fuelled by the large number of published non-fiction books by ex-members containing amazing stories of operations and training (Connor, 1998; Horner, 1991). The purpose of Special Forces within defence and national security and how it became evident to me that a disciplined, systematic approach to futures thinking was vital to establishing a solid foundation for change and redefinition and one that would win support and ownership.

Summary and Conclusions

In this chapter I have prepared the reader's mind for the next two chapters with an understanding of national security strategy and national military strategy. It was not meant to be burdened with messages of messiness and institutional inadequacy (although I fear that some of these may have been conveyed). If this has occurred then I would like to emphasise that inter-departmental levels of

cooperation are (usually) high and genuine attempts are made to bring order to what is an extremely difficult area of policy with reasonable levels of success and effectiveness. As will be pointed out later there is a complexity and non-linearity that permeates this entire area of human (inter)action, almost defying any reasonable attempts to bring about desired effects (Alberts & Czerwinski, 1997).

I have contrasted Australian policy with some examples of international efforts to control conflict, showing that perspectives differ dramatically and what may seem to be an appropriate course of action can be hopelessly inadequate.

I have also outlined the nature and purpose of Special Forces and the important place it occupies with Defence bringing the discussion back to the context of this research. This outline will be used to foster acceptance of the need for forward, scenario-based thinking, the subject of Chapter Three.

CHAPTER THREE CONSTRUCTING PLAUSIBLE FUTURES

The past is of no importance. The present is of no importance. It is with the future that we have to deal. For the past is what man should not have been. The present is what man ought not to be. The future is what artists are.

Oscar Wilde

Overview of the Chapter

This chapter explains the use of Field Anomaly Relaxation (FAR), a systems approach to futures planning that guides the construction of scenarios in a more structured way than many other methods, particularly those that demand high(er than normal) levels of imagination and creativity throughout. The aim of scenario planning, within the context of this research, was to provide a relatively unbounded forum for novel thoughts and ideas regarding organisational renewal. These unusual concepts and imperatives, that would be present within the minds of the organisation's members, must be expressed within a broadened perspective of the future. It would therefore, draw forth the collective knowledge (to be populated into the database in Chapter Four) that would otherwise remain unrevealed and untested.

Its aim was not to attack conservatism or orthodoxy, but to provide an environment in which present beliefs could remain unchallenged, whilst simultaneously exploring other possibilities. This was achieved through the use of Checkland's (1972, 1980 and 1981) and Checkland and Scholes (1990) Soft-Systems Methodology and the possibilities of accommodating individual and group concerns through adherence to the stages of SSM: an unstructured problem situation (SSM stage 1), a problem situation expressed (stage 2), a conceptual model (stage 4) and a comparison between stages 2 and 4, with all having a legitimate place as a repository of knowledge and information to enable purposeful activity and minimise 'rice bowl' discussions (stage 5). How I used the

full seven steps of SSM to preserve present beliefs, explore the new (stage 6) and then bring the two into juxtaposition (stage 7) will be set out in this chapter.

The FAR methodology was selected as it provided for the manipulation into scenarios of a diverse range of change drivers. These drivers may be derived through various means in many futures planning, forecasting and predicting methodologies (Schwartz, 1991; Taylor, 1993; McRae, 1995; Builder, 1987; Digby, 1988; Loescher, Schroeder & Thomas, 2000), which in turn provide a macro framework from which to consider how events may unfold. I conclude, however, that the FAR approach exhibited a superior ability to rapidly distil a massively unworkable list of possible permutations into a reduced set of possible co-existent elements. In the final section of this chapter I also include some insights into the automated version of FAR that I developed.

A novel approach was also taken to encapsulate the end-states that emerged from the construction of the Faustian tree, an integral part of the FAR process, allowing a re-examination of the drivers and their dominance in developing themes. As will be demonstrated this further extends and tests the FAR process.

Seven *drivers*, major influences that cannot be changed, act to provide the boundaries for five future world situations arrayed on a *Faustian tree*, a map of interconnected scenarios. These future worlds are further developed into rich narratives that describe 20 individual scenarios. The product of the futures work is linked back to the organisation to provoke creative thought and unconfined dialogue designed to contribute to initiatives for fruitful change. This paper presents an account of the use of FAR to build scenarios for the Special Forces Group faced with an increasing rate of change in its operational environment.

(Organisational) Change as a Constant (Improvement)

Before discussing in detail the use of FAR and the processes that led to the construction of the 20 scenarios I need to explain a model (see Figure 12) I developed at the beginning of the research that conveyed a sense of the dynamic nature of change and progress and the important place that the Special Forces Group occupies within this continuum of change. This model will be expanded upon briefly in Chapter 4 when fully exploring the nature of effects-based operations and what form(at) the organisational transformations need to take to accommodate the conclusions of the research. The model's use here illustrates that current paradigms are fragile and transitory and future events are already beginning to shape the change, indeed everything is in the state of becoming something else.

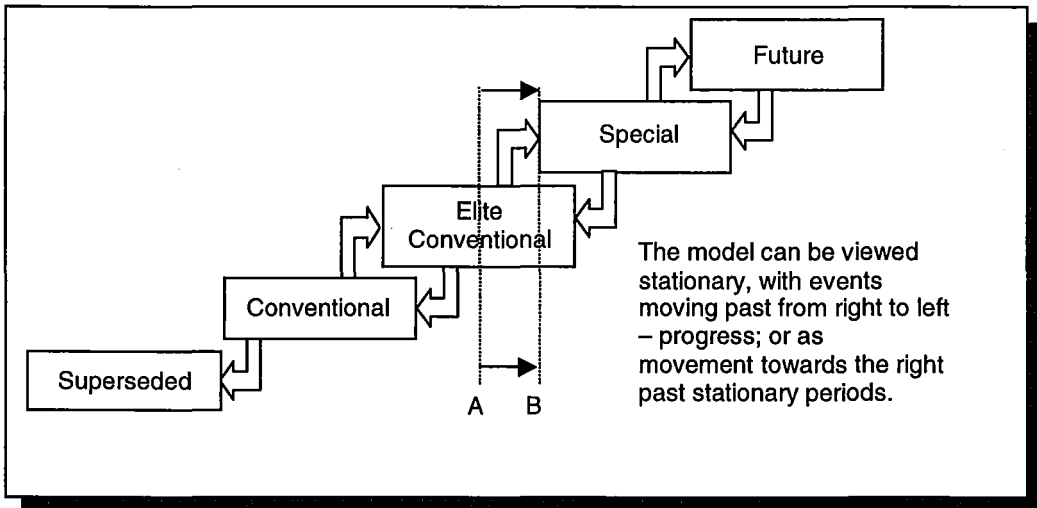


Figure 12. The nature of change and progress.

Special Operations (see Glossary) should exist at the forward or leading edge of military capability (within the rectangle labeled 'Special' in Figure 12) and remain the primary domain of Special Forces (see Glossary). They are the practitioners of these operations and have been screened, selected, equipped and trained to

perform them. Although I have not provided additional contextual information in these rectangles - Future what?, Special what?, Elite Conventional what?, Conventional what? and/or Superseded what? It is a simple matter to add 'operations', 'administration', 'logistics', 'personnel', 'training', 'recruitment' or other descriptor. The operations, for example, conducted on the 'edge' must by definition be novel, unorthodox and surprising. It follows that the supporting administration, logistics, personnel management procedures and other factors, that support them must also be somewhat different from the mainstream to accommodate that novelty. There must, therefore, be a movement of the boundary from 'A' to 'B'. This striving for difference has not (routinely) occurred and can be attributed not only to phenomena within the organisation, but also to a military and political leadership that is characterised by conservatism towards the very organisation that is expected to be *doing different things (not the same things differently)* in order to discover the newness that eventually others will benefit from the practise of. These are the qualities that Stacey (1996b, p. 314) regards as essential to thrive at the boundary between stability and instability because "systems are capable of novelty and variety (creativity and innovation in organisational terms) only when they are pushed far from equilibrium to the edge of disintegration". If 'ordinariness' is preserved or imposed then 'difference' can never emerge.

The model indicates, in an ideal setting, the requirement to reach forward and hand back military capabilities simultaneously. It is the only way by which progress can be made. Handing back is possibly more critical as it creates the organisational slack necessary for creativity,

I used this model on every occasion that I brought the subject of organisational change to a new audience. Its simple yet powerful messages have proved to be unassailable. There is an underlying logic that demands acceptance. Once this logic is acknowledged then every subordinate organisational issue somehow becomes swept up in the collective opinions that result. The model has become so central to the idea of orchestrated change that I intend to integrate its key features into the strategic plan. It is suggestive of a course of action that seems to provide an effective method of satisfying perceived needs. It is seductive.
Personal reflections, 16 June 1998.

experimentation and innovation (Nohria & Gulati, 1997), in any event this slack is necessary to achieve the three interwoven roles of undertaking core operations, enabling attention towards the new and emergent and the formal handing back to elite-conventionals and conventionals whose own capacity must be developed as a cooperative effort, allowing the necessary movement from the boundary at 'A' to a new boundary at 'B'. A fascinating account of an organisation's success in the area of experimentation and innovation can also be gained from Rich (1994) and Rogers (1995).

This model was accepted quite readily and proved to be a valuable tool for building consensus around (at least the conceptual) initiatives for change. Its logic could not be disputed by senior decision-makers, but having accepted the powerful messages it conveyed they proved unable to adjust their behaviour, despite the existence of powerful indicators for change produced by the database application discussed in Chapter 4.

I have confirmed many of the capability development, modernisation and operational analysis projects (many of which are subject to the Official Secrets Act) are advancing methods within the Elite Conventional domain. The discovery of new capability (doing different things), with an associated handing back of capabilities to secure the necessary slack has not been attended to with enough vigor and the organisation is essentially doing the same things differently.

It is inevitable that over time many of the techniques, practices and procedures will be adopted by mainstream military organisations (those occupying the rectangle labeled 'Elite Conventional' and 'Conventional'). The message this model seeks to convey is that well forward of what is considered 'the way things are done' is a large part of 'the way things *will be* done'. There are new, more advanced methods that eventually will become mainstream (routinely performed within the conventional domain). They must become the focus of experimentation

and innovation now and become an area of interest and curiosity for Special Forces as part of a managed plan for change.

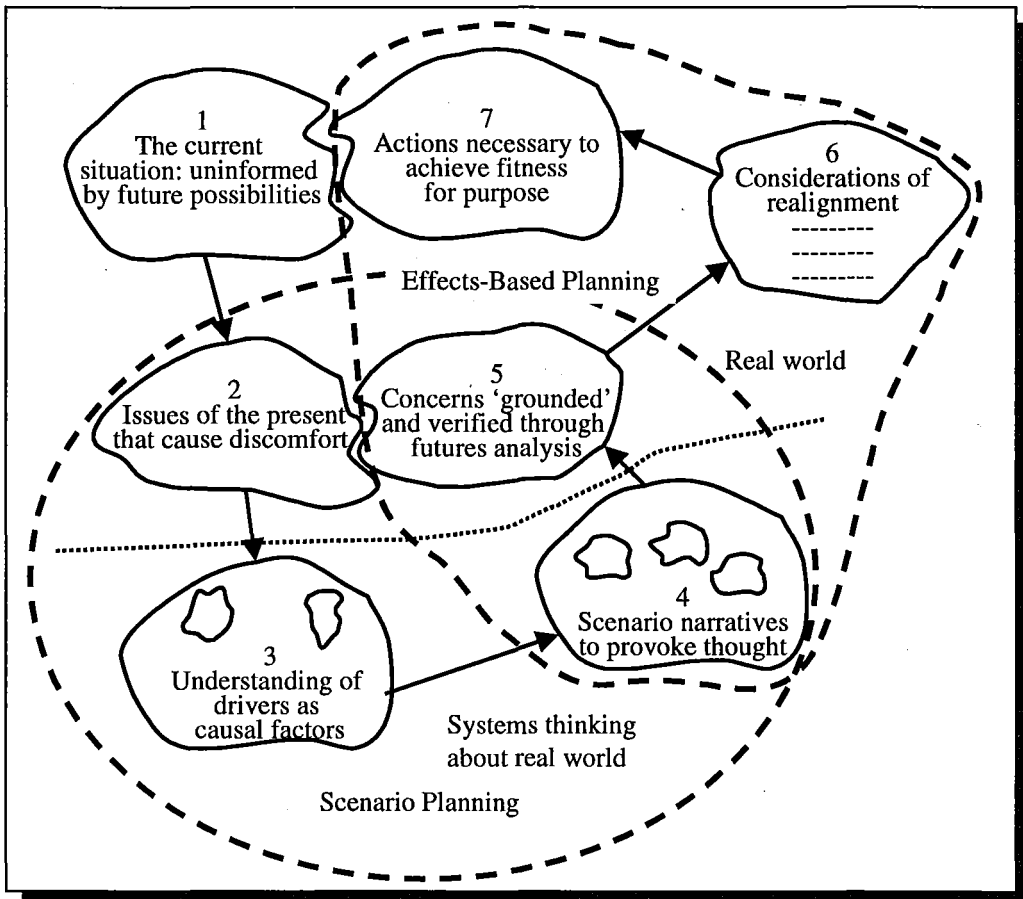


Figure 13. Scenario and effects-based planning mapped over Checkland's SSM.

At Figure 1 I used Checkland's seven stage SSM model to introduce the ideas of 'what is?', 'what could be?' and the possibility that these could be asked simultaneously to a group. As I have already stated I believe that scenario planning and effects-based planning constitute knowledge management systems and are valuable aids to the building and reinforcement of consensus. Figure 13 shows how these processes can be mapped over the SSM model to secure the active involvement (and consensus) of planners.

To better (more efficiently) develop and maintain an appropriate (more effective) Australian Defence Force (ADF) its elements must be continually alert to the strategic environment (a subject dealt with at length in the previous chapter) and the shifts and adjustments that occur. These two factors combine to produce a military operations research focus that can inform decision-making on the three levels of: tactical, operational and strategic. On the strategic level an evaluation of overall operational capability may be undertaken as a means of securing national security, but as will be shown this falls well short of bringing forward the totality of change demanded through those shifts within the strategic environment.

A military operations research approach can aid in answering three key questions related to national security (Nicholson & Duczynski, 1999):

- What is it the capability seeks to do?
- What performance measures should be used to judge capability?
- What sort of analysis is required?

One consequence of this questioning process is the requirement to balance the present capability needs with those required in the future, a need to maintain and develop/build simultaneously. The need for these to fuse together confirms the logic of an effects-based approach (the first and third questions) that is linked to current and future scenarios (the first question), coupled with the addition of ratings (the second question). The performance measures used to evaluate capability are discussed in Chapter Four (the second question).

Considering issues of future capability expectations for the Special Forces Group, falls within the bounds of the definition of the term 'capability development'. One accepted definition is the function 'performance gap closing' in terms of force structure and preparedness (both are in the Glossary), where preparedness is a function of equipment stock holding, equipment condition, manpower and

training and preparedness relates to the time allocated to achieve operational deployability - an expression of poise.

However, this definition is only accepted with the caveat that capability is not independent of external factors, nor is it a constant. It depends on the circumstances (the contextual environment) in which the forces would be employed. Special Forces conduct Special Operations, being outside the scope of conventional ADF elements in form, purpose and function. Adaptability is, therefore, a critical characteristic.

Thus, the emphasis of this chapter is the conceptualisation and study of external factors and circumstances and then what role, if any, Special Forces may have in them as a contributor to a resolution. These can be derived by the formulation of scenarios to achieve the necessary dislocation from the present.

Scenarios

Scenario planning, and numerous other, albeit somewhat lesser known, methods have become increasingly popularised through the proliferation of management books dealing with futures thinking, coupled with a widening acknowledgement that systems thinking and practice may provide answers to many of the unstructured problems that plague organisations. For scenario planning to be effective, a *useful set* of scenarios must be constructed against which the organisation or area of interest can be tested.

This useful set of scenarios must encompass a sufficiently broad range of conditional ingredients that offer enough possibilities for variation and divergence. Without this possibility for divergence a single path into the future is formed which, despite the boldest imagination, cannot accommodate more than a single scenario or a narrow collection of qualitatively similar (and therefore, not useful) scenarios.

The importance of isolating these multiple pathways into the future can be seen in Figure 14 below. It illustrates the variety of trajectories that are plausible, but of course only one will eventuate. It is likely though that this single future history will be a combination of those already foreseen as a result of thorough scenario planning.

Furthermore, “In the analysis, as a prelude to finding ways to compensate for uncertainty, an effort can be made to forecast or map the many possible futures, rather than to predict a future environment in the sense of specifying a single sequence of events” (Quade, 1964, p. 172).

The model enables the positioning of different worlds out in the future, the pathways that can be conceptually followed through narratives have many twists and turns that must be explained. The directional changes must be attributable to something. These scenarios are the history of the future.

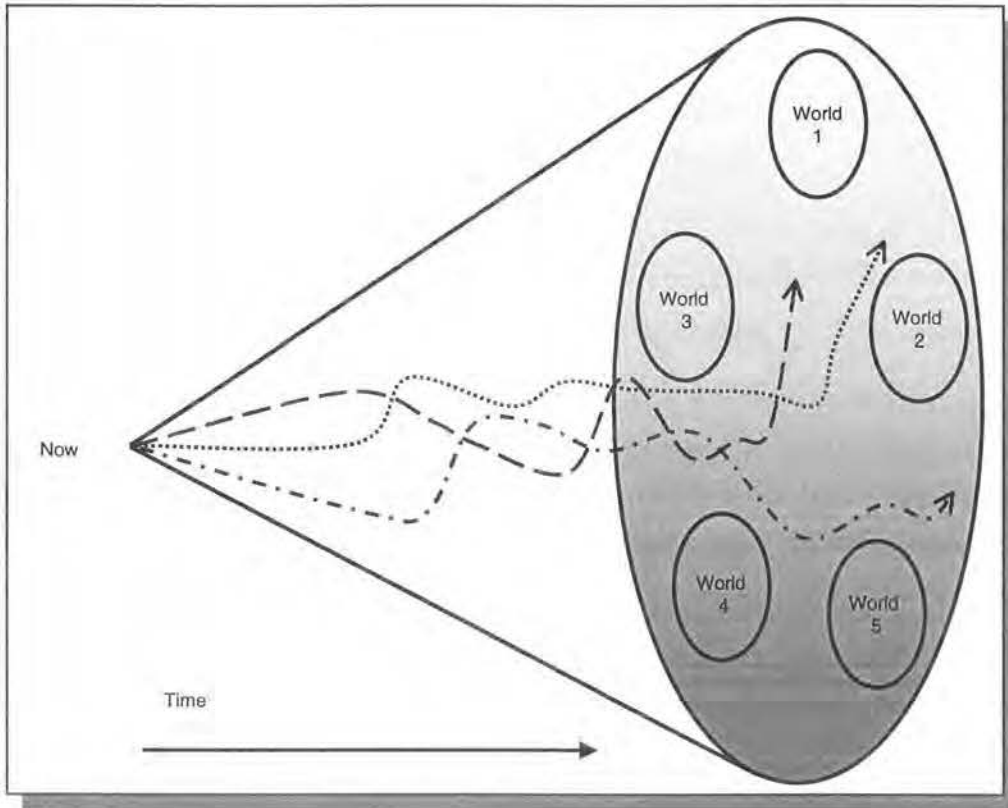


Figure 14. The importance of multiple pathways for ensuring diversity.

These differing pathways are necessary to provoke decision-makers to consider variety. "In choosing organisational designs, people do not confront an infinite range of choice.... If their organisations are to be purposive, they have to be adaptive over a wide range of evolving circumstances" (Emery, 1993b, p. 214); providing further reinforcement for an adaptable organisation.

The Context and Purpose of Scenario Planning

Many emergency response organisations: law enforcement, military, fire fighters, paramedics and disaster relief, to name just a few, use scenarios on almost a daily basis to sharpen their capacity to deal with the unexpected. Through a comprehensive set of 'what if' statements and structured events they are able to rapidly cycle themselves through a bewildering array of problem situations. The

result of this focussed training and the associated flexibility of mind it demands is a highly agile team that can rapidly adapt structures, techniques and procedures to overcome situations in which indecision and hesitancy are not options. Pilots undergo multiple repetitions of emergency situations in simulators to create this necessary rapidity of response and action such that problem-solving is reduced to an instinctive sequence of behaviours, in effect allowing the mind to remain clear and unencumbered to deal with those few contextual aspects.

The same signals and noise that invoke this stimulus-response mechanism are present in areas where a slower rate of adaptation (evolution?) can be appropriate. Nevertheless, the perceived equilibrium can be punctuated by rapidly changing events that accelerate quicker than policy making can contend with (the escalation in violence following the East Timor independence elections provides a vivid recent example). As stated by Schwartz (1991, p. 3) "not having tried to foresee surprising events, they are at a loss for ways to act when upheaval continues".

These (shocking) realisations are made even more confronting when it became "evident from the public's response to this crisis [in East Timor] that the community's expectations of the Defence Force are greater than those perceived by the Department of Defence" (Joint Standing Committee on Foreign Affairs, Defence and Trade, 2000, p. 45). The key lesson presented is that policy makers are often institutionally blind(ed) to the array of surprising events that may occur at short warning, with significant benefits attached to the exploration of scenarios as a means of overcoming this.

Stacey's (1996b, p. 37) explanation of complex adaptive systems operating at the boundary between order and disorder (chaos) provides a means of coping and an environment in which mutations occur spontaneously and much more rapidly, because "in open-ended change situations ... [managers] do not know how their actions may be related in a cause-and-effect sense to the outcomes of those actions". It is not easier to do nothing.

Various methods have been devised to cope with this, with scenario planning being just one. Additional and equally valuable insights can be gained from an entirely discipline. The diagram below (Figure 15) is borrowed from the work of Wickens (1992, p. 20) and Signal Detection Theory. It has relevance to decision-making and certainly is an important device for this research, as "perfect performance is that in which no misses or false alarms occur" (Wickens, 1992, p. 20). An important ability for policy makers involved in national security.

		State of the World	
		Signal	Noise
Response	Yes	Hit ++	False alarm +-
	No	Miss -+	Correct rejection --

Figure 15. The (only) four states of the world.

The model can be summarised as:

- There was a signal and it was detected - Hit.
- There was no signal but one was created out of the noise - False Alarm.
- There was no signal detected and no response was made - Correct Rejection.
- There was a signal but it remained undetected - Miss.

Scenarios can aid in the development of this ability as they can sensitise the observer to signals and noise, providing for more precise discrimination. A

diagram, known as a Faustian Tree, presented later indicates how these signals can be detected.

The scenarios, and more importantly the use of them for long-term planning, are certainly not *predictors* of events, nor are they attempting to *forecast* the likelihood of particular situations. They simply aid in the provocation of new ideas. Before proceeding, these terms of *forecast* and *predict* require clarification as they are often used interchangeably in practice and within the futures literature. Borrowing Coyle's (1997, p. 78) explanations to distinguish between them he states that "prediction [gives] a sense of telling beforehand, whereas forecast has a sense of general assessment of a likely course of events. Thus, forecasting means to think systematically about the unknowable future in such a way as to generate understanding to support effective intervention in, or protection against, events yet to occur". *Projection* is another term that has become synonymous with scenarios, but its use should remain restricted to those methods that employ mathematical or statistical data to extrapolate trend lines into the future where some degree of reliability and validity offer the necessary (technical) confidence.

These methods do not tax the imagination whatsoever, a recent example being that "Japan, the land of the planet's longest-lived people, now has more of its citizens aged 65 or older, than under 15. While records for the rest of human history can't tell us, it's unlikely any other society has ever been so old" (Cornell, 2001, p. 7). The economic aftershocks and other destabilising influences (conspiracies of events) are what the futurist must contend with. I am not interested in projections. Communication with Coyle, one of the more prominent authors on the use of FAR and a visiting lecturer to the Australian Defence Force Academy in Canberra, has confirmed the need for this type of (systems thinking) work and its applicability for planners.

E-mail from Geoff Coyle

27 July 1999

Guy,

I didn't get to see the paper you have written on Field Anomaly Relaxation but, if you want to send it to me I will be happy to comment. In the meantime, well done and good luck with your further work.

I had a long talk with Charles Newton and he is hoping to get me out again to repeat my courses. If I do, I am sure that you would be most welcome to sit in on the effort.

Keep in touch.

Regards,

Geoff

The explanation of 'forecast' is more useful than projection for my purposes here and is certainly an ample descriptor for those personnel involved in the emergency, short-term situations mentioned earlier. What then for organisations seeking to adapt to changing events that may span many years and involve complex inter-relationships that conspire in ways that are not immediately evident?

As a practitioner in need of a systematic and disciplined approach to developing a useful set of futures, the FAR methodology has proven to be highly valuable.

Field Anomaly Relaxation

FAR is one example of a structured judgement approach that allows the user to think systematically about the world and its unknown future. It allows multiple scenarios to be developed that are subsequently displayed in a Faustian Tree. The tree maps out the transitions and pathways that are plausible. It affords a transparent and traceable account of how the future scenarios are derived. The tree also provides for an aggregation of individual beliefs regarding the interaction of the drivers, ensuring a holistic and unbiased approach is taken when trying to derive likely future world scenarios.

Russell Rhyne, the original architect of the Field Anomaly Relaxation technique, advocates adherence to a four-step process to projecting futures (Rhyne, 1974, pp. 132-166; 1981, pp. 331-360; 1995; 1998). The process has been further developed by Coyle and a series of co-authors undertaking studies at the Defence Institute at Shrivenham in the United Kingdom (Coyle, 1984; 1985 and 1987; Coyle, Crayshaw & Sutton, 1994; Coyle & McGlone, 1995, pp. 65-79; Coyle & Yong, 1996, pp. 269-283; Coyle, 1997, pp. 77-93; Wood & Christakas, 1984).

FAR's use here concerns an elite Australian military organisation - The Special Forces Group - and its attempts to secure a rightful place within Australia's (rapidly changing) national security infrastructure, with the associated recognition that this place may involve significantly altered capability sets and organisational structures from what has proven successful in the past. The study was prompted by a need to re-establish the organisation's unconventionality and heralds a move into areas that can only be illuminated by futures studies and the timely anticipation of changing circumstances.

Little evidence is available of the use of Field Anomaly Relaxation outside those publications by Rhyne, Coyle, Coyle et al. and Duczynski (2000, pp 19-33). It is surprising that a method of such appeal and wide applicability has remained almost unknown, at least it has not been widely published in the management literature. Its one single drawback is possibly the tediousness associated with a thorough analysis of all judgements, a problem that has now been corrected with a fully automated version running within a Microsoft® application.

The process steps for visualising futures using FAR are:

Step 1: Form an initial view of the alternative futures that could unfold within the area of interest.

Step 2: Construct a language using *Sectors* that will become the dimensions of describing the area of interest; and *Factors*, which become the alternative states within each Sector and array these on a matrix to form whole field descriptors of all possible configurations.

Step 3: Eliminate those Factor pairs that are illogical or cannot co-exist, forming a reduced set of whole field (full sector range) configurations.

Step 4: Position the surviving whole field configurations on a 'tree' whose branches represent possible future states and transitions from one configuration to the next.

A Brief Example of Scenarios

If we take the four-step process just outlined and apply it to, say, a university setting in order to develop a reasonable understanding of these ideas at work, we may develop the following lines of thought:

- The futures that could unfold are the manifestations of thousands of interactions within a university, between a university and its operating environment and the 2nd, 3rd and nth order effects of interactions that occur within the external environment. A sense of the totality of all this must be gained. The stable, but cyclical nature and the violent and unexpected shifts all must be appreciated.
- Step 2 allows a language to be constructed around this expanded understanding. Level of government funding, student performance, staffing levels and capacity for change may be some of the macro determinants of performance. Each of these has a 'most favourable' and a 'least favourable' condition across a range: capacity for change may be expressed as *habitual*

inclination or *delayed*. Government funding may be *surplus to planned requirements* or *fight for every dollar*.

- Combining these in Step 3 allows discrete 'snapshots' of the environmental state to be explored. A *bold and decisive university leadership* condition combined with *rapidly rising student levels* and a *fight for every dollar* funding condition gives rise to a particular scenario that will be qualitatively different from one that retains two of these conditions but has for example: *stable student numbers*.
- Step 4 allows these individual snapshots to be strung together to form a range of trajectories out from the present, with branches and transitions providing for the movement up and down on the most favourable/least favourable axis.

A Hybrid Method

I have found the four-step Rhyne process to be somewhat limiting at Step 1 in this current work. If the initial view is constrained then the work can be flawed from the beginning. Indeed, Rhyne makes the suggestion that narratives and stories can be written to explore different themes (1974, 1981 and 1995). These could quickly take hold of the mind and form the basis for all considerations of the topic. Indeed, scenario planning done well has been described as providing a "fact-based, research-intensive, comprehensive picture of the future" (Rubenstein, 2000, 14).

A different approach was used that involved: group generation of a large list of drivers, with the criteria being that they must be beyond the organisation's ability to influence; compressing this list of drivers into broadened 'themes' that embodied the main thought being presented as the driver; and then entering Step 2. Step 4 was followed by the construction of a strategic planning space that was

bounded by the axes of a cube using three primary drivers outwards from a point of origin at one corner.

These modifications have been necessary due to the need to link this futures work into a larger study of organisational transformation using a technique that I have chosen to call effects-based planning. Rhyne has identified the importance of doing something useful with the results that engages a wider body of thought about change "...the payoff from projections of this kind [FAR] usually erodes unless solid uses for them are visualised from the start and pursued" (1981, p. 349). The fusion of these two processes: futures planning and strategy/policy making has corrected what has been identified as a main failure of existing planning.

An Open Systems Orientation

The slightly modified step 1 allowed an integration of the ideas of complexity and systems behaviour as set out by Emery and Trist in their foundational work on organisational environments, wherein "a main problem with organisational change is that the environmental contexts in which organisations exist are themselves changing, at an increasing rate and towards increasing complexity" (Emery & Trist, 1965, p. 21). Furthermore, the central premise was an acknowledgement that "a comprehensive understanding of organisational behaviour requires some knowledge of the lawful interdependencies" that flow unceasingly within, through and across environmental and contextual boundaries.

These were expressed as:

L₁₁ - the processes at work *within* the organisation.

L₁₂ - the *transactions* and *exchanges* that penetrate the organisation/environment boundary flowing *outwards*.

L₂₁ - those *transactions* and *exchanges* that flow *inwards*.

L_{22} - the processes through which parts of the environment become *entangled* and *inter-related*.

These lawful interdependencies have been discussed in great detail in a series of articles focussing on the theoretical foundations (Trist, Emery & Murray, 1997; Emery 1977b; Emery, 1996; Emery, 1999). These relationships, which accommodate the organisational behaviour and its origin, are illustrated in Figure 16. Bringing this subject out of the theoretical and abstract briefly we find that Australia exists within, and is affected by, the international system; therefore, these systemic interactions must be mapped to gain an holistic appreciation.

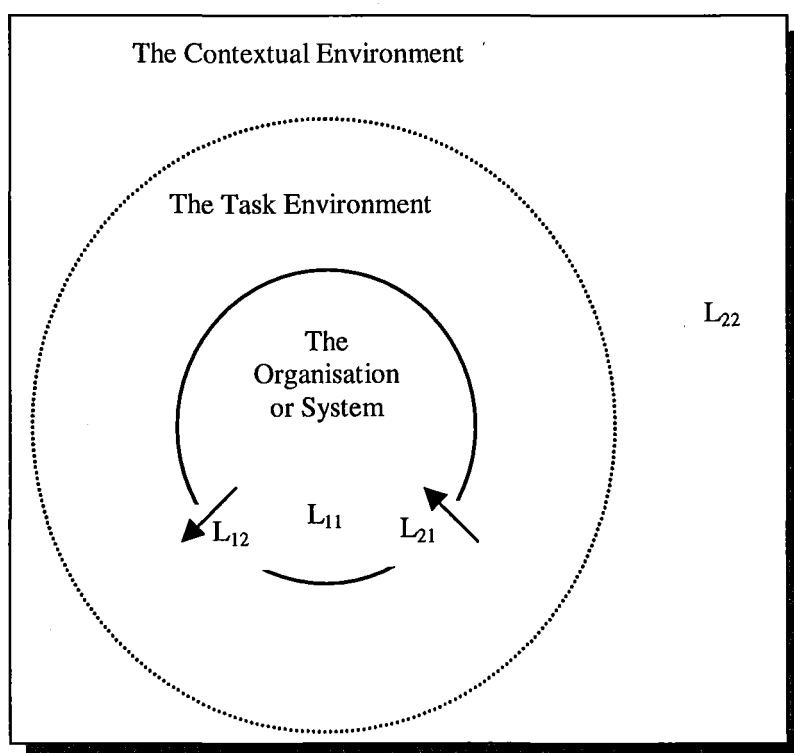


Figure 16. Environmental interdependencies.

Indeed, "the significant drivers of change (actors) within the international system which influence modern land warfare are: globalisation, ethnic strife, non-state actors, population growth, environmental degradation and media presence" (Australian Army, 1998, p. 4-2).

These drivers of change, and the reality of their influence, must be viewed as a constant and ubiquitous condition. Primarily because "The failure to appreciate the fact that the behaviour of the actors is in part responsible for the environment which then impinges on them can lead observers - and actors as well - to underestimate actors' influence" (Jervis, 1998, p. 271). Emery (1977) has provided further explanation of this through comparison with a volatility/instability equation drawn from the work of Ashby, Gardner and May, wherein:

$$\alpha < nC^{-1/2}$$

Where

- n = number of components
- C = probability of a pair of elements interacting
- α = average strength of interactions

These interdependencies and "instabilities in large complex systems" (Emery (1977, p. 11) can lead to self-organising behaviour wherein "the components of a system in effect spontaneously communicate with each other and abruptly cooperate in coordinated and concerted common behaviour" (Stacey, 1996, p. 330). It is a fundamental behaviour of complex systems that they adaptively self-organise. The biological origins of this phenomenon inform us that "contrary to our deepest intuitions, massively disordered systems can spontaneously crystallise a very high degree of order" (Kaufmann, 1993, p. 173).

Or they can behave destructively and deliver many unintended consequences that often run counter to our goals. As stated by Jervis "we cannot develop or find a highly specific agent which will do only one thing ... we can never merely do one thing" (Jervis, 1998, p. 261). Furthermore, "the apparent randomness ... can be shown to contain repeating patterns and the theory is valuable because it enables the search for "order within chaos" (Wing, 1999, p. 18).

The paradox of this has been neatly described by Rosenau (1997, p. 73) as 'framegration' in order "to summarily capture the tensions between the [simultaneous] fragmenting and integrating forces that sustain world affairs"; furthermore "The parts or agents of a complex adaptive system, being related to each sufficiently to form recurrent patterns, do in fact self-organise their patterned behaviour into an orderly whole" (p. 84). The ongoing dilemma for systems practitioners is that the orderly whole may not be of our design and may continue to adopt structures and emergent behaviour that defies deliberate organisational adaptation. Indeed, "human social forces are created in the same manner as the forces of nature Neither can be visibly touched, although their effects can be felt" (Pentland, 1998, p. 295).

So it was armed with knowledge of systems behaviour and its phenomena that the focus group began the task of crafting futures.

Identifying the Drivers

Recognising that a conspiracy of events and interactions prescribes responses and adaptation it then becomes necessary to form a useful view of these and of how they manifest themselves.

Visualising the Future

The first step of a Field Anomaly Relaxation (FAR) analysis is to define variables and their range which, when combined, allow likely scenarios to be built and described within a timeframe. To initiate the process, I facilitated a group consisting of several members of the Special Forces Group over a weekend in November 1998, with the express purpose of isolating the drivers of change.

A salient point was the justification of the need for the existence of an *unconventional* ADF element in an otherwise predominantly conventional defence force, especially where the prefix 'un-' also attached itself to terms such as 'liked'. Nevertheless, whenever threats to Australian security arise it is deemed essential to maintain the unconventional or special element. Such threats can span the full spectrum of psychological, economic, political, criminal and terrorism with operations ranging from offensive to defensive, recovery to reconnaissance. From this, two physical areas of operation were identified: the international and the archipelago/South East Asian region north of Australia which will generically be referred to as regional and domestic, giving three useful and distinct zones.

Causes of unrest or faction in each of these areas were envisaged to arise from any political, military or socioeconomic instability with environmental conditions playing a strong role as well. Due to their close economic ties it was thought that the relative economy of Australia to that of the region was a unique indicator of both domestic and regional (in)stability and the interplay between the two. However, the required response to deal with each combination of threat in each area demands a force that can operate as a single Service department (Army, Navy or Air Force) through to a multifunction, multifaceted corporation. At either end of this scale it must be capable of a high degree of interoperability with other defence force elements whilst maintaining its own identity. It is widely acknowledged that access to leading edge technology is imperative if Special Forces is, at best, to maintain their specialist capability. It is envisaged that the 'procurement' of such technology might in the future involve renting, buying, recovering or procuring through what could be loosely classified as non-conventional means.

This leads to further discussion regarding the governance of the Special Forces Group and whether the adoption of a self governing corporate structure may best serve the Special Forces Group's interest. With such a structure, funding and profit-making responsibilities would fall at the Special Forces Group's own door.

Such financial autonomy would lead to increased access and certainly accelerated delivery of technology. Other issues such as correct force mixture and skill base, self-selection processes and contract work should also be discussed. How close to reality such ideas ever get would be dependent upon future scenarios and the political will of those in a position to make such decisions.

Definition of FAR Matrix Parameters

From this consideration the parameters political will, technology, domestic, regional and international stability, economic situation and environmental conditions are extracted. With some careful manipulation, the first letter of each of these parameters form the acronym PREDICT which is adopted as the meta-syntactic variable from which to construct the Faustian tree. The parameters and their meaning are summarised in a table (developed by Dr Nicholson, of the early project members) I will present soon. Also included are the sectors that describe the best to worst case for each parameter. The scale of the sectors is self evident, with the language of the adjectives perhaps reflecting the desirability of each state.

Brief descriptions for each parameter will also be set out in the table. However, some discussion is given to explain the meaning of the parameters further as well as the limitations of the scale imposed on some of the parameters. Limitations are set to ensure that a manageable framework is constructed, rather than one that is allowed to extrapolate to enormous dimensions because the sector definitions are too narrow. The converse is also true - definitions should not be so broad as to make transition from one sector to the next inconceivable and thus render the analysis ineffectual.

The first step was to identify the drivers that would be most influential in shaping events. As stated earlier these drivers need to be beyond the planner's ability to

influence, the only acceptable response being adaptation. Over 60 candidate drivers were identified at this first stage.

These 60 drivers were then collapsed using *affinity diagrams* to reveal the major forces at work. The list that was taken to the next stage comprised seven key drivers, which is consistent with Rhyne's recommendations (1974, p. 139; 1981, p. 339); there is also a mathematically imposed limitation wherein the 'whole field' possibilities grow exponentially. Reducing the list to seven in this way does carry a risk that a driver (Sector) may become more dominant than others, embodying too many dissimilar items. This can be avoided at a later step in the process. It does, however, offer the advantage that reducing the numbers of drivers forces participants in the process "...to reach past several trends to find the unifying themes behind them" (Engelbrecht et al, 1996, Chap 2, p. 7).

The drivers selected were:

- Political Will
- Regional Stability
- Economic Situation
- Domestic Stability
- International Stability
- Condition of the Environment
- Technology

Political Will

As the focus of this exercise restricts itself to the possible future operating environments of the Australian Special Forces, the Political Will we speak of here is the propensity of government to authorise special operations in support of the National Military Strategy. The employment of this component of military capability by governments is problematic, affected by a combination of the ill-

defined boundary between military and non-military actions and the need for these actions to span the continuum of conflict.

Economic Situation

In an environment where peacetime competition endures, normal trade, business and investment exchanges will continue with resultant economic growth and prosperity. Australia's aim internally as the economic situation fluctuates externally is to protect against the damaging effects of chaotic global markets. Geographic considerations, amongst other reasons have forced Australia to pursue close ties with countries within the Region and as such developments in these countries do impact upon Australia and its economic position.

Domestic Stability

The domestic stability dimension is measured against the ability of government to match the expectations of the community in the delivery of goods and services and the level, duration and intensity of industrial action or civil unrest and discontent. It is an expression of social cohesiveness. The rise in violence witnessed in Great Britain throughout 2001, as (usually) unprovoked clashes between ethnic groups escalated into widespread property damage is a valuable case in point. This also provides an example of conflict within nations.

Regional Stability

Australia has a respected role in promoting and maintaining a stable region, one that is characterised by engagement through tolerance, dialogue and transparency. If any of these dimensions become affected, giving rise to mistrust, doubt and apprehension then stability within and between nations of the region may become

affected. Regional stability is characterised by an ongoing peacetime competition where government intervention is minimal and is limited to preserving diplomatic relations.

For the domestic and regional areas cohesion was thought to be the best term to describe a state where, conservatively, there may be a high degree of adherence to law and integration of all members of society, through to the extreme definition of solidarity or union state (for example grounded in anti-social or violent unrest).

International Stability

For the parameter international conflicts, it was considered that there would always be some altercation, albeit minor or trivial, somewhere in the world, even a peace march may be considered a 'conflict situation'. Australia's participation in international conflicts has, in the past, primarily been in a peacekeeping or peace support role. However preparedness levels should be maintained so that transition to a more offensive role is straightforward.

Condition of the Environment

Environmental issues have become steadfast in the political agenda with the general population now openly voicing their concern of the effects of holes in the ozone layer, increased pollution with increasingly mobile populations, El Nino, mining of uranium, etc. Australia enjoys a comfortable position in terms of area and resources per head of population and as such environmental stability. However it would be foolhardy not to remain vigilant of environmental problems that are arising in some of its neighbours primarily because of booming populations. Also, the procurement of nuclear and biological weapons by countries that are politically volatile is of particular concern not merely from the environmental impact of detonation.

Technology

Although technology is frequently avoided as a key driver in many futures studies, its use here was seen as important as advances in technology put a premium on the skills of people and in this area Australia has enjoyed a great advantage.

In the case of technology the most undesirable state may be perceived as one where technology starts to retard. However, this was determined as being extremely unlikely. Even given a scenario of complete, worldwide obliteration, relatively speaking it would be a backward step from the present day. Even given that context, development of technology would, at worst, stand still; that is, it would be conditions external to the development of technology not the 'mechanics' that would retard the process.

Building the Sector/Factor Array

When positioned as headings on a table (Table 1) these became the Sectors, incorporating the meta-syntactic language - PREDICT - to be used later (as a pronounceable word) when referring to different settings. The columns under each heading were then expanded to form a possible range of Factors or states in which that particular Sector could exist. These expressions range from the most favourable at the top to the least favourable. The final row in the table provides a brief descriptor of the factors' foci.

Table 1. Sector-Factor array

	Political Will	Regional Stability	Economic Situation	Domestic Stability	International Stability	Condition of the Environment	Technology
	P	R	E	D	I	C	T
1	Adventurous bold	Cohesion	Booming Superior	Cohesion	Minor conflicts	Improving	Overwhelming rate of change or development
2	Fencesitting, procrastination, cautious	Generally stable	Parity Competitive	Generally stable	Regional conflicts	Manageable/fixable	Continuing rate
3	Avoidance, extreme reluctance	Localised unrest, discontent	Inferior, declining	Localised unrest, discontent	Major theatre wars, multinational	Continuing degradation	Slowed development
4	Paralysis, catatonia	Widespread unrest, public uprisings		Widespread unrest, public uprisings	Mass destruction	Meltdown, catastrophe	
5		Anarchy		Anarchy			
	Propensity to take risks	Political, military, socio-economic stability of region	State of Australian economy relative to that of the region	Socio-political stability	Scale of military conflict elsewhere in the world	Effects on and of the physical environment	Development of technology on an international scale

From this was produced a total of 14 400 possible whole field configurations (4x5x3...). Clearly there are many illogical pairs that need to be discarded through a process of relaxation (hence the name FARelaxation). As stated earlier, and which can now be seen, the exponential growth to unmanageable numbers of permutations can be similarly collapsed through a process of pair-wise comparison which, as well as defining pairs that cannot coexist, removes entire whole fields that contain a single illogical pair.

Pair-wise Comparison

This pair-wise comparison process can take a number of forms, all are judgmental and involve reaching some measure of consensus using a Yes/No decision, numbered scale or some other means to determine the degree of 'fit', or extent to which pairs can co-exist. The process involves a sequential (and somewhat tedious) pairing of all possible configurations (See Table 2). Participants soon realised that those pairs that were both high, mid-range or low in the table could

generally co-exist. Pairs with one in the high end and one in the low end generally could not co-exist, although there were exceptions and arbitrarily applying this to speed the process is fraught with danger. Pairs with one in the mid-range and one high or low involved the greatest discussion and accounted for the majority of time spent at this stage. I was also very careful at this stage to capture the nuances that resulted during these debates of whether one factor, or driver condition could go with another. It provided the raw material for writing the scenarios and brought forth a rich discussion of driver interactions.

Given that the Sector/Factor array was reasonably compact (two columns of five, three columns of four and two columns of three) and the Factor descriptors are precise the pairwise comparison was completed fairly quickly. Too many Factors without clear distinguishing characteristics that neatly delineate vertically adjacent Factors can lead to a painfully slow and confusing pairwise exercise. Frequent questioning such as - "What are we actually trying to say here?" - proved to be extremely valuable. It deepened the somewhat abstract ideas being dealt with and forced participants to consider the actual interactions using real examples (consensus building).

Table 2. Results of pairwise comparison

	R1	R2	R3	R4	R5	E1	E2	E3	D1	D2	D3	D4	D5	I1	I2	I3	I4	C1	C2	C3	C4	T1	T2	T3
P1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P2	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	N	Y	Y	N	Y	Y	Y
P3	Y	Y	Y	Y	N	Y	Y	N	Y	N	Y	Y	N	Y	Y/N	N	N	N	N	Y	N	Y/N	Y	Y
P4	N	N	Y	Y	Y	N	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y/N	Y	Y	Y	N	Y	N	Y
R1						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R2						Y	Y	Y	Y	Y	Y	N	N	Y	N	N	N	Y	Y	Y	N	Y	Y	N
R3						Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	N	N	Y	N	Y	Y	Y
R4						Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
R5						Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y
E1									Y	Y	Y	N	N	Y	Y	Y	N	Y/N	Y	Y	N	Y	Y	N
E2									Y	Y	Y	Y	N	Y	Y	N	N	Y	Y	Y	N	N	Y	N
E3									Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
D1														Y	Y	N	Y	Y/N	Y	Y	N	Y	Y	N
D2														Y	Y	N	N	N	Y	Y	N	Y	Y	N
D3														Y	Y	Y	Y	N	N	Y	N	N	Y	N
D4														Y	Y	Y	Y	N	Y	Y	N	Y	N	Y
D5														Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y
I1																		Y	Y	Y	Y	Y	Y	N
I2																		Y	Y	Y	Y	Y	Y	N
I3																		N	N	Y	Y	Y	Y	N
I4																		N	N	Y	Y	N	Y	Y
C1																						Y	Y	N
C2																						Y	Y	N
C3																						Y	Y	Y
C4																						Y	Y	Y

The table above allowed a relaxation down to 403 whole field configurations from 14 400. Not nearly as many as indicated by Rhyne (1998, p. 7) "the first filter [pairwise comparison] ... normally filters out about 999 out of 1000; the second [whole field overall coherence] gets rid of about half those passed by the first". Nevertheless, the reduction was significant and achieved the aim of this step in the process - a reduction to a nearly manageable set of surviving configurations.

In a further deviation from the method outlined by Rhyne (1974; 1991; 1998), but provided for in the improvements suggested by Coyle (1984; 1985; 1994; 1995; 1996; 1997); and Coyle & Yong (1996) the surviving whole field configurations were clustered together, reducing the 403 to 46, a number now approaching manageability for further analysis. The clustering was based on the conclusion that if an individual PREDICT configuration changed by one Factor up or down across no more than four of the seven Sectors then the underlying themes would be preserved (See Table 3). A number of logic rules were imposed to ensure that vertically adjacent Factors with descriptors that could not be combined were not clustered. The result of this clustering, which was achieved using formula functions within Microsoft™ Excel, is illustrated in the table below. The grey

shaded rectangles represent, in this example, those Sector columns that were allowed to adjust up or down by one Factor. Any possible configuration that remains within this grey zone is regarded as belonging to the cluster and retains the qualitative 'feel'.

Table 3. Clustering within the Sector-Factor array

	Political Will P	Regional Stability R	Economic Situation E	Domestic Stability D	International Stability I	Condition of the Environment C	Technology T
1	Adventurous bold	Cohesion	Booming Superior	Cohesion	Minor conflicts	Improving	Overwhelming rate of change or development
2	Fencesitting, procrastination, cautious	Generally stable	Parity Competitive	Generally stable	Regional conflicts	Manageable/fixable	Continuing rate
3	Avoidance, extreme reluctance	Localised unrest, discontent	Inferior, declining	Localised unrest, discontent	Major theatre wars, multinational	Continuing degradation	Slowed development
4	Paralysis, catatonia	Widespread unrest, public uprisings		Widespread unrest, public uprisings	Mass destruction	Meltdown, catastrophe	
5		Anarchy		Anarchy			
	Propensity to take risks	Political, military, socio-economic stability of region	State of Australian economy relative to that of the region	Socio-political stability	Scale of military conflict elsewhere in the world	Effects on and of the physical environment	Development of technology on an international scale

Cluster 25 for example, indicated by the shaded cells, contains numerous whole field configurations that are sufficiently alike that they can be clustered into a single set, with minimal (and agreed by those undertaking this stage of the analysis - another opportunity to build consensus) dilution of the individual elements. If the Factors do not possess enough depth within their expressions and/or vertically adjacent descriptions are almost opposites then rules must be imposed to prevent inappropriate clustering, for example a *Decision-making* Sector may have 'decisive', 'hesitant' and 'indecisive' as the sole descriptors, these mutually exclusive terms could not be clustered and any other whole field configurations that include these must also be kept distinct.

I acknowledge that there was a significant risk of diluting the purity of the exercise up to this point. It was accepted, however, that in order to achieve the

necessary further reduction this 'bundling' of configurations was no more significant than the logic used to group together the full list of drivers using the affinity diagram in the opening stage. The PREDICT settings which carry a qualitatively similar setting are set out in the table below. The further breakdown into 'a', 'b', 'c' and 'd' sub categories was forced through the need to not violate the 'one up or down' rule mentioned earlier. These sub-groups were treated as a single entity in the later stages of Faustian tree construction and the generation of scenarios. The full set is presented in Table 4.

Table 4. Results of clustering

No	PREDICT Configuration							No	PREDICT Configuration						
1a	P ₁₋₂	R ₁	E ₁	D ₁	I ₁₋₂	C ₂₋₃	T ₁₋₂	24	P ₁₋₂	R ₃	E ₃	D ₁₋₂	I ₁₋₂	C ₃	T ₁₋₂
1b	P ₁₋₂	R ₁₋₂	E ₂	D ₁	I ₁	C ₂	T ₂	24b.25a	P ₁₋₂	R ₃	E ₃	D ₃₋₄	I ₂₋₃	C ₃	T ₁₋₂
1c	P ₁₋₂	R ₂	E ₁	D ₁₋₂	I ₁	C ₂₋₃	T ₁₋₂	25	P ₁	R ₃	E ₂₋₃	D ₃₋₄	I ₁₋₂	C ₃	T ₁₋₂
1d	P ₁₋₂	R ₁₋₂	E ₁	D ₂	I ₁₋₂	C ₃	T ₁₋₂	26	P ₂	R ₃₋₄	E ₂₋₃	D ₄	I ₂₋₃	C ₃	T ₁₋₂
2a	P ₁₋₂	R ₁	E ₂	D ₁₋₂	I ₁₋₂	C ₂₋₃	T ₂	26a	P ₁	R ₄₋₅	E ₁	D ₁₋₂	I ₁₋₂	C ₃	T ₁₋₂
2b	P ₁₋₂	R ₁	E ₁	D ₁₋₂	I ₁₋₂	C ₃	T ₂	26ab	P ₁	R ₄	E ₂	D ₁₋₂	I ₁₋₂	C ₃	T ₂
3	P ₁₋₂	R ₁	E ₁	D ₃	I ₂₋₃	C ₃	T ₂	26b.27a	P ₂	R ₄	E ₁₋₂	D ₁₋₂	I ₁₋₂	C ₃	T ₁₋₂
4	P ₁₋₂	R ₁	E ₁₋₂	D ₃₋₄	I ₁₋₂	C ₃	T ₂	28	P ₁₋₂	R ₄	E ₁₋₂	D ₃₋₄	I ₁₋₂	C ₃	T ₂
4a	P ₁₋₂	R ₂	E ₁₋₂	D ₂₋₃	I ₁	C ₃	T ₂	29a	P ₁	R ₄	E ₃	D ₁₋₂	I ₁₋₂	C ₃₋₄	T ₁₋₂
5	P ₁₋₂	R ₁	E ₃	D ₁	I ₁₋₂	C ₂₋₃	T ₁₋₂	29b	P ₂	R ₄	E ₃	D ₁₋₂	I ₁₋₂	C ₃₋₄	T ₁₋₂
6	P ₁	R ₁	E ₃	D ₁	I ₁₋₂	C ₄	T ₁₋₂	30	P ₁	R ₄	E ₃	D ₃	I ₁₋₂	C ₃₋₄	T ₂
7	P ₁	R ₁	E ₃	D ₁	I ₄	C ₃₋₄	T ₂	31a	P ₁	R ₄	E ₃	D ₄₋₅	I ₁₋₂	C ₃₋₄	T ₁₋₂
8a	P ₁	R ₁	E ₃	D ₂₋₃	I ₁₋₂	C ₃₋₄	T ₁₋₂	31b	P ₂	R ₄	E ₃	D ₄	I ₁₋₂	C ₃	T ₁₋₂
8b	P ₂	R ₁	E ₃	D ₂₋₃	I ₁₋₂	C ₃₋₄	T ₁₋₂	32	P ₁₋₂	R ₄	E ₃	D ₄₋₅	I ₃	C ₃₋₄	T ₁₋₂
9	P ₁₋₂	R ₁	E ₃	D ₃	I ₂₋₃	C ₃₋₄	T ₂	33	P ₁	R ₄₋₅	E ₁₋₂	D ₃₋₄	I ₂₋₃	C ₃	T ₂
10.13	P ₁	R ₁	E ₃	D ₃₋₄	I ₄	C ₃₋₄	T ₂₋₃	34	P ₁	R ₅	E ₂₋₃	D ₁₋₂	I ₂	C ₃₋₄	T ₁₋₂
11	P ₁₋₂	R ₁	E ₃	D ₄	I ₁₋₂	C ₃₋₄	T ₁₋₂	35a	P ₁	R ₅	E ₃	D ₃₋₄	I ₃₋₄	C ₃₋₄	T ₁₋₂
12	P ₁₋₂	R ₁	E ₃	D ₄	I ₃₋₄	C ₃₋₄	T ₁₋₂	35b	P ₁	R ₅	E ₃	D ₄	I ₂	C ₃₋₄	T ₁₋₂
14	P ₁	R ₁	E ₃	D ₅	I ₁₋₂	C ₃₋₄	T ₁	36	P ₁	R ₅	E ₃	D ₁	I ₄	C ₃₋₄	T ₂
15	P ₁	R ₁	E ₃	D ₅	I ₃	C ₃₋₄	T ₁	37	P ₁	R ₅	E ₃	D ₅	I ₂₋₃	C ₃₋₄	T ₁
16	P ₁	R ₁	E ₃	D ₅	I ₄	C ₃₋₄	T ₃	38	P ₁	R ₅	E ₃	D ₄₋₅	I ₄	C ₃₋₄	T ₂₋₃
17a	P ₁	R ₂	E ₂₋₃	D ₁₋₂	I ₁	C ₂₋₃	T ₁₋₂	39	P ₁	R ₅	E ₃	D ₂₋₃	I ₂	C ₃₋₄	T ₁₋₂
17b	P ₂	R ₂	E ₂₋₃	D ₁₋₂	I ₁	C ₂₋₃	T ₁₋₂	40	P ₃	R ₁	E ₁₋₂	D ₁	I ₁	C ₃	T ₁₋₂
18	P ₂	R ₂₋₃	E ₂₋₃	D ₂₋₃	I ₁	C ₃	T ₁₋₂	41	P ₃	R ₂₋₃	E ₁₋₂	D ₁	I ₁	C ₃	T ₁₋₂
19a	P ₁	R ₃	E ₁₋₂	D ₁₋₂	I ₁₋₂	C ₃	T ₁₋₂	42	P ₃	R ₁₋₂	E ₁₋₂	D ₃₋₄	I ₁	C ₃	T ₂
19b	P ₂	R ₃	E ₁₋₂	D ₁₋₂	I ₁₋₂	C ₃	T ₁₋₂	43	P ₃	R ₃₋₄	E ₁₋₂	D ₃₋₄	I ₁	C ₃	T ₂
20	P ₁	R ₂	E ₃	D ₂₋₃	I ₁	C ₃	T ₁₋₂	44	P ₃	R ₄	E ₁₋₂	D ₁	I ₁	C ₃	T ₁₋₂
21	P ₁₋₂	R ₃	E ₁₋₂	D ₂₋₃	I ₁₋₂	C ₃	T ₂	45	P ₄	R ₃₋₄	E ₃	D ₄₋₅	I ₁₋₂	C ₃	T ₁
22	P ₁₋₂	R ₃₋₄	E ₁	D ₃	I ₃	C ₃	T ₂	46	P ₄	R ₅	E ₃	D ₄₋₅	I ₂	C ₃	T ₁
23	P ₂	R ₃	E ₂₋₃	D ₃₋₄	I ₁₋₂	C ₃	T ₁₋₂								

Constructing the Faustian Tree

To make the future believable it is necessary to string the transitions into a plausible history that marks out how a future world could evolve from the present. These transitions track outwards from a present PREDICT configuration and branch according to shaping triggers that underlie the Factors and vertical movement. For instance, a movement of one level along the *Political Will* sector coupled with a multiplier in the *Economic Situation* can deliver dramatic changes

in the direction of the lines and branches, in effect becoming an intermediate, but vital, point on the path to other transitions.

To maximise creative thought and discussion Coyle's recommendations (1996, p. 275) on the methods employed to build the tree should be followed. A series of Post-It Notes™ covering all surviving configurations could be positioned on a wall and arranged and re-arranged as discussion continues around the workability of this or that transition and the events surrounding it. After several discussion and evaluation sessions the positions of these notes should stabilise and agreement can be reached that what is portrayed is a reasonably complete and plausible account of a future history. This point of stabilisation can also be evident in the fact that discussion points surrounding various surviving settings and transitions will become exhausted. There are several research opportunities to develop this stage further.

An abbreviated view of the Faustian tree is set out in Figure 17 below. The bold initial number refers to the cluster number. No attempt is made at this point to establish times to the diagram.

The transitions, with their associated PREDICT settings are illustrated in the figure below. A possible explanation for the transition from cluster 17 to cluster 6, which is characterised by a worsening environmental condition $C_{2.3}$ moving to C_4 and a lowering of economic performance $E_{2.3}$ moving to E_3 , may be found in the continuing massive environmental damage resulting from forest burning in Malaysia and Indonesia with its effect on economic prosperity.

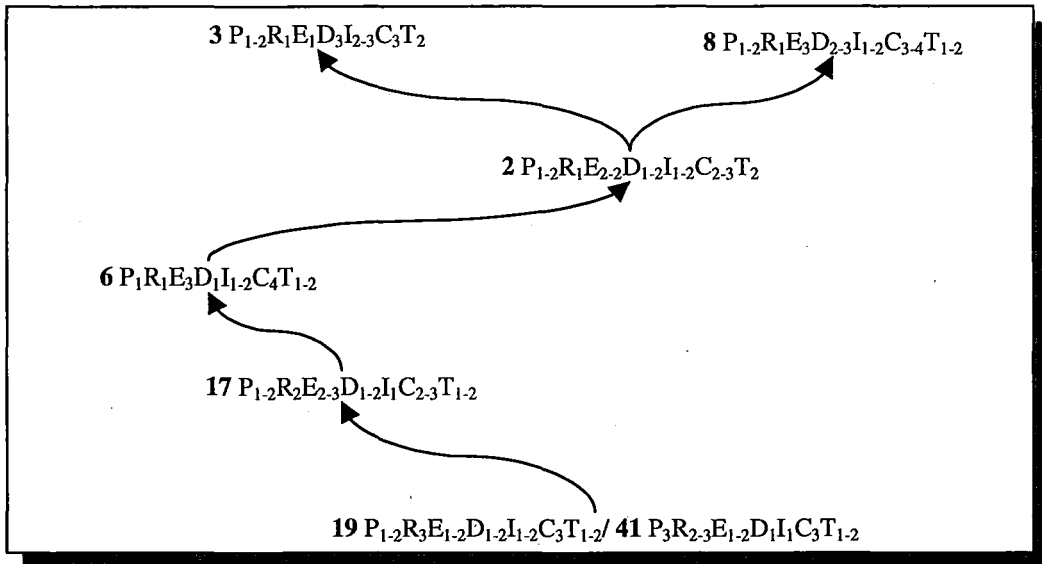


Figure 17. Simplified view of the Faustian Tree.

Narratives of the Future

Having constructed the Faustian tree and, thereby, creating a series of pathways through which the (ultimately) single future trajectory may travel, a set of rich narratives are called for. These narratives link the present to the future in a manner that adds substance, depth and most importantly breadth, effectively putting 'flesh on the bones' of the earlier, more structured thinking stages.

The named worlds provide "a reference point that helps internalise the world's implications" (Engelbrecht et al, 1996, Chapter 1, p. 3). Set out in Table 5 are the eight named worlds in the current study (these were derived by Dr Joanne Nicholson, one of the project members at a number of workshops in 1998).

Table 5. Named worlds

Description	Named Worlds
1 Global love, peace and harmony	<i>Utopia</i>
2 Australia dominated by domestic strife	<i>Home Brew</i>
3 Australia and allies okay, region finding it tough	<i>Argy Bharji</i>
4 Australia and region in trouble, rest of international arena okay	<i>Cast Adrift</i>
5 Australia and region okay, strife elsewhere	<i>Trouble Elsewhere</i>
6 Australia leading the rest of the world	<i>Great Southern Cross</i>
7 Australia and allies faced with a booming region	<i>King Khan</i>
8 Everybody's brawling	<i>WWIII</i>

An example narrative, entitled Ebola Outbreak, selected from the full list of 20 from the current study is set out below. Country names have been reduced to a single letter.

2003, February

Escalation of rebellion in the former B and G results in significant conflict embroiling U, K, T and Z military forces. Ecological crisis arises as Z forces employ defoliation by chemical and fire tactics to route rebel H and renegade T in and around R. U, T and K are swamped with refugees; collectively there is a call for international rescue of displaced populations. U additionally alerts the international community to the dire threats to gorilla and other primate populations forced to move also displaced.

The sight of monkeys scavenging in the refugee camps becomes commonplace. Indian, European and US aid is forthcoming. Expatriate countries, Belgium, France, Germany and the United States offer a sponsored migration program to relieve an otherwise overwhelming refugee problem. International wildlife rescue bids relocate endangered gorillas and other primates to a variety of

international zoos and refuges set up specifically to handle the scale of the problem. Displaced peoples are given an option under a quota for emigration to these same sponsor nations.

2003, May

Illness besets refugee camps in Africa and those quarantined in several host nations of USA, France, Germany, Belgium and India. Symptoms are variably a flu-like condition, progressing to febrile delirium or alternately dysentery with violent abdominal cramps progressing to unconsciousness. Morbidity and mortality rise to alarming proportions within eight days.

2003, September

Simultaneously, a world-wide 'Zookeepers Syndrome' is reported through toxicology web sites of similar symptomology. World Health Organisation (WHO) subsequently identifies the pathogen as Ebola Virus. Global quarantine measures are immediately effected; however, secondary cases outside refugee concentrations are reported in the next week.

Panic arises in areas around reported Ebola spot fires, in Florida. A military mobilisation is necessitated to contain fleeing populations. In Europe, similar containment measures are also enforced. In India panicking mobs overcome police lines meant to confine them in villages and areas of outbreak. In a plethora of nations the so called 'Zookeeper Syndrome' results in such a scattered pattern of outbreaks that police with military assistance cannot move fast enough to contain those in contact.

2003, November

Throughout the western world a pin cushion pattern of outbreaks is generated as secondary Ebola cases propagate to tertiary contact patients. In most countries outbreaks are contained but in the near tropics of Florida, Southern India and in central Africa itself the outbreaks threaten anarchy as police and other security agents, hospital staff and medical workers also begin to be affected.

2004, January

Fragmentation of national administrations can only just be managed by police and military resources. In this month, however, some patients begin to recover, particularly in the temperate areas of Europe and northern United States of America.

As scenarios are really only useful when taken as a full set I have included a second one here that contains a more socio-economic angle. It is titled A New Hegemon and was drawn from the same work.

After almost two decades of failed leadership within the Commonwealth of Independent States (CIS), economies dominated by spiralling foreign debt, corruption within government and business, cronyism and the withdrawal of major investment interests in the region the promises of democracy and capitalism are as dim and distant as ever.

Student action groups in non-violent protests express new demands for a stronger, more cohesive leadership across the CIS. In this climate of growing unrest a new figure – Nikita Chenakowski – rises rapidly through the political ranks, emerging as a key individual; one who possesses a striking resemblance to a young

Stalin, bringing with him a sound business mind and an ability to remain focussed on the ingredients of a problem at a national level.

Upon selection into the Economic Office his initiative for, and ability to make immediately successful, an Economic Forum for Cooperative National Development (EFCND) witnesses a dramatic reversal in the G8 towards further aid and debt relief. Under his strengthening leadership corruption is swept aside, confidence levels soar and the mood of the people changes dramatically. Foreign investment flows in and unemployment levels plummet as a prosperous market economy takes root, government spending strategies are supported and education, housing and health programs rapidly affect the plight of the disadvantaged. A wave of optimism sweeps across the region.

On the other side of the globe relations between China and the United States remain strained following the UN enforced famine relief and aid programs into North Korea following the deaths of up to 3 000 000 elderly and young in the country's worst agricultural production result for almost a century. China's accusations of strategic opportunism come at a time of growing discontent, distrust of America's motives and a belief that capitalism is polarising attention towards consumerism and away from socialist values, a trend already evident in the CIS.

Under threat of war between China and the United States over the sustained lodgement of large numbers of NGO's, aid workers and unarmed military the United States is forced to withdraw prematurely, leaving the country in a fragile state and economically non-viable. China enters North Korea under

bilateral arrangements with ineffectual measures designed more to undermine the achievements of the United States than provide tangible assistance. Further failures result.

Against this backdrop of international events Australia witnesses a rapid and marked adjustment in raw materials markets from those predominantly in SE Asia to N Europe. Demand levels plummet and export costs triple to capitalise on the expanding markets in Europe.

Readers should be aware at this point that any number of fanciful stories could be utilised to portray disturbing series of events. The actual value is not in the geographic or situational detail of what is being described, but the ability to develop effective responses and national policies for coping.

Building the Faustian Tree

The next step entailed constructing the Faustian Tree, whereby starting from the current position and moving to possible futures is mapped out in both sequence (one transition after another down a single path) and parallel (multiple paths radiating out with tangled transitions and joins) to various termination points.

Taking the former example, if starting from the current position one was to identify transitions from this position using the meta-language then the step from the identification of parameters or sectors to construction of the Faustian Tree could be shortened substantially. This method would allow a broad identification of the most likely (and unlikely) fields, however, the method may not be as readily traceable and possibilities may be missed or dismissed without being thoroughly considered.

A convention for constructing the tree could include solid lines to represent most likely progressions and broken lines for less likely progressions. Spiral symbols could be included to illustrate the transitions involving wild cards - events that require an extreme event or set of circumstances. The emphasis in this study was an holistic approach, therefore, all transitions were considered equally likely, although pessimism still prevailed when the option of reaching 'Utopia' was accelerated. While in the first instance this may not be the most pragmatic of approaches, particularly when the reality of operating within a budget is considered, it is the best approach to ensure that the broadest set of scenarios and possibilities are identified. The broader the set of scenarios and circumstances, the larger the dataset for application within the area of interest.

The final full tree (developed from an earlier version by Nicholson), depicted in Figure 18, represents a picture of future possible scenarios ranging from the most pessimistic on the left to most optimistic on the right. This pessimism/optimism separation is achieved through a movement downwards in the Sector/Factor array table shown earlier. It is possible to express progressively more grim/favourable pictures using these descriptions and allow the transitions to account for this movement, a technique that has proven to be an extremely powerful visualisation aid for planners. An additional feature is that the named worlds can be located along the paths, providing a useful time step for scenario writers.

It should be noted that while the FAR analysis allows the development of these scenarios within a rough 10-year timeframe, the exact difference between each of the scenarios is not necessarily linear. For example, it would be incorrect to draw conclusions that things only have to get a bit better for Utopia and things a lot worse for WW3. Further analysis is required to examine how 'far' we potentially are from each scenario and as such the Faustian Tree is considered to be an evolving document or 'work in progress' as more information and further developments on the world stage occur. It must be remembered that the aim is to forecast futures to assist planners, NOT define them. Schwartz (1996, p. 9) offers

that "the purpose of scenarios is to help yourself change your view of reality The end result, however, is not an accurate picture of the future, but better decisions about the future". For organisational practitioners there is another opportunity to reach consensus about the appropriateness of actions or policies.

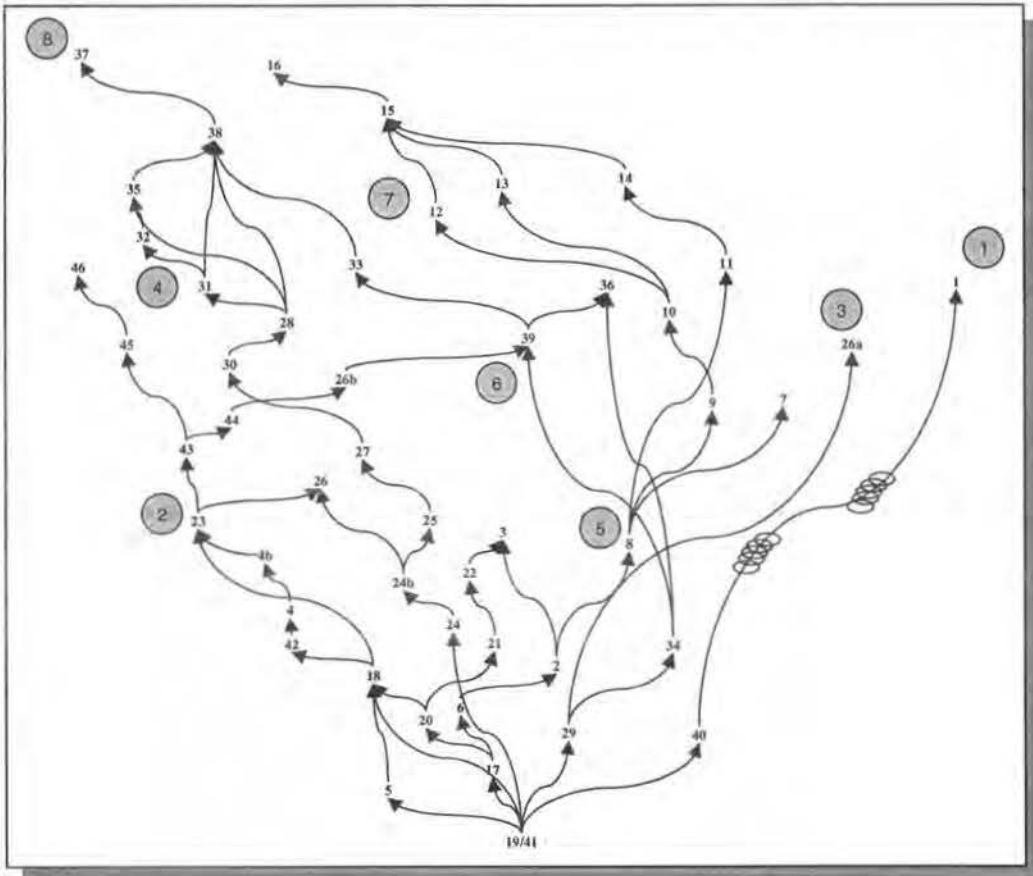


Figure 18. Faustian Tree of national security futures.

For planners each of the numbers represents a single whole field configuration. The transitions represent movement up or down within the Sectors, allowing conditions to be expressed as improving, remaining fairly stable or deteriorating.

A Strategic Planning Space for Locating the Principal Drivers

From the Faustian tree the main story-lines and themes to arise were dependent on either one or more of the three principal drivers: domestic stability, regional stability and international stability. The emergence of these three drivers coincides directly with current Australian strategic policy where defeating attacks on Australia holds the highest priority, defending regional interests second, followed by defending global interests. This provides strong testament to the usefulness and validity of the FAR method and the importance in gathering the subject matter experts with the necessary knowledge and expertise in a specific area. Such coincidences, particularly the national security relevance, increase the level of confidence in the conclusions drawn from the FAR analysis and strengthens the commitment to guiding strategic policy if individuals can come to the same conclusions themselves.

The remaining parameters of economic situation and environmental conditions are mainly seen as contributors to the causes of instability while technology and political will dictate how, and if, action is taken to regain stability. The economic situation, condition of the environment and technology are also regarded as variables over which little or no control can be placed, although it is deemed important to closely align our understanding of the changes occurring in such forces.

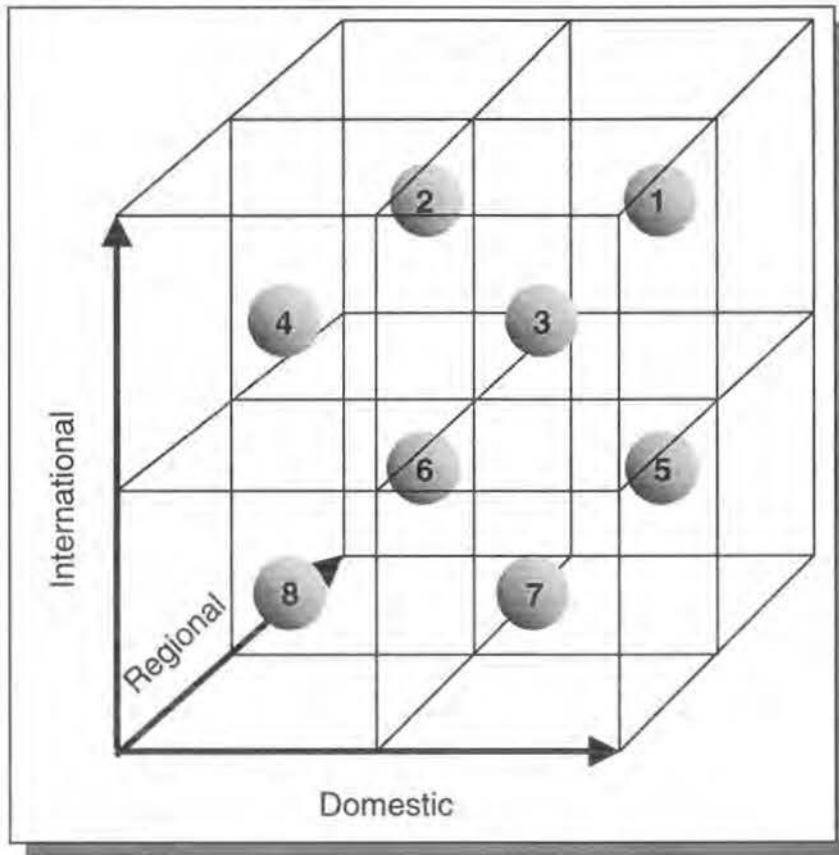


Figure 19. Strategic planning space.

As stated earlier a further deviation from the FAR process was made at this point by positioning the three principal drivers as the axes on a cube (Figure 19) to form a strategic planning space. The drivers selected were International, Regional and Domestic Stability. Using this planning space it became possible to position the eight named worlds within the eight sub-cubes. Developing this theoretical model one further level reveals that all possible configurations, transitions and movements in the three dimensions illustrated in the cone at Figure 13 must be accommodated within this cube.

The low end on each axis is where levels of instability are high. The high ends, or tips of (one, two or all of) the three axes, allow an expression of low levels of

instability across international, regional and domestic domains. The numbers correspond to the eight named worlds in Table 5.

Improvements Resulting from this Research

The original process devised by Rhyne remains very effective. Its major drawback is its efficiency. Dealing with large amounts of information and frequent judgements to aid analysis is tedious to complete manually. The pairwise comparison in particular is very time consuming even with the aid of spreadsheet formulae. A fully automated process (© Guy Duczynski 2000) has been developed that captures every key stroke, minimises repetitive actions and stores the information for reporting. Figure 20 shows a single form taken from the application.

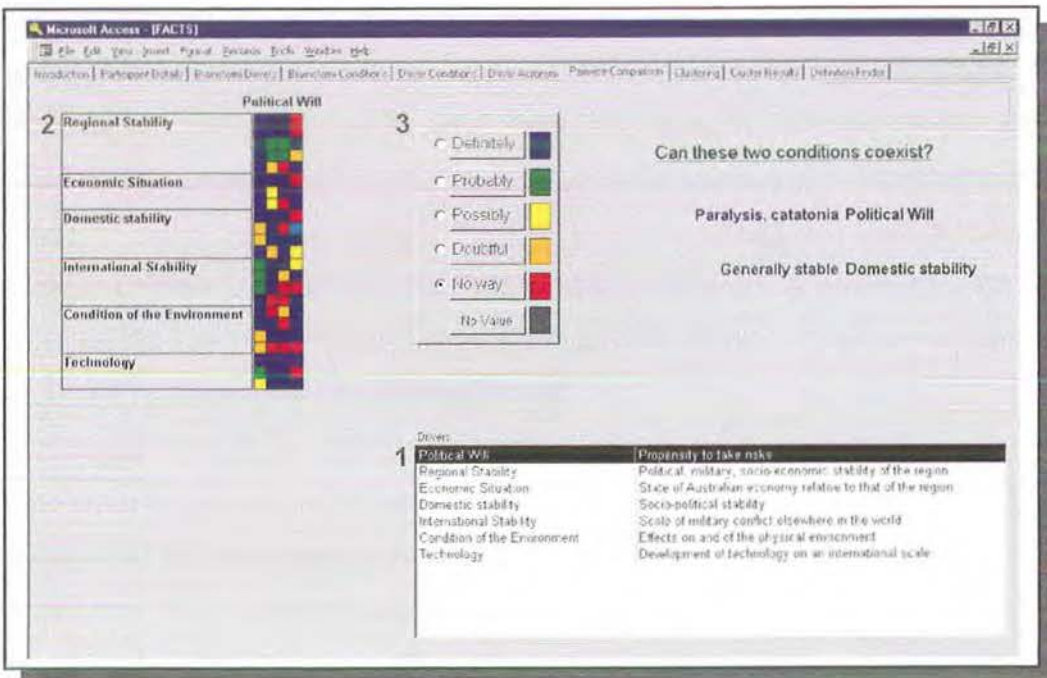


Figure 20. Screen shot of pairwise comparison form.

The tabs at the top of the screen give an indication of the features and functions that have been automated. At the time of writing this negotiations are underway to introduce this application to several university programs, management education

and Defence senior planning institutions. Whether this or some other model is employed detailed planning and policy making should not proceed unless decision-makers have taken stock of the present situation in all its detail or crafted a set of scenarios that illustrate the plausible futures.

Summary and Conclusions

In this chapter, I have provided a detailed explanation of the use of Field Anomaly Relaxation (FAR) - the method used to achieve a comprehensive, albeit abstracted, view of the world beyond the immediate planning and defence procurement horizons. This chapter has also included the use of twenty rich stories that contained the narratives of change - the future history.

Field Anomaly Relaxation has proved to be a useful method for crafting futures. It offers a systematic and disciplined approach to the formulation and manipulation of data and ideas. As can be seen from this research, however, there is a considerable amount of additional work that must be incorporated into the overall study to derive value. Scenarios themselves are useful and can lead decision-makers towards insights that they would have difficulty at unaided by these devices. As a device for aiding in the building of consensus it was very valuable and built the foundations for following work.

The creativity demanded of participants during this stage was often extreme. The disciplined and systematic approach offered by Rhyne's method was found to be superior to other scenario/futures techniques.

Scenario planning is a fascinating and creative endeavour to explore possibilities for the world or parts of it. Often the future is too frightening to contemplate. It captures interactions in the contextual environment that people would much rather ignore, letting events take their course as an escape from engaging in purposeful behaviour. I will not dwell on why the scenarios cannot be retained, except to

declare that the advice I have received has indicated that they are extremely sensitive and should not be available as open source. I do not agree with this conclusion, but am bound to abide by the judgements of others.

In any event, I hope that the production of the scenarios has proven to be an interesting and engaging account of my attempts to find a future. It has aided in the building of consensus, at least around the need *for* change. The task now is to put these scenarios to work and see how well the organisation performs. The information gained must now be held adjacent to the organisation to enable a determination on what these new futures mean and what responses they should inspire - the shape *of* change. These responses and the database application in which to express and evaluate them are the subject of Chapter Four.

CHAPTER FOUR EFFECTS-BASED PLANNING

In the process of change there must first be a conceptual notion of what has to be done to fight successfully in the battle environments of today and tomorrow. This kind of sound conceptual thinking can only result from the close, reflective study of a wide spectrum of history, world setting, threats, technology, and of the trends in all those areas - and the projection of those trends into the future. Only imaginative people - officers who have been trained to think clearly about tough problems - can do this kind of thinking [emphasis added].

General Donn A. Starry
Changing the Army: The Roles of Doctrine,
Development and Training
(Evans, 2000, Ed. p.149)

Overview of the Chapter

This chapter is devoted to the progressive development of the database application - my knowledge management system - that provided for the capture, storage, evaluation and ultimately the (sometimes limited) acceptance of various themes pointing towards (inevitable) change. The entire approach earned the title of effects-based planning early in 1998, the reason for this will become evident within this chapter.

I offer the caveats of *sometimes limited* acceptance and *inevitable* change in the preceding paragraph for two reasons.

Firstly, although the method has proven itself to be a powerful aid to decision-making and strategic planning, it is the *concept* (hence the quote above), more than the findings of this particular research project, that has attracted interest. Not everyone has the time or inclination for close, reflective study in order to reach sound conceptual knowledge of their own design. All, however, can *make time* to critically consider the theoretical models and concepts that others develop in order to determine overall validity (this is central to the double loop learning I will

discuss in Chapter Five wherein two, often contradictory, thoughts must be held simultaneously).

Unless this conceptual validity is nurtured resistance will grow, enthusiasm will diminish, confidence will evaporate, dissatisfaction will set in and a group that is in pursuit of consensus will divide. As identified by Field Marshall Slim "there is only one thing more difficult than getting a new idea [concept] into a military mind and that is getting the old idea [concept] out!" I will further emphasise the importance of the acceptance of (this) concept later in the chapter as it is directly related to the quote that opens this chapter and has profound relevance for initiating change.

It is a simple concept that recognises that we can achieve the same ends through *doing different things*, not *doing the same things differently*. But it relies upon the construction, by practitioners, of a sufficiently complex vocabulary and phraseology to describe what we seek, a *provocation* (de Bono, 1977, 1986 and 1987) that triggers creativity, dialogue and novelty. This construction is enabled because "a creative person may have a way of looking at the world which is different from the way other people see the world ... if that person is successful in expressing and communicating his own special perception, then we call him or her creative and value the contribution that takes some of us to see the world through a new perspective" (de Bono, 1984, p. 59).

Indeed, (many of) the organisational practitioners who took part in the population of the database with information, language and knowledge of their own design (appear to me to) remain skeptical of the results that *doing different things* produced, a phenomenon I will address in Chapter Six when presenting an account of those who chose to not see. The totality of adjustment necessary to make the correction in organisational purpose was culturally threatening. These were responses not unlike Kuhn's (1970) paradigm paralysis displayed by scientists and others when the factually rich data gathered through their own

efforts is disbelieved in order to preserve a chosen frame of reference, a psychological allegiance. Kuhn's insights add further definition with his observation that "political revolutions are inaugurated by a growing sense, often restricted to a segment of the political community, that existing institutions have ceased adequately to meet the problems posed by an environment that they have in part created" (Kuhn, 1962).

As stated, I describe the development of the database tool, its maturation into a fully functioning knowledge management system and extensive use of group thinking, whilst avoiding 'groupthink' (Janis, 1972), to enable judgement and the assignment of values to various linked elements within the database. Data population is also described along with the creation of a vocabulary or meta-language in which to express and highlight key areas. I will also begin to introduce the ideas that caused me concern in relation to facilitating meetings. These began with subtle indicators but quickly took on profound meaning that drove me to alter my approach entirely. In addressing these I will also partly answer my second subordinate research question: *"To what extent did the effects-based planner assist in building and reinforcing consensus around initiatives for change?"*.

It is also within this chapter that I provide additional answers to the primary research question: *"To what extent can knowledge management systems build and reinforce consensus around initiatives for change"?* In doing so I will also address the question of what (I believe) knowledge management is, and what it is not. I will leave the detailed explanations for the variety of responses, which gave rise to the *extent of consensus*, discussed here, for Chapters Five and Six.

Furthermore, these individuals and groups, having (only partly) accepted the data and results, were often hostile towards the transformations necessary to achieve 'fitness for purpose' (a term I will expand upon later when discussing 'effectiveness'). The concept was sound and they willingly participated, but the

conclusions that were an aggregation of thousands of decision points, each quite innocuous, were more than many could accept. That they had played a role in the construction of these conclusions seemed to matter little, a phenomenon I will discuss later in this chapter when outlining the changes necessary to achieve alignment against the definitions used to position the organisation as set out in ADFP 45 Special Operations (mentioned briefly in Chapter Two).

Secondly, I have maintained close contact with several operations and capability planners within the United States military who are making remarkably similar discoveries as they address identical capability development issues. There is a 'movement', it has the 'authority of a shared idea', a community of opinion that will pick up like-minded individuals and alter their perceptions. It is highly probable that the doctrine surrounding this will migrate to Australia through the more official channels of formal visits and exchanges of personnel. It is doubtful that I, one iconoclastic individual, will be visible (or rewarded) as an actor in this. These concerns are addressed in the reflective text boxes.

In order to be successful at the task I have set for myself within this chapter it is necessary for me to spend some time on the subjects of strategic planning and policy, the determination of objectives and the isolation of the ends and means used to bring these objectives to reality. I make no excuse for this and declare two reasons for doing so. Firstly, to minimise any possibility of misunderstandings due to definition, concepts or understandings about how these subjects are entangled; and secondly to provide space for my own detailed examination of this topic within Defence planning and within the wider subject of management. I will deal with these subjects firstly from a conceptual, theoretical perspective and then provide specific examples from the research.

What I present in these two sections provides a vivid indication (which I will leave mostly to the reader to discover) of why consensus can be so difficult to achieve. Particularly in the context of this research wherein a sound theoretical

model (a number of illustrations will be shown) relies upon enormous levels of cooperation and collaboration through and across departments to have any chance of being successfully applied in real life.

I will outline the difficulties that occurred as new information was progressively developed within group settings, new functionalities created within the database to allow storage and integration and analysis/charting processes devised to ensure that each new segment was influencing, to an appropriate level, the entire package of information.

The words within the database, but not its functionality, were the result of extensive workshops, discussions, interviews and strategic analysis sessions with changing groups of people, so essentially this was a collaborative effort. The functionality, its most powerful feature, was the work of a core team of three individuals - myself as the project leader, an additional long-term member of Special Operations and a Visual Basic programmer.

The methods employed are novel, original, allow the exploitation of key ideas and statements through a linked analysis and provide for a fair and balanced representation of sub-group contributions. I have personally briefed this method to the Minister for Defence, Vice Chief of the Defence Force, Deputy Secretary of Strategy, Deputy Chief of Army and the Director General of Policy and Plans - Air Force. Although there were several others whose appointments cannot be mentioned for security reasons, the four above represent the highest levels of Defence leadership, national military strategy and capability planning. All expressed a genuine interest in the depth and complexity of the analysis and were quite taken by the ability of the approach to rapidly segregate (and aggregate) key elements and thereby isolate strengths and weaknesses within an organisation.

A Brief Literature Review

I have elected to depart from thesis convention and include my (brief) literature review in the early part of this chapter, the section of the thesis that most completely concerns the product of the research. Enough has been written on the subject of scenario planning and it will serve no benefit for me to discuss this further. In any event the literature concerning futures studies of the military and national security is limited. Often it is subject to the highest security clearances and can be very specific and region-centred. These speak more about a preoccupation with technical superiority than is acceptable for divergent thinking such as that which futures studies call for (demand is the term that more honestly expresses this requirement). I will limit my comments here to a few articles that are important to this topic of effects.

When I began this doctoral research, effects-based planning and effects-based operations were merely shapes in the fog. I had a suspicion that something interesting was beginning to take form. Elements were beginning to combine in ways that heralded uniqueness. I could find no direct comparisons in the literature of planning and decision-making. At least a method that seemed to so comprehensively bundle together ideas and concerns across such a vast domain, diagonally across the operational continuum (Figure 6) and vertically from national security strategy down to tactics (Figures 8 and 9).

I must confess my surprise when articles appeared from a variety of sources. I am not sure whether this is a serendipitous phenomenon associated with heuristic inquiry, wherein questions posed by the topic or the researcher are satisfied by the isolation of information that seems to provide the answer. For me this did happen on many occasions. There were many others where an idle browse through a library on a defence establishment (and not really looking for anything in particular) would see me feverishly copying a number of articles of direct

relevance to the research, particularly that related to the concept of effects-based operations.

Articles on Effect-Based Operations

These are specific, highly focused articles on effects-based operations. They represent the well-developed thoughts that are emerging on this subject. Conceptually they are embryonic, a useful definition is yet to be framed, although I have created an e-mail chat group of enthusiasts around the world and interesting ideas are beginning to take shape, practically they have made little progress against dogmatism. Although my instincts tell me that this will change, when I am not sure, possibly only a few years, but the totality of change will be immense.

The Five Rings. Air Force Colonel John Warden (retired) was the architect of the 1991 Gulf War air campaign. He designed the strategies that led to the capitulation of Saddam Hussein. The Gulf War air campaign was built around a five rings concept (Figure 21).

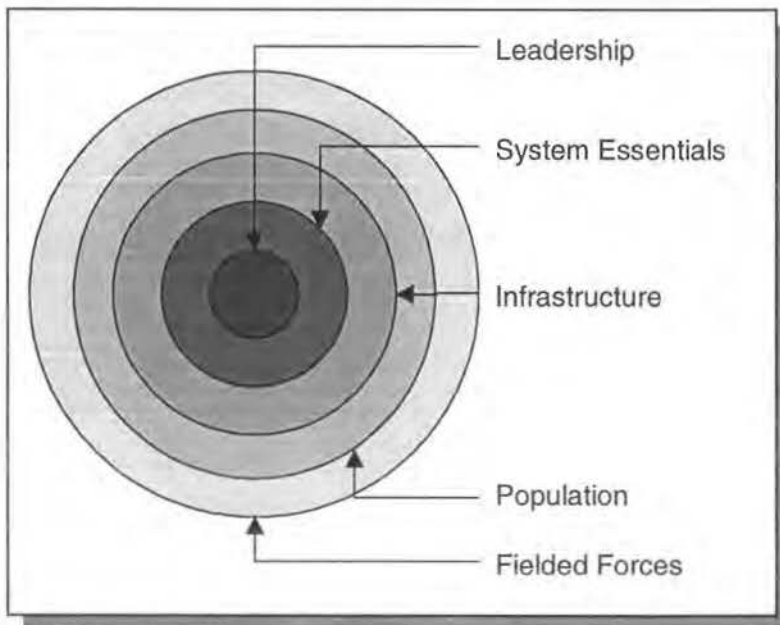


Figure 21. Warden's five rings model.

Although not dealing specifically with effects-based operations Warden's model uses similar terms to describe how to reach the adversary's mind (back to Clausewitz and the 'imposition of our will') His approach recognises that an adversary functions as a system and, therefore, has systemic strengths and weaknesses that can be located and interfered with, in both a constructive and destructive way.

The system can be attacked in one cataclysmic blow, or through the 'death of a thousand cuts'. Either way the outcome is the same. Central to the approach is a fixation on the leadership, not the fielded military forces.

An additional feature that can be overlooked is that Warden's model is a fractal structure. The fielded forces ring has its own five rings embedded within it that allows a more precise description of vulnerabilities.

Models such as this derive significant value from their ability to focus the mind. For example Warden's highlights the inadequacy of targeting the fielded forces of the adversary. That is what they are designed to do, strength is in collision with strength. He proposes that actions must be directed at the leadership for there to be any hope of success. The further one moves actions away from the centre the more difficult it is to bring about desired results through 2nd, 3rd and nth order effects. A good introductory article on the five rings model can be gained from Warden, J. (1995) *The Enemy as a System*.

Firing for Effects appeared in the April 2001 edition of Air Force Magazine (Deptula, 2001, p. 46-53). Whilst dealing mostly with the Five Rings model developed by Warden and the distinctions between parallel and serial operations he does make some important points that relate directly to the topic of effects-based thinking. For example, "planning for effects raises complex issues. Planners, working with intelligence officers, must determine which effects on each enemy system [reference to Warden] will contribute most to the attainment

of military and political objectives" (Deptula, 2001, p. 50). He continues with "strategy means matching means and ends" (Deptula, 2001, p. 50) and "the advent of EBO [Effects Based Operations] calls for a basic realignment in war planning" (Deptula, 2001, p. 52). The key terms here are the political orientation, matching of ends and means and realignment. These are all central to the model I have designed with political issues being accompanied by psychological and economic issues. Underlying this is the theme of movement away from a destruction-based to an effects-based model that specifically orients towards the national strategic end-state(s).

Readers interested in pursuing this topic are urged to search the World Wide Web under effects-based planning or effects-based operations, with the Air University at Maxwell Air Force Base in Alabama providing a rich source of information in papers by graduating officers.

Effects-Based Operations

In Chapter Two I discussed National Security and the need for a post-modernist approach. This approach is grounded in the existence of an embryonic concept called effects-based operations, an orientation to operations that is mindful of what the actions are in pursuit of. Chapter Three uses the scenario planning technique of Field Anomaly Relaxation to provoke thought away from the conventional and to seek these effects as aids and devices to planning. In providing some preliminary definitions of what effects-based operations might be I am cautious of the need to not pre-empt the ideas that will be presented (and formed within the reader's mind) within this chapter.

It is my intention here to unpack the subject gradually and I am fearful that a prescriptive definition at the outset (which may not be as crisp and concise as I would like) may prove to be a hindrance. The (purist's) idea of effects-based operations is still new, it has yet to be accurately and completely defined,

although there is an accepted body of opinion around the idea that it constitutes planning downwards from the grand strategic objective to the methods employed, with the judicious execution delivering effects that achieve the desired (and stated) objective.

It is very easy to get into a debate here about targeting as a principal military planning activity, which would account for most of the current difficulties. Targeting is aimed at destruction, which then becomes the primary measure of effectiveness. Effects, on the other hand, are total disrespectors of the mechanisms to bring them about; provided the outcome is delivered then other criteria will gauge the efficacy. Effects-based operations must, however, emerge from engaging in effects-based planning and this is much easier to define. If we are to take these initial steps towards a definition then: effects-based planning is an approach that retains a fixation on what it is that we are trying to make happen through our actions.

In the words of Clausewitz (1832) we will always be trying to "impose our will on our adversary" and our will must take different forms. It is these forms, and I believe *seduction* is a far more powerful form than *coercion*, that is the embodiment of these things that (are made to) happen. The actions or instruments that deliver this capitulation are unimportant in the initial stages of decision-making. Effects-based operations, therefore, must be the actions that emerge as appropriate from this rigorous and thorough planning that use the desired effects as the point of origin for all conclusions on actions.

I have merely introduced these thoughts here. I leave the subject for the time being and return in more detail throughout the chapter.

Strategy and Policy

Although strategy and policy have been dealt with in Chapter Two, I need to revisit this subject to further clarify my (mis)understanding.

I remain somewhat confused as to the place of this (strategy) subject after having reviewed Emery's (1993, p. 492) analysis of policy and strategy very late in the writing of this thesis. I had believed that my work was focussed upon the strategic plan "[as it] typically depicts a strategic objective, to be achieved within a specified period, and a hierarchy of sub-goals whose collective achievement will secure the achievement of the objective". My work contains elements and my reading of the literature within (at least) military strategic planning support this conclusion.

I now discover that "a policy, however, is typically one step removed from direct pursuit of an objective; a policy typically seeks to produce a change in the social environment such that certain kinds of ends are more or less easier to achieve" (Emery, 1993, p. 492). Finally, Emery makes the point, which further clouds my thinking that "the distinction between strategy and policy appears to be the same distinction as that we make in military affairs between strategy and doctrine" (Emery, 1993, p. 493). Unfortunately, Emery does not go on to explain in detail how this distinction takes shape, although I believe that my attempts to fully explore this will reveal the meanings implied in her words and secure a deeper understanding of ends and means.

Further confusion (for me) is introduced by Nicholson (2000, p. 22) who states "in the Australian context, strategic policy represents what a government wants and hopes to achieve to secure national security". He then goes on to say in the following paragraph that "military strategy ... is a course of action planned or pursued by military professionals at the behest of a government. ... [with the aim

being to] give effect to strategic policy [emphasis added]" (Nicholson, 2000, p. 23). All very sound statements so far. Nicholson then offers that "... military doctrine provides a body of thought on the conduct of war that informs the development of both security and strategic policy, as well as that of military strategy".

If I have followed the logic of these statements correctly, then national strategic policy is shaped by doctrine, not the reverse. This seems to me to be an outrageous assertion and one that must be rejected. The horse has now been led (quite willingly it would seem) into a position directly behind the cart, furthermore its bearing and outlook indicate no interest in the cart as an object to which its role could somehow be related. A contradiction to this is outlined later (Nicholson, 2000, p. 26-27) under the heading "Strategy and Doctrine - The Case of Australia", wherein a four step ideal relationship is described. He begins with the "identification and articulation [the current major weakness and one I have set out to address] of Australian interests and objectives in a national security policy". This is followed sequentially by a thorough analysis until plans, actions and standard operating procedures are developed.

The information flows and is interpreted downward, actions combine and flow upward to produce results. This seems to me to be a far more accurate account of the real world and acceptance of this is more sound (based on underpinning conceptual models that support it) than the earlier statements on military doctrine informing strategy.

A further return to Clausewitz reveals that "one must be clear what he intends to achieve ... and how he intends to conduct it. The former is its political purpose; the latter its operational objective. This is the governing principle which will ... prescribe the scale of means and effort which is required, and makes its influence felt throughout down to the smallest operational detail" (Clausewitz, 1832, Howard & Paret trans, p. 579).

Clarke (1999, p. 18) usefully divides the Grand Strategic, Military Strategic, Operational and Tactical Levels, assigns an actions profile alongside each and neatly accounts for policies and strategies at each level. I have reproduced his model below (Figure 22) as it will allow me to make several additional points not mentioned by Clarke.

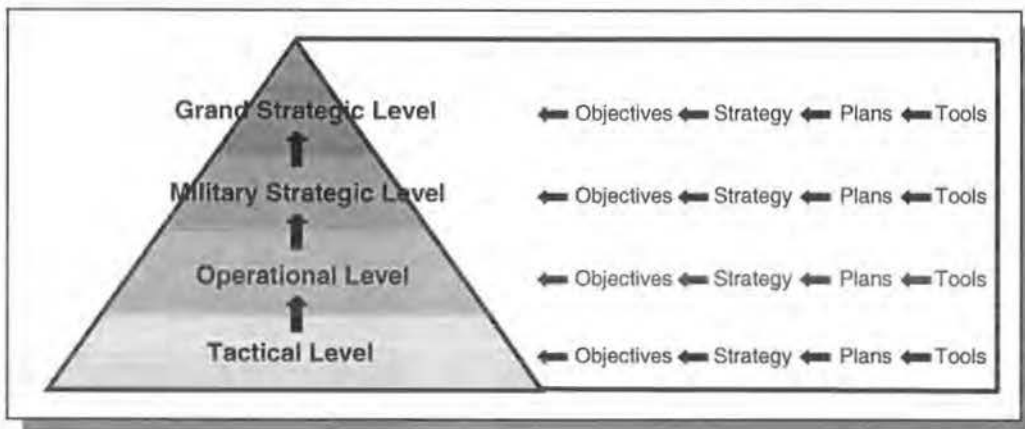


Figure 22. National security management architecture.

For my purposes, Clarke's (1999, p. 20) critical observation is that "every strategy-making effort or consequent action, no matter how far down the structure, should have some traceable relevance to the service of grand strategic level policy objectives" and "[the] plans ... devised ... amount to more specific descriptions of 'what' will be done in accordance with strategy to achieve a given objective" (Clarke, 1999, p. 19). My only criticism with the model is that it fails to make a reasonable claim against the geo-political strategic environment into which the next (and absent) vertically pointing arrow should penetrate. This is the point of origin for my research and informs the efficacy, effectiveness and efficiency of all subordinate policies and strategies. There is still no expression of the effects. It continues to lack a 'whole-of-governmentness'.

Furthermore, "effects-based operations are most effective as a top-down process. The higher up it begins, the more far-reaching [and focussed] its supporting

effects can be [it] begins with the [national leadership] providing clear, coherent national objectives against which those decision-makers wielding the various instruments of national power adopt supporting or supported roles as appropriate" Beagle, 2000, p. 110).

From the many discussions I had throughout the period 1997-1999, with senior Defence planners and capability development project teams it has now (at the moment of writing this) become evident that there is an intellectual divide between strategy (at the National Security Committee of Cabinet level) and Defence, whose task it is to stand ready with the means to deliver outcomes for the nation.

"I have been staggered by the enormity of this institutional resistance. There appears to be reluctance on the part of government to provide precise guidance to the Defence force on what is sought through their actions, which is mirrored, by an identical reluctance within the military to engage in a productive dialogue of what it should be doing".

(Personal reflection, 14 June 1999)

This intellectual silence appears to have situated itself at the boundary of (grand strategic) policy and (grand) strategy. This topic is addressed in Chapter 2.

Enough has been said here. The matter remains (for me) unresolved. I believe that one cannot be done without the other and that the activities associated with strategy and policy overlap in both context and content. Furthermore, the ends, means, effects, strategy, policy and doctrine domains must be considered in their totality if we are to approach precision in our thinking. A new doctrinal construct of effects-based planning is needed.

The Role of Doctrine

Doctrine is central to (military) thought. It sets the boundaries for thought and action. It guides the actions of an enormous array of practitioners and fuses their efforts. It is sometimes described as dogma and has earned this title a number of

times for some unbelievable acts of stupidity and incompetence (Dixon, 1976, provides entertaining but quite tragic reading on this subject). The authorised definition for doctrine within the ADF is:

the fundamental principles by which military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgement in its application.

ADFP 101 - Glossary, Department of Defence, Canberra, 1994

So we need a new fundamental principle. One that is alert to how actions couple together to deliver results.

Ends, Means and Ways

In this section I wish to thoroughly establish the concept (firstly from a military perspective) of *ends*, *means* and *ways* as enduring elements of all planning. A rudimentary framework I will build on later is shown at Figure 23.

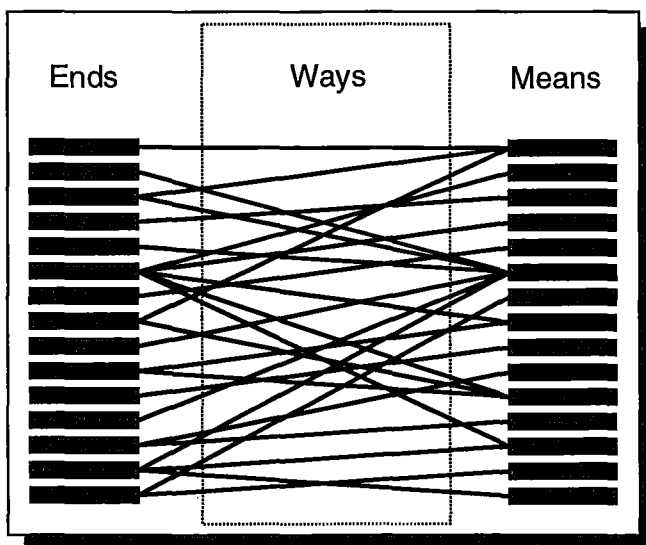


Figure 23. The ends-means linkages that form the ways.

It illustrates the actions that are entangled with results and how a new level of purity must be brought to the examination of cause and effect relationships if

(military) strategic (and now policy due to my earlier observation) planning is to (ever) produce the outcomes we are in pursuit of. It is not my intention to investigate in great detail how this may relate to other (non-military) organisations.

Having said this, however, my research has indicated that there is almost a direct qualitative correlation within the architecture of analysis for Police, Customs, Immigration and other quasi-military institutions. The inputs are behaviorally dominant and the outcomes are (in the purest form this model demands) also behavioral, things are done by people in order to bring about changes in other people that deliver the outcomes or objectives that are sought.

The Ends-Means Construct

All planners and decision-makers would recognise the enduring truth of the phrase 'begin with the end in mind'. The clearly stated *end*, *objective* or *effect* then stands as a clear beacon that all actions must be in pursuit of if success is to be achieved. Bartlett (1985, p. 39) offers that "there are several advantages to a top-down approach. First, it helps force planners to concentrate on ends", my central argument remains that without knowing what you are trying to make happen any activity will give some measure of satisfaction - the ends must have primacy. "Second, it provides a systematic way to think through force planning starting from the broad or macro perspective", giving a sense of the contextual environment (Emery & Trist, 1965). "Third, ... a balance [can be achieved] for expectations about the short and long term", a fusing together of scenario planning and strategy/policy as I have done in the current research. "Fourth, ... useful criteria [is introduced] for evaluating, judging and choosing among alternative force choices", this is where my ratings of means-effects pairs is achieved. It is my conclusion that the ends have been reduced to a somewhat secondary position in the grand order of shaping national responses.

Although I would now need to return to chapter two to fully develop these ideas and position them within a national security context, the fundamental arguments can be located in the strategic marketing literature. For my comments here the terms operational environment and market should be considered as identical. Research has indicated a strong causal link between market orientation and organisational performance (Narver & Slater, 1990; Reukert, 1992), with "the ultimate objective of corporate decisions [being] marketplace success" (Berman, Wicks, Kotha & Jones, p. 91).

Organisational learning with key elements of culture, structure and practice has also been strongly linked to market orientation (Day, 1994); with the importance of a values base, knowledge flows and resulting market strategies being used centrally on a behavioral construct (Sinkula, Baker & Nordeweir, 1997). Deshpande and Rohit (1983) identify the need for increased qualitative research through subjective interpretation of data as an aid to theory development, with a de-emphasis on hypothesis testing - making the behaviour rich in involvement and consultation - solving the problem progressively as groups and organisations learn together.

Berthon, Hulbert and Pitt (1999) synthesise all these issues as a central management question related to innovation or response, with Duncan (1996) outlining the basic contradiction between an organisation that is configured for rapid change and adaptation in a turbulent environment, against that configuration needed for satisfactory implementation. Hedberg, Nystrom and Starbuck (1976) and Hubert (1984) offer insights into the 'experimenting' organisation that constantly mutates, fostering internal flexibility as a vital characteristic for success.

Deshpande, Farley and Webster (1993) concerned themselves with the primacy of market orientation *or* innovation, suggesting that innovation success can *re-orient* a market. Han, Kim and Srivastava (1998) explore, from within a set of

hypotheses, whether market orientation *and* innovation *and* organisational performance are all pieces of the same inter-related management puzzle with further distinctions drawn from Daft (1978), Dalton (1968) and Damanpour (1991); wherein "technical innovations pertain to products, services and production process technology - they are related to work activities [and] administrative innovations involve organisational structure and administrative process - they are indirectly related to the basic work activities" (Damanpour, 1991, p. 560)

The central premise at work here is that indicators for change (within the context of this research) come from outside, in the environment and are a strategic necessity (Day, 1999, p. 13).

Given the nature of Special Forces, and its primary purpose to conduct Special Operations, the conclusion must be that a combination of precise market orientation (this term is abandoned now in favour of the more appropriate [understanding of the] 'operational environment'), constant innovation and structural mutation as a stable organisation condition must become the norm. I set out how these are addressed later in this chapter, for now it is time to return to the ends, ways and means.

This construct of ends, ways and means shown earlier in Figure 23 attains primacy as a core framework, but it must be approached in a particular way if the results are to prove useful. Before proceeding though I am cautioned by the words of Vendler (in Emmet, 1984, p. 67) who, when dealing with the relationships between cause and effect, states that "causes are facts, which are proposition-like, whereas effects are actual changes and processes in the world ... 'causes' should be paired with 'results' or 'consequences', which, like causes, can be limited, ... whereas effects can go on indefinitely". These concerns I think have already been accommodated in the recognition of n^{th} order effects, cascading effects and the belief that we can never only do one thing.

An interesting black box 'unknowability' cause-effect relationship (Figure 24) has been discussed by Sakulich (2001, p. 13-14).

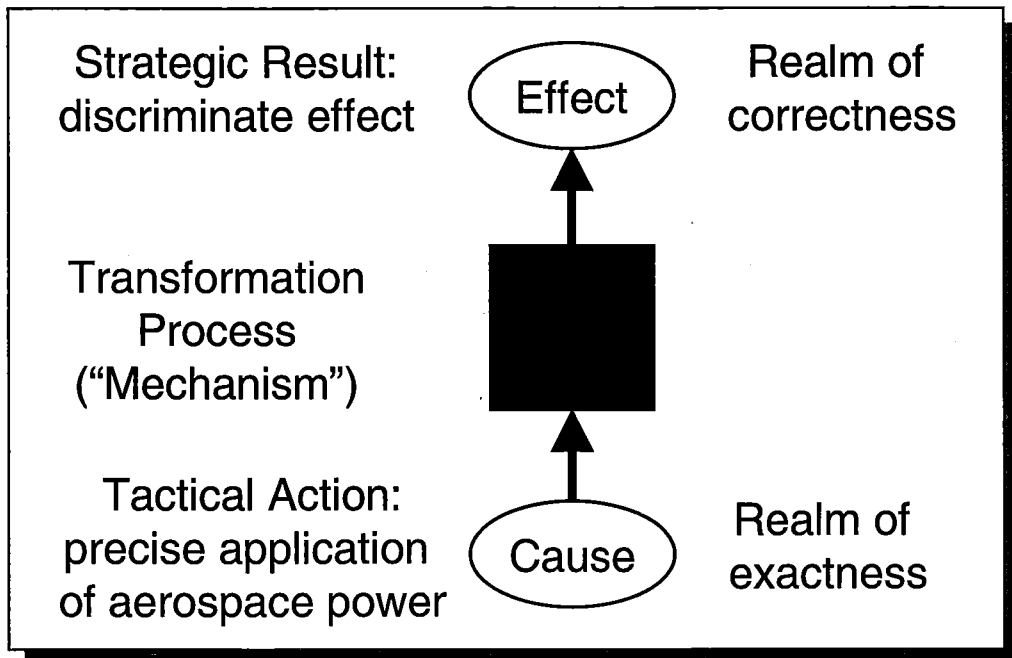


Figure 24. Black box linking of cause and effect.

He offers that "it does not make sense to talk about discriminate effects unless those effects are clearly defined in advance; if for no other reason, the decision-maker must communicate the discriminate outcome to planners who must develop the means to achieve it" (Sakulich, 2001, p. 14). As I soon demonstrate, getting this information from senior policy-makers can be difficult. Practitioners inquiring co-operatively towards this information can offer an empowering alternative.

Maxfield (1999, p. 202) was able to advance a simple task within decision analysis to "determine the set of possible strategies, assess the outcomes of each and their probabilities, evaluate the relative value of each outcome, and [therefore] calculate the optimum strategy". Harrison uses similar language to confirm that "once the search yields a sufficient amount of information to fashion

a set of alternatives, the next function in the decision-making process is to compare and evaluate these alternatives The decision-maker must focus on anticipated outcomes that will probably meet the objectives ..." (Harrison, 1987, p. 48). It is (the profit) maximising behaviour of the economic person, "the merchant pictured by Adam Smith" (Harrison, 1987, p. 111). But the context of my discussion is not the marketplace, it is the social milieu where alternatives are endlessly complex. Furthermore, the black box in the Sakulich model possesses an enormous array of interactions.

I gain some measure of comfort from Emmet (1984, p. 69) in her philosophical analysis of these dilemmas for decision-makers in recognising that "causes and effects are alike in being multiple, and this makes them more difficult to diagnose". It is not helpful to attempt to isolate individual cause-effect relationships, instead "why should we not have a [many to many relationship acknowledgement] where there are a number of actual causal factors playing on a situation producing a number of actual effects" (Emmet, 1984, p. 68).

These then spiral off into a "hopelessly large number of possible outcomes", indeed "the very structure of the world in which the agent exists is undergoing change". This is the nature of the turbulent field of Emery and Trist (1965) discussed in Chapter Three.

I will develop this simple model (Figure 24) into a complex array later in this chapter, showing what is happening inside Sakulich's black box, an array that incorporates an identical arrangement of linkages, but one that assigns values and forms patterns that can be analysed. Despite its simplicity there remains much confusion and disagreement (grounded in a lack of doctrine), as evidenced in the quote below:

End-state is reached by achieving objectives (military and non-military), objectives are reached by achieving the expressed intent (statement of what the force must do to succeed with respect to the enemy, terrain and desired end-state) - what you want to achieve - the 'effect'. Where is the 'newness' in this other than the word? The newness is in the focus of the staff planning elements. We need to drive commander's intent to lower echelons. But the lower echelons focus on 'destroy this' and don't focus on 'in order to'. By using a new name for an old process (given new Information Technology tools), perhaps we can develop a culture and process change that does not disregard the 'in order to...' part of mission orders.

Participant comment from EBO workshop
in United States 26 October 2000

Without getting into the specifics, they will come later, there were countless occasions during the workshops I conducted that a reminder had to be spelled out on the framing of the statements: *do something* in order to *make something happen* is critical if a consistent and useful phraseology is to be developed. The quote above carries a powerful message for me in that the effect that is sought should be conveyed throughout all levels of thinking and must not be turned into a 'destroy' this or that action that is not anchored to an effect. That a(nother) system is at work seems to have primacy once again.

In reading Crombie (1972, p. 120) I note an interesting quote from Angyal that has relevance here, wherein "every system implies some kind of dimensional domain which makes the multiplicity of parts possible and at the same time serves as a matrix for the arrangement of parts into definite patterns". This domain is then expanded into depth or the vertical dimension, a progressive dimension and a breadth dimension. All have attracted my attention and demand further detailed examination to illuminate my own work; however, it is the second of these that informs this particular section as "the *dimension of progression* is the dimension along which particular actions and behaviours become linked into means-ends chains, the structured sequences of more or less planned, purposeful activity"

(Crombie, 1972, p. 121). The language of ends and means is very dominant and the idea of end-states, effects and actions need to become integrated.

Nevertheless, caution is warranted when building these structures (as I will outline later) as "There seems to be an obsessive concern with the means at almost complete expense to the ends, so much so that stalemated social systems come as close to being purposeless as can be expected from a social system which is purposeful by definition" (Baburoglu, 1988, p. 217). I have found the sequencing of this integration to be critical.

The reality of these facts, from a military doctrine perspective, is evident in the quote below:

A nation will have a political aim or objectives and depending both on the nature of the conflict and the identity of the enemy, there will be a means by which the armed forces can best contribute to its achievement. To establish that means, the appropriate military aim should be selected and must be simple, direct, within the capabilities of the force available, and defined without any possibility of ambiguity. Each operation will itself have an aim that, while more limited, must also be simple, direct and clearly stated.

Army Doctrine Electronic Library, 2000

I believe that we are still waiting to witness any noticeable behavioural shifts that align with this thinking. Furthermore, the aim is limited by (and subordinated to) the capabilities of the available force. As identified by Jablonsky (1989, p. 53) in "the proper blending of these interdependent [ends, ways and means] elements, however, has always been a difficult process, made even more so in the modern era where limited objectives and diffusion of military power are the norms". Jablonsky then offers a quote from Henry Kissinger who recognised that strategy was not about superior strength, rather "to discipline the available power [means?] into some relationship to the objectives likely to be in dispute" (Jablonsky, 1989, p. 53). This feedback in thought and practice remains unchallenged.

What we see forming then is "a cascading means-ends chain of organised, loosely coupled, interconnected systems moving from generality to specificity" (Allen, 2000, p 38). Allen's concern was that if "these elements could be more logically expressed then it should be possible to express the means by which management achieves ends.... Map[ping] what goes on ... in an organisation from top to bottom" (Allen, 2000, p 38). This is precisely what I have set out to do.

Taking this Thinking to National Security

This mapping of means and effects can be a hugely complex task to achieve in an international security context. Given the SE Asian region's current (in)security situation Clausewitz could now be considered only partially correct when he identified that "there is only one means in war: combat" (Clausewitz, 1832, Howard & Paret trans. 1976, p. 96); for war has taken on new meanings that have little to do with declared conflict between States.

Furthermore, his recognition that "the multiplicity of forms that combat assumes leads us in as many different directions as are created by the multiplicity of aims, so that our analysis does not seem to have made any progress" (Clausewitz, Howard & Paret trans. 1976, p. 96) restores some contemporary relevance, as it gives us the freedom to broaden our view to that of imposing our will within *all* contexts that *may not* necessarily involve conflict.

Our basic problem remains, however, and it brings us back to the words in Checkand's seven-stage model that "as the complexity of a system increases, our ability to make precise and significant statements about its behaviour diminishes until a threshold is reached beyond which precision and significance (or relevance) become almost mutually exclusive characteristics". A corollary principle may be stated succinctly as, "the closer one looks at a real-world

problem, the fuzziest becomes the solution" (Kosko, 1994, p. 148, quoting the work of Zadeh and his principle of incompatibility).

The fixation on warfighting mentioned in Chapter 2 is diminished further. The necessity for this has been highlighted by Shine (1998, pp. 5-18) when discussing the need for "using every means at the nation's disposal" which, in an effects-based model, can integrate all possible contributors; a whole-of-government approach, the need for which has been mentioned in many different contexts, not only those that are related to national security.

The doctrine at the operational level is sound and points to these issues, as can be seen in Figure 25 taken from an Australian Defence Force publication. The greyed text boxes on the right are Australian Government, Australian Defence Force Headquarters, Headquarters Australian Theatre, Joint Task Forces and Australian Defence Force Units.

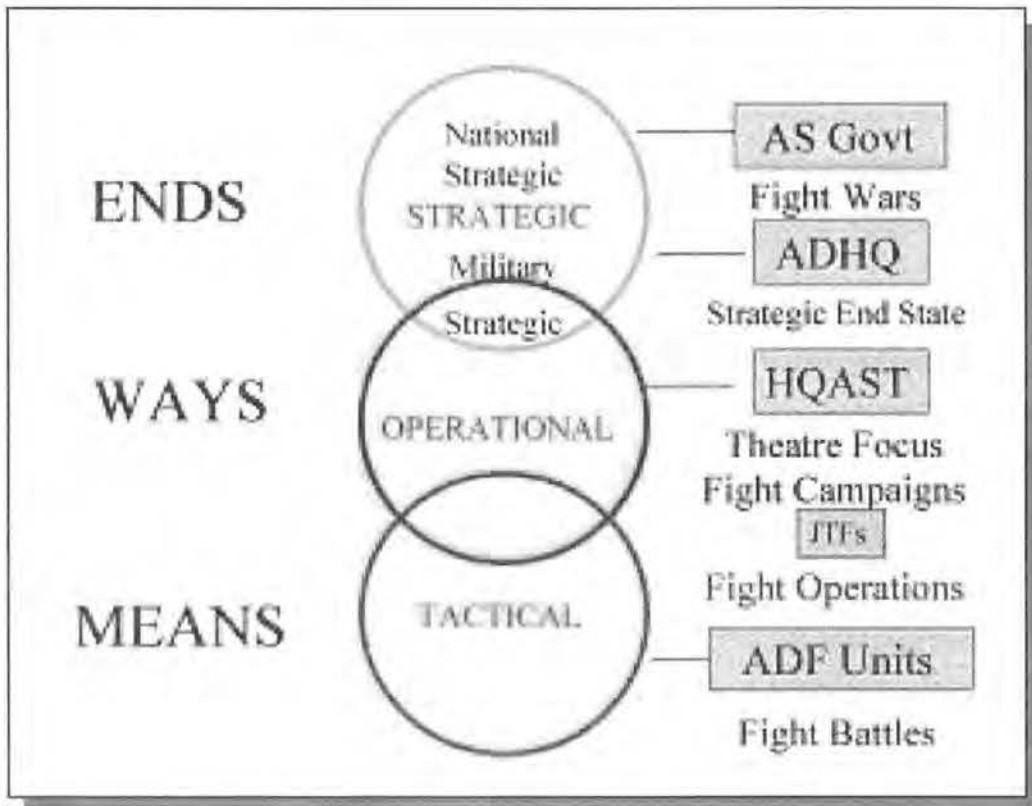


Figure 25. Defence doctrine model of ends, ways and means.

My primary criticism is that there is (always) a premature fixation on the means, rather than the ends. "What we do", not "What are we trying to make happen". This is certainly true for the military and is also evident within many other disciplines and organisations. I feel so strongly about this that I will repeat here the words of the Deputy Secretary - Strategy from a quote in Chapter 2 "*I do not think that we [who?] have yet got to the point of providing the Army with a really clear statement of what it is meant to be doing ... To my mind at least, one of the key objectives of the present process is to make sure that we do that*". In order for this to be successful it must be informed by a comprehensive understanding of what the ADF is trying to make happen (strategically for the nation). This loop of irresolution is closed when we acknowledge that we do not know what it is that we are trying to make happen. It is Government "who wills an end [and therefore] wills the means to that end" (Rousseau, 1762, Betts trans. p. 70). The various

elements of the National Security Strategy and National Military Strategy as set out in Chapter 2 which attempt to explicitly set these out remain lacking in both quantity and quality of expression.

In his analysis of strategy and crisis, Brigadier Wallace, when the Director General of Land Development, identified that:

By constantly focusing on the desired end state, the circumstances we wish to prevail at the end of the crisis, the successful strategist shapes the near and mid-term situation to his own advantage. Taking a long view causes him to anticipate developments and drives his information requirements, naturally assisting him to build on the most valuable commodity for the strategist, foreknowledge.

Wallace, (1999, p. 17)

Having crafted an intent from the end-states Wallace then sets out a model for the thought processes springing from this, with a principal output being the "selection of the most effective combinations of effects" (1999, p. 19). It follows that an analysis of the contextually appropriate means to deliver these effects would be a natural extension of this 'top down' approach. Herein lies a practitioner's recognition that there are elements missing and the only way to determine what they may be and how they may be expressed is to formulate a coherent model that drives the mind away from actions (what we do) to outcomes (what we make happen). Having determined these then it is entirely appropriate to examine the possible actions (and what should be more accurately described as decision-maker's options).

Warden (1998) elaborates on this theme of knowing what each individual action contributes to the outcome when stating that:

... as a planner or commander, you ought to be able to tell what each bomb has got to do with the peace that you want to follow the war. If you can't tell how a given bomb relates to the peace that's going to follow, then you probably haven't done your homework

well and you probably shouldn't drop that particular bomb.

Warden (1998, p. 84-85)

From these insights it is possible to deduce that the channeling of actions (or energy) to bring about stated ends must be informed by a clear vision and one that is not distorted by a particular orientation, preoccupation or ideological imperfection or inconsistency. A useful example of this is offered by Clarke who noted that:

Alexander the Great who, while having very strong land forces, was very much weaker than his Persian adversaries at sea. Rather than challenge the Persian navy on the water for control of the Mediterranean, he identified their centre of gravity as the ports and decided that attacks on these would be the best way to overcome Persian sea power a simple expression of 'how' a particular manipulation of affairs might indirectly secure the desired objective [emphasis added].

Clarke (1999, p. 19)

Alexander, acknowledged as one of the finest strategists, recognised the *inaccessibility* of his adversary's navy (his strength was land based), but recognised that he could reach his objective (located further *upstream*) through means that exploited his strengths. The importance of this indirectness is further elaborated, (Clarke, 1999, p. 14) wherein "control of accessible *upstream* states or events can produce a measure of control over less accessible *downstream* states or events. *Establishing this link between cause and effect, between means and ends, is at the very heart of the art of strategy*". Alluding to these themes, students of systems thinking will recognise the truth(ful fantasy) in the following poem in Francis Thompson's The Mistress of Vision:

All things by immortal power

Near or far

Hiddenly

To each other linked are

That thou canst not stir a flower

Without troubling a star.

The Primacy of Effects

Theory investigates all these ends and means according to the nature of their effects and their mutual relations [emphasis added].
(Clausewitz, 1832, Rapoport trans, p. 195)

Effects are central to this chapter. I have already demonstrated that *knowing what you want to have happen* must be given primacy in planning. Without remaining mindful of the *effects* we are seeking, every *action* that is not securely anchored to an outcome can not only prove wasteful, it can also run counter to other actions that are being undertaken simultaneously. This fact calls for a coordinated and thoughtful approach that will eventually become a campaign of orchestrated actions at the National level using all elements of national power.

One of the greatest military theorists - Carl von Clausewitz offers several important insights to lay the foundation for a modern application of this thinking. "In the analysis of the means we encounter the same multiplicity as our viewpoint becomes more comprehensive. The higher the ends [or effects], the greater the number of means by which they may be reached". Furthermore "we can see that this may sometimes lead to a broad and complex field of enquiry in which we may easily get lost" (Clausewitz, 1832, Howard & Paret trans. 1976, p. 159). I can admit to becoming lost on many occasions, as the vocabulary used to describe national security issues becomes more complex, so too did the linkages that bind the construct together. Hope is available though in the slightly different translation of this section by Rapoport, who offers that as our knowledge deepens:

The infinite variety of paths in which it [the means in battle] may be applied, leads us into all the different ways which the multiplicity of objects allows of, so that we seemed to have gained nothing; but that is not the case, for from this unity of means

proceeds a thread which assists the study of the subject, as it runs through the whole web of military activity and holds it together [emphasis added].

(Clausewitz, 1832, Rapoport trans, p. 133)

From another interpretation comes an assertion that "the ends-means relationship clearly does not work on a linear fashion [as implied in the quote above]. The constant interplay is an interactive feedback process" and "the conduct [the means employed] of any conflict affects the character and [the altered] character feeds back into the political ends" (Bayerchen, 1998, p. 174). The set of effects then (a list that is both generic and context-specific) must sit atop the ends, means and ways framework. The (almost limitless) variety in which these can be coupled together broadens (and complicates) the scope of planning, but also builds in flexibility, novelty and agility for dealing (imaginatively and creatively) with current events.

Ayling (2000, p. 6) also recognised that the ends, ways and means framework was equally useful at provoking a consideration of *future* force concepts within defence to shape the ideological positions *before* they become a damaging interference. Indeed, the disrespect that this construct shows for Service (Navy, Army and Air Force) identities is one of its greatest strengths. This disrespect is evident in transcript extracts from a workshop on effects-based operations held in the United States that I have included as Appendix 1 that I will make specific reference to and make comparisons with my own observations on similar workshops in Australia.

This single Service (Navy, Army *or* Air Force) orientation can be attributed to the early fixation (on the means) that is allowed to occur on the tactical and operational levels, rather than (the ends) at the national strategic level. Indeed, Warden (in Clarke, 1998, p 78) in a search for useful definitions of " ... 'winning', 'to win' or 'victory' [discovered that] there was whole lot of things in there about how to do tactical things, but almost nothing about the final end states that were

supposed to be the result of this action". It is evident from these observations that very little consideration is given to 'that which is sought'. Rather 'that which is done' dominates the thinking. It would appear to be the case in any endeavour, as illustrated by Albert Einstein (1950, chap 14) who wrote "perfection of means and confusion of goals seem—in my opinion—to characterize our age" and also by Hoffer (1973, p. xx) "We have perhaps a natural fear of ends. We would rather be always on the way than arrive. Given the means, we hang on to them and often forget the ends". In an organisation such as the military, which by its nature must have an action orientation, the means are certainly blocking out a clear sight of the ends they are in pursuit of.

Furthermore, also from Warden (1995, p. 2) comes the statement that "we cannot think strategically if we start our thought processes with individual aircraft, sorties, weapons, or even with the enemy's entire military forces. Instead, we must focus on the totality of our enemy [only after doing this thoroughly] can we begin to think about how we are going to produce the desired effect on the enemy, the weapons, the delivery systems, and other means [emphasis added] we will use". The very intent of this research, indeed it goes beyond to the contextual environment.

Only when these elements of ends and means are bound together can a useful, purposeful understanding of the roles that are played by each of the 'ways' be arrived at. It may be the only way to bring a new synthesis to our understanding.

I promised earlier that I would demonstrate the presence of patterns in these linkages and how these patterns could be interpreted. Figure 26 represents my initial attempts to formulate a deeper understanding of what I was only just beginning to construct. It seemed to me that there was something akin to a strange attractor at work and the various ideas that were presented by a large number of practitioners within the organisation would build a visual representation of actions

at work. The random arrangement of lines in Figure 23 sparked my curiosity to develop these ideas further to isolate the patterns and determine their meaning.

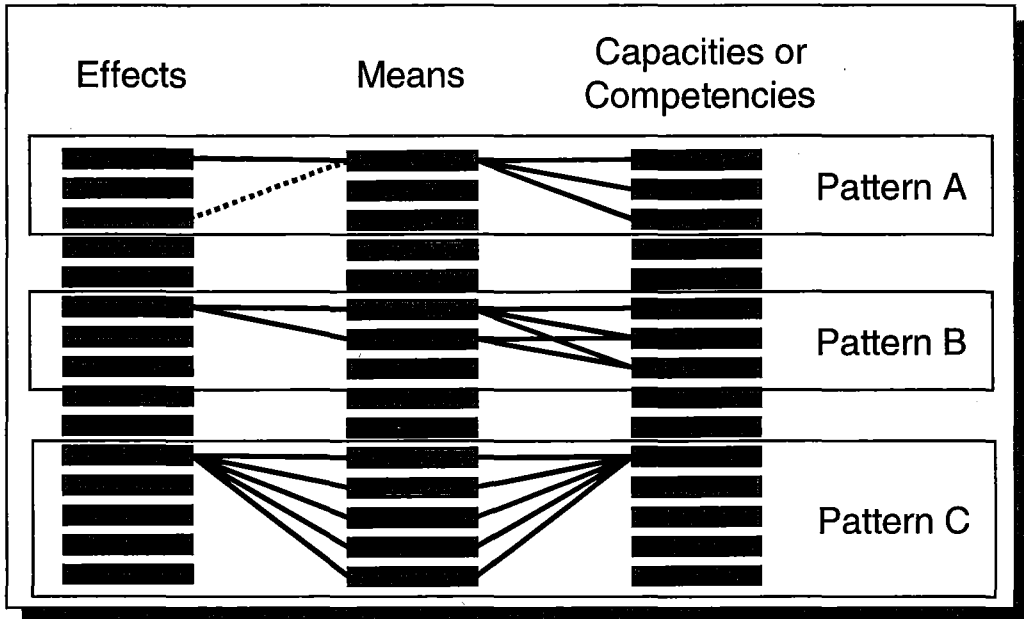


Figure 26. Patterns formed within the ends, means and ways model.

Note that I have substituted the words of *ends*, *ways* and *means* with the language that I was beginning to develop of *effects*, *means* and *capacities* or *competencies*. I was criticised by many for this departure from convention. My discussion on the ends, means and ways model to this point confirms that the ideas were already present. My intention was to force a new perspective. To preserve the purity of the process throughout it was suggested that I abandon the term effects and return to objectives and end-states. In my view effects are an expression of objectives. End-states are located in a position off to the left of this diagram and are delivered through achievement of the effects.

The patterns are evident within the figure, heralding the possibility of strange attractors entering the model (and they did). A fact I will demonstrate shortly.

- Pattern A describes a pair of effects that are anchored to the same set of three capacities or competencies through a single means. If this means is tightly bound from both sides it possesses considerable criticality as an action.
- Pattern B describes a single effect anchored to multiple means, each of which has a supporting set of capacities. Looking sequentially at several effects and determining whether the same set of means and capacities are bound together raises issues of undertaking that means in separate locations simultaneously - a question of concurrency.
- Pattern C provides for the pairing of a single effect and a single capacity and a count of the number of means that bridge between these two (a chart will be illustrated later that performs this action).

The information gained from this exercise is reduced to a numerical set of possible paths that can be traced either from the sides (single effects to a single capacity) or from the centre outwards (single means to multiple effects and capacities). These results will be displayed as charts later in this chapter.

On 3 August 2000, a slide (Figure 27) was presented to senior Defence capability managers as part of a methodology formulation project. It represents a quite honest attempt to link the ends, ways and means together and apply some criticality and importance metrics to the lines that bind the model together. As will be seen later in this chapter it is a highly simplified (and copied) version of a more sophisticated model that arose from my research. Notwithstanding this, the concept has gained a foothold and attention is now beginning to be directed at (what I consider to be) the right areas; although the institutional resistance remains high despite the 'concept-led' declaration by Army discussed in Chapter Two.

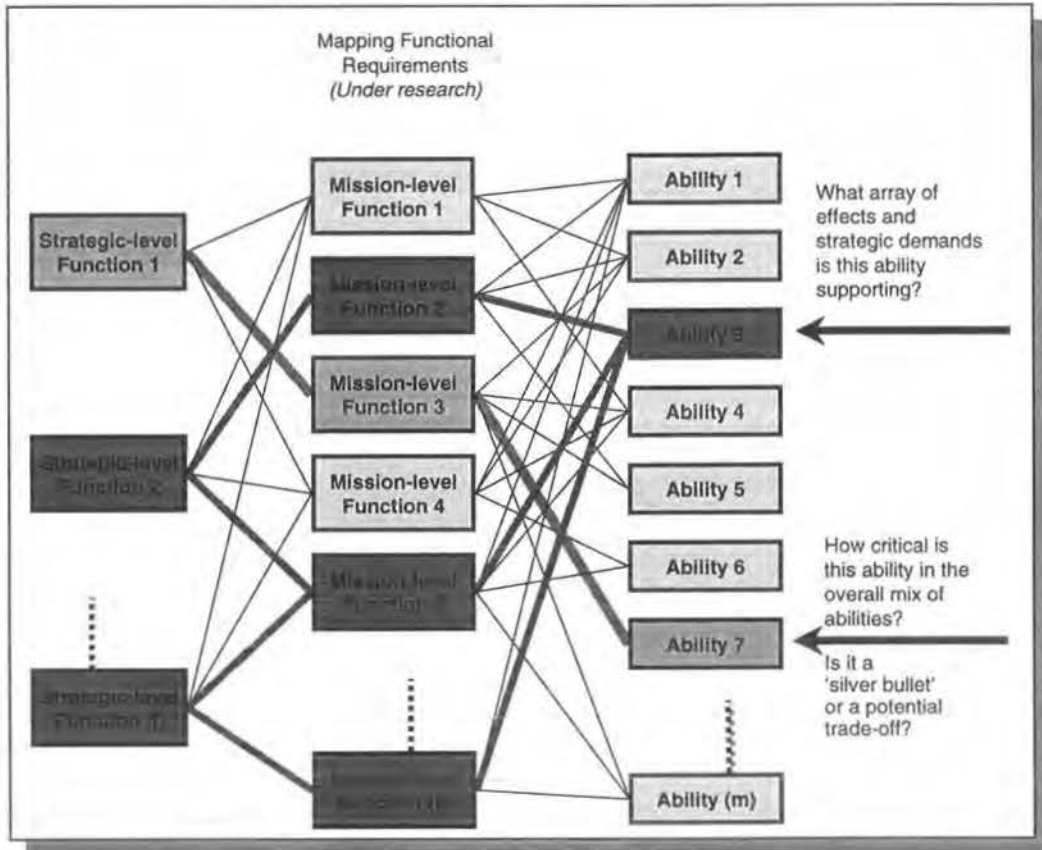


Figure 27. Conceptual linking of elements.

I have discussed the theoretical foundations of this for too long, but as I confessed in the beginning of this chapter it was a necessary thing for me to do. Armed with this extensive knowledge and the importance of putting what is a comprehensive and thorough theory to some useful purpose that can inform the efforts of a vast number of people, I now move on to a discussion of how (I was able) to make this (begin to) happen in the Australian Defence Force.

The e-mail below and personal reflection provide some closing thoughts to this section on my (as yet unrecognised) work and the (undeclared) interest of others.

E-mail received on 19 March 2001

Guy

Tony Forestier, Air Power Studies Centre, provided me with your e-mail address, advising me that you had a database that was able to prioritise capability.

I would be keen to speak to you about this issue, as the Directorate of Current Capability Guidance is coordinating the development of the Defence Capability Planning Guidance (DCPG) - a guidance document to prioritise capability at all levels.

Could you please call me before Thursday, (if possible as I will be on leave from Thursday 22/3/01) to discuss what you have done, and to make arrangements to visit us the next time you are in Canberra.

Thanks and Regards

John C. Guthrie

Deputy Director - Capability Planning Integration

Directorate of Current Capability Guidance

Capability Systems Staff

Department of Defence

Russell Offices

Canberra AUSTRALIA 2601

"The linking of lines and attachment of values to prescribe additional meaning was my design. I shared it openly so I should be thankful that it has found its way to a good use (Defence White Paper - Defence 2000 Our Future Defence Force). I still feel anger though that supposedly clever people doing extremely important work cannot attribute clever ideas to those who originated them. Furthermore, I believe the purity of the approach has been polluted by the inclusion of inappropriate (platform-centric) statements to describe the 'abilities'. The likelihood of gaining credit in what is (unfortunately) an ego-centric environment is greatly diminished".

I am reminded of the work of Liddell Hart (1943) who recognised that "the destruction of the enemy's armed forces is but a means - and not necessarily an inevitable or infallible one - to the attainment of our goal. It is not, despite the assertion of the military pundits, the sole, true objective in war" (Hart, 1943, p. 151).

(Personal observation, 10 September, 2000)

Defence thinking is progressing quite rapidly towards acceptance of these concepts. It is uncertain when institutionalisation (Berman & McLaughlin, 1978) will occur, if ever. Of equal doubt is whether the purity in the approach can be maintained, it is too easy to revert back to a means-dominant paradigm.

Getting an Effects Orientation Started

Throughout 1998-99, I participated in a series of Concept Initiation Teams (CIT) under Project Sphinx. These were structured workshops conducted by the Directorate of Future Warfare at the Defence Science and Technology Organisation (DSTO) facility at Fern Hill in Canberra. The workshops employed a group decision support system, whereby each participant (up to 40) had his or her own keyboard and could review their own individual comments and respond to the ideas of others as they appeared on the group area projected onto a large screen. This proved to be a very powerful way to elicit information. Assertive ideas prevailed, not assertive people. My earlier comment of the 'authority of a shared idea' would be given the greatest chance of success in this collaboration-rich environment.

There were five separate two-day sessions conducted. The subjects dealt with were:

- Concept 1 - Intelligence, Surveillance and Reconnaissance
- Concept 2 - Command and Control
- Concept 3 - Tailored Lethality
- Concept 4 - Force Projection and Protection
- Concept 5 - Force Sustainment

Without knowing the significance of my actions (then) I was able to convince the workshop leader that Concept 3 - Tailored Lethality should be altered to *Tailored Effects*, producing a more appropriate (and useful) title and, most importantly, it

would dramatically enlarge the problem and solution spaces. The title Tailored Lethality, although not challenged at all by the group, embodied a fixation on conflict and the military measures to resolve conflict - locate the defeat mechanism/s and apply military (and lethal due to the preoccupation commanded by the title) force. Tailored effects, on the other hand, did not possess this imbalance and therefore did not produce this single-mindedness. I believe now that this may prove to be the most significant event in getting the concept of effects-based planning impregnated into the military mind. Military force still has its place, but it (eventually) will stand adjacent to the other means available to a nation to resolve a situation.

A document released later that reported on the workshops contained the following statement:

Tailored effects shift the emphasis from the application of force to the delivery of effects tailored to a specific circumstance or mission. It has equal utility across the spectrum of conflict [see Figure 6] particularly where earlier; 'softer' interventions may yield reductions in tension [an unfortunate reversal in thinking back to conflict]. The concept involves greater mixing of traditional force projection and unconventional information operations.

With the circulation and endorsement of this document Defence now have a doctrinal beginning that fosters discussion, exploration and examination of these issues. I do not hesitate in claiming this as my achievement, what level of penetration this achieves will be determined by others.

This concept has since proven central to the development of future approaches and, along with the other four concepts, has yielded 25 embryonic sub-concepts. Nine of these 25 have become *key concepts* ('tailored effects' was one), six have become enabling concepts (tailored effects was one) and ten have become supporting concepts (tailored effects was in three). Whilst this cannot be

considered a dominating result a 25% penetration of an idea into a new concept is certainly promising and could herald a departure from traditional thinking.

Final Thoughts on Ends, Ways and Means

At the heart of all planning then, regardless of its purpose, scope or urgency is the need to balance these ends and means. To achieve effective planning a straightforward linear process is normally adopted that specifies objectives and the various arrangements of means that can be coupled together in different ways to accommodate risk, cost and other factors that are important to decision-makers. Emerging from this process should be a range of options, each possessing the common characteristic of being able to deliver the desired outcome, but at the same time presenting the decision-maker with the capacity for phased or escalating application combined with appropriate adjustments in risk and other factors.

My extensive use of other authors' thoughts on this subject now allows me to focus on the construction of my own knowledge management model that brought these ideas to an audience, allowed their thoughts to range free, developed a language in which to express the effects, distilled these into the subordinate means and other elements.

Before doing this, however, I would like to spend some time addressing the subject of knowledge management in general.

Knowledge Management

Knowledge Management caters to the critical issues of organizational adaptation, survival and competence in face of increasingly discontinuous environmental change.... Essentially, it embodies organizational processes that seek synergistic combination of data and information processing capacity of information technologies, and the creative and innovative capacity of human beings.

(<http://www.brint.com/km/whatis.htm> on 19 Apr 2001)

The term 'knowledge management' has yet to receive a stable definition, mainly due to the phraseology used to express what it is. Essentially it is an (as yet incomplete) extension into a new field or domain for the general term 'management'. It therefore sits (uncomfortably) adjacent to 'quality management', 'information management', 'risk management', 'people management', 'data management' and all the other forms of something management. In hindsight, it would have been more helpful to present this subject under the broader heading of knowledge sharing, an idea I gained from discussions with another doctoral student.

Furthermore, the domination of the noun form of the word 'manage(ment)' has caused a distancing between what is being described and what is actually occurring. From the quote above we can see that it is more a fusion of patterns of information that can be extracted from noise with the creative ability of the human mind to derive meaning. Knowledge *sharing* uses a verb in the passive voice and lends more action to the term, more appropriately describing the object of the action. Further information on the ability to see signals out of noise can be gained from Wickens (1992).

Finally, the *knowledge* (that is being *managed*) is often described as both tacit and explicit. The tacit form being the memories and thoughts of members of the

organisation and the explicit being how these (tacit forms) are manifested within the workplace or organisation. Discussions I have had with individuals studying knowledge management have been interesting and fruitful; reinforcing my belief that much confusion continues to surround the subject. I contend that explicit knowledge is behaviour. If we talk of (the manifestation of) explicit knowledge then what we can observe and measure must be the behavioral basis or foundations upon which the knowledge rests.

My description of a knowledge management system simplifies this confusion somewhat as I choose to employ the Hall and Fagan (1956) definition of a "set of objects, conceptual or material, with their interrelations". My Microsoft® Access™ database is constructed of objects with material expressions that illustrate interrelations.

Effects-Based Planning - *Making it Work*

Effects based is not a concept, strategy, operation, warfare, or targeting. It is a mindset! It is a mindset that planners and operators need to get a better grip on. That better grip can be gained as a result of technology and utilization of other new assets or processes.

Participant comment from EBO workshop
in the United States 26 October 2000

Effects-based planning is not a new term. It is an extension of the very simple idea of 'begin with the end in mind'. Without knowing what is ultimately sought, in very precise terms, and what therefore shapes all organisational effort decision-makers are unable to build the organisational elements that can deliver those ends or objectives. Without a clear understanding of effectiveness there will not only be inefficiency but a failure to achieve objectives. Effects-based planning uses the objectives (or effects) that are sought as the point of origin from which all analysis proceeds. It forces decision-makers to consider the primary purpose for which their organisation exists. The results gained from the process give powerful

insights into the 'fitness for purpose' and directions where high pay-off gains can be achieved. Although I have mentioned the term fitness for purpose several times up to this point I need now to anchor it to a precise and simple definition of a system by Coyle (1996, p. 4), he says it is a "collection of parts organised for a purpose". This suits my own purpose as the collection of parts is the vertical arrangement of environment, grand strategy, policy, national security, national military strategy, ways and means.

This neatly binds together Checkland's purposeful activity - goal focused, which is mindful of Coyle's system orientation - a collection of (organised) parts. Correll (2001, p. 2) adds emphasis to this in his article on the purpose of war wherein he states that "the idea of effects-based operations is that success in armed conflict should be measured by results, not by destruction. Did the operation compel a political outcome[?]" Embodied within the question is the need to have a purposeful objective.

It is now time to put these ideas to work.

Demonstrating the Concept

It took many months before the database features illustrated in Figure 28 took shape and actually began to work as designed. The three main functions of linking, rating and charting are now presented as steps. Additional features within the database are also presented.

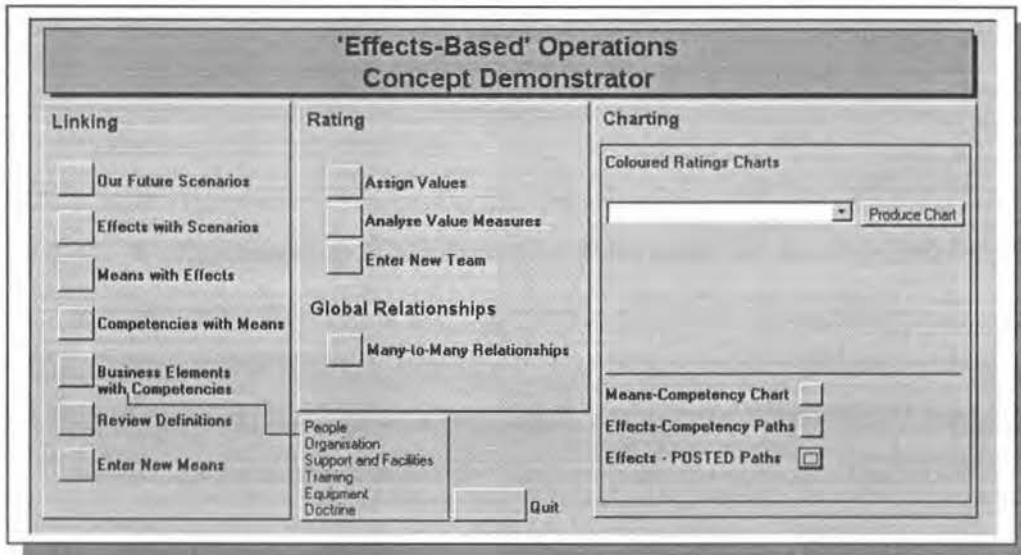


Figure 28. The main functional components of the database.

Steps to Effects-Based Planning

There are six steps to the process of effects-based planning:

- Step 1 End-States. Using either a future-focused/scenario-based view or one aligned with the present (or what the organisation is trying to bring about in a current setting) firstly develop a comprehensive list of end-states that capture the characteristics of the contextual environment (see the Glossary for a definition).
- Step 2 Effects. Determine the effects that can be imposed that satisfy the end-states. Effects, ends and objectives are used interchangeably here. Effects suit my purpose better as it more accurately describes (and can accommodate) a situation that remains fluid. Ends and objectives have a sense of finality to them that is inconsistent with the strategic and enduring perspectives that are

sought. This step can involve the introduction of scenarios if a long-term and future focused view is required, or it may simply be a detailed examination.

- Step 3 Means. Consider, in the broadest terms, what actions, or means, can bring about or make a contribution towards the achievement of these effects, establishing links between them.
- Step 4. Capacities or Competencies. Determine what competencies or capacities must be utilised for the means to succeed.
- Step 5 Ratings. Rate each of the linked pairs using appropriate criteria to establish additional meaning.
- Step 6 Assess Strengths and Weaknesses. Review the results to gauge 'fitness for purpose' using the graphing techniques built into the application.

The Steps Explained

Step 1 - Determine the End-States

The research was future focussed and relied upon an examination of the scenarios to determine end-states. The twenty scenarios set out in detail in Chapter Two have been reproduced in heading only below with their associated end-states:

Table 6. Scenarios and derived end-states

Scenario	End-State
Indigenous Crisis Drug Crime Syndicates Sponsored Offshore Eco-cyber Terrorists White Supremacy Movements SE Asian Anarchy	Stability is restored within Australia whilst preserving the States' primacy for law and order, employing measures acceptable to the majority within Australia, minimising economic disruption and international disapproval and without major legislative amendment. Stability, trading relationships and peaceful competition are restored in the region, employing measures acceptable to the majority within Australia whilst avoiding: <ul style="list-style-type: none"> • domination by any non-allied major power, • significant international disapproval, • displaying bias contrary to trading interests and major or high profile ADF involvement.
Multinational Piracy	Corporations operate within the climate of national sovereignty, trade and shipping in the region is unimpeded. Australia has good relations with neighboring governments and avoids significant international disapproval.
China Sea Scramble	Stability is restored to the South China Sea with exploration continuing, whilst avoiding non-allied superpower domination of the region. Australian national support to ASEAN is demonstrated.
Antarctic Challenge	Sovereignty is restored to the Australian Antarctic Territory without breach of international agreements, retaining international support for actions and with minimum use of force.
Transmigration	Refugee flows into Australia cease. Humanitarian crisis is relieved. Pressures causing refugee movement are mitigated. The majority of refugees have been returned to home countries. Australia's actions are accepted internationally.
Consolidated Forces of Islam	Stability is restored within the region, whilst avoiding direct conflict with governments. Domestically State authorities are able to cope. Australia has successfully contributed to coalition peacekeeping operations.
Climactic Chaos in Oceania	Stability is restored in the region. Non-allied major power involvement is reduced to a minor level and the threat of domination is ended. Evacuation and resettlement programs are well advanced.
Australia the Pariah	Stability is restored within the region and pressures causing refugee movement are mitigated. Australia gains international approval for its contribution. Within Australia the States are able to cope with law and order, employing measures acceptable to the majority whilst minimising economic disruption and international disapproval and without major legislative amendments.
Middle East	Stability is preserved within the region and within Australia. The

Scenario	End-State
Meltdown	pandemic is contained well beyond Australian shores. Adequate markets are retained.
Ebola Outbreak	Biological disaster is averted. Economic capacity for self-sustainment is achieved.
United States Stumbles and Falls	Strategic opportunism is prevented. A rogue or hostile hegemon or coalition does not fill the void left by the United States. Stability is preserved.
Gene Warfare	Quarantine of Australian crops is maintained. The spread of crop viruses is contained.
There Can Be Only One	Domestic stability and structure are restored.
Information Warfare	International alliances are maintained. Domestic stability is maintained and regional stability supported. Russia has not acted against Australia or the region.
WMDs to Order	Domestic stability is maintained and regional stability is supported.

Note that many of these end-states sweep up a broad range of issues that sit well above the achievement of purely military objectives.

Although I made attempts to consult Government (Department of Prime Minister and Cabinet, National Security Committee of Cabinet and various parliamentary secretaries) on what might be the(ir) end-states and associated effects, the information was not forthcoming. Indeed it was often implied, I certainly inferred it from the non-cooperative (I have deliberately avoided the term *hostile*) responses, that this type of information would not be shared and that discussions along these lines was considered totally inappropriate, although a reasonable explanation for this position could not be given. As will be seen later there is a requirement for this dialogue and others have identified the need for it to occur.

Nevertheless, I am satisfied that the end-states are sufficiently comprehensive and expressive that most of the Government concerns have been captured. Wallace (1999, p. 18) uses similar language in crafting an intent (not dramatically different from my end-states) for a renegade group of hostage takers in a foreign country, wherein "The Government's intention is to achieve the safe release of the hostages, while reinforcing the authority and sovereignty of the Seeland

[fictitious] government and without heightening the residual threat to Australian nationals and expatriates after resolution of the incident". The clear message is that the end-states must be comprehensive.

Step 2 - Develop the Effects List

The effects list was completed as a workshop involving key practitioners from within the organisation. Facilitation and knowledge elicitation skills on my part proved to be vital. Without the ability to prompt the group for the right information, and recognise it when it is revealed, the purity of the process would be destroyed and individual prejudices and biases could be introduced, with a high probability of groupthink becoming dominant.

The effect list should be sufficiently expressive and comprehensive. It is important that all areas of interest are captured. Consider Australia's aerial surveillance operation Coastwatch, it exists to satisfy a purpose. All of its actions are in pursuit of something, however, I believe that it is unlikely this organisation has ever fully explored its role within the national security framework and thoroughly and forthrightly expressed what these 'somethings' are. An effects-based orientation ensures that this is done before any actions are considered. It would ensure that every action is securely anchored to an effect and, therefore they are purposeful.

Step 3 - Develop the Means List

Each effect is taken in turn with the group asked what actions can bring about this effect. No evaluation or discussion should take place at this point. The usefulness of each mean will be dealt with at a later stage. It is difficult in the early stages, but as these steps progress it is usually found that previous means can also make a contribution to a later effect. A second linking process occurs.

If an organisation is interested in innovation and competitive advantage then a fairly unorthodox approach should be adopted during this stage. This is where creative thought becomes important and must be fostered within the group.

Step 4 - Determine the Competencies or Capacities

This step is similar to the previous two. Again each means is examined to determine the elements that combine to make the means possible. Again links are built to continue the construction of a cascading effects-means-capacities framework.

Step 5 - Examine Each Pair of Effects-Means Pairs.

The pairs are rated on a numerical scale against criteria that are developed by the group. These criteria can be 'financial exposure' or 'risk'; 'immediacy' of the effect if time is an important consideration; 'level of community endorsement' to build in concerns for environmental considerations; and 'totality' or 'potency' for an indication of how much contribution a particular means makes.

It is important to recognise that a means cannot be rated unless it is anchored to an effect. If I hold a spoon in one hand and a shovel in the other then one is no better than the other, they are both implements. I have no way of determining which is more suitable. If I receive information that a hole in the ground is required then the shovel would appear to be more useful. However, there is still no context. If the hole is at an archeological site then I could consider that both of these implements are too clumsy and a brush may be the preferred implement to complete the work.

Step 6 - Review the Results

Using the automated database a series of reports can be generated that indicate 'fitness (or unfitness) for purpose' across a number of dimensions.

An example of the reports that were produced to alert decision-makers is shown in Figure 29. Note, due to security requirements, this chart has been taken from a generic effects-based operations demonstrator and all words that are displayed on the two axes have been altered to numbered effects and means. The ratings on a scale of 1 to 4 have also been randomised. The colours, however, are an accurate portrayal of the ratings that have been awarded to each means-effect pair, in this case against 'Political Exposure'.

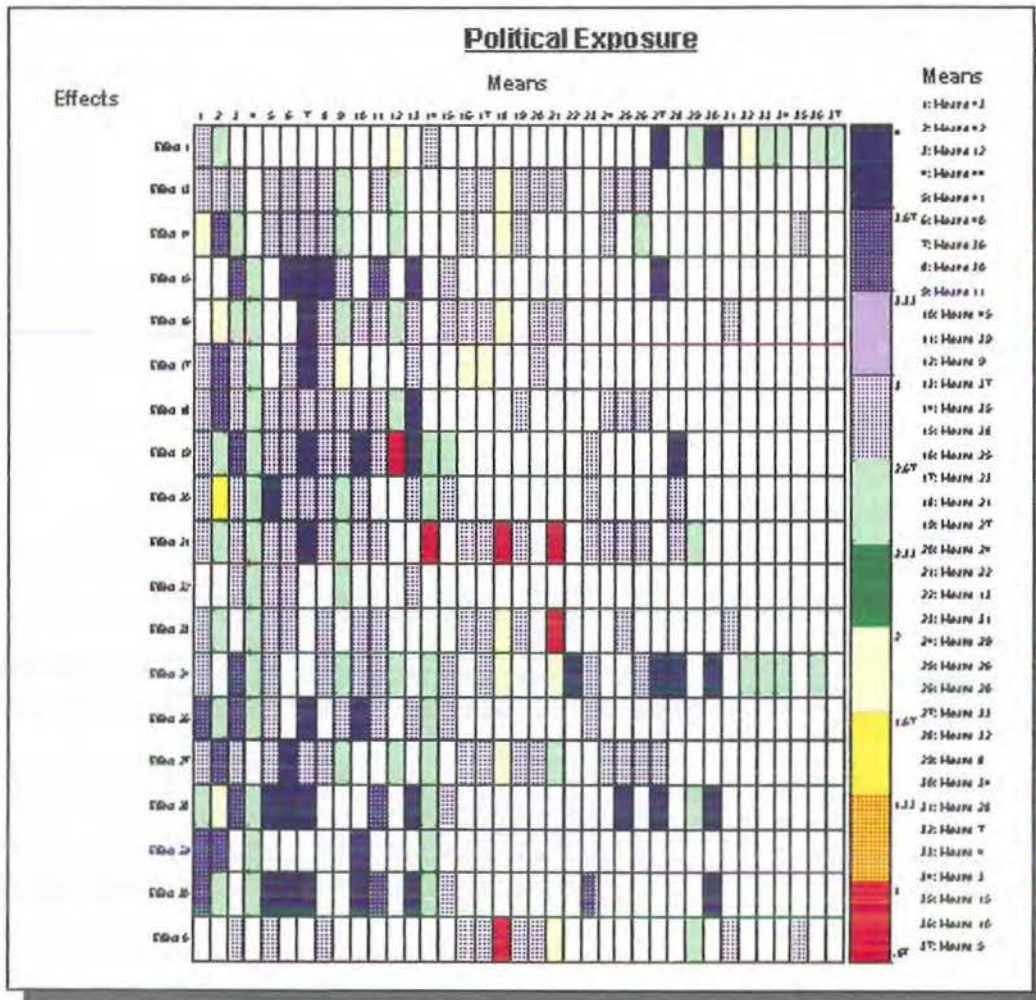


Figure 29. Two-dimensional display of Political Exposure.

The coloured rectangles in the figure above indicate that a link has been established between an effect (on the vertical axis) and a means (the horizontal axis). A blank means that no relationship has been assigned. The colour indicates the rating that has been determined by the workshop participants on a

Researchers talk of experiencing a "sudden, striking realisation" (Moustakas, 1990, p. 9) - the phenomenon of breakthrough. My first came upon the single 'mouse click' to produce the graph in Figure 29. It was the moment of illumination. Not the warm glow offered by a lit candle in a darkened room, but the intense, almost painful incandescence of a thousand beams.

Personal reflection, 17 February, 1999

single criterion. The means have been automatically arrayed horizontally at the top of the chart, the means with the most links with the effects list is positioned in

the first column, giving valuable insights into utility - the more links the more valuable or critical that means becomes. Likewise the capacities that are anchored to each of the means become equally important, with the same value assigned if links are high in number. The results of this can be seen in Figure 30.

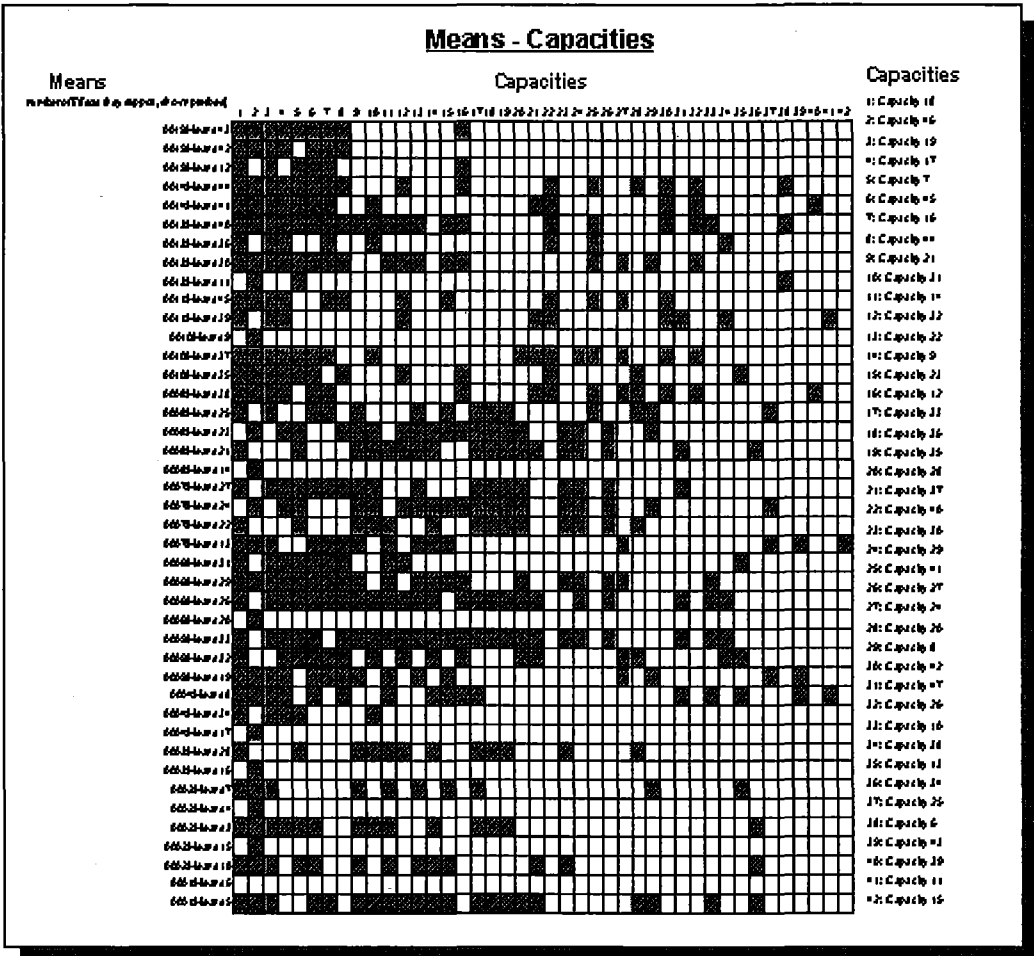


Figure 30. Relationships between Means and Capacities.

In this figure the means have now been transferred from the horizontal axis to the vertical. The order has remained the same (largest number of linked effects at the top) with priorities or importance now being evident on two dimensions, as the capacities have taken on the utility ranking of the means for the previous Figure.

Revisiting Scenarios

As outlined earlier in this thesis a scenario planning method was employed to achieve sufficient dislocation from the present. The 20 scenarios (included as Appendix 2), with the contextual ingredients contained within their individual narratives, allowed critical thought to flow forth, unburdened with prejudice, preconception or limiting paradigm. This is an important area to revisit as it is possibly the only source of a sufficiently broad list of strategic effects.

The Importance of Effects

Effects-based strategic thinking and planning will (I believe I have demonstrated this sufficiently to make this claim) become the primary analysis tool whereby military strategic, operational, tactical and capability development planning is undertaken. I can say this with reasonable confidence because there is a simultaneous and spontaneous convergence of beliefs and approaches that has recognised the futility of platform-centric thinking. This convergence is evident in many Western nations and whilst still in an embryonic stage carries with it powerful messages.

The Joint Standing Committee on Foreign Affairs, Defence and Trade (JSCFADT) inquiry into the suitability of the Australian Army for peacetime, peacekeeping and war was forced to manufacture useful definitions in order for the analysis to proceed. Indeed, the very notion of *suitability* had to be defined. What do we mean when we describe something as suitable? Against what criteria is the judgement made? Although I will refer repeatedly to my own chosen definition of 'fitness for purpose' I will be forced at various times to depart from this in order to adequately describe and accommodate the contributions of other work.

An examination of the Parliamentary Report From Phantom to Force, which followed the inquiry, reveals:

The suitability of the Army could be assessed against a number of criteria. Its effectiveness at satisfying defence strategy objectives is one criterion [this matches well with the National Military/Security Strategy discussed in Chapter 2]. Another criterion could be how well it has performed in operations that are not a priority within current defence strategy, such as East Timor [I have addressed this in Chapter Three under a broader context of scenarios].

(Joint Standing Committee on Foreign Affairs, Defence and Trade, p. 7)

Additional detail from the report that prepares for an understanding of an effects-based orientation to capability planning is the statement that "no capability should be critically dependent on only a single means or technology" (Joint Standing Committee on Foreign Affairs, Defence and Trade, p. 8). This assertion is central to the architecture of the database.

The work and central functionality of the database relies upon a sound understanding of effects-based thinking as the means are all anchored to an outcome and each outcome may require different capability sets.

Planning Backwards from Scenarios

The twenty scenarios set out in Appendix 2 paint a vivid picture of disturbing events in the future. They were crafted through adherence to a disciplined, systematic analysis of drivers and represent a relatively comprehensive account of degraded states of domestic, regional and/or international stability. It would be valuable to paint a more favourable picture of States cooperating, but the aim is to 'stress' the organisation and subject policy to extreme forces to determine its robustness.

Deriving End-states

Politicians and military strategists look to end-states to provide an expression of the outcomes of an intervention. Stated simply, we have undertaken a number of actions (although any consideration of what these may be at this early stage would be premature and predispose our thinking) in pursuit of objectives, to ask “what does the picture look like now?” and describe it in useful ways. Although I do not wish to dwell on end-states in this section, some examples from the National Security study are:

- Refugee flows into Australia cease. Humanitarian crisis is relieved. Pressures causing refugee movement are mitigated. The majority of refugees have been returned to home countries. Australia's actions are accepted internationally.
- Corporations operate within a climate of stable national sovereignty. Trade and shipping in the region is unimpeded. Australia has good relations with neighboring governments and avoids significant international disapproval.
- Stability is restored within Australia whilst preserving the States' primacy for law and order, employing measures acceptable to the majority within Australia, minimising economic disruption and international disapproval and without major legislative amendment.

These end-states should effectively 'set the conditions' for (a return to) peace. The text used should be drawn from an understanding of desired movement vertically within the columns at Table x, remembering that the most favourable conditions lie at the top with characteristics deteriorating towards the bottom of the table.

From these end-states it is then possible to derive a set of effects that are appropriate for delivering that end-state. These effects must be viewed in a particular way that has relevance to military contexts, it will then be possible to

extend that line of thinking into other contexts. In the military an ideal known as 'imposing our will' on our adversary is used. It is a useful expression that captures the full meaning behind engaging in a chosen set of strategies. It is not limited to the use of force, violence or offensive action to achieve objectives. Indeed the idea of coercion that underpins an offensive posture is very limiting. Seduction has frequently been used to describe a far more powerful means of achieving ends and opens the possibility of achieving objectives without having to resort to violence. Indications of a move away from conflict can be gained from the quote below:

Effects Based Aerospace Operations & Dynamic Battle Management.

These concepts leverage the asymmetric advantages of aerospace power to create the desired effects at the right place at the right time. This initiative will develop information management and decision support technologies to facilitate battle management beyond the first-level, attrition-based strategies that hinge on massed, force on force operational concepts. Instead, this methodology seeks 2nd and higher-order effects and prompts commanders at all levels to determine what effects will best achieve operational objectives [emphasis added]. The JFACC then can weave these effects into his theater-wide scheme of maneuver, directed through dynamic, real-time command and control.

(Air Force Research Laboratory, 2001)

The Effects List

The effects that I was able to derive from a detailed consideration of the end-states and scenarios are set out below:

Broaden range of influence.

Coerce individuals and groups.

Conform to domestic/friendly community expectation.

Counter instability/restore a working community.

Deny freedom of action/dominate an area.

Deter specific behaviour (actions/involvement).
Discourage strategic opportunism and adventurism.
Disrupt/destabilise operations and business markets.
Establish and preserve dialogue.
Generate/foment instability.
Increase risk/cost to opponent.
Induce/compel deployments.
Influence/support dissident group.
Inform decision-making.
Minimise a vulnerability.
Relieve humanitarian disaster.
Shape (prevent/inhibit/interdict/channel /encourage) movement and supply.
Shape public (world/domestic/opponent) opinion.
Undermine general trust/morale

The Means List

Considering each of the effects in turn built the following list of means:

Accompany other forces.
Attack by close action.
Attack by stand off.
Attack leader moral/financial integrity/authority.
Close reconnaissance/monitor specific target/named area of interest.
Collect human intelligence.
Collect technical information/items.
Conduct wide surveillance.
Create false business or inject super-competitive products.
Cue precision weapons.
Damage product or brand.

Deceive physically/electronically.
Deny resources/render key infrastructure ineffective.
Disrupt shipping and facilities.
Disseminate physical/electronic psychological operations material.
Empower local functionaries and support local organisations.
Enable infrastructure.
Engage with neutral/hostile groups through intermediaries.
Escort specialists.
Establish haven.
Foster and exploit relationships with key individuals.
Gather evidence.
Gather information from stand-off (technical/cueing).
Generate/train forces.
Infiltrate/manipulate/concentrate NGO effort.
Interfere with aircraft movement and facilities.
Manipulate financial holdings/stocks.
Manipulate/damage business functions.
Materiel/financial/intelligence assistance to dissident movements (onshore also).
Orchestrate 3rd party attack.
Penetrate/ threaten leader physical security.
Penetrate/infiltrate groups/networks.
Provide close protection.
Provide communications.
Provide vital services and/or resources.
Recover detainees/friendly forces/authorised personnel.
Release selected information.
Seize and recover individuals or groups.
Sponsor relocation.
Strike individuals or groups.
Tap-hack electronic information systems.
Threaten/damage leader personal wealth.

The Capacities List

Each of the means relies upon the possession of certain capacities, as set out below:

Administer business
Analyse information
Assess and respond to threats
Breach information systems
Broadcast information
Build personal profile
Communicate electronically
Communicate using foreign languages
Defeat security systems
Deliver training
Elicit information
Employ destructive materials
Employ small arms
Employ support weapons
Employ target acquisition and cueing devices
Establish and maintain cover/legend/appropriate norms
Establish rapport/win trust
Evade capture
Evade surveillance and access control measures
Handle and preserve evidence
Handle and secure personnel
Identify networks of contacts
Implement psychological operations
Interfere with electronic/manual information systems
Interfere with production and services
Manage distribution of resources

Manoeuvre on and over land
Manoeuvre on and under the water
Move with stealth
Observe, record/photograph, collate and report information
Observe/monitor using surveillance/intercept devices
Operate in a civilian environment
Place surveillance/intercept devices
Provide funds
Provide medical/health support
Provide shelters and basic living facilities
Recreate events
Seal an area
Secure an area
Seize an area
Track financial dealings and assets exchanges
Utilise service and civilian aircraft, watercraft and vehicles

After having, up to this point, completed the entire language of effects, means and capacities in a series of workshops, and knowing of my earlier attempt at forming a more advanced framework of linkages I returned to see what this new information, now fully linked, would reveal. My early designs were crude and clumsy. Figure 31 shows an actual Powerpoint™ slide produced to enable analysis of these ideas and further discussion in workshops. It can be seen that a range of possible relationships was becoming evident, but there was a clumsiness to this visualisation that did not accommodate the hidden order that binds together the strategic situation with the actions that can deliver an outcome.

This model was critical to the formulation of later ideas and led to the many-to-many relationship building within the database, with assigned ratings then becoming possible across linked pairs.

This was a knowledge breakthrough and led the accelerated understanding of other supporting concepts. The different patterns were already becoming evident although the presence of a 'strange attractor' was still some months away.

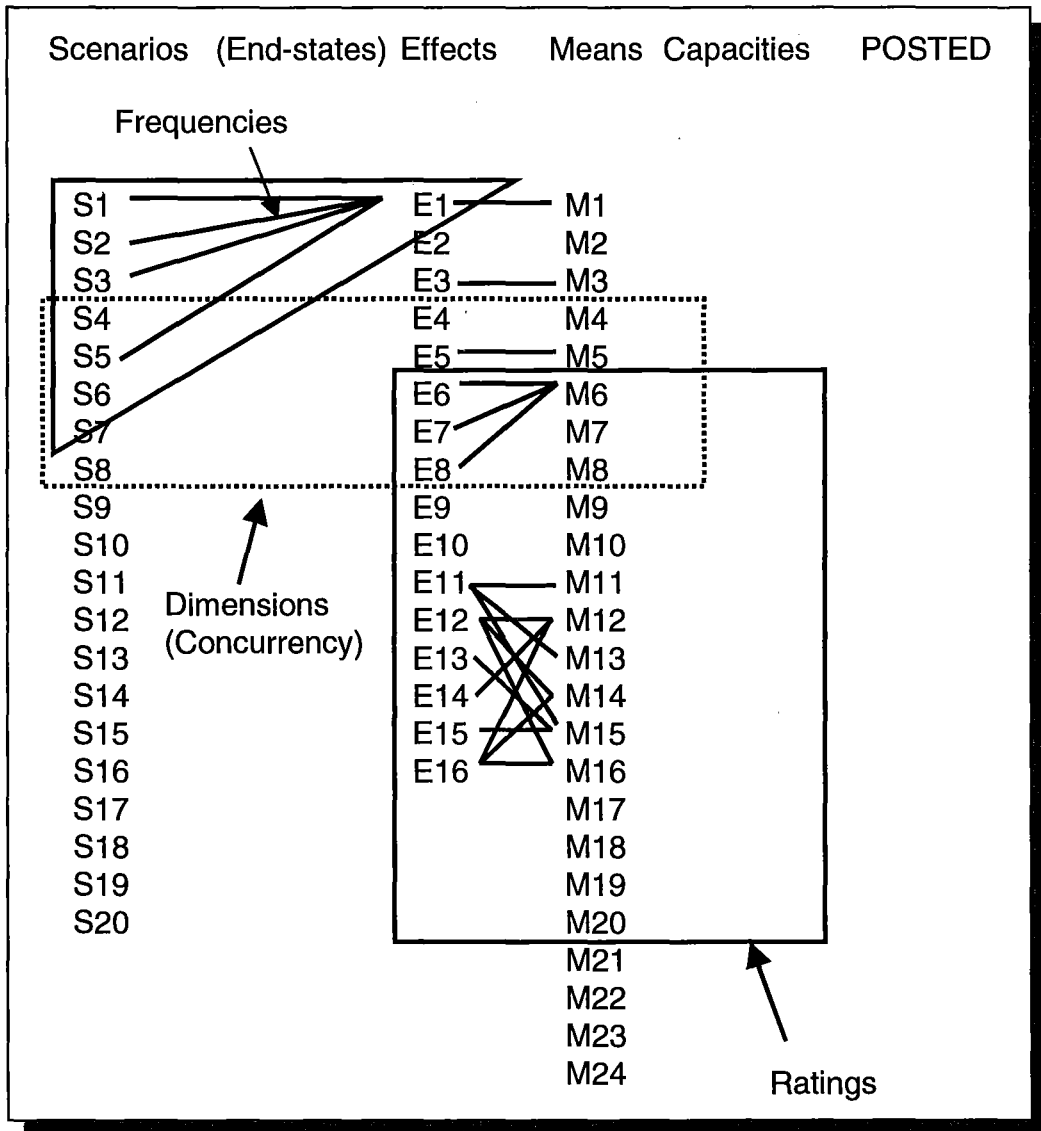


Figure 31. Initial diagram to enhance linkages and relationships.

As can be seen from the first tentative lines that were drawn, relationships were established to provoke deeper thought on what could be revealed through a model such as this. The groupings were fairly stable, although the text that formed the

numbered elements had not yet been written. It also became evident around this time that some form of ratings would need to be devised between the adjacent effects and means columns.

Assigning Ratings

In order to determine the values of the various pairs each was subjected to a ratings judgement. A four-dimension, four-point scale was used that assessed each individual pair, with its associated set of *Capacities*. The four dimensions were:

- Political Exposure,
- Totality of Effect,
- Immediacy of Effect, and
- Capability to Undertake.

Political Exposure

This dimension makes a judgement as to the political appeal associated with a course of action. It is measured in terms of the potential for embarrassment, which provides a useful metric against which to assess the likelihood that an operation will be authorised.

The following four-point scale was used:

Political Exposure

1. **Extreme** - Failure is likely to lead to condemnation at the international level with long-term personal consequences
2. **Severe** - Failure is likely to lead to widespread political fallout

3. **Moderate** - Failure may result in significant political embarrassment and possibility of career consequence
4. **Minimal** - Failure may result in minor and short-term political embarrassment

Totality of Effect

Totality of effect was measured using:

1. **Minor** - The effect is negligible or uncertain in scope
2. **Moderate** - A useful proportion of the desired effects is expected
3. **Extensive** - A high proportion of the desired effects is expected
4. **Absolute** - The desired effect is delivered

Immediacy of Effect

Immediacy of effect made useful distinctions on the ability to bring about change.

The four measures were:

1. **Deferred** - Delay is sufficient for cause-effects relationships to not be evident
2. **Delayed** - Changes are set in motion, but some time will elapse before effects are evident
3. **Timely/Prompt** - Events occur within a small fraction of the relevant timeframe
4. **Immediate** - Attributable changes are instantly evident

Capability to Undertake

Capability to undertake forced a judgement against our ability to use the set of capacities, within the various means to bring about the desired effect. The scale was:

1. **Unable** - Insufficient elements of capability preclude consideration
2. **Under Developed** - Latent capability only
3. **Constrained** - Capability exists with limiting factors
4. **Proficient** - All elements of capability are present and practised

This approach is immediately adaptable to any situation. Model verification work undertaken in other subject areas has utilised rating dimensions of: *level of community acceptance, permanency, cost, physical risk and environmental sensitivity*. All have proven to be equally revealing as supporting devices to strategic planning.

I mentioned earlier of effects-based operations work being conducted within the United States military so some similarities are worth noting before proceeding with this line of discussion on my particular approach. The slide below (Figure 32) was presented at an effects-based operations workshop in Norfolk Virginia during the period 22-27 October 2000. It illustrates the emergent definitions and the need (that others are also experiencing) to quantify in some way the effects that are delivered. These are strikingly similar (no information sharing occurred prior to this) to my definitions of *totality of effect* used to rate various effect-means pairs within the database. I provide other examples later.

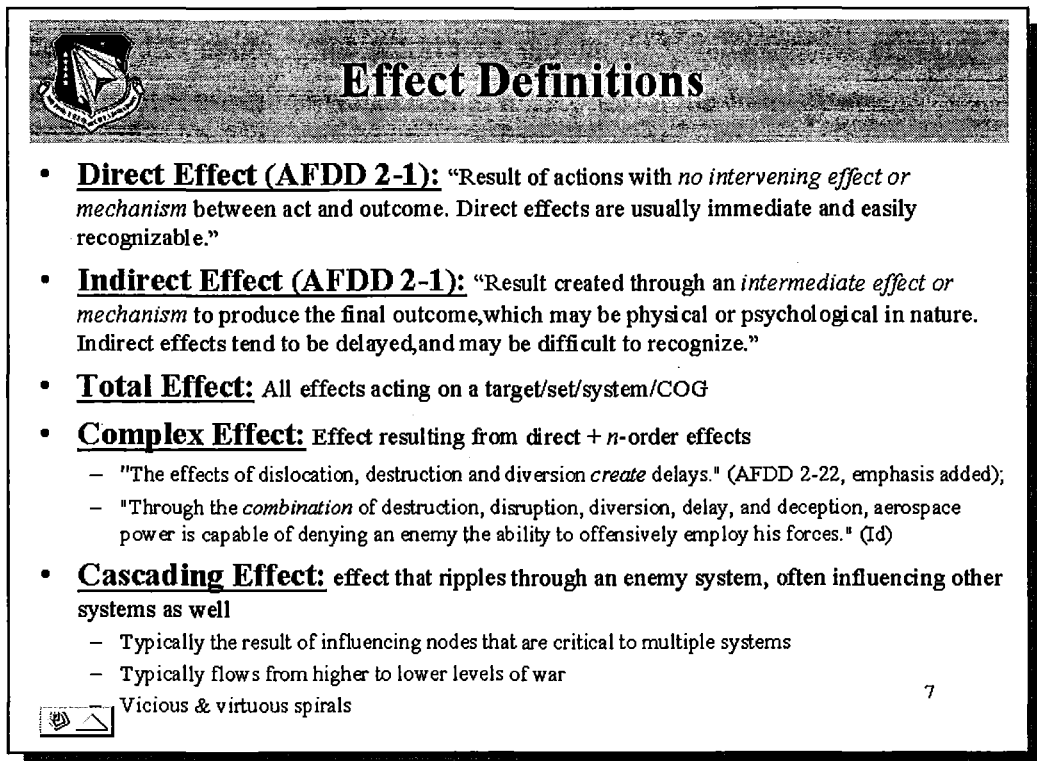


Figure 32. Attempts at defining levels of effects.

It is encouraging to note that the same information is being formulated at opposite ends of the globe, at almost the same time and with (until recently) no sharing of information. I will discuss the results of this collaboration in Chapter Seven.

Subjecting each of the means-effects pairs to a rating framework was recognised within the workshops that I facilitated as an extremely powerful way of determining value and utility. For example, totality of effect is an elusive metric and "it is bound to be easy if one restricts oneself to the most immediate aims and effects" (Beyerchen, 1998, p.194). But all of the parts are interconnected and all (of the) effects influence subsequent actions which then change the purpose slightly.

In expanding upon this subject (possibly beyond the point at which I should have stopped) I may have entangled myself (and the subject) even further.

I now need to return to the workshops and the continuing process of taking the linked items towards individual ratings to provide for the comparison.

Ratings Continued

There were up to twenty separate rating teams involved, that totaled over 100 people, with each team generating its own discussion and judgements about what a paired means-effect meant. However, it soon became evident that there was general agreement from across the Special Forces Group on *the capability to undertake* dimension (beginning to build consensus). There was only minor divergence on the other three rating dimensions. Subsequent research with detailed statistical analysis using the knowledge management and knowledge elicitation methods devised here may reveal valuable quantitative data. This research has a qualitative interest only, the statistical analysis and determination of statistical significance is the subject of a later project.

The associated Capacities list for each group of Means is displayed in the bottom right of the form. Scrolling down through the *Means-Effect* pairs (there are 306 of these) out of **Accompany other forces** and into **Attack by close action** will bring up a different set of *Capacities*. These *Capacities* remain the same regardless of whether the overt or covert button is selected, however, these operational types generally produce different ratings as they will draw upon the application of different *Capacities* within the relevant set.

Charting the Results

The intersection point (indicated by a coloured rectangle) indicates that a relationship has been established between a means and an effect. The colour indicates the averaged ratings awarded by the teams and illustrates the relative *Political Exposure* associated with the application of a particular means to bring

about a desired effect. Non-coloured rectangles are where no relationship exists. Similar charts can be produced from the data to indicate Overt, Covert and Clandestine operation types against *Immediacy of Effect*, *Totality of Effect*, *Capability to Undertake* and an averaged *Political-Totality-Immediacy* set (although this has some limitations as a blurring effect results from mixing factors), producing a total of 15 charts. Any changes made to the ratings will alter the colours at the intersection points provided the averaged number moves from one colour band to another.

The Importance of Relationships, Dependencies and Criticalities

I have spoken elsewhere of strange attractors. Anyone who has even a superficial knowledge of these would admit to their beauty, elegance and grace as a rich visual representation of the phenomenon of self-organising and emergent behaviour. More importantly, phenomenon that is (usually) untouched by the direct hand of man (insect populations, the behaviour of weather, predator-prey interactions, waves on a beach and simple numbers such as the Fibonacci sequence). My initial reaction to the charts produced was that an unusual underlying arrangement of order had been revealed.

The diagram below (Figure 33) is a report produced by the database. At a greater magnification the attraction towards various elements is self-evident. The left-most column contains five (selected from the eight) named worlds. The next column is the twenty scenarios produced by the Field Anomaly Relaxation method (the subject of Chapter Three). The third column is the 19 effects. Columns four and five are partial views of the 42 means and 42 capacities. I describe this as a mod 1 of strange attraction without hesitation as the elements that are displayed were each considered in isolation.

Relationships were derived progressively and no attention was paid to existing linkages. The report was produced by a single mouse click within the database and represents a compilation of thousands of individual decisions, each unrelated.

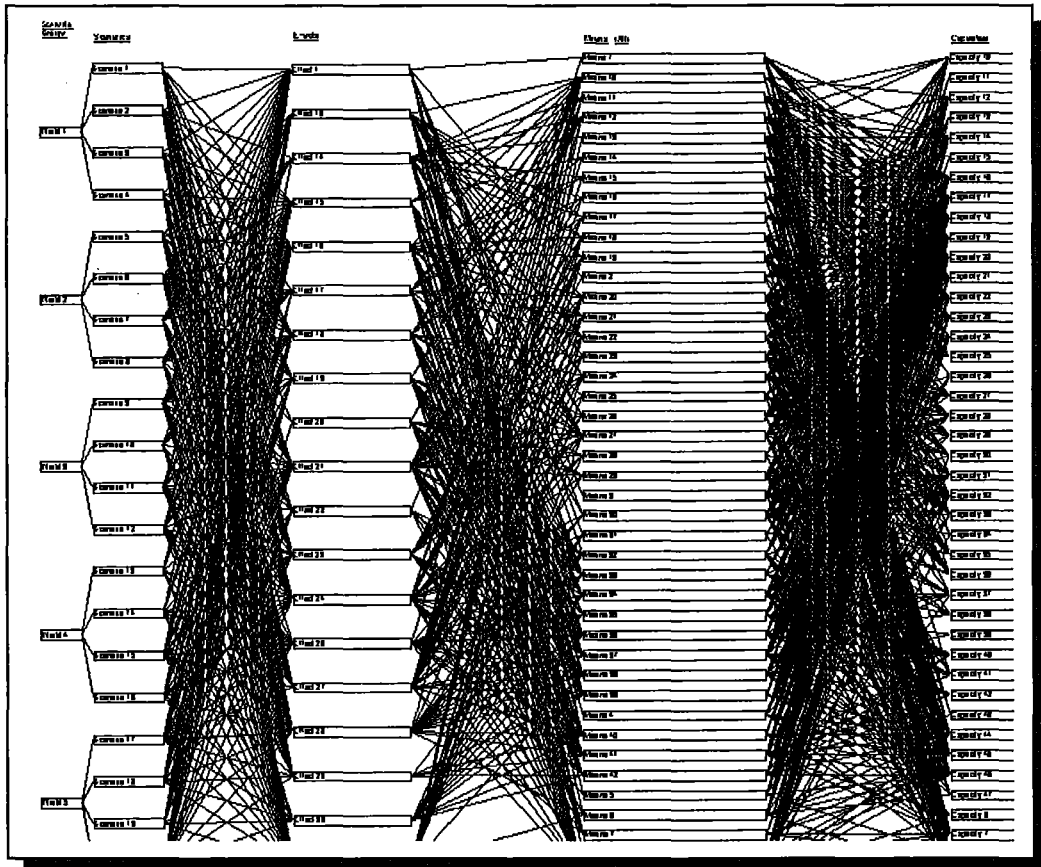


Figure 33. Report from the database highlighting relationships.

This Figure highlights the ability of an effects-based orientation to quickly arrive at judgements on the importance of possessing various capacities and how these link back to effects through means. It illustrates the growth rightwards of the many-to-many relationships. The column indicating the POSTED (People, Organisation, Support and facilities, Training, Equipment and Doctrine) has been omitted as the work here is still incomplete and my departure has stalled the progress somewhat, although indications are that valuable information is within this 'Cantor dust'.

I have also spoken of 'the authority of a shared idea' and believe this to provide another example of assertive ideas dominating, not assertive people. The consequences of this as further reinforcement of a knowledge management system building and reinforcing consensus is quite potent. If any individual is uncomfortable with what is displayed then it is necessary to review the entire set of data in an attempt to force new relationships and cause a new pattern of lines to emerge. This would be dishonest, manipulative and would not offer success as the microscopic detail cannot be readily rearranged to form a new whole.

More Powerful Images of (an) Organisation

I have borrowed the heading for this section from the book by Gareth Morgan. I believe it is appropriate as this is where the optimum configuration can be illustrated in a visual format. The previous Figure highlighted the density of lines that bind the elements together. The Figure below (Figure 34) displays the number of links that tie together the People statements in POSTED with the effects. The ability to trace the number of lines across each of the six physical elements of capability demonstrates the characteristics and attributes of the people who get the job done.

I have already stated that this work is incomplete and even finding the preciseness to actually express this information will itself pose a significant problem to be overcome. It needs to be done though. As these links are more fully developed the blue colours will invade the chart from the left and push rightwards the warmer colours. Looking at each of the six charts for POSTED will reveal the full story on the organisation and how it should be configured. This forms another powerful visual indicator for change, as the language has been devised by practitioners and they have confirmed the relationships - a consensus expanding approach.

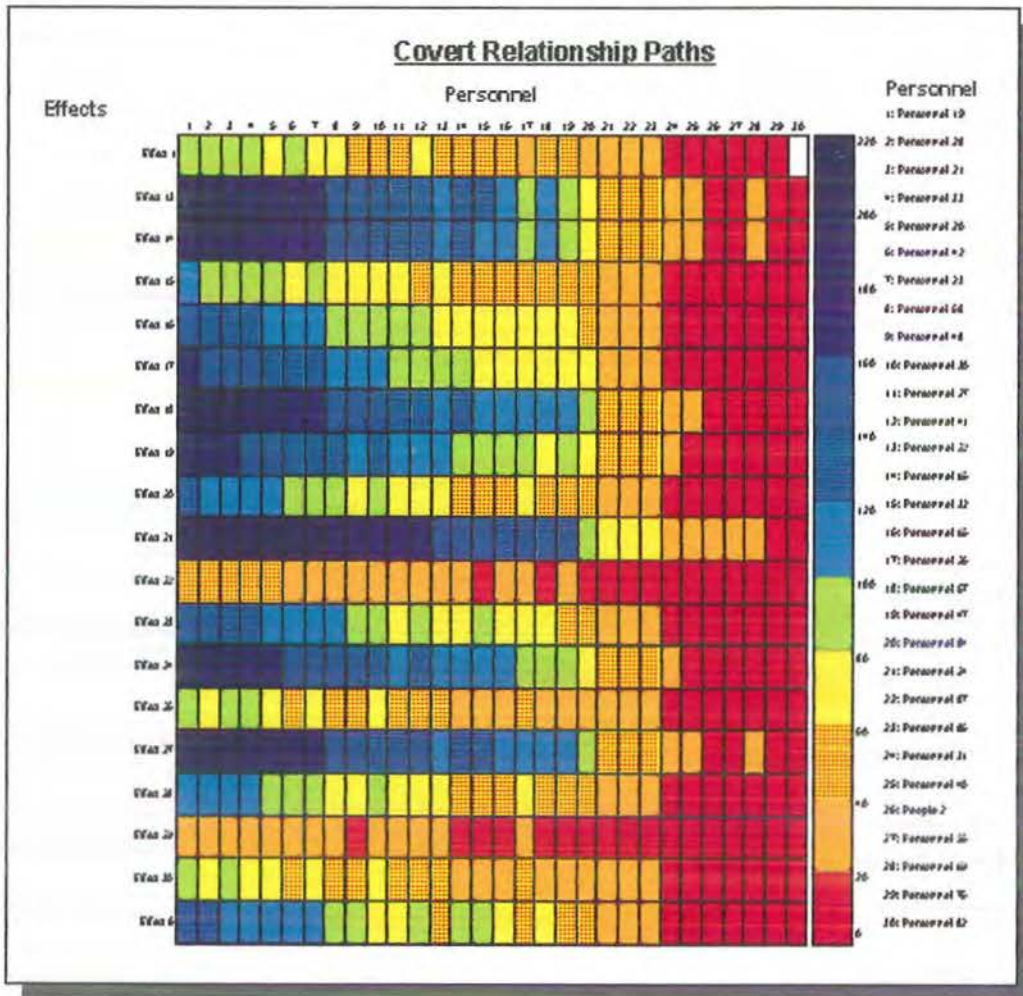


Figure 34. Count of the links between People and Effects.

I wish now to close this section as I believe that the method, which I have thoroughly explained, demonstrates enormous potential to inform decision-making. As this was the work of a limited number of individuals it was necessary to verify the data against the results of an organisational poll.

The Five Key Challenges

In 1998, under the authority of Commander Special Forces (the actual correspondence I drafted for his signature and sent out to every member is included at Appendix 3), I initiated a study to gauge the level of tacit consensus

towards change. Not change in any particular area or change for any particular reason, but the general mood within the population and what appears to be *directionally* right as each individual sees it from their own perspective.

The question posed was:

“What do you consider to be the five issues that the Special Forces Group needs to confront in order to propel us into the future?”

I am hopeful that this provoked some deep(er) thinking as:

To ask a provocative question is a creative act in itself. The formulation of a problem is often more essential than its solution which may be merely a matter of mathematical or experimental skill. To raise new questions, new possibilities, to regard old questions from a new angle, requires a creative imagination and makes real advances in [social] science.

Einstein, in Einstein and Infeld (1938)

The response was very encouraging, with several key themes emerging. A total of 603 ideas, comments and suggestions were received, loaded into a database and broadly categorised. The full set of responses is set out at Appendix 4, including categorisations and links to findings of the effects-based planning database.

Format and Content of Responses

Format styles ranged from brief thoughts and hastily scribbled entries on a scrap of paper, through to well researched, thoughtful and comprehensive arguments spanning several pages. Several examples are shown in Figures 35 - 38 below. Many groups submitted the results of discussions and workshops, combining their ideas and strengthening their thoughts and concerns through their own consensus. Others elected to submit individual ideas. Some of the ideas may have been spontaneous thoughts surfaced through just asking the question, others may have

been the result of years of experience and the culmination of many ideas and thoughts.

It was not my intention to analyse these to any depth, my aim was to gain the information, develop themes and common issues, superimpose these over the results and conclusions of my own database and locate the common ground. It was an attempt to corroborate that the scenarios and effects-based approach were directionally right for the organisation.

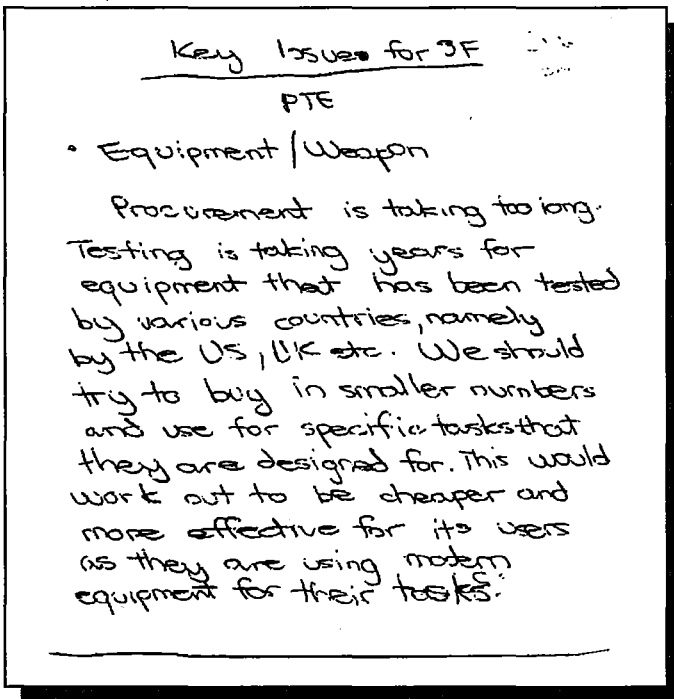


Figure 35. Response examples - Hastily written notes.

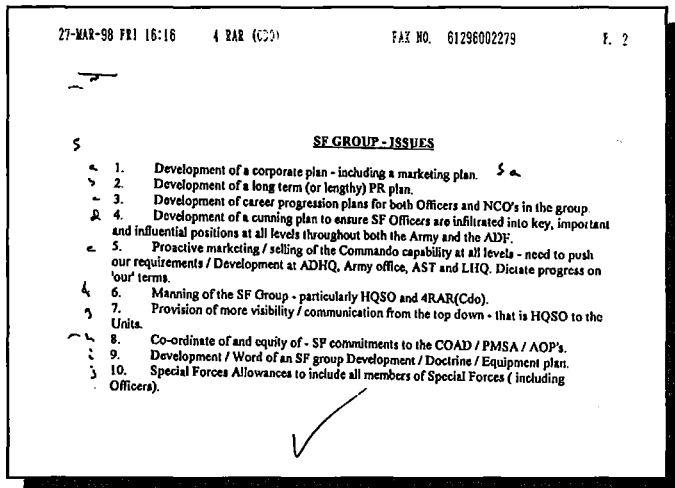


Figure 36. Response examples - Faxed bullet point notes.

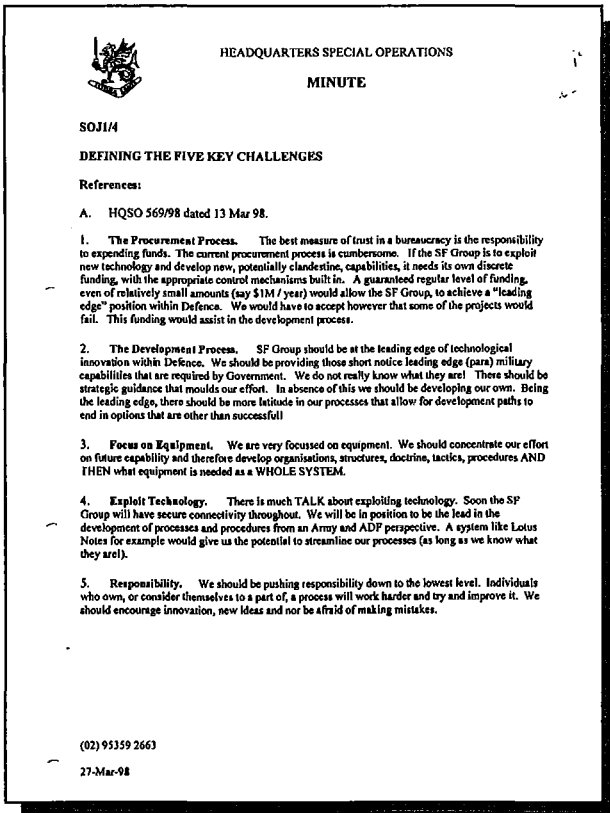


Figure 37. Response examples - Formal and structured letter.

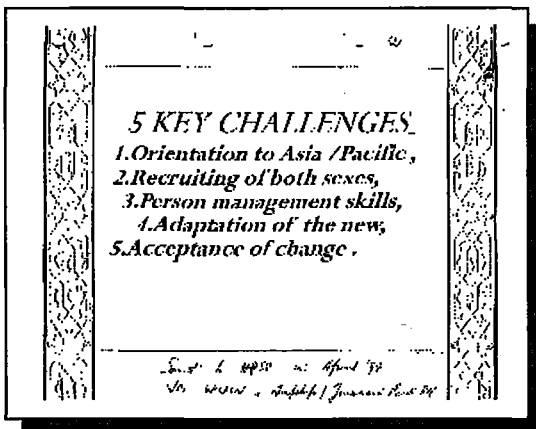


Figure 38. Response examples - Powerpoint slide.

The responses provided hours of interesting reading and certainly deserve a more thorough analysis. My aim was satisfied, however, in that the results of this

organisational poll and the workshops I facilitated with the gradual construction of the database indicated common themes.

Initial Exploration

My preliminary analysis of these responses involved detailed reading, reflection and openness to the ideas. My approach was deliberately non-judgmental. No attempt was made at initial categorisation or coding. A second and third reading several days later saw the formation of themes, heralding the beginning of a broad appreciation of the content and context. What was first pure data now took form and meaning.

To aid in deciphering I turned once again to the methods of heuristic inquiry. I was faced with a similar problem to Clarke's (1988) analysis of the psychologically androgynous male, which led to the formation of a "viewable panorama of over 200 components" (Moustakas, 1990, p. 50), each of which gradually located itself within a colour-coded quadrant as understanding matured. Clarke reports that "The process of watching these quadrants take shape was fascinating" Clarke, 1988, p. 94).

I have already presented my algorithm-based coloured representation of similar processes. My task was now to superimpose the 603 responses over this earlier work to gauge the degree of 'fit'. Stated another way, "was the outcome of my research completed within the effects-based application supported by the results gained from a sample of the organisation's members after prompting with a simple question"? Initial analysis and categorisation (into 19 subject areas) revealed the graphical information displayed in Figure 39. The aim of this was to determine around what broad topic areas are opinions attaching themselves to, and thereby, where could consensus be isolated to mobilise action for change. The areas in which change should occur (the *what*, with the *why* having been thoroughly accounted for through the involvement of scenarios and end-states)

had been identified through the effects-based application. This step sought to determine ways in which these changes may be realised (the *how*).

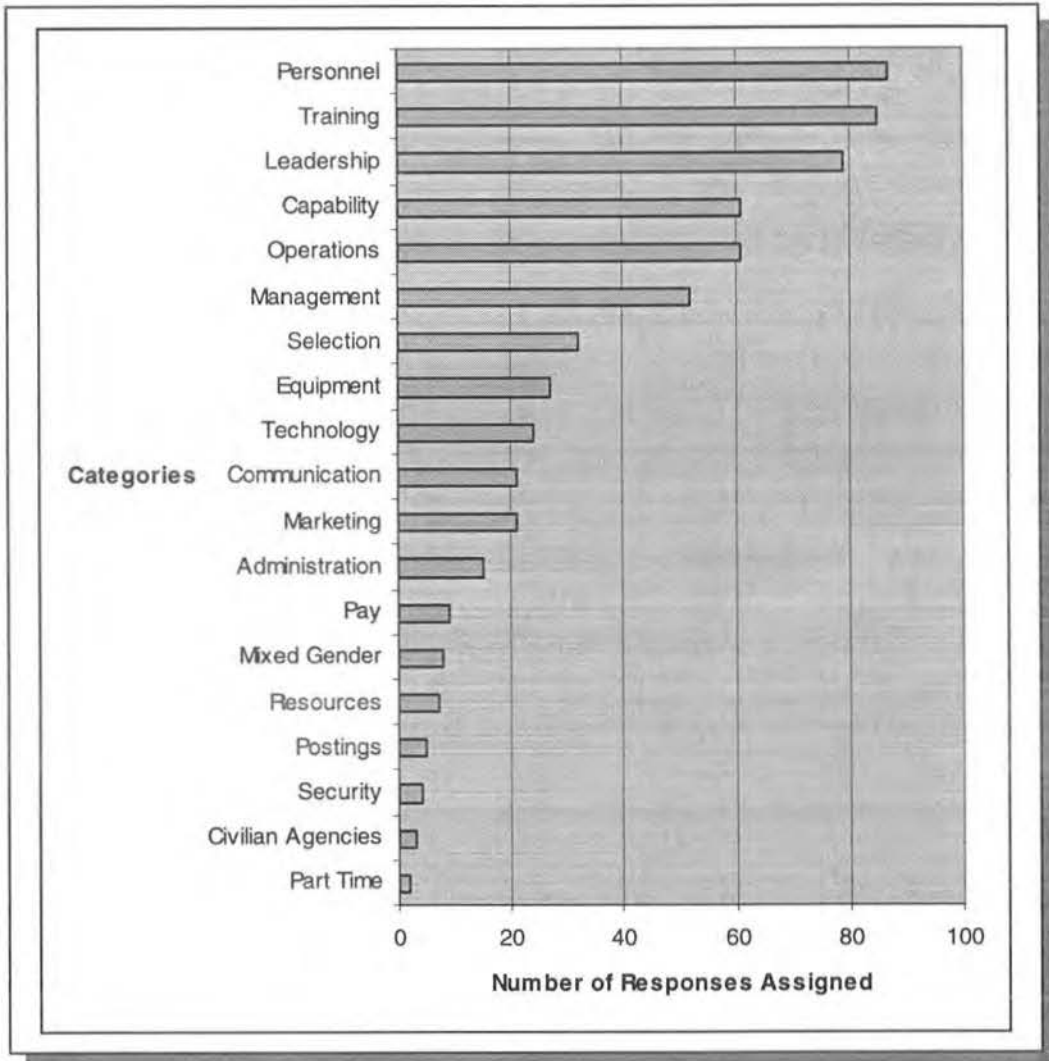


Figure 39. Initial categorisation of responses.

It was encouraging to note that the greatest area for high payoff organisational adjustment was located around personnel, with training formal a vital mechanism whereby this could be achieved and leadership setting the inspiration and goal orientation. Capability, operations and management provide the bedrock against which these could be realised.

Deeper Analysis

To further concentrate the effort and locate the high payoff areas I subjected the categories to a Pareto analysis. The 80% line was located between the 8th and 9th categories. The Personnel, Organisation, Support and facilities, Training, Equipment and Doctrine construct for expressing the physical elements of capability relationships to the reduced set of categories is set out in Table 7.

Table 7. Category-POSTED relationships.

	P	O	S	T	E	D
Equipment	2	3	13	2	22	4
Selection	32	5	2	9	1	5
Management	11	34	15	3	6	5
Operations	32	26	9	15	3	26
Capability	24	33	23	16	9	22
Leadership	47	35	10	10	4	23
Training	50	15	6	68	9	24
Personnel	78	37	11	15	3	4

It can be seen from the sample responses (Figures 35-38) that they were script based and no attempt was made (when posing the question) to anchor them to any particular area of the organisation or its performance.

Plotted on a chart these results can be seen at Figure 40. The four tallest columns, representing paired P - Personnel, T - Training, P - Training, O - Personnel and O - Leadership point very clearly to the correlation between the results of the workshops and database construction and the Five Key Challenges project.

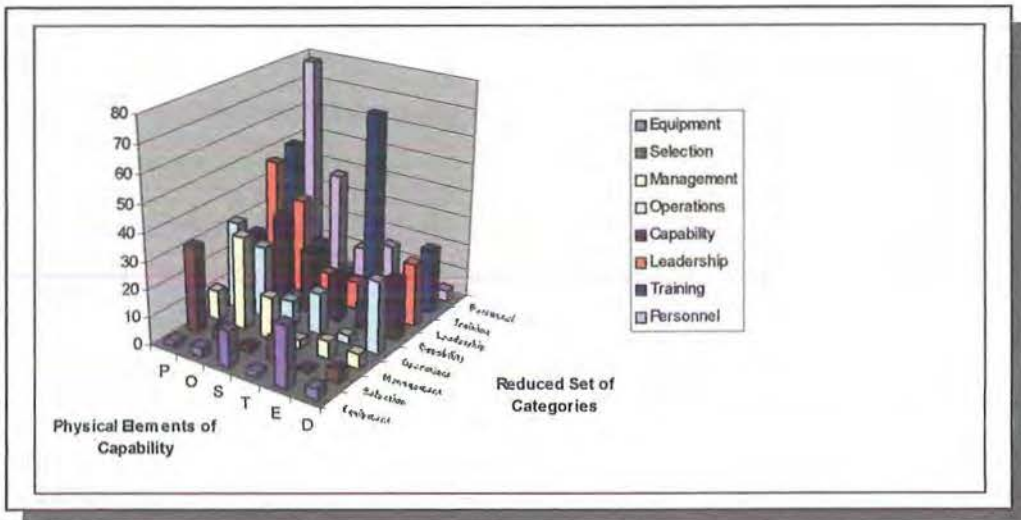


Figure 40. Responses arrayed against POSTED and Categories.

The responses, though in many cases quite specific, in totality contained themes that pointed towards more detailed indicators of direction. For this reason protocol analysis seemed to offer a preservation of the 'qualitativeness' of these submissions, yet provide for a cross-match with the output of the effects-based planning database.

Protocol Analysis

It should be evident by now that there has been a multi-faceted new construct developed out of the active involvement, discussion and debate of individuals learning within groups. These groups aided the development of a planning model and also submitted (previously) their thoughts on the future of the organisation. Whilst I cannot claim to be skilled in Protocol Analysis, it was a discipline I turned to quite early on in order to bring some order to the enormous range of experiences that I was able to draw together. My reading was quite superficial (Ericsson & Simon, 1984; Fonteyn, Kuipers & Grobe, 1993) and the knowledge I gained seemed to be applied in what I could only describe as an enthusiastic amateur. Despite this the ability to explore topics and problems and search towards solutions was effective (if not efficient) and brought forth the reasoning

that makes problem-solving possible.

The ability to 'mentalise' in language was also a great aid to building consensus and encouraged a more probing analysis of the topic. It was not enough to just think about something in a certain way, it became necessary to verbalise the thoughts so that others were more able to fully appreciate the mental concepts that shaped opinions.

Finding the Realignments

As this research is about locating the areas for change (building and reinforcing consensus around initiatives for change) it is time now to discuss the mechanisms by which this was achieved.

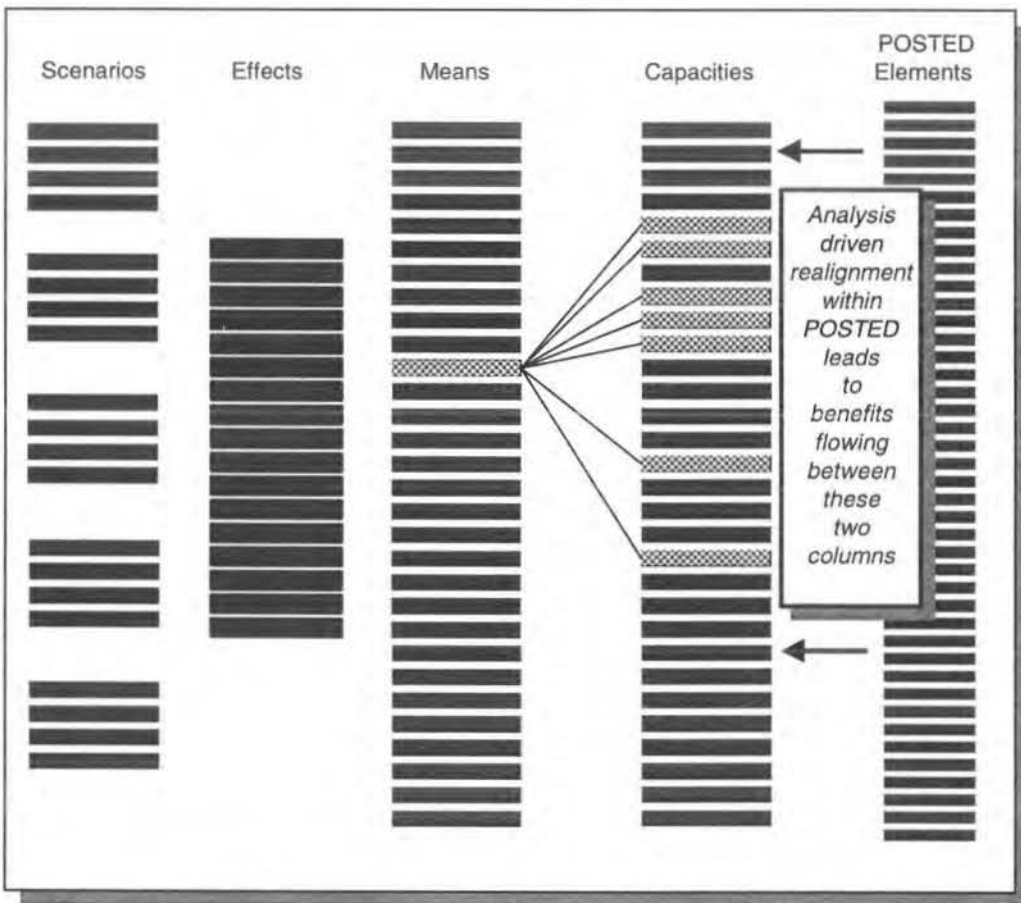


Figure 41. Finding the realignments.

The Figure above (Figure 41) illustrates the model's architecture and how the realignments that have resulted from a comprehensive and thorough appreciation of the organisation's purpose can be used in a meaningful way, gaining additional means by associations that exist within the relationships is just one. Remembering that POSTED stands for People, Organisation, Support and facilities, Training, Equipment and Doctrine, each of which must be configured in different ways to generate capacities, that enable various means to be undertaken in pursuit of effects, which satisfy strategic outcomes within an immediate, near future or far future orientation. I discuss this in more detail later in this chapter.

What has occurred up to this point of the analysis is that practitioners within the organisation have been removed (intellectually) from their current world. They have been provoked into thinking about plausible futures. They have used these futures to explore and discover new conditions for the organisation (albeit grounded within the definition that provides its *raison d'être* - see Glossary). And finally they have discussed what realignments may be necessary to win success.

This analysis has worked progressively rightwards and is now at the instant of reflecting back to the left, up and through the organisation to reach the effects and scenarios that provided the point of origin for the work. Greatly simplified it has asked "What does *right* look like?" "How well does this organisation fare against our (new) image of rightness?" "What reconfigurations and realignments are necessary to achieve higher levels of 'fitness for purpose'?"

What Do I Mean by 'Fitness for Purpose'?

Several times I have mentioned the term 'fitness for purpose'. It is time now to make myself clear on this subject. Casting back to 1946, and the work of the brilliant Herbert Simon, we find in a subject unfortunately mostly unrelated, that a "purpose is a collection of activities whose orienting value or aim is at a high

level in the ends-means hierarchy" (Simon, 1996, p. 119). An appropriate definition and one that incorporates useful support phrases that I have dealt with at length. It was fortuitous to stumble upon this brief reference as it combines these other words central to my topic - means and ends.

For more explanation we must search in a broader domain, one that touches on organisation and systems theory. Specifically the work of Mintzberg (1979); Scott (1961, p. 264) "the only meaningful way to study an organisation is to study it as a system"; also Katz and Khan (1966, p. 274) "the social scientist wishes ... to predict their effectiveness" and "all social systems, including organisations, consist of the patterned activities of a number of individuals. Moreover these patterned activities are complementary and interdependent with respect to some common output or outcome" (Katz & Khan, 1966, p. 276); yet we must also recognise that "social behaviour ... is the action of differences" and cooperative behaviour leading to consensus may not occur.

I would now like to return to Simon's detailed explanation and his preceding paragraphs, in which he uses the analogy of typing to make further distinctions of *purpose*, but his point was to distinguish it from *process*, and mine is not so there may be little to be gained. As I have endeavored several times within this thesis to position the mind at a higher level of consideration within the subject of strategy I consider it acceptable to continue with "typing is a skill which brings about a means-ends coordination of muscular movements, but a very low level in the means-ends hierarchy" (Simon, 1996, p. 118). The letter 't' has value only insofar as it is necessary that it be typed. Metaphorically, my letter 't' performs a much more significant role. I need to know which word it is part of and how that word combines with sentences, paragraphs and chapters to produce a story. The significance of the 't' emerges at the highest level of analysis.

Figure 42 also gives an example of the discoveries that have been made. Working from right to left, if a certain POSTED configuration provides for certain set of

means, then a slight (informed through analysis) adjustment to this configuration will yield a new means for minimum investment. The solid lines indicate an existing set of capacities linked to a single means, the dotted lines highlight that another set can be completed by the simple addition of two additional capacities (until this time not recognised as linked and contributing to other means). The lines that link up all these lists can be tracked left and right to determine dependencies and criticalities. The pre-existing set of capacities linked to a means (the lower of the two patterned rectangles), which are supported by a stabilised POSTED configuration have been utilised to enable a different (and possibly new) means (the higher patterned rectangle) to be undertaken.

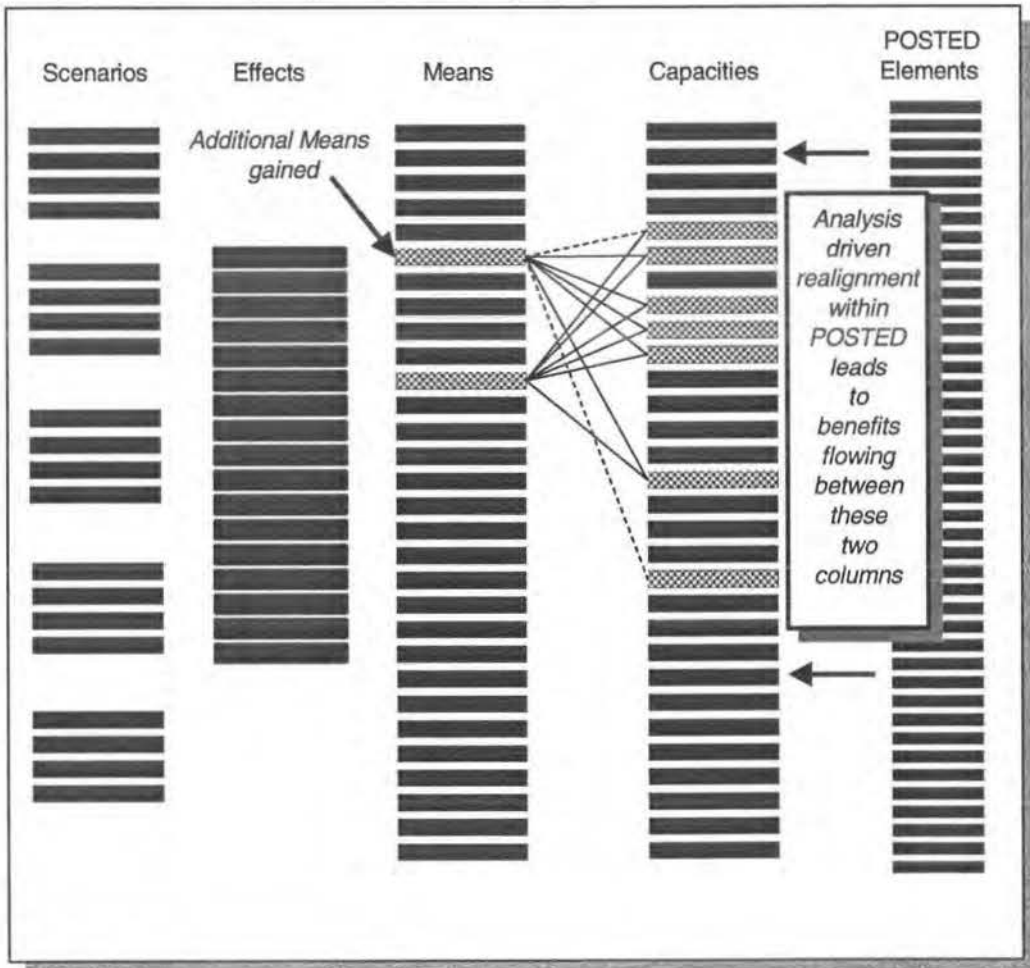


Figure 42. Finding high pay-off realignments.

The Figure on the next page (Figure 43) presents a global view of the model.

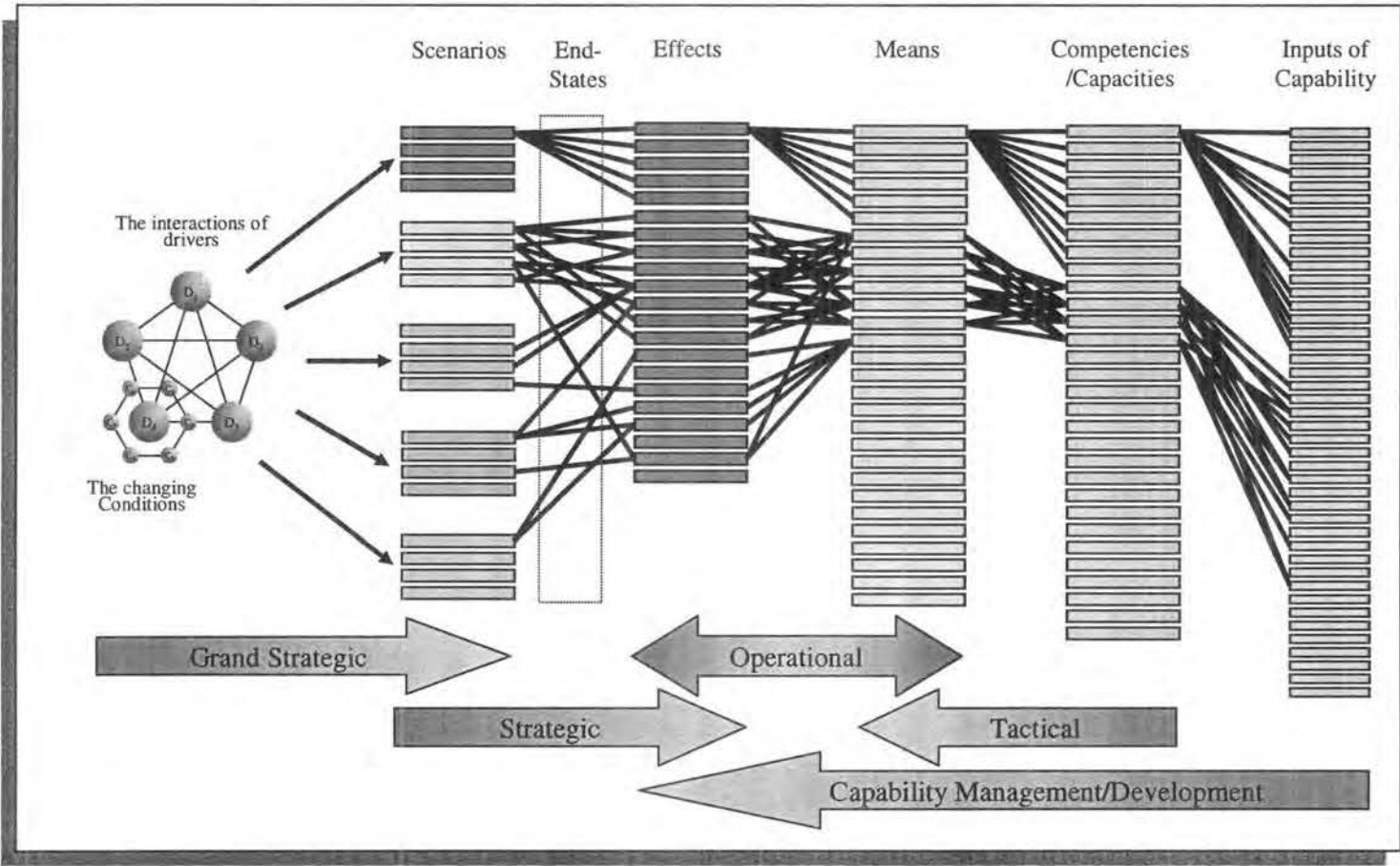


Figure 43. Global view of the combined scenario-effects model.

Working from the left-hand side of this model is Rhyne's (1974, 1981, 1995, 1998) future scenarios construct; combined with Emery and Trist's (1965) contextual environment-organization lawful transactional interdependencies model. The five large (and linked) spheres represent Rhyne's 'Sectors' (I have called them Drivers: D_1, D_2, \dots), whilst the smaller spheres (that would surround each of the Drivers) represent Rhyne's 'Factors' (I have chosen to call them Conditions: C_1, C_2, \dots). The interaction of these within Emery and Trist's L_{11}, L_{12}, L_{21} and L_{22} framework provide for (troubling, neutral or opportunity rich interactions) a two-sided perspective, which can then be re-expressed as favourable or improved scenarios - "we have done something to get ourselves out of this fix, although we have no idea just yet what that might be, but this is what 'good' looks like; it is where our actions are going to take us" - the desired End-state/s. My reasons for the re-naming mentioned earlier is simple; the scenario planning vocabulary has settled on 'drivers' and that convention suits the current work whilst 'conditions' are mentioned in national security/defence doctrine in a quite specific way and that also suits:

End-state will be identified at the national and military levels as follows: The national end-state is the set of desired conditions, incorporating the elements of national power that will achieve the national objectives; the military strategic end-state is the set of desired conditions beyond which the use of military force is no longer required to achieve national objectives [emphasis added].

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I have already spoken of the 'strategising' that aims to shift the conditions upwards in the Driver/Conditions table to deliver more favourable states, this topic will not be revisited here.

The next section of the global model at Figure 43 then enters the organisation at the point where effects must be matched to a scenario. The margins between the

grand strategic, strategic, operational and tactical; and capability management/development domains are illustrated towards the base of the diagram. Having arrived at this point I have now fused scenario planning with strategy and strategy (through operations) with the organisational 'fitness for purpose' characteristics to enable the (most appropriate) strategy to be imposed and be successful.

The task remains to identify a stable state to enable operations to proceed, with flexibility designed in to provide for active adaptation. The (configuration of this) stable state is arrived at through a stepped series of decisions that are informed through the frequency and utility of various arrangements of means-effects pairs with their associated capacities. The process for achieving this is set out in Appendix 5.

Have I Built and Reinforced Consensus?

In 1983, General Donn Starry described seven requirements to transform a modern army. The third and fourth have profound importance for me and the work I have undertaken. These were: there must be a spokesman for change (the third), and that spokesman must build consensus and expose new ideas to a wide audience, for a reformer must have followers (the fourth). Certainly we have enough spokesmen for incremental change. But what I am talking about is not incremental change. I am talking about realignment, what Senge described as *metanoia* - a shift of mind (Senge, 1990, p. 13) and what (he describes) "is the most accurate word in Western culture to describe what happens in a learning organisation [and is one] that hasn't had much currency for the last several hundred years [a] special meaning of awakening shared intuition and direct knowing of the highest, of God" (Senge, 1990, p. 13). He reinforces this later with the assertion that "real learning gets to the heart of what it means to be human" (Senge, 1990, p. 13).

There was no inspirational spokesman who could rally minds and opinion within this research. There are many, however, who seek to build consensus through their active and forthright participation. These are the (imaginative, iconoclastic) people described in the opening quote to this chapter who remain alert to events beyond their immediate professional focus. General Starry restated the importance of these people in 1998 (Starry, 2000) in his assertion that the task of intellectual consensus building remains the single biggest obstacle to be overcome if change is to be effected.

I have delayed answering the question long enough. I have set myself a monumental task. I have designed and built an extremely powerful application. I have, with the involvement and assistance of hundreds of people, populated the database and reported compelling information. I have exposed this information to a wide audience, including the Minister for Defence and several other highly placed Defence personnel. I am a reformer yet the followers are few. Organisational realignment has not occurred, yet the people within the organisation have been confronted with a view of themselves that has proven to be unsettling and it is grounded in robust methods of their own design. I am confident that the *conceptual* validity has been established. More work is now required in different contexts to test the concept fully.

A rich research path has opened. There are more than enough social and institutional problems around 'fitness for purpose' to be explored using the framework I have designed.

It would be unethical now to distort my goals to claim success. Have I, therefore, failed? I do not believe so. Others may judge differently. In judging I urge the reader to now quickly read the quote at the beginning of Chapter Seven before returning to this point.

Summary and Conclusions

This is the largest chapter and the most difficult to summarise, although the conclusions are very straightforward. It has covered the full development of the effects-based planning application and presented the results in simple graphical format. It has mapped over Checkland's seven stage model of SSM and accompanies the scenario planning phase set out in Chapter Three. There is no doubt that this represents, in its totality, an original and powerful way to anchor an organisation to its environment and subject it to a series of criteria to determine its fitness for purpose. The ability of this application to inspire change efforts and spur internal realignments to accommodate the imbalances presented in the various graphs remains uncertain. There are many issues of culture and leadership that must be coupled to this effort to win success. If I were to include a 'where to now' section it would reinforce the need for these factors to become more strongly represented (consensus forming?) than I have allowed for.

It has been an enormously satisfying undertaking and involved a great amount of personal learning.

The Mis-guidedness of Inappropriate Ends and Means Matching

In closing this chapter I would like to relate a personal story that concerns the imposition of a totally inappropriate set of means (in pursuit of Western ends, not culturally appropriate effects) upon a small African nation. It occurred from 1976 to 1978. My father was the project leader. Australian foreign aid officials had determined that the quality of life for African villagers could be improved if they were not forced to undertake the long, daily walks to the nearest river and back carrying water for drinking, cooking and washing.

The decision was made, with the cooperation of the African State's national government, to complete a project to locate nearby underground water, construct

wind-powered pumps and train locals in their maintenance and repair to ensure that the equipment remained operational after the project team had departed.

The project proceeded with much fascination and excitement displayed by the children; adults appeared ambivalent. For the villagers, life continued as normal, with the herding of cattle, preparation of meals and the performance of the many daily domestic duties that characterises life in a small African village.

After some weeks the first flows of clear, cool water into a trough in the centre of the village occurred. On some occasions, the first time this happened in each village it was met with a small ceremony to mark the achievement, more for the technical marvel than to identify with the value of flowing, freely available water.

The women, whose job it was to fetch the water each day from the river now had more time on their hands, more than they knew what to do with. What used to be a long walk and a social event that provided them with the opportunity to interact with other women, engage in small talk and watch their children play had now become a superficial task, a brief and lonely affair that lacked the contact, social banter and deep cultural significance. The symbolism had been stripped away.

Within six to nine months all of the wells had fallen into disrepair, maintenance programs had failed and the water had stopped flowing. Much of this decay had been accelerated by the removal of brass fittings to be worn as jewelry, a visible measure of a person's societal status and wealth and viewed as more desirable and socially important than water.

What had been seen as an admirable project and one that would enhance the quality of life was misguided, culturally and socially disrespectful and at odds with the value system in place.

To use the framework of effects-based planning developed within this chapter, the question of "What are we trying to make happen?" (within a culturally appropriate boundary) had never been asked of the African villagers. The means, therefore, were flawed and doomed to failure. They were contextually inappropriate.

Similar concerns have been raised by Rogers (1995). He questions "what rate of change will allow a system to achieve the benefits of an innovation, and yet not produce disequilibrium in the social system?" (Rogers, 1995, p. 424). It is a search for optimality of form and pace.

CHAPTER FIVE THOSE WHO LISTENED (AND EVENTUALLY SAW)

All men dream, but not equally, those who dream by night in the dusty recesses of their minds awake to find it was vanity. But the dreamers of the day are dangerous men, that they may act their dreams with open eyes to make it possible.

T.E. Lawrence, *The Seven Pillars of Wisdom*

Overview of the Chapter

This chapter describes the impressions and reactions of those individuals and groups that were able to consider the benefits and advantages of an effects-based orientation over the conventional force-on-force model, identify applications for it in their work and actively broaden their knowledge in this emerging field of professional practice. Before proceeding and dealing with actual dialogues that took place, I need to qualify these statements with my observation that I did not expect an abandonment of individuals' current beliefs.

Indeed, the ability to sustain two conflicting ideas in the mind simultaneously is a rare ability (the foundations of which are discussed more fully in a later section within this chapter) and one that I witnessed on many occasions in undertaking this research, particularly those who are the subject of this chapter. That they were able to suspend their prejudices and entertain the idea that an alternate approach may herald a new method for solving problems was instrumental in securing their support and willingness to participate.

There are four separate groups that I discuss:

- The actual participants who took part in the workshops.
- The leaders and decision-makers who I reported to regularly on my progress as an action researcher.

- Other senior Defence and government personnel to whom I had a professional duty to inform of the work.
- Overseas based groups I have maintained contact with throughout, who are undertaking strikingly similar (albeit conceptual) work.

Although I can claim some credit for having changed behaviour in the manner of Mackay (1994) and to some degree the underlying attitudes, it was only through the careful and considered use of (successful) communications techniques of knowledge elicitation and reflection of information that this resulted. These techniques stem from the use of:

- information which is, to the audience, credible truth;
- formats for presentation which will attract and excite the audience;
- measures designed to exploit psychological or physiological needs; and
- conclusions that are suggestive of a course of action which seems to provide an effective method of satisfying those needs.

I was conscious of these throughout the research and will make specific comments about them as counter-points in the next chapter when dealing with those who were unable to, or chose not to see.

I also note the widely used quote that a prophet is rarely welcomed in his own land. I can attest from first hand experience that this is probably the case. Whilst I do not claim to be a prophet, the greatest interest in the methodology developed out of this research has come from overseas, particularly the United States and New Zealand, and to a lesser degree Malaysia and Norway. In offering an explanation for this interest I attribute it to military creativity (see the Glossary for a definition) and a person's ability to cope (or thrive) in an unstructured environment. One thought I have retained throughout in order to sustain my enthusiasm is that there can be an enormously "long period between the conception and the reality and the many hazards that attend pregnancy and birth"

(Wohlstetter, 1964, p. 132). (I believe that) It is inevitable that this model will succeed as a planning aid, I have witnessed too much analytical effort and expenditure of resources (mostly within the United States) to doubt it.

There is, however, the requirement for creative people. Discussions with colleagues in the United States have revealed that the same polarity in thinking is evident. On one hand there is a group who are actively fostering the exploration of new ideas in relation to planning, and there is an equally active group who, despite making profound statements about the need for a new concept for planning, continue to revert back to established patterns of thinking.

I have mentioned the need for creativity, which can be combined with a deeper understanding of the context. This combination sets a fertile environment for the mind of the practitioner to look for new mental models.

The Context/Process Quadrants

The ability to cope or thrive mentioned earlier has its origins in creativity and the capacity to deal with ambiguity, a subject I will address briefly with the aid of the model at Figure 43. The model recognises the existence of a *context* (the situation or environment that one is surrounded by) and a *process* (the actions one may employ to deal with events as they emerge from the situation or environment). The context and process lines have *known* and *unknown* at their extremes, allowing for the expression of four different states of *knowing* and *acting*.

This forms the boundary offered by Stacey (1996a; 1996b) between certainty and uncertainty and the behaviours of (groups of) people as they attempt to learn their way (cooperatively) forward. "The key point is that when they have to operate far from certainty, members of organisations are also likely to find themselves far from agreement with each other" (Stacey, 1996b, p. 27). This tension allows the generation of new modes of action as "managers have no option but to change the

way they make decisions as the level of uncertainty, ambiguity and anxiety is tuned up" (Stacey, 1996b, p. 27).

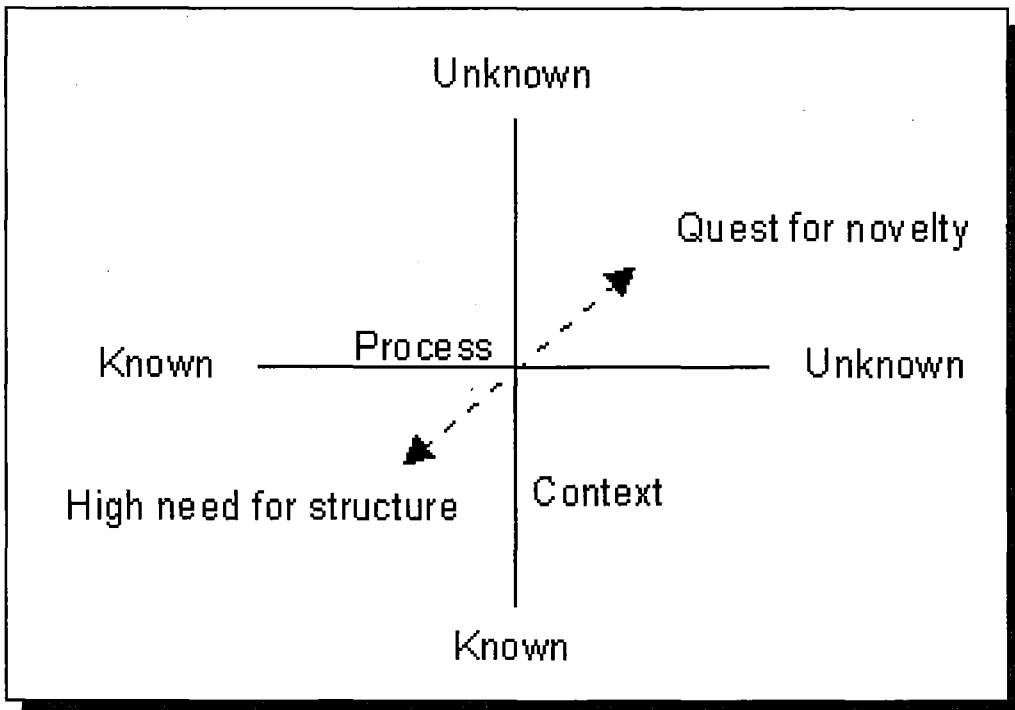


Figure 44. The process-context matrix.

A capacity for coping with high levels of ambiguity is now, more than ever, an essential pre-requisite for creativity. There is a place at the edge of mental disintegration where “we are able to hold the ambiguities and paradoxes of life and contain the anxiety they generate” (Stacey, 1996, p. 14). The pace of change can be so rapid that the retention within the mind of an out-dated idea can be devastating in terms of delaying the recognition of the new (at the limits of detection) and more importantly, integrating it readily into the thinking that is underway (Dixon, 1976).

This is an important distinction as it implies that not only does a creative individual tolerate the unexpected, he or she actually enjoys the novelty of it and feels liberated in the space offered by the lack of immediate solutions.

In summary, individuals operating in a known process/known context quadrant rely on clearly defined behaviours for their responses to situations and, therefore, are not called upon to demonstrate unusual or unconventional solutions. This is contrasted by those (creative) individuals who operate comfortably within the opposite quadrant, wherein new processes have to be derived for frequently changing contexts.

It is accepted that creative individuals enjoy operating at the boundaries. "Why is this the space for creativity?" "Why is the *unstructured, open-ended* and *ambiguous* the zone where (great) minds do their greatest work?". Perkins (in Sternberg, Ed, 1988, p. 373) identified that they have been driven there by the lack or "exhaustion of opportunities [solutions] within the boundaries". This notion is certainly supported by Kuhn's (1962) observations of science (and scientists) being driven across boundaries that were believed to be etched in stone (profound historical examples can be gained from readings of Copernicus, Bacon and Gallileo to name just three who endured years of dogmatism and institutional resistance).

There is also the realisation that creative individuals are rarely able to rely on others (especially those less creative) for assistance. The creative process "is a way of being informed, a way of knowing . . . what shows itself as itself, casts a light that enables one to know more fully what something is and means" (Moustakas, 1990, p. 10). This is an individual journey. Furthermore, "the learning that results is self-directed, self-motivated, and open to spontaneous shift" (Douglass & Moustakas, 1985, p. 44). Although Senge (1990, p. 13) spoke of metanoia, or a collective mind shift to a new paradigm, it is extremely rare in real life and each person must undergo their own (discomforting) reconstruction of their beliefs. Researchers need an ample dose of this ability as "by the principle of the interdependence of opposites, [their knowledge will] become the seedbed for the emergence of some new, useful and illuminating bit of order"

(Heron, 1988, p. 53). The "essence ... is an aware and self-critical movement between experience and reflection" (Reason, 1988, p. 6).

I believe that the people who are the subject of this chapter exhibited a quest for novelty, a tolerance of ambiguity and a desire to fully explore possibilities within their professional practice.

The table below (source unknown) illustrates the dichotomy of states that are possible; illustrating that markedly different behaviours are important if creative problem-solving is to occur.

Table 8. Capability development orientations

Conventional Frame (Low Capacity for Creativity)	New Frame (High Capacity for Creativity)
Long term future is predictable to some extent.	Long term future is unknowable.
Visions and long-term plans are central to convergent thought.	Dynamic and fluid agendas of ever-changing creative, innovative issues are central to the organisation.
Vision: Single shared organisation-wide intention. A picture of a future state.	Challenge: Multiple aspirations, stretching and ambiguous. Arising out of current ill-structured and conflicting issues with long term consequences.
Strongly shared cultures.	Contradictory counter-cultures.
Cohesive teams of organisational actors operating in a state of consensus. Discourse scarce.	Learning groups of organisational members, surfacing conflict, engaged in dialogue, publicly testing assertions. Discourse rich.
Decision making as a purely logical, analytical process.	Decision making as exploratory, experimental process based on intuition and reasoning by analogy.
Long term control and development as the monitoring of progress against plan milestones. Constraints provided by rules, systems and rational argument.	Control and development in open-ended situations as a political process. Constraints provided by need to build and sustain support. Control as self-monitoring learning.
All change is the realisation of prior intent.	Creativity spontaneously emerges from the chaos of challenge and contradiction, through a process of real-time learning.
Top management drives and controls creative innovation and inventiveness.	Top management creates favourable conditions for complex learning and invention.
General mental models and prescriptions for many specific situations (single loop learning).	New mental models required for each new strategic situation (double loop learning).
Adaptive equilibrium within the environment.	Non-equilibrium, unstable, creative interaction with the environment.

Those who are able to shape an organisational (and cultural) environment characterised by the right-hand side of the table will be rewarded with considerably more creativity.

Organisations and their Environment

The model below (Figure 44) from Stacey (1996, p. 64) illustrates the constant oscillations that occur across the boundary (the shaded line) between the organisation (the setting for creative behaviour) and the environment. This is the macro-process that connects the actions of individuals within an organisation with the responses of those outside it. The important message that should be taken from this model is the operation of the feedback systems that provide new inputs from which the receiver can grow. There is little philosophically to separate the notions of single and double-loop learning from Piaget's emphasis that learning occurs through the incorporation of lower-level skills into higher-level skills, itself a process that results from exposure to progressively more complex issues as a function of maturing.

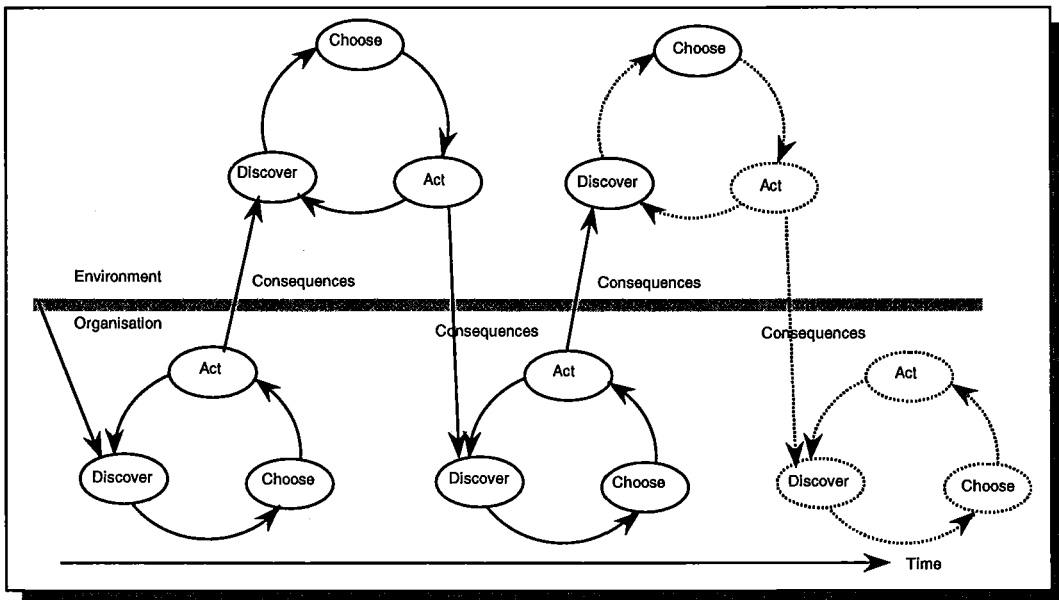


Figure 45. The endless cycle of creative interaction.

The research participants confronted many discovery phases as the project unfolded. This occurred on a personal level and on a technical level as the complexity of the models (FAR and EBO) increased. As this environmental

volatility increases the velocity of the cycles is accelerated, eventually reaching Emery and Trist's turbulent field (1965), the place for greatest creativity.

This model of organisational learning highlights the dynamic nature of the creative process, including the consequences of choices and actions. It also makes provision for uncertainty and complexity and the essential processes of learning, providing a valuable explanation for the interactions that occur between an organisation and the environment in which it operates. It is a quasi-double loop learning system that carries within it the discoveries gained elsewhere.

In dealing with the subject of creativity we could throw up as many leadership models as are available to compare and contrast the elements that provide for, or inhibit, creativity. However, it is not that simple. Exploring the literature uncovers a blurring between leadership and creativity that indicates the two have become more closely interdependent than previously thought.

Although dealing mainly with the subject of genius, Simonton (1984) makes an interesting observation on leadership and creativity that is useful for my discussion here; offering that there is no distinction between creativity and leadership and “when the most famous creators and leaders are under scrutiny the distinction between creativity and leadership vanishes, because creativity becomes a variety of leadership”. A somewhat cliched, but still glaringly relevant, statement is that from Machiavelli's The Prince – “There is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new order of things ...”; certainly one of the primary responsibilities of a creative leader.

It is axiomatic that leadership establishes the environment which tolerates (at the minimum) or energises (at the maximum) creative endeavour. Approaching the subject of leadership in this way has a particular appeal, as it allows us to isolate it from its more orthodox, industrial origins - that of controlling labour.

True Double Loop (Creative) Learning

Although there is a degree of linearity within the model, a magnification of each discovery, choice and action cycle uncovers the possibility for creative discoveries to be made. This further level of complexity is illustrated below (Figure 45) as an additional loop that exists to the side of each discover phase.

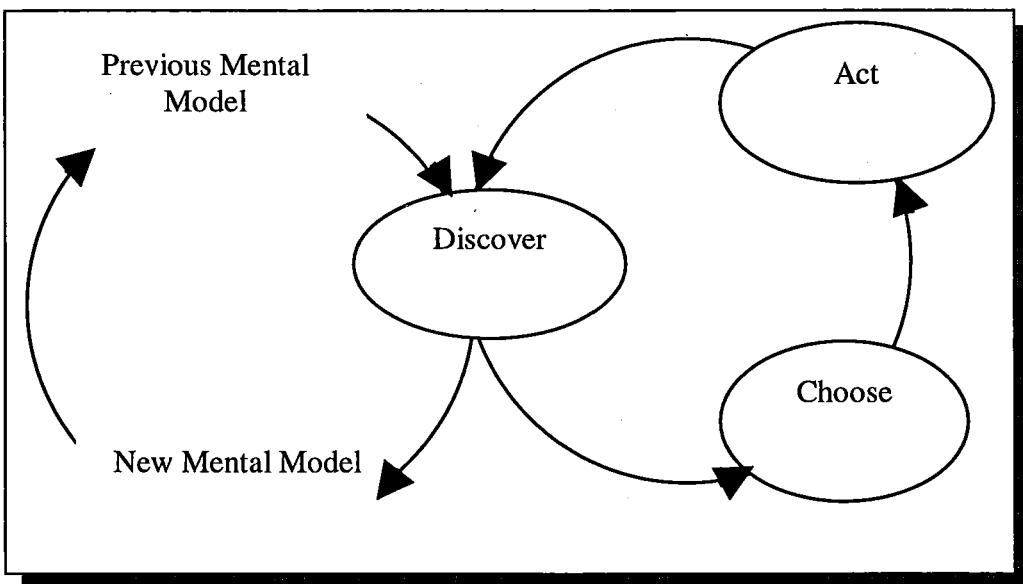


Figure 46. The space for creativity as a function of new learning.

As those engaged in some kind of productive effort or learning cycle through the *discovery*, *choice* and *act* process, they will confront situations that bring about a pause, preventing immediate movement from discovery to a subsequent choice. At this point they are 'thrown out' into an examination of whether this represents the formation of a new mental model. For me this occurred on a number of levels simultaneously: in my interactions with project team members, observing the interactions amongst team members, guiding the development of the automated FAR and EBO applications and the self reflection that accompanied me throughout the research.

This self-examination questions the issues at all levels, deconstructs them and re-assembles them in order to make a sound judgement on whether this set of issues constitutes a new order of things. If it does, then a comparison is made against the previous mental model to determine the extent of divergence.

If it is sufficiently great then a 'different' discovery condition is returned to, one that has replaced the old with the new or integrated or synthesized the new information. If the differences are subtle, then it may be possible to retain the old mental model intact, albeit with recognition that some new ingredients are now present, but the order of things has been preserved – for this single cycle anyway. Regardless of the outcome of this self-examination, a more informed choice can now be made towards closing with the next act stage.

Stacey (1996, p. 130) concluded “the space for novelty in the human mind, as with all other complex adaptive systems, is one in which paradox is held and endlessly rearranged rather than resolved”. The propensity to accept the new mental model then will accelerate the cycles and therefore the tempo of creativity, giving life to the characteristics required to operate in the unknown context, unknown process quadrant discussed earlier in this chapter.

From this it can be concluded that those who are able to hold themselves in this zone of tension, where the new and the old are in conflict, will display higher levels of tolerance towards ambiguity. They should be comfortable in the cycles of discover, choose and act and the pauses whereby the possible existence of new mental models are considered.

A Conspiracy of Coincidences

As I look back upon four years of intensive research, involving almost continuous development, frequent discussions and numerous presentations, I see that there has been a *conspiracy of coincidences* that has (partly) secured the acceptance of

this idea, I believe it has taken root. The moment of truth occurred in Sydney on the evening of 19 February 2001. It was by pure chance that I picked up the Australian Defence Magazine (Cotterill, 2001, p. 70) and read of an interview with Air Marshall McCormack, the Chief of Air Force, by Daniel Cotterill. He asks:

"Do you see the RAAF's future strike capabilities being driven by weapon or platform considerations, or will there be a shift to defining such capability via *effects-based methodology* [emphasis added]?"

To which Chief of Air Force replied:

"Air 6000 is going into effects-based methodology as I described. We are really talking about the effects and then what is required to get those effects. The replacement syndrome is dead as far as I am concerned. The headquarters is now looking at effects-based methodology as the way to go."

Although I plan to monitor developments very closely following these statements, my fear is that a less than absolute understanding of the conceptual purity of this approach will elude those involved and the work may become polluted with the approach discredited shortly thereafter. Indeed, the statements made by Chief of Air Force may have their origin in an earlier presentation I gave to Air Commodore John Blackburn (the Director General of Policy and Planning - Air Force) and his principal staff in Canberra during 1999, where I gave a detailed explanation of effects-based thinking within strategic and operational planning contexts.

It came as some surprise to learn that the work I had completed to that point and the methodology devised formed the entire solution to Phase Two of their futures project; interestingly, whilst they would have been still devising a way forward they were able to immediately recognise that the solution I had devised was equally appropriate to Air Force.

Interest from the United States

Towards the end of 1999, I made contact with a fellow military operations researcher at the Naval Warfare Development Command (NWDC) at Newport, Rhode Island. After several e-mail exchanges it became evident that we were on parallel paths and had come to the same, and startling, conclusions about strategic and operational planning within an effects-based orientation. His team and many large workshops he had hosted appeared to be still grappling with many conceptual issues I had already overcome. Appendix 1 includes several accounts of discussions surrounding the concept and practice of effects-based operations in the United States. Their clear advantage was that they were able to marshal together a much larger team of analysts and consider larger issues.

Many graduate papers are also published out of the Air University dealing with effects-based operations (Beagle, 2000; Kreighbaum, 1998; Steblin, 1997; Sakulich, 2001) and the Air Force Research Laboratory in Rome, New York (McCrabb, 2001) and United States Joint Forces Command in Washington D.C. (2001).

Although I believe I had progressed well beyond their early conceptual debates, to a working database fully populated with organisational information, there were many areas in which we were able to share our thoughts and ideas. Indeed, after finally reaching a level of frustration with so few others to discuss this topic with I phoned the Naval Warfare Development Command (on 28 April 2001) and spoke with Commander Mike Waldhauser. He indicated that the only way to accelerate the process was to get together in person, suggesting that a visit sometime in August to October by several of his team appeared to be the best option. Several weeks later I secured an invitation to participate in the largest

national gathering of effects-based operations analysts in the United States during the period 17 - 27 July 2001.

During my two weeks at Newport, Rhode Island in July I was able to present my work to over 50 individuals from a range of military, civilian and government organisations. With Global Wargame 2001 being conducted, with its focus on effects-based orientation, it proved to be a valuable and timely visit, particularly in light of the large amount of analysis being conducted to explore the concept of effects-based operations. Indeed this formed the second round of detailed analysis around effects-based operations and also formed a large part of Global Wargame 2000, with a well-developed understanding that their "purpose ... is to de-emphasise preoccupation with massive physical destruction of the adversary" (Watman, 2001, p. 77).

Despite this it remains an elusive idea that has remained in the shadow of the targeting/physical destruction paradigm and "it would be hard to claim that effects-based operations look appreciably different from current US military practice" (Watman, 2001, p. 79). The names of the individuals that I spoke with are not important, but some of the organisations included the Joint Warfare Analysis Centre in Virginia, the National Nuclear Security Administration in Washington, Boeing in Seattle and Virginia, Training and Doctrine Analysis Centre – Future Concepts Directorate in Kansas and the United States Army Special Warfare Centre and School in North Carolina.

Responses from all these people were very favourable and, although it was not my intention to build consensus around my particular model and methodology, I expanded their understanding of effects-based operations.

Interest from the New Zealand Defence Force

I have maintained e-mail and telephone contact since 1998 with a member of the New Zealand Ministry of Defence, who has been undertaking a similar project for the New Zealand Special Forces. They are struck by the same vexing questions of "What does good like?" and "What adjustments or transformations in capability are required to maximise fitness for purpose?"

In early 2001, I was advised that the New Zealand defence science organisation had adopted my model and were making minor modifications to accommodate issues unique to their strategic circumstances.

Their use of the model is evident in the e-mail below (permission to reproduce granted):

[The New Zealand Ministry of Defence] MOD is conducting a capability review of NZDF Special Operations. The review has adopted an effects-based planning methodology. This methodology uses a scenario based planning approach. Effects based planning analyses the scenarios by focussing on the overarching outcome required by defence and security policy (and the effects required to achieve the outcome) rather than on the tools that may be employed. In so doing effects based planning allows for a 'green fields' approach to planning by emphasising the policy effects that should be achieved and the means (or broad responses) that may deliver these effects before military capabilities are addressed.

MOD's use of the effects based planning has been guided by the ADFs Special Operations futures work. The Defence Technology Agency is developing the structure for a database that will present the linkages

between the scenarios developed for employment of NZDF Special Operations Force with:

National security objectives

Effects required within the scenarios

The means required to bring about these objectives

Broad responses required of NZDF SOF

Special Operations Forces required

The intention of the database is to illustrate the criticality of effects to be achieved under each scenario. The effects will be accorded a rating and these values will then affect the capabilities selected automatically by the database. They will show the policy effectiveness of maintaining and developing specific capabilities. We are also planning on developing other conditions, such as the manner in which an SO is to be undertaken (overt, covert or low visibility) which will also drive Special Operations capabilities. Once these capability requirements are determined and attending costs have been identified a transition plan will be developed. The plan will establish a path to develop Special Operation capabilities from those currently maintained by the NZDF to those recommended by the review.

Interest from the Norwegian Defence Force

In 1999, I presented two papers at the 18th International System Dynamics Conference in Bergen on the West coast of Norway (one each on FAR and EBO). After delivering my paper on effects-based planning I was approached by a civilian member of the Norwegian Defence Force, who expressed a genuine interest in the model. He explained that they were undertaking analysis work that could benefit from the use of these techniques and would like to discuss in more

detail how this could occur. My almost immediate return to Australia and the distance between us combined with a lack of funds for a return trip has prevented any close cooperative work in this area.

Summary and Conclusions

In this chapter I have attempted to provide explanations for those who were able to accept unconditionally the logic of this planning approach. I recognise them as being creative and possessing leadership for the new and unorthodox. They thrive in an unstructured environment and look to ambiguity as a source of excitement and interest in their professional practice. There is a sub-culture of intolerance of mediocrity. The assumptions held by many have been surfaced through the Five Key Challenges organisational poll. Similarities of view are evident.

There is much work to be done. I remain in frequent contact with many individuals and groups who believe that this approach is sound, holds the promise of superior performance, binds strategy, operations and tactic and secures the optimum organisational configuration.

In the double loop learning model displayed earlier we are probably towards the end of the 'discover' phase, 'choice' will come soon once the truth becomes inescapable (the comparison between the new and old mental models), that will involve serious leadership issues within the requirement to 'act', before entering the new 'discovery' that comes with reorientation.

After arriving at this point and attempting to reach an understanding of why a group could see the logic for such an approach, be culturally open to new ideas, recognise leadership towards a new paradigm that they themselves had participated in, I now look for a single explanation. The word that springs to mind is *inspirationalism*. They have fashioned scenarios, constructed a complex

language that explores all facets of organisational life and purpose, used these two in a way that aids decision-making and formed (shared?) opinions about change.

CHAPTER SIX AND THOSE WHO DIDN'T

There is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new order of things.....

Machiavelli, *The Prince*

In this chapter I provide perspectives on that set of individuals and groups that consistently were at odds with my attempt to build consensus. They were dissenters, a term I favour as it simply offers that they held a different opinion, neither a good thing nor a bad thing, just *different*. I need their difference as it helps me answer the questions I have posed to myself. I have a curiosity for the origins of their dissent:

"Was it me?"

"Was it something I said, or allowed to be said by others in one of the many workshops?"

"Was it an aspect of the workshops, the structure or process used?"

"Was it the dynamics within the group that gave rise to their dissent?"

In exploring these questions it remains necessary for me to search for the positives (as well as the negatives), I am still learning and reflecting at this stage and there are defining moments still to be experienced and disorientation dilemmas to be felt (Merriam, Mott & Lee, 1996; Edwards & Usher, 1998).

"Why am I even asking myself these questions?"

For those who were the subject of the previous chapter I explained their readiness to accept new ideas as being a function of their creativity and tolerance of

ambiguity - characteristics from within. With the non-acceptors I (cannot help but) look for explanations outside of the participants.

My aim throughout has always been to allow powerful ideas to dominate, rather than powerful people. I believe I have been successful at this. "Could it have been that they possessed an idea or thought that alone was not sufficiently powerful enough?" "Did not attract enough consensus and, therefore, allowed a negativity to pollute the rest of their involvement?"

I am conscious of the need to not judge their views, or criticise their position in any way. They adopted the point of view that was most comfortable and their steadfast opposition to achieving a strategic reorientation provides valuable insight into the behavioural phenomena at work within organisations.

It would be easy for me to explain this position as being contained within the opposite quadrant from the quest for novelty. This would be unfair.

Research Role

My approach throughout the workshops was mindful of the need to draw out individual thoughts and perceptions, mix them with others, and guide the discussions to arrive at an agreed understanding or conceptual position then load that into the body of work. As the information and shared knowledge grew it would demand a new feature or function to allow its integration. Again there was the possibility that my role had interfered with the formation of the overall result. I believe that somewhere in all of this were the points that gave rise to disagreement.

I did not set out to build a new order of things. I set out to discover how a shared, loosely arranged order of existing things could be arranged more precisely and completely to produce a more accurate picture. One that all those involved could

agree with and declare that "yes that is an accurate picture of the product of our lengthy discussions, there is enough of the existing body of knowledge to give a foundation and the new information is sufficiently moderated by group consensus that it has passed the test of eligibility". Yet the group that assisted and actively participated in this process can still decide to disagree with the overall work.

In considering whether people accepted or rejected these methods I was conscious of my role and behaviour because:

- my interactions with the individuals that I interviewed for the studies were shaped by the group memberships that each of us brought to these interpersonal interactions.
- my formulation of the research problem and my interpretation of the data was shaped by my membership in a particular age, gender and organisational group. This theoretical orientation shapes the research process (Kram, 1988, p. 247).

This allows my attention to be (re)drawn to the research questions:

Question - "To what extent did my adaptation of the Field Anomaly Relaxation method assist in building and reinforcing consensus around initiatives for change?"

Answer - The scenarios were very successful as a tool to provoke thought. The adaptation become insignificant, the product delivered was sound and workable. The 20 scenarios were able to be loaded into the front end of the effects-based planning application without problem.

Question - "To what extent did the effects-based planner assist in building and reinforcing consensus around initiatives for change?"

Answer - The effects-based planner was valuable in two ways: firstly, it enabled

the detailed examination of organisational purpose with practitioner involvement and secondly, it allowed the linking of ends, ways and means in a more complex model that drew into sharp focus the strengths and weaknesses within the organisation. That the model was able to be completed with 19 effects, 42 means and 42 capacities was a strong indicator of consensus. The indicators for change resulting from this were the result of each person's efforts.

Question - "How was my involvement in the creation and use of these knowledge management systems beneficial or detrimental to the achievement of consensus?"

Answer - My aim was always to guide the development of these models. There were occasions where it was necessary to prescribe specific elements or functions, however these were minimal. At times progress was slow, which meant the loading of data was delayed, which meant participants became distracted. I saw my role during these times as a decision-maker and someone who could maintain momentum. This role may have been harshly judged at times. My response to that would be "I did my best under the conditions".

Question - "Could my biases, assumptions and prejudices interfere with the employment of these knowledge management systems?"

Answer - I was conscious of my personal actions throughout. At times they may have been too forceful. At others I may have let the research groups find their own direction. I believe that I had little idea how the project would unfold so any attempt to subvert the project into a specific outcome would have no basis.

Researcher Behaviour

Kram (1988, p. 248) identifies the need to ask several important diagnostic

questions related to perceptions, behaviour and reactions of the researcher during the research process; the reactions (and authenticity of response) of others to the researcher's probes and how the interactions determine the nature and quality of the data. I recall my comments on self-reflection made in Chapter 1, wherein I identified the difficulty of pausing to critically view the moment to gain a deeper understanding of the dynamics - the moment of self-reflection. If the signals one receives (from those involved or supporting the research) are distorted or mixed then no amount of reflection will uncover the true data, only that there is distortion and what the possible explanations for it might be.

"So where does that leave me?"

"Was something not said by these individuals that would have allowed their dissenting positions to be surfaced?"

"My personal opinion is - yes."

"What might the explanations for this be?"

"Could it have been my approach or manner?"

"Possibly."

"Could it have been an underlying unwillingness to openly share information that manifested itself in the particular group assembled for that workshop?"

"Possibly."

"I can already detect that is a fruitless search for meaning and disappointment lies at its end."

Maybe it would be a more simple process to expose my own condition. Finding out who I am "... is not an easy task ... It requires inquiry into one's past to discover how identity [and group memberships] have shaped current values" Kram, 1988, p. 262).

While admittedly in the beginning, there was no overall method to be applied, I acknowledge that this was to be progressively constructed through the involvement of others. This has been successful, insofar as those that actively contributed and participated.

The Research Assistants

This was a research project that demanded the involvement of many others, my (mostly) cooperative co-inquirers. As well as the information that was elicited and integrated into the database their personal involvement (and level of cooperativeness) was also empirically examined. Reason and Torbert state that "participation is a political as well as an epistemological imperative which affirms the basic human right of persons to contribute to [a] decision which affects them and to knowledge which concerns them and purports to be about them" (Reason & Torbert, 2001, p. 8). I have also discovered that people will exercise the basic human right to withhold information from a moment of inquiry or decision, electing to retain, rather than volunteer, knowledge that could prove critical to overall understanding. To continue these authors' comparisons of scientific positivism versus the participative linguistic turn this withholding could be described as 'neutralism' with its effects identical to data not obtained through the scientific approach.

If I believe that information was withheld (and I do) then where does that leave the validity of the research? Are the planning models still valid? Or are there large sections of functionality that (will always) remain absent. But, "the primary purpose of research/practice is to enhance human flourishing. To do this it must

generate valid information within action situations so that those involved can understand them more thoroughly and act in them more effectively" (Reason & Torbert, 2001, p. 19). The models must be valid, the data may need to undergo refinement to more accurately express the various elements, however the action situations fostered active involvement, understanding was enhanced, consensus was built and participant effectiveness grew dramatically.

This is the goal of cooperative action research. Yet, "the group cannot achieve its goals and fulfil its mission unless there is clear consensus on the means by which goals will be met; the means to be used have to do with day-to-day behaviour and, therefore, require a higher level of consensus" (Schein, 1992, p. 58). This consensus is built by the leader.

A paradox of culture change leadership is that the leader must be able to not only lead but also to listen, to emotionally involve the group in achieving its own insights into its cultural dilemmas, and to be genuinely participative in his or her approach to learning and change (Schein, 1992, p. 389) and "the field of strategic management addresses the problems of managing dynamic changes in the relationship between a firm's action and its environment" (Argyris & Schon, 1996, p. 251).

Schein offers that as this volatility between the organization and its environment increases the adaptive survivalist imperative becomes more pronounced whereby "analysts concerned about planning and adapting to an uncertain and uncontrollable future would argue that as environments become more turbulent, the ability to tolerate uncertainty becomes more necessary for survival and learning, suggesting that organisational and national cultures that can embrace uncertainty more easily will be inherently more adaptive" (Schein, p. 103, p. 11).

They also speak of a first, second and third person dimension of inquiry. To me the imagery that conveys this best is Escher's reflective sphere. This metaphor of

self in action with others and for others is represented in several ways. Firstly, in the first person I am an observer of myself, the background, that remains visible around my reflected image in the sphere, provides the context and the moment, but it has little relevance to my image, it blurs as I attempt to see myself clearly. I am distanced from the influence of this background as I scan inwardly. Changes in the background, or context, will not have an effect on me immediately. Even as I indirectly adjust to these changes I am unable to precisely link my responses to the shifts in the contextual. In the second person I am fixated on the context, the reflected image is blurred.

Changing an organisation's structures and processes is therefore difficult because it involves not only consideration of efficiency and effectiveness vis-à-vis the external tasks but also the reallocation of internal 'property'. Similarly, changing rewards systems and status allocation systems in the internal workings of the organisation may be difficult because such changes will affect how work is done and how well goals are achieved. In summary, as cultural assumptions form around the means by which goals are to be accomplished, they will inevitably involve the internal issues of status and identity. Thus highlighting the complexity of both the analyses of means and the issues surrounding efforts to change the way an organisation accomplishes its goals. (Schein, 1992, p. 61).

Summary and Conclusions

In this chapter I have attempted to understand why some elected to dissent. I may have unintentionally labeled them uncreative, as I stated that this was a characteristic that was evident in those who did agree, not only with the method, but with my approach and the content. I see that this is wrong. I have also spent some time on research group behaviour, my behaviour and the implications of these for the models that sought to build consensus.

CHAPTER SEVEN CREATIVE SYNTHESIS

This is what I have done, what I have thought, what I was. I have told the good and the bad with equal frankness. I have neither omitted anything bad nor interpolated anything good. I have shown myself as I was: mean and contemptible, good, high-minded and sublime, according as I was one or the other. Gather round me ... my fellow men; let them hear my confessions, lament for my unworthiness, and blush for my imperfections. Then let each of them in turn reveal, with the same frankness, the secrets of his heart at the foot of the Throne, and say, if he dare, "*I was better than that man!*"

Rousseau, (1782) *Confessions*, p. I

Overview of the Chapter

In this chapter I reflect on the research path, the changes that have occurred in my professional practice, the effects I have had on others whose involvement I have sought and the significance of the entire experience upon myself. It will form the explication phase and aims to "fully examine what has been awakened in consciousness, in order to understand its various layers of meaning" (Moustakas, 1990, p. 31). It is within this chapter that I will attempt to validate the research, securing the warrants of truth and honesty that I sought at the outset and throughout.

So How to Validate This?

This research has been of the qualitative form. It has celebrated the role of individuals and sought to approach them as humans, not subjects. Yes, there was a purpose to the research; a purpose that commanded my attention and contemplation for five years; a purpose that filled my mind with thoughts, dreams, and visions of success and failure; a purpose that saw knowledge elicitation and co-operative inquiry as being central to the formation of consensus around initiatives for change.

How can I look back now and gaze over the path I have trodden to satisfy those who must rate my performance. They were not with me. It has been a solitary journey. Only I have struggled through the development of solutions, stood in front of (sometimes hostile) groups for seemingly endless presentations, urged the involvement of others and rejoiced in the ready acceptance by the believers. The themes (that were there from the beginning, invisible but close) have steadily revealed themselves to me, they have rewarded me for my efforts; although, I can recall many times when the way ahead was denied to me, amplifying my disorientation.

I recognise that I have been engaged in cooperative inquiry, it had a purpose, the methods devised were participative, as was the progressive development of the product. If I was to isolate the reason for non-implementation I could only suggest that it was a combination of lack of senior executive support and commitment coupled with a lack of broad-based support. These two are related and need some further explanation to highlight their relationships.

Broad-based support (Berman & McLaughlin, 1978, p. 15) would create a critical mass of mood and expectation that a reorientation of management opinion would be achieved. This would be reflected in a heightened awareness of the need to do something (strategically) with the organisation as a result of this disquiet (this has often been described as 'precipitating a crisis'). These messages would then be reinterpreted by the organisation's members and seen as a focused intent. The self-reinforcing nature of these information reflections was absent. Once the information was presented that clearly highlighted a direction and pace of change it was the management's responsibility to clearly articulate an opinion.

This did not occur, devalued the quality of the analysis, legitimised the status quo and undermined the prospects for more thorough analysis linked more strongly to change efforts.

Is this a cultural phenomenon? I do not believe so. Rather it was a manifestation of intellectual rigidity and a preoccupation with the events of the day. Doing what is urgent and avoiding what is important.

As an exercise in achieving change this project has proven to be unsuccessful. As an aid to building and reinforcing consensus within practitioners I believe it has been a success.

The (integration of) knowledge that has arrived with me at the end is extensive. I have deepened as a person. I have entered into all facets of the subject and emerged intact. I can communicate with others and myself with greater freedom. I can engage with a subject that is not familiar to me and entertain thoughts and emotions that once eluded me or were embarrassing. I can confess my shortcomings. I am able to reflect more completely and meaningfully on a wider range of subjects. I am more open, more encouraging of dissent. I am one who appreciates the absurdity of life.

I am who I always was.

I am (back) at the place I never left.

*We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.*
T.S. Eliot, Four Quartets, 1971

In *Knowledge and Human Interests* Habermas (1972), expounds the idea of 'validity claims' arising from the process that he terms 'ideal speech situations', during which people can communicate freely and honestly and openly with no coercion or distortion, he emphasises the importance of self-reflection. For Habermas, the overall goal of discourse is "an inter-subjective mutuality of reciprocal understanding, shared knowledge, mutual trust, and accord with one another" (Held, 1980, p. 333). This can only be achieved by each participant reflecting on his or her words and practice. As Escher does in the figure to the right when holding the reflective sphere aloft to view the disembodied image of himself drawing himself drawing himself Some interesting observations and comparisons can be made with Reason and Torbett's (2001) call for a 'turn to action' and their consideration of first, second and third person level of social involvement.



Escher is painting, he is engaged in artistic recreation, it is an activity rooted in the first person, there is no other purpose than to create an image of viewed reality. But the image he creates gives a sense of looking back at 'the other' (self) as in the second person. If this were a landscape it would be that landscape's awareness and recognition of the artist and easel in its presence for the purpose of capturing the viewed panorama in some medium. The third person orientation forces the viewer of Escher's work to analyse the effect upon oneself, like I am doing now, and like I am doing to you as you read these words and contemplate their effect on you. We are Escher's eyes, looking at Escher in his studio, the hand is mine.

This fusion of perspectives sets up a powerful emotion of our place as an individual, a person among many others and as a member of a single community.

Communication with the deepest self is made possible, communication that is honest, forthright and explicit; it is a realisation of the self. As expressed by Jacobi in her presentation of Jung's psychology "it leads the individual to know himself for what he would like to be - and probably nothing is more difficult for a human being" (Jacobi, 1973, p. 132).

But human communication can be distorted by communicative incompetence, by domination or by unbalanced instrumental action (strategic (inter)action) of indoctrination and propaganda. Ideally, agreement should be reached by an acceptance of the position that has the better argument (Held, 1980, chapter 12), but what does *better* mean? This discussion brings me back to the acknowledgement of 'dissent' as a necessary characteristic of cooperative inquiry. With dissent there can be no *better*, only *different*. Difference leaves the path clear for cooperation and deeper inquiry as underlying assumptions are explored and surfaced. Heron (1988, p. 44) offers that "validity is enhanced by a diversity of views that overlap. It is not found simply in the common properties of the different views, but rather in the unity-in-variety of these views".

In terms of writing styles, John Van Maanen in his book *Tales of the Field: On Writing Ethnography* (1988), encourages the research writer to tell striking stories with interest (does it attract?), coherence (does it hang together?), and fidelity (does it seem true?). He advises the researcher to recall in the present tense, to avoid giving away the ending to help build a degree of tension, and to use condensed but rich contextual descriptions, artistic nerve, unusual phrasings, fresh allusions, rich language, cognitive and emotional stimulation, puns, and quick jolts to the imagination. This idea of 'fragmented knowledge' is furthered by using a novelistic style which unfolds event by event, conveying uncertain meanings for an audience unsure of where it is being taken and why, and with characterisation for individual voices: "characters . . . must be given names, faces, motives, and

things to do . . . lines to speak" (p. 104). I hope that I have woven a captivating thread that commands the attention of the curious.

This is in agreement with Zald, who contends that rhetoric and artistry are crucial and that "the scientific and technical model emphasizes logic, clarity and data representation in its rhetorical stance, to the exclusion of intuition, allusiveness, imagery" (Zeld, 1993, p. 521). He goes on to mention that confessional or impressionistic modes of writing may take us closer to the truth.

I look at this simultaneous development of self, others, self *with* others and the purpose of and product of the actions undertaken through participative inquiry as the "quality of attention", discussed by Reason and Goodwin (1999, p. 10) when commenting on the work of Torbett. These authors offered that attention must be given to "intuitive knowing of purposes, intellectual knowing of strategy and embodies knowledge of one's behaviour and an empirical knowing of the outside world" (Reason & Goodwin, 1999, p. 10). One can not only do, one must also be alert to the actions that the self is engaged in as the doing is done.

Have I been self-reflective throughout? Segal has identified that "before we can either reflect on or defend our practices, our practices must have become explicit as a theme for concern" (Segal, 1999, p. 74). My practice has certainly been explicit, to me and others. This explicitness must come as a rupturing moment, or to use Mezirow's language, a disorientating dilemma. We are back now considering Escher drawing his reflection. This ability to (vividly) see oneself (as others do) is given great clarity in Sartre's *Being and Nothingness* (in Segal, 1999, p. 79) wherein a man looking through a keyhole is preoccupied by the subject of his attention, he is interrupted by footsteps and "turns his gaze from the room [to] see a man looking at him" he now sees himself being looked at as a voyeur.

The Final Metaphorical Form

Continuing with my metaphor of a gathering storm, which I introduced in Chapter Two, I now sense an anti-climactic moment of unrewarded effort and a dissipation of the gather(ed)ing forces of change. The culmination has not occurred. The flood of life-giving water to promote new growth has not eventuated, there is a barrenness of apathy, lethargy and rigidity that was there before. The soil remains unproductive. I must confess at this point that physical reward and visible evidence of acceptance of my approaches was not the motivation. Although I genuinely felt that the journey was honorable and sincere, I am left with a sense of loneliness and pessimism and through to the visible changes in the system I was an occupant within can provide few perspectives on that set of individuals and groups that consistently were at odds with attempts to build consensus. I have attempted to rationalise their motives, described their worldview as it came into conflict with mine. I am also conscious of the need to not judge their views, or criticise their position in any way, a positive I reinforced in the previous chapter. They adopted the point of view that was most comfortable and their steadfast opposition to achieving a strategic reorientation provides valuable insights into the behavioural phenomena at work within this organisation.

I looked for something (different and changed) outside of myself. The change has (only) occurred within. I believe I have set things in motion. There are ripples but they have yet to touch a shore and be reflected.

In expressing this discontent I find salvation in the fact that although the local conditions may have remained stable, the season is altering. It is part of a larger cycle and my storm was dissipated through a need to preserve its energy for a larger gathering that will exert its influence later.

Where to Now?

The method works (but it didn't this time). It has potential to inform policy and strategy across an enormous field of industry and endeavour.

What are we trying to make happen? - this question as a point of origin for all analysis and consideration is extremely powerful and secures a purity that other approaches may not deliver. I have spoken to practitioners involved in developing policies for minimising drug use, discouraging graffiti, altering driver behaviour in speed-controlled areas such as outside schools and reducing the adoption of smoking in youths. All have commented favorably on the utility of the model and its ability to isolate consensus around key high-payoff areas. The effect that one is in pursuit of concentrates the mind and all consideration about what actions are appropriate.

Further research may extend the model and develop new insights into the formulation of policy and consensus building. Whatever additional research springs from this work the enduring ends, ways and means construct remains central.

Summary and Conclusions

In this final section I set out four brief points:

1. Purposeful thinking and acting is an important part of organisational renewal and growth and deserves attention to derive more successful methods for planning and policy making that engage groups in cooperative inquiry.
2. There is a multiplicity of contradictions that demand divergent thought. If a way forward to satisfactory solutions or progress is to be made then contradictions and divergence must be accommodated and accepted as the

natural order of things. Consensus can only be approached as an ideal. Indeed dissent is a vital quality to be preserved and accommodated within cooperative inquiry.

3. National security organisations are in a transition period between two *raison d'être*, providing a brief opportunity to speculate and dislocate thinking from the conventional, constraints originating from dogma and a narrow field of vision. A futures orientation can achieve this necessary dislocation of thinking.
4. Comprehensive knowledge management systems can assist in the crafting of organisational futures. Field Anomaly Relaxation and effects-based planning coupled with facilitated teamwork qualifies as a comprehensive knowledge management system and has potential to build consensus and communities of change. It can create a microworld in which cooperative inquiry can occur.

Epilogue

I wish to close with some thoughts that are inspired by Mezirow and his critique that "in traditional societies learning focuses on acquiring the outlook and skills necessary to perform according to well established rules and customs" (Mezirow, 1990, p. xiii). I have chosen to break free, to seek new meanings from my own discoveries, creative wanderings and self-reflexion, what Freire has described as *conscientization*. A *reflective engagement* with the totality and enormity of a subject, or what Shor calls "extraordinarily reexperiencing the ordinary" (Shor, 1987, p. 3). These themes are central and prevent mediocrity in qualitative, heuristic research.

In my research I have sought to construct a non-traditional society of learners who perform outside the established rules and customs, who can explore together. But,

at the same time, their approach is disciplined, forthright and accommodates the (presence of) dissenters, without damaging their ability to express different views, or have these views folded into the thoughts and ideas of others. The way is open for others to develop the approach.

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APPENDIX 1 EFFECTS BASED OPERATIONS WORKSHOPS

The information set out here is a compilation of discussions and debates surrounding the topic of effects-based operations. Most comments were from structured workshop settings designed to achieve specific outcomes for this research. Others were the thoughts of interested individuals and groups shared when the information was relayed throughout the organisation. I refer to comments as either coming from the facilitator - me, or an anonymous participant.

Participant

"I just don't get what all the fuss is about with being so precise, framing everything inside an 'effect' like this. Everything we do as a military organisation is to achieve our objectives. This has been going on ever since man picked up a rock or spear".

Facilitator

"That may be so. There is always a purpose to our actions. My only concern is that we begin our planning too low down. Our aim here is use the desired effect as the point of origin for our analysis and consideration of what will deliver that effect. Typically we start with what are we able to do, and then we look around trying to find a way to fit that to the problem. What I am suggesting is that we forget about the things that we do for the time being and focus on what are we trying to make happen. I think this would be more productive".

Participant

"We've spent all this time getting the scenarios together, we have our end-states, let's keep the top-down approach going and see what we come up with".

Facilitator

"Okay, we need to keep a military mind throughout all of this. Clausewitz wrote

about imposing our will on our adversary. This is a very important concept and one that must guide us through this next stage. When we talk about effects, we should recognise that they will be imposed. The language must be reasonably forceful and active. I need statements that speak directly about what we want to make happen through our actions, and remember we haven't determined what those actions are yet. That is the next step, these will be anchored to the effects so the planning hierarchy continues downwards".

Participant

"What we need are a few politicians in the room. This sort of information needs to come from Government".

Facilitator

"You're exactly right. But we don't have them so we need to give this our best shot. I'm sure with the expertise and experience we have in the room we can get this right and that will give us some really interesting information to work though with. Remember that most of what we do has been devised from the bottom up, so in the middle somewhere we should experience some difficulty as we draw these two domains together".

"We don't have a definition yet for effects-based operations. We know that we are beginning at the top and working our analysis downwards. Let's assume for the time being that the model I presented earlier is fairly complete. I has scenarios on the left, with a single end-state for each derived from that, then the effects that can be imposed within that scenario, with the means next, capacities or competencies further to the right and the finally physical elements of capability forming the right-most column. In an effects-based orientation it is the effects that provide the beacon for our efforts, everything must be directed towards these."

Participant

"Surely it's not up to us to define the national strategic end-states. I would have

thought that was a job for government. The National Security Committee for Cabinet meets every time there is a crisis to develop a course of action. Why can't we find out what they think our end-states are, and also our national effects. From those we should have a reasonable chance of getting the military effects".

Facilitator

"You're right, it is a job for government, it's really a collaborative effort between government and all the instruments of national power, of which Defence is just one. The National Security Committee bases the development of their alternatives on the strategic threat scenario they are faced with. We could construct a whole series of scenarios that contain a rich narrative of events, actors, geography, politics, society, and economic ingredients. These would form a problem space. As they plan their way out they would determine which ingredient and its associated condition offers a point of leverage, a weakness that they can apply strength to. The aim is to change that condition in a way that is more favourable to us".

"If we look at Kosovo, there is a leadership with a specific intent and a whole package of ingredients that make a contribution towards instability in that region, a system. Our role is to determine what effects can be imposed on the system to force it to change, to trip it into another set of behaviours. In crafting these we must look beyond destructive measures or the use of military force alone as the means. We should really be thinking about synthesising our efforts with those of other government departments, particularly those that have representation at the National Security Committee.

The end-states that are reached after we have been successful are really an expression of this now changed scenario. The scenarios in front of you that we have been working from have been written using a very sound future forecasting method, they are situated well into the future, but they are reasonably expressive of events that could happen in a only a few months".

"I am convinced that is why our approach here is so powerful. We have the scenarios that describe drivers and the various conditions that they can exist in. the end-states allow us to describe the vertical movement up the table in the columns of those drivers that offer solutions. The effects help us explore what it is that we want to have happen as a result of our actions, although we haven't determined just what that might be. The means are the actions we can undertake, so the whole model cascades downwards. It is not so simple to build this from the bottom up, in fact I think it would be impossible to gain any meaningful structure".

"There is another aspect to Special Operations undertaking this analysis and that is our definition: Measures and activities designed to achieve military, political, psychological and economic objectives (or effects). Remember we are trying to shift our fixation away from military objectives, not because they are unimportant, but because they do not give rise to any creative or lateral thought on this subject. It is the political, psychological and economic effects that offer interesting ideas and the possibility that we can take the organisation and its capabilities in a new direction. Not simply because we think it is a good idea, but because these are informed by a more strategic orientation in our thinking".

Participant

"It makes sense to me. Let's give it a try and see what we come up with".

Participant

"I agree, I am sure something like this must be going on somewhere in the planning process but this approach seems to link everything together very neatly."

APPENDIX 2 SCENARIOS

Not the New World We Ordered

These scenarios were derived from the futures planning workshops using Field Anomaly Relaxation. Although the full futures tree diagram has been presented in Chapter Three it is repeated at the beginning of each of the five major named worlds developed with the paths to that world highlighted. A Reserve officer - Captain Richard Taylor - and a veterinarian by profession wrote them, in a different format. They have been modified slightly to fit this thesis.

Home Brew

- Indigenous Crisis
- Drug-Crime Syndicates Sponsored Offshore
- Eco-Cyber Terrorists
- White Supremacy Movements

Argy Bharji

- SE Asia Anarchy
- Multinational Piracy
- China Sea Scramble
- Antarctic Challenge

Cast Adrift

- Transmigration
- Consolidated Forces of Islam
- Climatic Chaos in Oceania
- Australia the Pariah

Trouble Elsewhere

- Middle East Meltdown
- Ebola Outbreak
- United States Stumbles and Falls

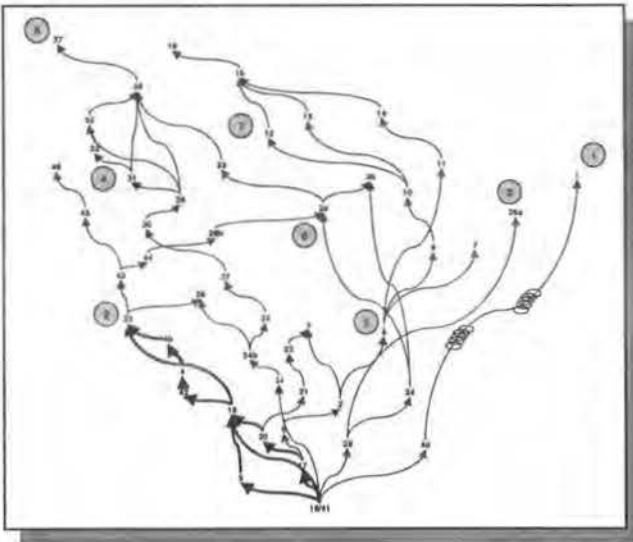
- Gene Warfare

WWIII Everybody's Fighting

- There Can Be Only One - Fight to Become World Power
- Millennium Bug
- Information Warfare
- WMDs to Order

Home Brew

Indigenous Crisis



2000 June

Australian aboriginal elders express disappointment at no formal expression of reconciliation resulting in a widespread call for a treaty.

2000 October

After failure of aboriginal activists to secure any significant media coverage of protests during Sydney Olympic Games a new leader emerges, Jack Wangebari, calling on "The Koori People to bring their cause to the world spotlight".

March 2001

Impatience at resolution of land rights leads to sizeable demonstrations in Sydney, Melbourne, Canberra and Perth. Jack Wangebari calls for formation of 'Koori Assembly of Tribesmen' (KAT) to unite their cause. Several Aboriginal Elders denounce the new activists' movement but win wide support from urban indigenous people. Unsanctioned development, particularly in mining and logging, of lands over which aboriginal claims are pending becomes a central issue of protest in the opening volleys of rhetoric of the KAT organisation.

August 2003

Under political pressure over mounting deficit budgets and national debt and resentment of KAT protest disruptions; the 'All Australians Equal' Bill effectively eliminates special consideration for aboriginals in social security.

April 2005

The PM calls a 'Congress of Aboriginal Elders' to assure continued community support for their reserves.

Conference in Noumea of 'Pacific Indigenous Peoples' attended by Pacific islanders; Papua New Guineans; Polynesians including April 2005 Maoris, Melanesians, Australian Aboriginal, Torres Strait Islanders and Kanakas call for an international charter recognising indigenous rights. June 2005 This wins general international support but not regional or domestic acceptance.

February 2007

Armed aboriginal groups and unofficial white militia clash in Charleville. Fighting continues for three days until riot police reinforcements suppress hostilities with army assistance to pacify the hinterland. Jack Wangebari is arrested. Guerrilla campaign in New Caledonia commences to attempt to oust French rule.

April 2007

French New Caledonian counter-terrorist military forces conduct a successful raid on defended positions outside of Noumea. A large cache of small arms, explosives and, worryingly, several small canisters of chemical weapons are recovered.

September 2008

New Caledonian Intsum is released linking Pacific Islander terrorist organisation in Noumea with other radical groups, including Maori and Koori terrorist cells. Chemical weapons are of Iraqi origin.

May 2009

New Zealand police recover explosives and chemical weapon canisters in a Maori urban fortress after a raid in Hamilton. Origin again is Iraqi, believed to have been supplied through associated terrorist cells in Noumea.

April 2010

KAT groups embark on widespread bombing campaigns initially on mining infrastructure at sensitive sites, two months later Parliament House in Canberra is targeted simultaneously with state parliament houses of each capital.

Simultaneous outbreak of riots in rural towns and centres of larger cities by radical aboriginal groups to March the 5th anniversary of the Charleville uprisings and incarceration of Jack Wangebari. Several towns including Charleville, Wilcannia, Ceduna and Kunanurra fall under the control of radical indigenous cells. In the town of Mt Isa nerve gas is unleashed on non-indigenous population in response to armed civilian opposition to a KAT assault on the town

Drug Crime Syndicates Sponsored Offshore

June 1999

Conference on heroin production and trafficking held in Myanmar boycotted because of human rights issues by all but Australia and New Zealand. Myanmar government agrees in co-operation with the two target countries to assist in interdiction of heroin production and trafficking.

October 2000

The first free elections are held in Myanmar in over fifty years. Elected government announces the opening up of Myanmar borders to allow increased trade with the world.

February 2001

Conglomerate of Thai-based multinational corporations start acquiring properties in northern WA and NT after acquiring estates in newly independent East Timor (notably all properties have airfields). Stated purpose is for high-value tropical hydroponics network.

April 2002

After extended debate Federal Government sponsors 'safe heroin administering havens' in all capitals and a number of regional centres to take heroin usage out of the streets. Cantonese Chinese in China Towns of Brisbane, Sydney and Melbourne take further the initiative in establishing illicit "heroin dens" reminiscent of opium dens of the 19th century.

September 2002

Japan, Malaysia and Korea lead Asian recovery and open a free trade zone to allow easy access to cheap labour Markets in Indonesia, the Philippines and Myanmar.

August 2003

Reserve Bank of Australia announces GDP for 2002/2003 financial year is in sharp Decline from 4.2% for 1999/2000 record growth to present exponential Decline into negative growth.

June 2004

Property Markets in Australia slump leaving vast numbers of property owners with negative equity. As emergency sell-offs follow values continue in a downward spiral and a patchwork of urban Decay develops in larger cities. Gangs of youths displaced from broken family homes acquire inexpensive properties collectively and fortify them against rival gangs.

December 2004

Government concern is expressed at the rising use of opiate drugs, principally heroin and designer drugs, by increasing populations of displaced youths. Cantonese drug trafficking syndicates are taking advantage of the rising Market but recently additional supply is arriving from Thai/Myanmar sources. Massive oversupply of opiates cause prices to drop dramatically with large quantity purchases (and hoarding) becomes common. Some murderous clashes occur between rival Cantonese and Thai-based suppliers in urban centres.

July 2005

Covert battles in Brisbane, Sydney, and Melbourne effectively shut down large components of the Cantonese drug supply network. Curtailment of supply results in sharp price rises of opiate-based drugs. Domestic crime skyrockets as gangs raze their urban environments to fund ongoing drug use. Large areas of cities and regional centres become unsafe at any time of day as gangs target the innocent for thefts and muggings. Rival gangs engage in territorial skirmishes.

February 2006

Thai intelligence sources expose the major supply route from jungle bases around its border with Myanmar, staging through light aircraft bases in Borneo, East

Timor and Northern Australia under the fronts of multinational corporate structures. The Australian Government gives a firm resolve to interdict the supply route and forms an agreement with Thai and Myanmar governments to defeat drug syndicates at their source.

Eco-Cyber Terrorists

January 2001

The world survives the much heralded "Year 2000 Bug" (Y2K) with minor disruption of services and industry in non-government and non-fiscal areas. Small and medium capital intensive businesses are the most disrupted forcing many to rebuild and restructure. Mining companies are typically affected the most severely. Just as in the 1980's "Young Urban Professionals" (YUPpies) of the financial world principally came to the fore; a new breed of technologically trained professionals, made wealthy by a boom in demand for their services emerge. In Asia economic recovery favours the educated and the gulf between rich and poor widens. An undercurrent of popular dissent remains fermenting.

June 2003

Non-government Environment Summit held in Darwin attracts widespread interest from young educated people of Asian and western nations. Discussions focus on industrial pollution, nuclear waste proliferation, agricultural practices and pollution of waterways and food chains, forest clearing and atmosphere quality and developed nation environment attitudes and global warming. A firm but ambiguous resolve is reached to lobby governments and industrial leaders to adopt globally sustainable practices for "A New World for the New Millennium". A sophisticated campaign to market these ideas is launched across the internet. As technological professionals add their weight into a progressively fashionable movement marketing becomes intrusive, hacking into web sites of industries and

government departments considered to be endorsing environmentally unfriendly practices.

September 2004

The campaign metamorphoses subtly into one of Information Technology propaganda as information web sites and data files are corrupted by 'Ecology Technos' (ETs).

November 2004

Economic indicators, having wavered after a boom in year 2000, now have definitely started to slide as small and middle sized businesses that failed to restructure efficiently after Y2K disruption begin to fold and the multiplier effect of lost employment impacts on the rest of the economy. The media spotlight is focussed on the roles of Australian and multinational company involvement in mining in Papua New Guinea. Their actions in Borneo and Sumatra, involving forest clearing and burning, have left deep scars on the landscape and rendered the land unusable for many Decades.

February 2005

Secondary effects are that attention has also been brought onto mining and forestry activities within Australia. Environmental groups rumble with outrage. Some commentators liken the support for environmental protection now to the fervor of the Vietnam Moratorium movement of the early 1970's. The 'Environmental Technos' take up the call for punitive action.

March 2005

There is a wave of protests outside offices of Mining and Resources Government department offices in Canberra, Forestry departments in State capitals and the offices of Australian and multinational companies thought to be involved in environmentally degrading activities in Sydney and Perth. The moral righteousness of the movement inspires and attracts growing support from

students and the increasing numbers of the young jobless. Over a three week period protests become more intense until the firebombing of a corporate office block in Sydney and the mass invasion of offices in Perth lead to a State and Federal police crackdown.

April 2005

Riot police are used to break up subsequent attempts at staging environmentalist demonstrations.

June 2005

Attention is turned to sites of environmental degradation; a campaign of domestic sabotage on mining and forestry plant and equipment in remote areas and fertiliser factories and chemical plants in industrial areas begins. Increased security and police presence at target sites identified by HUMINT informants largely counters this trend.

August 2005

In smaller regional coastal centres heavily reliant on forestry and in towns in WA, QLD and NSW workers and community members protest at the threat to their livelihoods made by the environmentalists, claiming them as predominantly city dwellers ignorant of the necessities of their endeavours.

March 2006

Within the environmentalist movement there arises major dissent. One faction is appalled at the use of escalatory activities such as sabotage and bombing, with genuine concern for human casualties and property damage, reverting to individual affiliations such as to the respected institution of Greenpeace. An alternate faction is headed by 'Technos', gradually having accumulated the power of wealth as a group they now see the opportunity to bring the less educated and pro-action elements under their control as 'environmental soldiers'. As a splinter group they identify a new modus operandi of harnessing their technological edge

to counter activities they identify as environmentally damaging by Decisive means.

11 April 2006

Employing a media campaign that exploits information technology the new group attracts these 'environmental soldiers' in the hundreds. With a headquarter quorum of an estimated 28 technos they pool some of their considerable wealth and begin acquiring logistics support including small merchant vessels; aircraft; including helicopters and all terrain vehicles. An arsenal of arms and munitions from international dealers is also built up and concealed.

16 April 2006

After drought affects most of Queensland, New South Wales, Victoria and South Australia through an El Nino summer large numbers of waterways begin choking with blue-green algae. The resultant ecological impact on fish and waterfowl and the necessity to import potable water to inland regional centres attracts wide media coverage. The heavy use of phosphate based fertiliser is implicated and the effects of phosphate leaching into waterways is highlighted by environmentalists groups. Technos mount a campaign challenging the credibility of environmental protection agencies.

28 April 2006

Superphosphate manufacturers around Australia and CSIRO soil analysis laboratories simultaneously find their data files and processing computer programs have been corrupted with viruses introduced by hackers. Environmental technos claim responsibility, boasting that they have the capability to disrupt any environmentally damaging industry by accessing computer networks by satellite up-links from their Maritime fleet. Public reactions are mixed from resounding support to protest from graziers and farmers to demonstrations by process workers laid off while fertiliser plants are forced to shut down temporarily. A report is published detailing how Jabiluka yellowcake, after processing, has found its way

to supplying plutonium-generating nuclear power plants in Pakistan with the product then on-sold to Arabic countries and used in a nuclear armaments program. Renewed protests erupt from environmentalists in Darwin as yellow cake is trucked into port for shipping.

A surprise raid on phosphate mines on Christmas Island by armed 'environmental soldiers' results in several casualties and destruction of the mining plant. Subsequent investigations reveal the mines were subjected to an assault planned in detail and executed by ship-based helicopter insertions. Three days later underwater explosions sink a merchant vessel in the Arafura Sea transporting Jabiluka yellow cake from Ranger mines. The Australian Government announces its resolve to bring the environmental terrorist movement to justice.

White Supremacy Movement

February 2000

The new millennia gives rise to unusual beliefs and cults; characteristically based on prophecies with a biblical bias.

August 2000

As all short-term (millennium changeover) prophecies fail to eventuate most of the zeal dissipates. Some cult members disassociate from the failures then gravitate to surviving millennia cults. One cult attracting a growing following within Australia, and with affiliations overseas in Europe, Canada, New Zealand and USA is the Phineous Priesthood. Based on the Book of Revelations the belief is that they are 'Soldiers of Christ' called up 'at this chosen time of Armageddon'. In Australia a charismatic, if not Rasputian leader, 'Seth Avatar' advises that the new millennia commences in September of 2010; based on the Phineous theological interpretation exactly 2000 years since Christ's crucifixion. Avatar adheres to interpretations of biblical passages, particularly in attaching spiritual

dimension to the stated mission of the Phineous Priesthood: "To make ready the world for Armageddon by preparing for purging of the mud people and the unworthy".

Declining economic stability domestically combined with rising unemployment and wholesale failure of other cultist ideologies creates an increasingly rich harvest for recruitment of new members. International convention in Austria of 'Aryan Nations' includes the Phineous Priesthood as part of the synonymous 'Christian Identity' movement.

March 2003

Consensus is drawn of an impending Armageddon that "we have gone to sleep since WWII but this is going to be the awakening"; and that a new order of humanity will be the final result. To achieve this necessitates atonement of our 'Brothers of Other Followings', (presumably the Muslims, Hindus, Buddhists and Taoists;) the subjugation of those identified as 'God's Failures' and the 'Mud People' (identified as the coloured races and Jews.)

February 2004

Attention is brought on a base camp at Mt Tambourine, Queensland after police trace a gang of skinheads suspected of involvement in a street brawl resulting in the deaths of four aboriginals in Brisbane. The police contingent of eight officers are ambushed as they approach, withdrawing with three casualties and reporting close to one hundred armed defenders occupying the Mt Tambourine fortified base. A siege by tactical response police teams ensues reminiscent of that of Waco, Texas. After 10 days a police assault results in a mass suicide apparently prepared as a contingency by Seth Avatar and including tens of women and children as well as the mass of defenders. The event is the subject of intense media scrutiny.

July 2004

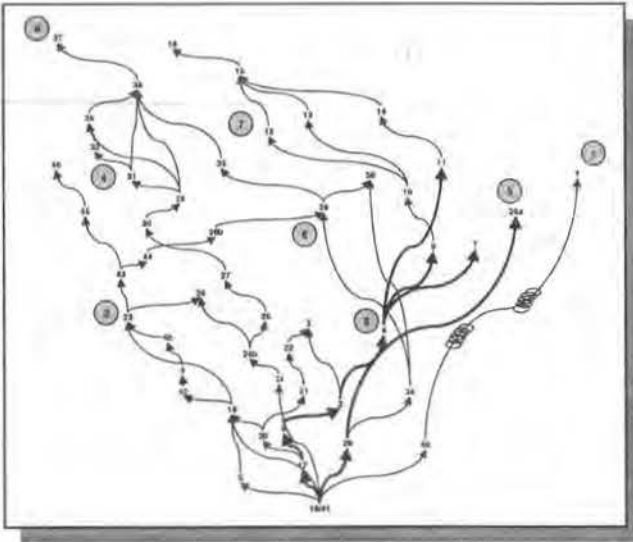
The Phineous Priesthood is shown to have a larger than ever membership following claims for responsibility for the bombing of gay bars in Melbourne and Sydney, desecration of synagogues in several cities and the execution style murders of small groups of aboriginal men in regional towns and city centres. Similar events unfold in other western countries concurrently. International law enforcers target and follow known members of white supremacists movements affiliated with the Phineous Priesthood. Frequent entries to Australia through Cairns Airport are noted and visits to an apparent Phineous stronghold in the Atherton Tablelands are confirmed.

February 2005

A charter bus explodes in a crowded school playground in suburban Perth. 46 children are killed and 82 injured in a horror reminiscent of Omagh, Ireland in 1998. Later the Phineous Priesthood admits a mistake was made. The bus had been chartered for a Jewish school but a driver's absenteeism led to a last minute rescheduling. Public opinion is one of outrage with angry demands for decisive retribution. International media focuses on the global network of white supremacy movements. The Australian government declares the Phineous Priesthood outlawed and promises military action. With memories of the police failures at Mt Tambourine overseas media reports view Australia as a nation at flash point with political credibility at stake.

Argy Bharji

South East Asian Anarchy



January 2000

Indonesia withdraws from East Timor, Australian troops deployed as peacekeepers in resultant power vacuum. Social infrastructure becomes very fragile.

February-November 2000

Clashes between combined PNG/Indonesian patrols and anti-separatists guerillas in West Irian/PNG borderlands, both coastal and highlands.

December 2000

South East Asia monsoons fail, region is thrown into drought. Crop failures fuel dissent actions in some areas. Indonesia withdraws from West Irian. PNG calls on Australia for assistance in quelling violent dissents, in response to an absence of Indonesian rule between indigenous and Melanesian groups.

June 2002

Commitment to Bougainville continues. Serious rioting in Jakarta spreading to Surabaya and Bandung as protests at the Indonesian government's failure to address the dire economic situation deteriorate into venting of frustrations by large sections of the population.

January 2004

After nearly two weeks of violence spreading into other provinces of Indonesia the government steps down, declaring martial law. New elections are announced for April the following year.

June 2004

A Kuala Lumpur government corruption scandal precipitates widespread demonstrations in Malaysia eventuating in partial suppression by riot police in the capital but necessitating full military action in other areas.

November 2004

Indonesian elections result in a questionable overwhelming majority for the head of military forces as president. Singapore raises in the UN forum the issue of a growing refugee problem as both Indonesians and Malaysians flee to Singapore.

March 2005

Recurrence of civil unrest in Kuala Lumpur as government orders a crackdown on dissidents. The Malaysian Army is used to assist civil authorities. Thailand expresses concern at a potential meltdown to civil war on its border as internal rifts emerge within the Malaysian military.

December 2006

Thailand sends troops across its southern border into Malaysia to create a buffer against unrest and refugee influx. Singapore likewise responds by sending troops into the Malay peninsula and into Sumatra in an attempt to interdict the growing refugee problem.

March 2008

Australian humanitarian effort is expanded in Indonesia as it still faces widespread famine and starvation. Humanitarian workers request the assistance of Australian military escorts as it becomes apparent that large armed mobs are beyond the control of the Indonesian military in the more remote areas where aid distribution networks are stretched.

June 2008

China announces serious concern at what it views as a scramble for territories brought on by power vacuums as successive governments fail in SE Asia. Included in the rhetoric is reference to 'Australian New Imperialism'. Vietnam enters the situation by publicly backing Chinese initiatives for naval exercises in the South China Sea. Others view this as a treacherous and shallow means to secure continued aid following successive poor crop yields. Thailand and the Philippines call for support from Australia and Japan in deterring the exercising of Chinese military forces in SE Asia. Peaceful protests are held in Australian capitals against embroiling Australian Military Forces any further in what to be an (inevitable) escalating conflict in SE Asia.

Multinational Piracy

June 2003

Indonesia experiences further internal turmoil after the 1999 elections. Modest economic recovery has been made by attracting some multinational corporations through offers of a 'tax haven' status.

October 2004

A world market downturn in metal prices with declining demand following recession of steel, aluminum and alloy manufacturing nations jars Australia's

economy. Rationalisation follows in Australian mining industry with fragmentation and takeovers leading to consolidation of the domestic ore mining industry being restricted to several conglomerates only. One notable multinational group, 'The Firm', also buys interests in SE Indonesia, attracted by tax concessions and cheap labor as well as accessibility to shipping. Security concerns lead to raising of corporate paramilitary forces of both maritime and land forces ostensibly to protect their commercial interests. Most recruitment comes from former Indonesian militia disenchanted by poor pay and conditions from their own government

March 2005

Indonesia relaxes its control over Moluccas and Lombok-Makassar Straits in favour of tacit contracts to commercial paramilitary forces to escort their mining product north. There are widespread rebel threats of Maritime piracy made from pro-integrationist groups on Timor as well as separatists of the Ceram and Lesser Sunda Islands.

May 2005

'The Firm' declares key shipping channels as their 'Zones of Economic Control'. In order to offset costs of providing security they impose 'Safe Transit Fees'. Shipping through these waters are imposed a variable scale of fees on the spot. In the UN this raises loud international protests and is regarded as protection reminiscent of the Chicago gangster era.

June 2005

'The Firm' procures a small fleet of destroyers apparently purchased through brokers after Decommissioning from the Russian Navy. The stated use is for safe escort of commercial shipping, however, they are instrumental in imposing a board and search procedure on shipping from rival multinational conglomerates carrying Australian escorts. At the end of the month small arms exchanges on

boarded ships are reported before the impounding of three ships transporting ores from Australia to Korea and Japan.

July 2005

Australian government diplomatic approaches to Indonesia to resolve this interruption to domestic exports are met with polite apologies but an expression of an inability to intervene. While UN argument continues over legality of 'The Firm's' actions, supported by a collection of countries benefiting significantly from revenue raised from 'The Firms' activities, no sanction is forthcoming for Australian naval action. Domestically opinions favour action.

China Sea Scramble

June 2003

Definition of national economies in the new millennia is becoming increasingly blurred as large multinational conglomerates acquire corporations and resources throughout the Region. Depreciation in Asian corporate empires through the economic crisis of the late 20th century has facilitated the process.

March 2005

Environmental concerns regarding the fire-clearing of jungles, ocean outfalls of industrial effluent, over-fishing and land degradation leads to ASEAN Nations agreeing to a joint program for the preservation of the region's resources for the future.

August 2005

After many years of lobbying, Australia is finally invited to join ASEAN. Cheap production costs lure multinational conglomerates to establish heavy industry interests in Southern Vietnam, Malaysia, the Philippines and Taiwan, including petrochemical industries such as plastics and oil refineries.

February 2006

Multinational sponsored exploration of the Northern Australian Basin begins in agreement with Indonesian interests.

August 2007

Failure to produce adequate oil reserves from the Northern Australian Basin coupled with OPEC upward pressures on oil prices leads commercial interests to look to the South China Sea. Japan, Taiwan, the Philippines, Vietnam and Malaysia reach a consensus to exploit Spratley and in principle, the Paracel Islands for their oil potential.

January 2008

Corporate occupation of Spratley Islands begins. China voices its objections and moves a maritime taskforce to claim the Paracel Islands. A naval encounter with Vietnamese naval forces south of Hai Nan secures a Chinese victory and firms their posture in the South China Sea.

February 2008

Naval approaches to the Philippines 300 nautical miles from the coast of Manila is headed off by a strong presentation of naval and air force by the Philippines. Singaporean, Malaysian and Vietnamese military forces are mobilised, Japan supports a US carrier group movement into the Taiwan Strait. ASEAN calls on its allies, including Australia for naval and specialist support in confirming their international rights for exploitation of the South China Sea.

Antarctic Challenge

November 2004

After a three and a half year period of conflict involving tribal rebellions in the Congo and Angolan areas of southern Africa peace is restored by cooperative military counter insurgency between South African, Zimbabwe, Tanzanian, Mozambique, Ugandan and Kenyan military coalition. To all participants it is evident that stability in their region will depend on mature governments cooperating.

January 2005

OPEC raises oil prices by 18% by restricting supply, precipitated by diminishing yields from existing oil wells and mostly poor results from new exploratory drillings. India, with an accelerating domestic industrial development, steps up its exploratory ventures around its own continental shelf and further south into the Indian Ocean in a joint venture with Indonesia.

May 2005

The African Union, loosely modelled on the success of the European Union, is formed. Immediately Mozambique raises concern about increasing Indian naval presence off its coastal waters and around those of Madagascar. Common defence and developing domestic industrial base toward maturing economies are the first stated aims of the African Union.

June 2006

Inflationary effects of increased oil prices adversely affect the European, Canadian and United States economies. Renewed exploration in the North and Irish Seas and within the Scandinavian Arctic Circle for oil is not promising. Britain and European partnerships venture into the South Atlantic, staged out of the Falkland Islands, for new oil fields. The United States explores southwards into the Pacific and Southern Oceans likewise in searches.

January 2008

Australian Antarctic overflights locate an unidentified expedition with heavy tracked vehicles in western Australian Antarctic Territory. An investigative team is despatched by helicopter from Mawson Antarctic Base. After landing nearby, the team discovers that the expedition belongs to a South African group exploring for oil fields to supply to the developing African Union nations.

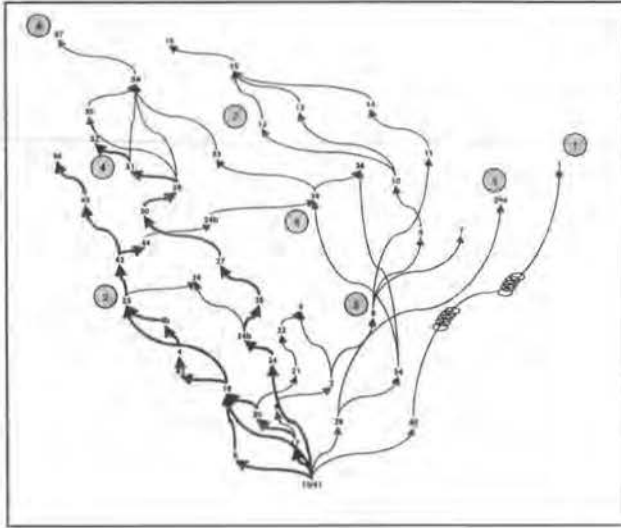
February 2008

Reports of the African intrusion into Australian Antarctic Territory results in Australian diplomatic protests reinforced by the remainder of the Southern Hemisphere international community, particularly New Zealand. Protests levelled at the African Union are stone-walled, with representatives of the member nations insisting that the African expedition are of a multinational oil company, without knowledge or consent from The African Union member nations.

Australia's Mawson Base sends a representative lobby group to the African Union's Antarctic Expeditionary base camp, now stationary and drilling for core samples. The Australian contingent orders the Africans to cease drilling and make arrangements for their departure from Australian Antarctic territory. After several days of non-compliance the Australians become increasingly agitated by the apparent arrogance of the drilling team and sustained non-compliance with conveyed Australian government demands to cease their explorations and withdraw from Australian Antarctic Territory immediately before the winter seals them in. A heated argument ensues and the March 2008 Africans produce small arms sub-machineguns. A young African worker, in an attempt to fire shots over the heads of the Australians, fails to control his weapon and unintentionally kills one Australian delegate and wounds another. Australia resolves under popular public consensus, to issue a final ultimatum for withdrawal. African oil drilling activities continue in Antarctica. The Australian Government orders a military land force strike on the African Party

Cast Adrift

Transmigration



July 2000

Economic crisis in Asia concertinas into developing regional countries in a 'second wave' as long-term impact of defaults by creditors and the collapse of infrastructure generating industries is fully felt. Where possible governments try to attempt public led recoveries by trying to bolster infrastructure projects and by increased defence related industry spending.

February 2004

Drought brings about widespread failure in the rice crops across the Indian sub-continent, southern China and SE Asia. Japan is moderately affected by failure of monsoonal rains. Regional trade slumps further as trade barriers are raised and Australian agricultural and mineral exports consequently decline. Australia is inexorably drawn into the regional recession. European and American economies are successfully insulated by measures implemented against the earlier Asian economic crisis of 1997.

August 2005

Asia has slid into an economic and social abyss and Australia, now reliant on regional trade, follows the downward spiral. As Australian unemployment rises above 18%, social unrest is marked by escalating crime and violence. Negative returns on rural endeavour bring record farm foreclosures and much productive land lies fallow while nearby Asia face famine.

March 2006

Asian waterways are becoming animated, as people faced with starvation following the fourth year of famine become desperate to find a better existence by emigration. India announces a plan to lead the world in merchant marine industry by government sponsored radical enlargement of the ship building industry. In an effort to tap into the wealthier economies of the rest of the world India begins marketing mass maritime transport. New shipyards are commenced in Madras and Bombay.

August 2006

Sri Lanka falls under Indian caretaker government after escalated civil conflict renders the previous government incapable of managing its internal affairs. SE Asia, Japan, Australia and New Zealand remain in economic doldrums as the inertia to restart their economies fails with loss of faith from the thriving economies of the rest of the world. French and British peacekeeping forces are deployed into Fiji following a failed military coup after a pro-Indian government is seated in power. Indian migration into SE Asia is markedly increased with maritime fares slashed as new ships begin to come onto line.

October 2006-November 2007

Deserted farms and paddy fields attract masses of Indian peasants. Dislocated Malays, Melanesians and Indonesians continue to relocate from their home countries, now often on Indian passenger ships, in a general south east direction in search of a better life.

January 2008

Unmanageable waves of illegal immigrants begin to arrive at Port Headland, Broome, Derby, Wyndham and Darwin. In the first six months of the year an estimated two and a half million illegal immigrants arrive in Australia's northwest. Indian maritime is operating apparently with the tacit consent of its government. Australia's protests are lost in the mass trend of transmigration being experienced by all SE Asian countries. The UN, inundated with grievances from affected countries, fails to develop a plan of action.

Consolidated Forces of Islam

January 2001

Saddam Hussein dies of a coronary heart attack. A brief struggle takes place to establish the Minister for Internal Affairs as his successor over Saddam Hussein's nephew. Saddam Hussein's relatives quickly escape into self-imposed exile.

Religious motivated violence repeatedly flares in regions of Indonesia; Local dissent takes on a religious fervour and spreads collaterally into Borneo, Sulawesi and eastern Malaysia. Dissent in Myanmar begins to flare as Muslim sections of the population hear of a renewal of their faith in other nations and try to assert their own religious freedoms.

March 2003

A summit of Arabic nations held in Cairo forms a new and deep alliance, made possible by the rise of a new generation of national leaders. Its aim is to bind the member nations under a common constitution. The alliance is initially comprised of ten nations: Egypt, Libya, Syria, Jordan, Saudi Arabia, Yemen, Oman, Kuwait, Iraq and Iran bond under a common zeal to promote the Muslim faith to world power status politically in order to spread the message of Allah as the dominant world faith.

February 2005

After several conferences the new constitution has been drafted and ratified between the member states, which have now increased to 15, including Algiers, Afghanistan, Turkmenistan, Pakistan and Bangladesh. The Nations of Allah have agreed to be governed overall by representation in a congress located in Mecca. The world is astonished at the rapidity and magnitude of this consolidation. The new national leaders have their people largely excited in playing an historic part in the promulgation of their faith. Based on peace by consensus, old conflicts have apparently been put aside.

The first sitting of the Congress of the Nations of Allah takes place in Mecca with religious leaders appointed from each member nation. The message to all the faithful is to spread the word of Mohamed further around the globe. In Malaysia, Myanmar, Indonesia and other countries with a critical mass of Muslims these direction is transmuted to become known as 'The Crusade of Jihad'. Whilst the formation of the 'Nations of Allah' has brought stability and peace to the Middle East the opposite effect is taking place in SE Asia. Australia is, in a lesser way, embroiled in religious motivated violence as youth gangs from some Arabic countries interpret the movement to be a calling to inflict retribution on other ethnic groups such as the Turkish and Indian ethnic communities and the Jewish faith.

December 2005

Religious fervour has continued to increase intensity of conflict between Christians and Muslims in Indonesia, Muslims and Hindus in Myanmar and Muslims, Buddhists and Taoists in Malaysia and the Philippines. It is as if the former conflicts of the Middle East have simply been transferred to the Far East.

February 2006

An undeclared state of civil war has developed in Indonesia and parts of Malaysia and the Philippines. Religious terrorism by way of bombings and armed clashes

occur in urban Australia. Christian groups in Indonesia, with little or no government control over the violence, call on friendly nations to help pacify their regions.

Climactic Chaos in Oceania

March 2005

After a three-year stunted recovery SE Asia is again left behind by the western economies. This time around Australia, with its trade and financial ties further developed with its neighbours, is not so insulated from the Asian economic decline.

May 2005

A United Nations environmental report reveals that ocean temperatures have risen by almost two degrees Celsius over the last 100 years. Ocean levels are unmistakably rising by over one metre in this period. Polar ice caps are diminishing in size and icebergs in the Arctic and Southern Oceans are a more frequent occurrence as they detach and begin drifting. Whale migration patterns are changing as available ocean nutrients diminish. Penguin and sea lion populations are also being affected as repercussions are felt through the food chains.

September 2005

Record neap tides begin to be experienced with flooding of sea front settlements and towns becoming commonplace globally. Tropical monsoons and hurricanes in the mid-Pacific and Atlantic oceans have caused much damage during the Northern Hemisphere seasons.

March 2006

Emergency aid and rescue programs have been mobilised in the Caribbean and northern Pacific islands.

Extremely violent cyclones ravage the south Pacific. Indonesia, Papua New Guinea and Northern Australia each declare emergencies after receiving a battering from devastating storms. Evacuation of numerous coastal towns creates a policing problem in the affected countries, both from refugees and from looting within deserted settlements.

April 2006

The direst emergencies of the season occur through the south Pacific Islands as smaller atolls are all but submerged and islands are flooded. The emergency takes on an international dimension as the small nations of Solomon Islands, Fiji, Tonga, Tuvalu and French Polynesia call for assistance in evacuating many of their islands. An international response first from the nearest developed and able countries rescues thousands of displaced islanders. French, Malaysian, Singaporean, Australian, New Zealand, French and British naval and air assets are the first to assist. Japan offers assistance once it has attended to lesser emergencies closer to it in the Marinas and Marshall Islands in cooperation with the United States.

May 2007

India surprises the international effort by arriving six days after the emergency effort commences with a relatively large naval fleet, first at the Solomon Islands and then at Fiji and Tonga.

June 2007

Tongan and Fijian governments are dismayed at the numbers of Indian Marines left in their countries ostensibly as assistance to civil security and as

reconstruction parties. Indian fleet command procrastinates in replying to Fiji's query as to when the Indian military will withdraw. Fiji loses its patience when an ultimatum for commencement of withdrawal by Indian troops is ignored and it becomes evident that presence is subtly being built up in the Solomon Islands, Fiji, Tonga and Tuvalu Islands. Fiji speaks collectively for its neighbours and asks for Australian, British and New Zealand military presence to help intimidate the Indian forces to withdraw.

Australia the Pariah

November 1999

The right of appeal to immigration courts is abolished in Australia. Suspect visitors have a bond imposed before being allowed entry.

February 2001

Australia, with memories of disclosure of the full scale of atrocities discovered recently in East Timor, leads renewed criticism of abuses of human rights in Indonesia, Myanmar and China. USA tries to soften the strength of attack on its most favoured trading partner but Australia maintains its stance.

August 2001

Australia again comes under international criticism, particularly from European nations, for its refusal to adhere to targets to reduce green house emissions on the grounds that geographical and socio-structural differences for Australia make these targets unattainable without severe compromises to the economy.

November 2001

The USA, having bought emission permits from less developed South American countries, joins in the condemnation of Australian intransigence on the issue.

March 2002

Australia, with a change of government, reduces immigration quotas significantly as unemployment rises. Renewed religious motivated violence and moves for autonomy in Indonesian islands and Timor escalate.

July 2002

Internal conflict in Indonesia and East Timor results in increased migration into northern Australia. A Red Cross report slams living conditions in internment camps in northern Australia. Legal rights of internees under Australian law are branded as unacceptable.

October 2002

Australia implores neighbouring countries to impose restraints on their emigration.

December 2002

Unable to create additional detention holding facilities for illegal immigrants and pressured by international condemnation of treatment of detainees, capped by domestic outcries to curb immigration; Australia tasks the navy to drive ships arriving with illegal immigrants back out to sea. Whilst an Australian Navy destroyer is attempting to tow a merchant freighter overcrowded with Melanesians intent on illegal immigration a disaster predictably occurs.

January 2003

The merchant freighter lists and sinks in heavy swells in the Timor Sea. Melanesian casualties are in the hundreds. Global censure follows. USA and European media vilifies Australian hypocrisy over human rights and Australian policies.

February 2003

In East Timor pro-integrationists Timorese Popular Democratic Association (Apodeti) seize the opportunity to denounce Australia's part in participation in peacekeeping duties there.

March 2003

A campaign by pro-integrationists to escalate violence in East Timor targets Australian military bases in East Timor. Other Indonesian islands follow suit, particularly in Ambon. Protests arise from ethnic groups within Australia, particularly Asians in inner cities, over immigration restrictions. Many examples of the government refusing family unification by disallowing immigration of extended family relatives are brought to the attention of the international media now focussed on the issue.

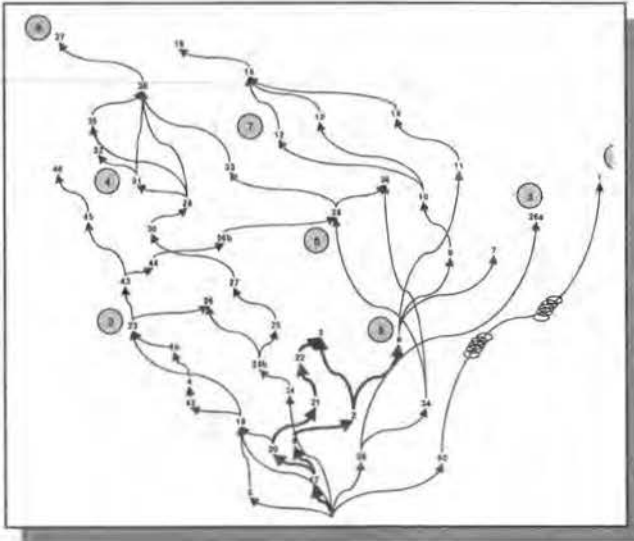
Counter protests by Australians feeling estranged by large areas of the urban landscape being dominated by imported cultures and resentful of the poor economic situation support the government actions on immigration. To counter the escalation of violence perpetrated by pro-integrationists in East Timor an increased counter-insurgency style operation is stepped up by large Australian Army fighting patrols.

In the hills near Manatutu an Australian Army company stumbles on to large Apodeti militia base. After a brief but bitter battle 67 Australian soldiers, mostly wounded, are taken prisoner.

Apodeti forces announce demands for disarmament of independence fighters and withdrawal of Australians from East Timor. After a week of failed dialogue between Australians and Apodeti military leaders the Apodeti threaten to begin executing the prisoners, referring to them as 'hostages'. In Australia loud outcries convince the government to take decisive action.

Trouble Elsewhere

Middle East Meltdown



October 2001

After surviving the meltdown of neighboring Asian economies Australia succumbs to long term reduction in regional trade and slips into recession.

January 2002

Iraq renews a loose alliance with Egypt, Syria and Jordan as intermediaries in trade after relaxation of the ten-year-old trade sanctions.

March 2002

Israel elects a right-wing hard-line government.

June 2002

A renewed escalation of Kurdish uprisings in eastern Turkey, northern Iraq and Syria induces coalition forces to split focus of enforcement of no-fly zones over both the northern and southern Iraqi border air corridors.

August 2002

A diplomatic dispute escalates between Israel and Palestine, as agreements are reneged upon under new Israeli intransigence. Palestine receives the backing of Syria, Jordan and Egypt. Iraq joins with renewed rhetoric against Israel. Syrian forces clash in limited armoured skirmishes during Israeli military exercises on their mutual borders.

February 2003

Iraq launches a conventional ground offensive to route Kurdish guerrillas in the north. USA fails to convince coalition partners to intervene by launching military air strikes.

September 2003

Israel raises alarm in the UN of renewed WMD in Iraq's arsenals.

After months of frustration in trying to rally support to force Iraq again to relinquish its WMDs, Israel launches its own air offensive against suspected Iraqi stockpiles of chemical/biological weapons. Iraq retaliates with SCUD strikes onto Israeli cities. Syria and October 2003 Jordan mobilise their military forces and sanction passage of Iraqi forces through their countries. Iraq poises on three axes of advance near the Israeli borders. Iraq precedes conventional invasion into Israel with chemical attacks on Jerusalem and Tel Aviv. Two days later Israel replies with limited yield nuclear strikes on Iraqi conventional forces in Syria and Jordan. Iraq succeeds the following night in delivering a high yield nuclear bomb onto Tel Aviv.

December 2003

A five day war with exchange of repeated nuclear strikes as well as deployment of chemical and biological weaponry from Iraq ensues before military commands of both sides, now without government, sue for peace brokered by Coalition forces from their stand off positions for intervention. A dust cloud of fallout

circumnavigates the globe forming an annulus north of the Tropic of Cancer, the bulk of which initially precipitates onto the Indian sub-continent and far east Asia, however some reaches over to Mexico, Cuba and the Caribbean.

February 2004

Outbreaks of a myriad of deadly illnesses in populations and stock in the lower Northern Hemisphere follow. Pakistan, India and Bangladesh are the worst affected although serious epidemics also occur in Southern China, Myanmar, Thailand, Cambodia, Laos and Vietnam. World economic markets are thrown into turmoil with uncertainty of the full implications. Australia's recession is exacerbated. Some Jewish, Palestinian, Kurdish and Arabic terrorist cells continue to fight domestically in Europe.

The World Health Organisation (WHO) unravels several viral and bacterial strains from the NBC Middle East War fallout but are stretching their resources to address the pandemic problems. In affected countries lawlessness and armed banditry is also becoming rife as civil and military personnel are affected with illness alongside the rest of their populations. The UN appeals for special aid teams from all countries able to provide assistance in mass vaccination programs.

Ebola Outbreak

April 2006

Escalation of rebellion in the former Belgian and German Congos results in significant conflict embroiling Ugandan, Kenyan, Tanzanian and Zairian military forces. Ecological crisis arises as Zaire forces employ defoliation by chemical and fire tactics to route rebel Hutus and renegade Tutsis in and around Rwanda. Uganda, Tanzania and Kenya are swamped with refugees; collectively there is a call for international rescue of displaced populations. Uganda additionally alerts

the international community to the dire threats to gorilla and other primate populations forced to move also displaced.

The sight of monkeys scavenging in the refugee camps becomes commonplace. Indian, European and US aid is forthcoming. Expatriate countries, Belgium, France, Germany and the United States offer a sponsored migration program to relieve an otherwise overwhelming refugee problem. International wildlife rescue bids relocate endangered gorillas and other primates to a variety of international zoos and refuges set up specifically to handle the scale of the problem. Displaced peoples are given an option under a quota for emigration to these same sponsor nations.

June 2006

Illness besets refugee camps in Africa and those quarantined in host nations; USA, France, Germany, Belgium and India. Symptoms are variably flu like condition, progressing to febrile delirium or alternately dysentery with violent abdominal cramps progressing to unconsciousness. Morbidity and mortality rise to alarming proportions within eight days. Simultaneously, a world-wide 'Zookeepers Syndrome' is reported through toxicology web sites of similar symptomology.

The World Health Organisation (WHO) subsequently identifies the pathogen as Ebola Virus. Global quarantine measures are immediately effected; however, secondary cases outside refugee concentrations are reported in the next week. Panic arises in areas around reported Ebola spot fires. In Florida a military mobilisation is necessitated to contain fleeing populations. In Europe, similar containment measures are also enforced. In India panicking mobs overcome police lines meant to confine them in villages and areas of outbreak. In a plethora of nations the so called 'Zookeeper Syndrome' results in such a scattered pattern of outbreaks that police with military assistance cannot move fast enough to contain those in contact.

July 2006

Throughout the western world a pin cushion pattern of outbreaks is generated as secondary Ebola cases propagate to tertiary contact patients. In most countries outbreaks are contained but in the near tropics of Florida, Southern India and in central Africa itself the outbreaks threaten anarchy as police and other security agents, hospital staff and medical workers also begin to be affected.

August 2006

Police and military resources can only just manage fragmentation of national administrations. In this month, however, some patients begin to recover, particularly in the temperate areas of Europe, northern United States

United States Stumbles and Falls

August 2008

United States continues to experience internal agitation. Economic disruption partly created by Y2K effects on production and services fuels the disquiet. In Washington D.C. A gathering of blacks as a show of solidarity if not force, is held again, organised by Louis Farrakhan to mark five years since the first uprising. Again over a million people participate. The Muslim intonation set by this leader is identified by right-wing whites as Arabic and therefore deplorable.

September 2008

A counter demonstration of force is played out in Washington D.C. involving right-wing white supremacist groups joined by factions of the National Firearms Association. The burning of effigies before The White House ignites fervour in the melee. A black counter protest at the racially inspired show of hatred brings about a violent clash. Attempts by police and security forces to quell the

hostilities spreads violence further into the city's streets. Destruction of property and looting continues into the night.

October 2008

The President calls out National Guard. Tear gas and baton rounds are used against armed and angry mobs. Small arms fired, there are some injuries and many arrests but the uprising is quelled in the short term. Public regard for the government deteriorates, winter sets in, the poor and disadvantaged feel colder, poorer and increasingly disadvantaged as the Executive claims to be fixing all economic ills for the people. In reality only the working middle and upper classes are benefiting from new government strategies. Class resentment is now added to the still seething racial unrest of a few weeks before. Employment security is at an all time low and fear of losing what security they have sends America's working poor onto the streets to highlight their plight.

December 2008

North America is largely non-unionised and non-militant. Union membership increases and waves of rolling stoppages start to damage essential services such as power, mail, transport and hygiene services.

March 2009

As problems develop and increasing numbers of 'uninvolved' Americans are affected by shortage resentment grows, random violence escalates with shootings, robberies and murders. There are numerous violent demonstrations all across the US, far too many for the National Guard to deal with adequately. Rationalism is at an all time high. At an understaffed military biological warfare installation in the Nevada desert, there is an accident.

The prevailing winds are blowing the wrong way and instead of dissipating harmlessly over the desert, the pathogen spreads westward into populous California, killing hundreds and infecting thousands. In spite of Governmental

denials, the high profile media coverage, rumours about bungled containment programs and the coverage of struggling, overfilled hospitals are too much for the people.

April 2009

Fear explodes across the nation, people panic and try to escape the west coast where all is chaotic, Traffic accidents, riots, murders and looting ensue...racial and class resentments rise again in the panic. The army is called in but is itself fragmented with sick and disaffected soldiers.

August 2009

Internationally among the globally spread US military bases morale plummets for fear of the plight of family and friends at home. Military strength is thinned out as units are recalled to assist in restoring domestic stability.

October 2009

The global finance world is thrown into a spiral as loss of confidence depreciates the \$US dragging linked currencies with it.

December 2009

US Federal Government announces reluctant downscaling of foreign aid. Third world countries look for new friends in the world.

January 2010

US forces in the Balkans are reduced by over 80% as military personnel are recalled. Air bases in Turkey and the Gulf are likewise thinned out. United States carrier groups and submarines are recalled to Hawaii and the Western seaboard leaving an all time low presence in the Indian and Pacific Oceans.

May 2010

Violent clashes in the Balkans again flare between ethnic groups. Iraq and Turkey renew their persecution of their Kurdish populations.

June 2010

NATO and Russian forces are taxed to contain renewed fighting. Renewed fighting in Panama and Nicaragua erupts forcing the remaining US military to withdraw. Australia again seeks membership of ASEAN and is accepted this time as nations realise the increased need to maintain stability in the region with a diminishing US influence.

November 2010

The US calls on its coalition partners to increase their commitments in maintaining global stability. Britain, France, Canada, Australia and New Zealand agree to deploy greater military strength to key areas to help avoid potential chaos as the 'Global Policeman' retires. India volunteers to assist policing the Indian Ocean, Japan seeks to change its Constitution through the Diet to patrol the Marchianas, Marchtial Islands, Micronesia, Sea of Japan and East China Sea to the Taiwan Strait.

ASEAN nations meet to renew a more vigilant strategy of poise in Southeast Asia. Australia and New Zealand reach agreement on new responsibilities for policing the South Pacific Ocean. A surprise amphibious attack on the undermanned Diego Garcia, succeeds in establishing an Iranian presence on the formerly strong US base. Both the US and the UK do not have significant naval assets in the region and call on their traditional allies in the region for immediate assistance to reassert control. The tacit implication is their desire to not see India seize the opportunity to assert control.

Gene Warfare

November 1989

A new disease is documented in the United Kingdom affecting the national cattle herd - Bovine Spongiform Encephalitis. (BSE) - as a viron apparently mutated from that affecting sheep, causing the 'slow virus' disease Scrapie. Attention and research is directed toward this new evidence of nucleic acids able to cross species barriers.

September 1995

'Accidental' release of an experimental calicivirus from a CSIRO research station on Kangaroo Island off the coast South Australia - Haemorrhagic Viral Disease (HVD) - results in the death of 95% of rabbits in that state within six weeks. The model is of extreme concern for epidemiologists; particularly those involved in biological/counter-biological warfare studies, but also those purely concerned with public health worldwide.

November 1997

Anxiety over public health is amplified with the announcement of a suspected link between BSE and Croitszfeldts-Jakobs disease in humans, evident in its onset within the brain's cerebral medulla with delayed symptoms of several years. Epidemiological studies in the United Kingdom are inconclusive, as is the ability to trace the presence of viron nucleic acids.

April 1998

Concern over the use of genetic engineering in monoculture of foods mounts, with fears of long-term integrity of individual human DNA as well as that of uncontrolled propagation of dominance enhanced genomes and their potential to ascend food chains with unpredictable consequences.

August 2001

Pleas by Iraq for a lift of trade sanctions after ten years of hardships imposed after their defeat by coalition forces in The Gulf War are rejected by a UN Council after reports that Iraq's continued research and development in WMD's cannot be ruled out. After a period of halcyonic development, even leading the world in economic growth, Australia begins a period of down turn. Trade August 2003 with Asian neighbours has deteriorated in mineral and manufactured commodities but new agreements on trade in agricultural goods has restored investor confidence, particularly Trans-Pacific trade in agricultural goods. With the economic down turn Australia uses quarantine as an argument for enhanced barriers to agricultural imports.

September 2003

An outbreak in South East Asia of a new disease in rice - Rice Rot Diseases (RRD) - causing husks to deteriorate prematurely results in general crop failure. China and Japan, although mostly self sufficient, have no rice surplus to offer. With the threat of famine alternatives are sought to the rice staple. This includes cereals and processed cereal products. Spoilt rice is silaged and fed to livestock.

October 2003

Cereal crops across Canada, United States, Western Europe and Russia result in a disastrous failure in wheat, sorghum, rye and barley harvests as they ubiquitously succumb to various fungal and viral disease as they approach maturity. Commodity prices for cereals and cereal by-products skyrocket as a result. Australian, New Zealand and South African producers receive enormous incidental benefits. In Canada, Europe and the United States spoilt crops are, where possible, processed and used as stock foods.

February 2004

Northern Hemisphere prevalence of crop failures leads to urgent agricultural science investigations commissioned by various countries around the globe. The only areas not apparently affected in the Northern Hemisphere appear to be northern Africa where a diet of cous-cous, taken from immature wheat husks and semolina from millet continues to be consumed as a staple. Almost simultaneously British, Canadian and German researches discover a common and apparently new genome in wheat varieties collected from around the Northern Hemisphere.

This genetic research, which would have taken over a decade only twenty years before, has been assisted by nucleic acid mapping databases developed and recorded by genetic research laboratories. The new genome, masking several believed responsible for plant resistance to diseases as well as some affecting metabolisable protein contents and thus well mapped from research, has appeared inexplicably in multiple wheat varieties. Within several days an almost identical nucleic acid sequence is demonstrated in other cereal types. The next week the same disease is discovered, although fragmented into several loci, in rice samples from India and Southeast China.

March 2004

Testing of samples from the Southern Hemisphere prove negative except for some cereals from Brazil, Venezuela and Chile. Speculation is that quarantine has been effective in protecting Australia and New Zealand. Explanation is not found for samples from the African countries to be free of the offending genomes, however an additional genome is found prevalent in these African samples subsequently shown to code traits known to dominate those found at the loci of the 'alien' nucleic acid sites.

Catastrophe strikes the livestock industries of the Northern Hemisphere as feedlot animals succumb to a peculiar cerebral storage disease. Typically affected animals rapidly become dumb and stand catatonically with no motivation to move at all being evident. After several days, particularly on being coerced to move, drink or graze, these animals will suddenly fall, sometimes seizure, scream and die. Post-mortem consistently show an increased fluid accumulation, sometimes with blood present, in the white matter of the brain cerebrum around the brain stem. Microscopy and culture do not reveal any bacterial presence and affected animals are seronegative to any known pathogen for such an encephalitis.

May 2004

After a number of months a breakthrough is made by Canadian researchers discovering the presence in the nucleic acids of affected animals of an alien DNA sequence resembling that in Rice Rot Disease and in the offending genome causing maturing cereal crops around the northern hemisphere to fail. Repercussions of combined staple crop failure and evidence of a vicious viron ascending food chains pandemic throughout Asia, Europe and Northern America are of fear and panic.

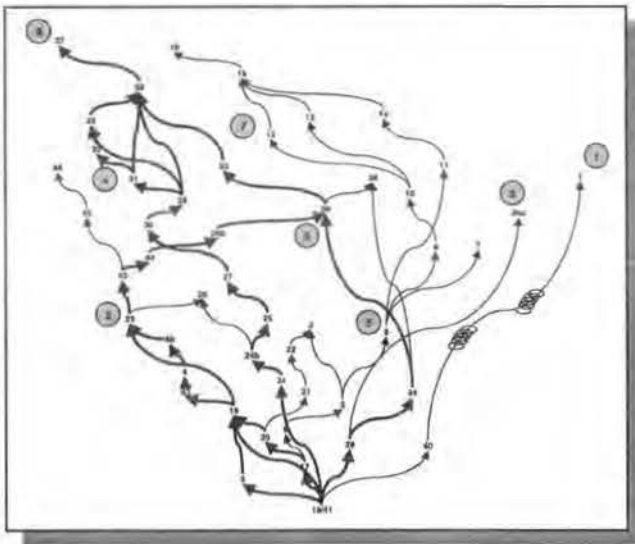
In Auckland an Algerian posing as a representative of an agricultural business is apprehended for suspicion of the authenticity of his passport and identity. Several canisters are discovered in his personal luggage containing vacuum-sealed dust. Forensic examination proceeds as the man's explanations of his identity and purpose for visiting the country continue to arouse suspicion. The canister contents are identified as modified wheat, barley, rye and sorghum pollens with modified genetic content. The altered nucleic acid sequences are flagged as identical to those found in failing Northern Hemisphere cereal crops.

Two weeks later a Tunisian woman is likewise apprehended for possession of several identical canisters in her possession in Rio de Janeiro. Later in the same week a Libyan woman claiming to be reuniting with her immigrant uncle is

detained in Melbourne, several of the offending canisters are found to be in her possession. Specialised interrogation of the detainee two days later discloses that she has been coerced into the task of relaying the canisters on behalf of an organisation she knows to be dispersed across northern Africa calling themselves the Phoenicians. She is aware of the prevailing terror the pollution of the gene pools of the world's staple crops has caused and finally proclaims that "The Phoenicians will continue to bring the world to its knees".

WWIII

There can be Only One - Fight to Become World Power



June 2001

European, US, Australian and other economies can finally no longer ward off the effects of the Asian economic stagnation. A world-wide recession is developing. China and India lead the world in economic growth with their large domestic markets and maturing economies. In Australia unemployment rises alarmingly and the \$A follows the \$US in depreciation.

September 2001

Congo and Uganda, escalate in tribal based rebellion. British, French and German UN forces are sent to intervene.

February 2002

Australia joins ASEAN after recognition of its success in restoring order in East Timor after the Indonesian withdrawal.

March 2002

South African forces advance into Uganda to assist Ugandan army attempts to quash Hutu rebels. Fighting extends into Kenya as rebel forces travel covertly within a refugee exodus from the Congo.

May 2004

The Indonesian government capitulates as it fails to manage widespread civil unrest. A military government replaces the old to try to restore order. Malaysian and Singaporean governments begin to fragment under pressures of opposing factions within their failing economies. Singapore especially finds itself susceptible to world-wide depressed Markets. The European Union is tested as member states dispute the relative effects of varying depressed GDP's on the declining Euro. In Australia a growing trend of armed gang warfare by disenchanted jobless youths follows the example of urban America and stretches police resources.

July 2004

Protests at factory closures are becoming commonplace and increasingly violent. Angola erupts in renewed civil war and combined South African, Ugandan, forces, fresh from conflict in the Congo, move to pacify the warring factions.

February 2005

Indonesia collapses into civil war as rival factions within the military rule grab for territorial holdings.

April 2005

Fighting spreads into Borneo and Sumatra. Sri Lanka suffers a major Tamil guerrilla offensive and India intervenes by occupation. African Summit proposes formation of 'The Free States of Africa', with constitutional unity between nation states within the southern half of the continent, a single currency and a single military service.

January 2006

Concurrence is reached with the new 'rainbow super nation' to be inaugurated.

January 2008

An international summit of world-wide fishing industries reveals a 60% decline in fish stocks over the previous 50 years. This is attributed to over-fishing, effects of changing ocean currents with global warming and most recently a marked decline in piscine fertility attributed to accumulated ocean outfalls of heavy metals and sewerage residues in continental shelves.

May 2006

Europe, USA, Japan, Canada, Australia and New Zealand accuse Russia, India and China for the latter while India and China argue that the September 2007 western world is responsible for global warming. The effect on the small island economies in the Indian and Pacific Oceans combined with severe declines in tourism have pushed them to breaking point. Later in the year India occupies the Maldives 'to assist them in the distribution of aid'.

November 2007

After three and a half years of civil war with failed intervention at the periphery by Malaysia, Singapore and Australia, China sends peacekeepers into Jakarta at the invitation of a Chinese-Indonesian backed military faction.

July 2008

China sends assistance with military escorts to collapsed economies of Micronesia and India responds by sending expeditionary forces into Sumatra. ASEAN forces are put on heightened alert.

September 2008

Arabic countries unite under a renewed Islamic movement. In response to Arabic expansionist rhetoric there is general unrest in Khazakstan, Armenia, Central Independent states and from the Kurds to the north. Russia leads its new NATO allies into Central Independent States and Khazakstan to intervene in border outbreaks of armed skirmishes and to secure its oil fields. Pakistan declares alliance with Islamic Nation. India increases its military presence on its western border with Pakistan. And its naval fleets muster into the northern Indian Ocean and near the mouth of the Arabian Gulf.

January 2009

NATO forces, having suppressed Serbian aggression, cross into Albania to route guerrilla bases mounting retaliation raids on Serbian occupied villages. An Albanian strike on a chemical processing plants near Kosovo releases a toxic cloud killing hundreds of Serbs. NATO is forced to increase their presence as Serbs try to rearm underground militia groups.

February 2009

China simultaneously strikes air and naval bases in northern Vietnam and mounts a seaborne attack on Taiwan. Chinese marine forces seize Paracel islands and the

northern Spratley Islands. US and British carrier fleets move to counter sudden Chinese aggression but cannot manoeuvre to effective range before the surprise invasion of Taiwan by PRC forces is made successful.

As US and allies engage in escalating naval combat in the South China Sea India initiates surprise air and sea attacks on Diego Garcia in an attempt to prepare for amphibious assault. India's aim is to force US forces out of the Indian Ocean and take over as sentinel against Islamic expansion in its direction. The US responds strongly with the single carrier group remaining in the Indian Ocean against Indian fleets but cannot manoeuvre additional carrier groups otherwise committed in the Pacific. After several days with heavy losses US forces withdraw south-east from the Indian Ocean towards Australia.

March 2009

One Australian submarine is lost and another damaged in naval combat with Chinese naval elements in the Malacca Straits as they attempt to clear the route for an ANZAC naval contingent movement to the South China Sea.

May 2009

The Chinese President delivers a speech stating that while Europe expands its influence into Asia Minor, The Islamic Nation looks to expand beyond Egypt into northern Africa. United Free African States annex countries northward through their continent and India grabs at the Indian Ocean and SE Asia, China will assert its rightful claims in Asia to restore world balance of power. Chinese naval forces extend south into the Arafura Sea. Combined US/Australian naval fleets move to halt this south-east advance.

June 2009

Chinese amphibious assaults seize islands in the Timorese and Arafura Seas. The Australian population becomes increasingly restless with regional instability; northern populations begin to migrate to southern states anticipating conflict

within Australia. Police and military resources are taxed controlling the domestic instability. India invades Mauritius by unopposed amphibious landings. Their apparent aim is to secure complete dominance over the Indian Ocean given the mounting strength of the military forces of the new United African Free States in the south and the Islamic Nation in the north.

United Free African States calls for allies in condemnation of Indian expansionist aggression. The Indian navy experiences limited clashes with Islamic States' naval forces in the Arabic Gulf and with PRC naval forces off the western Malay peninsula and Free African States' navy in the south-west and is in a stand off position with US/Australian naval fleets in the south east Indian ocean. China aggressively defends air space over its new acquisitions of Taiwan and the Paracel and Spratley Islands in the South China Sea, the islands annexed in the Arafura Sea and over Java, Sumatra and Borneo in SE Asia.

Millennium Bug (Y2K)

In the two years prior to January 2000, there was a high profile media campaign highlighting the Millennium Bug, an anticipated problem based on computer inability to handle a four-digit date/time configuration. Computers with the original configuration would be unable to process the date 01/01/2000, instead processing 01/01/00, meaning that any computerised date/time inventory system could not distinguish it from the year 1900, therefore any information arising from these systems was liable to be compromised.

As debate about the exact nature of the Millennium Bug heats up, increasing numbers of information technology experts came forward to say that nothing or anything could go wrong, from shops having ordering difficulties through to planes falling out of the sky and missiles exploding in their silos, essentially the entire fabric of society breaking down.

By the end of 1999, many experts were advocating withdrawing enough money from the bank to survive a few weeks, stockpiling food and fresh water, then heading to the hills to wait the thing out, for better or worse. This declaration by so many experts led to a panic rush on banks and stores. Some of the smaller building societies collapsed and food shortages were rife. Chillingly, weapon sales increase with the revival of a survivalist ideology.

June 2001

With the much touted arrival of Year 2000 (Y2K) initial problems are not quite as severe as had been prophesied by the pessimistic. Most basic services had made ready to convert the computer based operational systems and databases. In Asia markets, and banks in some instances, are unprepared and are forced to cease trading for a period of weeks. Financial markets although superficially prepared for Y2K changeover, experience repeated system crashes and temporary market closures as glitches are encountered in the networks.

September 2001

Realisation comes that on a basic level some people and organisations have failed to understand the depth of the problem. Whilst most enterprises and services cross over to the date/time configuration seamlessly it becomes evident that smaller organisations right down to farm or raw material level have been ill prepared. Insidiously problems of supply of component products, spares and disposables and distribution systems mount.

February 2002

In a myriad of small failures progressively building toward major system miscarriages. Hospitals running electronic therapy management systems are generally able to changeover. Most common problems are with accessing records that had not more recently been drawn on. The real problems arise when stocks of medicines and surgical disposables faltered almost a year later as manufacturers

were having difficulty with replenishing their depleting stocks due to the failure in supply of some key raw materials.

May 2003

Essential services experience increasing failures. Power, water, gas and fuel supplies, although initially able to operate intact, subsequently falter as maintenance on facilities fail. Perishable spares become unavailable, as their manufacturers are unable to acquire raw materials to produce them.

July 2004

Insidious sequential erosion of business confidence and social fabric is initiated and fuelled by the frustration of progressive failures in supplies and systems.

December 2004

Protests directed at governments and qangos commonly escalate through violent demonstrations to riots as suppressed frustrations are vented. The Government announces a far-sighted plan to correct the economy by restructuring and investment but fails to secure credibility. Resurgence of 'survivalists' mentality in anticipation of anarchy is seen. Radical movements of diverse ideologies find the recruiting fields bountiful. Some scramble internationally for resources by militant governments to secure a reliable supply of raw materials.

February 2005

South Africa makes a grab for Angola, Russia enters Kazakstan to extend its access to oilfields. Police and military forces in non-aggressor countries are thinly spread attempting to restore stability domestically before being tasked with the control of incursions by aggressor states.

With conventional forces largely committed to containment of domestic aggression and limiting the extent of foreign raider incursions they are unable to mount effective deterrence or counter strikes. Moreover, lawlessness begins to

erode the social fabric of developed nations. In the United States groups of survivalists emerge from wilderness areas to pillage small communities for supplies.

May 2006

In towns and cities throughout Europe, the Americas and developed African States panic buying increases, as demand for food begins to outstrip supply, leaving people without basic necessities. People leave the cities to wait out anticipated trouble, thereby avoiding being near any military installations... in case of a nuclear malfunction or accidental missile strike. They leave behind many empty houses as prime targets for looters and other opportunists.

Largely the global common view is that renewing former socio-economic structures will restore order, either or, particularly for ideologically motivated groups, a new script for humanity will emerge. In the mean-time survival and posturing for the best status for recovery motivates populations.

The Information War

September 2000

Announcement that an estimated 1 billion people are now interconnected on the internet, in the previous three years the greatest growth has surprisingly not been in countries of greatest technological development but in those developing. These principally were Argentina, Iran, Peru, Egypt, China, the Philippines, the Russian Federation, Ukraine, and Slovenia in that order. International investment favours the developing nations with the ability to utilise technological input, some intrinsic resources and infrastructure, yet prepared to maintain inexpensive labour markets.

Regions, rather than nations, are left behind most represented by Asia and Oceania. A gradual change in perception of other regions as being those of opportunity conversely is evolving. Such regions are represented by southern South America, Southern Africa and north-eastern Europe. Asia in general remains stunted as she tries to restructure from the economic collapse of 1998. The relative rate of acquiring internet literacy reflects this. Australia's hectic leap in economic growth of 1998-1999, has apparently peaked and economic indicators show a relaxation of the economy.

February 2003

Commercial release of inexpensive microwave Satellite Uplink Communications (SUC) initially rivals digital microwave communications (hand held phones) but is destined to replace the older technology. This is accelerated by incorporation into numerous appliances of everyday personal use. Of paramount significance is the wireless connection of personal computers of a variety of formats inter-linking them with increasing numbers and increasingly varied and remoted peripheral applications.

The personal computer notebook evolves into a complete personal office, constantly interconnected with the invisible whirring web of world wide microwave communications. Individuals go about daily affairs with initially 'hands free' interconnectivity comprising a minute behind the ear, on the throat speaker and microphone arrays inputting to a pocket or belt mounted SUC personal computer.

Other applications range through car GPS navigational systems becoming standard to industrial applications to the point that componentry is even re-routed during transit to sites where it is best utilised through market fluctuations in commodity or consumption markets.

November 2004

Three results of the hyper revolution in interconnectivity is heavy reliance on satellite relays, concentration of information management power on software developers and a new social unrest in third world countries made newly aware of how disadvantaged they are within a global info-sphere.

March 2005

Need for increased satellite communication capacity is eased by the growing viability of commercial low to medium orbit payload business first pioneered by Virgin Airways with trans-atmospheric transporters, or commercial space shuttles. Other multinational corporations are quick to emulate the new technology.

A multinational Space Control Centre is necessitated to coordinate the boom in space traffic. Microsoft Corporation, after an eight-year wrangle in the US courts, wins a landmark case for using its market dominance to expand its software utilisation to service and control customer access to the internet. As the uptake of communications booms, however, some others, particularly those with a technological niche in hardware configurations, especially in satellite relays, emerge to rival Microsoft.

June 2005

Those with the means to best utilise new technologies pace ahead of those who do not. Third world countries are better off but are more aware of their disadvantaged status. Their resentment is made louder by their new ability with limited technology to make themselves heard. Third World disgruntlement and the vulnerability of the internetted world is first demonstrated by a surprise attack on the city financial exchanges in London by a High Energy Radio Frequency (HERF) burst. This attack erases all electronic transactions of the day's trading and much that has not been down-loaded to remote data banks.

July 2005

The repercussions on world markets are significant. The source is traced to a heavy electronic apparatus installed within a vacant building in the Moregate area identified by Ministry of Defence technical experts as being a powerful, but relatively unsophisticated, multidirectional HERF gun.

August 2005

An, until now, little heard of terrorist group networked across northern Africa, 'The Moorish Fighters', claim responsibility. The motivation is unclear apart from a demonstration of their ability in what is realised to be the first employment of a Weapon of Mass Disruption (WMD). Evidence is published in The New Yorker of the results of a 'black' operation incursion into a clandestine base of 'The Moorish Fighters' that they have received technical assistance and funding from Russia.

Large parts of the internet are rendered dysfunctional by a virus attacking the servers. Whereas a volley of viruses in the previous few years have transferred across internet connections attacking data bases with increasing sophistication and specificity, this new virus is not so discerning. Although apparently seeking out internet address suffixes denoting nationalities, the web of communications does not recognise sovereign borders. At the same time a subtler virus is launched through the net targeting power, water, gas and chemical processing heavy industries in Asia, Northern America, Western Europe, Australia and New Zealand. As a result, in Basel, Switzerland a pharmaceutical plant accidentally releases a massive toxic plume spreading from Europe through South East Asia and into Australia.

In northern England a nuclear power plant disperses radioactive water into the Tyne River. Rapidly the situation worsens as disruption spreads into the control mechanisms of essential service providers forcing key facilities either to shut down or malfunction with disastrous consequences. Power blackouts spread across the globe.

The intentional nature of the attack on global information systems becomes evident as Russia begins systematically to target military and communications satellites with HERF weapons directed from their own satellites in orbit rendering them un-programmed and inoperative. The degree of frailty of the interdependence of the world on computerised interconnectivity is realised in absolute terms as world communication goes off line. Orders cannot reach US military facilities and fleets.

News correspondents, viewing the Red Army rolling into the Ukraine and the Central Independent States of Georgia, Azerbaijan, Kazakhstan, Turkmenistan and seizing oilfields in Mongolia are unable to inform the rest of the world. With the world's main powers blinded the opportunity to pursue regional objectives, with coaching from Russian envoys, is pursued. Algerian forces move into Tunisia and against Libya. Zairian forces move to seize resources in northern Angola. Northern Korean Naval Forces engage the Japanese fleet in the Sea of Japan. Regional conflict flares again in Panama, Costa Rica and Nicaragua.

Domestically, as in many crippled countries in Northern America and Western Europe, there are loud cries of protest at the interruption to power, water and gas supplies and the environmental disasters caused by malfunctioning heavy industries. As unconfirmed reports trickle in of the anarchy breaking out in several theatre conflicts, a new resolve of calm and resolve to weather out global mass disruption emerges.

WMDs to Order

2000-2002

Destabilisation after the economic collapse throughout SE Asia in the late 1990's spreads through the region. Singapore, Malaysia, Brunei and the Philippines all

begin to succumb to unrest spurred by the re-emergence of ethnic and religious differences within their borders. In Borneo for example Indonesian, Malaysian and British troops in Brunei are tested to contain resurgence of ancient tribal feuds resulting in a cycle of murderous attacks and general instability.

Similar unrest ferments between minority groups in a patchwork throughout Asia. In Cambodia, Laos and Thailand a new popular leader - Lom Png - emerges gaining support for raising an irregular army intent ultimately on reasserting a 'Cham Empire' through Indochina. In western China revolts by economically disadvantaged peasants are brutally repressed as they are in Tibet with a renewed indigenous push for independence. In Northern Korea students are massacred reminiscent of Tiananmen Square rioting to support reunification with South Korea.

March 2002

Deep concern spreads through the western world as new medical reports are released that the current generation has been short-changed in its health expectations. Fertility in males in developed countries, suspected of being in decline for some time, is confirmed as now being on average less than half that of fifty years previous. Additionally, aging populations are exhibiting an epidemic of a wide assortment of cancers. Exposure to multiple industrial and domestic chemical agents accepted as part of the environment of an industrialised society is signalled out as the principal causative factor.

November 2002

Disaster is added to the recipe for discontent as a terrorist strike rocks the USA. The huge explosion in a toxic waste dump in Utah exploits the media focus on the Salt Lake City Winter Olympics. Long term effects can only be speculated at but fuels the prevailing social climate of health concerns

January 2003

A nuclear generator meltdown in Czechoslovakia results in fallout spreading over Western Europe. Memories of Chernobyl are resurrected. The net effect in the western world is a growing awareness that not only are populations greying as life expectancy increases, but global birth rates are on the decline. One result of the environmental concern is fierce opposition to continuation of heavy industry in developed countries with pressure on large corporations to take such activities offshore.

After four years of successive and worsening current account deficits, largely due to declining mining exports with loss of Asian customers for raw materials, Australian interest rates are rapidly elevated as inexorably the Reserve Bank is forced to relent on monetary policy. Government resorts to resurrecting rhetoric of "the recession we had to have" faced with the inevitability of the situation.

Repercussions of plummeting levels of investment are felt within Australia through the next two years as foreign enterprise seeks opportunities in cheaper labour markets in South East Asia. Just as Australia has enjoyed a relative economic boom since 1998, with economic growth leaving that of its neighbours in the region well behind, the situation is reversed with multinational corporations diverting its interests into the Philippines, Singapore, Malaysia, Vietnam and South Korea. Similarly new enterprise flirts with opportunities in Brazil, Columbia, Chile, Venezuela and Argentina. The net effect in these countries is to widen the gap between the wealthy and the impoverished. Recruitment into irregular armies and militias is subsequently re-invigorated.

In many places multinational corporations, their interests inadequately protected by sovereign defence forces, raise their own security forces. Asian governments, and to a lesser degree some governments in Africa and South America, condone these private armies as they enhance their own forces of suppression on

insurrectionists. This is viewed as essential to maintain investment within their borders from multinational corporations by enforcing a domestic stability.

Meanwhile a global shift of economic activity back to Asia leaves a wake of industry contraction and enterprise closures through Europe and northern America as well as in Australia and New Zealand. Just as in other Western nations currency depreciation a contractions of government spending on infrastructure, defence and social services compounded with multiplier effects bring about serious declines in living standards and bank foreclosures.

February 2004

Expressions of dissatisfaction mount, occasionally with protests such as outside closing factories becoming violent with destruction of commercial property. Disgruntled individuals increasingly identify and join with issue motivated groups, a process greatly enhanced by new freedoms in communication found in the internet. Such groups likewise find alliances and exchanges of ideology with partners that without internet exchange would otherwise seem unlikely.

Australian government announcement to accept a multi-billion dollar nuclear and toxic waste dump into central South Australia is met with outrage from environmental issue motivated groups yet greeted as the cash injection needed to turn the economy around by others.

Within Australia's indigenous community deep rifts occur between groups and their newly acquired wealth from royalties.

June 2004

The recently expanded Jabiluka uranium mine has caused divisions between the large mining and pastoral companies and the traditionalist landowners who deplore the desecration of their spiritually significant lands. These native title landowners are increasing their claims which they are acquiring rights over at an

accelerating rate with land rights claims. As in Asian countries in July 2004 the past few years multinational companies involved expand their security forces.

September 2004

Violent clashes become increasingly frequent between such security forces, the police and defence forces in aid to the civil power with environmentalists and indigenous groups.

December 2004

Populations of nearby communities are divided between concern, sometimes unfounded, for their health with nearby industrial activity and clash, sometimes violently, with those welcoming the positive effects on local economy.

January 2005

Internationally poor economical climate and social unrest gives rise to long suppressed and unresolved conflicts. The Balkans again flares up in fresh violence, Kurds clash repeatedly with Turkish, Syrian and Iraqi troops.

April 2005

Basques receive renewed support for terror campaigning, as do Irish Republicanists and Unionists.

June 2005

Paraguay finally collapses into civil war drawing Argentina, Brazil and Bolivia into shared conflict.

August 2005

Indochina erupts in new fighting led by Lom Png against alternately Thai, Cambodian and Vietnamese troops in hit-and-run strikes.

Central Africa declines into anarchy as incongruence between tribal ethnicity and sovereign borders again draws government troops of Uganda, Kenya and Zaire into combat with Hutu and Tutsi rebels

September 2005

The world is successively shocked when China implodes in civil conflict with regional armies set against each other, principally the south against the north but in a distorted picture as individual provinces declare faltering allegiances.

Globally an outbreak of use of chemical weapons appear being put to use first in China, soon after by Lom Png's forces against Vietnam. Biological weapons are proved to have been used in Rwanda

October-November 2005

Discovery of an attempt to generate nerve agents for use against civilian populations is uncovered in a disused factory in Cheyenne, Wyoming. FBI intelligence summary discloses that the perpetrating issue motivated group purchased the information to attempt chemical weapon manufacture from a multinational mercenary like group.

Israeli Intelligence releases a report that a Palestinian cell within its borders has likewise been apprehended attempting chemical weapon manufacture. An international broker has again supplied some chemical components and connection is confirmed with lethal information sources purchased from a multinational security entity.

A rash of reports of use of mostly chemical, occasionally biological weapons being used in conflicts within China, United States, Central America, Western Europe. Customers for the various weapon recipes or components raw materials are variably guerrilla movements, issue motivated groups and multinational companies seeking draconian measures to secure their aims or own security.

APPENDIX 3 INITIATING LETTER ON THE FIVE KEY CHALLENGES

This correspondence was drafted by me for Commander Special Forces signature and sought to elicit the widest possible views from the organisation. Many responses were startling in their creativity and boldness. As this had never been attempted before it was not surprising that some concerns about the chain of command were raised. It remained, however, a genuine and sincere attempt to secure opinion.

AUSTRALIAN ARMY



HEADQUARTERS SPECIAL OPERATIONS MINUTE

HQSO /98

See Distribution List

DEFINING THE FIVE KEY CHALLENGES

“Increasing attention is being given to clearly defined goals and corporate values, strategic planning, teamwork, ongoing critical self-analysis . . . high performance organisations increasingly perceive that their competitive edge is gained through their people”.

Glenn Review (1995) p.33

1. I am sure you would all agree that the old ways of doing business are becoming less effective. This raises the question of how we are to identify the core issues and implement the appropriate changes. It is my belief that the solutions we seek are within the SF Group and an efficient means must therefore be found to draw out these core issues.

2. If you are a vehicle mechanic at Holsworthy, a storeman at Williamstown or a medic at Swanbourne I want to know what you think.
3. I ask that you consider the following question:

“What do you consider to be the five issues that the SF Group needs to confront in order to propel us into the future?”
4. As you may have guessed, this is not about any particular unit, it is about our *survival* and *growth* as a new organisation operating in a different and rapidly changing world. The issues each of you identify will be combined with others to form a complete, accurate and concise expression of what we need to think about.
5. The involvement and participation of every individual in this process is critical. Start thinking now and fax your response to HQSO as soon as possible (handwritten is fine). The results will be sent back to units as soon as we have a complete list. To allow the project to proceed we must have all responses at HQSO by 27 Mar 98.
6. If you are in Sydney feel free to drop in and discuss the project with the SOJ5/8 group. I look forward to receiving your comments.

P.J. McNAMARA

BRIG
COMD SF

(02) 95359 2476

Mar 98

HQSO
CO SASR
CO 1 Cdo Regt
CO 4 RAR (Cdo)

APPENDIX 4 RESPONSES FROM THE FIVE KEY CHALLENGES QUESTION

The responses presented here were analysed by members of the various workshops. The aim was to poll the organisation for beliefs, expectations and concerns. These were then surfaced as part of an orchestrated campaign to locate consensus with a diverse body of opinion. The information vindicated qualitatively the results of the futures planning (Chapter Three) and the effects-based planning (Chapter Four).

Table 9. Full set of categorised responses.

ID	#	Issues to Confront	Primary Category	P O S T E D					
				P	O	S	T	E	D
1a	1	Create and sustain a belief that change is a source of strategic advantage	Leadership	Y	Y	Y	Y	Y	Y
1b	2	Minimise the 'gun' culture	Leadership	Y	N	N	N	N	N
1c	3	Improve marketing in order that our image as a fully integrated member of the Australian Defence Force is promoted	Marketing	N	Y	N	N	N	N
1d	4	Interweave our systems into the intelligence infrastructure within Australia to achieve seamless connectivity and interaction	Operations	N	Y	Y	N	N	N
1e	5	Establish a wider global footprint in order to remain sensitive to developments and subtleties that occur outside our borders	Operations	N	Y	N	N	N	N
2a	6	Speed up the adoption of new technologies within the Special Forces Group	Management	N	N	N	N	Y	N
2b	7	Streamline antiquated processes	Management	N	Y	N	N	N	Y
2c	8	Management of human resources. Break away from conventional career structures and develop specialists in their fields	Personnel	Y	Y	N	N	N	N
2d	9	Consult widely outside the organisation, we have become too insular	Communication	N	Y	N	N	N	N
2e	10	Keep all those within the organisation informed, rather than alienated	Leadership	Y	Y	N	N	N	N
3a	11	Consolidate Restructuring the Army (RTA) changes: Develop 4 RAR (Commando) Raise the Special Forces Training Centre	Management	N	Y	N	N	N	N
3b	12	Develop deeper clandestine capability	Operations	Y	N	N	Y	N	N
3c	13	Develop technical attack (Information Warfare) capability	Capability	Y	Y	N	Y	Y	Y
3d	14	Ensure strategic lift and battlefield mobility is adequate	Operations	N	N	Y	N	N	N
3e	15	Ensure supporting and integral firepower is adequate	Operations	N	Y	Y	N	N	N
4a	16	Reduce the outwardly insular nature of SASR by increasing liaison with civil and conventional military organisations.	Communication	N	Y	N	N	N	N
4b	17	Shorten the procurement cycle, by removing Land Development from the process, to keep up with technological	Management	N	N	N	N	Y	N

ID	#	Issues to Confront	Primary Category	P O S T E D						
				P	O	S	T	E	D	
		advances.								
4c	18	Increase the awareness of current methods and technologies through the secondment of members to relevant specialist civil organisations and companies.	Personnel	Y	Y	N	Y	N	N	
4d	19	Develop a better covert communications capability through undetectable unendorsed use of current communications means.	Communication	N	N	N	N	Y	N	
4e	20	Develop an awareness of and then a capability for offensive and defensive information warfare techniques.	Capability	N	Y	N	Y	N	N	
5a	21	Development of a corporate plan, including a marketing plan	Leadership	N	Y	N	N	N	N	
5b	22	Development of a long term (or lengthy) Public Relations plan	Marketing	N	Y	N	N	N	N	
5c	23	Development of career progression plans for both officers and non-commissioned officers in the Special Forces Group	Personnel	Y	N	N	N	N	N	
5d	24	Development of a cunning plan to ensure Special Forces officers are infiltrated into key, important and influential positions at all levels throughout both the Army and the Australian Defence Force	Personnel	N	Y	N	N	N	N	
5e	25	Proactive marketing/selling of the Commando capability at all levels - we need to push our requirements/development at Australian Defence Headquarters, Army office, Headquarters Australian Theatre and Land Headquarters. Dictate progress on 'our' terms	Marketing	N	Y	N	N	N	N	
5f	26	Manning of the Special Forces Group - particularly Headquarters Special Operations and 4RAR (Commando)	Personnel	Y	Y	N	N	N	N	
5g	27	Provision of more visibility/communication from the top down - that is Headquarters Special Operations to the units	Communication	N	Y	N	N	N	N	
5h	28	Coordination of and equity of - Special Forces commitments to the COAD/PMSA/AOPs	Management	N	Y	Y	N	N	N	
5i	29	Development/release of a Special Forces Group Development/Doctrine/Equipment plan	Management	Y	Y	Y	Y	Y	Y	
5j	30	Special Forces allowances to include all members of Special Forces (including officers)	Pay	N	Y	N	N	N	N	
6a	31	Due to workload and mental pressure endured by the Special Forces soldier, a course/plan/wind down period should be established to aid the soldier at point of discharge to fit back into society at a higher level than that that is currently provided. I believe if done effectively a network of assistance can be called upon if required by the parent unit's foundation members to aid members with problems in various fields, such as a civilian career. Although this is the practices at this stage, in 10-15 years this could very well be a viable option	Personnel	Y	N	N	N	N	N	
7a	32	If a soldier is cross-trained giving him the ability to diversify his skill, it is my belief that the soldier should be paid for the skills learned. This should surely apply to the Special Forces environment. At this point in time there is N incentive to burn and bust one's body apart from personal pride and goal achievement. Motivation and morale would surely be raised considerably if acknowledgment of one's commitment was evident through one's pay packet	Pay	Y	N	N	N	N	N	
8a	33	Proactive marketing strategy coordinated by Headquarters Special Operations to redress higher level negativity towards	Marketing	N	Y	N	N	N	N	

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		Special Forces							
8b	34	Develop closer alliance with US SOCCOM/JSOC akin to UKSF/USJSOC relationship-through regular Commander Special Forces visits and secure communications facility	Communication	N	Y	N	N	N	N
8c	35	Routinely grasp leading edge technology	Technology	N	Y	N	N	Y	N
8d	36	Maintain the gap in unconventional capability between Australian Special Forces and the increasingly specialised conventional forces	Capability	N	Y	N	N	N	Y
8e	37	Separate Operations from Training in Headquarters Special Operations	Management	N	Y	N	N	N	N
9a	38	The acceptance that Commander Special Forces should come from any Service	Leadership	N	Y	N	N	N	N
9b	39	The change in Special Forces participation in the National Anti-Terrorist Plan from the third strand (reactive counter-terrorism) to the first strand (proactive counter-terrorism)	Operations	N	Y	N	N	N	N
9c	40	The current terrorist threat which now includes narco-terrorism, cyber-terrorism and techno-terrorism in addition to hostage terrorism	Operations	N	Y	N	Y	Y	Y
9d	41	The collocation of the AST information operations JTF comprising SAS and IEW FE at a strategic location	Management	N	Y	N	N	N	N
9e	42	The introduction of capability based management throughout the Special Forces Group	Management	N	Y	N	N	N	N
10a	43	Ensure capabilities are needed (ie fill an existing gap in Australian Defence Force/National capability and operations Government is willing to commit Special Forces to) and that the capabilities are viable/survivable (ie in realistic environments include high-tech threat for strategic Special Operations)	Capability	N	Y	N	N	N	Y
10b	44	Be able to rapidly procure leading edge technology	Technology	N	Y	N	N	Y	N
10c	45	Be able to learn how to use leading edge technology effectively	Personnel	Y	Y	N	Y	N	N
10d	46	Select a variety of personnel with suitable intellectual, physical and personal attributes in order to maintain a pool from which the best team can be created for a diverse range of Special Operations	Selection	Y	N	N	N	N	N
11a	47	The Special Forces Group needs to become recognised as leaders in Information Warfare and Information Operations. Headquarters Special Operations needs an Information Operations/Information Warfare officer	Capability	Y	Y	N	N	N	N
10e	48	Be able to develop a real capability for unconventional operations	Capability	Y	Y	Y	Y	Y	Y
11b	49	Special Forces Group needs representation within the ADFWC of the Directorate of Land Warfare	Marketing	Y	N	N	N	N	N
11c	50	Officer tactics training is currently centred on conventional warfighting. Some portion of the ISC, IOC and AOC should be devoted to SO to inculcate the wider Army community with the notion that SO is another option available to commanders. The Special Forces Gp needs to balance marketing against the need to minimise OPSEC. It must maintain its mystique whilst explaining its capabilities to the rest of the ADF and Australian Government	Training	Y	N	N	Y	N	Y

ID	#	Issues to Confront	Primary Category	P O S T E D					
				P	O	S	T	E	D
11d	51	The Special Forces Group needs a better understanding of its own history, its successes and its failures. An operational research cell within HQSO could provide this	Personnel	Y	Y	N	N	N	Y
11e	52	The Special Forces Gp in conjunction with DOCM-A needs to develop an officer career plan to incorporate important facets of service in non-Special Forces units such as language training and further education	Personnel	Y	N	N	N	N	N
12a	53	Review, rationalise and adjust all SO staff processes in order to establish 'best practice' in all areas	Leadership	N	Y	N	N	N	N
12b	54	Successfully establish and develop the Commando capability, rationalise SASR to reduce duplication, maximise resource efficiencies and achieve op focus	Capability	N	Y	Y	N	N	N
12c	55	Create an Special Forces Gp ethos or esprit de corps	Leadership	Y	Y	N	Y	N	N
12d	56	Identify and adopt selected emerging technologies and capabilities relevant to the future battlefield or theatre of operations	Technology	N	Y	N	N	Y	N
12e	57	Maximise the potential of individuals to contribute to Special Forces contingencies through multi-skilling and continuous learning	Personnel	Y	N	N	Y	N	N
13a	58	Common information management plan within Special Forces Gp	Communication	N	Y	Y	N	N	N
13b	59	Common admin SOPs within Special Forces Gp	Administration	N	N	N	N	N	Y
13c	60	More emphasis placed on Commandos, poor cousin to SASR	Leadership	Y	Y	N	N	N	N
13d	61	Prioritise our objectives both within Special Forces and more importantly within the HQ	Management	N	Y	N	N	N	N
13e	62	More emphasis placed on Admin and Log in order to spt ops more efficiently	Leadership	N	N	Y	N	N	N
14a	63	More staff for orderly room	Personnel	Y	Y	Y	N	N	N
14b	64	One computer system for all Special Forces units (integrated for ease of locating documents and information)	Administration	N	N	Y	N	N	N
14c	65	A paperless headquarters (all information to be scanned onto hard drive for quick and easy location of documentation)	Administration	N	N	Y	N	N	N
14d	66	Shift work so the headquarters is manned and operational 24 hours a day in all departments. This eases the build up of work.	Personnel	Y	Y	N	N	N	N
14e	67	Only file relevant information	Administration	N	N	Y	N	N	N
15a	68	One administrative computer system for Army. I have been to three different HQ and each one had its own Data Base/Register system.	Administration	N	N	Y	N	N	N
15b	69	Clerical manning for HQ. We are down to two clerks, which means that we are covering three jobs as well as ours.	Personnel	Y	Y	Y	N	N	N
15c	70	Why certain staff officers last year could do their own filing and this year it is the orderly room's responsibility. This brings me back to the point of being undermanned.	Personnel	Y	N	Y	N	N	N
15d	71	Sports afternoon - The Navy once a week have sportys, LHQ/VIC Bks have a sports afternoon every Thu.	Personnel	N	Y	N	N	N	N

ID	Ref	Issues to Confront	Primary Category	P O S T E D					
				P	O	S	T	E	D
15e	72	The delegation of minor/simple tasking that could be carried out by the individual.	Leadership	N	N	Y	N	N	N
15f	73	We all have our own jobs to do. Even if it means doing the petty little things. Not looking to the orderly room to carry these out.	Leadership	Y	Y	Y	N	N	N
16a	74	One computer system for the Defence Force, Not one for Army, one for RAAF and one for Navy	Communication	N	N	Y	N	N	N
16c	76	A better understanding of what each person does, an officer knows Nothing about a CDR, Nor does a private know anything about writing SITREPs	Personnel	N	N	N	Y	N	N
16d	77	More interaction between the ranks, thus making a happier work area.	Personnel	Y	Y	N	N	N	N
16e	78	An officer can apply for funded university courses very early in his/her career, but a digger has to wait until he/she gains two or three hooks before even looking at Army funded university courses.	Personnel	Y	N	Y	Y	N	N
17a	79	The whole organisation must align itself against agreed strategic objectives.	Management	N	N	N	N	N	N
17b	80	In times of difficulty we must not lose sight of our achievements, we must see the bright future and pluck up our courage (Mao 1944)	Leadership	N	N	Y	N	N	N
17c	81	Be resolute, fear N sacrifice and surmount every difficulty to win victory (Mao, 1945)	Leadership	N	N	N	N	N	N
17d	82	The group is held together through internal cohesiveness rather than external pressures (Kelly, 1974)	Leadership	N	Y	N	N	N	N
17e	83	Selection and maintenance of the aim (principle of war). Think of the group, strive to be cohesive, get rid of petty jealousy, achieve excellence, support your mates and display loyalty.	Leadership	Y	Y	N	N	N	N
18a	84	The lack of clear direction, eg it seems to take a long time for decisions such as where we move to, what equipment we choose to be made. There are probably very good reasons for this but it still seems very annoying	Leadership	N	Y	N	N	N	N
18b	85	The lack of modern equipment, facilities and basic resources such as communication	Equipment	N	N	Y	N	N	N
18c	86	The lack of operational experience. Maybe specialisation in one field eg amphibious may be less enjoyable. We should in these peaceful times, take whatever job comes up as long as there is the chance of gaining some experience (and a gong!)	Operations	N	N	N	N	N	N
18d	87	The lack of manpower. What can I say?	Personnel	Y	N	N	N	N	N
19a	88	The Procurement Process. The best measure of trust in a bureaucracy is the responsibility to expend funds. The current procurement process is cumbersome. If the Special Forces Gp is to exploit new technology and develop new, potentially clandestine, capabilities, it needs its own discrete funding, with the appropriate control mechanisms built in. A guaranteed regular level of funding, even of relatively small amounts (say \$1M/year) would allow the Special Forces Gp to achieve a 'leading edge' position within Defence. We would have to accept however, that some of the projects would fail. This funding would assist in the development	Management	N	N	N	N	Y	N

ID	Issues to Confront	Primary Category	P	O	S	T	E	D
	process.							
19 b	89 The Development Process. Special Forces Gp should be at the leading edge of technological innovation within Defence. We should be providing those short notice leading edge (para) military capabilities that are required by Government. We do not really know what they are! There should be strategic guidance that moulds our effort. In absence of this we should be developing our own. Being the leading edge, there should be more latitude in our processes that allow for development paths to end in options that are other than successful!	Leadership	N	N	N	N	Y	N
19 c	90 Focus Equipment. We are very focussed on equipment. We should concentrate our effort on future capability and therefore develop organisations, structures, doctrine, tactics, procedures AND THEN what equipment is needed as a WHOLE SYSTEM.	Leadership	N	Y	Y	N	Y	N
19 d	91 Exploit technology. There is much TALK about exploiting technology. Soon the Special Forces Group will have secure connectivity throughout. We will be in position to be the lead in the development of processes and procedures from an Army and ADF perspective. A system like Lotus Notes for example would give us the potential to streamline our processes (as long as we know what they are!).	Management	N	Y	Y	N	Y	N
19 e	92 Responsibility. We should be pushing responsibility down to the lowest level. Individuals who own, or consider they are part of, a process will work harder and try and improve it. We should encourage innovation, new ideas and not be afraid of making mistakes.	Leadership	Y	Y	N	N	N	N
20 a	93 Paperless Office. For example all incoming and outgoing correspondence be scanned into the computer system. This would prevent documents from going missing and make access to the documents by all, simpler and faster. This will also help with the accounting of documents much easier and remove the need to keep unnecessary paper on file. Only the author has the responsibility to have the original document on hard copy for archiving purposes.	Administration	N	N	Y	N	N	N
20 b	94 All units need to use the same computer system (same software and administrative databases). Every unit seems to be wasting resources designing their own database to suit their unit's needs. Due to the lack of centralisation, each unit seems to be replicating the same information, just in a different format. This doesn't just waste time and resources designing but also time training a new user posted to the unit.	Administration	N	N	Y	N	N	N
20 c	95 Formal training in software used in your work environment.	Training	N	N	Y	Y	N	N
20 d	96 Responsibility for your own work. Everyone has a specific job to do and in a small unit it can become quite busy. Sometimes it is necessary to delegate a menial task to the lower link in the chain. This chain should be limited to your relevant area of responsibility. It is fact that in most cases the lowest link in the chain is in the Q Store or Orderly Room and most people forget that these people have their own	Management	Y	N	N	N	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		specific job or area of responsibility. Because they forget this, the work these areas are responsible for, gets neglected because they get bogged down doing everyone else's menial tasks. When you multiply your menial tasks by the amount of people in your unit, there is a lot of unnecessary work being placed on a very limited resource.							
20e	97	Training in the correct administrative processes/SOPs that are implemented in the unit you are posted to and, incorporating a process to ensure they are followed.	Administration	Y	N	Y	N	N	N
21a	98	Operational capability results from effective and realistic training. This is not new. This is achieved when all levels of command comprehensively understand the direction, intent and end state of the required objectives. This direction is best articulated in the form of a Training Directive. Ideally, Training Directives should encompass key objectives and likely contingencies as well as addressing key responsibilities for training management and capability overlap. Further, it is enhanced when opportunities for overseas attachments and deployments are maximised. In short, clear direction is required.	Leadership	Y	N	N	Y	N	Y
21b	99	It is imperative that the resources allocated are realistic and ensure the required capability is achievable. Whilst it is acknowledged that resources are finite, there is a point which if gone below, the capability will not be realised. It is accepted that this places the onus on the user to only request what is required. This is dependent on the experience of the trainer - something the Special Forces Group is not short of.	Management	N	N	Y	N	N	N
21c	100	The framework that makes up the management of the system must be clearly understood. This is currently not the case. The introduction of the NATO Staff System needs clarification. Whilst generic descriptions have been offered, there is not a definitive over-riding document available which clearly articulates job function and description. For the Gp to move into the future, four key issues must be addressed: (1) What exactly is the NATO Staff System? (2) What fundamental changes does its implementation require? (3) What are the key job functions and descriptions? (4) Does this system represent the best possible practice for the SO Group at all levels?	Management	N	N	N	N	N	N
21d	101	With a clearly defined Staff System, it is imperative that the flow and passage of information is a two-way exchange. A number of instances have occurred that would indicate that the passage of information down the chain is not as timely nor complete as it might be. This normally manifests itself as an unpredicted change in direction that is not anticipated by the units.	Leadership	N	Y	N	N	N	Y
21e	102	The Special Forces Group must maintain an holistic approach. No one particular unit makes up the team. Mutual pride and professional respect is borne by the attainment of common goals. As situations, organizations and capabilities change, we cannot afford to be influenced	Leadership	Y	N	N	N	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		by our previously blinkered mentality.							
22 a	10 3	Manning and Facilities. Establish facilities that are designed for the capability of the unit and have the required manning to service the capability that the unit desires.	Capability	Y	N	Y	N	N	N
22 b	10 4	Logistic Support. For any operation/mission sound logistic support and preparation prior to, during (if possible, eg Commando qualified Marine Mech) and after should be considered. HQSO should have Logistic Advisors for unit commanders to liaise with. This would also assist in the development of the Special Forces Group as ILS can be arranged by the user who knows what is required and when it is required. This would ensure the Special Forces Group gets the right equipment for the right job.	Equipment	N	N	Y	N	N	N
22 c	10 5	Maintenance of Capability. Ensure the appropriate steps are developed to maintain unit equipment. Without the equipment in an operational state of readiness, the Special Forces Group has N capability.	Equipment	N	Y	Y	N	Y	N
22 d	10 6	Communication and Intelligence. Commanders at all levels should be able to communicate within and outside the Special Forces Group. Computers are an ideal, however security must be maintained. N mission will succeed without sound communications and intelligence. Intelligence briefs should occur to all members (regardless of rank) of the Special Forces Group whether the member is ECN 079 (Commando) or ECN 146-2 (Fitter/Armt)	Communication	Y	N	N	Y	Y	N
22 e	10 7	Morale and Training. The maintenance of morale is and always will be a commander's responsibility. Realistic training and continuous course development will ensure the Special Forces Group has members who are keen to provide the manpower for the unit's capability.	Leadership	Y	N	N	Y	N	N
23 a	10 8	Structure. Define the overall structure of the group and in particular, the roles of the individual units.	Management	N	Y	N	N	N	N
23 b	10 9	Training. Ensuring that the right people are trained for the right job. Special Forces training school would aid this goal and achieve much efficiency.	Training	N	N	N	Y	N	N
23 c	11 0	Facilities. High quality output requires high quality input. We must have appropriate facilities for training and as a firm base for launching operations.	Operations	N	N	Y	N	N	N
23 d	11 1	Equipment. We must be wise in the acquisition of equipment. Choose what is required and then fight to get it. AVOID acquisition of un-needed 'nice-to-haves'. Maintenance of this equipment must be considered and planned for BEFORE purchase.	Equipment	N	N	N	N	Y	N
23 e	11 2	Communication. Must have quick and reliable means of communicating inter and intra unit. The Special Forces WAN is an ideal step, however if this is a long time coming, interim measures should be employed.	Communication	N	N	N	N	Y	N
24 a	11 3	Lack of manning within veh sect is a problem at 4 RAR(Cdo)	Personnel	Y	N	Y	N	N	N
24 b	11 4	Our jobs as mechanics is an overlooked job. We seem to be used more as general duties people than mechanics. With the current manning we have only two mechanics on the floor at any one time. If one goes away for an all day duty or	Personnel	Y	N	Y	N	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		other task, then productivity is halved.							
24c	115	Communication within the Battalion. At times we get tasks which are needed in unrealistic time. This is caused by the chain of command ceasing at high levels.	Communication	Y	Y	N	N	N	N
24d	116	Funds to buy specialised tools and emergency parts.	Equipment	N	N	Y	N	Y	N
24e	117	Time. The workshop seems to be doing a lot of non-maintenance time (NMT) which is out of our control, thus reducing the time for productivity.	Personnel	N	N	Y	N	N	N
25a	118	Information Operations and C2W: SO needs to develop capabilities for effective employment in IO and C2W. At the same time we should Not try to develop these in isolation or competition with other ADF force elm, but rather where our existing skills or niche role can provide a unique skill set. Examples: (1) Physical attack on enemy C31 systems: infrastructure targeting and strike and standoff weapon (such as EMP), attacks on civil infrastructure such as telecommunications and power. This would lead to a requirement for higher technical expertise in these areas. (2) Use of adversary C31 systems. EA on remote systems, physical hacking of isolated and secure computer systems, tapping of PSTN networks (capabilities developed with 7 Sig, their employment with us or in areas where they cannot go). (3) PR, PA and CA. The understanding that we don't fight in Vietnam anymore and that often the overt use of Special Forces is more valuable than the actual task they are doing (I cite the comments by Mick Malone prior to POLLARD). The use of Special Forces strategically in CA, PA or PR may mean that Special Forces needs to develop much more media savvy, and also change its MO to accommodate media. Stop thinking that 'putting on a show' for DGPI is a farce and that civi media are the enemy. (4) Better OPSEC. Anyone who thinks that Special Forces are currently good at this should come and see me. They are not. This should not be read as a need for increased effort for security but smarter use of security. Some in SASR think that everything they do is TOP SECRET, when what is really being done is wasted effort.	Capability	N	N	N	N	N	N
25b	119	Getting rid of the 'cult of the beret': Selection process at the moment is still a product of social cloning - he gets selected because he's like me. What we tend to produce is Special Forces soldiers that are to a particular template that is often suited to door-kicking, but less suited to some of the future roles that we are after. HUMINT, for example, requires female, Nondescript (ie not 6'4", built like a tank and wearing the Special Forces watch and daypack) and of different character. What about direct entry to Special Forces, older recruits (ie stability and maturity) etc? (2) Does a few weeks of selection followed by a few years as a troop commander translate to the best staff officers? I would argue that many unit and HQ staff are Not the best for	Personnel	Y	Y	N	N	N	N

D	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		the job, and indeed are paid better because of their previous prowess at TACTICAL skills. If Special Forces wants to remain the best, they need to attract the best for each job, not simply assume that because someone is beret qualified they remain the best in a staff job.							
25c	120	Merit based promotion (a problem across the Army not just Special Forces): Officers are not promoted on merit until they have served a minimum of 15 years, a joke in a society that has moved away from the 'job for life' mentality. (1.5 to 4 yrs, 3 to 4 yrs LT: 6 yrs CAPT; 3 yrs to PSC; plus usually 1 to 2 yrs PSC until promotion). What this means is that jets (and those that continually study to gain new skills) progress at the same rate as also rans (you really need to tread on your dick not to make MAJ these days). (2) Flexible posting/promotion. NSW Police has a similar system where internal vacancies are offered. Fixed 2 to 3 yr postings, but with the ability to apply for your own job again at the end of posting. People who apply can be any rank, ie LCPL can apply for the SGT job, and if he has the skills and experience he gets promoted. People who are happy being CPL range controllers can stay that way for years if they want to.	Personnel	N	N	N	N	N	N
25d	121	Developing roles in a comprehensive security environment incl: drug enforcement, illegal immigrants, terrorism (beyond CT resolution), environmental damage, currency flight, resource protection, etc.	Capability	Y	Y	N	N	Y	N
25e	122	The ability of commanders to identify idiots and the ability (and conviction) to sack them. See the private sector - we are not a sheltered workshop, nor an instrument of social policy.	Personnel	Y	N	N	N	N	N
26a	123	A proper work ethic exists for all personnel involved with computer systems.	Personnel	Y	N	N	N	N	N
26c	125	Proper and effective control of resources and personnel - not wasting a person's time.	Personnel	Y	N	N	N	N	N
26d	126	The employment opportunities for clerks needs to be more attractive due to the shortage experienced.	Personnel	Y	N	N	N	N	N
26e	127	A more relaxed environment due to the high work rate of HQSO.	Leadership	Y	Y	N	N	N	N
27a	128	Endorsement of an SO capability master plan (similar to the Equa Plan) by COMD Special Forces, LCAUST and COMAST out to the year 2003 at least.	Capability	Y	Y	N	N	N	N
27b	129	Ensuring there is adequate manpower to man Special Forces up to year 2003.	Personnel	Y	Y	N	N	N	N
27c	130	Ensuring adequate planning to cover CT transfer to 4 RAR (Cdo) and UW role to SASR (to ensure SASR does not become redundant in any way).	Leadership	N	Y	N	N	N	N
27d	131	Increased operational employment of 1 Commando Regt.	Operations	N	Y	N	N	N	N
27e	132	Addressing EW void at HQSO as well as OPSEC matters across SO as a whole.	Operations	N	Y	Y	N	N	N
28a	133	Establishment of the Special Forces Avn/Air Wing with dedicated SO acft and crew.	Operations	Y	Y	Y	N	N	N

ID	Ref	Issues to Confront	Primary Category	P O S T E D						
				P	O	S	T	E	D	
28 b	13 4	Equipment. The ability of the Special Forces Group to purchase 'off the shelf' SO equip in order to ALLOW ALL UNITS within the Special Forces Group to benefit from being equipped with 'leading edge' technology. This will enhance interoperability across the Special Forces Group.	Equipment	N	N	N	N	Y	N	
28 c	13 5	Change in Federal Legislation for call-out for Part Time Special Forces Group Personnel. A change in Federal Government legislation is required in order to allow PT Special Forces Group personnel to be called out for operations short of war and other support operations.	Operations	N	N	N	N	N	N	
28 d	13 6	Concentration of the Special Forces Group. Concentrate the Special Forces Group in one location in order to increase training efficiencies and interoperability across the Special Forces Group.	Management	N	Y	Y	N	N	N	
28 e	13 7	Full Time/Part Time Scheme for Commando FE. Introduction of a 'Ready Reserve like scheme' where 1 Commando Regiment part time personnel serve for 12 months on full time service with 4 RAR (Cdo) then transfer to 1 Commando Regiment to complete their four year part time commitment. This will increase the overall operational capability of 1 Commando Regiment while enhancing interoperability with 4 RAR (Cdo).	Selection	Y	N	N	N	N	N	
29 a	13 8	Regional associates have long viewed AS Special Forces and our activities with a mixture of respect and suspicion. I would suspect that with our current moves towards Special Forces expansion that this would, in some areas, generate hostility and promote the development of measures to counter Special Forces capability. We have for many years now offered training to our neighbours and they have had the opportunity to view our abilities both at home and abroad. I believe that in the long term this is a key issue.		N	N	N	Y	N	N	
29 b	13 9	ADF perception of Special Forces at present, as evidenced by the reluctance of units to reinforce Special Forces (4 RAR), I believe to be one of, 'Why should we do it for you when it is to our disadvantage?' This being obvious reference to the 1/98 Commando Selection Course. This reluctance and the drain Special Forces places upon already stretched manpower resources of ARMY units must be addressed if we are to successfully continue to reinforce our units. Is there a way we can obviously benefit other ARMY units?	Personnel	Y	N	N	N	N	N	
29 c	14 0	Repaying the debt has long been in contention among SASR members. It is however the only real means by which the rest of the ADF can actually see the advantages of having a large Special Forces group. It is easy to see the effect that SAS soldiers posted to regular units has. This process however is met with little enthusiasm from members of SASR. I myself was posted from SASR in Dec 95 to 3 RAR. I found though that there is a huge gap in the levels of training, an even greater gap in the levels of ability, but a desire among the rank and file to increase their ability and skills. Unfortunately there is N conduit to improve the situation.	Personnel	Y	N	N	N	N	N	

ID	Ref	Issues to Confront	Primary Category	P O S T E D					
				P	O	S	T	E	D
		Special Forces has a role here in our own back yard. I believe that Special Forces should expand the support it offers other Land Comd and Trg Comd units by increasing the Special Forces commitments to regular units and the ARMY schools. The added exposure of SASR (Special Forces) personnel to these units would create a long-term gain thereby increasing the Special Forces pool. Career issues of SASR personnel would require very careful consideration.							
29 d	14 1	Enthusiasm. I believe now more than ever before, that there is a requirement to reinforce the values that Special Forces hold high. We confront this daily by maintaining the drive and the go forward, the can-do attitude. BUT WHY? We need to see the effects that this daily re-affirmation has on us. For many Special Forces members, there is N longer the cutting edge involvement and for some it has never been there, having only arrived in an Special Forces unit in a support role. There is a requirement for all involved to at some time view the wider picture or experience Special Forces expertise. We need our support personnel, we value them and we must have them working for us.	Personnel	Y	Y	Y	Y	N	N
29 e	14 2	Technological competencies. C3/C4 is rapidly developing to become a core requirement amongst all ADF personnel on attainment of rank. Little is done to improve the capabilities of serving members to cope with the demands (even at unit level) in this area. Officers generally are exposed to computer technology (be it only word processing or spreadsheets) and it is well incorporated into their training. This is not the case for ORs. Most aren't exposed to the requirement until they have to start corresponding as an NCO. Special Forces is embracing Digital Transfer and information technology as the means of the future. If there is a foreseen requirement, Now is the time to commence training.	technology	Y	N	N	Y	Y	N
30 a	14 3	Vision. If SO is serious about a collaborative approach to the development of corporate strategy then a strategic process model should be developed. This would allow wide participation in SO development. I am not suggesting an additional work load but a rationalisation of a number of concurrent process wrapped up into a corporate strategic development plan. There are plenty of examples of these processes around but I don't know of any that are in use in any Army organisation. I would be more than happy to assist in the development of such a model if it was part of a wider rationalisation of work flows within the headquarters. The outcome of this process should be a vision (in the best corporate style) and a number of themes or thrusts.	Leadership	Y	Y	N	Y	N	N
30 b	14 4	Organisational Learning. There is a mountain of literature on the philosophy of a learning organisation. Senge is probably at the forefront of this and his book titled the 'Fifth Discipline' should be a must read. We cannot possibly get better at what we do until we have an effective process in place to analyse and apply our experiences. There are frameworks	Leadership	Y	Y	N	N	N	Y

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		such as the POR/PAR process for dealing with reviews but these are generally ad hoc and are not treated with the proper priority. This is evident in unit PARs that are full of detail that keeps re-occurring. We could be much better at using our experiences to greater effect.							
30c	145	<p>Personnel Management. In an environment of leaner organisations and increasing change, the management of the individual will be central to organisational efficiencies and therefore capability.</p> <p>The Army prides itself in the management of people and SO probably does better than much of the wider Army. I contend that we are mediocre managers of personnel and outdated procedures constrain the way we use this resource. The use of PT and ex-FT personnel is evidence of this aspect. The PT is a most cost-effective component with potential for development; Notwithstanding the perceived capability difference in comparing the wages bill of SASR and 1 Commando Regt.</p> <p>This is purely anecdotal but reflects on the people you started training with and it seems that many of the best (and worst) potential have left. This is a significant waste of training resource and leadership potential. This indicates an inherent incapacity of Defence to provide people with an adequate career challenges. We should take a broad perspective of personnel management and allow people flexibility in pursuing a career both within and outside Defence. If the organisation is to take full advantage of opportunities, we must retain and invest in bright young people.</p>	Leadership	Y	Y	N	N	N	N
30d	146	<p>Structures. The most efficient organisations are usually not hierarchical. Unfortunately, the military is blessed with an organisation that would be more at home in the industrial age. There has been a fair amount of work into units and organisations but these do not question the fundamental existence of the regimental structure. Are these regimental structures appropriate to a Joint environment small, capable, integrated teams that require minimal administration? An are these structures able to deliver operational synergies? Teaming and project management should be adopted instead of the Napoleonic (functional) staff structure. People still retain the functional responsibilities but operate as part of a team. This should improve workflows and management within the organisation.</p>	Management	Y	Y	N	N	N	N
30e	147	<p>New Technologies. Information technologies are revolutionising the way we communicate and gain knowledge. Resourced properly it will deliver the economies and capabilities we seek for operations and administration. This seems to be widely accepted but funding and purchasing arrangements are Not in place to allow us to take advantage of the potential. The materiel process is Not producing the rate of outcomes we need to develop capability. We should have a slick process in place to evaluate and incorporate new technologies.</p>	Technology	N	Y	Y	N	Y	N

ID	W	Issues to Confront	Primary Category	P	O	S	T	E	D
30f	14	8 Creativity. It is widely acknowledged in the business community that creativity is a competitive advantage. De Bono contends that creativity is the sole domain of humans (at least at present) and machines (computers) will inevitably take over all other work. So to be skilled in creativity and use the creative process (assuming it can be taught) is essential to future individual and group effectiveness. The establishment of a dual organisation cultures that can sustain the routine, conventionally managed	Leadership	Y	N	N	N	N	N
31 a	14	9 Manning the Special Forces Group in a shrinking army: (1) attracting the interest of the right kind of person in the first place; (2) motivating the soldier to want to test himself with selection; (3) ensuring that selection is sufficient to identify the desired qualities in an individual without exposing him to an unacceptably high risk of injury; (4) Examining possibilities for recruiting. This could include raising the profile of the Special Forces Gp in all three services, including the reserve components. Examining the possibilities for direct entry recruiting of civilian life or straight out of IET training, and reviewing the role that female soldiers could play in combat or combat related positions. Direct entry recruiting of civilians is currently undertaken by 1 Commando Regt, B Coy, 4 RAR (Cdo) contains a high proportion of soldiers posted straight out of IET training and female soldiers are proving that they have the necessary physical and mental toughness to complete the current Commando selection course.	Selection	Y	N	N	N	N	N
31 b	15	0 Retention of selected and trained Special Forces personnel: Keeping the soldier motivated and interested. Poor leadership, training and administration will quickly demoralise an intelligent high achieving soldier and he or she will generally leave Not only the Special Forces Gp but the Army. (2) Having a realistic career path open to soldiers within the Special Forces Gp. (3) Ensuring that a realistic attitude is taken to the manning/tasking ratio and that we don't require soldiers to work unrealistic hours on unachievable tasks as a result of reduced manning. (4) Ensuring that the soldier remains adequately remunerated for exposure to high risk training and having to maintain a very high state of readiness to move.	Personnel	Y	N	N	N	N	N
31 c	15	1 Acquisition of equipment and technology and continuous development of processes and procedures: Continuous research and development to find ways to enhance the likelihood of success for the Special Forces mission. This includes constant development of doctrine, tactics and SOPs as well as equipment. (2) Embracing relevant leading edge technology in order to give the Special Forces soldier a battlefield advantage. (3) Streamlining the procurement process to ensure that	Technology	N	Y	Y	N	Y	N

		Issues to Confront	Primary Category	P	O	S	T	E	D
		acquisition of technology and equipment is timely and that it reaches the soldier before it is obsolete.							
31 d	15 2	<p>Training:</p> <p>Each element of the Special Forces Gp needs to define its core tasks and concentrate its training on achieving the highest possible standard in the execution of those tasks. Secondary and tertiary tasking should have commensurately less training directed towards it.</p> <p>(2) By its nature, Special Forces training is expensive in resources. The Special Forces Gp needs to ensure that none of the allocated resources are wasted on inappropriate or irrelevant training activities.</p> <p>(3) Training must be varied, interesting and rewarding for participants. It needs to be relevant to the core tasks and should concentrate on those types of operational deployments that the Special Forces Gp is experiencing more frequently.</p>	Training	N	N	N	Y	N	N
31 e	15 3	<p>Maintaining an Operational Focus in everything we do:</p> <p>As the likely force for short warning deployments it is essential that the SF Gp ensure that it is able to operate comfortably in both the Joint and Combined environments. This will mean that we need to exercise all components of the Special Forces Gp in the Joint and Combined environments as often as possible. Regular work with Allies will assist with the development of common procedures and equipment interoperability.</p> <p>(2) The Special Forces Gp needs to ensure that it is Not misemployed during major exercises and that the tasks allocated are both realistic and relevant to the aims of the 'conflict'.</p> <p>(3) The other emphasis should be on training for deployment on operations in an undeclared or Nn-warlike environment with limited objectives or Special Forces tasking. The Special Forces role in Peace Ops (both peacekeeping and peacemaking) and PsyOps should Not be ignored.</p>	Operations	Y	N	N	Y	N	N
32 a	15 4	<p>Specialist Equipment. As the Special Forces Gp is primarily task orientated, it would be fair to assume that the conventional equipment would Not altogether be adequate for the mission accomplishment. Specialist equipment should be required to be specific for the task at hand. Some of the areas to look at but Not limited to are:</p> <p>(1) Comms Equip, (2) Wpns, (3) Clothing, and (4) Transportation.</p>	Equipment	N	N	N	N	Y	N
32 b	15 5	<p>Realistic Training. Realistic training and resources go hand in hand to effect a properly equipped and well trained fighting force.</p>	Training	N	N	N	Y	N	N
32 c	15 6	<p>Resources. The availability of resources for realistic training is an integral part of the mission accomplishment, some of these would include:</p> <p>(1) shipping,</p>	Management	N	N	Y	N	N	N

ID	#	Issues to Confront	Primary Category	P O S T E D						
				P	O	S	T	E	D	
		(2) buildings and structures of significant importance, and (3) aircraft.								
32 d	15 7	Security. In order for the Special Forces Gp to achieve its tasks, a high level of security at all levels is an essential ingredient for success.	Security	N	N	Y	N	N	Y	
32 e	15 8	Manpower. Although manpower is a pressing issue across the ADF, I believe that an injection of the appropriate manpower into the Special Forces Gp is a critical influence to confront.	Personnel	Y	N	N	N	N	N	
33 a	15 9	Orientation to Asia/Pacific	Operations	Y	N	N	N	N	Y	
33 b	16 0	Recruiting of both sexes	Mixed gender	Y	N	N	N	N	N	
33 c	16 1	Person management skills	Leadership	N	N	N	N	N	N	
33 d	16 2	Adaptation of the new	Personnel	Y	N	N	N	N	N	
33 e	16 3	Acceptance of change	Personnel	Y	N	N	N	N	N	
34 a	16 4	Better access to intelligence. Implementation of the Special Forces WAN and other C31 systems will improve the situation, however, more Int staff within the Special Forces Gp and better liaison with Defence and outside agencies will increase the effectiveness of Special Forces Int capabilities.	Capability	Y	N	N	N	N	N	
34 b	16 5	Improved guidance on the assumption of roles for the Special Forces units. While units are aware of impending role changes or variations, I believe there is N clear time frame and directives for the implementation of these role changes. One example is the prospect of Commando units taking on the CSAR role.	Leadership	N	Y	N	N	N	Y	
34 c	16 6	Increased interoperability between Special Forces units. This relates to the training of personnel as well as equipment procurement. Differences in basic skills and the courses for these skills need to be guided in the same direction so that all units recognise them. One example is the medics course. Until recently, Commando Medics course was not fully credited for personnel moving over to SASR. Demolitions and Patrol or Recon Courses are one area where compatibility should be sought. Equipment procurement should be a joint Special Forces issue to ensure compatibility and associated training levels on that equipment is standard across the group.	Training	Y	N	N	N	Y	N	
34 d	16 7	Expanded research and development interest. With the rate of advance of technology, an increasing number of sophisticated weapons systems and other equipment that is of direct interest to Special Forces units is being developed. It is imperative that either the group or units maintain visibility over these developments and where practical, implement systems of procurement and training in this equipment. While units currently have a limited R&D capability, I believe an increased emphasis in this field is required.	Technology	N	Y	N	N	Y	Y	
34 e	16 8	More attention paid to security issues. I believe that security, both physical and information is lacking in some areas and	Training	Y	N	Y	N	Y	N	

ID	Issues to Confront	Primary Category	P	O	S	T	E	D
	needs attention. Being a full time unit, SASR has some advantage in that isolation and compartmentalisation of information is relatively effective, however with more public attention on Special Forces and related operations, I see a need for a better education package on the effects of operational security and/or its breaching as well as other physical security issues.							
35 a	16 Across the board entrance tests for all Special Forces units (individual)	Selection	Y	N	N	N	N	N
35 b	17 Cross-training in courses and exercises for all Special Forces units.	Training	Y	N	N	Y	N	N
35 c	17 After core training courses, streamline individuals into specialist groups.	Personnel	Y	N	N	Y	N	N
35 d	17 Specialist support units: Special Forces helos, fixed wing and Special Forces boat troops.	Capability	N	Y	Y	N	N	N
35 e	17 Train with allied Special Forces units to keep abreast of technology and techniques.	Training	Y	N	N	Y	Y	Y
36 onl y	17 Equipment/Weapon. Procurement is taking too long. Testing is taking years for equipment that has been tested by various countries, namely the US, UK etc. We should try to buy in smaller numbers and use the equipment/weapons for specific tasks that they are designed for. This would work out to be cheaper and more effective for its users as they are using modern equipment for their tasks.	Equipment	N	N	Y	N	Y	N
37 a	17 Dedicated Special Forces air elements both Army Aviation + Herc Special Forces elements. This relates to both dedicated aircrew and SP aircraft, ie MH-60 Black Hawks/MK-47 Chinooks and MC-130 Hercs.	Capability	N	N	Y	N	N	N
37 b	17 If we are going to have FT elements, they need to be integrated into the FT unit. Therefore courses run are all 'dual client' - FT/PT so that every individual is trained to the same level. More emphasis needs to be placed on PT soldiers being compatible with FT.	Training	Y	Y	N	Y	N	N
37 c	17 More importance/investment placed on FT Commando unit instead of PT unit. Resources, training time/money/etc should be prioritised for FT Commando unit. PT unit is basically a non-productive unit in the context that it cannot be employed as a fighting unit immediately.	Resources	Y	N	N	Y	N	N
37 d	17 More importance placed on Special Forces weapons/equipment procurement without normal Army involvement, ie Special Forces orientated small arms M16A2/A3 Not only for water operators, but for all Special Forces operators.	Equipment	N	N	N	N	Y	N
37 e	17 More involvement/promotion of Special Forces community to other units/other Services. Give these units/Services a better idea of our capabilities/limitations and ways to better work/liase with these outside units/Services.	Marketing	Y	Y	N	N	N	N
38 onl y	18 Improve the profile of SO within the ADF and external agencies. Commanders at all levels within all Services of the ADF should have a basic understanding of the roles and capabilities of SO units and how SO units can enhance their operations/capabilities.	Communication	Y	N	Y	N	N	N
39	18 Capability. 1 Commando Regt personnel to provide pool for	Capability	Y	Y	N	N	N	N

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a	1	4 Cdo - personnel/resources - interchange between units.							
39	18	All courses PT or FT between 1 Commando and 4 Cdo are the same, eg like NZ SAS Gp Regular and Territorial.	Training	Y	N	N	Y	N	N
b	2								
39	18	1 Commando Regt disbanded to come under command 4 Cdo. Why have two units competing with each other - wasted assets, etc.	Management	Y	Y	Y	N	N	N
c	3								
39	18	Dedicated support units:	Capability	N	N	Y	N	N	N
d	4	(1) fixed wing (2) rotary (3) amphibious							
40	18	Reduce time taken to deliver specialist equipment to specialist units, ie NVG and GPS were available for a long time before eventually filtering down to 1 Commando Coy.	Equipment	N	N	N	N	Y	N
a	5								
40	18	Dedicated support units:	Capability	N	N	Y	N	N	N
b	6	(1) fixed wing (2) rotary							
41	18	Know who we are - Maintenance of Special Forces Gp identity and unit identity within the Special Forces Gp: We as an Special Forces gp must be confident in our identity in order to preserve it. We are entitled to be 'elitist' we have earned that discretion and any cursory glance at military history and successful Special Forces units clearly supports this right. If we are expected to provide a capability beyond the capacity of conventional forces then we must be permitted to inculcate into our culture an unconventional even non-conformist outlook. (2) In order to preserve, enhance and develop the uniqueness and unconventionality of SASR and the Commando Regts it is essential to preserve the particular attributes of each unit. Each element is tasked to conduct different missions within the SO spectrum. The opportunities and advantages provided by the establishment of the Special Forces Training Centre are numerous and I welcome the challenges this will bring. However, any attempt to achieve commonality in selection procedures predicated on resource efficiency criterion must be resisted.	Personnel	Y	Y	N	N	N	N
a	7								
41	18	Get the job done - Maintaining an operational 'outcome' or capability based focus. (1) Provision of an effective SO capability as part of the wider Army and ADF warfighting capability requires us to concentrate on the end-state. This will ensure we are Not constrained by process based methodology, one which is currently espoused by technocrats and their flow charts and models. (2) Our doctrine must withstand intellectual review to ensure its credibility, but pragmatic methods providing a demonstrated effective capability must take precedence over an approach based on jargon and theoretical systems. An example of this is the conduct of our individual and collective training.	Capability	Y	N	N	Y	N	Y
b	8								
41	18	Ensuring we are 'Comfortable in Chaos'	Personnel	Y	N	N	Y	N	N
c	9	We must ensure we welcome and embrace the uncertain and chaotic, ever changing environment that characterises							

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		<p>SO. In order to develop this ability, we must continually expose ourselves to this circumstance in order to develop our confidence and the ability to operate effectively within it. This requires us to accept mistakes in the conduct of our training and Not define success as 'zero defect'. This is a cultural issue that requires the Special Forces gp to confront the wider ADF mentality, this is of particular importance to commanders who must take ownership of their subordinates errors and be prepared to, in fact enjoy, defending their actions to the less flexible or enlightened.</p> <p>We cannot expect or demand timely and accurate information or advice, nor should we. This is Not an excuse for unprofessional conduct, more so it highlights and acknowledges the demand for Special Forces commanders to rigorously apply the proven doctrine of mission analysis and SO MAP. This will enhance our mission focus and ultimate success when everything and everyone around us is succumbing to the chaos that is evident.</p>							
41 d	19 0	<p>Marketing our utility - but know when to say N!</p> <p>The Special Forces gp must provide the logical first choice FE to the ADF for the conduct of ops. This requires us to actively seek a niche in the range of contingency planning. Recent history demonstrates this issue is well advanced.</p> <p>We must now be mature enough as an organization to acknowledge our limitations and Not blindly snatch at 'each and every' task or comply with every request for support that emerges. This discretion will preserve our uniqueness and prevent any over extension of our capacity. We can exploit every opportunity and be 'all things to all people' but be smart enough in doing so, to ensure we maintain the integrity of our capabilities.</p>	Operations	Y	Y	N	N	N	N
41 e	19 1	<p>Enjoy the moment - manage the training tempo.</p> <p>This issue is linked to the previous one but remains discrete from it as it refers to directed training activities - Not operational tasks. This comment is based on my experience in SASR and relates to this unit, however I am confident it has application to the Special Forces Gp. We must be selfish to some degree and Not continually be directed to participate in and/or host training activities for or with ADF or allied/regional nation units. We are our own worst enemies in this area, however we must ensure we retain the capacity to surge to meet operational commitments.</p> <p>Our people are our most valuable resource and they underpin our capabilities, in order to preserve and develop their skills we must balance the workload to prevent burn-out. It is naïve to believe that operational employment will come without an accompanying requirement to support and participate in collective training activities within the ADF, but we must now impose our own pre-requisites. The simple pleasures of regimental service must be preserved to ensure a sense of pride, esprit-de-corps and humble enjoyment.</p> <p>We should never be too busy training to miss out on established unit activities such as Regt Birthday festivities. These events are fundamental to maintaining, enhancing</p>	Personnel	Y	N	N	N	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		and developing our identity.							
42 a	19 2	The Procurement Process. The best measure of trust is the allocation of funds. The current procurement process is cumbersome. If the Special Forces Gp is to exploit new technology and develop new, potentially clandestine, capabilities, it needs its own discrete funding with the appropriate control mechanisms built in. A guaranteed regular level of funding, even of relatively small amounts (say \$1M/year) would allow the Special Forces Gp to achieve a 'leading edge' position within Defence. We would have to accept however that some of the projects would fail. This funding would assist in the development process.	Management	N	N	Y	N	Y	N
42 b	19 3	The Development Process. Special Forces Gp should be at the leading edge of technological innovation within Defence. We should be providing those short notice leading edge (para) military capabilities that are required by Government. We do Not really know what they are! There should be strategic guidance that moulds our effort. In absence of this we should be developing our own. Being the leading edge, there should be more latitude in our processes that allow for development paths to end in options that are other than successful!	Technology	Y	Y	N	N	Y	N
42 c	19 4	Focus on Equipment. We are very focussed on equipment. We should concentrate our effort on future capability and therefore develop organisations, structures, doctrine, tactics, procedures AND THEN what equipment is needed as a WHOLE SYSTEM.	Capability	N	N	N	N	Y	N
42 d	19 5	Exploit Technology. There is much TALK about exploiting technology. Soon the Special Forces Gp will have secure connectivity throughout. We will be in position to be led in the development of processes and procedures from an Army and ADF perspective. A system like Lotus Notes for example would give us the potential to streamline our processes (as long as we know what they are!)	TechNlogy	N	N	N	N	Y	N
42 e	19 6	Responsibility. We should be pushing responsibility down to the lowest level. Individuals who own, or consider they are a part of, a process will work harder and try to improve it. We should encourage innovation, new ideas and Not be afraid of making mistakes.	Leadership	Y	Y	N	N	N	N
43 a	19 7	Force Projection Platforms. The biggest limitation for the use of Australian Special Forces is our lack of force projection platforms. We have a well-trained and equipped organisation that is essentially limited by our inability to firstly project the force element and secondly sustain it.	Operations	N	N	Y	N	N	N
43 b	19 8	Direction. One of the main reasons for the raising of 4 RAR (Cdo) was to remove the domestic CT role from SASR. Both organisations will need to be given the direction of what they will need to achieve. Specifically for 4 RAR Cdo relating to CT and for SASR the emphasis of training, ie Type A operations/war roles/unconventional warfare. The direction that SASR will take after the hand over domestic CT is currently being generated internally. HQSO must provide SASR with a clear direction that the Regt will take post 2003.	Capability	N	Y	N	N	N	N

ID	No.	Issues to Confront	Primary Category	P O S T E D					
				P	O	S	T	E	D
43c	199	Special Forces Selection. Selection is the most important course conducted at SASR. Detailed research and discussion should be conducted before any sweeping changes to selection or combined selection are considered. Commandos and SASR are looking for similar characteristics in their personnel. However, the mental toughness and stability under extreme physical and psychological stress which is required of SASR operators is only provided on the longer SASR selection process. SASR selection is essentially a personality test that has proven its value in the past and in my opinion will continue to do so in the future.	Selection	Y	N	N	N	N	Y
43d	200	C2. The command and control of SASR is extremely disjointed. The Regt comes under Land Comd for 'raise, train and sustain'. However for operations falls under command of HCAST and for DFCAP specifically CT answers to the CDF. SASR should be controlled and tasked at the highest level. With so many different chains of command surely there is scope for things to go wrong. Particularly with the nature of some Special Forces operations being 'sensitive' a simpler chain of command would prevent OPSEC breaches.	Operations	N	Y	N	N	N	N
43e	201	Special Forces Avn. In the future it would be wise to raise an Special Forces AAvn elm. Crews of both the S-70 and CH-47 and the platform chosen through AIR 87 (preferably Not the Tiger) need to train for missions that would most likely involve the use of Special Forces. Such tasking for Special Forces avn may incl: a. Low level flying by night under NVG b. Low level formation flying (pertinent to (CT COMMANDOs) and SASR ops) c. Ability to fly onto and off to Naval assets at night d. CH-47 crews trained in RORO e. Air to air refuelling capability f. Helo gunships to prov fire spt to Special Forces ops (AIR 87)	Capability	N	N	Y	N	N	N
44a	202	Special Forces must have a global focus. As the planet shrinks due to increasing technology, a regional focus is too narrow, this must be expanded to include the entire planet.	Personnel	Y	Y	N	N	N	Y
44b	203	Special Forces must be capable of Strategic Projection. Special Forces must possess a real time capability to project itself strategically. This force projection capability must be on the same reduced notice to move as the Special Forces elements which it supports.	Capability	N	Y	Y	N	N	N
44c	204	Special Forces must be interoperable with other Services and other nation's Special Forces. Interoperability must cover procedures and equipment.	Operations	Y	Y	N	N	Y	N
44d	205	The research, development and procurement systems must be overhauled to cater for the rapid advances in technology. If the Army procurement system cannot be fixed then Special Forces must divorce itself from it entirely.	Equipment	N	N	Y	N	Y	N
44e	206	Special Forces must expand itself into more Type A operations. This would need to incorporate:	Operations	Y	Y	N	N	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		<p>a. A wider recruiting base</p> <p>b. Proposed restructures taking place, such as SASR passing on the CT role</p> <p>c. The Commando units assessing whether some of their more conventional roles could be passed to other infantry units.</p>							
45 a	20 7	<p>The following areas need to be reviewed and changes made:</p> <p>a. The identification and allocation of roles and task for SASR and Commando units</p> <p>b. Personnel are held accountable for the positions and responsibilities they hold at all levels</p> <p>c. Clear and timely direction and a clear aim for the future</p> <p>d. Quick/timely passage of information and/or tasks both internally and externally, eg Ref A received after the nominated response date</p> <p>e. A tendency for some to put career progression above or in conflict with benefit to the unit</p> <p>f. Tendency to micro-manage activities and personnel</p> <p>g. Lack of Special Forces doctrine for the full gambit of Special Forces activities, this needs to be coordinated at a central point.</p>	Leadership	N	N	N	N	N	Y
45 b	20 8	<p>Training/Standards. At the moment SAS pers trg to maintain 20-30 skills, this needs to be reviewed and decide whether we are multi-skilled or highly skilled (both could apply in some cases). The following needs to be considered:</p> <p>a. Identify core skills and specialist skills</p> <p>b. How to maintain standards/skills for quick deployment</p> <p>c. Maintenance of capability</p> <p>d. Central control on doctrine and trg development</p> <p>e. Future Special Forces pers requirements may differ from the normal SAS/Commando operator. There needs to be a selection, trg and management process in place to facilitate these needs.</p>	Training	Y	N	N	Y	N	N
45 c	20 9	<p>Education. At the moment education in a broad range of areas needs to be addressed. Some specific areas are listed as follows:</p> <p>a. Computers have been introduced but little or N training has occurred for the majority of personnel</p> <p>b. Special Forces doctrine and staff duties is Not covered on the current promotion courses leaving a void in knowledge. We need to identify Special Forces niche within the ADF and educate Special Forces pers and the ADF to our capabilities at the relevant organisations/personnel level</p> <p>c. Standardise staff duties/doctrine within Special Forces</p> <p>d. Security trg and procedures is ad hoc and pers Not held accountable</p> <p>e. Computers have Not enhanced information flow due to a lack of equipment in all areas or are incompatible with other equip/systems</p> <p>f. Computers are an aid as with technology but they do suffer from harsh climate or primitive conditions needing redundancy in equipment or procedures</p>		N	N	Y	N	N	Y
45	21	Logistics/Acquisition. The current acquisition system is	Equipment	N	N	Y	N	Y	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
d	0	dated and Not responsive to Special Forces needs. The following need review: a. Flexibility of identification and purchase of items off the shelf to maintain/attain capability b. Some items may be required in limited numbers or have a short life expectancy, eg required for a single task only c. Technology is superseded in 12-18 months, the procurement system needs to be aware of this and Special Forces needs accommodated d. SAS/Commando need to co-ord their procurement on items identified as suitable for both units if the item meets requirements by 80 percent then preferable to procure item rather than wait years for the perfect thing and risk obsolescence e. Because of the cost of hi-tech gear, a trg and maintenance program needs to be in place prior to issue f. At times it will be necessary to delete Australian content on some items because of specific needs, development time and a need to operate with other Special Forces units g. If ADF assets are to be used with Special Forces force elements, then Special Forces requirements should be considered and implemented at the user requirement stage, eg COLLINS Class Submarine							
45 e	21 1	Personnel Management. The areas of careers, pay and compensation need review and some concerns are as follows: a. Because of the number of Special Forces units, trg centres and HQ, etc now in existence (abnormal posting cycle), there is a need to identify and manage the career path of personnel more closely particularly in the next few years; the future impact of unit/posting locations needs to be thought through and ample time given so that the impact on families is minimised b. By the nature of Special Forces Ops/training personnel are exposed or suffer injuries or illness at a higher rate than the majority of the ADF. Because of exposure to CS gas, lead, asbestos, anthrax, etc, some of the dangers are not known at the time of exposure, so allowances need to be made for compensation at a future date and in a timely manner.	Personnel	Y	N	N	N	N	N
46 a	21 2	The retention of an operational focus in an environment which is increasingly demanding the focus of human resources on non-operational issues.	Personnel	Y	Y	N	N	N	N
46 b	21 3	Maintaining a technological advantage with the right but most advanced equipment.	Technology	N	N	N	N	Y	N
46 c	21 4	Identifying the right people for SO and then attracting, selecting, training and retaining those people.	Selection	Y	N	N	N	N	N
46 d	21 5	The effective marketing of Australian Special Forces to the Government and civil community.	Marketing	Y	Y	N	N	N	N
46 e	21 6	The promotion and development of the credibility of Australian Special Forces within the international Special Forces community.	Communication	Y	Y	N	N	N	N
47	21	Marketing. We must sell ourselves to the rest of the ADF so	Marketing	Y	N	N	N	Y	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
a	7	that we recruit the people we need and get the resources that we must have. We must also sell ourselves to the government.							
47 b	21 8	We must get operational and 'live' experience in whatever way we can and must always seek new opportunities.	Operations	Y	N	N	N	N	Y
47 c	21 9	We must see the future and structure for the way things will be, Not how they were. We must get the capabilities that we need and will need: Capability: personnel equipment organisational structures techniques	Capability	Y	Y	N	N	Y	Y
47 d	22 0	Looking after our people. We must consider career management, personal and professional development and the needs of families (for real, Not for pretend) and this means putting our establishments in places where people want to live.	Personnel	Y	Y	N	N	N	N
47 d	22 1	Communication and Administration. Process must be refined to ensure that communication flows well at all levels.	Administration	Y	Y	Y	N	N	N
48 a	22 2	Laser Weapon and Technology. In recent years there has been a marked improvement in this technology, and a future role for this type of weapon could exist on the battlefield - we should address both measure and counter-measure to this type of technology.	Technology	Y	Y	N	N	Y	N
48 b	22 3	Computer Literacy. Computers these days are an integral part of society, we need to stay at the sharp end of what happens in this environment.	Training	Y	N	N	N	Y	N
48 c	22 4	Global Awareness. Modern communication means available mean that we could be deployed anywhere in the world, our personnel should be aware about what is happening in the world areas of responsibility and interest should be expanded.	Personnel	Y	Y	N	N	Y	N
48 d	22 5	The Dawn of the Space Age is close. Early next century the permanent space station will be completed and there are talks about a Moon base. This might sound like science fiction now, but so was once the idea of travelling through the air or underwater. World War I proved the point that going over the top en masse was a waste. World War II proved the point that armoured formations could determine the outcome of a battle. Time and again we had to learn from our mistakes. Consequently we should look to the future with a futuristic mind, an open mind that is Not pre-conceived.	Leadership	Y	N	N	N	N	Y
48 e	22 6	Increased Air Mobility. An air squadron should be a dedicated part of a Special Forces unit, integrated with the unit to train and operate together without having to rely on outside assets.	Capability	N	Y	Y	N	N	N
49 a	22 7	What's Important. Identify clear goal/goals.	Leadership	Y	Y	N	N	N	N
49 b	22 8	Maintain the basics in training to ensure that soldiers are flexible enough to adapt to changing environments.	Training	Y	N	N	Y	N	N
49	22	Use Special Forces in more in domestic type roles: Drug	Operations	N	N	N	N	N	Y

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
c	9	Interdiction, Illegal Immigrants, Hearts and Minds on Aboriginal Settlements, etc.							
49 d	23 0	Develop leaders at all levels so that they can better manage groups of all sizes and types and improve organisational planning/outcomes.	Personnel	Y	N	N	Y	N	N
49 e	23 1	Improve career management.	Personnel	Y	Y	N	N	N	N
50 a	23 2	Leading Edge CISEW Technologies. Mounting any Special Forces operation, regardless of size, will be dependent upon our ability to gather, interpret, analyse and employ information. The success of this operation will be determined by the protection and distribution of that information throughout the Special Forces Gp. To do this effectively Special Forces need to have, and be able to gain, leading edge technologies. Rapid procurement of this technology is critical.	Technology	N	N	N	N	Y	N
50 b	23 3	Force Projection Platforms. Raising and sustaining supportable force projection platforms. These include strategic and tactical air, water and land transport.	Capability	N	N	Y	N	N	N
50 c	23 4	Recruiting and Training. A re-focus and restructure of the recruiting procedures and training priorities is needed for the specialised Special Forces roles and tasks. It doesn't matter how unconventional we think we are the ingrained 'militarisms' identify us as Army and more so as Special Forces. The re-focus needs to be radical if this mind shift is to work into the next century.	Training	Y	Y	N	Y	N	Y
50 d	23 5	Security. A big issue. Something that has taken a back seat to functionality but must be raised in priority and scope.	Security	N	Y	N	N	N	N
50 e	23 6	Marketing/PR. Special Forces needs to be proactive in selling itself as a useful tool over a wide range of areas. This must be the case towards Government. A great emphasis is needed here as without Government support we will do little.	Marketing	Y	N	N	N	N	N
51 a	23 7	Unconventionality is a big issue that is often talked about but never really exercised. Need to become realistic and form a group within the Special Forces Gp that deals entirely in unconventionality. Which could mean working under cover of a business, etc. (Disassociated completely from the Defence Force).	Operations	Y	Y	Y	Y	N	N
51 b	23 8	Grasp technology constantly. Be able to trial and purchase equipment off the shelf without going through the current long procurement system which only puts us behind the current technology when a decision has been made to purchase that particular technology trialed three years previously.	Equipment	N	N	Y	N	Y	N
51 c	23 9	Need to employ civilian contractors who are responsible for developing equipment required, catered for our specific purposes, ie have a branch of DSTO (or similar) who work for the Special Forces Gp and produce equipment specific to our purposes.	Civilian Agencies	N	N	Y	N	Y	N
51 d	24 0	Have a serious look at the initial training of new members (ie selection course) and realise the difference between a reserve Special Forces unit and a full time committed Special Forces unit, in view of the need to have different	Selection	Y	Y	N	N	N	Y

ID	Ref	Issues to Confront	Primary Category	P	O	S	T	E	D
		selection criteria for both and Not trying to have a single unified selection course for both units.							
51e	241	Need to focus on interoperability with other civilian and government departments, ie assisting real time ops such as: drug enforcement agencies, surveillance agencies, police raids, ASIO related ops, etc	Civilian Agencies	N	Y	N	N	N	Y
52a	242	More Computer Operator positions within the Regt/more computer training.	Personnel	Y	Y	N	N	N	N
52b	243	More positions for unconventional deployments.	Operations	Y	Y	N	N	N	Y
52c	244	Some sort of EW capability introduced.	Capability	N	N	N	N	Y	N
52d	245	Exchange soldiers to more Special Forces units so that on deployments members are able to understand the workings of each other's units.	Training	Y	N	N	Y	N	N
53a	246	To further develop the image capture and transfer capabilities in an urban environment.	Equipment	N	N	Y	Y	N	Y
53b	247	Improve information systems (knowledge) both software and hardware knowledge, to keep up with the changing technology.	Technology	Y	N	N	Y	N	N
53c	248	Develop/improve an EW capability.	Capability	N	N	N	Y	Y	Y
53d	249	More use of unconventional warfare.	Capability	Y	N	N	Y	N	Y
53e	250	More exchanges with other Special Forces units world wide to share/exchange skills.	Training	Y	N	N	Y	N	N
54a	251	Identification of Special Forces role in both war time and in peace keeping.	Operations	Y	N	N	N	N	Y
54b	252	Identification of skills other than those already taught, needed in a future conflict, eg IS skills, EW and Counter EW tasks, weapons guidance, etc.	Training	N	N	N	Y	N	Y
54c	253	Closer ties between SASR and Commando, sharing of training facilities and assets, joint ex, eg SASR Pathfind prior to Commando insertion and destruction of targets.	Training	N	N	N	Y	N	Y
54d	254	During peacetime, selling Special Forces skills to other Government agencies, Federal Police, Customs, etc in carrying out surveillance of remote locations or carrying out raids on possible drug growing areas or criminal organisations.	Operations	Y	N	N	Y	N	N
54e	255	Exchange exercises with UK/US/CAN/NZ Special Forces forces especially those deemed as leaders in Special Forces operations and leaders in assimilating new technology in their roles.	Training	Y	N	N	Y	N	N
55a	256	Expert in skills.	Training	Y	N	N	Y	N	N
55b	257	Up to date in technology.	Technology	N	N	N	N	Y	N
55c	258	Ability to perform numerous jobs expertly.	Capability	Y	N	N	Y	N	N
55d	259	More unconventional.	Leadership	Y	Y	Y	Y	Y	Y
56	26	Improve IS knowledge within Special Forces community.	Training	N	N	N	Y	Y	N

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a	0	Could be improved by running an Special Forces communicator course at SOS (School of Signals). At present there are only a few pieces of equipment within the Sqn that are used to teach operators at the SOS.							
56b	261	Introduction of an EW Tp to the Sqn or an EW det per troop.	Personnel	Y	Y	N	Y	N	Y
56c	262	How to attack/detect ground radar systems (that are used to detect troop movement).	Training	N	N	N	Y	Y	N
56d	263	Explore possibilities of becoming involved with surveillance/anti drug agencies within Australia, for real time jobs/tasks.	Civilian Agencies	N	Y	N	N	N	Y
57a	264	Some sort of selection process for support staff.	Selection	Y	N	N	Y	N	N
57b	265	More PT. Too often PT is paid off for work. You should be incorporating PT into your schedule.	Training	Y	N	N	Y	N	N
57c	266	Introduction of female operators with the idea of unconventional warfare in mind.	Mixed gender	Y	N	N	N	N	Y
57d	267	More Computer Operator positions within the Regt and Sig Sqn to keep up with the computer systems.	Personnel	N	Y	N	N	N	N
57e	268	More soldiers with relaxed dress standards to develop and explore options within unconventional warfare.	Leadership	Y	N	N	N	N	Y
58a	269	Females in Special Forces	Mixed gender	Y	N	N	N	N	N
58b	270	Involve Special Forces in surveillance of criminal activity.	Operations	N	N	N	N	N	Y
58c	271	Train with all Special Forces units in world Not just local countries, ie Chinese, Japanese.	Training	Y	N	N	Y	N	Y
58d	272	Involve soldiers more in UN operations.	Operations	Y	N	N	Y	N	Y
58e	273	Allow soldiers to be posted to Embassies on short rotations to understand other countries and how things work there.	Postings	N	Y	N	Y	N	Y
59a	274	Do Not let SASR standards slip or selection criteria slip as it merges with Commandos into the Special Forces Gp. Allow SAS to keep its identity.	Selection	Y	Y	N	N	N	N
59b	275	Deployment on more UN Operations to allow an experience base to develop in the unit.	Operations	Y	Y	N	Y	N	N
59c	276	Prescribed Service Officer commission experienced NCOs into the squadrons to allow a higher level of competence at command level. Most Special Forces units in the world try to keep their men in Special Forces units.	Personnel	Y	Y	N	N	N	N
59d	277	Deploy unit members to overseas embassies to gain information on overseas countries and develop real skills in the culture and language. Full target reports could be compiled on likely targets at the same time.	Operations	N	N	N	Y	N	Y
59e	278	Streamline trials and development by sending competent unit members around to other overseas Special Forces units and checking on their trial reports to speed up procurement.	Equipment	Y	N	N	N	Y	Y
60a	279	Serious inter-Service integration. Let's look at our liaison processes.	Communication	Y	Y	N	N	N	N
60b	280	Long term focus, eg when CO, COMD Special Forces change, our focus changes wildly.	Leadership	Y	N	N	N	N	N
60c	281	The options for Prescribed Service Officer commissions	Personnel	Y	Y	N	N	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
c	1	need to be opened up, maybe culling the quota system							
60	28	Greater interoperability of NATO forces, 'let's get working with the people we will be going to war with', eg the Americans, British. Standardising SOPs.	Operations	Y	Y	N	N	N	Y
d	2								
60	28	Selling ourselves to the Politicians, making us user friendly.	Marketing	Y	N	N	Y	N	N
e	3								
61	28	More deployments overseas on operations.	Operations	Y	N	N	Y	N	N
a	4								
61	28	As Special Forces increases in size, standards of training and realistic training should stay at a higher level than the rest of the Army (Not drop).	Training	Y	N	N	Y	N	N
b	5								
61	28	Only see a role for women in a UW role.	Mixed gender	Y	N	N	N	N	Y
c	6								
61	28	A set direction in the tasks of different Special Forces units so we are Not competing for the same jobs.	Capability	N	N	N	N	N	Y
d	7								
61	28	The one selection course run by SASR where the cream goes to SAS and Commandos in that order.	Selection	Y	N	N	Y	N	N
e	8								
62	28	Special Forces selection process - is it regressive to combine the two? Will it allow easier entry to accommodate numbers required by 4 RAR?	Selection	Y	N	N	N	N	N
a	9								
62	29	I question the limitations imposed by project Delta. Granted focus must be specialised, however some skills (ie RAPSL training shelved and SL parachuting put forward as a 'viable' insertion option?? 1000-1500' over enemy territory isn't my idea of a stealthy insertion if parachuting is the only option). Should be considered as positive and useful across the board too.	Training	N	N	N	N	N	Y
b	0								
62	29	Special Forces specialised/integral helo capability. Why use half-trained crews on rotation when we could have continual support by specialist pilots. Also limitations on training with helos due to hours training locations = Nn-realistic practices that lean on perceptions of capability rather than on intimate knowledge of actual limitations.	Capability	N	Y	Y	N	N	Y
c	1								
62	29	Reduction of time for water ops course. Creates burden on troop to free up exercise time in order to train operators in basic skills. Also long water course provides a formal environment within which fledgling NCOs can gain basic knowledge on considerations for command of a water ops patrol, liaison with Navy, employment of all methods of projection, passage planning, etc - rather than assume that time in a water troop means the possession of this knowledge. As there are many gaps where opportunities exist to miss the use of assets or skills.	Training	Y	N	N	Y	N	Y
d	2								
62	29	Pay levels in Special Forces group 4 RAR - SASR. Are they equal? Is there incentive to cross over - NI! It's like a punishment rather than career progression.	Personnel	Y	N	N	N	N	N
e	3								
63	29	More involvement with international peace keeping.	Operations	Y	N	N	Y	N	Y
a	4								
63	29	More exposure to exchanges with international forces, at patrol level, eg Israel.	Training	Y	N	N	Y	N	Y
b	5								
63	29	With regard to CT, have a team do real time work with our Federal and State police, eg SRT, SOG, Customs.	Operations	Y	N	N	Y	N	Y
c	6								
63	29	Redesignation of training cycle having 2 x SRO Sqn; 1 x	Training	N	Y	Y	N	N	Y

ID	Issues to Confront	Primary Category	P	O	S	T	E	D
d 7	CT/UW Sqn.							
63 e	29 Perhaps a team permanently based overseas that is rotated through all the squadrons every 6 months. There they train and integrate. Location may be close to 'hot-spot'.	Operations	Y	N	N	N	N	Y
64 a	29 Should concentrate more on insertion skills than troop skills, ie VM, FF, water ops).	Training	Y	N	N	Y	N	Y
64 b	30 More UN operations to gain experience working with other Special Forces units.	Operations	Y	N	N	N	N	Y
64 c	30 Patrols should be left as patrols instead of splitting up if an operation comes along, therefore you don't have people joining different teams and starting from square one.	Leadership	N	Y	N	N	N	N
64 d	30 Special Forces units should be used in the tracking of drug crops.	Operations	Y	N	N	N	N	Y
64 e	30 More work with other Special Forces units to gain skills and different way of being employed, ie Seals, 22 SAS.	Training	Y	Y	N	N	N	Y
65 a	30 The Special Forces community requires clear and concise direction in which to direct their efforts.	Leadership	Y	Y	N	N	N	Y
65 b	30 The clear and concise direction will hopefully be seriously addressed by the restructuring of Army 21 and the greater role of Special Forces within this plan.	Leadership	N	N	N	N	N	Y
65 c	30 Years of constantly evolving ad hoc unit direction statements by Special Forces commanders and the subsequent interpretation and implementation (Not to be confused by the close cousin word manipulation) right down to trooper level has only hindered progression.	Leadership	Y	N	N	N	N	Y
65 d	30 Continually 'reinventing wheels' syndrome of Special Forces is the Achilles heel of our past. A flowing and fluent cycle for SASR Sabre Squadrons is tantamount to success.	Leadership	Y	N	N	N	N	Y
66 a	30 More involvement in UN ops such as Bosnia for operational experience.	Operations	Y	N	N	N	N	Y
66 b	30 More focus on operations to get away from peacetime mentality.	Leadership	Y	N	N	Y	N	Y
66 c	31 Involve armed Special Forces in conjunction with police agencies for surveillance on criminal type activities, ie drugs, illegal fishing, etc.	Operations	N	N	N	N	N	Y
66 d	31 Detachments to embassies for experience in CPP and interacting with foreign countries.	Operations	Y	N	N	Y	N	Y
66 e	31 More realistic training with less OH&S bullshit restrictions.	Training	Y	N	N	Y	N	Y
67 a	31 Focus a group on ways in which to wage non-violent, unconventional warfare, ie computer viruses, destruction or sabotage of information/communication systems.	Capability	N	N	N	Y	Y	Y
67 b	31 Find a relevant focus and train well in a smaller scope of skills, to be at a greater level of competence.	Training	Y	N	N	Y	N	N
67 c	31 More realistic training, less OH&S restrictions.	Training	Y	N	N	Y	N	N
67 d	31 Greater deployment opportunities with UN mission or as military observers.	Operations	Y	N	N	Y	N	Y
67 e	31 Armed involvement in domestic drug trafficking and policing operations.	Operations	Y	N	N	N	N	N
68 a	31 Clear direction for future (long term - 5 yrs on), ie swift strike vehicle, long range vehicle.	Leadership	N	N	N	N	N	Y

ID	Issues to Confront	Primary Category	P	O	S	T	E	D
68 b	31 9 More involvement in overseas operations, ie UN missions.	Operations	Y	N	N	N	N	Y
68 c	32 0 Fewer skills per man. Better trained and practiced in skills.	Training	Y	N	N	Y	N	Y
68 d	32 1 More involvement with other Special Forces units (and maybe police)	Training	Y	N	N	N	N	Y
68 e	32 2 Troop commanders to be WO.	Management	Y	Y	N	N	N	Y
69 a	32 3 Greater logistic support.		N	N	Y	N	N	N
69 b	32 4 Funds control at a unit level.	Management	N	Y	Y	N	N	N
69 c	32 5 Greater manning for support staff.	Personnel	Y	Y	Y	N	N	N
69 d	32 6 Pay level increase for duration of posting to Special Forces units of non-qualified pers.	Pay	Y	N	N	N	N	N
69 e	32 7 More Prescribed Service Officer commission chances for Other Ranks.	Personnel	Y	N	N	N	N	N
70 a	32 8 A lack of understanding of the Special Forces environment and culture impeding on efficient and effective support to units. (1) Difficulties in communication arise due to a lack of understanding of the role of Special Forces units by some HQ pers that could be improved with closer liaison with units and members. It is suggested that these pers be posted to Special Forces units prior to filling positions on the HQ. (2) Misconceptions also exist within supporting units concerning the seemingly endless entitlements of certain Special Forces units. Supporting units can significantly slow down Special Forces response times by questioning requests and demands. An active PR program could enhance the reputation of Special Forces units and improve co-operability whilst maintaining operational security. (3) It is also Nted that some junior Special Forces members have an almost non-existent understanding of the logistic and pers support functions. It is an Army wide responsibility to educate all corps on the logistic and admin streams.	Marketing	Y	N	Y	Y	N	N
70 b	32 9 Special Forces posting cycle for non-Special Forces qualified pers. Following para 70.a., experience in Special Forces units is obviously limited to small numbers of non-Special Forces pers and it would be advantageous to manage this experience in future postings to other Special Forces units or HQ rather than wasting valuable experience by posting members permanently back into mainstream Army.	Postings	Y	N	N	N	N	N
70 c	33 0 IS Training. There is an increased emphasis on the requirement for electronic communications between all Special Forces members/units. However, adequate resourcing (dollars and manpower) is Not being provided to train and sustain this requirement.	Training	Y	N	N	Y	Y	N
70 d	33 1 The manner in which the Special Forces Gp is employed provides intangible benefits to the Australian community and as such should be afforded the resources both human and monetary to maintain a professional capability.	Resources	Y	N	N	N	N	Y

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
71 a	33 2	Ensure that weapon systems are adopted that keep pace with current world technology, eg 50 cal vehicle mounted possible purchase of M19.	Equipment	N	N	N	N	Y	N
71 b	33 3	Increasing time dedicated to training personnel in their respective areas of expertise, eg mobility trg, live fire.	Training	N	N	N	Y	N	N
71 c	33 4	Ensuring that personnel are given the opportunity to further their careers through promotion courses.	Leadership	Y	N	N	N	N	N
71 d	33 5	Allowing selected personnel to work with other agencies that may be beneficial to their unit tasks, eg Special Forces pers to exchange with Asian Nations - Indon?	Training	Y	N	N	N	N	N
71 e	33 6	Initiation of a support program to help families cope when Special Forces spouses are away on extended operations.	Personnel	Y	N	Y	N	N	N
72 a	33 7	Command Restructure. Move from LHQ to an independent organisation on a level with the other environmental commands.	Management	N	Y	N	N	N	N
72 b	33 8	Special Forces Posting Impact on Strategic Planning. (1) Work place agreements (contracts for long term implementation) (2) Continuity for ops and trg. (3) Priority given to accommodate strategic plans. (4) Recruiting priority for specialist consultants.	Personnel	Y	Y	N	N	N	N
72 c	33 9	Special Forces Admin and Log. (1) Minimising a duplication of effort with other Aust services (Navy). (2) HQSO protecting units from admin and log decisions that is a time consuming distraction from corps business. (3) Interoperability with other foreign forces. (4) Minimising government red tape (peace time administration and logistics limitations when conducting real time operations). (5) HQSO ensuring every decision is resourced (including time and space).	Administration	Y	N	N	Y	N	Y
72 d	34 0	Appropriate Timely Trg for Special Forces. (1) Special Forces offr development. (2) Special Forces OR development courses. (3) WAN trg. (4) Recruit trg.	Training	N	N	N	Y	N	N
72 e	34 1	Operations. To provide a force appropriate to a full range of operational possibilities (women, Nn-beret qual pers being co-ordinated by qualified SASR specialists, equipment enhancement programs).	Operations	Y	Y	N	N	N	Y
73 a	34 2	Force Projection. Inadequate force projection arrangements currently inhibit operational capability. Dedicated Special Forces aviation assets and better working arrangements with RAAF and RAN assets are desirable. Current deficiencies in Collins Class submarines and range and payload restrictions of Black Hawk are examples.	Capability	N	N	Y	N	N	N
73 b	34 3	Type A Operations. For SASR in particular, it has become apparent that type A operations have an important role to play in achieving likely tasks. Implementing this capability successfully will be a significant challenge to SO.	Capability	Y	N	N	N	N	Y
73 c	34 4	Special Forces Selection. Selection is central to Special Forces sense of identity and therefore morale. With a	Selection	Y	N	N	N	N	Y

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		regular Commando organisation. SFTC and changing roles of SASR post-CT the nature of selection is an important issue to Special Forces soldiers. Issues such as women and pay scales across Special Forces fall into this category.							
73d	345	CT Handover to 4 RAR. The transition of this role is likely to be a significant undertaking and as yet little planning appears to have been conducted.	Management	Y	Y	N	N	N	Y
73e	346	SASR Post-CT. The structure, size and training focus of SASR post-CT is likely to be a contentious issue. Issues such as rotations, type A operations and overseas recovery are yet to be resolved.	Leadership	N	N	N	N	N	Y
73f	347	A number of other issues were raised that are worthy of note: (1) C2 Arrangements. Is it appropriate for SO to remain under Land Comd for raise, train and sustain? (2) Procurement. The current system is Not giving SO the technological edge in a timely manner. (3) Overseas Exercises. Should Ferdinand replace much of the Night series to enable more regional engagement and less reciprocal training? (4) Locations of Units. Where will Special Forces units be based in the future?	Leadership	Y	Y	N	N	N	Y
74a	348	To strive to be truly unconventional.	Leadership	Y	Y	Y	Y	Y	Y
74b	349	To increase our knowledge of and standing in the intelligence community.	Communication	Y	N	N	Y	N	N
74c	350	To continue to gain operational experience over a wide variety of deployments.	Operations	Y	N	N	N	N	N
74d	351	To continue to acquire 'state of the art' technical equipment to enhance our capabilities.	Equipment	N	N	N	N	Y	N
74e	352	To ensure our Operational Security Procedures are sound so our operators and operations are conducted safely.	Security	Y	N	Y	Y	N	Y
75a	353	Officer Career Management within SO. Upon completion of the suite of selection courses for service within SO units, officers are posted into command and administrative positions. These positions are demanding in terms of commitment and time and do Not allow SO officers to conduct professional development courses within the SO stream other than the core or mission essential skills. Of concern is that professional development courses for officers specific to SO are almost non-existent. I have recently completed the SOOBC and found this to be beneficial and appropriate to my employment within SO. I hope this course continues in the future for new officers coming into the SO stream. I believe that for the future a continuum of professional development courses needs to be addressed.	Training	Y	N	N	Y	N	N
75b	354	Officer Tenure within SASR. Currently officers are selected for service in SASR as a result of their performance on the selection course. On completion of a basic tactics course and a basic para course, the officer is deemed 'beret' qualified but returns to his parent unit to complete his posting with that unit prior to being posted to SASR. On posting to the Regiment the officer is expected to take a command	Selection	Y	Y	N	Y	N	N

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		position. Although the command responsibility is within the capability of officers selected, they lack the core skills required of them to operate effectively as a member of their patrol/troop without further training. This could be addressed by having officers complete a cycle of courses relevant to their employment. I believe moves that are in place to have officers posted to SASR serve tenure of four years in the Regiment are sound. This allows the officer to complete the cycle of courses and the three-year cycle that currently exists. I believe this concept has been proposed but to date it has Not occurred.							
75 c	35 5	Special Forces Training Centre. The concept of a Special Forces Training Centre appears at a glance to be a good concept. It allows the consistency in training and allows the Operational Support Squadrons of the respective SO units to concentrate on their role of operationally supporting the FEs. There are however, particular skills that are relevant to particular units, for example a commando unit's requirement to conduct platoon level operations compared to the requirements for an SAS patrol. Therefore, I see a requirement for each unit to maintain an element responsible for unit specific training. Under the Special Forces Training Centre, resources and funding would be controlled by Trg Comd. Who then resources and funds the training conducted within each unit, Trg Comd or Land Comd under the raise, train, sustain umbrella?	Management	N	Y	N	N	N	N
75 d	35 6	Common Selection. The selection courses that exist across the Special Forces Gp today are designed to select a particular soldier and officer for service in a particular unit. Common selection does Not allow for a specific to unit selection. Currently the Commando selection course is run over a 7-day period and the SASR selection course is run over a 21 day period. Successful applicants for these courses tend to display a higher degree of motivation and mental toughness than those that are unsuccessful. The duration of the SASR selection course places an additional test on the applicant's motivation and mental toughness, both during the course and the lead up training. Due to the fact that a different type of soldier is required for the different roles that each unit has, a separate selection process should be adhered to. This may take form of a separate selection or a combined 'barrier testing' phase followed by a specific to unit selection phase.	Selection	Y	N	N	N	N	N
76 a	35 8	After 2000, concern our training with the UW role.	Capability	N	Y	N	Y	N	Y
76 c	36 0	Move SASR over to the eastern states.	Management	N	N	N	N	N	N
76 d	36 1	Gender diversity needs to be encouraged within Special Forces. The male domination leads to closed-mindedness.	Mixed Gender	Y	N	N	N	N	N
76 e	36 2	We need a specialised air force unit for Special Forces.	Capability	N	Y	Y	N	N	N
77 a	36 3	Combined Selection Course. Examination of the respective roles of SASR and commando units, should preclude a	Selection	Y	N	N	Y	N	N

ID	Issues to Confront	Primary Category	P	O	S	T	E	D
	combined selection course. Commandos operate in raid companies and are employed in large groups with supporting elements. Conversely SASR soldiers are essentially required to operate as small teams or individuals, isolated from extensive command structures and for protracted time frames. Considering this then, the requisite personal traits of candidates for these two separate roles are different. Unilateral selection will most likely result in a reduction of the quality of selected soldiers for both units.							
77 b	36 4 Special Forces Training Centre. Whilst the concept of a Special Forces Training Centre is sound, in theory it poses some inherent concerns. The level of detailed training required by SASR soldiers, who are to be employed in an extended operational role, isolated from support elements and therefore relying upon training and initiative. This differs from the commando who is rarely separated from his or her basic command structure. His or her role is that of specialised infantry conducting offensive operations outside the scope of the general ADF. The SASR soldier is tasked with a range of specialised roles at strategic level beyond the scope of the ADF. So while some overlap of training may occur in certain subject areas, combining courses risks a reduction in training level. This is likely to occur as courses become progressively directed at the Special Forces spectrum as opposed to specific roles.	Training	N	Y	N	N	N	N
77 c	36 5 It is acknowledged that cross-pollination of SASR and commandos will be of mutual benefit to both, however SASR needs to retain its independence in order to effectively train its operators to meet the ADF mission requirement. Current standards and the loss of valuable knowledge bases stand to be compromised with the creation of Special Forces Training Centre.	Training	N	Y	N	N	N	N
78 a	36 6 Need our own aircraft like US Special Forces.	Capability	N	Y	Y	N	N	N
78 b	36 7 N women in Special Forces combat roles.	Mixed gender	Y	N	N	N	N	N
78 c	36 8 Need to focus more on diving.	Training	Y	N	N	N	N	N
78 d	36 9 Longer bush exercises with other units as enemy.	Training	N	N	N	Y	N	N
79 a	37 1 A comprehensive reinforcement cycle where new members to the troops are fully trained in their basic skills and insertions so that tp trg time is Not wasted bringing these members up to a basic level.	Training	Y	N	N	Y	N	N
79 b	37 2 OPSEC needs to be addressed and those violating the rules should be dealt with accordingly.	Security	Y	N	N	N	N	Y
79 c	37 3 More corporals or senior diggers should be sent away on exchange (even short term - several weeks) to other Special Forces units around the world. This is necessary to gain exposure to new equipment, assets and techniques.	Training	Y	N	N	Y	N	N
79 d	37 4 More training should revolve around offshore recovery, especially since this looks like one of our main roles after Commandos take over the CT role.	Training	N	N	N	Y	N	Y

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79e	375	More emphasis should be placed on strategic strike capabilities, as this appears to be the new direction in modern day warfare. Also a larger emphasis place on UW harassment tasks.	Capability	Y	N	N	Y	N	Y
80a	376	Maintain training focus on patrolling skills and specialist insertion skills (as with Project DELTA recommendation), eg need for water op NCOs to instruct/supervise during all water op cses as part of the DSO qualification - PTCO cse, dive cse, tactics phase.	Training	N	Y	N	Y	N	Y
80b	377	Maintain overseas deployments to SE Asia and Pacific Region. If Regt is over-committed, these trips could be reduced to a pl/team deployment. Worthwhile deployments for a water op FE would be Paskal at Lumut in Malaysia and Thailand seals at Sattahip in Thailand. These units are water operations orientated, have soldiers that are approachable and motivated to train with Aust SASR. The locations are such that an important cultural and language exchange is possible.	Training	N	N	N	Y	N	N
80c	378	Maintain policy of leave or stand down period to overlap with school holidays as is occurring with 2 Sqn in 1998. This is a good way of compensating families for time lost (evenings, nights and weekends) when their husbands or fathers are away on exercise.	Personnel	Y	N	N	N	N	N
80d	379	Encourage senior troopers and corporals to participate in Amelio activities (advice, free time to plan.) Previous in-country experience is invaluable in times of operational deployment.	Training	Y	N	N	N	N	N
80e	380	Development of ship under way capability. Also, submarine skills with the new Collins Class submarines.	Capability	Y	N	N	Y	N	Y
81a	381	Combined Selection. The respective roles and tasks of the two units are different and therefore the selection process must be different. There are inherently different requirements of manpower, that is, a man suitable to Commandos, (larger raiding forces), may Not necessarily be the same man that the SASR is looking for, (small team capable of operating removed from command/support elements). Therefore, I believe, separate selections should be maintained.	Selection	Y	N	N	N	N	Y
81b	382	Special Forces Training Centre (Special Forces Training Centre). The concept is sound but it poses some possible problems. There are a number of courses that could be run at a Special Forces Training Centre. These would be courses that are common to all members of the Special Forces Gp, ie basic demolitions, PTCO, CQB, Special Forces Sniper and Climbing/Survival. There are, however, courses that are specific to SASR, ie small team insertion skills, LRPV, CPP, PAS and advanced demolitions. Therefore, some elements of Op Spt Sqn should be maintained within SASR to continue its role of conducting specialised training for the unit.	Training	N	Y	N	Y	N	N
81c	383	Air Assets. Dedicated air assets, co-located with Special Forces Gp so as to provide and perform to Special Forces requirements. I believe this will enable better, closer and	Capability	N	Y	Y	N	N	N

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		more capable inter-operability for both aviation and Special Forces operators alike.							
81 d	38 4	I believe that 4 RAR (Cdo) and Special Forces Training Centre will provide a much needed string in the Special Forces Gp's bow and will prove to be of a mutual benefit to both Commandos and SASR, however, given that SASR and Commandos roles are inherently different, SASR needs to retain and maintain its independence so as Not to prejudice operational expertise.	Capability	N	Y	N	N	N	Y
82 a	38 5	Training. To enhance our ability to better cope with all contingencies, all personnel within the Special Forces family require a thorough grounding in the basics. There was a tendency in the past to shorten time on courses, however this has been addressed with Project DELTA.	Training	Y	N	N	N	N	Y
82 b	38 6	The Special Forces Training Centre may be able to address combined training, however there has to be set guide lines for both Commando and SAS training. Basic combined training can be achieved with thorough preparation and set goals. There must be high standards set for each unit as they have completely different roles and tasks. We should Not get confused with what is really required versus what is expedient.	Training	N	N	N	Y	N	Y
82 c	38 7	Courses such as Patrol Tactics, Supervisor Infantry Ops (Section), Medical, Signals, Demolitions and MOUT/FIBUA/CQB (the American model), can be conducted by the Special Forces Training Centre. Basic insertion skill courses such as Small Craft Handling (PTCO), parachuting and mobility can also be conducted, however specific training would need to be carried out within the individual units. These are the basic core courses that are required for a new member in Special Forces.	Training	N	N	N	Y	N	N
82 d	38 8	Selection must be looked at completely differently as both units have different requirements. The question of whether the training centre would be able to conduct a combined selection must be determined by each individual unit. There needs to be standards applied to these selection processes so there is clear delineation between SASR and Commandos. SASR selection is vastly different to that of Commandos. Completely different types of people are required. To overcome the short fall in training, there is a requirement to collate all teaching points and separate these for both Commando and SAS training.	Selection	Y	N	N	Y	N	N
82 c	38 9	Commando Company Training. (1) SASR has been involved in training teams to Commandos in the past. These courses are a very good start point for the future, however continuation training will differ from east coast to west coast and by each individual instructor. To ease the burden on training between both Commando units and SASR, 16 RWAR could be utilised as the training company for reinforcements for commandos. All the training facilities are within Western Region along with all the necessary training support and expert instruction. (2) Commandos would be better placed for the hand over of	Training	Y	N	N	Y	N	N

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		the CT role post-2000 if the training was conducted at the unit that has been conducting CT training for over a decade.							
83 a	390	Relocation of SASR. To have all the Special Forces community based to the one side of the continent is a little short sighted. At present the other assets locally based offer good flexibility and potential.	Management	N	Y	N	N	N	N
83 b	391	Special Forces Personnel on UN Deployments. The opportunities for sending Special Forces personnel on UN deployments are becoming more prevalent. However if the hierarchy within the ADF wish to maintain a high standard then the opportunity to send Not only individuals or squadrons, but patrols and troops must take more of a focus.	Operations	Y	N	N	N	N	N
83 c	392	Selection of Special Forces Candidates. Currently the selection process for both Commando and SASR are uniquely different and should continue their separate selection process. However in saying that, the Special Forces community should be given the opportunity to combine the courses to see if it is feasible, both on a budget and performance point of view. There are many 'pros and cons' for combining the selections and we won't know unless we get out of our fixed ways and be a little more flexible.	Selection	Y	N	N	Y	N	N
83 d	393	Dedication of Aircraft for Special Forces. One of the key issues concerning the ADFs Special Forces community is the lack of dedicated aircraft for Special Forces, however 36/37 Sqn do a great job in their wide spectrum of employment. The current C-130s are Not equipped with GPS or FLIR for Special Forces ops, to add to that, on a recent Vector Flash exercise, the Australian freefallers and mobility operators had to rely on a foreign agency to complete the task at hand.	Capability	N	Y	Y	N	N	N
83 e	394	In recent years the ADF has been trialling two DH Twin Otters as a replacement for the Porters. As of last year the staff involved in the aircraft commented that for the type of aircraft it costs more to lease the aircraft than to buy it over the 5-year lease period. To add to that, the aircraft is governed by civilian restrictions so it can't support Special Forces type roles by the dropping of Heli Boxes. If the ADF were to have dedicated aircraft with the sought after technology it would greatly enhance the capability of the ADF to rescue hostages in foreign countries. To date we are probably the only western country without its own dedicated aircraft in location.	Capability	N	N	Y	N	N	N
84 a	395	Combined Selection Process. I believe we can only combine the selection process to a certain degree. That could possibly be that all the physical tests are conducted in the initial phase to get the physically/mentally fit personnel required to then go into the Special Forces fields req. This is where the course can split but conducted at the same school, for obvious cost cutting reasons. The selection process for SASR and Commando has to be different due to the varied nature of tasks that both units conduct. It has been proven in the past that a Commando can operate as an Army Reserve unit but a unit such as SASR cannot. CT	Selection	Y	N	N	Y	N	N

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		skills nowadays, are Not considered a 'black art', SASR has been training police forces in the region for years, some of those police officers were females.							
84 b	39 6	Special Forces Training Centre. A central school for basic skills is a good concept to eliminate duality of facilities and instructor base, but there will be a need to have training cells that give the mission essential skills to each different Special Forces formation. These cells or training wings should be located at the individual units.	Training	Y	N	N	Y	N	N
84 c	39 7	Paradigms. As a Special Forces force there still seems to be a limited view on how we do our business. These are generated by a lack of assets and restraints placed on Special Forces by Army, ie insufficient ranges for organic weapon systems (.50 cal, M203 in a contact drill).	Leadership	N	N	N	N	N	Y
84 d	39 8	Regional Focus Language Training. Language skills are very much a perishable skill and need more attention for its upkeep, ie 2 month emersion training in target country, 6 week Customs and Patrol Boat attachments, 3 months attachments to a unit of similar role and tasks (KOPASSUS, Task Force 90 P.I. SAF, PGK) in target country. The amount of money and work that go into training a proficient linguist is Not reflected in continuation training or time to conduct training to keep these perishabel skills alive. A more serious look at giving the linguist training time support and TIME to do the training, three continuous days per month with at least some time spent in country, once a year. This sort of training is mostly time intensive with the use of limited resources.	Training	Y	N	N	Y	N	N
85 a	39 9	Selection. (1) The current selection process should be adapted to meet the challenges of the future. I believe that due to the very different roles and expectations of each unit that a separate selection needs to be run for SASR and the Commando units. (2) In line this the SASR selection should look to the future and address the following: (a) The selection of women to serve in predominantly UW roles. (b) The selection and recruitment of specialists into a reserve component (eg journalists, linguists, technicians and ethnic minorities, etc). c - Maintaining a larger reserve component with an operational role. (3) Selection and recruitment of suitable personnel remains the key to having a capable Special Forces unit.	Selection	Y	Y	Y	Y	N	Y
85 b	40 0	Training. (1) The training focus of each Special Forces unit needs to be more defined to ensure that units are able to effectively maintain mission essential skills to a higher level. The adage of 'Jack of all trades Master of none' seems to define the Australian approach to training Special Forces operators in all our units. (2) By HQSO clearly defining each role and task to avoid	Training	N	N	N	Y	N	N

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		<p>duplication, the units will be able to achieve a higher level of skill and capability in their mission essential skills. Obviously some cross-training will still be required between units.</p> <p>(3) Training courses should be approached in a more beneficial way. For example, all language training of SASR linguists should be done 'in country' using the University Campus courses offered in most Asian countries, thus also giving a higher level of cultural awareness and local knowledge. If this is prohibitive financially, then the courses run in civilian campuses in Australia would be suitable by providing a different perspective to SASR members.</p> <p>(3) SASR should start to have a greater focus on UW training and operations in urban environments out of uniform, as the scope for such activities in the future political environment in the region is increasingly relevant. The continuing need for green roles troops is as important as ever for other roles (recovery, CSAR and SRO).</p>							
85 c	40 1	<p>Equipment and Funding.</p> <p>(1) To enable all Special Forces units to operate to their highest potential they need to be equipped with the most suitable equipment that maintains a technology edge over their rivals. This is especially true of items such as night vision and image transfer equipment.</p> <p>(2) Weapon systems need to be capable of adapting across the range of mission profiles and the M4 modular weapon system would do this for SASR allowing both recovery and contingency roles to be covered with one weapon system.</p> <p>(3) New equipment needs to be assessed quickly and brought into service, allowing us to maintain the technology edge. Two and three year procurement cycles leave us behind both our allies and adversaries.</p> <p>(4) Funding needs to be maintained at a suitable level to ensure challenging and relevant training can be conducted in both Australia and the region. This should be characterised by N notice activities planned and conducted by HQSO to ensure the Special Forces group is at the capability level that HQSO requires.</p>	Equipment	N	N	Y	N	Y	N
85 d	40 2	<p>Leadership Training.</p> <p>(1) The focus for Special Forces should be developing our future leaders now. To do this the JNCO showing potential should be given the opportunity to train on exchanges with other Special Forces units overseas. In the same way our junior officers should be exposed to the planning and training systems of other units in the Special Forces community overseas.</p> <p>(2) Exposure to our overseas allies at all levels will ensure we maintain the technological and technique edge into the future.</p> <p>(3) Vital to leadership of SASR in the future is the continuing policy of having SASR officers serve as patrol commanders for at least one year. Without this they will Not understand the hardships and complexities faced by a patrol they may task in the future as XO and OC.</p>	Training	Y	N	N	Y	N	Y

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85e	403	<p>Planning and Staff Processes.</p> <p>(1) To ensure that the Special Forces group remains effective into the future, it is vital that planning and staff processes are standardised across Special Forces and that a suitable training course is conducted for all officers and SNCO.</p> <p>(2) This course should take the form of an Special Forces joint planning course and it should initially target all officers and SNCO identified for planning or staff jobs, eg Tp XO and SSM and ultimately all Special Forces officers and SNCO.</p> <p>(3) The course should be compulsory for any Navy or Air Force personnel that are involved in the planning or conduct of missions supporting Special Forces units. It would give them a valuable insight into the capability and requirements of Special Forces, while teaching the correct planning sequence.</p> <p>(4) The US military currently run such a course that may provide a good start point for HQSO.</p>	Training	Y	N	N	Y	N	Y
85f	404	<p>The future of Special Forces will rest on the clear definition of unit roles, effective training of suitably selected personnel in mission essential skills within these defined unit roles, maintaining the technological and technique edge over both allies and adversaries and ensuring that our future leaders and planning staff are trained to the highest standard through exposure to foreign units and through relevant courses in Australia.</p>	Capability	Y	N	N	Y	N	N
86a	405	<p>Observation. The importance of tactical and operational manoeuvre is directly proportional to increased dependence on the technology for transmission of timely information and intelligence. This increased reliance on the timely provision of information, in order to penetrate the enemies decision process is forcing SAS FEs to meet shorter response times. Recommendation: In order to maintain a short response time the skills required must be routine. Routine comes from repetition in training and a high degree of competency in the fundamental skills. Therefore the Special Forces Gp should maintain its focus on reducing the amount of inappropriate training and tasking. This will increase time to maintain a reasonable skills competency. DELTA projects have gone along way to achieve this; however, this should be constantly monitored and updated.</p> <p>Full mission rehearsals with joint assets and full C2 should be increased because at present our weak link in a majority of missions is the assets that we rely on. Assets and related units can Not match our response times, therefore negating one of the Special Forces Gp advantages.</p>	Capability	Y	Y	N	Y	N	Y
86b	406	<p>Observation. SASR and Commandos have different missions and tasks, therefore, the selection criteria need to reflect these differences.</p> <p>Recommendation: SASR should retain its selection course to ensure that we continue to get suitable officers and men based on the qualities required to complete the unique missions that apply to SASR. Commandos should have a</p>	Selection	Y	N	N	Y	N	N

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		'Commando training course' that teaches and selects personnel on their ability to perform the related skills in a strenuous environment. SASR and Commando situation is Not the same as 22 SAS and SBS. 22 and SBS perform similar missions, therefore, their selection criteria are similar and joint selection is appropriate. In our case the missions of both units are different and to impose joint selection will degrade the ability of SASR and Commandos to select and train the appropriate personnel.							
86 c	40 7	Observation. Career concerns appear to have a greater effect on the decisions made, than do operational interests. This is an effect which, historically proven, comes with 'Peace Time' defence forces. This effect is present among officers and NCOs throughout the Special Forces community. As a direct result micro management is frequent at all levels and if this trend continues it would be harmful to the development of future leaders. With diminished leadership development, innovation and flexibility will decrease within the Special Forces community. Recommendation: Commanders at all levels (in particular the junior commanders) must be given more responsibility and made accountable for their decisions and actions. Leadership training within the Special Forces group needs to be increased and monitored to ensure that our future commanders can meet the future challenges.	Leadership	Y	N	N	Y	N	N
86 d	40 8	Some of the ways we conduct business do need to change. However, I believe that the Special Forces Gp should maintain its focus on developing leadership at all levels. Maintaining a high degree of competency in the fundamental skills and having the appropriate selection and training to suit individual unit requirements. These factors have Not changed throughout history and probably will Not change in the future.	Leadership	N	N	N	Y	N	Y
87 a	40 9	(1) Combine Yr 1 Sqn with Trg Sqn leaving two operational squadrons within SASR:A Contingency Sqn and Recovery Sqn. Perceived advantages would be: (a) All reinforcements would undergo common Special Forces skills training at the Special Forces school, eg patrolling, demolitions, para and CQB. Reinforcements would be posted to units only on successful completion of these courses. (b) SASR reinforcements would then receive one full years specialist/unit training within Trg Sqn. Upon posting to Contingency Sqn, all reinforcements would be fully trained in mission/insertion skills and require N further training to reach OLOC level. (c) This system would also cater for the expected reduced future SASR manning due to our commitment to supply instructor support to the Special Forces school.		Y	Y	N	Y	N	N
87 b	41 0	Introduce a procedure to brief all Special Forces personnel at sub-unit level on lessons learnt on all operational and contingency deployments. Currently a lot of knowledge and experience gained on these missions is very	Training	Y	N	N	Y	N	Y

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		compartmentalised and valuable lessons are only being learnt by those people actually on that mission.							
87c	411	Currently there is a widespread lack of knowledge across all levels in Special Forces on the benefits and procedures of using information technology. The IM systems currently available are Not being used to their full potential (ie Special Forces WAN, SASRLAN) or their inappropriate use is causing security concerns, all through lack of training and awareness. A solution could be to introduce an intelligence/information systems management position into all sub-units within Special Forces (SAS Sqn) whose responsibilities would be to advise, train and regulate on current information management systems available and in use within Special Forces.	Technology	Y	N	N	N	Y	N
87d	412	Currently there are two individual weapon systems used within Special Forces (M16 and Styer). Neither system is issued with a night aiming device (NAD) as standard. In 1998, most Special Forces soldiers will cannot accurately employ their individual weapon in low or N light conditions despite it being recognised at least 10 years ago that the likely future battle would be fought at night and indeed, most of our training doctrine is based on nighttime activity. We need to standardise a weapon system within Special Forces and immediately channel our efforts into addressing this inadequacy. My suggestion is to discard the Styer and equip all Special Forces personnel with the M16/M4 modular weapon system. Not only would we benefit from continuity in training, ammunition type and 40mm capability, but the mounting system allows for great flexibility in the choice of day/night sighting aids. All weapons should be issued with at least a NAD such as Aimpoint, Trigicom scope or tritium sights, etc. The current NFE procurement projects will obviously further enhance this capability.	Equipment	N	N	N	N	Y	N
87e	413	A serious UW capability within Special Forces needs to address the possibility of recruiting women and intelligence specialists from the civilian intelligence community. We need to change the way we think in relation to covertly acquiring intelligence as I don't believe an Special Forces member could ever develop enough skill in this field to be viable.	Mixed Gender	Y	N	N	Y	N	Y
88a	414	1. Education of SASR Personnel. Since my return in January from a two year posting with 1 Commando Coy I have observed a distinct lack of knowledge, understanding and belief in the raising, development and employability of the following Special Forces elements: (a) raising of 4 RAR (Cdo) (b) expansion of 1 Commando Regt (3 Coy) (c) Special Forces School (d) relocation of SASR Education of SASR members in these areas will Not only increase the unit knowledge and understanding of the development of Special Forces, it may increase the number of SAS members that are willing to be posted out of the unit	Personnel	Y	N	N	Y	N	N

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	and in turn reduce the 'shock' to members of SASR when they receive a posting order to the eastern states.							
88 b	41 5 Location of Special Forces Units. It is my understanding that 4 RAR (Cdo) is to remain in Holsworthy. This is unfortunate in two areas: (1) Being an amphibious unit, its distance from the ocean. While major activities will be forecast, costed and transport organized, a great deal of experience can be gained through minor activities being conducted in a suitable close training area such as experience in the surf (PT), swim fitness, swimmer scout drills and general small craft training without the need to include excessive transportation times into the activity. This is especially beneficial to members from country areas. (2) Isolation of Special Forces units. One of the advantages that the SASR has in its location is that it is isolated from conventional units. This restricts involvement with a more regimented environment allowing for concentration in other (task related) areas. Perhaps locations such as Holsworthy (4 RAR) and Singleton (Special Forces School) will Not allow for this to occur.	Management	N	Y	Y	N	N	N
88 c	41 6 Development of the Special Forces School. During my service with 1 Commando Coy I observed the raising of the Commando Training Wing (CTW). With only two SAS qualified 'instructors' the CTW that was predominantly manned by members of the RAR and 1 Commando Regt personnel on full time service lacked the qualifications and experience required to train Special Forces soldiers in inherently hazardous activities such as amphibious operations and close quarter battle which are two of the skills required by all commando soldiers. To that end it will be important that the SASR be well represented throughout the raising and implementation of the Special Forces School. This will ensure that the better interests of SASR, skills and standards are maintained. It will also ensure that suitably qualified and experienced instructors are available to train the Special Forces soldiers of the future.	Training	N	Y	N	Y	N	Y
88 d	41 8 Selection and Training of SASR Personnel. Due to the changes in society and the likely combined SAS and Commando selection course that is likely to last for an 8 to 10 day duration, while being of adequate time to select a suitable commando soldier, I do Not believe that this is enough time to successfully select a suitable soldier for service within SASR and unfortunately I feel the ability to select suitable personnel for service within SASR will gradually be reduced. Until the unit training demands are reduced (CT role to 4 RAR) this may result in a required reassessment of the units manning capabilities or a reduction in the units training requirements. This is another reason for the unit to ensure that it provides appropriate instructors for the raising of the Special Forces school. Shortfalls in the current present training system resulting from the 'Fuge era' are becoming increasingly apparent. In	Training	Y	N	N	Y	N	N

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		particular in the field of water operations. Members are being posted into the troops with minimal training which is likely to impact on the unit capabilities if Not addressed in the future. The intentions of Force Projection Troop to reintroduce the assault swimmers course, all be it a shortened version is a step in the right direction.							
88e	419	The Future of SASR. Given that the raising of 4 RAR (Cdo) is successful and they take over the CT role in 2003? SASR will inevitably take on the 'grey role' in a more active way. The grey role should be conducted by a troop size group comprising of a regular component for the administration and planning (in conjunction with the Swan Island detachment), with a reserve component to be activated when required. Ideally the group should be located outside of the barracks, never in military uniform and distanced from the regiment. The reserve component comprising of ex-SASR personnel and suitable females all of varying ages and appearance who have slipped back into civilian life and hold a credible cover story. The recovery capability will have to be maintained which will include continued practice of insertion and field skills as well as a reduced CT and maritime CT capability. Until SASR is relieved of the domestic CT role the regiment will need to maintain its current activities. However, a grey roles component should be identified to commence the raising of this skill and conducted utilising the skills and experience of other agencies.	Capability	Y	Y	N	N	N	Y
89a	420	The continued selection of high quality personnel for the Special Forces Gp, ensuring standards are Not compromised for resource reasons.	Selection	Y	N	N	N	N	N
89b	421	The effective training of personnel in an Special Forces training centre to meet the needs of the individual units, ensuring standards are Not compromised in combining training.	Training	N	N	Y	Y	N	N
89c	422	Ensuring HQSO is an effective organisation, ie fully integrated into HQAST for operational needs and LHQ for maintaining training resources required for high risk and demanding operational commitments.	Management	N	Y	Y	N	N	N
89d	423	Developing a Special Forces ethos across the Special Forces Gp to encompass the unconventionality and unique nature of Special Operations.	Leadership	Y	N	N	N	N	Y
89e	424	Developing and improving the Joint nature of training conducted by the Special Forces Gp. SO requires close support from the RAAF and RAN to ensure its success.	Training	N	N	Y	Y	N	N
90a	425	There must be more clarification on the direction that the unit and individuals are to take in regards to Unconventional Operations. I feel formal training is required in this subject and that Unconventional Operations are Not just a mindset, which can be suited or applied to all members. I know that there are many different facets within this subject, but to me they are undefined. Currently the UW course is held at Swan Island but would be more beneficial conducted at SASR on a more regular basis.	Leadership	Y	Y	N	Y	N	Y
90	42	The operational experience level of the SNCO within the	Personnel	Y	N	N	Y	N	N

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b	6	Regiment is lacking. Therefore, I feel the Regiment needs to prioritise operational experience and overseas exchanges against training requirement, during the three-year cycle. This would develop experience levels and gain exposure for the senior members of the unit.							
90 c	42 7	Career management within the regiment in the past has been handled very poorly. It needs to be addressed considering the start of the Special Forces school is going to see members from the regiment being posted to other Special Forces units, with 15+ years experience and possibly being the rank of CPL at N fault of their own and in many cases having reverted in rank to serve within SASR.	Postings	Y	N	N	N	N	N
90 d	42 8	There is the need to increase the amount and level at which the training is directed in computer and information systems. There is also the need within the troops to develop computer literacy, starting at the lowest levels.	Training	Y	N	N	Y	Y	N
90 e	42 9	HQSO and SASR need to clarify the direction, allocation of money and manning for the future of oxygen parachuting within the unit. There is a deficiency in the maintenance and serviceability of the current oxygen equipment held in the unit at this present time.	Equipment	N	N	Y	N	Y	Y
90f	43 0	Special Forces require dedicated aircraft to maintain inter-operability between SASR and aircrew in order to develop and constantly update SOPs. It will also alleviate the problem of the time restriction for the deployment of the standby patrols at short notice.	Capability	N	N	Y	N	N	Y
91 a	43 1	Group Identity. Finding an identity and an esprit de corps that all Special Forces units can relate to considering the differing roles, the different unit backgrounds and histories and with the tyranny of distance will Not be easy. The creation of a joint Special Forces school, a joint selection process and even a Special Forces Corps would, I feel, be positive steps towards forging a strong bond. It must, however, be well managed and there must be N lowering of standards, regardless of the 'numbers game'.	Leadership	Y	N	N	N	N	N
91 b	43 2	Marketing. Recent years have seen both SASR and the Special Forces community in general 'market' themselves more vigorously and cleverly. For such a 'tall poppy' like Special Forces, this trend needs to continue and progress for our survival to be assured. Acceptance, both by our military colleges as well as our political masters is essential, Not only for our existence, but for our deployability. This, obviously, goes hand in hand with a strong identity.	Marketing	Y	Y	N	N	N	N
91 c	43 3	Projection. By this I mean the subtle, but relentless projection of individuals, sub-units and unit Not only into our region, but on a global scale. Obviously the greater the operational exposure the better. Recent events graphically illustrate that it is, perhaps, a little shortsighted to focus primarily on one area. Every effort must be made and every opportunity taken to project ourselves, be it through the UN, aid agencies/NGOs, DFAT, trade missions, industry, exchanges, exercises, operations or by further development of our UW capability; both covert and clandestine.	Operations	Y	Y	N	N	N	Y

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91 d	43 4	DFAC-P Role. It is my belief, and I am sure I am Not the 'Lone Ranger' on this, that we are an under utilised resource. The development of an 'extended' DFAC-P role, if correctly handled, would benefit all agencies concerned. We have valuable skills to offer and complement agencies such as Federal Police, State Police Services and Customs. These skills include recon/OP, patrolling, tracking, reporting and ICAT. Greater training opportunities also exist as does the attachment of observers to these agencies.	Operations	N	Y	Y	N	Y	N
91 e	43 5	Equipment. Although some of the equipment issues I intend to raise are in the process of being addressed, I believe they need to be satisfactorily completed sooner rather than later as they directly affect our strategic capability. Firstly is the avionics update (including GPS fit) of the F-111 fleet. This, along with a working SOP for ground based LTD without the aircraft having to 'see' the target, is crucial to this weapon systems effectiveness. Secondly, the need to fit at least some of the Collins Class submarines for Spec Ops; at least to the same standard as the 'O' Boats and preferably beyond. Thirdly is the need for some form of refit to at least the Spec Ops C-130 aircraft. An in-flight refuelling and a GPS fit with a download capability would be a minimum. Fitting of FLIR and an ECM/ESM suite would be nice also. To that end the timely creation of a dedicated Special Forces air wing with dedicated aircraft would Not only increase training standards but also interoperability and significantly reduce deployment lead times. Lastly, and certainly Not least, is the issue of procurement. Special Forces units require greater autonomy in the trail and procurement of all types of equipment. We all know how protracted the process is under the normal system, ie the combat boots, cams and the load carrying system.	Equipment	N	N	Y	Y	N	N
92 a	43 6	Maintaining Quality Personnel. It is imperative that the Special Forces Gp maintain the quality of its personnel. To do this we must look at our system of selection, bearing in mind that we are still Army u nits and ultimately must be prepared to operate at the highest level of conflict in a conventional setting. I believe that cost cutting techniques, such as joint selection courses, and applying conventional training wisdom, such as validating selection as a course on a percentage pass rate, can only be self-defeating in the long run. Without a doubt the selection process demands scrutiny, and should be a dynamic process, as otherwise it risks atrophying into an ineffective sieve. It cannot be validated as a training course however, as it is selection Not training, and most importantly should Not be judged on a percentage passing or quota basis as this could lower the quality of those selected. With the operational tempo on the rise for the Special Forces Gp, it is critical that commanders will still be able to trust their subordinates to make the correct decision, especially with the strategic and political consequences of special operations being potentially so dire.	Selection	Y	N	N	N	N	N
92	43	Rationalising Our Training Focus. With the expansion of the	Training	N	N	N	Y	N	N

D	W	Issues to Confront	Primary Category	P	O	S	T	E	D
b	7	Special Forces Gp to formation level, it is essential that training of core skills be rationalised to ensure that the most is made from the training dollar allocated to HQSO. The consolidation of all core skills to the Special Forces Training Centre is a good plan and with the amount of money being constricted to the group an essential one. It is a move however that I perceive as being fraught with peril. It is a unit that will take some time to become effective, and until it is fully accepted and operational all core skills will be better trained under the current regime. The future without a doubt is toward some skills being consolidated at the Special Forces Training Centre, but to rush toward it will mean that the basis in core skills of some operators will be compromised.							
92 c	43 8	Developing an Operational Focus. It is critical that units on short warning be able to match that with a focus that allows them to deploy with minimum fuss and then carry out tasks in a competent and disciplined fashion. To develop this focus there needs to be Not only the perceived chance of deployment but also the reality. In addition 4 RAR and 1 Commando Regt must have the operational ethos instilled into them, as their current focus appears to be Not dissimilar to the rest of the Army. Without this focus being spread across all units, the perception will be simply that of the group still having only one viable deployable unit. For the Group to be a viable formation size group all units must foster the same level of operational focus.	Operations	N	Y	Y	N	N	Y
92 d	43 9	Maintaining Technological and Capability Edge within Region. As other countries within the region close the gap with Australia in technology, it stands to reason that they will begin to improve in quality as well. Our assumed superiority in technology is already being eroded, though this will slow with the current economic crisis, and as other countries gain advanced equipment their quality will have to improve to operate it. In addition as we improve our ties with our neighbours they will naturally gain experience and training from operating with us that further closes the gap. It will take a great effort to maintain our technological edge, by both improving our current line of equipment as well as identifying other equipment swiftly that will fulfil our new roles and responsibilities. This will also tie in with the requirement to maintain the quality of our personnel, as this will be the critical aspect in maintaining and improving our superior standing.	Equipment	N	Y	Y	N	Y	N
92 e	44 0	Develop Operational Experience within Group. It is essential that the Special Forces Gp take every opportunity to gain operational experience that it can. Without the operational experience within the group, we will find it increasingly difficult to train quality individuals and retain highly trained operators in the units. Advanced training and selection requires experienced instructors, and an operational focus will be best fostered by the regular deployment on operations. And to confirm our edge over other countries our	Operations	Y	N	N	N	N	N

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	capability must be validated on operations, even if it is just combined training with other nations. This final point is the critical issue that must be addressed, as it will effect all the others in a disproportionate fashion.							
93 a	44 1 Force Projection Platforms. Presently we have a distinct lack of force projection platforms available to Special Forces. To maintain a truly strategic capability we need to have greater access to: (1) Chinook CH47 (2) Collins Class submarines (3) Naval Assets (Kanimbla) (4) Naval Aviation assets (5) Civilian craft	Capability	N	N	Y	N	N	N
93 b	44 2 Special Forces Training Centre. The Special Forces Training Centre has the potential to undermine an Special Forces unit's ability to conduct its unit specific individual training. Receiving the appropriate resources and establishing a good working relationship with TC-A, I believe may cause problems in the future.	Training	N	N	Y	Y	N	N
93 c	44 3 Combined Selection. Combined selection has the potential to undermine SASRs ability to select the soldiers and officers that are suitable to serve in the Regt. The concept in the future of selecting members for SASR only after they had spent time in Commandos, I believe is ludicrous and will undermine the ability for SASR to draw from a broad spectrum of the three services. With the possible changing roles of SASR in the future there may be a need also for SASR to consider expanding its recruiting base to civilians.	Selection	Y	N	N	N	N	N
93 d	44 4 Officer Career Management. Presently there is some resistance (depending maybe on your CO) for officers to be released from their units to attempt an Special Forces selection course. Once an officer has passed, the problem can become even worse and getting released to conduct further courses or an early posting may become a real fight. Special Forces units need to be more proactive in pursuing the release of officers and should Not just leave it up to the individual with little backing to sort out.	Training	Y	N	N	N	N	N
93 e	44 5 Information Systems and Information Management. Presently the Special Forces Gp and the Army as a whole is way behind in our ability to maintain a grasp on computer technology. The Special Forces WAN is a great concept, but it is a double edged weapon which could lead to numerous security and IS breaches if the appropriate training is Not provided with the system.	Technology	N	N	N	Y	Y	N
94 a	44 6 Dedicated Special Forces air wing, including Chinook, small fast helo support and C-130 spec op capable.	Capability	N	N	Y	N	N	N
94 b	44 7 Corps of Special Forces. Provide for career management separate to the Corps of Infantry which does Not recognise the extra hardships of being in Special Forces.	Personnel	Y	Y	N	N	N	N
94 c	44 8 Special Forces Development and Trials Team. Allow for faster and up to date equipment purchase.	Personnel	Y	Y	N	N	Y	N
94 d	44 9 Relocate SASR to eastern seaboard.	Management	N	Y	N	N	N	N

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				P	O	S	T	E	D	
94 e	45 0	All Special Forces training conducted at one location separate to operational regiments, this would allow for regiments to concentrate on an operational focus.	Training	N	Y	N	Y	N	N	
95 a	45 1	With the likely approach of a Joint Special Forces training establishment, it is important to realise that the two Special Forces roles (SASR and Commando) should remain separate in selection and in some areas of training. It is apparent that the basic SASR trooper and the Commando PTE are a different animal. There are many reasons; reason for joining, attitude, maturity, type of roles they will be expected to fulfil, etc. All these qualities will need to be distinguished on a selection course and even though candidates will probably indicate their preference, this will Not be easy in such an environment as selection, therefore the quality will drop.	Selection	Y	N	N	N	N	N	
95 b	45 2	Currently the C-130 Spec Ops crews cannot fulfil the requirements of the stand-by patrols or the requirements of some types of insertions. This came to light recently where if it was Not for the USAF Talon, the training would Not have been conducted as planned. The only reason the training took place was because of the spare aircraft and the fact they used GPS and had the use of FLIR. Special Forces needs dedicated crews who are on as much notice to move as we are and aircraft that can do the job.	Capability	N	N	Y	N	N	N	
95 c	45 3	There are Service and civilian aircraft that could be used for training/ops that at the moment have restrictions on them. Islanders and Twin Otters could be used in parachuting and resupply, but currently there are restrictions on their use. These should be another option open to planners as well as other civilian/military equipment.	Capability	N	N	Y	N	N	Y	
95 d	45 4	Computer training is absolutely essential for all members, Not just clerical. The new computer cell in Campbell Bks is a great step, but with only 20 or so terminals and a lot of people to train and Not a lot of time to do it in, training will be slow.	Training	N	N	N	Y	N	N	
95 e	45 5	Operational experience within the Army is very low. Thankfully it is getting better but there are opportunities around the world where Special Forces operators could deploy or detach with overseas nations.	Operations	Y	N	N	Y	N	N	
96 a	45 6	Defining the Aim. This is not the elusive and shape-changing spectre that some would have us believe. As it has been since the beginning, the aim is always success in battle. The evolution of 'battle' and of 'weapon' may change, but the desired outcome (or 'end-state' for those who may feel more comfortable with military geek speak) 'success' - is immutable. If this is the essence of our aim then all training and tasking will easily flow from it. The new theories (there have always been new theories) of 'Revolution in Warfare', 'Bloodless War', C3..4..5..6..?.. I Warfare', make wonderful subject for learned debate and essay writing. The problem is that at the operator level such 'smoke' only obscures the focus of the job.	Leadership	Y	Y	N	N	N	N	
96	45	Maintaining the Aim. To maintain focus on the aim it is	Capability	Y	Y	N	Y	N	N	

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b	7	necessary to train soldiers who are able to plan, co-ordinate, integrate, synchronise and execute a mission successfully. At first glance, this may appear to be daunting but if the training concentrates on the essence of military operations, the base skills - ie navigation, communication, weapons skills, planning and orders, insertion methods - any additional/special tasks can more readily be assimilated and executed by the properly trained soldier. The reason that we have moved from the baseline in our recent past is because, in peace time, there is the easy lure of chasing the attractive and the exciting in our training schedules and disregarding the physically demanding or repetitive ('Hell - We can already do that; why waste time doing it again?'). It is an interesting observation that as soon as it appears that there may be a job on, everyone wants to go to the Q-store for a new compass, new magazines, to go to the range, to rehearse drills - the very things that we all said that we had or were proficient in and did Not require to get or to practise. Recent training reviews have done much to correct this deviation.							
96 c	45 8	Exploiting Opportunity. Given that we have well trained soldiers that are able to deploy at reduced notice to move, it is now the task to find them employment. It is here that we all must revisit the First Key Challenge - Defining the Aim. If the job that is being offered does Not fall within our focus then it should be passed on to the people who should be doing it. Prolonged peace has made us willing to take on tasks that may Not necessarily be ours and may offer little back to Special Forces. However, benefit may be gained in areas that, on first glance, may Not seem obvious. It is up to all members to be constantly vigilant to possible opportunities. (These opportunities may well lie outside the country or outside of the military but offer something none-the-less). It is also up to all members to be on the lookout for tasks and training that are time wasters and Not relevant.		Y	N	N	N	N	N
96 d	45 9	Disregarding the Superfluous. In war and in peace we face the external problem of the lack of manpower and the lack of funds. It we were to decide, for example, that the focus of the unit was to be able to fight as well as carry out reconnaissance and surveillance tasks, we could be led to assume that there would be a requirement for modern and efficient weapons systems for our soldiers and for the platforms that they may serve. (in a unit on reduced notice to move one would think such matters would already have been decided and acted upon). To then be able to outfit the unit with a weapons upgrade it would be a matter of deciding what attractive items would need to take lower priority. Once our basic requirements are met, then we can move onto less needed items. This also goes for exercises, courses and training. If equipment or training is Not essential nor relevant to our aim, it needs to be cancelled. Believe me, there are innumerable activities that do require our attention!	Training	Y	Y	N	N	N	N
96	46	Preservation of Combat Power. This is Not a warlike	Leadership	Y	Y	N	N	N	N

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e	0	finishing statement but is based on observing the unit training cycle for a number of years. Again and again it has been identified that the intensity of training puts extreme strain on our resources and personnel toward the end of each year. I have Not observed teeming hordes attempting to over-run our ramparts but the intensity of training would give the lie. The main problem that this poses is, that if we should be activated for conflict during this period, I see that we are carrying very little physical or mental 'fat' and would be more susceptible to making wrong decisions and to mental and physical burn-out. (For anyone who does Not understand what I am saying - I can only suggest that you take a posting for a year or so and then return on posting in September!). Stronger directives need to be implemented and supervised with regard to our use of time. Also, anyone who says: 'If you can't handle the pace - get out!'; to them I suggest that they are Not unlike the hamster in the wheel who is so busy keeping the thing turning that he can't see that it is taking him nowhere! The problem of leave (or lack of) is a direct result of this increased activity period - people become so enthralled by the intensity of the training on 'OLOC', 'NTM' and other marvellous combinations of letters that take on such hallowed meaning that common sense is pushed aside (once again, N 'enemy at the gates'). Our men face two years without leave again and again. This is Not realised by the commanders as they only snatch two and three year glimpses of the Regt. With this overwork it is generally the willing horse that receives extra load - in fact, the person that should be the one being looked after. On top of this, there is the prospect of actually losing what leave is owed!!!!							
97 b	46 2	In future years, HQSO should conduct staff induction training. This is essential for non-Special Forces personnel and of benefit to Special Forces personnel given the rapid advances in technology, force structure and strategic affairs. Despite attending a Joint Operations Planning Course and studying SO doctrine, I require more background information to maximally contribute to the HQ.	Training	Y	Y	N	Y	N	N
97 c	46 3	Address the wider Army perception that Special Forces is a resource black hole. Clearly the nature of SO means that higher training, materiel and wages costs are involved, however, the force multiplier effect of SO offsets this. The extent to which this occurs should be quantified and should present an argument that debunks the resource issue. The endstate should be wider perception that Special Forces presents a cost effective and very versatile asset well worth the resource expenditure.	Marketing	Y	N	N	N	N	N
98 a	46 4	Information Operations and C2W: SO needs to develop capabilities for effective employment in IO and C2W. At the same time we should Not try to develop these in isolation or in competition with other ADF force elements, but rather where our existing skills or niche roles can provide a unique skill set:	Capability	Y	Y	N	N	N	Y

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		<p>Examples:</p> <p>(1) Physical Attack on Enemy C3I Systems: infrastructure targeting and strike and standoff weapons (such as EMP), attacked on civil infrastructure such as telecommunications and power. This would lead to a requirement for higher technical expertise in these areas.</p> <p>(2) Use of Adversary C3I Systems. EA on remote systems, physical hacking of isolated and secure computer systems, tapping of PSTN networks (capabilities developed with 7 Sig, their employment with us or in areas where they cannot go).</p> <p>(3) PR, PA and CA. The understanding that we don't fight in Vietnam anymore and that often the overt use of Special Forces is more valuable than the actual task they are doing (I cite the comments by Mick Malone prior to Op POLLARD). The use of Special Forces strategically in CA, PA or PR may mean that Special Forces need to develop much more media savvy, and also change its MO to accommodation media. Stop thinking that 'putting on a show' for CGPI is a farce and that civil media are the enemy.</p> <p>(4) Better OPSEC. Anyone who thinks that Special Forces is currently good at this should come and see me. They are Not. This should Not be read as a need to increased effort for security but smarter use of security. Some in SASR think that everything they do is TOP SECRET, when what is really being done is wasted effort.</p>							
98 b	46 5	<p>Getting Red of the 'Cult of the Beret'.</p> <p>(1) Selection process at the moment still produces social cloning: he gets selected because he's like me. What we tend to produce is Special Forces soldiers who are of a particular template that is often suited to door kicking, but less suited to some of the future roles that we are after. HUMINT, for example, requires female, non-descript (ie Not 6'4", built like a tank and wearing the Special Forces watch and day pack) and of different character. What about direct entry to Special Forces, older recruits (ie stability and maturity)?</p> <p>(2) Does a few weeks of selection followed by a few years as a TP COMD translate as the best staff officers? I would argue that many unit and HQ staff are Not the best for the job, and indeed are paid better because of their previous prowess at TACTICAL skills. If Special Forces wants to remain the best they need to attract the best for each job, Not simply assume that because someone is beret qualified they remain the best in a staff job.</p>	Selection	Y	N	N	N	N	N
98 c	46 6	<p>Merit based promotion (a problem across the Army Not just Special Forces)</p> <p>(1) Officers are Not promoted on merit until they have served a minimum of 15 years, a joke in a society that has moved away from the 'job for life' mentality. (1.5 to 4 yrs training, 3 to 4 years LT, 6 yrs CAPT, 3 yrs to PSC, plus usually 1 to 2 yrs PSC until promotion). What this means is that jets (and those who continually study to gain new skills) progress at the same rate as also rans (you really need to tread on your dick Not to make MAJ these days).</p>	Personnel	N	N	N	N	N	N

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		(2) Flexible posting/promotion. NSW police have a similar system where internal vacancies are offered. Fixed 2 to 3 yr postings, but with the ability to apply for your own job again at the end of posting. People who apply can be any rank, ie LCPL can apply for the SGT job, and if he has the skills and experience he gets promoted. People who are happy being CPL range controllers can stay that way for years if they want to.							
98d	467	Developing roles in a comprehensive security environment including: drug enforcement, illegal immigrants, terrorism (beyond CT resolution), environmental damage, currency flight and resource protection.	Operations	N	Y	N	N	N	Y
98e	468	The ability of commanders to identify idiots and the ability (and conviction) to sack them. See the private sector - we are Not a sheltered workshop, nor an instrument of social policy.	Personnel	Y	N	N	N	N	N
99a	469	Administrative planning needs to be timely, accurate and complete.	Administration	N	N	Y	N	N	N
99b	470	Administrative procedures standardised across the Special Forces Gp by use of SOPs for Admin and the Special Forces WAN.	Administration	N	Y	Y	N	N	Y
99c	471	Units are Not to develop procedures in isolation, must staff through the HQ.	Management	Y	Y	N	N	N	Y
99d	472	More emphasis must be placed on administration in order to enhance training and ops. Timely information from ops etc.	Administration	Y	Y	Y	N	N	N
99e	473	The importance at personal administration needs to be highlighted to all levels. It is a common responsibility.	Administration	Y	N	Y	N	N	N
99f	474	A far greater emphasis needs to be placed on the lower levels, ie TP/PL SGTs, 2ICs, etc. The soldier's administration is their responsibility.	Leadership	Y	N	Y	N	N	N
100a	475	Location of Units 1. With the selling off of prime Defence land to developers and heritage groups, much of the better locations for units within the Special Forces Gp are disappearing. For example, since AMS moved, Chowder Bay would be a good location for 1 Commando Regt HQ and 1 Commando Coy with a Water Ops Wing conducting courses on behalf of the Special Forces Training Centre. Other examples include Pt Cook and Gan Gan. These bases are N longer available to us. 2. The remaining bases are increasing in importance, Not because of their strategic location or other intrinsic importance, but due to diminishing resources and assets available. Therefore, consolidation is required to identify the remaining bases to units. 3. Other limitations imposed upon the group is poor allocation of existing bases. In the LMA, Luscombe Field is presently being used by two Sig Sqns. What would a Sig unit do with a landing field. I understand that some training facility may be built there in preparation for the 2000 Olympics, but surely the sooner the Special Forces Gp take over the area, the better. I would have thought that with a bit more money spent on building in the LMA to increase the	Management	N	Y	Y	N	N	N

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		size of that area, the Special Forces Training Centre could move into there (maybe 4 RAR (Cdo) as well).							
10 1a	48 0	Identify a realistic size of the Aust SF Gp, given the current downsizing of the Army.	Management	N	Y	N	N	N	N
10 1b	48 1	Identify true unconventional and SF roles and tasks for the SF Gp and its branches.	Operations	N	Y	N	N	N	Y
10 1c	48 2	Lobby and educate the ADF comd on the benefits associated with employing Aust SF soldiers, and have them actually do it.	Communication	Y	Y	N	N	N	N
10 1d	48 3	Develop links/interaction and exchanges between Aust SF and other teams, groups and bodies around the world, who are masters and world leaders in their field, and with whom we have a common interest.	Training	Y	Y	N	Y	N	N
10 1e	48 4	Deploy Australian SF soldiers on a regular basis to allow us to collectively carry out our critical self-analysis, and develop and progress with TECHNOLOGY.	Technology	Y	N	N	Y	Y	N
10 2a	48 5	Retention of Personnel 1. Giving clear cut tasks and goals to achieve (based on a plausible mission) and have these efforts recognised and confirmed by higher than battalion or regimental level (ie COMD SF upwards visit courses or activities). 2. Equalising pay across the SF Gp for those with the same jobs and qualifications.	Personnel	Y	N	N	N	N	Y
10 2b	48 6	Embrace Technology 1. Have a clear point of contact or a central agency that can research or give advice on equipment that is used to conduct SF tasks, also give each unit a contact list of people who are conducting or researching new/replacement items as often two or three people are conducting the same research but for different application. Also many items that are Not suitable for SASR are suitable for Commando operations and vice versa. 2. Incorporate lessons on new technology and computer software used to improve work performance. 3. Purchase off the shelf items and issue them to user units to conduct trials and have the civilian companies compete to adapt the equipment to our use, thus avoiding individuals with a fixed perspective conducting a trial aimed at what they want the equipment to achieve.	Technology	Y	N	N	N	Y	N
10 2c	48 7	Change Work Practices 1. Due to limited resources and equipment in some areas, change the work schedules or work place of selected individuals to suit the units and individual needs. 2. Give a clearly defined end state to be achieved in work produced/fitness etc and let the individuals set their own work practices. This would allow the manager to grade their performance reviews accurately.	Management	Y	Y	N	N	N	N
10 2d	48 8	Raise the Profile of the Full Time Commando Bn 1. Put on show and tell exercises to impress on the HQ staff and politicians they have created an extremely versatile and cost effective unit. 2. Conduct Joint exercises to demonstrate the skills acquired/required to other ADF units. Also, conduct a more	Marketing	Y	Y	N	N	N	N

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		aggressive recruitment program to ensure the quality as well as the quantity of applicants is improved.							
10 2e	48 9	<p>Training and Living Facility for the Individuals on Holsworthy Barracks</p> <p>1. Improve the living accommodation for members in Holsworthy Barracks (or at least have all the unit in one area and not scattered over three barracks) and Not have other units intermingled in the live in lines as this detracts from the work quality, ie reverse weeks when the other unit is in the Bks during the day and the soldiers cannot sleep.</p> <p>2. Design and build ranges and facilities to supplement/improve day to day individual and collective training, ie MOE, CQB and MOUT.</p> <p>3. Ensure access to field training areas for day to day training.</p>		N	N	Y	Y	N	N
10 3a	49 0	<p>Be Vision Led</p> <p>1. There exists the requirement of clear definition, continuous refinement and articulation of where our future is headed. Individuals need to understand what is expected of them. This vision is what we as a Group will create. It is Not the past or what others may be doing. This vision with its own implementation strategies should be adapted to or enlarged for its audience as it moves down the chain of command. Every unit, sub unit and department/element within the Gp has a responsibility and role in moving towards a situation when the vision becomes reality. Articulation of the clearly defined vision at all levels in a language that is easily understood at that level is required to Not only command compliance, but empower individual commitment.</p> <p>2. Visions are best evolved out of the process of merging personnel and shared visions. Soldiers should be encouraged to share in what it is they personally value. This ensures the concept of vision represents more than the collective view of superiors. Relying too heavily on someone else's vision reinforces a culture of dependence and conformity. People become committed to visions when they embrace their own personal visions. If they do Not have one, then all they can do is sign up for someone else's. When people with strongly committed values and a sense of purpose come together collaboratively, the potential for powerful outcomes is possible.</p>	Leadership	Y	Y	N	N	N	N
10 3b	49 1	<p>Transition from a Traditional Military Structure</p> <p>1. The Army is a traditional organisation with a hierarchical structure. Within this structure there are many levels of authority. Everything passes through the chain of command. Logical argument is provided on paper. There are many times when paperwork is Not required, but insisted upon (because that is the way it is done). Traditional organisations deprive workers of the opportunity to engage in continuous learning and constantly fail to allow soldiers to accept responsibility and authority for their job. How people do things is Not really important, the process is just the way objectives are achieved. What is of great importance is the</p>	Management	N	Y	N	N	N	N

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		outcome, the capability. On occasions we concentrate far too much on the wrong area. At times there exists a requirement for a more level structure within departments and sub-units. The military would find it extremely difficult to change from its pyramidal structure. Within the group another structure could be implemented to address this. It could be similar to an administrative chain of command and an operational chain of command. There are levels in the administrative chain of command that are Not required in the operational chain of command. Maybe a strategic chain of command for our own economic or growth and development strategies is required. This would promote networking, which has proven to be a valuable tool within the Gp in the past. It allows personnel to draw skills, knowledge and information from others in a timely and effective fashion without the bureaucracy normally involved in travelling through chains of command. There are many benefits from a more flat or level structure. Just because things worked effectively in the past does not mean that there are Not better or more effective processes available. Networking also has the ability to avoid re-inventing the wheel and keeping pace with what others are achieving or working on within a subject area, therefore, becoming more effective.							
10 3c	49 2	<p>Improve Acknowledgement and Recognition for Soldiers and NCOs</p> <p>1. Rewarding effort or giving credit where it is due in traditional organizations can be complicated. Middle and upper management generally accept most if Not all of the credit for an organisation's achievements. Soldiers are generally Not acknowledged or recognized for their abilities. There is a tendency within the Gp to accept high levels of performance or ability as normal, yet remember times of failure. Care needs to be taken Not to develop collaborative individuals who bear no allegiance to anything other than themselves and their own careers. Without those who continually go outside the comfort zone and risk failure we would Not evolve. Recognition is a powerful incentive and can result in behavioral change and commitment from soldiers.</p>	Leadership	N	N	N	N	N	N
10 3d	49 3	<p>A Need to Develop Our Own Resources</p> <p>1. Our most important resource is our line soldier. The man who carries the weapon while wearing face paint. The soldier has other needs outside of battle skills. By diversifying our training we could develop more lateral thinking and develop soldiers who can think on their feet. Lateral thinking and problem solving skills are achieved by most because of their own attributes and the varied situations they are placed in by quality training. However, we should devise strategies to create the environment where soldiers learn lateral thinking and problem solving skills far earlier in their career. We need a focus on developing individual problem solving skills, a tolerance for ambiguity and the capacity to cope with diversity. This relates to the soldier as well as the officer, especially early in their careers.</p>	Personnel	Y	N	N	Y	N	N

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10 3e	49 4	Develop Efficiency 1. To be effective we need to be efficient in all areas, ensuring something is learnt, gained or reinforced by every bullet fired, every minute written and every task undertaken. If nothing is learnt, gained or reinforced then we do Not need to do it. Time and resources may be better employed on more useful tasks that will benefit and develop our culture and capability.	Management	Y	N	N	N	N	N
10 3f	49 5	Learn from Our Past 1. So many times we re-invent the wheel and do what was done several years before. We need to heed the advice of those who have experience. Education and experience when combined are powerful qualities, but when separated have different characteristics. Many good ideas and warnings come from our subordinates, yet they are often ignored. If something was tried in the past and did Not work effectively, then quality research may provide an answer. In this case, quality research comes from consulting widely and listening to people with subject experience. Databases should be implemented to record all PAR recommendations. Employ networking to gain and pass on ideas within the Gp. We should attempt to always go forward by whatever means available, even in the face of adversity.	Leadership	Y	N	Y	N	N	Y
10 4a	49 6	The first issue would be the one of locations. We are all beginning to feel trapped in by the urban growth around our bases, be it SASR or 4 RAR (Cdo). We are supposed to deploy under secrecy, yet everyone can blatantly see us when we do. This includes other units of the ADF. I strongly believe that we should be in isolation from the rest of the ADF and civilian growth areas as much as possible.	Management	N	N	Y	N	N	N
10 4b	49 7	The issue of pay is one which really only involves 4 RAR (Cdo) and 1 Commando Regt. SASR has a special allowance for the risks they take and I understand this and I have N complaints. Realising that SASR are usually employed in a higher risk environment than the above units, I still believe that we warrant the need for a risk type of allowance.	Pay	Y	N	N	N	N	N
10 4c	49 8	I believe strongly in the introduction of joint training between the three units of the SF Gp. With the financial problems affecting the ADF we need to start amalgamating courses. Fewer courses and exercises obviously means less money spent but we gain the advantage of getting to know the other members of the SF Gp and how they operate. We must start to learn each other's capabilities and operating procedures, for when it comes to operations it will be too late.	Training	N	N	N	Y	N	N
10 4d	49 9	I think it is inevitable that 4 RAR (Cdo) and 1 Commando Regt will amalgamate someday and I believe it should be sooner than later.	Management	N	Y	N	N	N	N
10 4e	50 0	4 RAR (Cdo) should get rid of the RAR and the Colours so we can begin to separate ourselves from the rest of the Corps. If this happens we could have more time to train on SF related subjects. We are starting to think and perform like SF but we would reach the desired result quicker if the	Leadership	Y	Y	N	N	N	N

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		above were to happen.							
10 5a	50 1	Manning 1. Due to the rapidly changing world climate it is more than probable that strategic limited engagement type warfare will be conducted. It is therefore more practical to have a large 'standing Army', but a well trained and fully manned SF GP. It is necessary to bring all SF units up to full manning so that they are capable of meeting any threat that may be posed to Australia and her interests. The manning of a unit is directly linked to its effectiveness.	Personnel	Y	Y	N	N	N	N
10 5b	50 2	Equipment 1. It is necessary to 'keep up with the times'. A lot of the equipment on issue to the AUSTRALIAN DEFENCE FORCES (ADF) is outdated, unsuitable, or too cumbersome to be used effectively. I feel that the reason that this problem has arisen is that the 'operators' are Not necessarily the ones who trial the gear, and if they are, what they trial is Not what is purchased. This must be overcome if we are to be able to operate effectively.	Equipment	Y	N	N	N	Y	N
10 5c	50 3	Retention 1. Hand in hand with manning this issue is just as important as any other. We must be able to retain the members we currently have if we are to move forward. This could be achieved by offering 'rewards' to hold people in the SF Gp, whether this was to take the form of financial or conditions of service. An incentive to stay in the SF Gp may be required to solve the retention issue.	Personnel	Y	N	N	N	N	N
10 5d	50 4	Resources 1. To keep SF units up to speed in all of their skills, it is necessary to use up to a great deal of resources. For this reason it is imperative that all units within the SF co-operate, and try to work together to share what resources are available. This may be achieved by scheduling exercises/training courses to run concurrently. This should have the effect of easing the strain on an already stretched resource base.	Resources	N	N	Y	N	N	N
10 5e	50 5	Communication 1. Communication from unit to unit, operator to CO, is the key to our survival. If we do Not communicate with each other, wastage of manpower and resources will continue. The notion of 'protecting our turf' is an out moded idea in this day and age. Information sharing will only make us stronger as it will lead to better resource management.	Communication	Y	N	N	N	N	N
10 6a	50 6	Reduction in the number of SF units allows for: 1. Maximum use of current resources 2. Ability to train necessary number of paratroopers rather than compete with other units and against diminishing assets and facilities 3. Joining or amalgamating units under one command will avoid duplication and free up extra vital personnel required elsewhere. 4. Eliminate the unnecessary problem of trying to please the RAR Assoc.	Resources	Y	Y	N	N	N	N

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10 6b	50 7	Identification and occupation of appropriate and permanent locations/facilities.	Management	N	N	Y	N	N	N
10 6c	50 8	Stop Reinventing the Wheel. 1. Continual unnecessary rewriting and updating of Doctrine, TMPs and SOPs, etc. 2. Wastes valuable time and manpower that could be better spent on what we are here for, ie to train for operations rather than sitting at a desk typing. 3. New documents are generally minutely different and N more improved than the one they replaced.	Leadership	N	N	N	Y	N	Y
10 6d	50 9	Dedicated permanent ADF assets to train and operate with: 1. Saves time and efforts wasted on assets that fail to materialize at the last and or crucial moment. 2. Allows for actual capability rather than a spoken, written or notional capability. Allows all to be trained properly at all times rather than rushed training and the chance of accidents or incidents because of lost skills or proper training over looked or short cut to meet time lines on assets.	Resources	Y	N	Y	Y	N	N
10 7a	51 0	Independent SF Command. 1. SF capabilities cannot be fully developed or utilised as long as we remain under command of Land Comd. We cannot develop our full potential as long as we are controlled by an organisation that inhibits our growth, curtails our independence, fails to understand our ethos and which appears Not to have embraced SO and the need for SF. 2. SF needs to develop political sponsorship to ensure its survival.	Management	N	Y	N	N	N	N
10 7b	51 1	Career Courses. 1. One of our major weaknesses is the lack of formal training for SF officers and to a lesser extent NCOs. We require our own SF career courses. These courses should Not be an added formal training burden but replace specific to Corps course requirements.	Training	Y	N	N	Y	N	N
10 7c	51 2	Interoperability 1. If SF wants to promote itself as the force of choice then the broad range of capabilities that exist within SASR and Commandos should also be packaged as a single capability. (However I would be reluctant to promote such interoperability as long as 4 RAR (Cdo) remains part of the RAR). 2. It goes without saying that for this interoperability to work there also needs to be a more unified approach to formal training, and research and development issues between the SF units. Although the SFTC will address common training issues, the establishment of the school is seen by some as diminishing the overall effectiveness of SF training.	Capability	Y	Y	N	Y	Y	Y
10 7d	51 3	Consultation 1. Consultation on significant issues needs to involve a broader group. At the CO/RSM level many ideas have been filtered. When was the last time COMD SF conducted a seminar involving key unit personnel including OC and SSM/CSMs to discuss critical issues? (Granted this exercise, (The Five Key Challenges) is a step in the right	Leadership	Y	N	N	N	N	N

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		direction.) 2. It is all too easy for staff officers to be out of touch with developments at the coalface.							
10 7e	51 4	Mobility 1. Administrative procedures need to be put in place that will allow for greater mobility for FT and PT SF personnel within the SF Gp. 2. The ability for PT personnel to serve for periods of fulltime service or for FT personnel to take time out will assist in the retention of highly qualified personnel.	Personnel	Y	N	N	N	N	N
10 8a	51 5	Communication. I submit that, in my experience with SF Gp, communication is at the minimum standard it should be. This lack of communication breeds both resentment between the units and rumour mongering.	Communication	Y	Y	N	N	N	N
10 8b	51 6	Focus. I assert that the focus seems to be misdirected at times, eg hat badges and para wings rather than the real job at hand.	Leadership	Y	N	N	N	N	N
10 8c	51 7	Technology. The acquisition and use of technology, which is sound enough to carry the SF Gp into the next century, eg use of NVG.	Technology	N	N	N	N	Y	N
10 8d	51 8	Personnel. To attract, train and retain suitable personnel to ensure the SF Gp functions correctly.	Personnel	Y	N	N	N	N	N
10 9a	51 9	To authenticate the role of commandos within the wider Australian Army, in particular 4 RAR's role and its 'place' within the Royal Australian Regiment.	Marketing	N	N	N	N	N	Y
10 9b	52 0	To continually justify the large expenditure of funds within SF Gp capability must continually be SEEN to be far in excess of conventional units.	Leadership	Y	N	N	N	N	N
10 9c	52 1	Allow greater exposure of an SF Gp to be presented to the Army rather than SASR and the Commandos.	Marketing	Y	Y	N	N	N	N
10 9d	52 2	The effective training of an SF Gp as opposed to the separate units entities.	Training	N	N	N	Y	N	N
10 9e	52 3	Legitimacy of the SF Gp within the public's view, must be maintained despite funding and political difficulties.	Marketing	Y	N	N	N	N	N
11 0a	52 4	Passage of Information. The relevant information is Not being passed down the chain fast enough, for example you would receive information which should have been actioned Yesterday.	Communication	Y	Y	N	N	N	N
11 0b	52 5	Treat all individuals as individuals. Soldiers are being treated as a number Not as people. Officers are losing contact with their soldiers.	Leadership	Y	N	N	N	N	N
11 0c	52 6	One Standard for the Entire Army. N difference in PT standard between Land Comd, Spt Comd and Trg Comd.	Leadership	Y	N	N	N	N	Y
11 0d	52 7	More Awareness with Entitlements. Soldiers should be informed of their entitlements and people should Not bend the rules to suit themselves.	Administration	Y	N	N	N	N	N
11 0e	52 8	Maintain and improve service conditions to keep the retention rate high.	Personnel	Y	N	N	N	N	N
11 1a	52 9	Information Flow. The information across the SF Family is of a poor standard. This needs to be improved so that the units can perform their tasks correctly. [Sigs requesting returns from units Not arriving until the day after the task was to be completed.]	Communication	Y	Y	Y	N	N	N

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11 1b	53 0	Public Relations Issue. That the information that is read in the print media or electronic media is correct and gives the correct message.	Communication	Y	N	N	N	N	Y
11 1c	53 1	PUBLICATIONS. That the units across the SF Family are all using the correct doctrine and Not individual unit's made up doctrine.	Leadership	N	N	N	N	N	Y
11 1d	53 2	PAY ISSUE - 079/SPECIAL FORCE. PAY/TRAINING. The SF Family needs to establish an allowance that is for all members. At the moment, SAFA is and was raised to furnish the SASR. With new SF units being raised, it is now time to revisit the SF allowances. The ECN 079 pay case needs to be looked at in the respect that if a clerk or Q-Store member completes the Basic Commando Course, he is not entitled to a pay rise because in all likelihood he will Not be required or get the chance to complete the other courses required to qualify for the 079 pay level.	Pay	Y	N	N	N	N	N
11 1e	53 3	Manning - Posting plots are released early so that short falls can be correct before the end of a posting period.	Postings	Y	N	N	N	N	N
11 2a	53 4	SF Family. The SF Gp must forge strong family ties (between 4 RAR (Cdo), SASR and 1 Commando Regt). Key positions in commandos should be offered to Nn-SASR personnel (providing they are competitive and suitably qualified) so as to develop a feeling of unity within the 3 units. A SGT in 4 RAR (Cdo) or SASR should be able to be posted to a WO2 position in 1 Commando Regt then back to whichever unit they have qualified in. We must avoid a perception that all the key positions are given to 'the West'.	Postings	Y	Y	N	N	N	N
11 2b	53 5	The SF Gp should attempt to develop a better image within the ADF, by this I mean give something back, whether it be good quality instructors on short term courses or permanent positions at some of the schools. We should attempt to avoid the image (currently perceived) that only rejects are posted from SASR.	Marketing	N	Y	N	N	N	N
11 2c	53 6	Focus less on the paper and more on the action. It seems to me that there are currently more papers and submissions being drafted than ever before yet action is rare. This is at all levels and it is creating an uncertain environment. Many a time a direction (eg the location of HQ 1 Commando Regt) will change, then change again and again and again. The amount of staff effort that is wasted is enormous. The same applies to some of the proactive projects that are going on; you get half way through a task and the goal posts change and all you've done thus far has been wasted.	Management	Y	N	N	N	N	N
11 2d	53 7	Staying abreast of technology. We need to be on the leading edge of new technology.	Technology	N	N	N	N	Y	N
11 2e	53 8	Appreciate the person. One of the most important challenges is to have individuals recognised and accepted regardless of the role they fulfil. Whether they are the duty hygiene person or the lead scout of an operational patrol, providing they are doing their job to the best of their ability they should be accepted as equal.	Personnel	Y	N	N	N	N	N
11 3a	53 9	Development of a group ethos and identity, ie: 1. Common SF Offr (ROBC/ROAC) and NCO (SF Subj) and	Leadership	Y	N	N	N	N	N

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		skills (where appropriate) training. 2. Equitable remuneration (eg SAFA and Pay Rates). 3. Leadership of the SF Gp by HQSO; manned by the best personnel from within the group (as well as some from outside it).							
11 3b	54 0	The acquisition and integration of technology to continually improve operational effectiveness.	Technology	N	N	N	N	Y	N
11 3c	54 1	Integration of SF Comd and Force Elements into mission orientated SF Task Forces for operations and training.	Operations	N	Y	N	Y	N	N
11 3d	54 2	Selling of SF to the rest of the Army at all levels (primarily achieved by professional conduct and high levels of achievement on all occasions). Conversely ensuring that SF remains relevant to the Strategic and Operational needs of the ADF.	Marketing	Y	N	N	N	N	N
11 3e	54 3	Recruiting, selecting and retaining the people we need at the standard we need them.	Selection	Y	N	N	N	N	N
11 3f	54 4	Conducting realistic and effective operationally focussed training at BOTH the individual and collective levels.	Training	N	N	N	Y	N	N
11 4a	54 5	Pay and Allowances. The structure of the SF Gp has undergone a sea change in the past two years. The commando is an increasingly important part of the group, however he is clearly Not being remunerated to the level that his skill and training requirements deserve.	Pay	Y	N	N	N	N	N
11 4b	54 6	PT FE Deployability. Some legislation for the callout of the PT currently exists. This legislation does allow for the deployment of part time soldiers on operations. However there is considerable risk to the individuals civilian employment and as such it affects 1 Commando Regt's ability to deploy part time soldiers at short Notice. Representation should be made to have this legislation amended by parliament.	Operations	Y	N	N	N	N	Y
11 4c	54 7	Technological Advantage. SF must continue to seek out new technologies to maintain a technological edge in the region. However the resources available to this development in SF are limited and as such we must further strengthen links with the development agencies in the US, where there is a well developed R&D capability.	Technology	N	N	N	N	Y	N
11 4d	54 8	OS Education. It does appear that HQSO is attempting to spread the joy regarding operational deployments. However some of the most valuable deployments regarding future development of the SF capability are to the US, where SASR has a stranglehold on deployments. This is preventing commando personnel from learning and gaining experience from what is arguably the most advanced SOF in the world.	Operations	Y	N	N	N	N	N
11 5a	54 9	Information Flow - interoperability, visibility and efficiency	Communication	Y	N	N	N	N	Y
11 5b	55 0	Focus - economy of effort and lack of duplication	Management	Y	Y	Y	Y	Y	N
11 5c	55 1	Credibility - displaying the capability to perform as a versatile force of choice	Marketing	Y	N	N	N	N	N
11 5d	55 2	Recognition of individual and corporate performance	Leadership	Y	N	N	N	N	N
11	55	Maintaining a technological edge	Technology	N	N	N	N	Y	N

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5e	3								
11 6a	55 4	<p>What is the SF Gp</p> <p>1. What are the roles and tasks of each unit within the SF Gp? More importantly are they realistic?</p> <p>2. Does a third PT Commando Coy add value to the SF Gp capability? How do we justify it?</p> <p>3. Should 4 RAR take over MCT and Domestic CT/Recovery? Is it just an expensive changeover?</p> <p>4. Do we need two Commando units? Take the plunge and create an integrated unit!</p> <p>5. Where do we get our support from? Is maintaining two Ops Spt Coys and a small logistic effort at 1 Commando viable? Can we effectively brigade these assets at a 'megabase' on the Eastern Seaboard?</p> <p>6. Should we just take the plunge and build an SF megabase at Holsworthy, forgetting traditional allegiances to Perth and Mosman?</p>	Management	N	Y	N	N	N	N
11 6b	55 5	<p>SF Ethos and Recreation of the SF Spirit</p> <p>1. The SF Gp is growing and Not everyone is from SASR. Commandos do have something to offer - just ask most ex-SAS personnel who have had the 'misfortune' of serving at 1 Commando Regt. At the moment outsiders/newcomers could be forgiven for thinking that Commandos were poor cousins.</p> <p>2. Likewise there are some good spt staff out there who believe that they have something to offer. They go to the effort to fit in - they do selection courses and put in the hours. Consistently they miss out on deployments, exchanges and the like. They are soldiers too. They join the Army and SF Gp to do these trips and get experience. Remember to look after he who feeds, clothes, houses and bombs you up. Keep them happy and they will keep on bending over backward, and coming back for more. What is more they will tell their mates and promote the SF cause.</p> <p>3. An SASR and operator first ethos will only undermine the efforts of the SF Gp to establish a more credible profile within the Army.</p>	Personnel	Y	N	N	N	N	N
11 6c	55 6	<p>SF Pay</p> <p>SAFA needs a massive overhaul. Essentially it is SAS allowance. That's fine! They do something very, very special, well deserving of extra-remuneration. So do Commandos. ECN 079 is not the same as 343 and should be recognised as such. I guess enough has been said on this issue by others so I won't harp on it.</p>	Pay	Y	N	N	N	N	N
11 6d	55 7	<p>All Corps SF</p> <p>1. There are a lot of good officers and soldiers in the Army who have something to offer to SF. Yet apart from a very small number of motivated individuals we fail to capture this audience. SF needs to target this wide population if it is to have any hope of manning its SED, particularly from a support staff perspective.</p> <p>2. This is Not a case of saying 'Hey SF is in town, come and see us at the area theatre if you are interested'. We need to</p>	Selection	Y	N	Y	N	N	N

ID	Issues to Confront	Primary Category	P	O	S	T	E	D
	go to the CSSBs, the LSF, the Fd Hosp, the Armd Regt and the Int Coys see their CO/OC and say: 'We don't want to steal your people. We want one, maybe two of your brightest and best, develop them in SF and send them back with a whole new set of skills and experiences you can use'. 3. We need their skills to help SF achieve its goals. They understand procurement, and logistical processes, they know the language, the mindset. We need to exploit this and have supporting agencies develop a positive attitude to SF. There is a fascination out there, we have an aura. Let us use it, develop relations with these units and achieve some MUTUAL goals.							
11 6e	55 8 The Viability of SF Aviation 1. A dedicated SF Avn Sqn is probably Not realistic. If Defence can't organise AIR 87 then what hope is there for SF Avn? Would we be better off training aircrew to use existing platforms in SF roles? Should we modify a small number of existing S-70/CH-47 to be AAR capable? Do they need a FLIR and/or ECM suite. We aren't that big to justify a dedicated SF Avn elm. 2. What input do we try and have with C-130J and the Caribou replacement?	Capability	N	N	Y	N	N	N
11 7a	55 9 Resources 1. As the SF Gp is now under command LCAUST, there is greater scope for previously allocated resources to be redistributed at the discretion of the formation HQ. When this is combined with the cost of developing the FT commando capability and a tightening of fiscal allocations, there will be an even greater strain on the units that consume these resources. When this strain is great enough, either more resources will be required to maintain the current capability or one of the following may result: a. a reduction in training activities across the SF Gp (resulting in a reduced capability), b. a reduction in size of the SF Gp (or one aspect of the group), or c. a restructure of the SF Gp (and possibly a change of roles for one or more elements).	Resources	N	Y	N	Y	N	N
11 7b	56 0 Manning As the Army and the ADF as a whole reduce the total number of personnel, there is a smaller base from which SF can recruit. If the SF Gp increases to the anticipated size, therefore changing the ratio of SF to its recruiting base, can the high standard still be expected upon selection and can the Army staff such a large, personnel intensive organisation?	Selection	Y	N	N	N	N	N
11 7c	56 1 CIT. The effect of CIT can be expected to be twofold. 1. Firstly, the ARA soldiers are now effectively undergoing training for half the time of their predecessors. This will mean more time on the job (OJT) to gain the same level of proficiency. Will this OJT time be added to the time a soldier must spend in their parent unit prior to eligibility for selection in order to gain the same experience level?	Personnel	N	N	N	Y	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		<p>2. Secondly, a GRes soldier must now spend three times as long to become qualified as a basic infantry soldier. Add this to the time it takes to train a fully qualified SF soldier and the total time will now be in the vicinity of 3-5 years. The following questions need to be asked:</p> <p>a. How long does the average GRes soldier stay in the Army? Is this long enough to train and maintain under the CIT system?</p> <p>B. Do most GRes soldiers have the capability to undertake a period of FTS in order to complete this initial suite of courses?</p> <p>C. The benefit of recruiting trained infantry soldiers into SF to alleviate the initial training time has already been discussed. What will the effect be on the manning levels of a standard infantry reserve unit who will be targeted to provide budding volunteers for SF selection?</p>							
11 7d	56 2	<p>Location</p> <p>1. There has been much talk about where the SF Gp and its various elements will be located in the future. One option that has emerged is that the SF Gp will be co-located at Holsworthy. Although this may be a good option politically and economically, it is Not so viable for the PT units that require close access to water on the short training periods that they undertake. The extra administration and logistics that would be involved in moving such a distance every time the water is needed will make any such training unfeasible.</p> <p>2. The PT Commando Coys regularly conduct amphibious training, rehearsals and raids on a Tuesday night parade. This training often takes a parade night well into the hours of the following morning. This would be exemplified if the unit were not located near water.</p>	Management	N	Y	N	Y	N	N
11 7e	56 3	<p>Emergency of Technology</p> <p>1. There are many aspects of technology that the SF soldier must grasp in order to remain proficient. This includes information systems (C4 level and combat control systems), equipment, weapons and most importantly for SF, non-lethal weapons. In many roles within SF (including CT, personnel and equipment recovery and peace keeping), non-lethal weapons provide an excellent option for subduing personnel without drawing undue negative PR through collateral damage and dead enemy personnel.</p> <p>2. It will become harder for a soldier to remain proficient in all aspects of technology as this area diversifies. More time will need to be spent training and maintaining these skills leaving less time for combat related skills training.</p>	Technology	N	N	N	Y	Y	N
11 8a	56 4	<p>SED. Due to the inability to meet the current manning requirements, it is important to develop an integrated SED for the Commandos.</p>	Personnel	Y	Y	N	N	N	N
11 8b	56 5	<p>Legislation. The implementation of legislation that allows the SF Gp to harness the PT element to contribute to the CPD.</p>	Part Time	N	Y	N	N	N	Y
11 8c	56 6	<p>Pay and Allowances. Personnel provide the critical component of the SF Gp. It is important the pay and allowances for the qualifications achieved by all members</p>	Pay	Y	N	N	N	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		are recognised financially and the system is fair and equitable.							
11 8d	56 7	Technological Advantage. Many projects for the SF Gp seem to be done in isolation so that only one unit benefits from the results. The development methodology should include all stakeholders where appropriate.	Equipment	N	Y	N	N	Y	N
11 8e	56 8	Promotion. It is important to market the SF Gp as offering a career for both officers and soldiers and the need to target the correct personnel for the manning of the SF Gp.	Personnel	Y	N	N	N	N	N
11 9a	56 9	Fitness - PT designed Not to wear people down.	Training	Y	N	N	Y	N	N
11 9b	57 0	Equipment - look at redesigning equipment suitable for the task at hand Not an improvised substitute.	Equipment	N	N	N	N	Y	N
11 9c	57 1	Medical - one standard for the entire Army Not double standards for the different commands.	Leadership	Y	N	Y	N	N	N
11 9d	57 2	Welfare - more emphasis should be centred on family unity.	Personnel	Y	N	N	N	N	N
11 9e	57 3	Conditions of Service should be maintained for the retention of soldiers Army wide, members should be informed of all the entitlements he/she is entitled to.	Personnel	Y	N	N	N	N	N
12 0a	57 4	Orientation to Asia/Pacific	Operations	N	Y	N	N	N	Y
12 0b	57 5	Recruiting of both sexes	Mixed Gender	Y	Y	N	N	N	N
12 0c	57 6	Person management skills	Leadership	Y	N	N	N	N	N
12 0d	57 7	Adaptation of the new	Personnel	Y	Y	N	Y	Y	Y
12 0e	57 8	Acceptance of change	Personnel	Y	Y	N	N	N	N
12 1a	57 9	Recognition of SF Units. A soldier in the SF Gp should be proud to say he is a member of the SF and feel he is respect as an equal in the SF community. Individuals and units should Not be seen as being better because they train full time or because they have a more distinguished unit history. Be standardising the SF selection course it will reduce this mentality. However soldiers will always see the SAS as being more elite than the Commandos, which will continue the 'us and them' attitude. I feel the SF Gp should become a standardised organisation with standardised specialist skills. Unit would still maintain different capabilities however the soldier would have done the same basic SF training. Also a standardised emblem should be given to the SF Gp instead of having different unit badges. By doing this, units would simply be known as One, Two and Three Regiments or by their capability such as Reconnaissance, Strike and Recovery Regiments. This will hopefully reduce any previous loyalties and allow better soldiers interoperability.	Personnel	Y	Y	N	N	N	N
12 1b	58 0	Interoperability. SF soldiers both Part Time (PT) and Full Time (FT), should be able to operate in the SF community depending on the individuals and units NTM requirements. By maintaining standardised training across the SF Gp, an individual could have the opportunity to operate in any	Training	Y	Y	N	N	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		organisation depending on his aptitude and abilities. This will allow greater flexibility for planners at Headquarters and also allow a better posting cycle for soldiers. PT soldiers would then have the ability to conduct Full Time Service (FTS) in organisations that conduct a higher momentum of training due to their NTM.							
12 1c	58 1	Establishment of a SF Training Centre (SFTC). In order to have interoperability and a standardisation of training across the SF Gp, a SFTC must be established. This training centre should be the heart of the SF Gp and control Not only doctrine but also all SF courses. By standardising courses and conducting them at one location it will reduce any discrepancies in training. Also by conducting all SF courses at the SFTC it would increase the overall SF Gp efficiency and allow better soldier interoperability between units. I feel this will occur over the next few years however the SASR should be trying to lead the way by providing experienced operators as instructors. I also believe the SASR has a lot to offer the Commando Regts in future SF doctrine and policies.	Training	N	Y	N	N	N	N
12 1d	58 2	Establishment of an SF Gp Goal and Not Three Individual Unit Goals. The future of the SF Gp depends on the clear definition of unit roles, capabilities and size of force required to maintain these capabilities. Once these issues have been decided, an overall SF Gp goal can be established so as to refine these capabilities. Only be clearly defining these issues will units be truly distinguishable which will assist in the esprit de corp of the SF Gp. Also as a result of this analysis, unit manning and size may change which may result in new doctrine or integration of units.	Leadership	N	Y	N	N	N	N
12 1e	58 3	Integration. RTA has highlighted the need for the Australian Army to place more emphasis on the PT Army. With the reduction in numbers of the FT Army, it has meant a reduction in the pool of personnel who could be selected for the SF Gp. This therefore means that the SF Gp must also rely on PT personnel to maintain unit manning. Units in the SF Gp could maintain a certain size force of PT personnel who have the ability to conduct FTS or deploy on a suitable NTM. However, it would mean that it could take the PT soldier a number of years to become fully qualified due to the large amount of specialist skills required by personnel in SF units. I believe for this concept to succeed there must be a new rationale in the PT Army to change the focus away from time in rank to focus on skills competency. An example is instead of having SF PT soldiers spend previous time doing subject courses, they should focus on their individual specialist skills and abilities. Therefore after a few years the unit would have highly skilled PT soldiers and Not poorly skilled PT NCOs. Also by operating in the same unit as FT personnel they will feel part of a larger team and Not as an unwanted member of the SF Gp. Sooner or later there has to be a reason why so much money and time is spent on these soldiers without providing a realistic capability.	Personnel	Y	Y	N	N	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
12 2a	58 4	With the current constraints placed upon the military, in numbers of personnel and the availability of finance for equipment and training, it seems ludicrous that SF is expanding at such a rate. This expansion rate surely cannot be supported by the current standing Army in regards to personnel. It seems to me that within the 1 Commando Regt there is a functional HQ element and QM stream that with minimal expansion would quite easily have been able to accommodate a regular commando element. This utilisation of 1 Commando Regt could have saved the duplication that is now seen to be occurring within the 4 RAR (Cdo). The initial concept of a regular commando unit was sound, however, the reality of being able to support such a unit is beyond the current strength of the ADF. Maybe the SF Gp should set our sights fractionally lower and bolster the 1 Commando Regt with a regular commando force.	Management	Y	Y	N	N	N	N
12 2b	58 5	The appeal of getting the regular commando force on the ground is a nice to have but has been to the detriment of the reserve force element. Currently there is an imbalance of support personnel posted within the SF Gp. 4 RAR (Cdo) has RAEME pers in abundance who have limited equipment to maintain whilst the reserve unit, with its full compliment, makes do with possibly one craftsman per company. I feel this should be addressed.	Personnel	Y	N	Y	N	N	N
12 2c	58 6	I am currently led to believe that there is a review being conducted as to the feasibility of the regular commando battalion. If this is so, why has SF perceived the need to change the current selection process to accommodate both unit's individual requirements before the results have been published. Why is it rushing into something that may have to be reversed. In the past six years SASR have been driven to change by members ill conceived ideas which have had to be reversed. In the process it has caused damage and disruption to the system out of all proportion to the foreseen gains. I believe the SF Gp should look before it leaps, it shouldn't change for the sake of outside influences.	Leadership	N	Y	N	N	N	N
12 2d	58 7	Military personnel posted to SF units within the Q system should be closely vetted by the system so as to place the right person in the job. The CQMS position is Not something that a regular person from a battalion can easily grasp due mainly to the size of the account he would be working with. A member posted from a battalion to the company is usually done on promotion. He would Not be prepared to administer an account of this size or deal with the associated problems that may be only found at possibly the Bn RQ level. This is a major concern for OCs in isolated commando company locations.	Personnel	Y	Y	N	N	N	N
12 2e	58 8	Knee jerk reactions are seen as panic within the system and thus do Not instill confidence in a special force unit. Any reaction to a potential problem should be addressed by the qualified personnel within the system and widely disseminated before becoming law, ie the preparation of weapon systems prior to working in an amphibious	Equipment	N	N	N	N	N	Y

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		environment and the oiling of individual rounds may be detrimental to the weapon system.							
12 3a	58 9	Consolidation of the SF Gp into one unit. SASR, 1 Commando Regt and 4 RAR (Cdo) currently duplicate some roles and tasks and are occasionally reluctant to share information. The ADF would benefit if they were part of the one unit with each element specialising in the various skills.	Capability	N	Y	N	N	N	N
12 3b	59 0	Selection and placement of reinforcements. The combined selection course is a positive step and needs to be developed to comprehensively determine an applicant's suitability for SO. The current SF Reinforcement Analysis appears to address most of these issues.	Selection	Y	N	N	N	N	N
12 3c	59 1	Officer development and management. In the past this has been lacking. Current procedures are a vast improvement. This can only have an extremely positive effect on the SF Gp.	Personnel	Y	N	N	N	N	N
12 3d	59 2	Targeting specialist personnel. We should actively acquire pers with spec skills in areas such as technology, security, regional specialists, languages, weapons and explosives to name a few. This includes females and pers of ethnic origin.	Selection	Y	N	N	N	N	N
12 3e	59 3	Establishment of a Force Projection Cell. This cell would address and develop the current shortfall in our ability to deploy and co-ordinate our FEs to deal with situations outside Australia.	Operations	N	Y	N	N	N	N
12 4a	59 4	Task Orientated Equipment. Ensuring all equipment is specifically designed for SF roles rather than trying to modify conventional equipment, eg weapons, communications.	Equipment	N	N	N	N	Y	N
12 4b	59 5	Realism in Training. Ascertaining a realistic role for SF GRes. If 1 Commando Regt is a GRes unit it has limitations of deployability simply because the Government has political problems deploying the reserve.	Capability	Y	Y	N	Y	N	N
12 4c	59 6	Co-ord Between SF, RAN, RAAF. To ensure SF elements, RAN and RAAF can work together smoothly there needs to be more education and co-ordination between these groups.	Management	N	Y	Y	Y	N	N
12 4d	59 7	Access to Training. Regardless of which unit within the SF Gp an individual comes from, he/she must have greater access to standardised training.	Training	N	N	N	Y	N	Y
12 4e	59 8	Marketing. The reset of Army needs to be educated on Australia's SF capability.	Marketing	Y	N	N	N	N	N
12 5a	59 9	Reinforcement. 1. With the raising of 4 RAR (Cdo) as a regular commando regiment, the number of ARA SF personnel required will increase greatly. This places an extra burden on the SF Gp to select and train troops. In an army that is being reduced in size, an increase in the number of SF troops means that more are going to be selected from less. As identified in Reference A, 'our competitive edge is gained through our people'. The challenge then is going to be to attract enough high quality personnel to the SF Gp to maintain the high standards set by Australian SF to date. 2. Exactly what is required of an SF soldier serving in SASR, 4 RAR (Cdo) or 1 Commando Regt in a rapidly changing world needs to be identified. Are the fundamental	Selection	Y	Y	N	N	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
		<p>attributes required the same? Because of the primarily offensive role of commandos, is a different type of soldier needed for the reconnaissance and surveillance focus of SASR? Is 4 RAR (Cdo) going to be a stepping-stone to SASR? If so, what age are personnel going to be when they are selected for service with SASR?</p> <p>3. There is no question that SF personnel need to be of the highest quality. However, it is recognized that capable and professional soldiers are needed in all areas of the modern Australian Army. The other corps and branches of the army are going to take a dim view of 'losing' a large portion of their more capable soldiers to SF. The SF Gp needs to show that the army at large receives a generous return for their investment of soldiers.</p>							
12 5b	60 0	<p>Career Management.</p> <p>1. Career management of soldiers in the SF Gp will be very important in the retention of personnel. Some issues relating to career management are as follows:</p> <p>a. Retention of rank on posting to 4 RAR (Cdo) as an operator,</p> <p>b. SASR and 4 RAR (Cdo) troops being interchangeable,</p> <p>c. Subject courses specific to SF,</p> <p>d. Establishment of career streams,</p> <p>e. Dedicated SF support staff, and</p> <p>f. Deployment of 4 RAR (Cdo) personnel in conventional (peacekeeping/monitoring) roles.</p>	Personnel	Y	Y	N	N	N	N
12 5c	60 1	<p>Defining SF</p> <p>1. In an environment where resources, especially soldiers are becoming increasingly finite, the SF Gp needs to have a clear vision of what capabilities it must provide to the ADF. Once these capabilities are decided upon and established they should be promoted (inside the limits of security) within the army and the ADF as a whole. Commanders at all levels would then be aware of what the group can offer their organisation and what it cannot.</p> <p>2. Justification of the SF Gp's existence requires it to be recognized as a highly professional and capable organization. This may require responses to input from outside sources.</p>	Capability	Y	Y	N	N	N	N
12 5d	60 2	<p>Roles</p> <p>1. The capabilities that the SF Gp will provide to the ADF are multi-faceted varying from offensive in nature to humanitarian operations. A clear division of possible roles should be determined. This will allow units to concentrate on their tasks and develop a greater expertise in these specific areas.</p> <p>2. If an entity called the SF Gp is to function effectively there should be N 'poor cousins'. Units within the group should be confident that they are on an equal footing with the other SF units. Unit pride will grow once units are given clear roles. There are also implications on the selection and training of personnel. It would be retrograde to establish an element of the SF Gp that is regarded as 'Special Special Forces'.</p>	Leadership	N	Y	N	N	N	N

ID		Issues to Confront	Primary Category	P	O	S	T	E	D
12 5e	60 3	<p>1 Commando Regt</p> <p>1. If SF is to be defined in terms of capability, the role of 1 Commando Regt in contributing to this capability needs to be examined. As mentioned above, the competition for resources throughout Army and the ADF has intensified. Therefore justification of expenditure is becoming essential if units intend to receive the same annual allocation of resources. Against this background the expense of maintaining a part time commando regiment could be seen as excessive, unless its role in the group can be clearly identified.</p> <p>2. The desirability of having equal partners in the SF Gp has also been discussed. It is difficult to see how this perception within the group and the wider army could be prevented unless the 1 Commando Regt contribution is demonstrable.</p> <p>3. The current policy of selected part time personnel from 1 Commando Regt supplementing ARA overseas deployments is a positive step in establishing a capability. This could be expanded to deployments of teams or ideally sub-units on tasks or training activities.</p> <p>4. Another strategy for development of 1 Commando Regt could be to employ part time personnel in ARA SF units on full time service for extended periods. This practice would establish the reputation of part time personnel as capable SF soldiers and enhance the skill base in 1 Commando Regiment.</p>	Capability	Y	Y	N	N	N	N
12 5f	60 4	<p>Conclusion</p> <p>The expansion of the Special Forces Group is indicative of the increased utility of these forces in the post-cold war environment, and the changing doctrine of the ADF. If the Special Forces Group is to capitalise on change and cement itself as a permanent and indispensable part of the ADF ORBAT, I believe we need to address the personnel and organisation issues discussed.</p>	Management	Y	Y	N	N	N	N
12 6a	60 5	Effective training on technically advanced equipment prior to is being issued to the units for use	Training	N	N	N	Y	Y	N
12 6b	60 6	SF part time members being more involved in the goals of SO and maintaining an element at a higher state of readiness	Part Time	N	Y	N	N	N	N
12 6c	60 7	Maintaining control of SF elements under HQSO rather than, for example the new SFTC coming under Training Command	Management	N	Y	N	N	N	N
12 6d	60 8	Career management in SF	Personnel	Y	N	N	N	N	N
12 6e	60 9	Viability of 1 Commando Regiment	Capability	N	Y	N	N	N	N
12 7a	61 0	Unit roles and tasks must be clearly defined. They must be realistic and evenly balanced within the SF Group	Operations	N	Y	N	N	N	N
12 7b	61 1	Duplication of effort within the group must be reduced	Management	N	Y	N	N	N	N
12 7c	61 2	The group needs restructuring to reduce waste and produce the most effective and efficient use of resources. Why is there a need for Full Time and Part Time Commando elements in separate organisations	Capability	N	Y	N	N	N	N

ID	#	Issues to Confront	Primary Category	P	O	S	T	E	D
12 7d	61 3	Reduction of intra Special Forces Group politics	Leadership	Y	Y	N	N	N	N
12 7e	61 4	Recognition of the value and effort of non SAS units within the SF Group in the form of restructuring and broadening allowances to adequately compensate members of those units	Pay	Y	N	N	N	N	N

APPENDIX 5 RECONFIGURING FOR THE STABLE STATE

The list below sets out the order in which *Capacities* were achieved through organisational realignments to achieve the optimum stable state. The central idea that supports this realignment process is that those organisational capacities or competencies that are more tightly bound to the effects should determine the shape and structure of the organisation. Effectively the colours within the report at Figure 29 (although using the 'Capability to undertake' ratings) are being adjusted to bring high levels of capability to the left of the chart and force a reduction in capability for those means (and their underlying) capacities that have less utility.

1. Communicate using foreign languages
2. Establish and maintain cover/legend/appropriate norms
3. Establish rapport/win trust
4. Operate in a civilian environment
5. Implement psychological operations
6. Manage distribution of resources
7. Elicit information
8. Identify networks of contacts
9. Analyse information
10. Build personal profile
11. Evade surveillance and access control measures
12. Observe/monitor using surveillance/intercept devices
13. Employ target acquisition and cueing devices
14. Employ support weapons
15. Defeat security systems
16. Place surveillance/intercept devices
17. Breach information systems
18. Interfere with electronic/manual information systems
19. Recreate events

20. Administer business
21. Interfere with production and services
22. Track financial dealings and assets exchanges
23. Provide funds
24. Provide shelters and basic living facilities
25. Broadcast information
26. Handle and preserve evidence
27. Seal an area

Means - Capacities Set Completion Procedure

In this section I set out the full solution procedure for completing *Means - Capacities* sets (a '*Means - Capacity* set' is defined as the group of *Capacities* required to achieve a single *Means*. A worked example is set out on page 3 of this appendix.

The table below shows the *Means* with their associated *Capacities* shortfall, how many are in the set and the percentage complete resulting from this. The list has been ordered on the *Capacities* shortfall column with fewest at the top.

Means	Capacities Shortfall	Capacities in Set	% Complete
Provide communications	4	6	33%
Cue precision weapons	5	12	58%
Attack by close action	6	18	67%
Attack by stand off	6	14	57%
Establish haven	6	11	45%
Release information to media	6	7	14%
Sponsor relocation	6	9	33%
Tap-hack electronic information systems	6	7	14%
Accompany other forces	7	11	36%
Escort specialists	8	11	27%
Wide surveillance	8	15	47%
Collect human intelligence (HUMINT)	9	10	10%
Collection technical information/items	9	11	18%
Engage with neutral/hostile groups through intermediaries	9	10	10%
Generate/train forces	9	14	36%
Deceive physically/electronically	10	11	9%
Stand off info gathering (technical/cueing)	10	14	29%
Deny resources/render key infrastructure ineffective	11	14	21%
Infiltrate/manipulate/concentrate NGO effort	11	13	15%
Provide close protection	11	17	35%
Strike individuals or small groups	11	19	42%
Close reconnaissance/monitor specific target/named area of interest	12	21	43%
Enable infrastructure	12	15	20%
Provide vital services and/or resources	12	17	29%
Empower local functionaries and support local organisations	13	16	19%
Seize and recover individuals or small groups	13	25	48%
Create false business or inject super-competitive products	14	15	7%
Disseminate physical/electronic psychological operations material	14	16	13%
Gather evidence	14	17	18%
Recover detainees/friendly forces/authorised personnel	14	26	46%
Orchestrate 3rd party attack	15	18	17%
Penetrate/infiltrate groups/networks	15	19	21%
Threaten/damage leader personal wealth	15	16	6%
Attack leader moral/financial integrity/authority	17	18	6%
Interfere with aircraft movement and facilities	17	26	35%
Manipulate financial holdings/stocks	17	19	11%
Penetrate/ threaten leader physical security	17	21	19%
Disrupt shipping and facilities	18	27	33%
Materiel/financial/intelligence assistance to dissident movements (onshore also)	18	23	22%
Manipulate/damage business functions	20	24	17%

Algorithm Description

Begin with the assumption: A single *Means* needs all of its *Capacities* to be present and able to be performed in order to achieve the *Means*.

The aim of the process is to determine the optimum order of achieving *Capacities* so that the most *Means* could be performed with the achievement of the fewest possible *Capacities*. An iterative process is used, involving the selection of the best *Capacity* to adopt in each iteration, or cycle. In each cycle the *Capacities* that bring the most number of *Capacity* sets (or *Means*) to 'near completion' are chosen.

Worked Example

In the table below are the two *Means* (*Establish haven* and *Sponsor relocation*) that contain the fewest *Capacity* shortfalls for cycle two. Also shown is the number and statement of *Capacities* necessary to complete these two *Means*.

Means	Capacities	Capacities
	Shortfall	
Establish haven	2	Provide shelters and basic living facilities
	2	Seal an area
Sponsor relocation	2	Implement psychological operations
	2	Manage distribution of resources

The next step compares each of the four *Capacities* to identify how many *Means* would be completed with each individual *Capacity*. In this example, *Implement psychological operations* and *Manage distribution of resources* are selected as they bring to near or full completion a larger number of *Capacities* sets and in fewer cycles than the other two *Capacities*.

Comparing the first five (see table below) *Means - Capacities* shortfalls for each of the four *Capacities*, we see:

- *Implement psychological operations* has 2, 3, 4, 4 and 5.
- *Manage distribution of resources* has 2, 7, 8, 8 and 8.
- *Provide shelters and basic living facilities* has 2, 5, 7, 8 and 8.
- *Seal an area* has 2 and 10.

Implement psychological operations has the lowest set of numbers and, therefore, rates as the most valuable *Capacity* for this Cycle, in contrast *Seal an area* is the least valuable. The remaining two, whilst similar, do not outweigh the value of completing the set for *Sponsor relocation*.

Capacity	Means	Capacity Shortfall
Implement psychological operations	• Sponsor relocation	2
	• Release information to media	3
	• Escort specialists	4
	• Foster and exploit relationships with key individuals	4
	• Collect Humint	5
	• Engage with neutral/hostile groups through intermediaries	5
	• Generate/train forces	5
	• Deceive physically/electronically	7
	• Infiltrate/manipulate/concentrate NGO effort	7
	• Provide close protection	7
	• Strike individuals or small groups	7
	• Damage product or brand	8
	• Deny resources/render key infrastructure ineffective	8
	• Enable infrastructure	8
	• Provide vital services and/or resources	8
	• Close reconnaissance/monitor specific target/named area of interest	9
	• Empower local functionaries and support local organisations	9
	• Seize and recover individuals or small groups	9
	• Create false business or inject super-competitive products	10

Capacity	Means	Capacity Shortfall
	• Disseminate physical/electronic psychological operations material	10
	• Orchestrate 3rd party attack	11
	• Penetrate/infiltrate groups/networks	11
	• Threaten/damage leader personal wealth	11
	• Manipulate financial holdings/stocks	13
	• Penetrate/ threaten leader physical security	13
	• Attack leader moral/financial integrity/authority	14
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	14
	• Manipulate/damage business functions	16
Manage distribution of resources	• Sponsor relocation	2
	• Infiltrate/manipulate/concentrate NGO effort	7
	• Deny resources/render key infrastructure ineffective	8
	• Enable infrastructure	8
	• Provide vital services and/or resources	8
	• Empower local functionaries and support local organisations	9
	• Orchestrate 3rd party attack	11
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	14
	• Manipulate/damage business functions	16
Provide shelters and basic living facilities	• Establish haven	2
	• Generate/train forces	5
	• Infiltrate/manipulate/concentrate NGO effort	7
	• Enable infrastructure	8
	• Provide vital services and/or resources	8
	• Empower local functionaries and support local organisations	9
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	14
Seal an area	• Establish haven	2
	• Gather evidence	10

Means in Order of Being Solved

The table below contains the ordered sequence of *Means* completed using the process outlined earlier. It should be remembered that after each cycle the entire *Means* list is re-ordered within the decision-making logic to reflect changed priorities, resulting from the partial solving of *Means* that occur at lower levels.

Cycle	Means
1	Provide communications
2	Sponsor relocation
3	Release information to media
4	Engage with neutral/hostile groups Foster and exploit relationships with key individuals
5	Collect Humint
6	Wide surveillance
7	Cue precision weapons
8	Attack by stand off
9	Attack by close action Strike individuals or small groups
10	Accompany other forces Seize and recover individuals or small groups
11	Recover detainees/friendly forces/authorised Stand off info gathering (technical/cueing)
12	Close reconnaissance/monitor specific target/named area Deceive physically/electronically Tap-hack electronic information systems
13	Collection technical information/items Escort specialists
14	Penetrate/ threaten leader physical security Provide close protection
15	Deny resources/render key infrastructure Disrupt shipping and facilities Interfere with aircraft movement and facilities
16	Create false business or inject super-competitive products Damage product or brand Threaten/damage leader personal wealth
17	Manipulate financial holdings/stocks Manipulate/damage business functions Orchestrate 3rd party attack
18	Enable infrastructure Generate/train forces Infiltrate/manipulate/concentrate NGO effort Provide vital services and/or resources
19	Disseminate physical/electronic psychological operations material Empower local functionaries and support local organisations Materiel/financial/intelligence assistance to dissident movements (onshore also)
20	Attack leader moral/financial integrity/authority Establish haven Gather evidence Penetrate/infiltrate groups/networks

Note:

Text in **bold** indicates the *Means* and *Capacities* that were chosen in each cycle.

Cycle 1

Means	Capacity Shortfall	Capacities
Provide communications	4	• Communicate using foreign languages
		• Establish and maintain cover/legend/appropriate norms
		• Establish rapport/win trust
		• Operate in a civilian environment

Capacity	Means	Capacity Shortfall
Communicate using foreign languages	• Provide communications	4
	• Establish haven	6
	• Sponsor relocation	6
	• Accompany other forces	7
	• Escort specialists	8
	• Wide surveillance	8
	• Collect Humint	9
	• Engage with neutral/hostile groups through intermediaries	9
	• Generate/train forces	9
	• Infiltrate/manipulate/concentrate NGO effort	11
	• Provide close protection	11
	• Strike individuals or small groups	11
	• Enable infrastructure	12
	• Provide vital services and/or resources	12
	• Empower local functionaries and support local organisations	13
	• Seize and recover individuals or small groups	13
	• Create false business or inject super-competitive products	14
	• Disseminate physical/electronic psychological operations material	14
	• Gather evidence	14
	• Recover detainees/friendly forces/authorised personnel	14
• Orchestrate 3rd party attack	15	
• Penetrate/infiltrate groups/networks	15	
• Threaten/damage leader personal wealth	15	
• Interfere with aircraft movement and facilities	17	
• Manipulate financial holdings/stocks	17	

Capacity	Means	Capacity Shortfall
	• Penetrate/ threaten leader physical security	17
	• Disrupt shipping and facilities	18
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	18
	• Manipulate/damage business functions	20
Establish and maintain cover/legend/ appropriate norms	• Provide communications	4
	• Cue precision weapons	5
	• Attack by stand off	6
	• Establish haven	6
	• Release information to media	6
	• Sponsor relocation	6
	• Accompany other forces	7
	• Escort specialists	8
	• Wide surveillance	8
	• Collect Humint	9
	• Collection technical information/items	9
	• Engage with neutral/hostile groups through intermediaries	9
	• Generate/train forces	9
	• Deceive physically/electronically	10
	• Stand off info gathering (technical/cueing)	10
	• Deny resources/render key infrastructure ineffective	11
	• Infiltrate/manipulate/concentrate NGO effort	11
	• Provide close protection	11
	• Strike individuals or small groups	11
	• Close reconnaissance/monitor specific target/named area of interest	12
	• Enable infrastructure	12
	• Provide vital services and/or resources	12
	• Empower local functionaries and support local organisations	13
	• Seize and recover individuals or small groups	13
	• Create false business or inject super-competitive products	14
	• Disseminate physical/electronic psychological operations material	14
	• Gather evidence	14
	• Recover detainees/friendly forces/authorised personnel	14
	• Orchestrate 3rd party attack	15
	• Penetrate/infiltrate groups/networks	15
	• Threaten/damage leader personal	15

Capacity	Means	Capacity Shortfall
	wealth	
	• Attack leader moral/financial integrity/authority	17
	• Interfere with aircraft movement and facilities	17
	• Manipulate financial holdings/stocks	17
	• Penetrate/ threaten leader physical security	17
	• Disrupt shipping and facilities	18
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	18
	• Manipulate/damage business functions	20
Establish rapport/win trust	• Provide communications	4
	• Establish haven	6
	• Release information to media	6
	• Sponsor relocation	6
	• Accompany other forces	7
	• Escort specialists	8
	• Wide surveillance	8
	• Collect Humint	9
	• Collection technical information/items	9
	• Engage with neutral/hostile groups through intermediaries	9
	• Generate/train forces	9
	• Deceive physically/electronically	10
	• Stand off info gathering (technical/cueing)	10
	• Deny resources/render key infrastructure ineffective	11
	• Infiltrate/manipulate/concentrate NGO effort	11
	• Provide close protection	11
	• Strike individuals or small groups	11
	• Close reconnaissance/monitor specific target/named area of interest	12
	• Enable infrastructure	12
	• Provide vital services and/or resources	12
	• Empower local functionaries and support local organisations	13
	• Seize and recover individuals or small groups	13
	• Create false business or inject super-competitive products	14
	• Disseminate physical/electronic psychological operations material	14
	• Gather evidence	14
	• Recover detainees/friendly forces/authorised personnel	14

Capacity	Means	Capacity Shortfall
	• Orchestrate 3rd party attack	15
	• Penetrate/infiltrate groups/networks	15
	• Threaten/damage leader personal wealth	15
	• Attack leader moral/financial integrity/authority	17
	• Interfere with aircraft movement and facilities	17
	• Manipulate financial holdings/stocks	17
	• Penetrate/ threaten leader physical security	17
	• Disrupt shipping and facilities	18
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	18
	• Manipulate/damage business functions	20
Operate in a civilian environment	• Provide communications	4
	• Cue precision weapons	5
	• Attack by close action	6
	• Attack by stand off	6
	• Establish haven	6
	• Release information to media	6
	• Sponsor relocation	6
	• Tap-hack electronic information systems	6
	• Accompany other forces	7
	• Escort specialists	8
	• Wide surveillance	8
	• Collect Humint	9
	• Collection technical information/items	9
	• Engage with neutral/hostile groups through intermediaries	9
	• Generate/train forces	9
	• Deceive physically/electronically	10
	• Stand off info gathering (technical/cueing)	10
	• Deny resources/render key infrastructure ineffective	11
	• Infiltrate/manipulate/concentrate NGO effort	11
	• Provide close protection	11
	• Strike individuals or small groups	11
	• Close reconnaissance/monitor specific target/named area of interest	12
	• Enable infrastructure	12
	• Provide vital services and/or resources	12
	• Empower local functionaries and support local organisations	13
	• Seize and recover individuals or small	13

Capacity	Means	Capacity Shortfall
	groups	
	• Create false business or inject super-competitive products	14
	• Disseminate physical/electronic psychological operations material	14
	• Gather evidence	14
	• Recover detainees/friendly forces/authorised personnel	14
	• Orchestrate 3rd party attack	15
	• Penetrate/infiltrate groups/networks	15
	• Threaten/damage leader personal wealth	15
	• Attack leader moral/financial integrity/authority	17
	• Interfere with aircraft movement and facilities	17
	• Manipulate financial holdings/stocks	17
	• Penetrate/ threaten leader physical security	17
	• Disrupt shipping and facilities	18
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	18
	• Manipulate/damage business functions	20

Cycle 2

Means	Capacities Shortfall	Capacities
Establish haven	2	Provide shelters and basic living facilities
	2	Seal an area
Sponsor relocation	2	Implement psychological operations
	2	Manage distribution of resources

Capacity	Means	Capacity Shortfall
Implement psychological operations	• Sponsor relocation	2
	• Release information to media	3
	• Escort specialists	4
	• Foster and exploit relationships with key individuals	4
	• Collect Humint	5
	• Engage with neutral/hostile groups through intermediaries	5
	• Generate/train forces	5
	• Deceive physically/electronically	7
	• Infiltrate/manipulate/concentrate NGO effort	7
	• Provide close protection	7
	• Strike individuals or small groups	7
	• Damage product or brand	8
	• Deny resources/render key infrastructure ineffective	8
	• Enable infrastructure	8
	• Provide vital services and/or resources	8
	• Close reconnaissance/monitor specific target/named area of interest	9
	• Empower local functionaries and support local organisations	9
	• Seize and recover individuals or small groups	9
• Create false business or inject super-competitive products	10	
• Disseminate physical/electronic psychological operations material	10	
• Orchestrate 3rd party attack	11	
• Penetrate/infiltrate groups/networks	11	
• Threaten/damage leader personal wealth	11	
• Manipulate financial holdings/stocks	13	
• Penetrate/ threaten leader physical security	13	

Capacity	Means	Capacity Shortfall
	• Attack leader moral/financial integrity/authority	14
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	14
	• Manipulate/damage business functions	16
Manage distribution of resources	• Sponsor relocation	2
	• Infiltrate/manipulate/concentrate NGO effort	7
	• Deny resources/render key infrastructure ineffective	8
	• Enable infrastructure	8
	• Provide vital services and/or resources	8
	• Empower local functionaries and support local organisations	9
	• Orchestrate 3rd party attack	11
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	14
	• Manipulate/damage business functions	16
Provide shelters and basic living facilities	• Establish haven	2
	• Generate/train forces	5
	• Infiltrate/manipulate/concentrate NGO effort	7
	• Enable infrastructure	8
	• Provide vital services and/or resources	8
	• Empower local functionaries and support local organisations	9
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	14
Seal an area	• Establish haven	2
	• Gather evidence	10

Cycle 3

Means	Capacity Shortfall	Capacities
Establish haven	2	Provide shelters and basic living facilities
Establish haven	2	Seal an area
Release information to media	2	Elicit information
Release information to media	2	Identify networks of contacts

Capacity	Means	Capacity Shortfall
Elicit information	• Release information to media	2
	• Collect Humint	4
	• Engage with neutral/hostile groups through intermediaries	4
	• Enable infrastructure	6
	• Provide close protection	6
	• Empower local functionaries and support local organisations	7
	• Seize and recover individuals or small groups	8
	• Disseminate physical/electronic psychological operations material	9
	• Orchestrate 3rd party attack	9
	• Gather evidence	10
	• Penetrate/infiltrate groups/networks	10
	• Recover detainees/friendly forces/authorised personnel	10
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	12
	• Penetrate/ threaten leader physical security	12
	• Interfere with aircraft movement and facilities	13
	• Disrupt shipping and facilities	14
	• Manipulate/damage business functions	14
Identify networks of contacts	• Release information to media	2
	• Accompany other forces	3
	• Escort specialists	3
	• Foster and exploit relationships with key individuals	3
	• Collect Humint	4
	• Engage with neutral/hostile groups through intermediaries	4
	• Generate/train forces	4
	• Wide surveillance	4

Capacity	Means	Capacity Shortfall
	• Tap-hack electronic information systems	5
	• Deceive physically/electronically	6
	• Deny resources/render key infrastructure ineffective	6
	• Enable infrastructure	6
	• Provide close protection	6
	• Provide vital services and/or resources	6
	• Strike individuals or small groups	6
	• Damage product or brand	7
	• Empower local functionaries and support local organisations	7
	• Stand off info gathering (technical/cueing)	7
	• Close reconnaissance/monitor specific target/named area of interest	8
	• Seize and recover individuals or small groups	8
	• Create false business or inject super-competitive products	9
	• Disseminate physical/electronic psychological operations material	9
	• Orchestrate 3rd party attack	9
	• Gather evidence	10
	• Penetrate/infiltrate groups/networks	10
	• Recover detainees/friendly forces/authorised personnel	10
	• Threaten/damage leader personal wealth	10
	• Manipulate financial holdings/stocks	12
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	12
	• Penetrate/ threaten leader physical security	12
	• Attack leader moral/financial integrity/authority	13
	• Disrupt shipping and facilities	14
	• Manipulate/damage business functions	14
Provide shelters and basic living facilities	• Establish haven	2
	• Generate/train forces	4
	• Infiltrate/manipulate/concentrate NGO effort	5
	• Enable infrastructure	6
	• Provide vital services and/or resources	6
	• Empower local functionaries and support local organisations	7
	• Materiel/financial/intelligence assistance to dissident movements	12

Capacity	Means	Capacity Shortfall
	(onshore also)	
Seal an area	<ul style="list-style-type: none">• Establish haven• Gather evidence	2
		10

Cycle 4

Means	Capacity Shortfall	Capacity
Accompany other forces	2	Observe/monitor using surveillance/intercept devices
Accompany other forces	2	Place surveillance/intercept devices
Collect Humint	2	Analyse information
Collect Humint	2	Evade surveillance and access control measures
Engage with neutral/hostile groups through intermediaries	2	Analyse information
Engage with neutral/hostile groups through intermediaries	2	Build personal profile
Escort specialists	2	Build personal profile
Escort specialists	2	Recreate events
Establish haven	2	Provide shelters and basic living facilities
Establish haven	2	Seal an area
Foster and exploit relationships with key individuals	2	Analyse information
Foster and exploit relationships with key individuals	2	Build personal profile

Capacity	Means	Capacity Shortfall
Analyse information	• Collect Humint	2
	• Engage with neutral/hostile groups through intermediaries	2
	• Foster and exploit relationships with key individuals	2
	• Generate/train forces	3
	• Wide surveillance	3
	• Enable infrastructure	4
	• Tap-hack electronic information systems	4
	• Deceive physically/electronically	5
	• Empower local functionaries and support local organisations	5
	• Infiltrate/manipulate/concentrate NGO effort	5
	• Provide vital services and/or resources	5
	• Collection technical information/items	6
	• Damage product or brand	6

Capacity	Means	Capacity Shortfall
	• Stand off info gathering (technical/cueing)	6
	• Close reconnaissance/monitor specific target/named area of interest	7
	• Disseminate physical/electronic psychological operations material	7
	• Orchestrate 3rd party attack	7
	• Create false business or inject super-competitive products	8
	• Gather evidence	8
	• Penetrate/infiltrate groups/networks	8
	• Threaten/damage leader personal wealth	9
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	10
	• Penetrate/ threaten leader physical security	10
	• Manipulate financial holdings/stocks	11
	• Attack leader moral/financial integrity/authority	12
	• Disrupt shipping and facilities	12
	• Interfere with aircraft movement and facilities	12
	• Manipulate/damage business functions	12
Build personal profile	• Engage with neutral/hostile groups through intermediaries	2
	• Escort specialists	2
	• Foster and exploit relationships with key individuals	2
	• Provide close protection	4
	• Empower local functionaries and support local organisations	5
	• Infiltrate/manipulate/concentrate NGO effort	5
	• Strike individuals or small groups	5

Capacity	Means	Capacity/Shortfall
	• Seize and recover individuals or small groups	6
	• Disseminate physical/electronic psychological operations material	7
	• Orchestrate 3rd party attack	7
	• Create false business or inject super-competitive products	8
	• Gather evidence	8
	• Penetrate/infiltrate groups/networks	8
	• Recover detainees/friendly forces/authorised personnel	8
	• Threaten/damage leader personal wealth	9
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	10
	• Penetrate/ threaten leader physical security	10
	• Manipulate financial holdings/stocks	11
	• Attack leader moral/financial integrity/authority	12
	• Disrupt shipping and facilities	12
	• Interfere with aircraft movement and facilities	12
	• Manipulate/damage business functions	12
Evade surveillance and access control measures	• Collect Humint	2
	• Cue precision weapons	3
	• Wide surveillance	3
	• Attack by stand off	4
	• Tap-hack electronic information systems	4
	• Attack by close action	5
	• Deceive physically/electronically	5
	• Deny resources/render key infrastructure ineffective	5
	• Strike individuals or	5

Capacity	Means	Capacity Shortfall
	small groups	
	• Collection technical information/items	6
	• Damage product or brand	6
	• Seize and recover individuals or small groups	6
	• Stand off info gathering (technical/cueing)	6
	• Close reconnaissance/monitor specific target/named area of interest	7
	• Penetrate/infiltrate groups/networks	8
	• Recover detainees/friendly forces/authorised personnel	8
	• Threaten/damage leader personal wealth	9
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	10
	• Penetrate/ threaten leader physical security	10
	• Manipulate financial holdings/stocks	11
	• Attack leader moral/financial integrity/authority	12
	• Disrupt shipping and facilities	12
	• Interfere with aircraft movement and facilities	12
	• Manipulate/damage business functions	12
Observe/monitor using surveillance/intercept devices	• Accompany other forces	2
	• Cue precision weapons	3
	• Wide surveillance	3
	• Attack by stand off	4
	• Provide close protection	4
	• Attack by close action	5
	• Seize and recover individuals or small groups	6
	• Stand off info gathering (technical/cueing)	6
	• Close reconnaissance/monitor	7

Capacity	Means	Capacity Shortfall
	specific target/named area of interest	
	• Gather evidence	8
	• Recover detainees/friendly forces/authorised personnel	8
	• Penetrate/ threaten leader physical security	10
	• Attack leader moral/financial integrity/authority	12
	• Disrupt shipping and facilities	12
	• Interfere with aircraft movement and facilities	12
	• Manipulate/damage business functions	12
Place surveillance/intercept devices	• Accompany other forces	2
	• Seize and recover individuals or small groups	6
	• Close reconnaissance/monitor specific target/named area of interest	7
	• Gather evidence	8
	• Recover detainees/friendly forces/authorised personnel	8
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	10
	• Penetrate/ threaten leader physical security	10
	• Manipulate financial holdings/stocks	11
	• Attack leader moral/financial integrity/authority	12
	• Disrupt shipping and facilities	12
	• Interfere with aircraft movement and facilities	12
	• Manipulate/damage business functions	12
Provide shelters and basic living facilities	• Establish haven	2
	• Generate/train forces	3
	• Enable infrastructure	4
	• Empower local	5

Capacity	Means	Capacity Shortfall
	functionaries and support local organisations	
	<ul style="list-style-type: none"> • Infiltrate/manipulate/concentrate NGO effort 	5
	<ul style="list-style-type: none"> • Provide vital services and/or resources 	5
	<ul style="list-style-type: none"> • Materiel/financial/intelligence assistance to dissident movements (onshore also) 	10
Recreate events	<ul style="list-style-type: none"> • Escort specialists 	2
	<ul style="list-style-type: none"> • Provide close protection 	4
	<ul style="list-style-type: none"> • Collection technical information/items 	6
	<ul style="list-style-type: none"> • Gather evidence 	8
Seal an area	<ul style="list-style-type: none"> • Establish haven 	2
	<ul style="list-style-type: none"> • Gather evidence 	8

Cycle 5

Means	Capacity Shortfall	Capacities
Collect Humint	1	Evade surveillance and access control measures
Escort specialists	1	Recreate events

Capacity	Means	Capacity Shortfall
Evade surveillance and access control measures	• Collect Humint	1
	• Wide surveillance	2
	• Cue precision weapons	3
	• Tap-hack electronic information systems	3
	• Attack by stand off	4
	• Deceive physically/electronically	4
	• Strike individuals or small groups	4
	• Attack by close action	5
	• Collection technical information/items	5
	• Damage product or brand	5
	• Deny resources/render key infrastructure ineffective	5
	• Seize and recover individuals or small groups	5
	• Stand off info gathering (technical/cueing)	5
	• Close reconnaissance/monitor specific target/named area of interest	6
	• Penetrate/infiltrate groups/networks	6
	• Recover detainees/friendly forces/authorised personnel	7
	• Threaten/damage leader personal wealth	7
• Materiel/financial/intelligence assistance to dissident movements (onshore also)	8	
• Penetrate/ threaten leader physical security	8	

	• Manipulate financial holdings/stocks	9
	• Attack leader moral/financial integrity/authority	10
	• Disrupt shipping and facilities	10
	• Interfere with aircraft movement and facilities	10
	• Manipulate/damage business functions	10
Recreate events	• Escort specialists	1
	• Provide close protection	3
	• Collection technical information/items	5
	• Gather evidence	6

Cycle 6

Means	Cap Shortfall	Capacity
Escort specialists	1	Recreate events
Wide surveillance	1	Observe/monitor using surveillance/intercept devices

Capacity	Means	Capacity Shortfall
Observe/monitor using surveillance/intercept devices	• Wide surveillance	1
	• Accompany other forces	2
	• Cue precision weapons	2
	• Attack by stand off	3
	• Provide close protection	3
	• Attack by close action	4
	• Seize and recover individuals or small groups	4
	• Stand off info gathering (technical/cueing)	4
	• Close reconnaissance/monitor specific target/named area of interest	5
	• Gather evidence	6
	• Recover detainees/friendly forces/authorised personnel	6
	• Penetrate/ threaten leader physical security	7
	• Attack leader moral/financial integrity/authority	9
	• Disrupt shipping and facilities	9
	• Interfere with aircraft movement and facilities	9
	• Manipulate/damage business functions	9
	Recreate events	• Escort specialists
• Provide close protection		3
• Collection technical information/items		4
• Gather evidence		6

Cycle 7

Means	Capacity Shortfall	Capacities
Accompany other forces	1	Place surveillance/intercept devices
Cue precision weapons	1	Employ target acquisition and cueing devices
Escort specialists	1	Recreate events

Capacity	Means	Capacity Shortfall
Employ target acquisition and cueing devices	• Cue precision weapons	1
	• Attack by stand off	2
	• Attack by close action	3
	• Stand off info gathering (technical/cueing)	3
	• Strike individuals or small groups	3
	• Recover detainees/friendly forces/authorised personnel	5
	• Penetrate/ threaten leader physical security	6
	• Disrupt shipping and facilities	8
Place surveillance/intercept devices	• Interfere with aircraft movement and facilities	8
	• Accompany other forces	1
	• Seize and recover individuals or small groups	3
	• Close reconnaissance/monitor specific target/named area of interest	4
	• Gather evidence	5
	• Recover detainees/friendly forces/authorised personnel	5
	• Penetrate/ threaten leader physical security	6
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	7
	• Attack leader moral/financial integrity/authority	8
	• Disrupt shipping and facilities	8
• Interfere with aircraft movement and facilities	8	
• Manipulate financial	8	

Capacity	Means	Capacity Shortfall
	holdings/stocks	
	• Manipulate/damage business functions	8
Recreate events	• Escort specialists	1
	• Provide close protection	2
	• Collection technical information/items	4
	• Gather evidence	5

Cycle 8

Means	Capacity Shortfall	Capacities
Accompany other forces	1	Place surveillance/intercept devices
Attack by stand off	1	Employ support weapons
Escort specialists	1	Recreate events

Capacity	Means	Capacity Shortfall
Employ support weapons	• Attack by stand off	1
	• Attack by close action	2
	• Strike individuals or small groups	2
	• Seize and recover individuals or small groups	3
	• Provide vital services and/or resources	4
	• Recover detainees/friendly forces/authorised personnel	4
	• Penetrate/ threaten leader physical security	5
	• Disrupt shipping and facilities	7
	• Interfere with aircraft movement and facilities	7
	Place surveillance/intercept devices	• Accompany other forces
• Seize and recover individuals or small groups		3
• Close reconnaissance/monitor specific target/named area of interest		4
• Recover detainees/friendly forces/authorised personnel		4
• Gather evidence		5
• Penetrate/ threaten leader physical security		5
• Disrupt shipping and facilities		7
• Interfere with aircraft movement and facilities		7
• Materiel/financial/intelligence assistance to dissident movements (onshore also)		7
• Attack leader moral/financial integrity/authority		8
Recreate events	• Manipulate financial holdings/stocks	8
	• Manipulate/damage business functions	8
	• Escort specialists	1

Capacity	Means	Capacity Shortfall
	• Provide close protection	2
	• Collection technical information/items	4
	• Gather evidence	5

Cycle 9

Means	Capacity Shortfall	Capacity
Accompany other forces	1	Place surveillance/intercept devices
Attack by close action	1	Defeat security systems
Escort specialists	1	Recreate events
Strike individuals or small groups	1	Defeat security systems

Capacity	Means	Capacity Shortfall
Defeat security systems	• Attack by close action	1
	• Strike individuals or small groups	1
	• Seize and recover individuals or small groups	2
	• Stand off info gathering (technical/cueing)	2
	• Tap-hack electronic information systems	2
	• Deceive physically/electronically	3
	• Recover detainees/friendly forces/authorised personnel	3
	• Close reconnaissance/monitor specific target/named area of interest	4
	• Collection technical information/items	4
	• Damage product or brand	4
	• Deny resources/render key infrastructure ineffective	4
	• Penetrate/ threaten leader physical security	4
	• Disseminate physical/electronic psychological operations material	5
	• Orchestrate 3rd party attack	5
	• Penetrate/infiltrate groups/networks	5
	• Create false business or inject super-competitive products	6
	• Disrupt shipping and facilities	6
	• Interfere with aircraft movement and facilities	6
	• Threaten/damage leader personal wealth	6
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	7
	• Attack leader moral/financial integrity/authority	8

Capacity	Means	Capacity Shortfall
	• Manipulate financial holdings/stocks	8
	• Manipulate/damage business functions	8
Place surveillance/intercept devices	• Accompany other forces	1
	• Seize and recover individuals or small groups	2
	• Recover detainees/friendly forces/authorised personnel	3
	• Close reconnaissance/monitor specific target/named area of interest	4
	• Penetrate/ threaten leader physical security	4
	• Gather evidence	5
	• Disrupt shipping and facilities	6
	• Interfere with aircraft movement and facilities	6
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	7
	• Attack leader moral/financial integrity/authority	8
	• Manipulate financial holdings/stocks	8
	• Manipulate/damage business functions	8
Recreate events	• Escort specialists	1
	• Provide close protection	2
	• Collection technical information/items	4
	• Gather evidence	5

Cycle 10

Means	Capacity Shortfall	Capacities
Accompany other forces	1	Place surveillance/intercept devices
Escort specialists	1	Recreate events
Seize and recover individuals or small groups	1	Place surveillance/intercept devices
Stand off info gathering (technical/cueing)	1	Breach information systems
Tap-hack electronic information systems	1	Interfere with electronic/manual information systems

Capacity	Means	Capacity/Shortfall
Breach information systems	<ul style="list-style-type: none"> • Stand off info gathering (technical/cueing) 	1
	<ul style="list-style-type: none"> • Deceive physically/electronically 	2
	<ul style="list-style-type: none"> • Recover detainees/friendly forces/authorised personnel 	2
	<ul style="list-style-type: none"> • Close reconnaissance/monitor specific target/named area of interest 	3
	<ul style="list-style-type: none"> • Collection technical information/items 	3
	<ul style="list-style-type: none"> • Deny resources/render key infrastructure ineffective 	3
	<ul style="list-style-type: none"> • Infiltrate/manipulate/conceal ntrate NGO effort 	3
	<ul style="list-style-type: none"> • Penetrate/ threaten leader physical security 	3
	<ul style="list-style-type: none"> • Disseminate physical/electronic psychological operations material 	4
	<ul style="list-style-type: none"> • Orchestrate 3rd party attack 	4
	<ul style="list-style-type: none"> • Penetrate/infiltrate groups/networks 	4
	<ul style="list-style-type: none"> • Create false business or inject super-competitive products 	5
	<ul style="list-style-type: none"> • Disrupt shipping and facilities 	5
	<ul style="list-style-type: none"> • Gather evidence 	5
	<ul style="list-style-type: none"> • Interfere with aircraft movement and facilities 	5
	<ul style="list-style-type: none"> • Threaten/damage leader personal wealth 	5

Capacity	Means	Capacity/Shortfall
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	6
	• Attack leader moral/financial integrity/authority	7
	• Manipulate financial holdings/stocks	7
	• Manipulate/damage business functions	7
Interfere with electronic/manual information systems	• Tap-hack electronic information systems	1
	• Deceive physically/electronically	2
	• Close reconnaissance/monitor specific target/named area of interest	3
	• Collection technical information/items	3
	• Damage product or brand	3
	• Deny resources/render key infrastructure ineffective	3
	• Disseminate physical/electronic psychological operations material	4
	• Orchestrate 3rd party attack	4
	• Penetrate/infiltrate groups/networks	4
	• Create false business or inject super-competitive products	5
	• Disrupt shipping and facilities	5
	• Interfere with aircraft movement and facilities	5
	• Threaten/damage leader personal wealth	5
	• Attack leader moral/financial integrity/authority	7
	• Manipulate financial holdings/stocks	7
	• Manipulate/damage business functions	7
Place surveillance/intercept devices	• Accompany other forces	1
	• Seize and recover individuals or small groups	1
	• Recover detainees/friendly forces/authorised	2

Capacity	Means	Capacity Shortfall
	personnel	
	<ul style="list-style-type: none"> • Close reconnaissance/monitor specific target/named area of interest 	3
	<ul style="list-style-type: none"> • Penetrate/ threaten leader physical security 	3
	<ul style="list-style-type: none"> • Disrupt shipping and facilities 	5
	<ul style="list-style-type: none"> • Gather evidence 	5
	<ul style="list-style-type: none"> • Interfere with aircraft movement and facilities 	5
	<ul style="list-style-type: none"> • Materiel/financial/intelligence assistance to dissident movements (onshore also) 	6
	<ul style="list-style-type: none"> • Attack leader moral/financial integrity/authority 	7
	<ul style="list-style-type: none"> • Manipulate financial holdings/stocks 	7
	<ul style="list-style-type: none"> • Manipulate/damage business functions 	7
Recreate events	<ul style="list-style-type: none"> • Escort specialists 	1
	<ul style="list-style-type: none"> • Provide close protection 	2
	<ul style="list-style-type: none"> • Collection technical information/items 	3
	<ul style="list-style-type: none"> • Gather evidence 	5

Cycle 12

Means	Capacity Shortfall	Capacity
Escort specialists	1	Recreate events
Recover detainees/friendly forces/authorised personnel	1	Breach information systems
Stand off info gathering (technical/cueing)	1	Breach information systems
Tap-hack electronic information systems	1	Interfere with electronic/manual information systems

Capacity	Means	Capacity Shortfall
Breach information systems	<ul style="list-style-type: none"> • Recover detainees/friendly forces/ authorised personnel 	1
	<ul style="list-style-type: none"> • Stand off info gathering (technical/cueing) 	1
	<ul style="list-style-type: none"> • Close reconnaissance/monitor specific target/named area of interest 	2
	<ul style="list-style-type: none"> • Deceive physically/electronically 	2
	<ul style="list-style-type: none"> • Penetrate/ threaten leader physical security 	2
	<ul style="list-style-type: none"> • Collection technical information/items 	3
	<ul style="list-style-type: none"> • Deny resources/render key infrastructure ineffective 	3
	<ul style="list-style-type: none"> • Infiltrate/manipulate/conce ntrate NGO effort 	3
	<ul style="list-style-type: none"> • Disrupt shipping and facilities 	4
	<ul style="list-style-type: none"> • Disseminate physical/electronic psychological operations material 	4
	<ul style="list-style-type: none"> • Gather evidence 	4
	<ul style="list-style-type: none"> • Interfere with aircraft movement and facilities 	4
	<ul style="list-style-type: none"> • Orchestrate 3rd party attack 	4
	<ul style="list-style-type: none"> • Penetrate/infiltrate groups/networks 	4
	<ul style="list-style-type: none"> • Create false business or inject super-competitive products 	5
	<ul style="list-style-type: none"> • Materiel/financial/intelligence assistance to dissident 	5

Capacity	Means	Capacity Shortfall
	movements (onshore also)	
	• Threaten/damage leader personal wealth	5
	• Attack leader moral/financial integrity/authority	6
	• Manipulate financial holdings/stocks	6
	• Manipulate/damage business functions	6
Interfere with electronic/manual information systems	• Tap-hack electronic information systems	1
	• Close reconnaissance/monitor specific target/named area of interest	2
	• Deceive physically/electronically	2
	• Collection technical information/items	3
	• Damage product or brand	3
	• Deny resources/render key infrastructure ineffective	3
	• Disrupt shipping and facilities	4
	• Disseminate physical/electronic psychological operations material	4
	• Interfere with aircraft movement and facilities	4
	• Orchestrate 3rd party attack	4
	• Penetrate/infiltrate groups/networks	4
	• Create false business or inject super-competitive products	5
	• Threaten/damage leader personal wealth	5
	• Attack leader moral/financial integrity/authority	6
	• Manipulate financial holdings/stocks	6
	• Manipulate/damage business functions	6
Recreate events	• Escort specialists	1
	• Provide close protection	2
	• Collection technical information/items	3
	• Gather evidence	4

Cycle 12

Means	Capacity Shortfall	Capacities
Close reconnaissance/monitor specific target/named area of interest	1	Interfere with electronic/manual information systems
Deceive physically/electronically	1	Interfere with electronic/manual information systems
Escort specialists	1	Recreate events
Penetrate/ threaten leader physical security	1	Administer business
Tap-hack electronic information systems	1	Interfere with electronic/manual information systems

Capacity	Means	Capacity Shortfall
Administer business	• Penetrate/ threaten leader physical security	1
	• Infiltrate/manipulate/conce ntrate NGO effort	2
	• Provide close protection	2
	• Disrupt shipping and facilities	3
	• Disseminate physical/electronic psychological operations material	3
	• Enable infrastructure	3
	• Interfere with aircraft movement and facilities	3
	• Orchestrate 3rd party attack	3
	• Penetrate/infiltrate groups/networks	3
	• Provide vital services and/or resources	3
	• Create false business or inject super-competitive products	4
	• Materiel/financial/intelligence assistance to dissidence movements (onshore also)	4
	• Threaten/damage leader personal wealth	4
	• Attack leader moral/financial integrity/authority	5
	• Manipulate financial holdings/stocks	5

Capacity	Means	Capacity Shortfall
Interfere with electronic/manual information systems	• Manipulate/damage business functions	5
	• Close reconnaissance/monitor specific target/named area of interest	1
	• Deceive physically/electronically	1
	• Tap-hack electronic information systems	1
	• Collection technical information/items	2
	• Deny resources/render key infrastructure ineffective	2
	• Damage product or brand	3
	• Disrupt shipping and facilities	3
	• Disseminate physical/electronic psychological operations material	3
	• Interfere with aircraft movement and facilities	3
	• Orchestrate 3rd party attack	3
	• Penetrate/infiltrate groups/networks	3
	• Create false business or inject super-competitive products	4
	• Threaten/damage leader personal wealth	4
	• Attack leader moral/financial integrity/authority	5
	• Manipulate financial holdings/stocks	5
	• Manipulate/damage business functions	5
Recreate events	• Escort specialists	1
	• Collection technical information/items	2
	• Provide close protection	2
	• Gather evidence	3

Cycle 13

Means	Capacity Shortfall	Capacities
Collection technical information/items	1	Recreate events
Deny resources/render key infrastructure ineffective	1	Interfere with production and services
Escort specialists	1	Recreate events
Penetrate/ threaten leader physical security	1	Administer business

Capacity	Means	Capacity Shortfall
Administer business	• Penetrate/ threaten leader physical security	1
	• Disrupt shipping and facilities	2
	• Disseminate physical/electronic psychological operations material	2
	• Infiltrate/manipulate/concentrate NGO effort	2
	• Interfere with aircraft movement and facilities	2
	• Orchestrate 3rd party attack	2
	• Penetrate/infiltrate groups/networks	2
	• Provide close protection	2
	• Create false business or inject super-competitive products	3
	• Enable infrastructure	3
	• Provide vital services and/or resources	3
	• Threaten/damage leader personal wealth	3
	• Attack leader moral/financial integrity/authority	4
	• Manipulate financial holdings/stocks	4
• Manipulate/damage business functions	4	
• Materiel/financial/intelligence assistance to dissident movements (onshore also)	4	
Interfere with production and services	• Deny resources/render key infrastructure ineffective	1
	• Damage product or brand	2
	• Disrupt shipping and facilities	2
	• Interfere with aircraft movement and facilities	2
	• Create false business or inject super-competitive products	3
	• Threaten/damage leader personal	3

Capacity	Means	Capacity Shortfall
	wealth	
	• Attack leader moral/financial integrity/authority	4
	• Manipulate financial holdings/stocks	4
	• Manipulate/damage business functions	4
Recreate events	• Collection technical information/items	1
	• Escort specialists	1
	• Provide close protection	2
	• Gather evidence	3

Cycle 14

Means	Capacity	Capacities
Deny resources/render key infrastructure ineffective	1	Interfere with production and services
Penetrate/ threaten leader physical security	1	Administer business
Provide close protection	1	Administer business

Capacity	Means	Capacity Shortfall
Administer business	• Penetrate/ threaten leader physical security	1
	• Provide close protection	1
	• Disrupt shipping and facilities	2
	• Disseminate physical/electronic psychological operations material	2
	• Infiltrate/manipulate/concentrate NGO effort	2
	• Interfere with aircraft movement and facilities	2
	• Orchestrate 3rd party attack	2
	• Penetrate/infiltrate groups/networks	2
	• Create false business or inject super-competitive products	3
	• Enable infrastructure	3
	• Provide vital services and/or resources	3
	• Threaten/damage leader personal wealth	3
	• Attack leader moral/financial integrity/authority	4
	• Manipulate financial holdings/stocks	4
• Manipulate/damage business functions	4	
• Materiel/financial/intelligence assistance to dissident movements (onshore also)	4	
Interfere with production and services	• Deny resources/render key infrastructure ineffective	1
	• Damage product or brand	2
	• Disrupt shipping and facilities	2
	• Interfere with aircraft movement and facilities	2
	• Create false business or inject super-competitive products	3
	• Threaten/damage leader personal wealth	3
	• Attack leader moral/financial	4

Capacity	Means	Capacity Shortfall
	integrity/authority	
	• Manipulate financial holdings/stocks	4
	• Manipulate/damage business functions	4

Cycle 15

Means	Capacity Shortfall	Capacity
Deny resources/render key infrastructure ineffective		1 Interfere with production and services
Disrupt shipping and facilities		1 Interfere with production and services
Disseminate physical/electronic psychological operations		1 Broadcast information
Infiltrate/manipulate/concentrate NGO effort		1 Provide shelters and basic living facilities
Interfere with aircraft movement and facilities		1 Interfere with production and services
Orchestrate 3rd party attack		1 Provide funds
Penetrate/infiltrate groups/networks		1 Handle and preserve evidence

Capacity	Means	Capacity Shortfall
Broadcast information	<ul style="list-style-type: none"> • Disseminate physical/electronic psychological operations material 	1
	<ul style="list-style-type: none"> • Empower local functionaries and support local organisations 	3
	<ul style="list-style-type: none"> • Materiel/financial/intelligence assistance to dissident movements (onshore also) 	3
Handle and preserve evidence	<ul style="list-style-type: none"> • Penetrate/infiltrate groups/networks 	1
	<ul style="list-style-type: none"> • Attack leader moral/financial integrity/authority 	3
Interfere with production and services	<ul style="list-style-type: none"> • Deny resources/render key infrastructure ineffective 	1
	<ul style="list-style-type: none"> • Disrupt shipping and facilities 	1
	<ul style="list-style-type: none"> • Interfere with aircraft movement and facilities 	1
	<ul style="list-style-type: none"> • Create false business or inject super-competitive products 	2
	<ul style="list-style-type: none"> • Damage product or brand 	2
	<ul style="list-style-type: none"> • Threaten/damage leader personal wealth 	2
	<ul style="list-style-type: none"> • Attack leader moral/financial integrity/authority 	3
	<ul style="list-style-type: none"> • Manipulate financial holdings/stocks 	3
	<ul style="list-style-type: none"> • Manipulate/damage business 	3

Capacity	Means	Capacity Shortfall
	functions	
Provide funds	• Orchestrate 3rd party attack	1
	• Enable infrastructure	2
	• Generate/train forces	2
	• Provide vital services and/or resources	2
	• Empower local functionaries and support local organisations	3
	• Manipulate financial holdings/stocks	3
	• Manipulate/damage business functions	3
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	3
Provide shelters and basic living facilities	• Infiltrate/manipulate/concentrate NGO effort	1
	• Enable infrastructure	2
	• Establish haven	2
	• Generate/train forces	2
	• Provide vital services and/or resources	2
	• Empower local functionaries and support local organisations	3
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	3

Cycle 16

Means	Capacity Shortfall	Capacities
Create false business or inject super-competitive products	1	Track financial dealings and assets exchanges
Damage product or brand	1	Track financial dealings and assets exchanges
Disseminate physical/electronic psychological operations material	1	Broadcast information
Infiltrate/manipulate/concentrate NGO effort	1	Provide shelters and basic living facilities
Orchestrate 3rd party attack	1	Provide funds
Penetrate/infiltrate groups/networks	1	Handle and preserve evidence
Threaten/damage leader personal wealth	1	Track financial dealings and assets exchanges

Capacity	Means	Capacity Shortfall
Broadcast information	<ul style="list-style-type: none"> Disseminate physical/electronic psychological operations material 	1
	<ul style="list-style-type: none"> Empower local functionaries and support local organisations 	3
	<ul style="list-style-type: none"> Materiel/financial/intelligence assistance to dissident movements (onshore also) 	3
Handle and preserve evidence	<ul style="list-style-type: none"> Penetrate/infiltrate groups/networks 	1
	<ul style="list-style-type: none"> Attack leader moral/financial integrity/authority 	2
Provide funds	<ul style="list-style-type: none"> Orchestrate 3rd party attack 	1
	<ul style="list-style-type: none"> Enable infrastructure 	2
	<ul style="list-style-type: none"> Generate/train forces 	2
	<ul style="list-style-type: none"> Manipulate financial holdings/stocks 	2
	<ul style="list-style-type: none"> Manipulate/damage business functions 	2
	<ul style="list-style-type: none"> Provide vital services and/or resources 	2
	<ul style="list-style-type: none"> Empower local functionaries and support local organisations 	3
	<ul style="list-style-type: none"> Materiel/financial/intelligence assistance to dissident movements (onshore also) 	3
Provide shelters and basic living	<ul style="list-style-type: none"> Infiltrate/manipulate/concen 	1

Capacity	Means	Capacity Shortfall
facilities	trate NGO effort	
	• Enable infrastructure	2
	• Establish haven	2
	• Generate/train forces	2
	• Provide vital services and/or resources	2
	• Empower local functionaries and support local organisations	3
	• Materiel/financial/intelligence assistance to dissident movements (onshore also)	3
Track financial dealings and assets exchanges	• Create false business or inject super-competitive products	1
	• Damage product or brand	1
	• Threaten/damage leader personal wealth	1
	• Attack leader moral/financial integrity/authority	2
	• Gather evidence	2
	• Manipulate financial holdings/stocks	2
	• Manipulate/damage business functions	2

Cycle 17

Means	Capacity Shortfall	Capacities
Attack leader moral/financial integrity/authority	1	Handle and preserve
Disseminate physical/electronic psychological	1	Broadcast information
Gather evidence	1	Seal an area
Infiltrate/manipulate/concentrate NGO effort	1	Provide shelters and basic living facilities
Manipulate financial holdings/stocks	1	Provide funds
Manipulate/damage business functions	1	Provide funds
Orchestrate 3rd party attack	1	Provide funds
Penetrate/infiltrate groups/networks	1	Handle and preserve evidence

Capacity	Means	Capacity Shortfall
Broadcast information	<ul style="list-style-type: none"> • Disseminate physical/electronic psychological operations material 	1
	<ul style="list-style-type: none"> • Empower local functionaries and support local organisations 	3
	<ul style="list-style-type: none"> • Materiel/financial/intelligence assistance to dissident movements (onshore also) 	3
Handle and preserve evidence	<ul style="list-style-type: none"> • Attack leader moral/financial integrity/authority 	1
	<ul style="list-style-type: none"> • Penetrate/infiltrate groups/networks 	1
Provide funds	<ul style="list-style-type: none"> • Manipulate financial holdings/stocks 	1
	<ul style="list-style-type: none"> • Manipulate/damage business functions 	1
	<ul style="list-style-type: none"> • Orchestrate 3rd party attack 	1
	<ul style="list-style-type: none"> • Enable infrastructure 	2
	<ul style="list-style-type: none"> • Generate/train forces 	2
	<ul style="list-style-type: none"> • Provide vital services and/or resources 	2
	<ul style="list-style-type: none"> • Empower local functionaries and support local organisations 	3
	<ul style="list-style-type: none"> • Materiel/financial/intelligence assistance to dissident movements (onshore also) 	3
Provide shelters and basic living facilities	<ul style="list-style-type: none"> • Infiltrate/manipulate/concentrate NGO effort 	1
	<ul style="list-style-type: none"> • Enable infrastructure 	2
	<ul style="list-style-type: none"> • Establish haven 	2
	<ul style="list-style-type: none"> • Generate/train forces 	2

Capacity	Means	Capacity Shortfall
	<ul style="list-style-type: none">• Provide vital services and/or resources	2
	<ul style="list-style-type: none">• Empower local functionaries and support local organisations	3
	<ul style="list-style-type: none">• Materiel/financial/intelligence assistance to dissident movements (onshore also)	3
Seal an area	<ul style="list-style-type: none">• Gather evidence	1
	<ul style="list-style-type: none">• Establish haven	2

Cycle 18

Means	Capacity Shortfall	Capacities
Attack leader moral/financial integrity/authority	1	Handle and preserve evidence
Disseminate physical/electronic psychological operations material	1	Broadcast information
Enable infrastructure	1	Provide shelters and basic living facilities
Gather evidence	1	Seal an area
Generate/train forces	1	Provide shelters and basic living facilities
Infiltrate/manipulate/concentrate NGO effort	1	Provide shelters and basic living facilities
Penetrate/infiltrate groups/networks	1	Handle and preserve evidence
Provide vital services and/or resources	1	Provide shelters and basic living facilities

Capacity	Means	Capacity Shortfall
Broadcast information	<ul style="list-style-type: none"> • Disseminate physical/electronic psychological operations material 	1
	<ul style="list-style-type: none"> • Empower local functionaries and support local organisations 	2
	<ul style="list-style-type: none"> • Materiel/financial/intelligence assistance to dissident movements (onshore also) 	2
Handle and preserve evidence	<ul style="list-style-type: none"> • Attack leader moral/financial integrity/authority 	1
	<ul style="list-style-type: none"> • Penetrate/infiltrate groups/networks 	1
Provide shelters and basic living facilities	<ul style="list-style-type: none"> • Enable infrastructure 	1
	<ul style="list-style-type: none"> • Generate/train forces 	1
	<ul style="list-style-type: none"> • Infiltrate/manipulate/concentrate NGO effort 	1
	<ul style="list-style-type: none"> • Provide vital services and/or resources 	1
	<ul style="list-style-type: none"> • Empower local functionaries and support local organisations 	2
	<ul style="list-style-type: none"> • Establish haven 	2
	<ul style="list-style-type: none"> • Materiel/financial/intelligence assistance to dissident movements (onshore also) 	2
Seal an area	<ul style="list-style-type: none"> • Gather evidence 	1
	<ul style="list-style-type: none"> • Establish haven 	2

Cycle 19

Means	Capacity Shortfall	Capacities
Attack leader moral/financial integrity/authority	1	Handle and preserve evidence
Disseminate physical/electronic psychological operations material	1	Broadcast information
Empower local functionaries and support local organisations	1	Broadcast information
Establish haven	1	Seal an area
Gather evidence	1	Seal an area
Materiel/financial/intelligence assistance to dissident movements (onshore also)	1	Broadcast information
Penetrate/infiltrate groups/networks	1	Handle and preserve evidence

Capacity	Means	Capacity Shortfall
Broadcast information	<ul style="list-style-type: none"> • Disseminate physical/electronic psychological operations material 	1
	<ul style="list-style-type: none"> • Empower local functionaries and support local organisations 	1
	<ul style="list-style-type: none"> • Materiel/financial/intelligence assistance to dissident movements (onshore also) 	1
Handle and preserve evidence	<ul style="list-style-type: none"> • Attack leader moral/financial integrity/authority 	1
	<ul style="list-style-type: none"> • Penetrate/infiltrate groups/networks 	1
Seal an area	<ul style="list-style-type: none"> • Establish haven 	1
	<ul style="list-style-type: none"> • Gather evidence 	1

Cycle 20

Means	Capacity Shortfall	Capacities
Attack leader moral/financial integrity/authority	1	Handle and preserve evidence
Establish haven	1	Seal an area
Gather evidence	1	Seal an area
Penetrate/infiltrate groups/networks	1	Handle and preserve evidence

Capacity	Means	Capacity Shortfall
Handle and preserve evidence	<ul style="list-style-type: none"> • Attack leader moral/financial integrity/authority 	1
	<ul style="list-style-type: none"> • Penetrate/infiltrate groups/networks 	1
Seal an area	<ul style="list-style-type: none"> • Establish haven 	1
	<ul style="list-style-type: none"> • Gather evidence 	1