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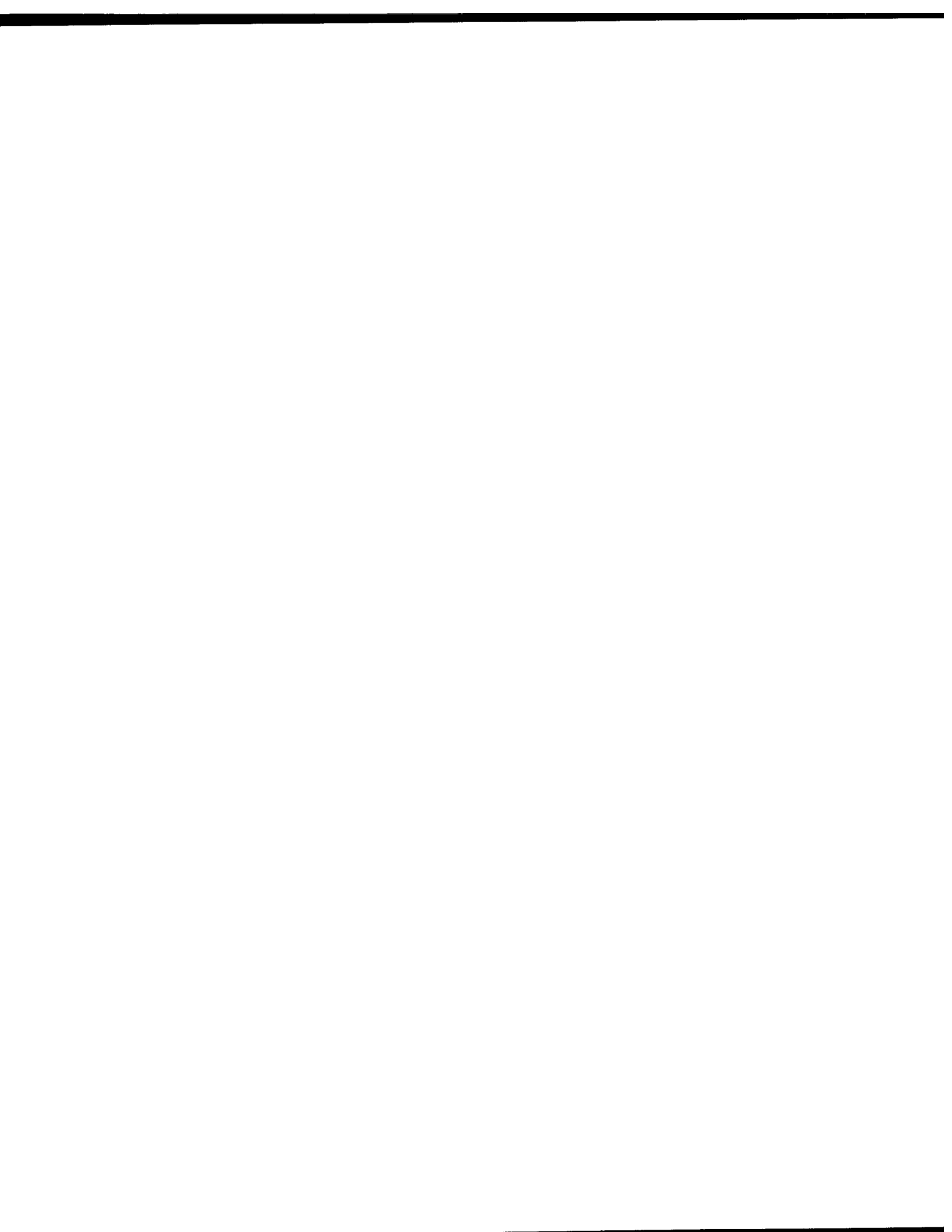
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OPERATIONAL IMPLICATIONS OF THE
FUTURE SECURITY ENVIRONMENT

BY

DR. SCOT ROBERTSON

DECEMBER 1998

OTTAWA, CANADA



OPERATIONAL RESEARCH DIVISION

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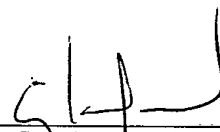
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OTTAWA, ONTARIO

DECEMBER 1998

ABSTRACT

This Research Note formed the basis for a presentation to the Canadian Army sponsored symposium on the Future Security Environment held in October 1998.

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OPERATIONAL IMPLICATIONS OF THE FUTURE SECURITY ENVIRONMENT

INTRODUCTION

1. One of the more striking yet difficult aspects of the past decade, has been the rapid and persistent pace of change. While much of this change has been of a positive nature, there have been developments that should lead us to view the future with a cautious and sceptical eye. It has been suggested that we are in a period of transition, away from the rigid bipolar overlay of the Cold War era towards a new yet uncertain order.

2. Such uncertainty, in and of itself, renders the task of ensuring adequate levels and forms of military capability for the immediate and longer-term future a challenging one. At the same time, several competing pressures have come together in a fashion that compounds the planning problem. On the one hand, there is an understandable desire to see a "peace dividend". This desire was manifest throughout both the countries comprising the North Atlantic Alliance, and the members of the former Warsaw Pact. In response to this, the past eight years or so have seen significant reductions in armed forces and in defence budgets. On the other hand, there have also been frequent calls for armed forces to deploy abroad in support of intervention operations, ranging from classical peacekeeping, through more robust peace-making operations, to mid-intensity conflict in the Persian Gulf War.

3. In light of the continued uncertainty and competing pressures on military establishments, the question becomes how armed forces are best able to balance current and future requirements. This is particularly challenging, given that the future cannot be predicted accurately. What is known, at least in the abstract, is that conflict will continue to be factor in international relations. Armed forces will therefore, still be required, first as a deterrent, and should deterrence fail, then to fight and win in support of the nation's interests.

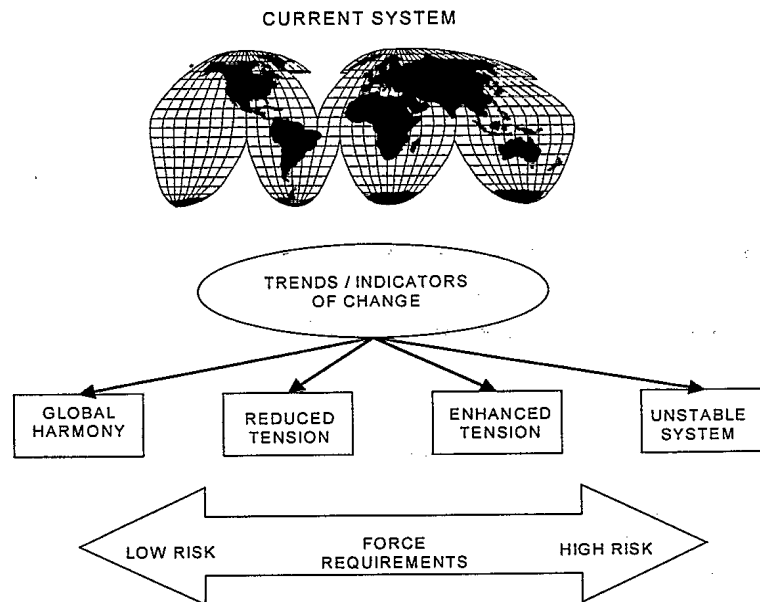


Figure 1: Overview of the Future Security Environment

4. One of the most challenging dimensions of the post-Cold War world is to identify both enduring and new security challenges. Broadly speaking, and somewhat selectively, there would seem to be four main trends that are key to the future security environment. These are:

- ◆ the future nature of war;
- ◆ regional groupings in transition;
- ◆ transnational or non-traditional issues; and
- ◆ proliferation.

5. While a number of traditional security problems remain of great concern -- e.g., the rise of regional hegemons and the threat of local interstate conflict -- an array of less well-defined dangers have quickly assumed a new and sometimes prominent place in planning considerations. Among these latter challenges are the proliferation of non-state security threats. These include widespread population dislocations; ethnic and religious conflict; epidemic health problems, famine, and serious environmental degradation; evolving terrorist organizations and agendas; international organized crime in its many dimensions, particularly the still-burgeoning drug trade; and black and gray market weapons trafficking. We will be challenged to address these requirements across the spectrum of conflict. Typical tasks could involve major operations, lesser-scale short-

notice operations, peace support and stability operations, supporting large-scale disaster relief and humanitarian assistance operations, and countering the proliferation of weapons of mass destruction.

IMPLICATIONS OF THE FSE

6. One need not go any further in discussing these aspects of the Future Security Environment (FSE). Rather, it is more important to turn to a discussion of the implications that it might hold for Canada and the Canadian Forces. The principal task at hand is to ensure the continued development of the CF to meet future challenges of both familiar and unanticipated natures. In other words, the CF will need to balance the types of likely operational deployments in the short to medium term, with the requirement to evolve to meet future challenges.

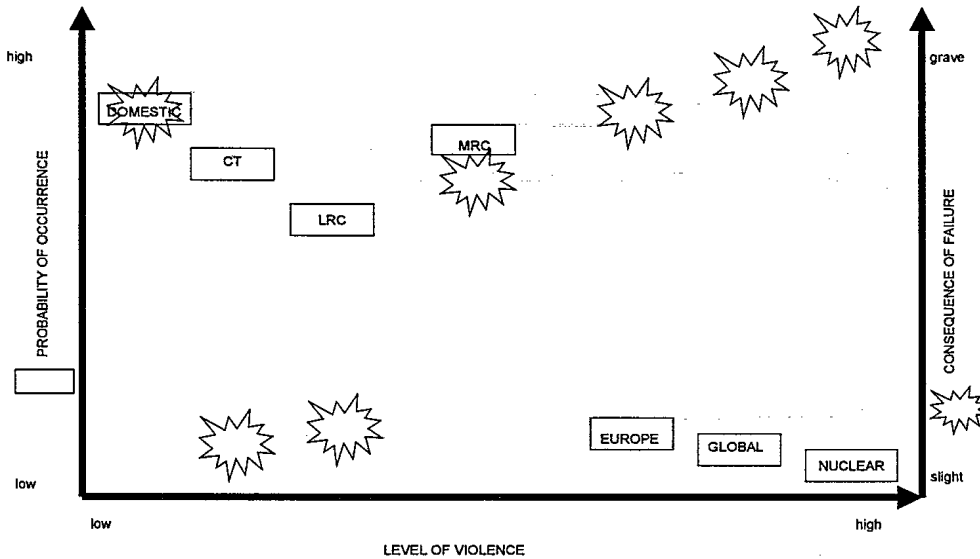


FIGURE 2: Spectrum Of Conflict

7. This figure attempts to portray the situation graphically. It suggests a three-way relationship between the probability of occurrence of types of conflict, with the level of violence of any particular type of conflict and the consequence of failure. The left-hand axis depicts the probability of occurrence. The horizontal axis indicates the level of violence, and the right-hand axis suggests the consequences of failure in any particular instance. In viewing this figure, one should be cognisant that the assessment of both the probability of occurrence and the consequence of failure is based solely on judgement. There is no precise *scientific* means of deriving these. However, intuitively, the judgements seem appropriate.

8. Based on this construct, the CF of the future will need to be postured and equipped to meet the operational requirements set out in the Figure below.

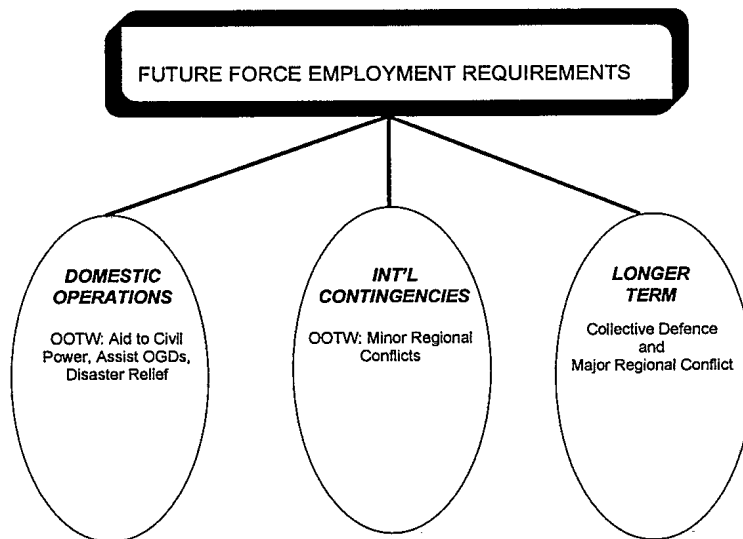


FIGURE 3: Future Employment Requirements

9. In the short term the CF must be prepared to conduct two principal missions. It needs to be prepared to respond to minor regional conflicts as part of a coalition. This is our role in environment shaping with the intent of preventing major conflicts. In the longer term, in addition to these ongoing, environment shaping roles, the CF must also prepare for the possibility of a major conflict. To meet this the CF must ensure that it remains abreast of developments in the military arts and sciences, and that it is capable of building the foundation for the future.

10. Given the uncertain nature of future security challenges, it will be necessary to maintain operational flexibility, both for the short and longer term. As a basic premise, then, the CF will require a measure of balance across the operating environments (sea, land and aerospace) as well as multi-purpose character, capable of operating and surviving in a wide range of conflicts and environments.

11. In developing the force structure to provide this capability we must ensure we recognize the impact of modern technology on the threat to our national interests. Many small nations and terrorist organizations have access to modern weapon systems that are sufficiently powerful to allow a small number of weapons to threaten regional stability and create a significant threat to a deployed force. It is therefore imperative that we maintain a sufficient level of technologically capable forces to operate against these new threats. Therefore our equipment must be modern, robust and interoperable with our allies. On the other hand quantities must be realistic and surplus capabilities should not be retained.

12. In addition to these general force design considerations, a number of other issues will need to be addressed in the future. The capability to collect, process and disseminate information will be critical to operations in the 21st Century. Prior to committing forces to operations a complete understanding of the threat is required to allow proper decisions regarding the type of response required and to be confident that such deployed forces can be commanded and controlled in any situation. The CF must therefore improve our command and control, communications, and intelligence capabilities through the utilization of information technology and systems. The provision of accurate and timely information will be a critical element in all theatres of operation to allow the deployed forces adequate warning of changing threats to permit them to employ appropriate tactics

to deal with the threat. This is especially critical for transitioning from peace keeping to peace enforcement operations.

13. The CF will continue to require a rapid strategic deployment capability to ensure that defence objectives can be met. Strategic Lift must be enhanced to ensure high readiness units can be deployed to theatre in time to make a difference. This will require the formation of rapid response units to conform to the strategic lift available as well as an increase in the availability of that lift. The impact will be smaller but more capable force packages able to deploy world-wide as part of some larger multi-national effort, within a short time frame.

14. The CF needs to place emphasis on combat multipliers and modern technologies. Superior training must be maintained through enhanced simulation as well as field exercises. We need to maintain an understanding of the employment of new technologies on the battlefield to prevent existing capabilities from becoming obsolescent and encouraging the adoption of new capabilities as required. We should pursue the acquisition of technologically superior equipment that increases lethality while reducing the size of the force package required to produce the capability. We must retain the ability to be fully interoperable and able to integrate our forces with our allies and coalition partners. We must improve the flow of information within deployed forces to maximize the combat capability of those forces through the use of detection, targeting, and communications equipment. The resulting increase in awareness of the operational environment will allow commanders at all levels to react more quickly and decisively to rapidly changing circumstances. Manoeuvrability in the area of operations is critical therefore forces must be structured and equipped to promote agility which will ensure decisive speed and tempo can be maintained. All of the above characteristics can only be achieved with well-educated and well-trained officers and NCMs.

15. Support to operations must be focussed to provide tailored sustainment of the new force structure and rapid response to crisis situations. This includes providing support to those forces designated for rapid response. This will require tailoring support to units based on their directed readiness levels.

16. To meet these goals, the CF will need to be selective in the capabilities to be retained to ensure the continuing affordability of any future force structure. Hard choices will have to be made to ensure that we retain combat capable forces able to operate with our allies or other coalitions in a wide range of scenarios. The CF must eliminate redundancy and obtain the maximum amount of capability possible from every element in the force. The forces that we choose to retain must be well equipped and sustainable with readiness levels that reflect a realistic warning time and mission. In addition, our reserves must be structured and assigned meaningful roles in accordance with the strategic assessment of the threat and their ability to respond within the warning time.

OPTIONS

17. Arguably, the CF has reached the point where continued, across the board incremental reductions are no longer possible. Canada will require armed forces that are flexible and possess the right capabilities to meet a wide range of possible challenges, and to undertake potentially more diverse operations in support of Canadian interests. In addition, the next decade may well be a test-bed for new operational concepts and success in the future will almost certainly depend on the quality of choices made today. There is scope for significant change, and we must recognize that capabilities needed in the future may well prove to be different than those we currently possess or are planning for. To provide such forces, the CF will need to embrace change, actively pursuing developments in the following areas:

- ◆ Joint Force Operations,
- ◆ Coalition/Combined Operations,
- ◆ Advanced Technology Trends, and
- ◆ New Operational Concepts.

18. It would appear then, that there are a number of paths or options the CF could pursue to ensure it will be capable of meeting anticipated requirements over the longer term. These are:

- ◆ reduce unnecessary or excess capability and focus on core capabilities (*status quo minus*);
- ◆ re-capitalize the existing structure (*status quo*);
- ◆ refocus to meet OOTW and lesser contingencies (reduce and revise force structure) (*niche force*); and
- ◆ re-engineer for the next era of warfare (*new model CF*).

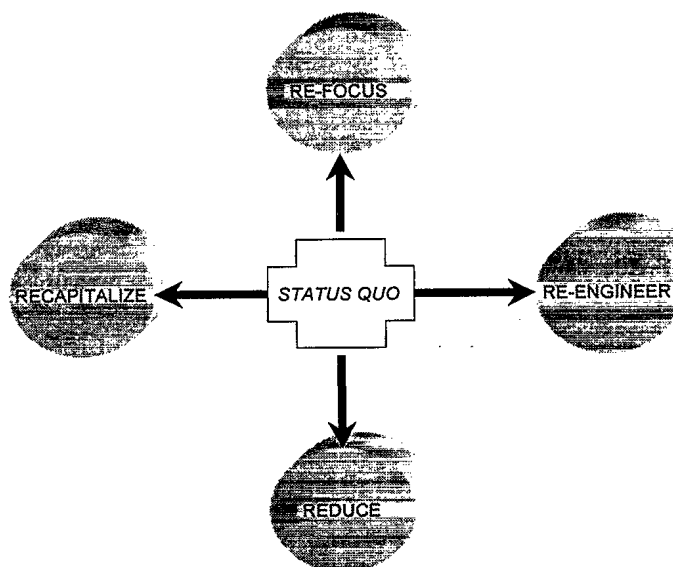


Figure 4: Force Development Options

19. Each option carries with it advantages and disadvantages. Some of these are set out below, although this discussion is by no means exhaustive.

Reduce (Option 1)

20. This is basically a continuation of the current process of shedding force structure. It is a reasonable strategy to continue to pursue if the following characteristics are acceptable:

- ◆ Force structure, program and strategy are about right for near term.
- ◆ Current capabilities are adequate to deal with long range standard scenarios but not short notice scenarios requiring rapid deployment.
- ◆ New capabilities will be attained at a slower pace and more old equipment will be extended in service.
- ◆ Capital equipment program receives insufficient funding to modernize the force.
- ◆ Inadequate strategic lift capability.
- ◆ Limited deployment capability.
- ◆ Force packages becoming rapidly obsolete.
- ◆ Force structure is not tolerant of significant negative upsets to anticipated strategic environment.

Re-Capitalize (Option 2)

21. This is basically an enhancement of the current force structure. It is reasonable to pursue this strategy if the following characteristics are acceptable:

- ◆ Focuses on addressing present weaknesses – strategic lift.
- ◆ Allows for some innovation and modernization but capital equipment funds are limited.
- ◆ Concentrates limited capital on one major current deficiency at a time, thereby putting the balance across the operating environments at risk.
- ◆ Does not address fundamental force structure issues.

Refocus (Option 3)

22. This is a significant change to the current force structure, involving a move towards *niche* forces. It is reasonable to pursue this strategy if the following characteristics are acceptable:

- ◆ Focuses on addressing only certain elements of the spectrum of conflict and continuum of operations.
- ◆ Allows for some innovation and modernization but capital equipment funds will be directed towards *niche* requirements.
- ◆ Allows for more rapid deployment but only for scenarios that fall under the *niche* framework.
- ◆ Does not address long-term fundamental force structure issues.

Re-Engineer (Option 4)

23. This is a force structure for the future. It is reasonable to pursue this strategy if the following characteristics are acceptable:

- ◆ Emphasis on developing capabilities for the 21st Century.
- ◆ Reduction in personnel strength to allow increase in capabilities.
- ◆ Acquisition of more advanced weapons systems.
- ◆ Greater emphasis on light, highly mobile forces with enhanced firepower.
- ◆ Acquisition of Strategic Lift to ensure continued deployment capability.
- ◆ Enhanced interoperability with allies due to modernization.
- ◆ Problems in near term for contingencies that require large ground forces.
- ◆ Disposal of obsolete capabilities and equipment and infrastructure.

OPTION SELECTION

24. In charting a course to 2010-2015, planners will need to carefully consider the acquisition, use and exploitation of technology to update capabilities that will allow the CF to fulfil its mandate and maintain the desired technological edge. Some lower-priority missions may have to be eliminated or “moth-balled” because of limited resources, while greater attention is paid to providing those forces specifically required to respond to contingencies and to sustain those that are undertaken. Global circumstances and the sudden and often unanticipated emergence of regional conflicts will continue to mean that at least some forces will be maintained at a higher state of readiness.

25. We need to decide what level of capability we wish to attain and how much change the Department is willing to accept to achieve that goal. This decision will be shaped by answers to a number of questions and considerations:

- ◆ Are we willing to significantly transform our force structure to achieve a fully capable and relevant end state in the 21st Century or are there some limitations restricting change?
- ◆ If we wish to attain a fully capable and relevant force for the 21st century how quickly should we proceed with change?
- ◆ What problems will major change pose in the short and medium term, and how significant might these be?
- ◆ Conversely, what are the risks of not embracing change?

26. In considering these and associated questions, we will be constrained both by the amount of money available to reinvest in new or enhanced capabilities, and the requirement to balance long-term future requirements against short and medium term contingencies.

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