IDA

INSTITUTE FOR DEFENSE ANALYSES

Reducing the Impact of Tempo

John C. F. Tillson

October 1999

Approved for public release;
distribution unlimited.

IDA Paper P-3508

Log: H 99-002871

20000324 018

DTIC QUALITY INSPECTED 3

This work was conducted under contract DASW01 98 C 0067, Task BE-6-1544, for the Office of the Under Secretary of Defense (Personnel and Readiness). The publication of this IDA document does not indicate endorsement by the Department of Defense, nor should the contents be construed as reflecting the official position of that Agency.

© 1999, 2000 Institute for Defense Analyses, 1801 N. Beauregard Street, Alexandria, Virginia 22311-1772 • (703) 845-2000.

This material may be reproduced by or for the U.S. Government pursuant to the copyright license under the clause at DFARS 252.227-7013 (NOV 95).

INSTITUTE FOR DEFENSE ANALYSES

IDA Paper P-3508

Reducing the Impact of Tempo

John C. F. Tillson

PREFACE

The task documented in this report was performed by the Institute for Defense Analyses as a crosscutting study for the Office of the Under Secretary of Defense (Personnel and Readiness), the Office of the Director (Program Analysis and Evaluation), and the Joint Staff. The report describes the IDA analysis of the tempo and other problems facing military personnel in the Department of Defense, the analysis of the causes of those problems, and the analysis of the potential solutions to the problems identified. This paper was reviewed by Mr. Robert Goldich of the Congressional Research Service and by COL James Kurtz (U.S. Army, retired) of IDA.

The author wishes to thank Dr. Tom Carhart and Maj Gen Donald Shepperd (U.S. Air Force, retired) for their assistance in the research that provides the basis for this paper and Mr Steve Simpliciano for his support and encouragement in applying TOC analysis to the problems discovered in our research. The analysis described in this paper represents the author's attempts to apply the analytic techniques developed by Dr. Eli Goldratt and ably taught at the Goldratt Institute where the author learned the techniques described herein.

CONTENTS

Preface iii

Summary S-1

I. Introduction 1

II. Tempo-Related Problems 2

III. What to Change 5

A. The Conflict Resolution Diagram 5

B. Impact of DEPTEMPO on Service Members 9

1. Analysis of the DEPTEMPO Conflict 9

2. Service Actions to Deal with the Conflict 13

3. Impact of DoD/Service Actions 15

4. Additional Actions Possible 15

C. Impact of PERSTEMPO on Service Members 15

D. Impact of OPTEMPO on Service Members 21

E. The Interactions of DEPTEMPO, PERSTEMPO, and OPTEMPO 23

1. Interaction of DEPTEMPO and PERSTEMPO 23

2. Interaction of DEPTEMPO, PERSTEMPO, and OPTEMPO 28

F. Other Problems Revealed by Our Research 30

1. Lack of Fulfillment 30

2. Poor Leadership 34

G. Finding A Core Conflict 41

IV. What to Change to? 44

A. Reevaluating Assumptions and Necessary Conditions 44

B. Defining Potential Change 48

V. How to Make the Change – Constructing the Details of the Solution the TOC Way 62

APPENDIXES

A. Applying Theory of Constraints Tools A-1
B. Additional Army Data B-1

FIGURES

1. Conflict Resolution Diagram 5
2. Using the CRD to Resolve a Conflict 8
3. Conflict Resolution Diagram for Multiple Deployments (DEPTEMPO) 11
4. PERSTEMPO Conflict Resolution Diagram 18
5. OPTEMPO Conflict Resolution Diagram 23
6. Conflict Resolution Diagram for DEPTEMPO/PERSTEMPO Interaction 25
7. Joint Staff Officers CRD 29
8. Non-Tempo-Related Problems Identified in the Study 30
9. Conflict Resolution Diagram for Non-TEMPO-Related Problem 32
10. The Leader's Conflict Resolution Diagram 35
11. The Service Conflict 39
12. Basic Core Conflict 43
13. Army OPMS XXI Conclusion 44
14. Detailed Core Conflict Diagram 45
15. The Source of the Conflict 46
16. Reevaluation of Necessary Conditions 48
17. Adjusting to the New Reality 49
18. Replacing Negative Effects with Desirable Effects 50
19. Searching for a Solution to the DEPTEMPO Problem 51
20. Searching for a Solution to the PERSTEMPO Problem 52
21. Searching for a Solution to the OPTEMPO Problem 54

22. Searching for a Solution to the Readiness Problem 55
23. Searching for a Solution to the Self-fulfillment Problem 56
24. Searching for a Solution to the Leadership Problem 58
25. Summary of Potential Changes 61
26. How to Make the Change 62

SUMMARY

The demands of the new, post-Cold War National Security Strategy appear to have led to a higher tempo of operations for U.S. forces. This higher tempo is widely believed to be having a negative effect on the men and women of the U.S. Armed Forces. As part of its effort to build a better understanding of the impact of tempo, the Office of the Secretary of Defense and the Joint Staff asked the Institute for Defense Analyses to conduct a study to identify alternative approaches to resolving tempo-related problems.

We conducted our research in three phases:

1. Visits to Army and Air Force bases to speak with Service members to hear first hand what their tempo-related problems were. We also spoke with former Service members.
2. Review of Service survey data and a wide-ranging, all-Service search for other indicators of tempo-related problems in professional publications and on the Internet.
3. Analysis of the causes of the problems identified in steps 1 and 2 and identification of potential solutions.

We discovered early that the terms employed to describe tempo were inconsistent across the Services and appeared to be related more to the data the Services had to measure tempo than to the causes of tempo. Accordingly, we developed our own cause-related definitions of tempo:

- Deployment tempo (DEPTEMPO) is that tempo caused by the deployment of individuals and units to meet the demands of the National Security Strategy, as in Bosnia, Saudi Arabia, or Kosovo, and to meet routine forward presence missions such as Navy and Marine forward deployments.[1]
- Personnel tempo (PERSTEMPO) is that tempo caused by the personnel system, e.g., permanent change of station moves, termination of command tours, and assignment to schools.[2]

---

1 DoD usually calls this PERSTEMPO.

2 DoD does not recognize this form of tempo.

- Operating tempo (OPTEMPO) is that tempo caused by the demands of normal operations that Service members face on a day-to-day basis in their home station when they expect to have a more normal life.[3]

Having characterized the three types of tempo, we quickly discovered that very few Service members complained about the effects of DEPTEMPO alone. Most Service members expected to deploy to contingencies and most looked forward to such activities. We found that DEPTEMPO alone was a problem only for a small number of Service members who have multiple deployments. We also found that DoD recognizes this problem and is making many efforts to reduce it.[4]

The most intractable types of tempo-related problems occur when the three types of tempo affect a Service member sequentially or simultaneously. For example, we heard stories of Service members returning from an unaccompanied tour (PERSTEMPO), joining a new unit that is preparing night and day for a new mission (OPTEMPO), and then deploying to a contingency with the new unit (DEPTEMPO). The overall effect of these three types of tempo acting together is what appears to make the tempo problem so difficult and unsolvable.

In talking to Service members about the effect that tempo has on their lives, in reviewing survey data in Service-oriented publications, and in reviewing their comments on the Internet, we discovered other types of problems that affect the decisions Service members make about their lives in the military. Since we were unable to separate these other problems from the tempo-related problems, we collected data on them as well. In general these other problems were in two areas. Almost universally, when asked about the problems with their lives in the military, Service members first discussed two issues: 1) security, e.g., pay, benefits, and housing, and 2) satisfaction, e.g., jobs that were unsatisfying in one way or another. Following these issues they cited resource and manning shortages in their units and problems with leadership. In most cases these problems seemed to loom larger in their concerns than problems of tempo. As a result we included these problems in our analysis.

The analysis of the problems we identified was the central focus of the study. For each problem, we identified the causes, the reasons why the Services were unable to solve the problem, and the assumptions—explicit and implicit—that lay behind each cause.

---

3 DoD usually uses OPTEMPO to describe activities such as flying hours and steaming days.

4 Global Military Force Policy is an example of such DoD efforts.

During this process we realized that most, if not all, of the problems we identified were interrelated and were symptoms of a more basic problem facing each of the Military Services.

The core problem, or "core conflict," that we discovered was built into the Service management systems long ago. The problem is the conflict between the simultaneous need to manage individuals and to manage units. On one hand, the Services must assure the availability of the individuals, e.g., by number, grade, skill, etc., the Services need today and in the future. The Services must also manage each Service member's career and must ensure that each Service member is treated equitably. On the other hand, the Services must assure the availability of the units, e.g., the number and readiness of units, the Services need today and in the future.

This dual responsibility places the Services in a conflict they have not been able to resolve. Efforts to meet the conflicting requirements of managing individuals and units lead to compromises and actions that appear to be the principal cause of the problems we identified. In other words, this conflict is the principal contributor to the current situation in which many individual Service members are dissatisfied with their lives in the military and many units are not as ready as they should be.

It is as if there are two competing chains of commands in each Service. One is visible and one is "invisible." The visible chain—the Service/joint command structure—is responsible for managing units of all kinds and sizes and seeks to create the best, most capable, most ready units possible. The invisible chain—the personnel system, supported by deeply embedded attitudes and behavior—is responsible for managing individuals and seeks to create the best, most capable "warriors" possible. Both chains of command have the best interests of their Service in mind as they compete for influence and resources. The visible chain is directly responsible to the President and the Secretary of Defense for the readiness of Service and joint units and organizations and for the execution of the National Security Strategy. The visible chain is held responsible and accountable for the readiness of units even though, as our findings demonstrate, many problems with unit readiness are caused by the actions of the personnel system. The invisible chain is responsible primarily to a body of assumptions, laws, and regulations governing the personnel system. Within the Military Services, the invisible chain is generally considered to be beyond the control of any individual Service Chief or Secretary to change. The invisible chain is not held accountable for its impact on unit readiness or for the successful execution of U.S. national security strategy. Nor is it held

accountable for the widespread dissatisfaction we found among Service members. Although the visible chain of command clearly has the most important set of responsibilities, it loses virtually every confrontation between it and the invisible chain of command.[5]

For example, as part of our research we visited the 2d Armored Cavalry Regiment just as the regiment returned from Bosnia. This is an important unit in the Army's XVIII Airborne Corps, the contingency corps with the highest readiness requirements. The cavalry soldiers and officers we spoke to were very enthusiastic about their recent deployment to Bosnia, and about the regiment's readiness based on their extensive operational experience in Bosnia. They were concerned that the regiment's readiness would soon decline dramatically because it was about to lose most of its essential leaders who, because of PERSTEMPO demands, were being reassigned. The members of the regiment and the officers who manage the Army personnel system accept this as a fact of life—unit readiness must suffer if individual soldiers are to meet the demands of their careers.

The conflict exists in each of the Services. They must manage individuals and they must manage units. To manage individuals, each Service moves individuals from place to place in accord with its defined need for trained individuals and in accord with its concept of the jobs a successful career should encompass but with little or no concern for the impact of these moves on the readiness of the units to which these individuals are assigned. To ensure the readiness and capability of units, however, each Service must constantly train and retrain units primarily to make up for the constant exchange of untrained individuals for trained individuals caused by the personnel system. Service leaders recognize that they hurt unit readiness and capability when they move individuals from unit to unit and job to job, but they believe this movement is necessary to fulfill their need to manage individuals. Army leaders even maintained this practice during the Vietnam War when they restricted command tours to 6 months in order to develop a large number of "qualified" commanders. Some Vietnam veterans at the time, and since, have criticized this practice as an impediment to the war effort and the cause of unnecessary casualties.

---

5 Why else would the Army conduct routine changes of command of combat brigades in the days immediately preceding the ground attack in the Gulf War, for example?

We concluded that the Services are unable to resolve the core conflict because there are a number of questionable assumptions that drive Service personnel policies, practices, and measures. Here are two examples.

Assumption #1: Individuals must be managed by a centralized personnel system.

Background. This assumption was built into the Service systems in the early 1900s when the War Department modeled its personnel management system on that of the Pennsylvania Railroad. It was strengthened during WWI and WWII when the size of the military increased dramatically and centralized control seemed essential for success. It was further reinforced in the 1950s when American corporations espoused the virtues of centralized control. Centralization continued into the 1970s and 1980s with the centralization of promotions of most officers and NCOs and the centralization of command selection.

Status. American corporations shifted away from centralized personnel management systems years ago. The 8th Quadrennial Review of Military Compensation concluded that such a shift would be appropriate for the Military Departments as well.

Observation. The Military Services should examine whether a modern, decentralized personnel system would better meet the needs of individuals and units.

Assumption #2: The personnel system must provide a surplus of qualified military officers in the middle grades in order to support a future total mobilization similar to the mobilization experienced in WWII.

Background. At the end of WWII, the Services, having participated in the total mobilization for WWI and WWII, concluded that it was necessary to maintain a surplus of qualified officers to support a total mobilization that would create entirely new units to meet the needs of a future, multi-year war with the Soviet Union. Accordingly, the Services designed an officer personnel system that would provide a surplus of qualified middle level officers. Key to maintaining this surplus were an "up or out" system and a 20-year retirement system that would create a large number of middle level officers but would get them out of the military before they became too old.

Status. The National Security Strategy no longer contemplates a total mobilization or a long war. Instead, the plan is for two relatively short wars calling for full mobilization of existing active and reserve forces. The demands on Service members created by joint operations and the greater complexity of weapons and other systems

means that creating "qualified" officers is much more difficult than it was at the end of WWII.

Observation. The Services should eliminate the vestiges of total mobilization and long war planning that are no longer needed to meet the current National Security Strategy. By relaxing these constraints, the resulting personnel systems may be better able to meet the needs of both individuals and units. Recent Army changes in the officer personnel management system suggest the Services are recognizing the needs for more qualified officers and are taking steps to assure their development.

We have reached the following conclusions:

1. Service personnel policies, practices, and measures are the principal causes of many of the tempo-related and other problems facing Service members.
2. The Services are caught in a conflict between the need to manage individuals and the need to manage units. Efforts to compromise between these competing needs are a fundamental cause of the problems we identified.
3. Old, and sometimes unrecognized, assumptions underpin many Service personnel policies, practices, and measures. Some of these assumptions appear to be invalid or obsolete.

Having reached these conclusions, we began to examine ways to resolve the core conflict as well as the more specific problems identified. In this search for potential solutions, we looked at each of the problems and proposed new goals that might be appropriate to eliminate the problems. We then looked at each of the assumptions as well as the current policies, practices, and measures to see how they might be changed to achieve the new goals. In this process, we identified a number of potential changes that appear promising. We also sketched out a potential path for getting from here to there. None of our potential changes is a "silver bullet," however, and our findings suggest that many changes must be made to correct the current situation.

Given the complexity of the issues—and differences both in the specific character of the problems and in the challenges in implementing common solutions across the Military Departments—we recommend that the Department of Defense conduct a thorough review of the military personnel system, involving the active participation of all stakeholders. This review should focus both on the fundamental issues that cause the core conflict and on the associated issues that cause each of the problems identified in this study. The technique used in this study could be a valuable tool in helping the study team focus on the critical issues and identify the key assumptions driving them. We believe

that relaxing some of the historical assumptions underpinning current personnel practices—assumptions that no longer seem relevant to today's national security challenges or to the needs of the young Americans the Military Departments are attempting to attract and retain—could lead to real progress in solving today's tempo problems.

I. INTRODUCTION

A key aspect of the new, post-Cold War National Security Strategy is the increased deployment of U.S. forces away from their home bases and outside the boundaries of the United States. The increasing tempo of operations is thought to have created increasing difficulties for U.S. Service members and their families, making military life more difficult than in the past. As part of its continuing effort to understand the impact of the demands of the new National Security Strategy on the men and women of U.S. Armed Forces, the DoD asked the Institute for Defense Analyses to conduct a study to identify alternative approaches to resolving problems caused by the high tempo of operations. This report is the product of that request.

To help define the problem, we assumed that current, real-world missions would remain the same and that the Military Services would not be able to buy themselves out of the problem with more forces or more money. We also assumed that we should address all forms of military units and organizations in the DoD.

Our analysis employed a new technique called "Theory of Constraints," or TOC. TOC began as an analytic technique, based on the scientific method, that could be applied to improving factory production. It has evolved into an approach for analyzing organizations of all kinds in order to solve problems that hinder the attainment of organizational goals. In the simplest terms, TOC provides analytic tools for answering three key questions about the problems that limit an organization:

- What to change, i.e., What causes the problems facing the organization?
  - What conflicts prevent the organization from eliminating the problem?
  - What explicit and implicit assumptions underlie the conflict?
- What to change to?
  - What changes will resolve the problems?
  - How can the assumptions be invalidated or changed?
- How to make the change?
  - What are the obstacles to making the change and how can they be overcome?
  - What are the steps that need to be taken in reaching the solution?

The first step in applying TOC tools is to specify the problems that affect the organization. In other words, what are the problems to which we want to apply the TOC tools?

Having identified the problems, TOC provides a way to recognize the assumptions, policies, practices, and measures that cause the problems. By questioning our assumptions, policies, practices, and measures to be sure we are in line with constantly evolving reality, we can identify what to change. Then as we decide what to change to, TOC provides a technique for deciding what changes in our policies, practices, and measures are necessary.

Finally, TOC provides techniques for deciding how to make the change. This third question is particularly important because the answers to the first two questions often lead to the identification of "breakthrough" solutions that many organizations find difficult to make.

We have applied TOC analytic techniques to the tempo-related problems and produced a preliminary answer to the three questions.

II. TEMPO-RELATED PROBLEMS

We began the study with an effort to identify tempo-related problems. Because the tempo problems seemed to be greatest in the Army and Air Force, we began with a series of visits to Army and Air Force bases to talk with officer and enlisted personnel about the tempo-related problems they faced, about the causes of those problems, and about their views of potential solutions.[1] We conducted discussions with former officers of all Services who had decided to leave the military upon completing their initial obligation. We discussed the issue with a wide range of retired military officers who were able to compare tempo today with earlier, Cold War tempo. We reviewed a range of survey data from the Army, Navy, and Air Force. We reviewed the literature, from Service and FFRDC reports to articles in Naval Institute Proceedings and other semi-official publications, which provided important insights into the views of junior Service members. Finally, we read a large amount of E-mail circulating on the Internet from Service members who, though generally anonymous, appeared to be dedicated to their Service and hopeful of making it better. The Internet allowed them to explain the problems they saw to a larger audience.

---

[1] Shortages of time and resources prevented similar visits to Navy and Marine bases.

After we had completed the basic research and analysis, the General Accounting Office published the results of its study of the intentions of Service members in critical specialties in all four Services.[2] This study tended to confirm our description of the problems facing junior Service members. The GAO study did not investigate the causes of the problems or attempt to identify potential solutions, however.

The tempo-related problems we found can be divided into three categories:[3]

- Deployment tempo (DEPTEMPO), which is related to deployment of individuals and units to meet the demands of the National Security Strategy, as in Bosnia or Saudi Arabia, or simply to meet day-to-day forward presence needs.[4]
- Personnel tempo (PERSTEMPO), which is largely the tempo that is created by the personnel system, e.g., permanent change of station moves, termination of command tours, and assignment to schools.[5]
- Operating tempo (OPTEMPO), which is the work-related tempo that Service members face on a day-to-day basis even when they are not suffering from deployment tempo.[6]

The effects of tempo are often multiplied when a Service member is affected sequentially or simultaneously by the three types of tempo. For example, we found individuals whose units deployed to and returned from Haiti (DEPTEMPO) in time for the individual to go to Korea on a PCS (PERSTEMPO) and, upon returning from Korea, to deploy with his unit to Bosnia (DEPTEMPO). In other cases, individuals returning from a deployment continued to suffer high OPTEMPO because of the operational demands at home station, especially those OPTEMPO demands caused by the absence of other units engaged in DEPTEMPO operations.

Spouses and families suffer from the effects of tempo regardless of the type. Spouses report that it makes little difference if the Service member is at home station but

---

2 GAO, Perspectives of Surveyed Service Members in Retention Critical Specialties, SAO/NSIAD-99-197BR, August 1999.

3 These definitions are different from those employed by the DoD.

4 DoD might call this OPTEMPO and PERSTEMPO.

5 DoD does not recognize this form of tempo.

6 DoD uses the term "OPTEMPO" to describe activities such as flying hours and steaming days.

unable to spend any time at home because of high OPTEMPO or is away from home due to DEPTEMPO. PERSTEMPO creates its own problems because it prevents a spouse or family from establishing a home base or having a satisfactory career when the Service member must move frequently from place to place.

We found the same general problems in each Service. During our survey we found that Service members were willing and even anxious to identify problems. They did so out of disappointment or sadness that the Service had not lived up to their expectations and out of a hope that airing their problems might make things better in the future. There was no hint in any of our findings that the problems were raised out of malice towards any Service or any individual Service member. Here are the specific tempo-related problems we analyzed:

- DEPTEMPO — Service members who have multiple operational deployments see tempo as negative, e.g., Bosnia or Saudi Arabia are OK the first or second time but not the third.
- PERSTEMPO — Some Service members are unhappy because they have little control over or impact on decisions the personnel system makes to move them from job to job, from skill to skill, and from place to place. PERSTEMPO includes both short and long tour permanent change of station (PCS) moves.
- OPTEMPO — Mechanics, crew chiefs, etc., are often forced to work excessive overtime.
- OPTEMPO — Navy personnel are concerned about tempo while at home port.
- DEPTEMPO and PERSTEMPO — Unit readiness often declines rapidly when a unit returns from a deployment either to a major training event or overseas.
- DEPTEMPO, PERSTEMPO, and OPTEMPO — Many officers in joint headquarters are unprepared for their responsibilities.
- Many spouses see tempo of all kinds as negative and often describe tempo as a major reason for leaving the military.

III. WHAT TO CHANGE

A. The Conflict Resolution Diagram

In this section of the paper we describe our analysis of the tempo problems. The goal of the analysis is not only to discover the immediate cause of the problems but also to determine if there is a more fundamental cause that can be tied to more than one of the problems.

The Conflict Resolution Diagram (CRD) (Figure 1) is key to deciding "what to change." It provides a way of analyzing a problem in order to identify its causes and potential solutions. A basic tenet of TOC is that problems exist because there is a conflict that the organization is unable to resolve. Certainly this is true for the Services. They would solve the tempo problems if they could. In fact, the Services are attempting to solve the tempo problems as they identify them. Unfortunately, as we will discuss below, these solutions often address only symptoms and cause other problems as well.

In many cases the organization may not even recognize the conflict and may accept the problem as an immutable "fact of life." In all cases the problem exists because the organization, in working to achieve its goals, makes compromises between competing requirements. These compromises have unintended or negative consequences. In other words, the conflict leads to the problem we are trying to solve.

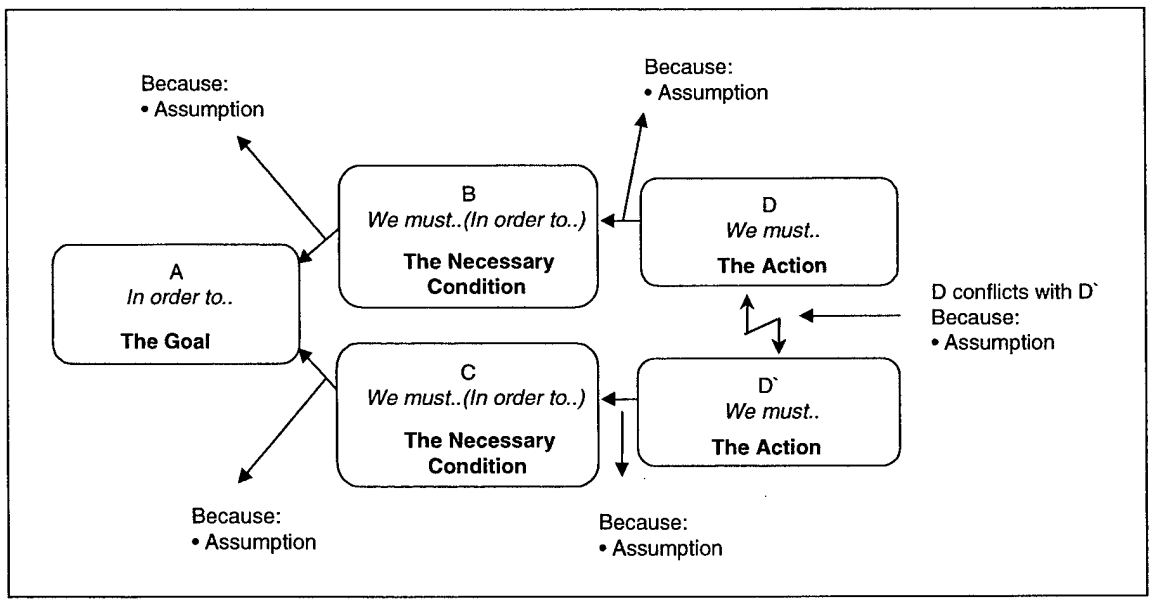


Figure 1. Conflict Resolution Diagram

When the conflict is obvious, as between two Services, for example, and its resolution requires a compromise, e.g., a win-lose solution, the negative consequences will often be recognized for what they are and accepted out of necessity. In some cases the organization does not recognize the existence of a conflict, per se, and does not recognize that the conflict causes the problem. In other cases the organization recognizes the existence of the conflict and the problems that arise from it but does not see any way to resolve the conflict. In these latter cases the organization will likely shift back and forth from one action to another with no solution at all. This might be called a lose-lose situation. The goal of the CRD is to identify the conflict and to resolve it with a win-win solution.

The CRD allows the conflict to be specifically identified, e.g., in Figure 1 between *D* and *D'*, where *D* is the action that directly causes the problem we are attempting to resolve and *D'* is the action with which D is in conflict. The organization is unable to resolve the conflict between *D* and *D'* because both actions serve the necessary conditions, *B* and *C*, that are essential to achieving the goal, *A*. Although the two necessary conditions usually are compatible, the actions the organization takes to respond to the necessary conditions are in conflict.

The relationship between each of the entities on the CRD, i.e., A, B, C, D, and D', is a logical connection that exists because of underlying assumptions that lead the organization to accept the relationship. An assumption is a statement about reality that is accepted as true or valid without question or demand for proof. Assumptions in the CRD are identified for each of the five relationships in the CRD. Each logical connection in the CRD is read as follows: *In order to have the goal A, we must have the necessary condition B because we assume...*

In the same manner, *In order to have the necessary condition B, we must take the action D because we assume...* And, *In order to have the goal A, we must have the necessary condition C because we assume..* And, *In order to have the necessary condition C, we must take the action D' because we assume....* Finally, *D and D' are in conflict because we assume...*

The CRD is a tool that is intended to provide greater understanding of the conflict and of the assumptions, explicit or implied, that prevent the organization from resolving the conflict. If the CRD is to be considered accurate, people who have intuition or experience about the subject matter addressed by a CRD should be able to understand the logical connections and to recognize the assumptions that support each logical

connection. It is a sign of the accuracy of the CRD if people with intuition about the problem recognize and accept the logical connections and the assumptions. If the reader's experience and intuition are consistent with the CRD, then the conflict can be considered validated. If there is disagreement, then it becomes necessary to continue a search for a CRD that explains the conflict.

The assumptions that support each logical connection are key to the conflict resolution process because, if they can be shown to be invalid—or potentially invalid—then the conflict can be resolved. In simple terms, if we can invalidate an assumption, we break or "evaporate" the logical connection between the two entities. Having evaporated the logical connection, we can eliminate the need to choose one action over another and we can achieve the goal without compromise. It is this need to choose or to compromise that prevents us from obtaining win-win solutions.

In some cases the CRD reveals assumptions that have never been valid. In others it identifies assumptions that the passage of time has made invalid. In others it identifies assumptions that can be invalidated by changes in policies, practices, or measures. It is the ability to invalidate an assumption supporting a necessary condition, an action, or the conflict between two conflicting actions that makes a win-win solution possible.

The analytic challenge lies in the process of writing a CRD. The key steps of this process are to—

1) Identify the goal, necessary conditions, and conflicting actions

2) Identify the logical connections between each entity

3) Identify the assumptions supporting each logical connection

The CRD enhances the possibility of achieving a win-win solution in a number of ways. If the CRD reveals assumptions that can be proved invalid, then the relationship supported by that assumption collapses. For example, if the assumption supporting the relationship between the necessary condition *B* and the action *D* can be shown to be invalid, then the action *D* is no longer necessary and the conflict between *D* and *D'* evaporates to provide a win-win solution. If the CRD reveals assumptions that are based on policies, practices, or measures the organization can change without compromising its goals, then a win-win solution is possible once again.

It is important to understand that the CRD is an idea generator. It is intended to indicate the "direction of a solution." Its goal is to tell us "what to change." It is not

designed to provide specific, feasible solutions, i.e., to tell us "what to change to." Thus, it is particularly important to identify as many of the assumptions as possible that support each of the CRD relationships. The more assumptions that can be identified, the more the chances of finding an implementable solution are increased.

Here is an example of the use of a CRD in resolving a conflict:

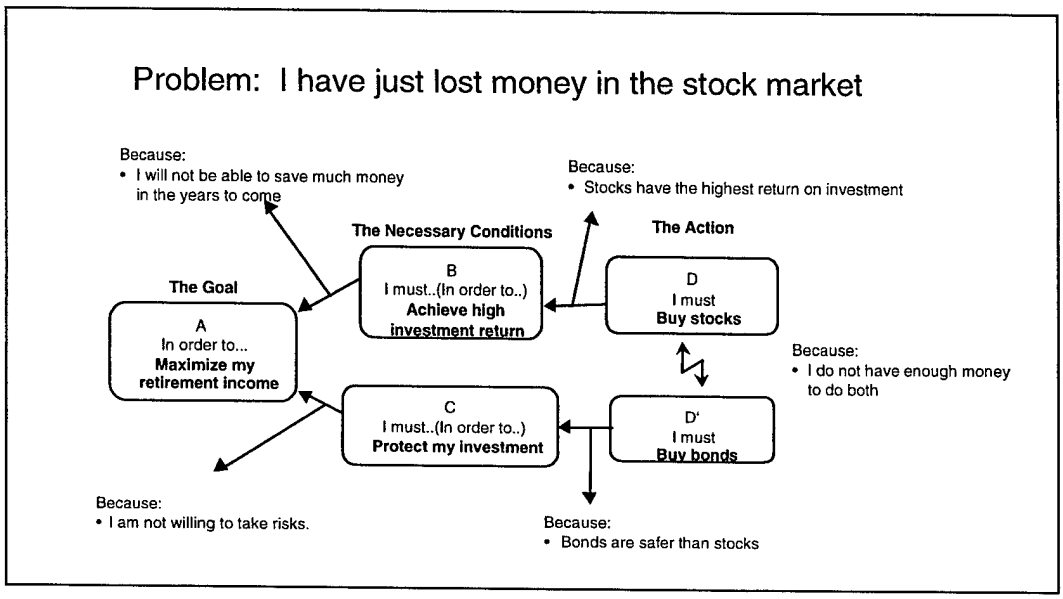


Figure 2. Using the CRD to Resolve a Conflict

In this simple example, the problem is clear—I have just lost money in the stock market. The action that caused the problem is shown in D—I bought stocks. Given the problem and the cause of the problem, I construct a CRD that allows me to put the problem into context. In this case, the reason this is a problem is shown in A—my goal is to maximize my retirement income. The logical connections between each of the entities are based on the assumptions that are identified at the head of each arrow. I want to resolve the conflict with a win-win solution rather than a compromise or a win-lose decision. The search for a solution involves an investigation of each assumption to determine which are invalid or can be invalidated. For example, I might invalidate the A to B logical connection by finding ways to save more money. I might invalidate the B to D logical connection by a conclusion that stocks do not have a higher return. I might invalidate the A to C logical connection by deciding to take greater risks. I might invalidate the C to D' logical connection by concluding that, over time, stocks are no more risky than bonds and even, given inflation, less risky overall. I might invalidate the

D to D' conflict by marrying a rich spouse. This is an example of a radical, breakthrough solution that might also have the effect of invalidating the A to B and the A to C logical connections.

Using the CRD in this way allows me to identify a number of potential solutions that I might not otherwise have considered. This is only the first step in resolving the conflict, however. I must now consider each of the potential solutions. I must identify the potential for negative outcomes and decide how to protect against them. Finally, I must decide on an action or set of actions and I must build a roadmap for getting to my win-win solution.

We have followed this process in this study. We have applied the CRD analysis technique to a number of tempo-related problems in an effort to find ways to mitigate the effects of tempo on the lives of Service members.

B. Impact of DEPTEMPO on Service Members

1. Analysis of the DEPTEMPO Conflict

Our observations from visits to Army and Air Force units are consistent with the recognition that the U.S. military is becoming a projection force. During our visits we found many examples of U.S. forces deployed periodically to some far-flung corner of the world. Indeed, we found that Service members expect to deploy overseas as part of their job. Most Service members report high levels of job satisfaction both during and upon completion of an operational deployment to Bosnia or Kosovo, for example. They report less satisfaction with deployments whose purpose is less clear and where living conditions are difficult. Overall, job satisfaction remains relatively high for those Service members for whom deployments are relatively infrequent. Some Service members look forward to and search out multiple deployments.

There are two main categories of Service members for whom multiple deployments are negative. First are those who must deploy to difficult environments like Saudi Arabia, where job satisfaction is limited and the living is difficult. Second are those with family responsibilities for whom multiple deployments create significant family hardships. Some of those who have multiple deployments have taken actions to reduce their tempo by changing units or jobs. Others have left the military.

Multiple deployments arise in two principal ways. First, a Service member either has a high demand/low density skill or is in a high demand/low density unit or both.

Second, because of normal rotation of individuals among units (PERSTEMPO), some Service members incur multiple deployments as the Services rotate units among contingencies. During our trips we heard stories of Service members for whom operational deployments and short tour PCS moves interacted and led to multiple overseas deployments.

In the Air Force, personnel and force structure have been drawn down by 30 to 40 percent, while TDY requirements have increased 400 percent. Thus, fewer people are being asked to do more, more often, in more places. Additionally, the Air Force during the Cold War was a "forward deployed" force, stationed in a worldwide network of 69 bases. Most of the forward bases have been closed, leaving only 16 forward bases with significant infrastructure from which to support operations. Eleven contingency bases have been opened in the Middle East, Turkey, and Bosnia. Support personnel for these bases is provided from other bases. Two problems result: 1) Air Force personnel must undergo deployment tempo to man these bases, and 2) there is a higher-than-normal operational tempo for those left behind at home station.

The Air Force leadership believes this increased tempo has caused dissatisfaction among field personnel and low morale and high attrition particularly among pilots. The Air Force predicts a shortage of over 2,000 pilots (out of a requirement of 14,000) by the year 2002 at least partially because of the problems of tempo.

Our analyses suggest that a simple conflict underlies this problem that the Services cannot easily resolve (Figure 3). The conflict arises out of the Services' attempts to achieve their goal of meeting DoD operational and readiness needs. To achieve their goal, *A*, the Services must deploy units to meet current operational and training needs, *B*. To deploy units to meet current operational needs, the Services must maintain high DEPTEMPO, *D*. In other words, given goal *A* and necessary condition *B*, we find that we must do *D*. On the other hand, to achieve *A* the Services must ensure that units are manned and trained to meet the high readiness needs of the strategy, *C*. To assure units are ready to meet the needs of the strategy, the Services are under pressure to limit DEPTEMPO; i.e., in order to have *C*, we must do *D*'. Unfortunately the Services cannot simultaneously maintain high DEPTEMPO and limit DEPTEMPO for Service members. In short, *D* conflicts with *D*'.

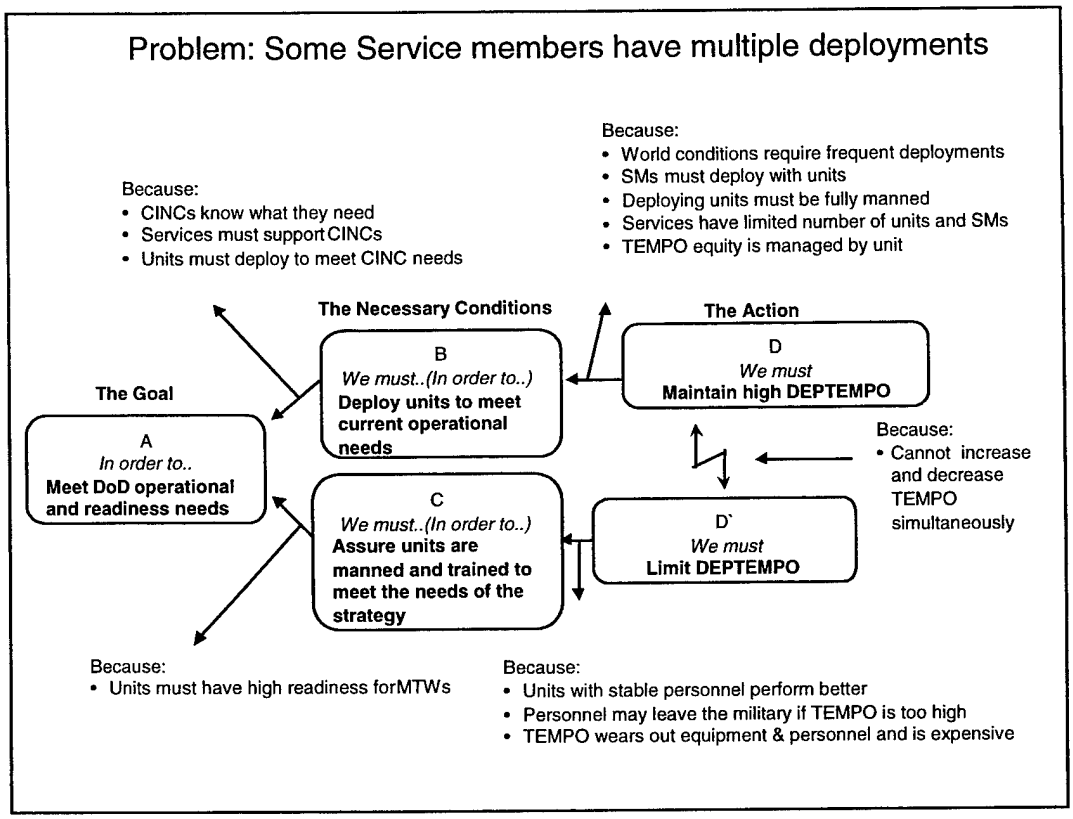


Figure 3. Conflict Resolution Diagram for Multiple Deployments (DEPTEMPO)

Each of these relationships appears to be founded on a number of assumptions, explicit or implicit, with which the Services are attempting to remain in accord. The relationship between *A* and *B*, for example, appears to rest on the following assumptions: 1) CINCs know what they need; 2) Services must support the CINCs; and 3) Units must deploy to meet CINC needs. One can test these assumptions and the logical connections they support against experience and intuition.

The assumption that the commanders on the scene know what they need is a fundamental aspect of Service culture. The Goldwater-Nichols act, however, assigned this role to the CINC, who the Services are legally required to consider as the "person on the scene" who is best able to identify what is needed. In the Gulf War, for example, the Services made every effort to provide exactly the units the CINC said were needed even though they might have had different ideas of what should be deployed. Should the Services conclude that the CINC does not know what is needed or that they are not obligated to meet CINC requirements precisely, they would have much greater freedom to adjust their actions.

The relationship between *B* and *D* is supported by five assumptions: 1) Operational demands will stay high; 2) Service members must deploy with units; 3) Deploying units must be fully manned; 4) Services have a limited number of units and members; 5) DEPTEMPO equity is managed by unit.

Given the turmoil around the world, the first assumption appears legitimate and outside the area of DoD control. The second and third assumptions reflect long-standing Service practices.

The fourth assumption of a limited number of units and Service members is a reflection of the CINC demands placed on high demand but low density (HDLD) units such as Patriot missile batteries and AWACS aircraft. These units are needed more frequently in peacetime operations and small-scale contingencies (SSCs) than are the large number of direct combat units that were built for a worldwide war.

The assumption of DEPTEMPO equity managed by unit is a reflection of the Navy and Marine Corps practice of deploying units, e.g., carrier battle groups and Marine expeditionary units, to meet CINC needs. It is a more recent development for the Army and the Air Force as they attempt to respond to the needs of the CINCs.

The assumption supporting the *A–C* relationship is the need for units to maintain high readiness. Given that readiness to fight two nearly simultaneous major theater wars is the first priority in the DoD, this relationship seems extremely powerful.

An important assumption supporting the *C–D*' relationship is that units with stable personnel perform better. The validity of this assumption is often demonstrated when the units participate in operational tests, or compete in gunnery. In these cases the Services often stabilize unit personnel so that they are able to train specifically for the events. The value of stability in this instance is shown by the fact that the more stable units typically come out on top.[7] Indeed, the need for greater stability is central to other assumptions as well:

- Service members may decide to leave the military if their tempo is too high.
- Tempo wears out equipment and personnel and is expensive.

These assumptions support an effort to limit the deployment of Service members.

---

7 Army Research Institute unpublished study, "Determinants of Effective Performance at the NTC," June 1992, MDA903-86-R-0707.

The Services clearly recognize the conflict between *D* and *D'*. They are constantly trying to find ways to maintain high tempo and to limit tempo, to deploy Service members and to limit their deployment. Because of this conflict, they make compromises that have unintended consequences that result in further compromises or cause additional problems for Service members. For example, in recent months the Army has established policies about who deploys and who doesn't when a unit is deployed to a contingency like Bosnia. These policies can be seen as Army efforts to maintain deployment tempo equity among units while simultaneously maintaining tempo equity among individuals. The effect of these policies is to increase personnel turbulence in deploying and non-deploying units and to reduce overall unit readiness.

2. Service Actions to Deal with the Conflict

We said earlier that invalidating the assumptions that underly a conflict—partially or fully—eliminates the need to choose one action over another and therefore eliminates the need to compromise. Although the Services have not used the CRD to guide their efforts to manage DEPTEMPO, the CRD methodology is useful here to analyze the actions they have taken.

Assumptions: 1) The CINCs know what they need; and 2) the Services must support CINCs.

DoD/Service actions that tend to invalidate the assumptions:

- Create Global Military Force Policy (GMFP), which allows the Services to specify units that are "high demand, low density," thereby subjecting them to special management constraints designed to limit the deployment tempo of these units. In effect, this policy allows the Services to ration the forces they allocate to the CINCs.
- Limit deployments that, in the context of tempo problems, can be considered "nonessential." Recent efforts to reduce the number of exercises provide an example of recent actions in this context.
- Organize units for a predictable schedule of deployments. Navy and Marine deployment plans serve to ration the availability of Navy and Marine units to meet CINC needs.

The Air Force decision to organize into Air Expeditionary Units (AEUs) is an example of an Air Force policy that will likely result in invalidating these assumptions.

In designing this policy, the Air Force has divided existing units into 10 force packages of approximately 350 aircraft each, comprising fighters, tankers, bombers, and tactical airlift supported by high value, low density ISR assets (such as AWACs, JSTARS, U-2, TR-1, F-117 stealth fighters) and CONUS-based strategic airlift and tankers. Approximately 150 of the 350 aircraft are to be forward deployed, while 200 remain on call. This organization has the practical effect of rationing Air Force units to the CINCs. No longer can the CINCs specify a need for specific aircraft types, e.g., F-15Es. Now they have to take what is available in the AEU that is in a ready status. In essence, this is the Air Force analog to the Navy/Marine practice of forward deploying units on a predictable schedule.

Assumptions: 1) The Services have a limited number of units and individuals; and 2) Units must deploy to meet Service needs.

DoD/Service actions that tend to invalidate the assumptions:

- Increase use of contractors to replace support units and personnel in overseas deployments as well as in the CONUS. This form of external support is becoming increasingly important in all types of operations, including major theater wars.
- Increase use of Reserve components to meet peacetime operational needs. The Services rely on both voluntary and involuntary means to bring reservists onto active duty to support operations.
- Share deployment tempo among all the units in a Service that are capable of performing the mission. The Services have also begun to share missions, especially support missions, among units that are similar across Services, e.g., military police and medical units.
- Create temporary units out of Active and Reserve component personnel to perform certain limited missions, e.g., Army composite battalion to MFO-Sinai.
- Establish policies that attempt to protect soldiers against the negative impact of DEPTEMPO and PERSTEMPO acting together, e.g., Army policy to protect individuals returning from unaccompanied tour.

3. Impact of DoD/Service Actions

DoD/Service actions have been successful in reducing some of the negative impacts of tempo but at some cost, e.g., readiness reductions, increased personnel turbulence, and, perhaps, reduced satisfaction level of some CINCs.

4. Additional Actions Possible

We used the same CRD as a tool for beginning the process of identifying what to change, i.e., additional ways of mitigating the effects of tempo. In our analysis of the CRD and review of the DoD/Service activities to manage tempo, we concluded that the DoD/Service actions to date have been comprehensive but that four potential solutions warranted further investigation: 1) Expand the scope of GMFP to include more units. 2) Develop new processes for allocating units to CINCs. 3) Lower readiness requirements. 4) Create new units or give existing units new missions.

Solutions 1 and 2 are quite similar to existing Service practices and do not appear to have much potential as a breakthrough solution. Solution 3 appears to have potential except that it would conflict with having readiness as the first DoD priority. And Solution 4 seems to have potential so long as it does not violate our initial assumption that DoD cannot buy its way out of the problem.

Overall, we conclude that these potential solutions do little to alleviate the tempo problems we identified. With the exception of the fourth possibility, these solutions are essentially a variation on what the Services were already doing. We resolved to look further at the other tempo problems in search of solutions.

C. Impact of PERSTEMPO on Service Members

The most prevalent PERSTEMPO problem we found was Service members' unhappiness with the way the personnel system treats them. We found pilots who want to remain in flying jobs. We found that many Service members in tactical units want to remain in tactical units. Many Service members want to remain in a particular geographic location. Many commanders would prefer to stay in command longer. Many staff officers would prefer to develop real expertise in specific staff jobs where they feel they can make a difference. Many Service members would prefer to have recurring assignments in the same unit. Some Service members who desire this kind of stability and find themselves unable to obtain it decide to leave the military. For those who stay,

the "needs of the Service" call for members to build up an array of skills, to share the relatively scarce command and "branch qualifying" jobs, and to fill less desirable jobs.

The conflict between the "needs" of the personnel system and the desires of individuals often leads to efforts to manipulate the personnel/assignment system. During our discussions with Service members we often heard that those who were most successful, i.e., who got the most rapid or the highest promotions, were not necessarily the most competent professionals but were those who had learned best how to manipulate the personnel system to meet their own needs.

Many Service members told us that they must move rapidly from job to job if they expect to have a successful military career. As a consequence, their experience and skill levels are wide but not deep. Many Service members argued that their units are not fully ready to meet the demands of their missions because of the lack of individual and unit skills that can only be built up over time. Comments from observers of Army units training at Army Combat Training Centers reflect a concern for this lack of experience, for example.

During our survey we found that junior officers (JOs) often see themselves and their families as being under the control of the Service "machine." They have little ability to control their lives or careers. In an anonymous E-mail message, one junior officer said, "Instead of using my skills, the Navy shoehorns me into jobs for which I am not suited, in the interest of broadening my career." Service members we spoke with had many similar complaints: Their career paths are determined for them. Their assignments are chosen for them. They are promoted by year group rather than based on their own performance. Command tours are limited and short because they must be shared among many officers. Officer judgments are often questioned or overridden. Their ability to have an impact on their own lives, on the lives of their subordinates, and on their units is limited by the demands of the personnel system. The centralized personnel system seems to grind on without regard for the needs of individual officers—the "one size fits all" practice identified by the 8th QRMC.

This inability to affect their own careers and lives is apparently felt most strongly by the most competent and capable of the JOs, who feel stifled by the controls imposed on them by the system. As a result, it appears that many of the most capable officers leave the military at the end of their initial period of obligated service. Discussions with JOs suggest that they would respond positively to changes in the system that gave them more control over their careers and their lives.

Here is a comment from an Army Captain about the impact of the system on trust:

> Trust is a commodity in short supply because everyone thinks everyone else is just out for the quickest route to the next promotion. Personnel turbulence adds to a lack of trust because no long-term unit bonds are formed. Leaders write policy letters for a short time and then are replaced by new leaders who write new policy letters. Leaders don't want to help other leaders succeed because this cuts into their own ability to stand out and get the top rating during their short time in command.[8]

In an anonymous E-mail message, an Army Officer had this to say about the personnel system:

> The personnel system definitely does not mesh with any of these new vehicle systems we have in 1st CAV. Personnel turbulence is so steep that once a soldier is acquainted with a new vehicle and can actually start doing true "preventive" maintenance, it is already time to move on. This is especially true in the key logistic intensive positions. Rarely do we see ADCs or BN XOs who are in their positions for more than 9 months. Twelve months is the norm for BMOs and company XOs. I agree that there are a lot of operator/organizational maintenance induced faults on these vehicles, but our guys simply don't get much of a chance to truly "learn" the vehicle and then stay with it for a decent length of time.[9]

Concern over the effects of turbulence is also reflected in the recent FY99 Army After Next report:

> The need for cohesion and continuity within AAN organizations will require longer assignments to specific units. The level of turbulence that has typically characterized Army personnel operations probably cannot be tolerated in 2025.[10]

As in our first CRD, once the goal in identified and the conflict arising out of efforts to meet the goal is exposed, it is easy to understand the difficulty the Services face in meeting the competing demands created by the system in which they operate. The problem we identified is created by the frequent moves that Service members are required to make. These frequent moves arise directly out of Service efforts to meet their goal, i.e., to provide the personnel the Services need today and in the future and to fulfill the necessary conditions that are tied to the goal, i.e., to provide Service members with a

---

8 E-mail circulated on the Internet from CPT Jeff Church, USA, January 1999.

9 E-mail message in response to a speech by the deputy commanding general of the 1st Cavalry Division, BG Honore.

10 *Inside the Army*, December 14, 1998, p. 17.

broad range of skills and to provide job equity. Supporting this linkage—from the goal, to the necessary condition, to the action that causes the problem—are a series of assumptions that, taken together, give the Services little flexibility (Figure 4).

The assumption that the Military Services must have enough members to support the demands of total mobilization turns out to be a remnant of post-WWII and Cold War thinking. In the early days of the Cold War, the Services designed a personnel system to meet the needs of a future war. This system, which was promulgated in the Officer Personnel Act of 1947 (OPA 47), was strongly influenced by the determination that, in a future total mobilization, the Services would not have the problems they had in WWII. The Army, in particular, had had two major problems in expanding from fewer than 200,000 regulars in 1936, to 1.6 million in December 1941, to 8.3 million in May 1945. First, the Army did not have enough trained officers at the middle and upper levels to take on the responsibilities of a much larger force. Second, it had too many older senior officers. During the war the Army responded to these problems, first by centralizing authority to compensate for the lack of experienced officers and, second, by forcing many older officers to retire.

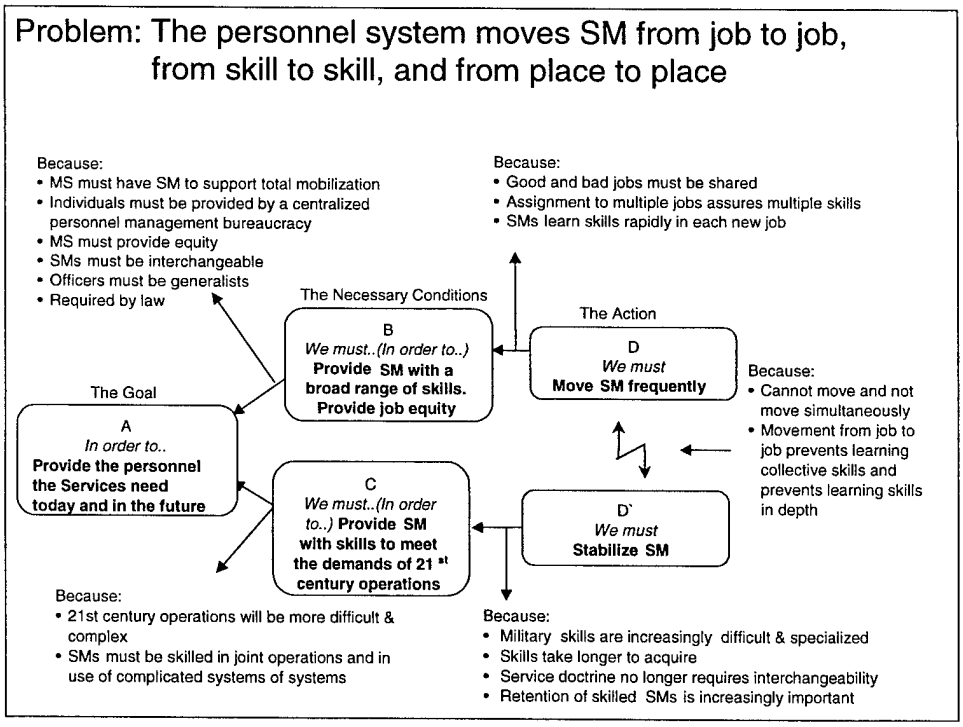


Figure 4. PERSTEMPO Conflict Resolution Diagram

The post-war solution to the first problem was to create a bulge of middle grade officers who were "qualified" to take on the additional duties associated with a large-scale expansion of the force. This policy was built into OPA 47. It became the responsibility of the centralized personnel system to ensure that officers were qualified to meet mobilization demands. Given the uncertainties associated with mobilization, this was translated into a demand for "generalists."

To avoid the second problem, the act created an up-or-out system and an all-or-nothing retirement system that assured the retention of many officers and NCOs through their 20th year of service and prevented the accumulation of too many older officers. These two policies necessarily went together. If a Service wanted to create a surplus of middle grade officers, it also had to find a way to ensure that these officers did not stay around too long. To achieve these goals, OPA 47 provided for a promotion schedule that moved officers into the middle grades at a relatively rapid rate. It also established limitations on years of service and years in grade as a means to prevent stagnation and the accumulation of officers who were too old.

The Defense Officer Personnel Management Act of 1980 (DOPMA), which governs DoD personnel systems today, was also designed in accord with these assumptions. In other words, the "dead hand" of the total mobilization assumption continues to serve as the rationale for the current DOPMA up or out and retirement policies.

These assumptions have been "hard wired" into the system over many years and most officers, even most personnel experts, seem to be unaware of their existence. Over the years the Services have found ways to mitigate some of the effects of these assumptions. For example, the new Army personnel policy calling for some officers to become specialists can be seen as a way of finding equitable solutions for excess officers. This policy has the added benefit of reducing the number of more senior officers who must become "command qualified." These changes can be seen as an implicit effort to mitigate the impact of the mobilization assumption.

The generalist assumption has been a part of American military culture since the late 19th century and early 20th century, when the United States rejected Emory Upton's efforts to create a professional Army and general staff whose officers were rigidly selected and trained in technical areas. This generalist concept was enhanced at the end of WWII with the reforms of the Officer Personnel Act of 1947, which enshrined the generalist concept. OPA 47's provisions were based on the belief that the best way to

prepare for war was to make every officer a generalist. General George Marshall, and succeeding Chiefs of Staffs of the Army, directed personnel managers to formulate Army policies that moved officers around frequently so they would become experienced in numerous positions, always emphasizing the need to prepare for more responsibility at the highest levels of command. They also sent instructions to promotion and selection boards to look for a wealth of experience in numerous positions and duties. Their purpose was to ensure that officers would be prepared to lead the new units that would be created when war came with the Soviet Union and the Services once again expanded as part of a total mobilization.[11] This generalist theory was also popular in corporate management at the time. Recent Army changes in the personnel system can be seen as an implicit effort to mitigate the effect of this assumption.

The generalist assumption is also tied to the assumption that the Services must provide equity. Following WWII a number of officers were sent to the best business schools in the country where theories of "career equity" were taught. This concept rested on two suppositions: 1) the creation of a corporate generalist who developed via a series of short assignments to a large number of different positions, and 2) the idea of treating all corporate members equally or fairly. This was not "equal opportunity" but "equity" in which everyone was treated the same by the centralized personnel management authority. The officers brought these business concepts back to the Army, where the concept of passing large numbers of people through critical jobs fit well with the OPA 47 concepts calling for a large number of trained middle grade officers all managed by a centralized personnel bureaucracy. This concept also fit well with the centralization, "one size fits all" policies that the 8th QRMS identified as a problem for the Services today.

Another key assumption supporting the *A-B* logical connection in the CRD is that Service members must be interchangeable. This assumption is a product of the reforms introduced in the early 1900s by Secretary of War Elihu Root. One of his "modern management concepts," drawn from the Industrial Revolution, viewed the individual as an identical component part that could be "created" on an assembly line.

This concept led the Army to change from a unit-based system for replacing casualties to the individual casualty replacement system it used in WWI, WWII, Korea, and Vietnam. Under this system, soldiers resemble replacement parts and have a set of

---

11 William L. Hauser, Restoring Military Professionalism (Washington, D.C.: The Heritage Foundation, 1985), p. 1–3.

identical skills that can be defined by a Military Occupational Specialty (MOS). The Service "one size fits all" personnel policies may also derive in part from this assumption.

The assumptions that link the necessary condition *B* to the action *D* in Figure 4 are tied to policies or are implied by the nature of the action. The DoD-wide policy of equitably distributing accompanied and unaccompanied jobs generates frequent moves because unaccompanied jobs typically involve short tours of duty. The assumption regarding popular and unpopular locations generates frequent moves in the same way. The assumption that assignment to multiple jobs assures multiple skills is implicit in the practice of moving Service members from job to job. Service members must be assumed to learn skills rapidly in each new job if the Services are to justify this practice.

The assumptions on the lower portion of the CRD are taken directly from current Service documents that describe anticipated demands of 21st century operations. These assumptions are built into most discussions of future requirements.

The action of moving Service members frequently appears to be in direct conflict with the action of stabilizing Service members because we assume that the two actions are mutually exclusive. The conclusion that D and D' are in conflict is also supported by the assumption that moving individuals frequently makes it very difficult to learn collective skills and prevents learning skills in depth.

D. Impact of OPTEMPO on Service Members

During our research we found many Service members suffering from high operational tempo demands while at their home stations. For example, we found aviation mechanics routinely working 12-hour days, 6 days a week in an unending attempt to keep their aircraft operational. Many of these dedicated Service members are becoming increasingly frustrated at their inability to maintain their equipment at acceptable readiness rates. No matter how hard or how long they work, how much cannibalization they do, or how dedicated they are, Service members must work extremely long hours if they are to keep their equipment up to standards in the face of shortages of maintenance personnel, spare parts, and resources to pay for overhauls and other maintenance. Their inability to do their jobs because of factors that are no fault of their own leads some to

conclude that their Service does not care about them or their units. This leads to frustration and anger and convinces some of the most dedicated and capable Service members to decide to leave the military. [12]

The Naval Institute Proceedings described the problem in this way:

> We saw enormous frustration because of the increased workload caused by gapped or cut billets, drops in repair parts and supply support, and dishonest readiness reporting. Many JOs describe increasing difficulty in getting repair parts in a timely manner; parts frequently were removed from nondeployed aircraft and ships so others could sail with all required equipment. Some didn't receive replacements until after training cycle work-ups and were unable to train with certain pieces of vital equipment prior to deployment. Yet readiness was reported as *C-1*.[13]

Some Army aviation mechanics attributed their high OPTEMPO to pressure to maintain operational readiness at rates that seemed unnecessarily high with repair parts inventories at rates that seemed unnecessarily low.[14]

The CRD we developed for this problem suggested that, in attempting to maintain both current and future readiness, the Services face a conflict between the need to meet day-to-day readiness demands and the need to provide for future readiness. In general, the Services attempt to meet day-to-day readiness demands by overworking their maintenance personnel while they attempt to meet future readiness demands by assuring the retention of these same maintenance personnel.

An inspection of the CRD (Figure 5) will reveal why this conflict is so difficult for the Services to resolve. The assumptions that support each of the logical connections, A to *B*, *A* to *C*, *B* to *D*, *C* to *D'*, and *D* to *D'*, are powerful motivators. The requirement to report daily on the readiness of aircraft and other critical equipment means that commanders who are measured by these reports are motivated to maintain as high a daily report as possible. Given the shortage of personnel and spare parts facing each of the

---

12 The GAO study described above identifies the unavailability of needed equipment, parts, and materials as key factor leading to dissatisfaction among Service members.

13 Rear Admiral John T. Natter, U.S. Naval Reserve (Retired); Lieutenant Alan Lopez, U.S. Navy; and Lieutenant Doyle K. Hodges, U.S. Navy, "Listen to the JOs, Why Retention Is a Problem," *Naval Institute Proceedings*, October 1998.

14 Some soldiers in the 18th Airborne Corps described their efforts to maintain readiness at rates above Army standards.

Services, the pressure to report high readiness, and the additional work required for cannibalization actions, it should be no surprise that maintenance personnel are overworked.

On the other hand, the need for skilled personnel to maintain readiness creates an imperative for building an inventory of skilled personnel both today and in the future. Given that there is no lateral entry into the senior ranks of maintenance personnel and that the Services must grow their senior personnel from junior personnel, there should be no surprise that the Services are making heroic, or at least expensive, efforts to retain skilled junior maintenance personnel.

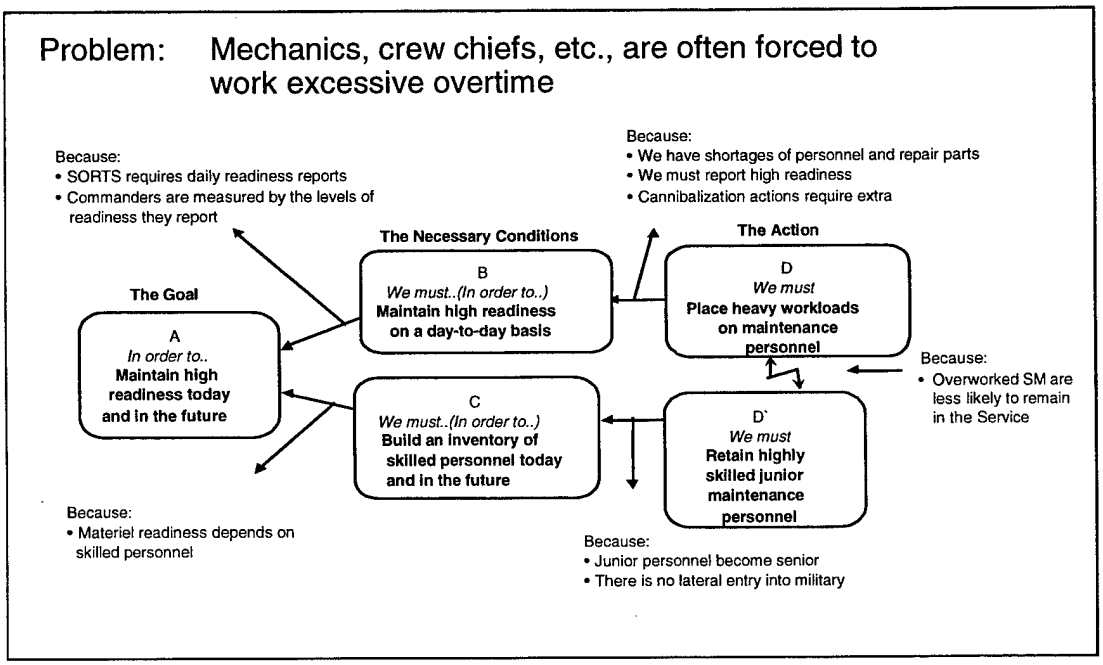


Figure 5. OPTEMPO Conflict Resolution Diagram

E. The Interactions of DEPTEMPO, PERSTEMPO, and OPTEMPO

We found that tempo problems were often exacerbated by the interactions between DEPTEMPO, PERSTEMPO, and OPTEMPO. For example, we found service members whose DEPTEMPO was acceptable until the personnel system added a PERSTEMPO stress that made the overall tempo burden too much to bear.

1. Interaction of DEPTEMPO and PERSTEMPO

Tempo was clearly a problem when we visited the 2d Armored Cavalry Regiment, which had just returned from 7 months in Bosnia. The problem, however, was not

because the members of the regiment were unhappy about their recent deployment. Indeed, the soldiers were proud of their accomplishments and confident of their abilities. The problem was that, because of PERSTEMPO, the regiment was about to lose most of its leaders, including the regimental commander, executive officer, S-3, several squadron commanders, and many NCOs. These key personnel were stabilized while the regiment was in Bosnia but now had to move on both to make room for other officers and NCOs and to pursue other steps in their careers.

The officers and NCOs we spoke to were proud of the readiness level the regiment reached during its time in Bosnia and confident of the regiment's readiness for a combat mission. Although many of them were about to leave the regiment, they were concerned that the regiment's readiness was about to drop dramatically because of pent-up PERSTEMPO demands. They argued that the regiment would be unable to restore its current level of readiness for at least a year because of the inexperience of so many new personnel and the limitations on training funds, time, and land.

An Army study, The Effects of Peace Operations on Unit Readiness, provided a detailed description of this process:

> Upon return from the deployment, all of those losses that would have been attrited over the last 8 to 9 months (preparation time and the time actually deployed) occur. This attrition happens within 30 to 90 days of the unit's return. Most units report this figure at approximately 30 percent of unit strength. A few have reported up to 40 percent.
>
> Unit leadership turbulence is the personnel area that has the most dramatic impact on a unit's readiness. The typical battalion will replace 80 percent of its staff within 3 to 4 months of return from an OOTW mission. Not only are staff officers changed, but the staff NCOs rotate, and the soldiers assigned special duty (SD) to the staff sections return to their companies. The final result is that the new commander has an inexperienced staff, with little institutional memory. Typically, about three company commanders will change command in those same 3 months. Company-level leadership will also be impacted by the changeover of XOs and about half the platoon leaders and some first sergeants. At the platoon level, platoon sergeant seems to be a relatively stable position. But most of the squad leaders will be new, and almost all the individual soldier and team leader assignments will change because of PCS and promotions to E4 and E5. The effect at platoon level seems most pronounced in combat arms units, but is also apparent in support units.[15]

---

15 Center for Army Lessons Learned, "The Effects of Peace Operations on Unit Readiness," December 1995. Can be found on the internet at http://call.army.mil/call/spc_sdy/unitrdy/apendixa.htm

In the course of our investigations we discovered that similar decreases in readiness often occur when units return from major training events. Army units report losing up to 40 percent of their personnel in the 4 months following their return from the National Training Center, for example.[16]

Air Force units have a different problem. They suffer from the interaction of DEPTEMPO and OPTEMPO. In this case, units return from a deployment where they do not execute the full range of missions for which they are responsible. As a result, when they return they suffer from OPTEMPO because of the need to requalify the unit rapidly in the full range of missions in order to restore unit readiness.

Our analysis of the interaction of DEPTEMPO and PERSTEMPO is shown in Figure 6, where the conflict is between the need to move personnel frequently and the need to keep them in their units for a long time.

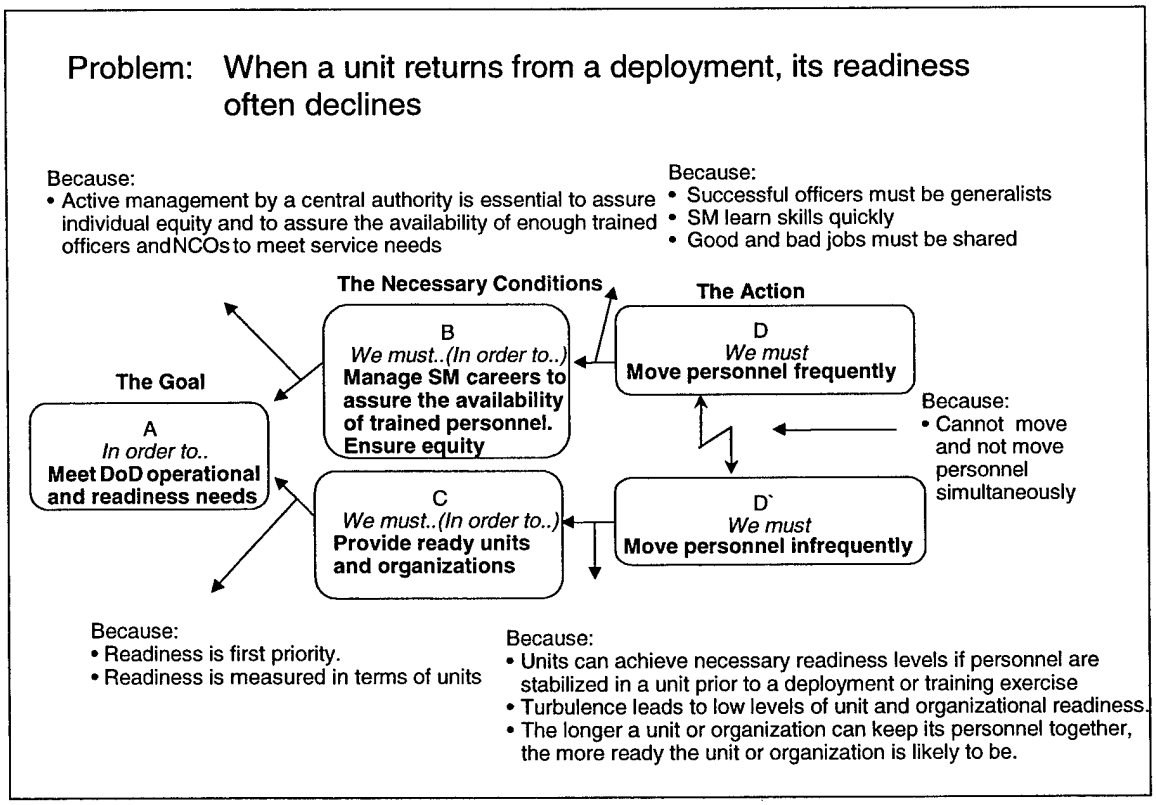


Figure 6. Conflict Resolution Diagram for DEPTEMPO/PERSTEMPO Interaction

---

16 Army Research Institute, op. cit.

The need to move personnel frequently and the need to move personnel infrequently both arise out of the goal—to meet DoD operational and readiness requirements. One necessary condition for meeting the goal, *A*, is the Services' belief that they must manage Service members' careers to assure the long-term availability of trained personnel.

The basis for this belief appears to be the assumption that active management by a central authority is essential to assure individual equity and to assure the availability of enough trained officers and NCOs to meet Service needs.

As mentioned earlier, the assumption about the need for a central authority appears to derive from the historical evolution of the personnel system in the 20th century. Prior to WWI and as a result of the chaos within the War Department during the Spanish-American war, President McKinley appointed Elihu Root as Secretary of War with a mandate to make changes. In response to his mandate, Secretary Root introduced the management science used by the Pennsylvania Railroad. Thus, centralized personnel management began when Root copied the centralized personnel system of the Pennsylvania Railroad. The practice continued through World Wars I and II, when centralized personnel management was essential to the efforts to expand the size of the military. In fact, centralization of all functions was key to American success in both WWI and WWII. In both cases, U.S. forces expanded dramatically, i.e., underwent total mobilization, and were forced to rely on centralized control to make up for the lack of experienced officers. Centralization persisted through the Cold War and into the current situation. Computers and centralized management information systems have been used to enhance these procedures.

In contrast to the DoD, American corporations have given up the concept of centralized personnel management. According to the 8th Quadrennial Review of Military Compensation, the changes in corporate personnel systems came about because "traditional systems did not meet organizational needs in the new environment and older policies and practices often worked at cross purposes with other initiatives."[17] The QRMC report also explained the changes in corporate practices as follows: "As organizations' operating environments became more complex, large, more diverse, organizations began moving from the rigidity of 'one size fits all' systems toward human resource management systems designs tailored to achieve the strategic objectives of the

---

[17] 8th QRMC Report, "Time for a Strategic Approach," June 30, 1997, p. 3.

different operating units." Finally, the QRMC identifies the current status of corporate personnel management today. "It is rare today for large corporations to centrally manage all human resource practices and insist that all business use all the same pay practices, the same pay systems, the same training packages, the same selection tools, and so on."[18]

The following assumptions appear to support the logical connection between *B* and *D*: 1) Successful officers must be generalists. 2) Service members learn skills quickly. 3) Good and bad jobs must be shared.

The generalist assumption is discussed in Section C, above. The second assumption is a necessary complement to the first. If officers are to be generalists and are to move frequently from job to job, then it follows that officers must be able to qualify rapidly in key skills. This is also true for some enlisted personnel who move from job to job, such as mechanics who move from one type of equipment to another within the same job category.

The third assumption, about the need to share good and bad jobs, can be seen as a manifestation of the equity assumption in which the Services attempt to provide equity to individuals by sharing unaccompanied jobs and unpopular job locations among as many people as possible. The Services currently employ two methods of sharing. In some cases, as for U.S. forces in Korea, they rotate individuals on 1-year tours, i.e., PERSTEMPO. This has the desired effect of sharing the hardship across a wide number of individuals, but it also places the units facing a possible surprise attack from North Korea under constant turbulence that makes any effort to maintain readiness very difficult. In other cases, like U.S. deployments to Bosnia and Saudi Arabia, they rotate units on even shorter tours, i.e., DEPTEMPO. This practice creates more ready units during the deployment when it is a matter of life and death. And it might enhance unit readiness overall but for the fact that, as we saw with the 2d Armored Cavalry Regiment, the effects of PERSTEMPO tend to destroy readiness when the unit returns from a deployment.

---

[18] Ibid., p. 38.

2. Interaction of DEPTEMPO, PERSTEMPO, and OPTEMPO

The three types of tempo—PERSTEMPO, DEPTEMPO, and OPTEMPO—interact to make the overall tempo problem worse for officers on joint staffs.

The demands of the new strategic situation and the requirements of Goldwater-Nichols have led the CINC staffs to take on many new responsibilities. These new responsibilities have made the need for competent joint staffs increasingly important. They have also added to both OPTEMPO and DEPTEMPO demands on the CINC staffs. Consequently, the CINC staffs must work harder at home and must deploy more frequently to provide command and control for the increasing number of activities around the CINC's area of operations.

In addition, the Goldwater-Nichols requirement that officers have joint experience prior to promotion to general or flag rank has increased PERSTEMPO in joint staffs. This legislated increase in PERSTEMPO means that many joint staff members are learning on the job. Data show that most officers on joint staffs spend between 2 and 3 years in the job. In other words, the annual turnover rate for officers is between 50 percent and 33 percent.[19] To make matters worse, many officers on joint staffs have a steep learning curve to overcome. Their joint responsibilities tend to be complex and often differ from those faced in Service jobs. For instance, they may entail a great deal of new material about other Services, allies, and the international environment. In addition, many, and perhaps most, new staff officers do not attend the Armed Forces Staff College in Norfolk prior to arriving at their new joint assignment. We also heard reports that the Service JPME often fails to prepare officers for their joint responsibilities (Figure 7).

---

[19] These problems also affect many officers on Service staffs.

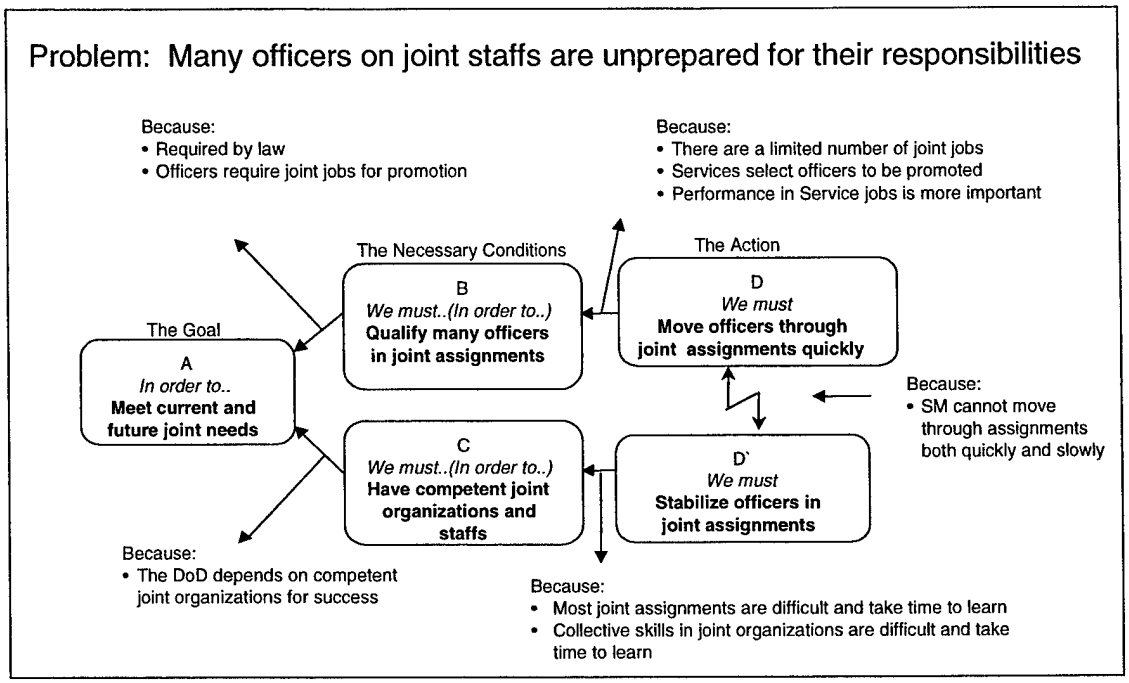


Figure 7. Joint Staff Officers CRD

The requirement that officers have a joint assignment prior to promotion to general or flag rank means that most officers will seek a joint assignment. Since promotion is seen primarily as coming from their Service, many of these officers will seek to return to their Service as soon as possible. In many cases the officers who are seen to have the greatest potential in their Service are moved through their joint staff assignments as rapidly as possible (their 3-year tours are generally cut short in order to move them on to command tours) so they can return to their Service. This high rate of movement is exacerbated by the relatively small number of jobs that carry joint credit and the large number of officers who must occupy these jobs. As a result of all these factors, officers are moved through joint assignments quickly, causing joint staffs of all kinds to have difficulty developing the individual and collective skills that are essential for creating effective staff organizations.

These practices create a difficult situation for the CINCs and other commanders of joint organizations. They must have competent organizations and staffs because the DoD depends on joint organizations for success. And to have competent organizations and staffs the CINCs must stabilize officers in joint assignments because the individual and collective skills that are critical to success in those assignments are difficult and take time to learn.

Thus, the CINCs and the Services are caught in a difficult conflict where the CINCs need to have stability and longer tours, and the Services want to minimize the time their personnel spend in joint assignments.

F. Other Problems Revealed by Our Research

Although our research focused on tempo-related problems, we found that many Service members were more concerned about other problems. Most of the Service members who spoke to us directly and most of those whose feelings were expressed in surveys, in articles, and on the Internet argued that the worst problems they faced—the problems that threatened to cause them to leave the Service (in some cases had already caused them to leave the service)—were not tempo related at all. While tempo was a major contributor to some, other problems were generally more important. [20]

We have categorized the more important problems into two areas that were most problematic: 1) lack of fulfillment; and 2) poor leadership (Figure 8). Since we were searching for ways to mitigate the problems that Service members were facing in their lives in the military, we decided to apply the CRD technique to these problems too.

- **Lack of fulfillment**
  - Many Service members are unhappy with military pay and benefits
  - Units have too few personnel, spare parts, and other resources to maintain readiness
  - There is no longer a clear threat to motivate military service
  - Some Service members feel they have responsibility without authority
  - Some junior officers see little reward for good or outstanding performance
- **Poor leadership**
  - Many Service members are discouraged with their leaders
  - Many leaders are discouraged by the constraints placed on their ability to lead

Figure 8. Non-Tempo-Related Problems Identified in the Study

1. Lack of Fulfillment

Most Service members complained about pay and benefits. Nevertheless, we got a clear impression that pay and benefits, while important, were not the most important

---

[20] In 1998, the Army conducted a detailed study of sexual harassment in its ranks. Just as the IDA team, while investigating tempo-related problems, found a number of other problems, the Army's Senior Review Panel, while investigating sexual harassment problems, found a number of other problems. Many of the Army-documented problems are similar to those listed here. Details of the Army findings are included in Appendix B.

factor. Most Service members appeared to be generally satisfied with their pay and benefits but were, not surprisingly, anxious to ensure that they got their fair share. Recently resigned junior officers expected to make more money in civilian life, but none argued that pay and benefits prompted their decision to leave the military.

In addition to pay, three other non-tempo-related issues were important contributors to Service members' failure to find fulfilling lives in the military: 1) the disappearance of a motivating threat; 2) a general dissatisfaction with their jobs that we have characterized as "responsibility without authority;" and 3) shortages of personnel, equipment, parts, and materials.

Here is how one naval officer described the situation faced by junior officers.

> Why will I leave? There are a lot of reasons, many of which already have been briefed to the CNO and most of the flag officers. But very few junior officers will open up fully to an admiral, so the extent of the problem still may not be appreciated. There are several elements: a lack of compensatory pay for work done; a lack of trust in senior leadership; a lack of understanding about the balance between personal and professional life; and a disappointment in the loss of the warrior ethos that permeated the Navy when I was at the Naval Academy. The most compelling reason for my decision to leave my chosen profession, however, is a total absence of fun, coupled with an understanding that the senior leadership is unwilling to accept the fact that the Navy is broken.[21]

As we analyzed this set of problems we realized that they related more to the individual than to the Service. In fact, we found that these problems could best be understood in terms of Maslow's hierarchy of needs. That is, an individual seeks first to meet the basic need for security and then moves on to seek satisfaction in a process that leads to self-actualization. According to Maslow, only when the more primitive needs are met can the individual progress to higher levels. Persons reaching self-actualization will have fully realized their potential.[22]

Applying Maslow's hierarchy of needs allowed us to construct a CRD that appears to represent the conflict plaguing individual Service members (Figure 9). Their goal is to have a fulfilling life in the military, e.g., self-actualization. To meet this goal

---

21 M.C., Butler, "Why I Will Leave the Navy," *Naval Institute Proceedings*, April 1999, circulated on the Internet.

22 "Maslow, Abraham Harold (Am. psychol.)," *Britannica Online*, <http://www.eb.com:180/cgi-bin/g?DocF=index/ma/slo.html>

they must have both security and satisfaction. To have security they must have adequate pay and benefits. To have satisfaction they must have a challenging, exciting job they can identify with. Clearly, it is possible to have both adequate pay and benefits and a challenging job; thus, there is no direct conflict in this case. Moreover, none of the assumptions appears to be invalid. Instead, the problem appears to be that many of the assumptions are not being met.

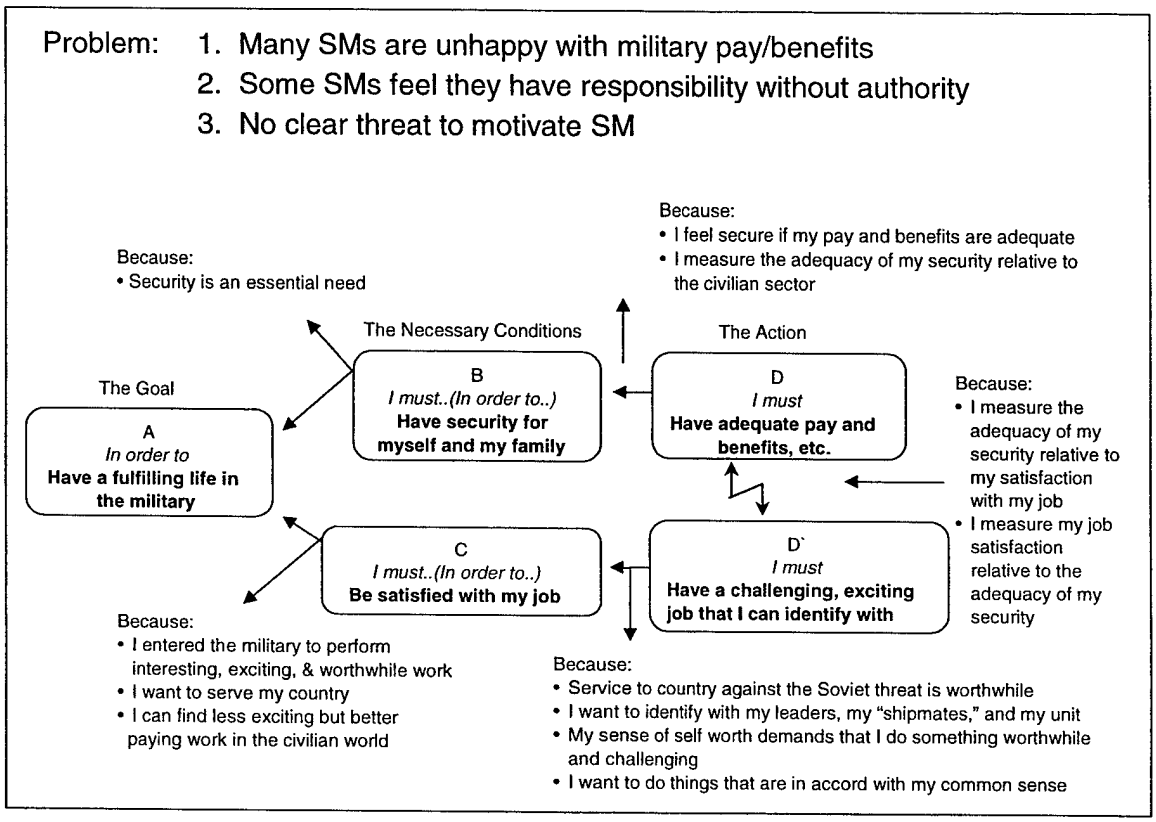


Figure 9. Conflict Resolution Diagram for Non-TEMPO-Related Problem

The CRD shows that there are many reasons for Service members to be dissatisfied with their lives in the military. Simply said, Service members must have both security *and* satisfaction. Our findings suggest strongly that the military today is not meeting these needs, particularly with regard to satisfaction.

Our findings are similar to those of the 8th QRMC, whose charter required a focus on how the compensation system can motivate desired behaviors. The QRMC concluded that "behaviors are motivated thorough extrinsic rewards (monetary and non-monetary) and through intrinsic rewards (those provided by the member and stemming, for example, from belonging to the organization or from the work itself." The QRMC went on to argue that "the compensation system, by itself, cannot directly motivate most desired

behaviors" and that "intrinsic rewards appear to be particularly important (though probably significantly understudied) as a motivator in the military context."[23]

If our findings and those of the 8th QRMC are correct, they suggest that DoD must work to provide both security and satisfaction. Our findings also suggest that an overemphasis on pay and benefits could lead to increases in the budget for these items with little or no increase in fulfillment for Service members.

Our observations suggest not only that individuals find fulfillment or self-actualization when they have both security and satisfaction, but that, within broad ranges, they measure the adequacy of one relative to the other. For example, some pilots expressed frustration with their inability to fly enough to remain fully proficient and described how that frustration weighed more heavily in their decision to leave the military than did any concern about pay. Many pilots say they don't care how much they are paid so long as they can fly. According to a recent Navy study of pilot attitude, over 70 percent of Navy and MC aviators planning to leave the Service said that the current flight pay/bonus system had not been influential in their choice to leave the military.[24]

An Army Major made the point in this way: "We knew coming into this business that we would never be monetarily rich but would instead be enriched by our chosen lifestyle and our accomplishments."[25]

An Army Captain made this argument. "It's not just about money. People used to stay in because they felt like they were warriors, making a difference, with commanders they respected, in units they were proud of. Those feelings don't exist today."[26]

In other words, rather than pay and benefits, it is frustration with other aspects of their lives that prevent many Service members from finding fulfillment in the military. Some are in jobs they consider meaningless or that cause them to act contrary to their common sense. Many of these Service members are planning to leave the military as soon as their commitment is up.[27]

---

23 8th QRMC Report, "Time for a Strategic Approach," June 30, 1997, p. 4.

24 Aviation Retention Working Group SPG Update, January 1998, RADM Dennis McGinn, CAPT Ralph Miko.

25 MAJ Brooke H. Janney, USA, in a paper distributed with attribution on the Internet.

26 Warrior Ethic, E-mail from Army CAPT Jeff Church, January 1999.

27 The GAO survey found that 62% of enlisted personnel surveyed and 40% of officers surveyed said they planned to leave the military after their current obligation is up.

In a similar manner we heard Service members describe their earlier commitment to the defense of the nation against the Soviet threat as the basis for their commitment to the military. With the end of a motivating threat they have become frustrated at having no basis for a continued commitment other than pay and benefits and their retirement package. In short, the absence of a motivating threat has led many Service members to view the military as "just another job,"[28] rather than "service to the nation."

On the other hand, we saw the power of unit identification when we visited the 82d Airborne Division and the Army Special Forces Command. Soldiers in these units were there because they wanted to be there and were willing to make extra efforts to qualify for these units. Moreover, despite the efforts of the personnel system to move them around and to make them generalists, they fought to stay in and return to the units with which they identified.

2. Poor Leadership

The leadership problems described by the Service members we interviewed were of two types: 1) the frustration that leaders felt at the constraints placed on them and 2) the dissatisfaction Service members felt with their current chain of command. Service members at all levels expressed these problems.

a. The Leader's Conflict

Many officers complained that the personnel system, with its many wickets required for career success, forced them to focus on their careers rather than on their units. One mistake while in command can have career-ending implications. In what many junior officers describe as a no-win situation, their command jobs are so short that they have few opportunities to demonstrate their capabilities. This pressure often forces them to misuse their units in order to "look good" to their higher commanders who are on the same career path and are themselves interested in short-term results. Commanders are evaluated using such measures as equipment readiness rates, which compel them to overwork their subordinates despite negative long-term consequences. This pressure also causes ethical challenges such as the unwillingness of the chain of command to accept reports of low readiness. Officers must have a short-term, "can do" attitude. They are not rewarded for telling the truth. Many officers described their frustration at having

---

[28] An image some of the Services seem to convey in some of their recruiting efforts.

limited opportunities to demonstrate their ability, e.g., shortages in operating funds that limit their ability to train themselves and their units. Given "the luck of the draw," many have no opportunity to go to the National Training Center as a company commander—only a few months as a staff officer, one year as a battalion executive officer. Figure 10 reflects our analysis of the leader's conflict.

The goal of every leader up and down the chain of command is to have a successful command tour. To meet this goal the leader must satisfy two necessary conditions—to meet the needs of the chain of command and the needs of the unit—because of a responsibility to both and because the chain of command and unit success determine the leader's success.

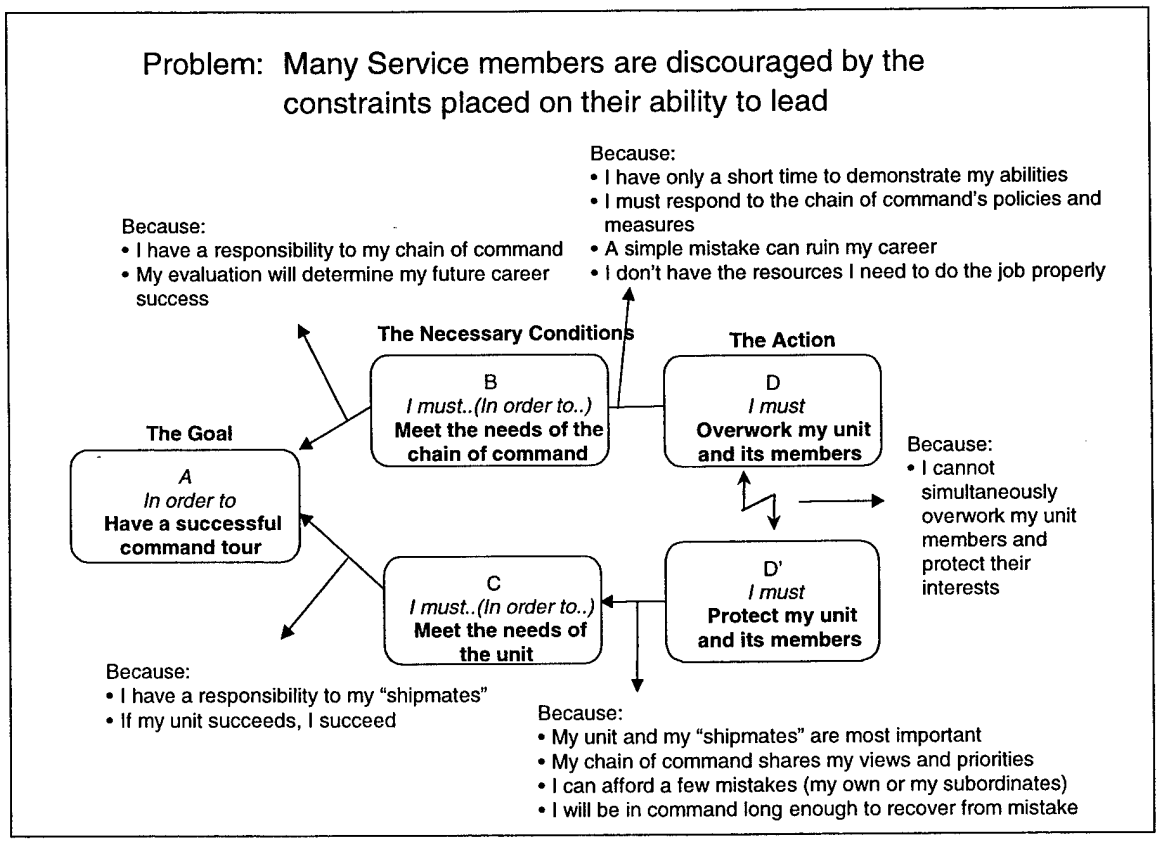


Figure 10. The Leader's Conflict Resolution Diagram

Being responsive to these two necessary conditions places the leader in a conflict. On the one hand, in order to meet the needs of the chain of command, the leader must overwork the unit; on the other hand, in order to meet the needs of the unit, the leader must protect the unit and its members, to include subordinate commanders. Clearly, the need to overwork the unit is inconsistent with protecting the unit.

Understanding the assumptions that support each of these two actions is key to understanding this conflict. The assumptions supporting the *B–D* connection in Figure 10 reflect the pressures placed on commanders who know they have only a short time in command and who know that their career success depends on getting a good efficiency report. This pressure appears to lead directly to the concern for "zero defects." Moreover, lacking the resources needed to do the job properly, leaders too often must overwork their units. One such situation experienced in all Services arises when, because of shortages of spare parts, for example, commanders, anxious to maintain high levels of materiel readiness, require their mechanics to move parts from aircraft to aircraft in order to maximize the number of aircraft reported as operational.

Three different assumptions underlie the *C–D'* connection in Figure 10:

1. The leader places first priority on the unit and the unit members.
2. The leader's priorities are in sync with those of the leader's chain of command.
3. The leader will have the time and the freedom to make a few mistakes.

It is difficult, if not impossible, to satisfy both sets of assumptions. Many of the officers and NCOs with whom we spoke described this conflict. Every officer to whom we have shown this conflict has recognized it in his or her own experience. An eloquent expression of this problem was recently distributed on the Internet by an Army officer.

> Command has lost its luster for many. We've seen whole groups of battalion and brigade commanders who aren't having fun in command. These battalion and brigade commanders were our company-level commanders, S-3s, and XOs in the Gulf and during the early nineties. We see them forced to choose between training and "adminutia" and watch them find that it's now more dangerous to their careers to choose training. In talking to them, we learn that they now talk less about warfighting and more about taskings. We hear them talk less about guidance and more about directives. We see them harried, moving from one event to the next without pause, and without time to digest the lessons learned and the time to correct the problems. We perceive a divorce rate in our peer group and in our peer NCOs that seems to be skyrocketing. We talk to our replacements in company-level command (and those Lieutenants we mentored) and hear them talk about micro-management at levels we cannot imagine. We see a whole generation of junior officers who are not trained on training and not given the opportunity or command climate to learn how to train their units. In sum, we see war-fighting marginalized.

We see the organizational culture of our beloved Army subtly changing. We see technology being placed ahead of people. We see units and their leaders that are not the same tight-knit "bands of brothers" that we grew up in. We see leaders focused on something else and we don't know why. We have, in short, a crisis in confidence. This is the reason for the exodus for so many of us. Those that remain wrestle with that decision regularly. We see our Army in crisis and fear for its future. We don't want to leave but we don't see a way to fix it and leaving our Army the way it currently stands is unacceptable. Its not pay, its not retirement, and its not the OPTEMPO. To paraphrase President Clinton's 1992 campaign slogan, "It's the command climate, Sir!"[29]

An Army Captain had a similar thing to say about the impact of short tours:

The whole system destroys building a warrior ethic. No matter how much you say there is not a zero defect mentality everyone knows there is. This is why senior commanders take away more and more initiative from subordinates on a daily basis. Since I only have 12 to 24 months in command I can afford NO problems on my watch. How do I have no problems? I lock everything down and no decision is made without my approval. If something does go wrong, I burn a subordinate.[30]

Here is a view of the problem from a junior naval officer:

Many of the other senior officers I have met are so intent on attaining the next rank that they are oblivious to the great amount of time they dedicate to that end—and the difficulty that causes for the people working for them. As a corollary to this, these same senior officers are afraid to speak up and tell their own seniors the truth. No CO is going to admit to his commodore that his ship is not ready to carry out her mission—and as a result, the ship's personnel suffer. I cannot begin to count the number of hours I have spent on the ship (when I did not have duty) trying to finish some "emergent" tasking for some superfluous inspection that was supposedly just a "training assist visit"—but which the CO treated as a full-blown Propulsion Examination Board visit. We focus on the inane administrative minutia; as a result, the warfighting skills we are supposed to refine for our nation are eroding.

Why do 9 out of 10 junior officers not want to command? Why would anyone want to put themselves through the wringer of constant stress, long nights away from their families, looking over their shoulder for a potential backstab, or worrying that one of their officers or sailors might make a mistake that would cost them their careers? After Commander Pierce, I

---

29 Extract from E-mail from MAJ Major Brooke H. Janney, USA.

30 Church, op. cit.

> have yet to meet another CO who would classify his command tour as "fun." I do not think that command is what most senior officers want anymore; command at sea is seen as a necessary evil en route to flag rank.
>
> We junior officers have not lost our patriotism or our commitment to freedom—we have just lost the rose-colored glasses that were issued to us at graduation. For too many of us, the Navy is no longer an adventure—it is a chore that takes longer and longer each day. I love going to sea and being a warfighter. But the Navy is not about going to sea or being a warrior anymore. It is about day-to-day administrative drudgery; it is about micromanaging your sailors' personal and professional lives; it is about having your hands tied when all you want is what is best for your sailors.[31]

Another view of this problem comes from an Air Force officer on the eve of his retirement in remarks that were distributed on the Internet.

> I do know things change in the Air Force, but did our squadron commander or anyone else apologize to our crew for breaking his promise to us? Never! The rules he made were only inviolate for us to change, but not for him. Today, we don't see a whole lot of honor among our leaders. They stand in front of us and tell us they are helping us, working for us, that in the Air Force, people come first. Then when things get tough - we don't see them at all. As a supervisor, I could not take care of the people who worked for me. If someone was trying to complete their education I could not protect their schedule. If someone's wife was threatening to divorce them if they didn't stay home for a while. I couldn't help them. I couldn't supervise the people I was charged to supervise. I couldn't help the people I was supposed to help. All I did was screw them. There was no honor or truth in it.[32]

b. The Services' Conflict

Figure 11 reflects our analysis of the conflict the Services are in as they attempt to provide leaders for today and for the future. The Services must provide large numbers of command qualified officers, they must ensure equity among officers, and they must provide the best commanders possible.

The Services must provide large numbers of command qualified officers because their system is built on two assumptions: 1) The Services must have the officers to meet

---

31 Ibid.; Butler op. cit.

32 Speech given by Major Todd J. Leiss on the occasion of his retirement, July 10, 1998, circulated on the internet.

mobilization requirements, and 2) The Services must provide equity to the large number of officers who exist because of the mobilization assumption. They also assume that they must provide command qualified officers in many staff jobs and that they must ensure equity among individual officers. As discussed earlier, the assumed need to meet total mobilization needs was built into the Service systems in OPA 47. The assumed need to provide command qualified officers in staff jobs is part of the military culture that demands "qualified" officers in many positions: Apparently, "qualified" officers are thought to be better able to perform staff as well as command jobs. The background of the equity assumption was discussed earlier as well.

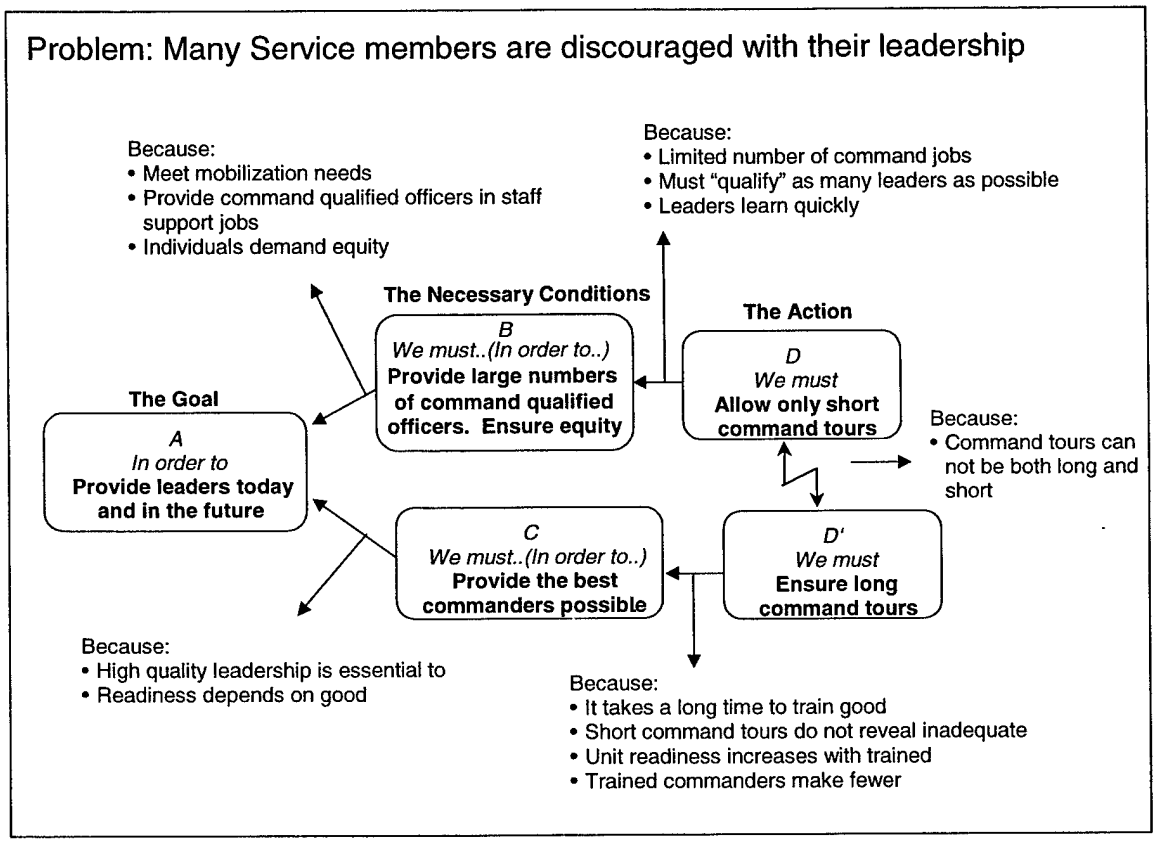


Figure 11. The Service Conflict

The need to provide large numbers of command qualified officers and ensure equity means that the Services are forced to allow only short command tours. The necessity of short command tours is driven by the disparity between the existence of relatively few units and the need to give many officers the opportunity to command. If

one accepts the efficacy of this policy, one must also assume that leaders learn quickly. Otherwise, the Services would have to acknowledge that they are creating unqualified leaders.

Although this policy may provide large numbers of command qualified officers who are available to support a future mobilization, it can result in significant near-term costs in combat. Here is a comparison of Army and Marine Corps combat results during the Korean War that shows the impact of the Army policy.

> *Nothing* was so unfair as what happened on the east side of the Chosin reservoir in Korea in the week around 1 December 1950, when the Army 31st Regimental Combat Team was destroyed, with only 1 in 10 of the 3,300 soldiers coming out capable of continuing to fight, and not a single organized unit able to go on. All of the Army artillery, vehicles, and crew served weapons were left behind as were nearly half of the troops, captured, dead, and wounded. On the west side of the reservoir, with the same equipment, same ratios to the Chinese forces, same weather, and terrain, the Marines fought their way out of the Chinese envelopment with almost all their artillery and vehicles, all of their wounded. Their losses overall were horrible—about 50%, but only two companies out of the two whole regiments had ceased to function as effective combat units. The principal difference between the Army and the Marines was that the Army assigned officers to battalion and above on the basis of career "equity," whereas the Marines assigned field grade combat command to officers who had previously commanded in combat at the same or next lower level. For example, only one in four of the Army battalion commanders had previous combat commands, whereas two out of three of the Marine commanders did.
>
> Combat command in war and combat training in peacetime are not "general management." At Chosin, the Marine leaders had specific technical competencies that the Army leaders didn't. It's not that the Army didn't have leaders who had them, it's that the Army didn't assign them to command. "Wouldn't have been fair."[33]

The Army held to this command policy all through the Vietnam War as well. In general, commanders at all levels below general officer were held to 6-month command tours. This meant that, with casualties and other events, the average command tour was less than 6 months. The policy of constantly replacing experienced commanders with inexperienced commanders led directly to the killing or wounding of significant numbers

---

[33] Jonathan Shay, M.D., Ph.D., D.V.A. Outpatient Clinic and Tufts Department of Psychiatry, "Ethics, Leadership, Policy—Not Separate Spheres." Boston, Massachusetts.

of American soldiers. Data from the Vietnam War covering 34 maneuver battalions in 5 Army divisions and separate brigades in the years 1965 and 1966 indicate that maneuver battalions under experienced commanders (6 months or more in command) suffered battle deaths in sizeable skirmishes at only two-thirds the rate of units under battalion commanders with less than 6 months in command.[34] This experience shows how assumptions can cause organizations to take actions that are not in their best interests.

One aspect of the Vietnam War is germane in the context of this study—the continuing concern that the war in Vietnam might be preliminary to and a diversion from a Soviet attack in Europe. Given this concern and the power of the built-in assumption, it is easy to see the conflict the Services faced: The need to train as many officers as possible in combat in order to prepare for war with the Warsaw Pact and the need to provide equity conflicted directly with the need to provide the best commanders possible in the current war. It is not that the Services fail to understand the need for the best commanders possible. They do. They also understand that, in order to provide the best commanders possible, they must ensure long command tours. It is simply that they are caught in a conflict between the need to provide large numbers of qualified officers and the need to provide the best commanders possible.

The fact that the need to allow only short command tours seems to take priority over the need to provide the best commanders possible may be a sign of the power of the centralized personnel management system over the best judgment of combat commanders.[35]

G. Finding A Core Conflict

An important aspect of the Theory of Constraints is the discovery that the problems identified in an organization generally can be traced to a fundamental or core conflict that is the cause of virtually all the problems. Identifying this core conflict raises the possibility of finding solutions that can be characterized as breakthrough solutions. In this analysis, having identified both the tempo problems and the other problems, we began a search for a core conflict.

---

34 Thomas C. Thayer, editor, *A Systems Analysis View of the Vietnam War 1965–1972*, Volume 8, *Casualties and Losses*, OASD/PA&E, February 1975, DTIC #ADA051613, p. 225.

35 In the author's Vietnam experience, efforts to frustrate the 6-month command tour and extend officers in battalion or squadron command required four star approval.

In the process of creating each of the conflict resolution diagrams and searching for potential solutions to the tempo problems, we began to recognize a number of similarities among the elements of the CRDs. Goals, necessary conditions, actions, and assumptions began to reoccur. We took this as evidence that there was likely to be a core conflict that we could link to most if not all of the problems we had identified.

Accordingly, we began to search for that underlying conflict by identifying the commonality in each element of the CRDs; that is, the commonality among all the goals, all the necessary conditions, and actions. Finding a common goal was the first and easiest step. Each of the CRDs had a goal that contained a current and future aspect and each had a common aspect that could be summarized as meeting DoD needs. Therefore, we concluded that we could generalize a common DoD goal as, "Meet DoD needs today and in the future."

The next steps, finding the common necessary conditions and the common actions, at first appeared to be significantly more difficult. What was the commonality between the necessary condition that involved deploying units and the necessary condition that called for providing security for an individual and his or her family? Over time we recognized that, in every case, the issue could be resolved into a conflict between individuals and units. On one side was the need to provide individuals or to take care of individuals and individual careers. On the other side was the need to provide ready units or to take care of units. On one side were the Service personnel systems that manage the supply of individuals and manage individual careers. On the other side were the operational chains of command that were responsible for employing units to accomplish assigned missions. Without a doubt, the core conflict, the conflict from which the other conflicts arise, is the conflict between the need to manage individuals and the need to manage units (Figure 12).

It is as if there are two competing chains of commands in each Service. One is visible and one is "invisible." The visible chain—the Service/joint command structure—is responsible for managing units of all kinds and sizes and seeks to create the best, most capable, most ready units possible. The invisible chain—the personnel system, supported by deeply embedded attitudes and behavior—is responsible for managing individuals and seeks to create the best, most capable "warriors" possible. Both chains of command have the best interests of their Service in mind as they compete for influence and resources. The visible chain is directly responsible to the President and the Secretary of Defense for the readiness of Service and joint units and organizations and for the

execution of the National Security Strategy. The visible chain is held responsible and accountable for the readiness of units even though, as our findings demonstrate, many problems with unit readiness are caused by the actions of the personnel system. The invisible chain is responsible primarily to a body of assumptions, laws, and regulations governing the personnel system. Within the Military Services, the invisible chain is generally considered to be beyond the control of any individual Service Chief or Secretary to change. The invisible chain is not held accountable for its impact on unit readiness or for the successful execution of U.S. national security strategy. Nor is it held accountable for the widespread dissatisfaction we found among Service members. Although the visible chain of command clearly has the most important set of responsibilities, it loses virtually every confrontation between it and the invisible chain of command.[36]

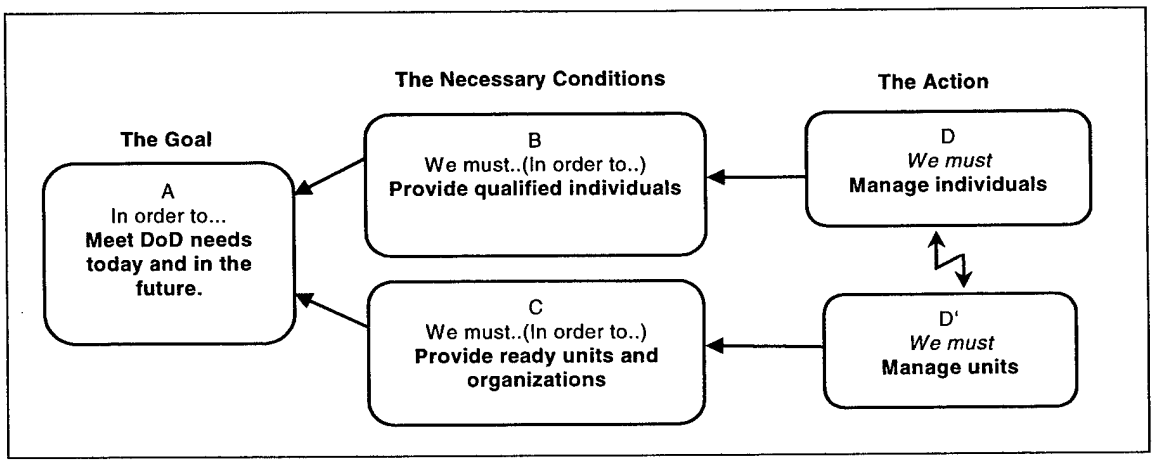


Figure 12. Basic Core Conflict

This finding was strongly supported by discussions with a wide range of military people and with other analysts with experience and intuition into the problems we identified and into the Service management systems. Indeed, the Army's study on the Officer Personnel Management System for the 21st century (OPMS XXI) found essentially this same problem. The concluding chapter of the study made these key points:

- The goal of OPMS XXI is not just producing better officers, but better organizations. (These are the two necessary conditions.)

---

36 Why else would the Army conduct routine changes of command of combat brigades in the days immediately preceding the ground attack in the Gulf War, for example?

- Thus it is the goals and missions of organizations that form the system's basis.
- This places the system in a state of dynamic tension that constantly balances the needs of the Officer and the needs of the organizations. (This is the core conflict.)
- It also means that some aspects must be consciously sub-optimized in order to optimize the overall system. (This is the compromise that causes the problem.)

This conflict is shown in the Figure 13.

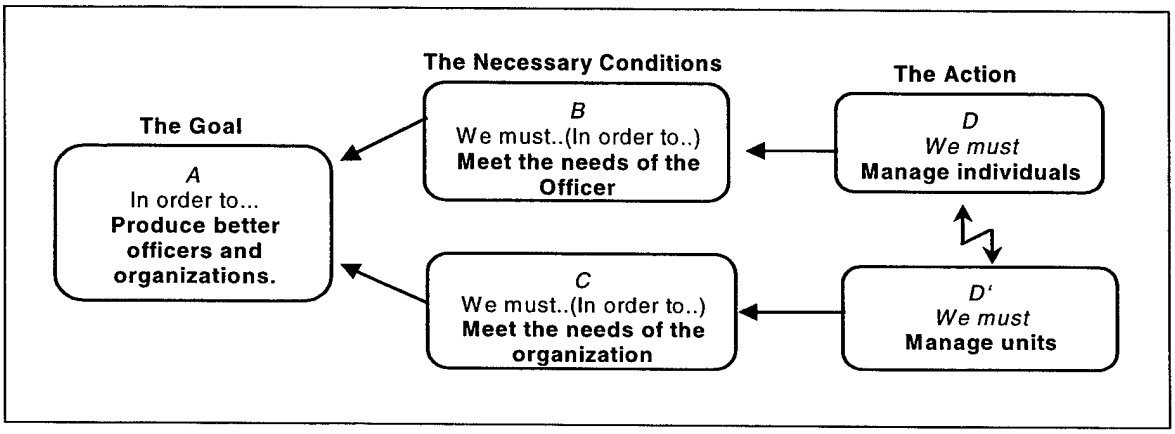


Figure 13. Army OPMS XXI Conflict

To confirm our suspicion that the core conflict was the cause of all the problems we identified, we developed a detailed cause and effect analysis of the linkage between the core conflict and each problem. The results of that analysis can be found in Appendix A. The appendix shows how the core conflict, in conjunction with other aspects of the current situation, provides a sufficient cause for each of the problems we identified during our research.

Having concluded that the core conflict between the need to manage individuals and the need to manage units is what must be changed, we then began the analysis of "What to change to?"

IV. WHAT TO CHANGE TO?

A. Reevaluating Assumptions and Necessary Conditions

Our first step in deciding what to change was to look again at the core conflict and, in particular, at the assumptions that support each of the logical connections in the

CRD. The first question we asked was whether the assumptions continue to be valid. If there are assumptions that can be shown to be obsolete or otherwise invalid, the associated conflict can be resolved immediately. In other words, if an assumption that supports a logical connection between two entities can be shown to be invalid, the logical connection between two entities is broken and the conflict evaporates without the need for additional changes.

In the case where there are multiple assumptions supporting a logical connection and not all the assumptions can be shown to be invalid, then the remaining valid assumptions can provide indicators of "What to change to." For example, in Figure 14, the logical connection between *B* and *D* is supported by the assumption that DOPMA requires the Services to manage individuals. Since this assumption is based on an interpretation of existing law, the search for the answer to the question lies in the area of things that will invalidate that assumption. The answer may be a change in the law or it may simply be a need for a reinterpretation of the law.

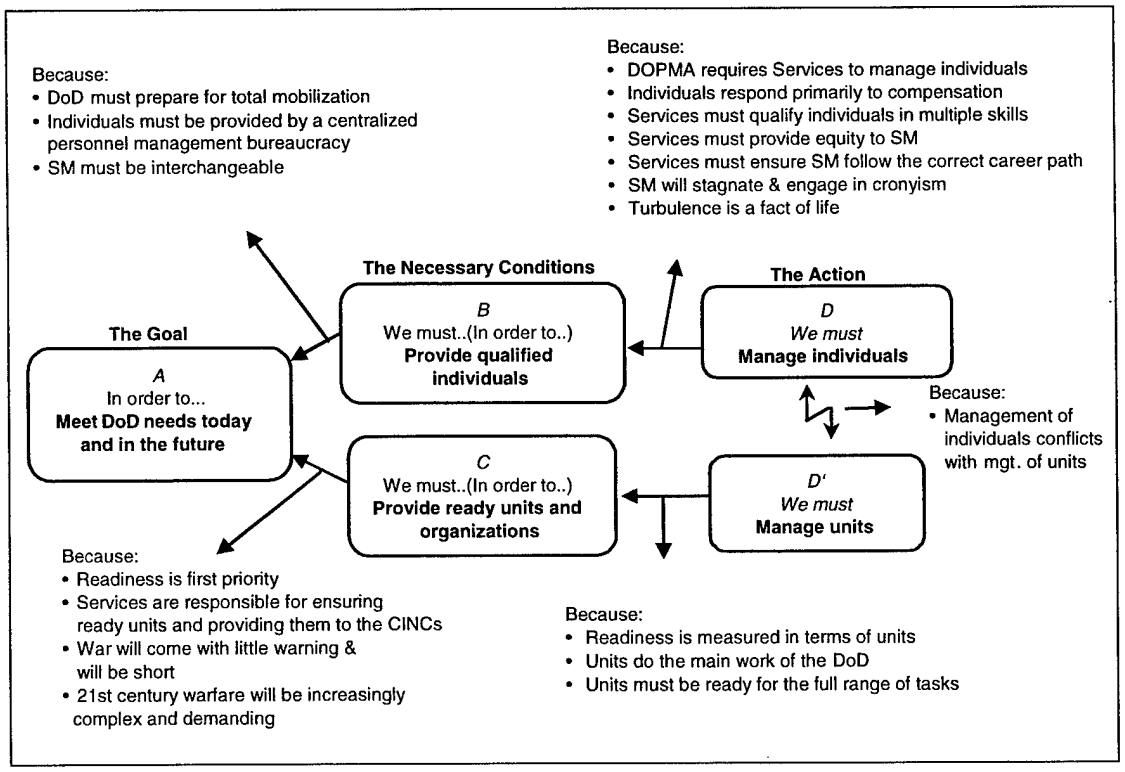


Figure 14. Detailed Core Conflict Diagram

In searching for potentially invalid assumptions we looked first at the relationship *A* to *C* and *C* to *D'* in Figure 14. For each of these logical connections we found assumptions that appear to be valid. Surely readiness is still first priority and the Services

are still responsible for providing units to the CINCs. It is also still true that readiness is measured in terms of units and that units do the work of the DoD. Thus the requirement for the Services to manage units in order to meet DoD goals seems strong.

Looking at the relationship *A* to *B*, we find assumptions that, as we discussed earlier, need no longer be considered valid. Total mobilization is no longer part of the strategy. Centralized personnel management is no longer necessary. And Service members are no longer interchangeable.

The *B* to *D* relationship is also supported by apparently invalid assumptions. The only *B* to *D* assumption that is clearly valid today is the assumption that DOPMA requires the Services to manage individuals. (But this assumption can be invalidated by changing the law.)

Figure 15 compares the old assumptions with our view of today's reality and suggests that the assumptions underlying the *A* to *B* and the *B* to *D* relationships are no longer valid. The assumptions have been overcome by the passage of time; by the growth of a new generation of Americans; and by the change in the political, military, technological, and management aspects of the world in which the Services operate.

Old Assumptions	The New Reality
1. DoD must prepare for total mobilization	1. Total mobilization no longer part of the strategy.
2. Individuals must be managed by a centralized personnel system	2. Centralization is no longer the best way to manage
3. Service members must be interchangeable	3. Many Service members have unique skills and abilities acquired at great cost
4. Individuals respond primarily to compensation	4. Individuals demand security AND satisfaction
5. Services must provide equity to Service members	5. Service members want equal opportunity to control their own careers
6. Services must qualify individuals in multiple skills	6. Complicated jobs require experts. Training is too expensive to waste
7. Service members will stagnate & engage in cronyism	7. Performance measures & a system of constant improvement assures high performance
8. Turbulence is a fact of life	8. Services recognize importance of cohesion on future battlefields

Figure 15. The Source of the Conflict

In other words, the Department of Defense is attempting to operate in a new reality for which its current personnel system, based as it is on invalid assumptions, is no longer appropriate.

One way to put the current situation into perspective is to recognize that, since the end of the Cold War, we have changed our strategy and our force structure but we have not changed our personnel system. Forced to recognize that the old assumptions had changed (we could hardly fail to notice the end of the Warsaw Pact), we have devised a new strategy and a new force structure, but we have not yet recognized that the new reality demands a new approach to managing our human resources. We are now operating in a new environment where the demands on our people and our units differ greatly from those of the past.

At this point it seems clear that the tempo-related problems, the fulfillment problems, and the leadership problems described earlier reflect a system that is no longer able to meet the needs of the Department of Defense. The system is out of sync with the current reality. The longer this situation continues, the more out of sync the system is likely to get and the worse the problems are likely to become. Having validated the assumptions associated with the management of units and found that most of the assumptions associated with the management of individuals are no longer valid, we conclude that it is the management of individuals that must change. In other words, we conclude that the DoD must adjust its personnel system to fit the new reality.

Having concluded that changes to the personnel system are necessary, we continued to explore what to change by identifying the new necessary conditions that the new policies and measures should be designed to accomplish.

Figure 16 shows that the current necessary condition that "the Services provide ready units and organizations" remains. In addition, our intuition suggests that the Services must "ensure that Service members find fulfilling lives in the military." A third necessary condition, taken from the 8th QRMC report, is that "human resource leaders must respond to operational commanders' needs and ensure organizational goals are achieved."

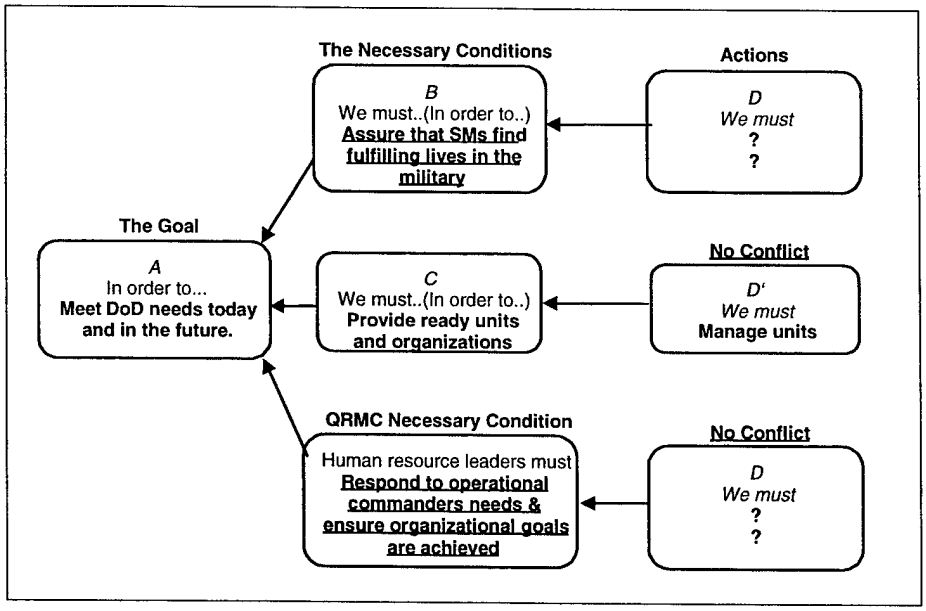


Figure 16. Reevaluation of Necessary Conditions

B. Defining Potential Change

Having identified the necessary conditions, we now need to identify the actions that must be taken. Figure 17 provides a graphic description of this process. We have already shown how the old assumptions led to policies, practices, and measures that are in conflict with the new reality and cause the problems we identified. As this is a "cause and effect" relationship, another way to explain the current situation is to say that the conflict between the existing policies, practices, and measures and the new reality causes undesirable effects that we want to change. In order to decide what to change to we must first decide what new effects we want. In the context of our study these new effects will be the opposite of the undesirable effects. Having identified new or desirable effects, we must next identify a set of new actions, e.g., policies, practices, and measures, which, in the context of the new reality, will cause the desirable effects.

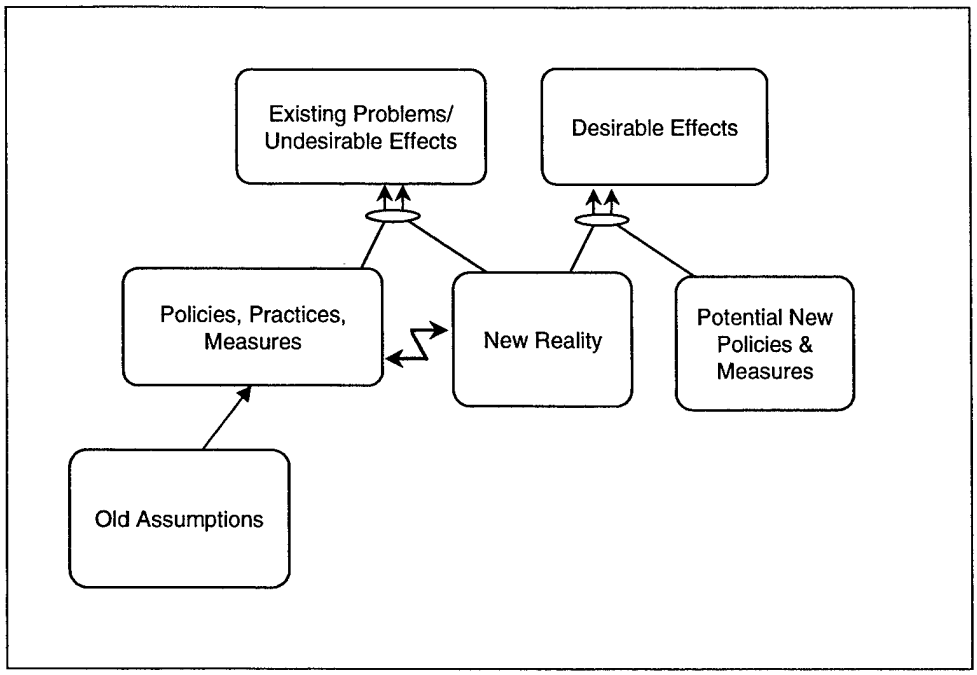


Figure 17. Adjusting to the New Reality

Figure 18 shows our proposed desirable effects. These desirable effects are intended to be the opposite of the problems or undesirable effects we identified at the start of this study. For example, given the initial problem that some Service members see multiple deployments as negative, and recognizing that we expect the high demand for such deployments to continue, we defined the desirable effect as follows: "Tempo is reduced or Service members become more willing to undergo tempo."

We went through each problem and determined its opposite or effective opposite. In some cases, such as the problem caused by the loss of a motivating threat, where we recognized that it was both impossible and inappropriate for us to raise the specter of a new threat, we propose achieving the desirable effect by having Service members replace threat motivation with unit motivation. Needless to say, another study team might develop entirely different desirable effects.

Having identified the desirable effects, our next step was to employ our intuition and expertise to devise a set of changes, e.g., new policies, practices, and measures that could lead to each of these desirable effects.

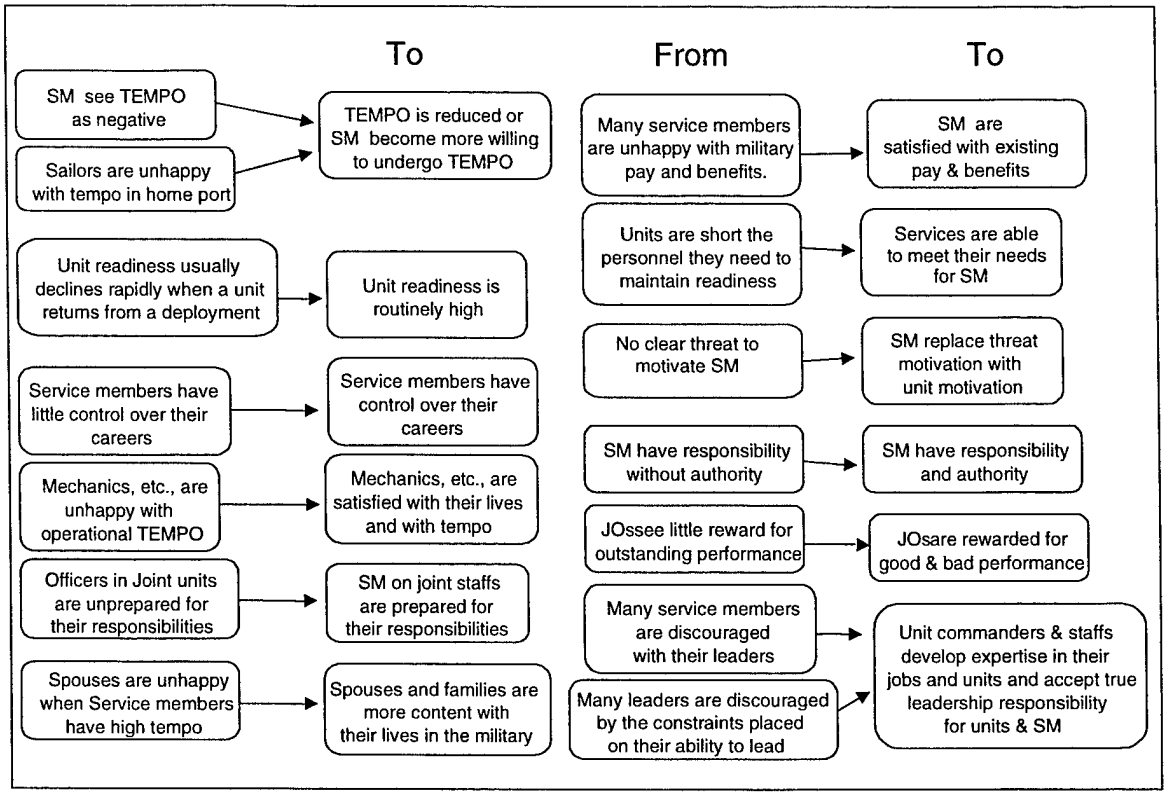


Figure 18. Replacing Negative Effects with Desirable Effects

To identify potential solutions, we returned to the CRDs we originally constructed to pinpoint assumptions that can be invalidated by some change such as a new law, policy, practice, or measure. In some cases the identification of potential solutions is simple and straightforward. In others, we need considerable intuition about the problem. In many cases, because the assumptions being addressed are fundamental, the potential solutions have the possibility of becoming dramatic breakthroughs.

Figure 19 depicts how we analyzed the very first CRD, pertaining to DEPTEMPO, in search of a potential solution. In this case, because Service actions to date have effectively invalidated many of the assumptions that support the *A* to *B* and the *B* to *D* logical connections, thereby leaving little for us to do in these areas, we addressed the *D* to *D*' conflict. The assumption supporting this conflict was that we could not simultaneously increase and decrease DEPTEMPO. We concluded, however, that it might be possible to increase and decrease tempo simultaneously if the types of tempo were not the same. If DEPTEMPO is what is key to meeting the needs of the DoD, then it might be possible to reduce other forms of tempo while maintaining or even expanding DEPTEMPO.

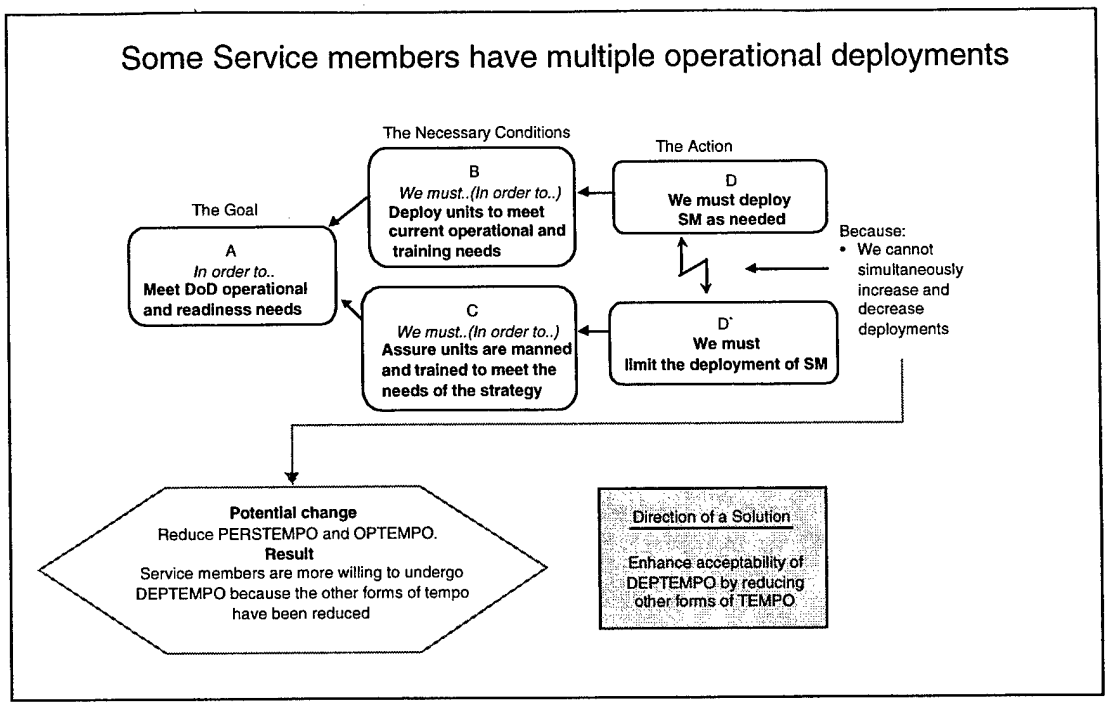


Figure 19. Searching for a Solution to the DEPTEMPO Problem

Given a desire to reduce other forms of tempo, we looked to the next two CRDs in a search for potential ways to reduce PERSTEMPO and OPTEMPO.

Our analysis of the PERSTEMPO problem arose out of the career development dissatisfaction we found among Service members. Our search for potential solutions to the PERSTEMPO problem is represented in Figure 20. The assumptions that seemed to offer the best chance of providing a solution to our goal of reducing PERSTEMPO are listed. Since the problem we were investigating was the Service members' sense of loss of control over their careers, we concluded that the direction of a solution should be to allow Service members more control over their careers.

The Service assumption on the *A-B* logical connection that they must provide "equity" to Service members led us to think in terms of equal opportunity rather than equity. The assumption on the *B* to *D* logical connection concerning the sharing of hardship or unaccompanied assignments or unpopular locations led us to think about ways to motivate Service members to choose these assignments. Among the changes that seem to be associated with giving Service members more control over their careers is the need to moderate the "up or out" policy that engenders much of the dissatisfaction felt by Service members whose careers are dominated by this policy. If Service members are to have more control over their careers, the Services should probably allow Service

members to stay in jobs longer. If the Services are to give up the use of equity in filling hardship jobs or jobs in unpopular locations, they will likely have to use incentives to fill these jobs.

Although we have argued that the Service assumption about the need to provide equity to individuals is obsolete, there is reason to be concerned about equity. The issue of equity is related to the sharing of hardship. In a system that gives priority to units it is appropriate to provide unit equity. This is consistent with current Service practices in which the Services provide unit equity by sharing DEPTEMPO missions among as wide a base of units as possible.

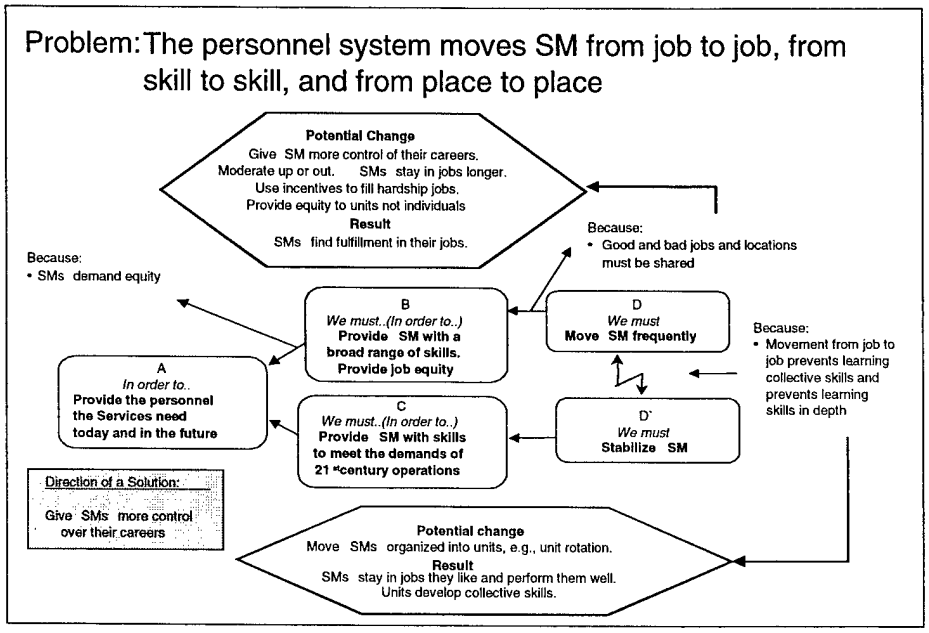


Figure 20. Searching for a Solution to the PERSTEMPO Problem

The final assumption we addressed was the *D* to *D'* connection. This assumption seems valid on its face. How can you both stabilize Service members and move them frequently? When we thought about the possible ways to move personnel, however, we recognized that Service members could be moved as individuals or as groups of individuals. When people are moved as individuals from one unit to another, unit readiness is harmed. On the other hand, if individuals are allowed to remain in their units (satisfying *D'*) and the units are moved (satisfying *D*), then unit stability is retained and, as a result, unit readiness is maintained and even enhanced.

Another potential benefit of this practice would be reduced training demands on units and reduced training budgets. With greater personnel stability, units would be able to achieve higher levels of collective proficiency per given amount of training time.

The results that we anticipate might come from these changes include the potential for Service members to find greater fulfillment in their jobs and to move less frequently. If Service members move less frequently, they are likely to learn to perform their individual and collective duties more effectively, and unit proficiency is likely to increase. We recognize that there are concerns about problems raised by the concept of unit rotation and that the idea has failed in the past. At this point in the study, however, we are looking for potential solutions and we plan to deal with their potential negative consequences at a later date.

Our analysis of the OPTEMPO problem arose out of the stories we heard from many Service members who were suffering from high OPTEMPO at home station. Service members expect high OPTEMPO when deployed but want to have time with their families when they are at home station. The recent Navy decision to cut OPTEMPO at home port is an example of a direct approach to this problem. We attempted to address this problem in a more indirect way by focusing on the assumptions that support the logical connections that lead to high OPTEMPO. As Figure 21 shows, it is the readiness measures and the efforts made to respond to those measures that seem to cause the problems we observed. This is an example of the problems that can arise when measures are applied inappropriately or when people adjust their behavior to respond to measures without recognizing the negative impact of their behavior. In this case we concluded that the efforts to report high readiness on a daily basis was the cause of the OPTEMPO problem. We also concluded that it was unnecessary for units to be constantly concerned about day-to-day readiness when the real need is for units to be ready when they are needed. In other words, we identified the direction of the solution as a need to change readiness measures.

Ultimately we concluded that the potential change was to change the SORTS readiness reporting measures to allow commanders more discretion in the workloads they assign to their maintenance personnel. This is at least implicitly and perhaps explicitly what the Navy did when it restricted homeport OPTEMPO. We believe that changes in the readiness measures will lead commanders to reduce the pressure on their maintenance personnel, that the reduced pressure will lead to greater job satisfaction, and that increased job satisfaction will lead to a higher reenlistment rate.

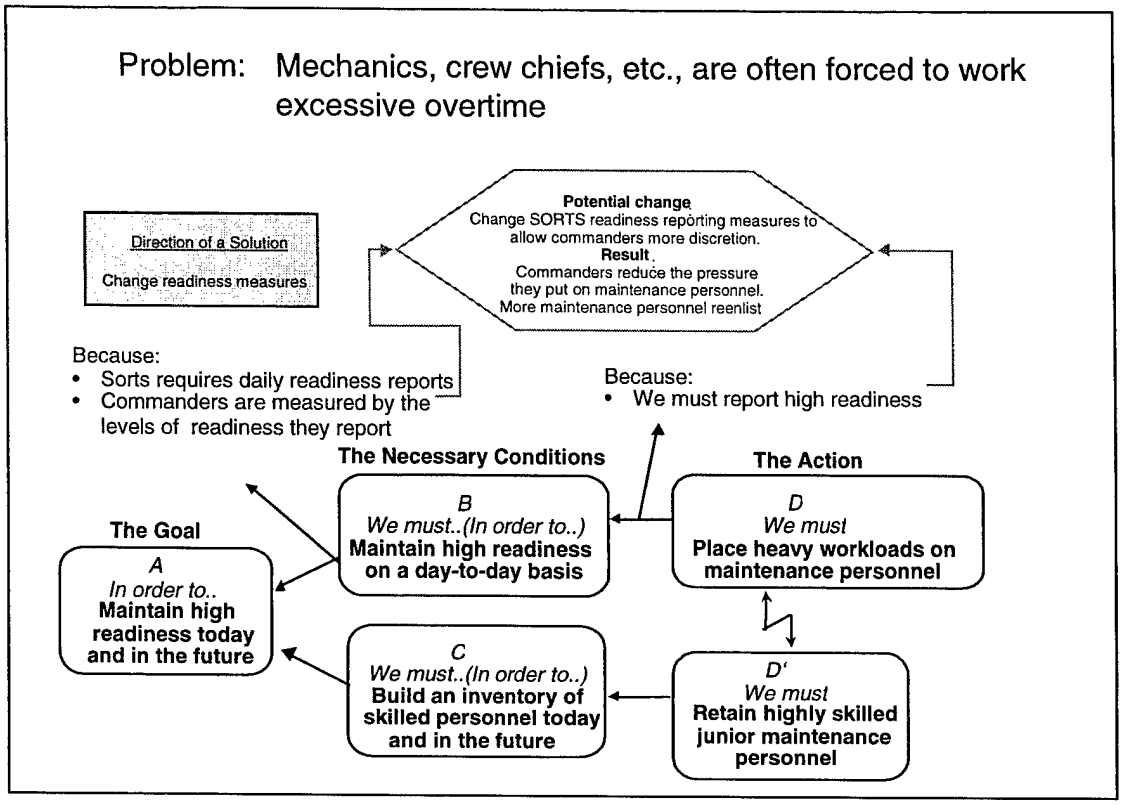


Figure 21. Searching for a Solution to the OPTEMPO Problem

The next step in our search for potential solutions was to reexamine the CRD that reflected the interaction of DEPTEMPO and PERSTEMPO (Figure 22). We had initially determined that the problem, the decline in readiness, was caused by the rotation of many key people upon a unit's return from a training event or a deployment, as in the case the 2d Armored Cavalry Regiment upon its return from Bosnia. We further determined that it was the effect of built-up PERSTEMPO applied at the end of a deployment that caused the problem. We identified the direction of a solution as a need to enhance personnel stability. We identified two assumptions for which changes seemed appropriate. The first, supporting the *A* to *B* connection, we had already identified as being invalid based on modern corporate practices. Here the potential solution was simple: emulate modern corporate human resource management practices, e.g., the Services manage personnel demand, say, by allocating incentives, and the chain of command in the major commands manages the people themselves. Associated with this change in Service management practices would be an effort to give Service members more control over their careers. Without being specific at this point, the idea of giving more control to Service members seems to suggest that Service members would be able to stay in jobs longer but also to apply for other jobs when vacancies arise.

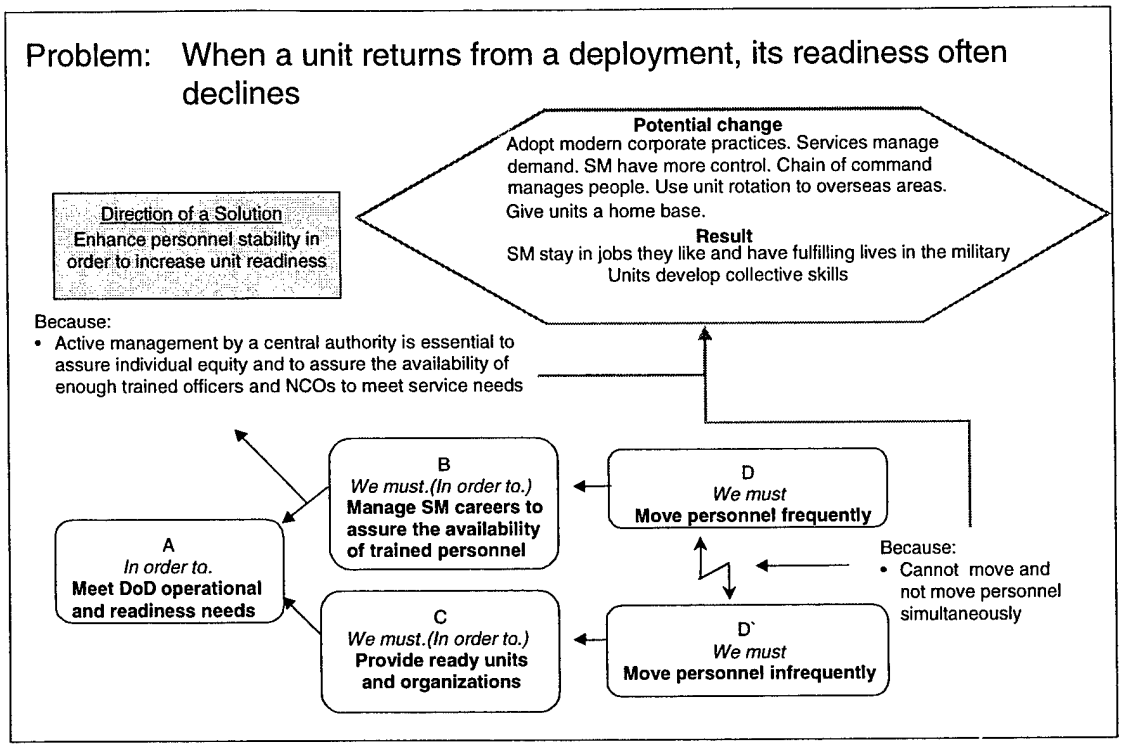


Figure 22. Searching for a Solution to the Readiness Problem

The second assumption supports the *D* to *D'* logical connection and is the same as the assumption in the PERSTEMPO CRD. And it has the same solution—use unit rotation in place of individual rotation. Another concept associated with unit rotation could be giving units a home base from which they deploy on assignment and to which they return. This could allow their families to have more stable lives and, perhaps, their own homes.

We conclude that these changes will lead to happier, more fulfilled Service members and more ready units.

Analysis of the individual's CRD, Figure 23, leads to a conclusion that efforts should be made to enhance a Service member's fulfillment by enhancing the assumptions along the job satisfaction path. The success in meeting recruiting goals in the Marine Corps and in building esprit in specialized units like the Army's 82nd Airborne Division suggests that efforts at enhancing job satisfaction will lead to greater overall satisfaction across the board.

Given that there is no longer a single threat that serves to motivate Service members, one potential change suggested by the *C* to *D'* assumptions is the potential for enhancing Service members' identification with the unit and with their "shipmates" by giving priority to units and by minimizing turbulence or PERSTEMPO. Additional changes that may lead to this result are the same as those we have already identified,

i.e., putting Service members in control of their careers, giving more appropriate responsibilities to Service headquarters and the chain of command, and assigning units to a home base.

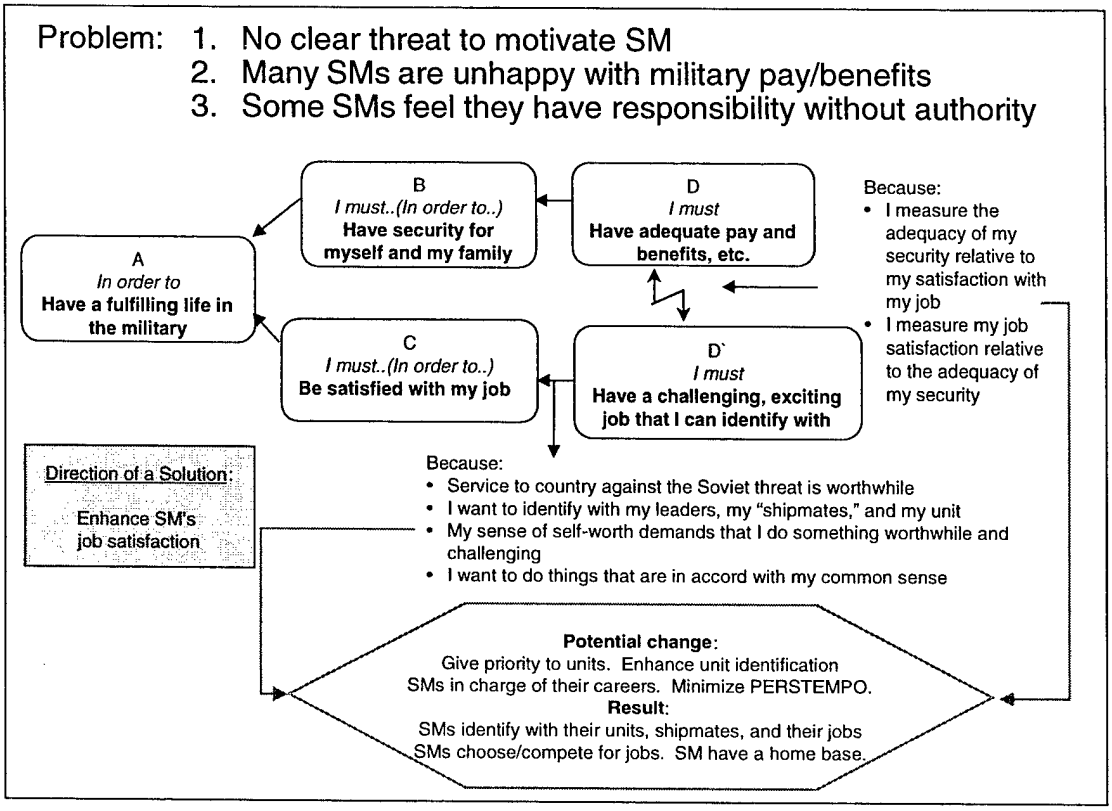


Figure 23. Searching for a Solution to the Self-fulfillment Problem

These changes have the potential for enhancing job satisfaction by allowing Service members to choose or compete for jobs and to have more control over their lives in general. Assigning Service members to a home base may afford their spouses and families more fulfilling lives as well. These changes also allow Service members to identify with their units, their shipmates, and their jobs. Overall, these changes appear to be consistent with suggestions we heard from Service members in our initial research and indicate a potential for significantly enhancing the satisfaction that Service members gain from their lives in the military.

These changes also appear to be consistent with recent findings in the corporate world. For example, an economics conference conducted by the Brookings Institution in Washington, D.C., to ascertain whether American industry could raise productivity by changing the way it pays its employees reached the conclusion that productivity may be boosted more by changing the way workers are treated than by changing the way they are

paid.[37] In line with that finding, Peter F. Drucker, perhaps the most respected management consultant in America, recently concluded that "most of our assumptions about business, technology and organizations are at least 50 years old. They have outlived their time."[38] Drucker went on to identify a number of personnel management assumptions that are no longer valid:

- There is only one right way to manage people.
- People who work for an organization are subordinates expected to do what they are assigned to do and not much else.
- People who work for an organization are dependent on the organization for their livelihood.

He also made a number of suggestions about the management of people that seem to be relevant for military management people as well:

- Employees must be managed as if they were volunteers.
- Many employees are knowledge workers who must be managed as if they are associates, not subordinates.
- Employees need a challenge. They must know and believe in the mission.
- Employees have to be managed as partners whose goals are aligned with the goals of the organization.
- Maximize the performance of people by capitalizing on their strengths and their knowledge rather than by trying to force them into molds.
- As technology spreads around the world, the only competitive advantage the United States can hope to have is the productivity of its knowledge workers.

Examination of the leadership CRD, Figure 24, reveals a number of assumptions already determined to be invalid, e.g., the need for mobilization, equity, and a surplus of command qualified officers. If these assumptions are no longer valid, then the direction of a solution is clear: develop a smaller number of more competent commanders. The potential changes suggested by this idea clearly include longer command times for a smaller number of commanders. Given personnel stability, unit identification, and longer

---

37 Alan S. Blinder, *Paying for Productivity*, The Brookings Institution, Washington, D.C., 1990, p. 13.

38 Peter F. Drucker, Management's New Paradigms, *Forbes Magazine*, October 5, 1998, p. 152.

command times, it appears appropriate to also consider enhancing the role of the chain of command. For example, the chain of command might be allowed to select and promote officers in the chain of command, at least in the early years of their careers.

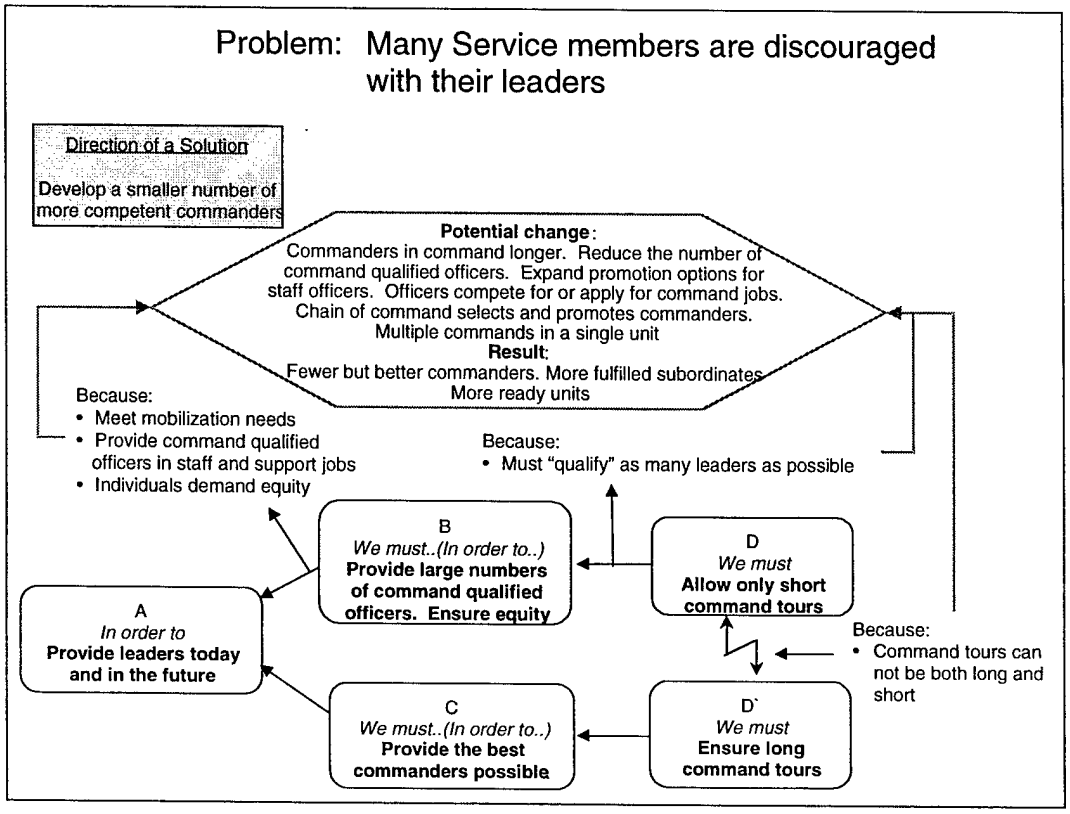


Figure 24. Searching for a Solution to the Leadership Problem

These changes alone would be insufficient, however, because many officers would not have an opportunity to command. Additional changes would be required to provide a satisfying career for all officers. For example, might it be possible for officers to apply for jobs that interest them, including jobs in joint organizations? Given a system for officers to apply for jobs in other units or organizations and for commanders to select the best qualified officers, might it also be reasonable for the Services to allocate promotions to units and organizations as part of its effort at managing personnel demand? As part of the decentralization effort, might it be reasonable to give promotion authority to the chain of command to include CINCs and commanders of other joint organizations?

The *D* to *D'* assumption is not invalid on its face but might be invalidated by requiring officers to exercise command in the same unit. For example, Navy officers might be expected to command only in the same squadron or battle group where they would be known over time and could be held responsible for their actions over time.

Such a change might allow for a larger number of commanders while simultaneously helping to create better commanders and more ready units. It might also enhance the ability of the chain of command to select the most competent commanders.

This review of the original CRDs demonstrates that there are a number of changes in policies, practices, and measures that might be appropriate given the conflict identified in that CRD. A review of the assumptions associated with the core conflict suggests some additional changes that might be appropriate for consideration.

- If it is no longer necessary to prepare for total mobilization that expands the size of the force, it is necessary to prepare for full mobilization of the existing force. A full mobilization with short warning as assumed in the national security strategy requires that both Active and Reserve component units be capable of being brought to high readiness quickly. Units whose commanders and other personnel are relatively stable are more capable of meeting these readiness demands.
- If it is no longer true that a centralized personnel management bureaucracy must provide individuals, the question is, What might replace the current system and how would such a system better meet DoD needs? A number of ideas might be considered. For example, given enhanced unit identification and allocation of greater power to the chain of command, might it be possible for units or regional commands to conduct recruiting and initial training activities? Given greater stability in units and enhanced ability of Service members to manage their own careers, might it be possible for individuals and their chain of command to decide on the timing of schools and job changes? If individuals are truly in control of their careers, should they be able to search out and apply for different jobs in different units and organizations, to including joint organizations? If the role of commanders and their responsibility for their units is to be enhanced, might it be possible to allow commanders to promote and to hire and fire individuals? If the role of the Service is to manage the demand for individuals, might the Service maintain a centralized database and a job referral service that would be accessible by units and individuals?
- If DOPMA requires the Services to manage individuals, might it be possible to change DOPMA?

- If the Services are not required to provide equity to Service members but only equal opportunity, might it be possible to allow Service members to design their own careers and to allow commanders more freedom to promote, hire, and fire?
- If there is concern that stability brings on stagnation and cronyism, might it be possible to design performance measures for units and individuals that will motivate Service members and units to work toward ever higher levels of performance and constant improvements in unit capabilities and readiness?

When situations are very complex, as in the present case, there are seldom any "silver bullets" that will solve the problem with one simple change. Multiple interrelated changes are more likely to be required. Moreover, it is likely that some changes will have potential negative impacts that will require other changes so as to avoid the potential negative impacts.

Finally, given the number of changes likely to be required, it is important to put them together in a comprehensive plan that demonstrates, using cause-effect logic, how the new system will work. The plan must be thoroughly adjusted to the new reality and must include provisions for overcoming every obstacle to its accomplishment that can be identified. Appendix A is designed to show one way these potential solutions might be incorporated into a new system for managing human resources within the Department of Defense.

Figure 25 reviews in very general terms the kinds of changes suggested by the review of the assumptions associated with the core conflict as well as each of the CRDs. While these are major changes, they do not seem unreasonable given our discovery of the extent to which the current personnel system seems to be out of sync with current reality. This list of potential changes makes it clear that there is no silver bullet that can resolve the problems we discovered.

- **Major conceptual changes**
  - Services give first priority to units
  - Services manage personnel demand, not supply, via control of incentives, etc.
  - Chain of command responsible for promotions, hiring, and firing
  - Services allocate promotion authority to CINCs, CSAs, etc.
  - Individuals are in control of their careers
  - DoD establishes a system for job advertising and selection
  - Service members are able to stay in one job or location
  - Services rotate units to overseas locations—day to day and contingencies
  - Units have home bases from which they deploy and to which they return
- **Legal changes**
  - Moderate up or out provisions
  - Moderate joint duty requirements

Figure 25. Summary of Potential Changes

All of these potential solutions appear to offer two simultaneous benefits: 1) giving Service members greater fulfillment by giving them more control of their lives, and 2) enhancing unit readiness by increasing stability of commanders, staff members, and individuals within units. They also begin to provide a sense of actions that human resources managers might take to begin to meet the necessary condition suggested by the 8th QRMC Report.

No report on issues of this magnitude can serve as more than a call for action. Should the sponsors of this research conclude that further action is warranted, future efforts along the line of those suggested here might be undertaken under more direct DoD leadership. The following section provides a recommendation in this regard.

V. HOW TO MAKE THE CHANGE – CONSTRUCTING THE DETAILS OF THE SOLUTION THE TOC WAY

Consistent with TOC techniques, finding a solution to the problems revealed by this analysis calls for a number of specific steps (Figure 26).

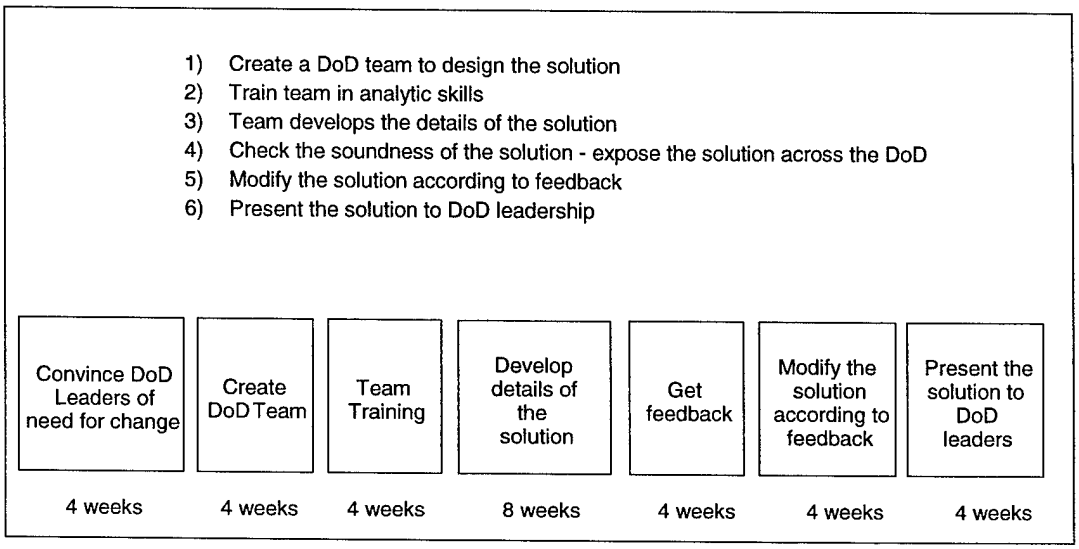


Figure 26. How to Make the Change

The first step is to obtain "buy-in" or agreement from key DoD leaders. In this context, buy-in means that key leaders recognize that the personnel system is based on old assumptions that are no longer valid, that it is out of sync with the current reality, and that it must be changed. At this point the goal is only that DoD leaders acknowledge the need for a change.

The second step is to create a DoD team representing all of the stakeholders, i.e., the Service personnel communities, the Service operations communities, the CINCs, the Joint Staff, and OSD. Members of the team should have a deep understanding of the problems and of the operations of their particular organizations. The team could be supported by IDA and perhaps by experts from other organizations like RAND and CNA who have similar understanding of the problems and the operations of the Services.

Once established, the team must be trained in the analytic techniques used in this study to reach a preliminary answer to the three questions "What to change," "What to change to," and "How to make the change." Given such a team, whose members have understanding or intuition about the problems to be addressed and are trained in the techniques to be applied, the next step is to develop the details of the solution. This

process involves a reappraisal of the study findings to date with a goal of reaching a team consensus on "What to change." Upon reaching a consensus the team must begin to decide for itself "What to change to" and "How to make the change." In these efforts the team will search for a comprehensive solution that most likely will create the desirable effects that the team identifies, while avoiding all the negative consequences that the team members can raise as objections. In the process, team members will raise every objection or problem they can think of and include the resolution of these objections or problems in the overall solution. In this way the team will leave no stone unturned in looking for problems that might be caused by the new system and will include a fix for every problem uncovered. The team will also create a "roadmap" describing how the obstacles can be overcome and the solution implemented.

Once the team has agreed on the details of a solution and the roadmap to implementation, it will expose both widely throughout DoD in search of feedback to include additional objections and problems. After incorporating these fixes into its solution and roadmap, the team will present its proposed solution and roadmap to the DoD leadership.

Appendix A
APPLYING THEORY OF CONSTRAINTS TOOLS

Appendix A
APPLYING THEORY OF CONSTRAINTS TOOLS

This appendix comprises three parts:

1. A "Current Reality Tree"
2. A list of "Undesirable Effects" with their opposite "Desirable Effects"
3. A "Future Reality Tree"

Each component of the appendix describes an important Theory of Constraints (TOC) tool that we have used to search for ways to understand and mitigate the tempo problems facing the Services.

A. THE CURRENT REALITY TREE

Textbook author William Dettmer defines a Current Reality Tree (CRT) as a logical structure designed to depict the state of reality as it currently exists in a given system. It reflects the most probable chain of cause and effect.[1] The CRT establishes a cause and effect relationship between the visible indications of a system's conditions, the problems, and the originating causes that produce them. In this way the CRT links the Core Conflict to each of the problems or "Undesirable Effects" that we identified at the beginning of this study. According to Dettmer, "The CRT is especially useful in a complex system where several factors or forces interact to produce the effects we see around us."[2] This is certainly true as the Services are trying to meet a very complex set of demands and their efforts to meet those demands sometimes cause undesirable effects.

---

1 H. William Dettmer, "Goldratt's Theory of Constraints, A Systems Approach to Continuous Improvement" (Milwaukee, Wisconsin: ASOC Quality Press, 1997), p. 64.

2 Ibid., p. 66.

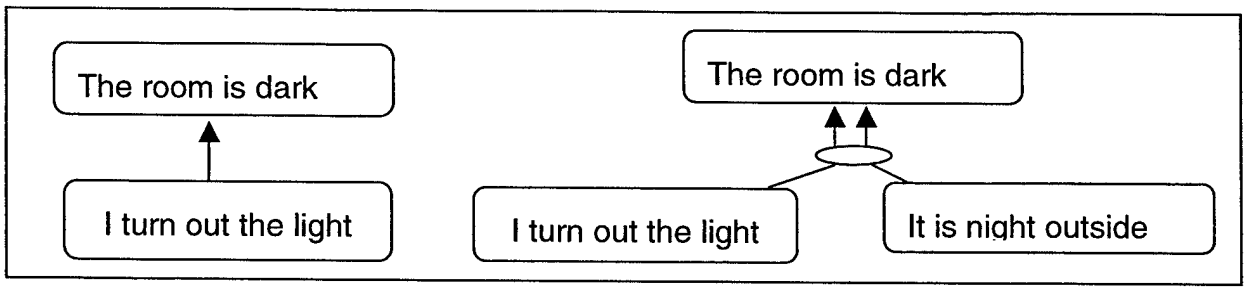


Figure A-1. A Simple Current Reality Tree

Figure A-1 shows two examples of a simple CRT. Each of the round-cornered rectangles, called entities, is either a cause or an effect. In a more complex tree each entity can be both a cause and an effect. The arrows suggest the causality relationship with the tail = the cause and the head = the effect. If a single entity is sufficient to cause the effect, then there is a single arrow between the two entities. If an effect results from multiple causes, then the arrows pass through an ellipse, indicating a dependency relationship.

The left-hand example in Figure A-1 is read as, "If I turn out the light, then the room is dark." This is a sufficient cause-effect relationship if individuals with knowledge and intuition about the situation agree that turning out the light is all that it takes to darken the room. The right-hand example suggests another, more complex, situation. "If I turn out the light and it is night outside, then the room is dark." The reader will be able to think of other causes that might be included to completely define a sufficient cause-effect relationship, e.g., all the other lights are off, there is no moon, etc. In general, TOC practitioners have found that three causes are the maximum number required to define a sufficient cause-effect relationship.

It is entirely appropriate for the reader to question the relationships posited by a CRT. To regularize this process, TOC has identified "Categories of Legitimate Reservations" that any cause-effect relationship must be able to withstand. The reader should apply these tests to all of the logical relationships identified in this study. The Categories of Legitimate Reservation are as follows:

- Clarity - the statements are clear to the reader
- Succinctness – the statements are complete
- Validity - the cause-effect logic makes sense to a reader with knowledge and intuition about the subject matter
- Sufficiency - the effects are unavoidable and irrefutable consequences of the causes
- Completeness - the logic includes all significant, important causes

Figure A-2 shows the basic part of the Current Reality Tree that includes the Core Conflict and its associated goal and necessary conditions. In this figure the Core Conflict (Figure 11 in the main report) is rotated 90 degrees so that the *goal* is at the bottom and the two actions in conflict—manage individuals and manage units—are in the middle of the page. Figure A-2 can be read in the following way to get from the starting conditions to the basic tempo problems identified in our research:

- If (1) the Services are to meet DoD needs today and in the future, and if (2) the Services manage personnel centrally, and if (7) DoD prepares for total mobilization, then (3) it is logical that the Services will seek to provide individuals to meet Service needs.
- If (3) the Services seek to provide individuals to meet Service needs, and if (9) Title 10 requires the Services to manage individuals, and if (10) the Services must provide individual equity, then (12) it is logical that the Services must manage individuals.
- If (12) the Services must manage individuals and if (11) the Services must manage units, and the need to manage individuals conflicts with the need to manage units, then (17) it is logical that the Services tend to shift back and forth between a focus on individuals and a focus on units.
- If (17) the Services tend to shift back and forth between a focus on individuals and a focus on units, and (20) Service members move from job to job and from unit to unit, and (21) units move from mission to mission to meet both old and new demands, then (23) it is logical that Service members who have multiple operational deployments see tempo as negative.

In reality, this cause-effect logic fails, at a minimum, to meet the completeness reservation. In other words, the logical jumps between entity (1) and entity (23) are a bit too big for comfort. Our analysis of the tempo problem in the main paper suggests some additional causes that, for the sake of completeness, should be included in the CRT. Given the complexity of the overall CRT (it covers three pages already) we have refrained from developing a more complete exposition of the overall situation. Should DoD decide to follow the study recommendations and create a team to develop a complete TOC solution to the tempo problems facing the DoD, a first step would be to develop a more comprehensive CRT.

In reviewing all three pages of Figure A-2, the reader will see how each of the problems or undesirable effects can be seen to derive from the Core Conflict.

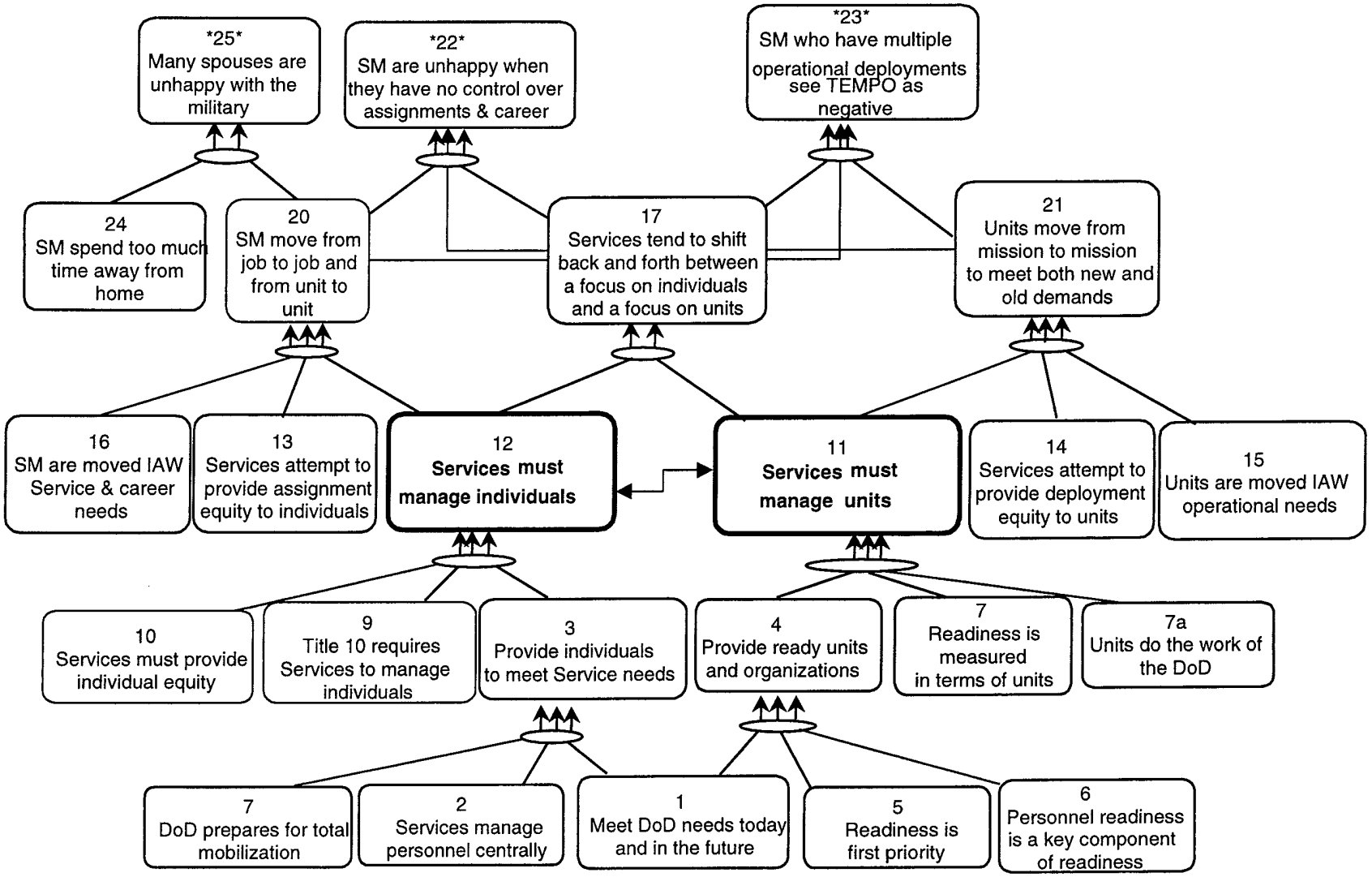


Figure A-2. The Cause and Effect Relationship Between the Core Conflict and the Problems Identified in our Research

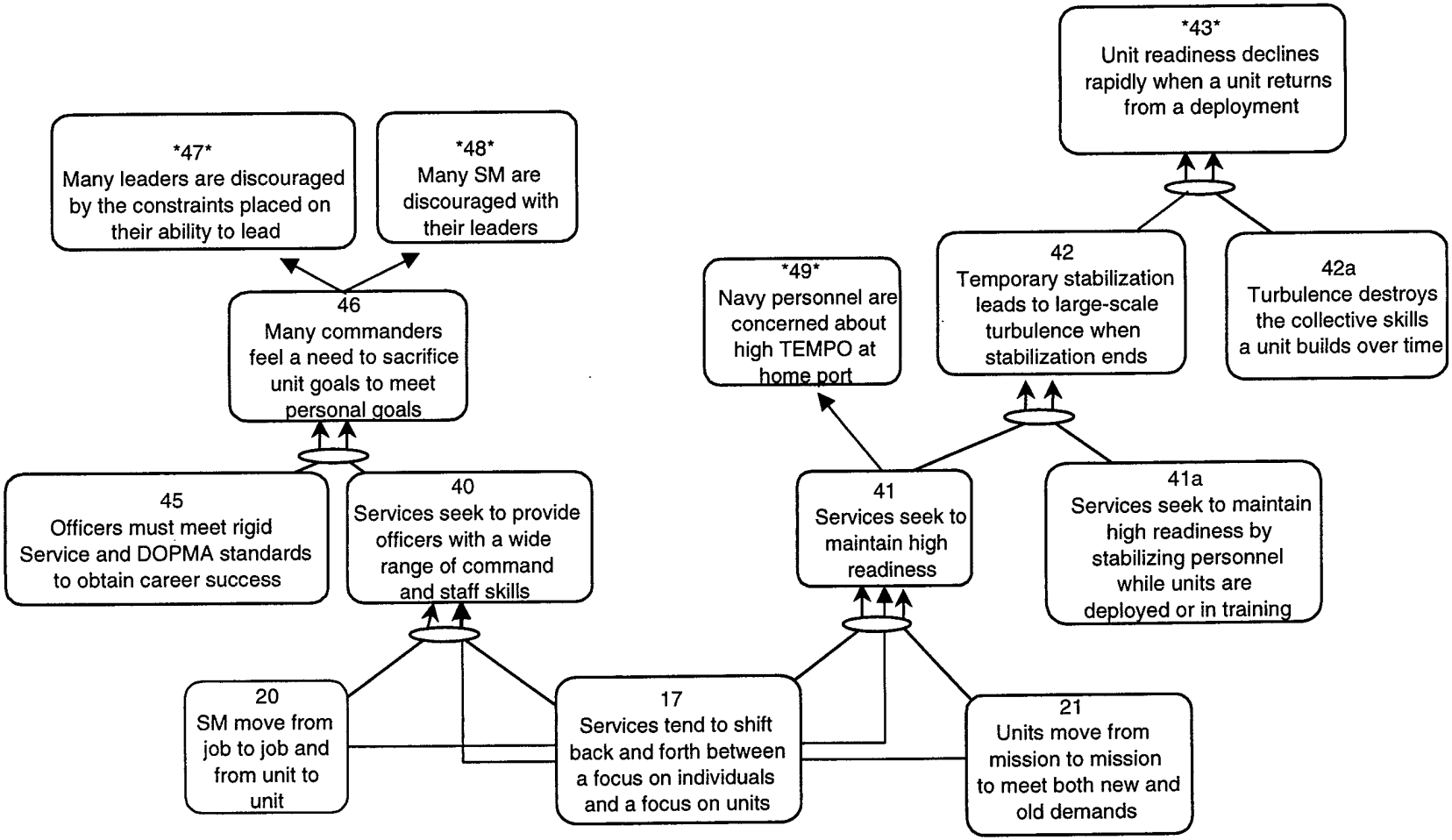


Figure A-2. The Cause and Effect Relationship Between the Core Conflict and the Problems Identified in our Research (con't)

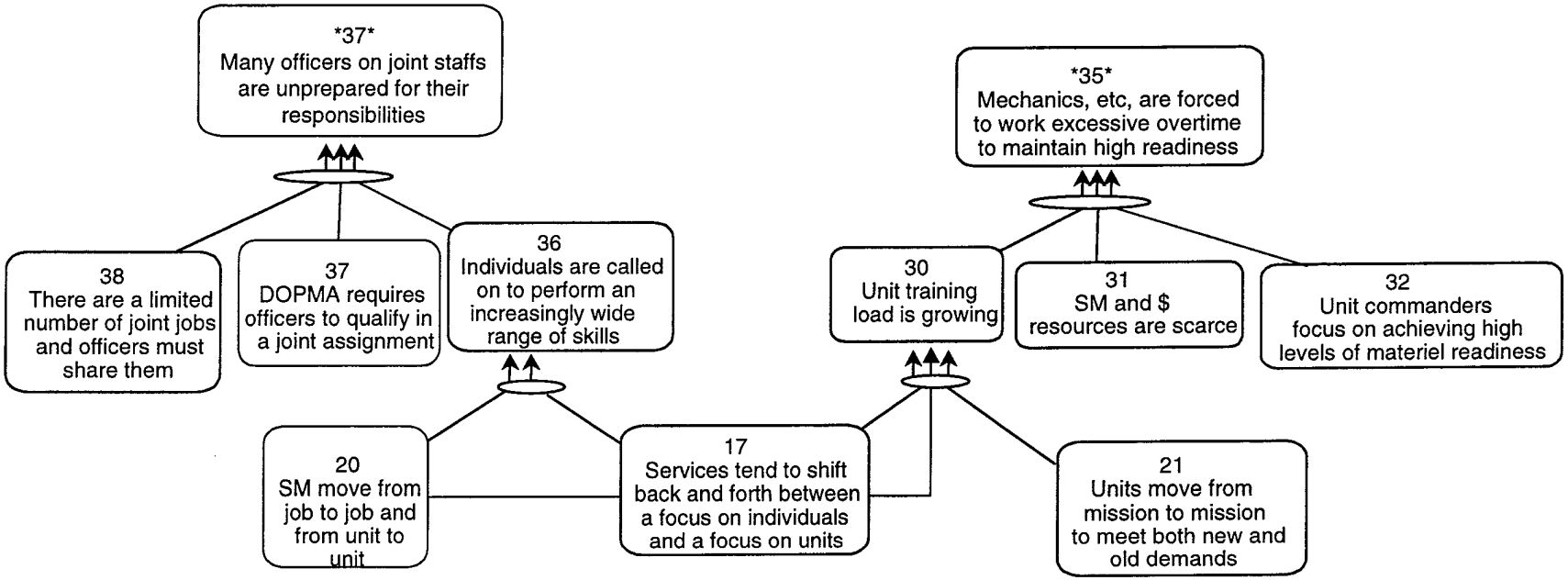


Figure A-2. The Cause and Effect Relationship Between the Core Conflict and the Problems Identified in our Research (con't)

B. TURNING PROBLEMS INTO GOALS, I.E., IDENTIFYING WHAT TO CHANGE TO

Having identified the Core Conflict and linked it to the problems or undesirable effects via the Current Reality Tree, the next step is to identify what we want. We must decide what effects we want the new system to produce. In the simplest terms, what we want is the opposite of the problems. The opposite of an undesirable effect is a desirable effect. Deciding what we want is not so simple as finding the opposite of a problem, however. Figure A-3 shows the results of our preliminary efforts to identify desirable effects, which will become our goals as we decide what to change to. Once again, a DoD team would have to decide for itself what desirable effects it wanted to establish as its goals and, ultimately, the DoD leadership would have to decide what goals it wants a new personnel system to meet.

C. THE FUTURE REALITY TREE

Dettmer defines the Future Reality Tree (FRT) as "a sufficiency-based logic structure designed to reveal how changes to the status quo would affect reality—specifically to produce desired effects. The logic of cause and effect is used to conceptualize a reality that does not yet exist—a model of the future."[3] For instance, given a desirable effect or a goal, what changes to the status quo are necessary to cause that effect? Dettmer says the FRT is intended to—

- Provide a way to test the effectiveness of new ideas before committing resources to implementation
- Determine whether proposed system changes will produce the desired effects without creating devastating new side effects
- Reveal whether and where proposed changes will create new or collateral problems as they solve old problems
- Provide a means of assessing the impacts of localized decisions on the entire system
- Provide a tool for persuading decision-makers to support a proposed course of action

---

3 Ibid., p. 180.

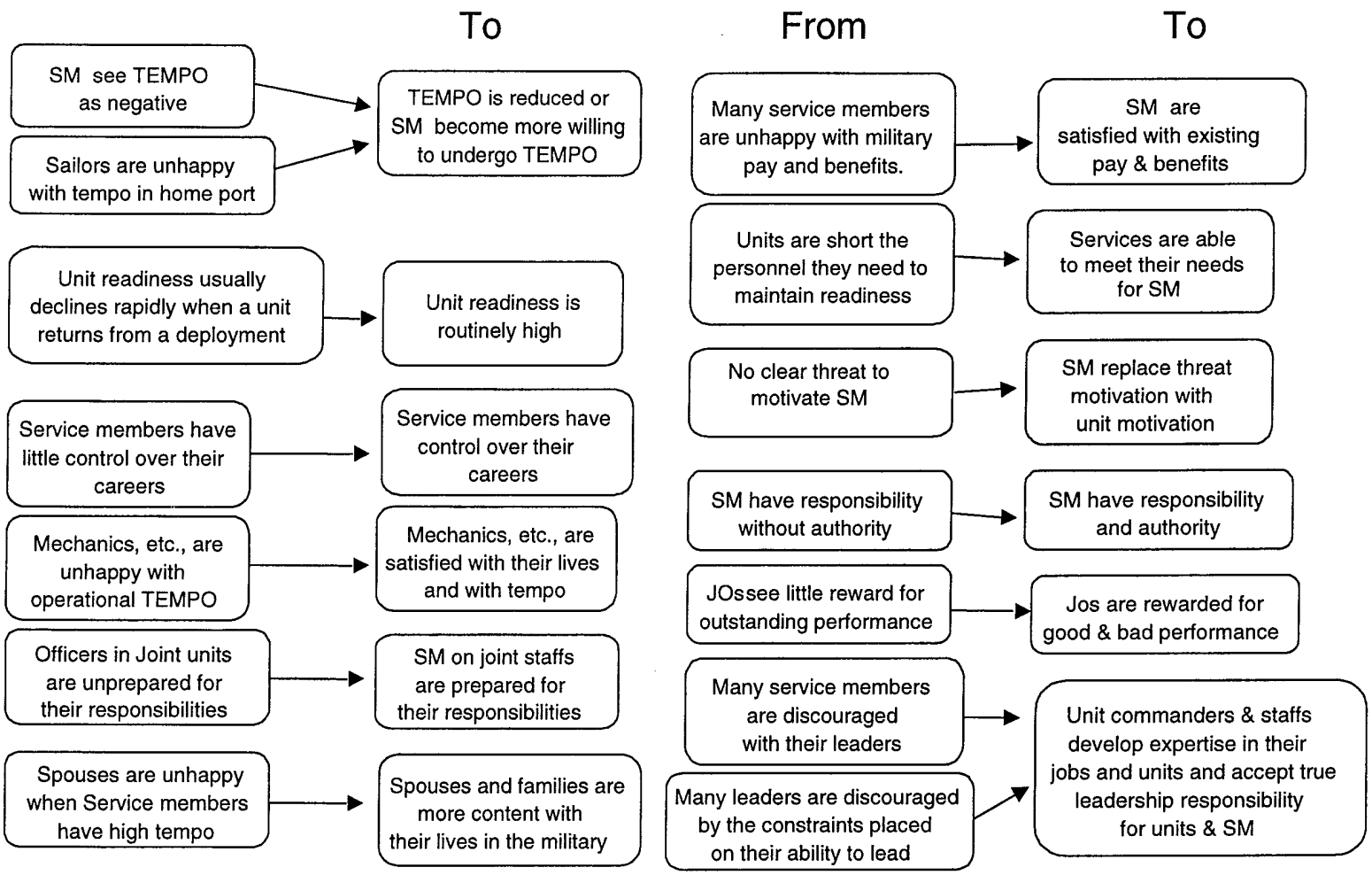


Figure A-3. What to Change to? Problems become Goals. Undesirable Effects become Desirable Effects

- Serve as an initial planning tool for changing the course of the future

One of the FRT's more important contributions is that it provides an opportunity to identify and design ways to avoid potential new undesirable effects. At each point in the process, during the initial construction and each subsequent review, there is a chance that the proposed change will cause an undesirable effect. Identifying the potential undesirable effects and designing around them at the earliest possible stage is critical to designing an executable solution at the least cost.

The FRT in Figure A-4 seeks to describe a system that would accomplish each of the goals or desirable effects identified in Figure A-3. The FRT begins with the status quo, incorporates changes identified during our analysis of each of the Conflict Resolution Diagrams, adds other changes designed to avoid unintended undesirable effects, and ends with the accomplishment of each of the desirable effects we identified earlier.

The FRT is similar to the CRT except that the FRT adds the concepts of changes or "injections" to the tree. In our case these injections are changes in policies, practices, or measures that are under the control of the DoD or that can be changed by changes in the laws that govern the DoD. The injections are found in boxes with square rather than rounded corners. The FRT is read essentially the same way as the CRT. For example, starting from the lower left corner of Figure A-4, one can move from a statement of the status quo to a new reality, i.e., a desirable effect previously identified:

- If (4) units include staffs and TDA units as well as joint/combined staffs (a statement of an assumption), and (2) readiness is first priority (a statement of a current policy), and if (1) the Services give priority to units (a specific change in policy), then (3) it is reasonable to conclude that unit readiness will have priority over individual careers.
- If (3) unit readiness has priority over individual careers, and if (14) Service members build collective skill in units (an effect caused by other injections), and (17a) Service members are allowed to stay in jobs/units for long periods of time, then (21) it is reasonable to conclude that Service members will become unit oriented.

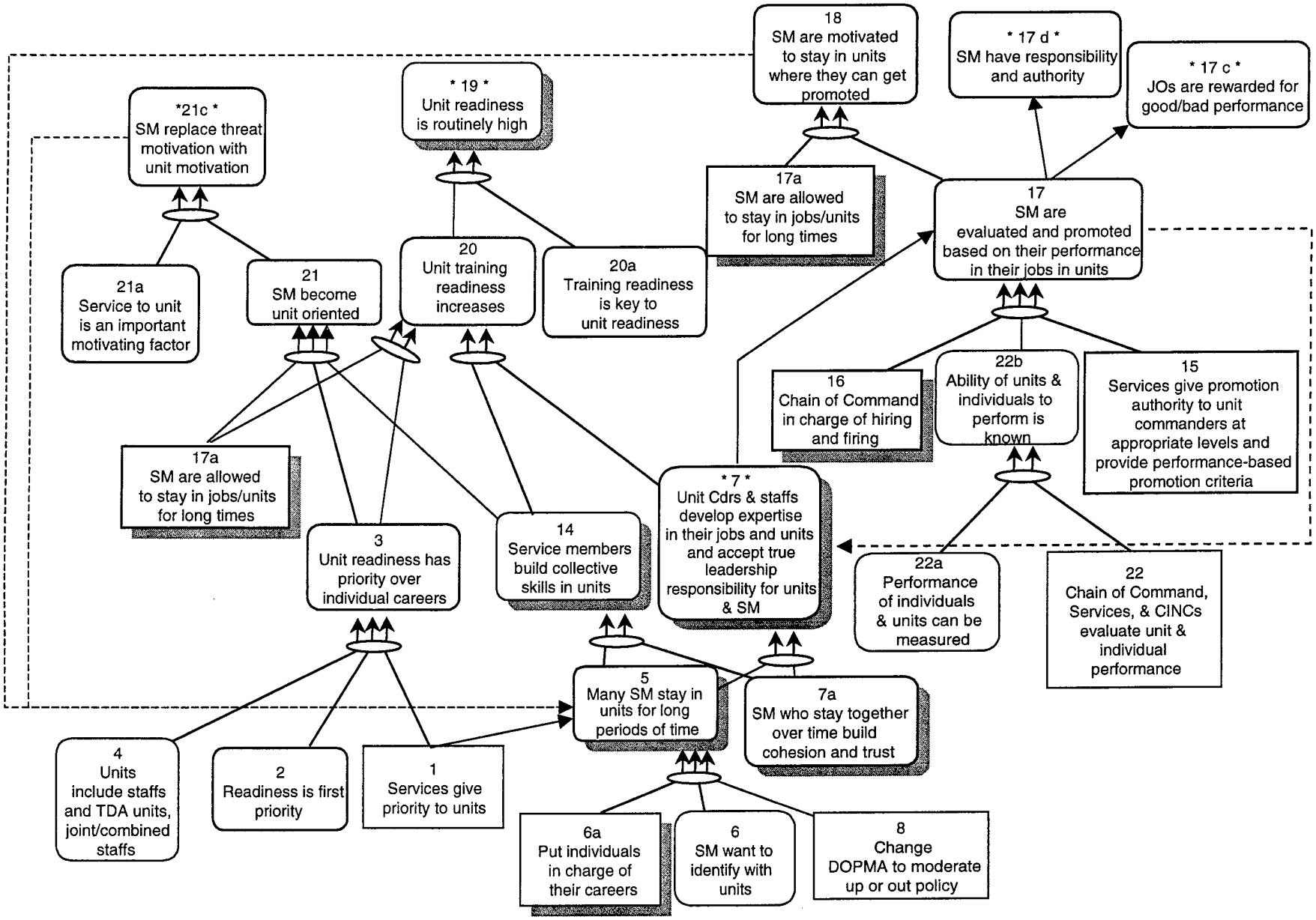


Figure A-4. The Future Reality Tree

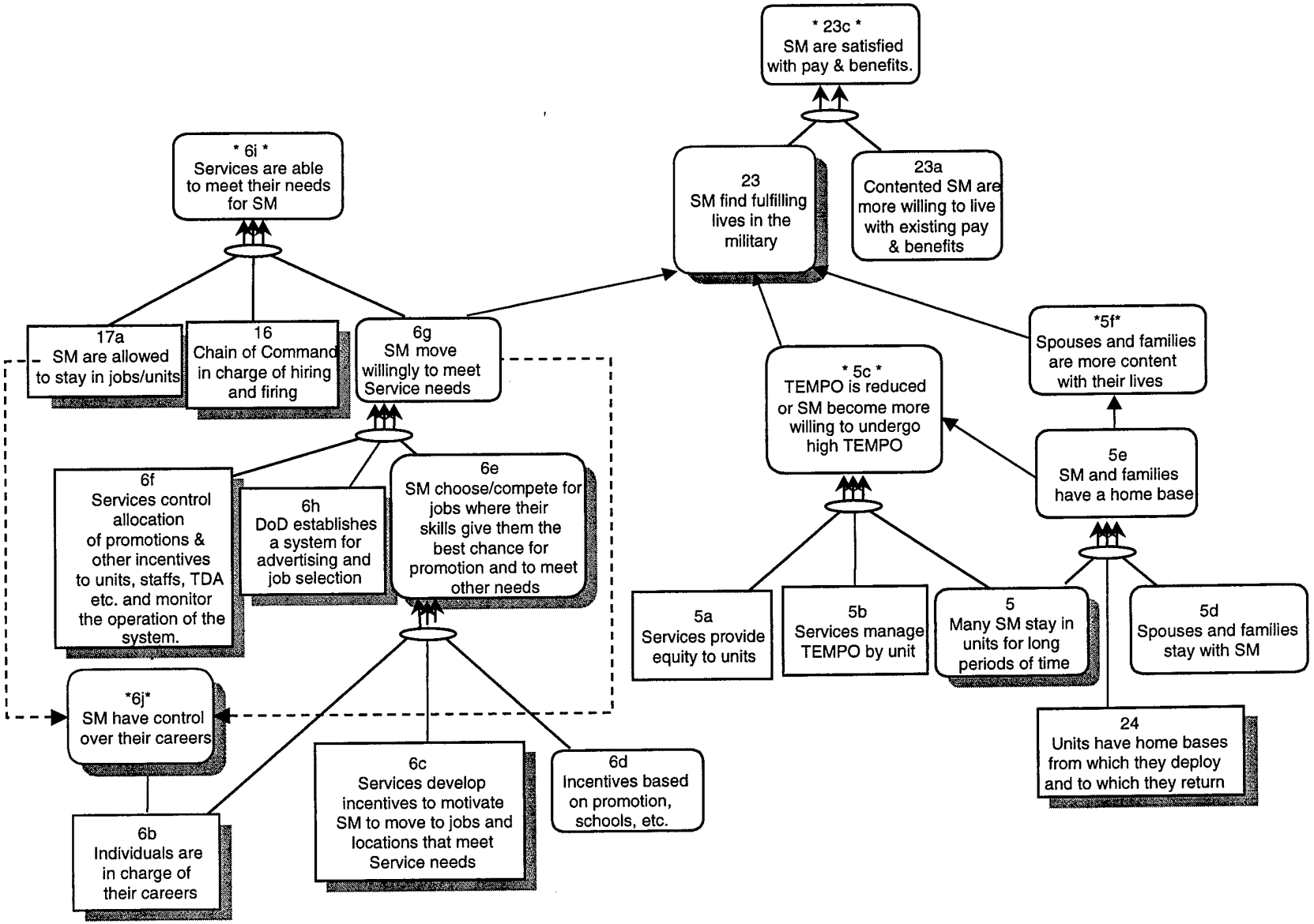
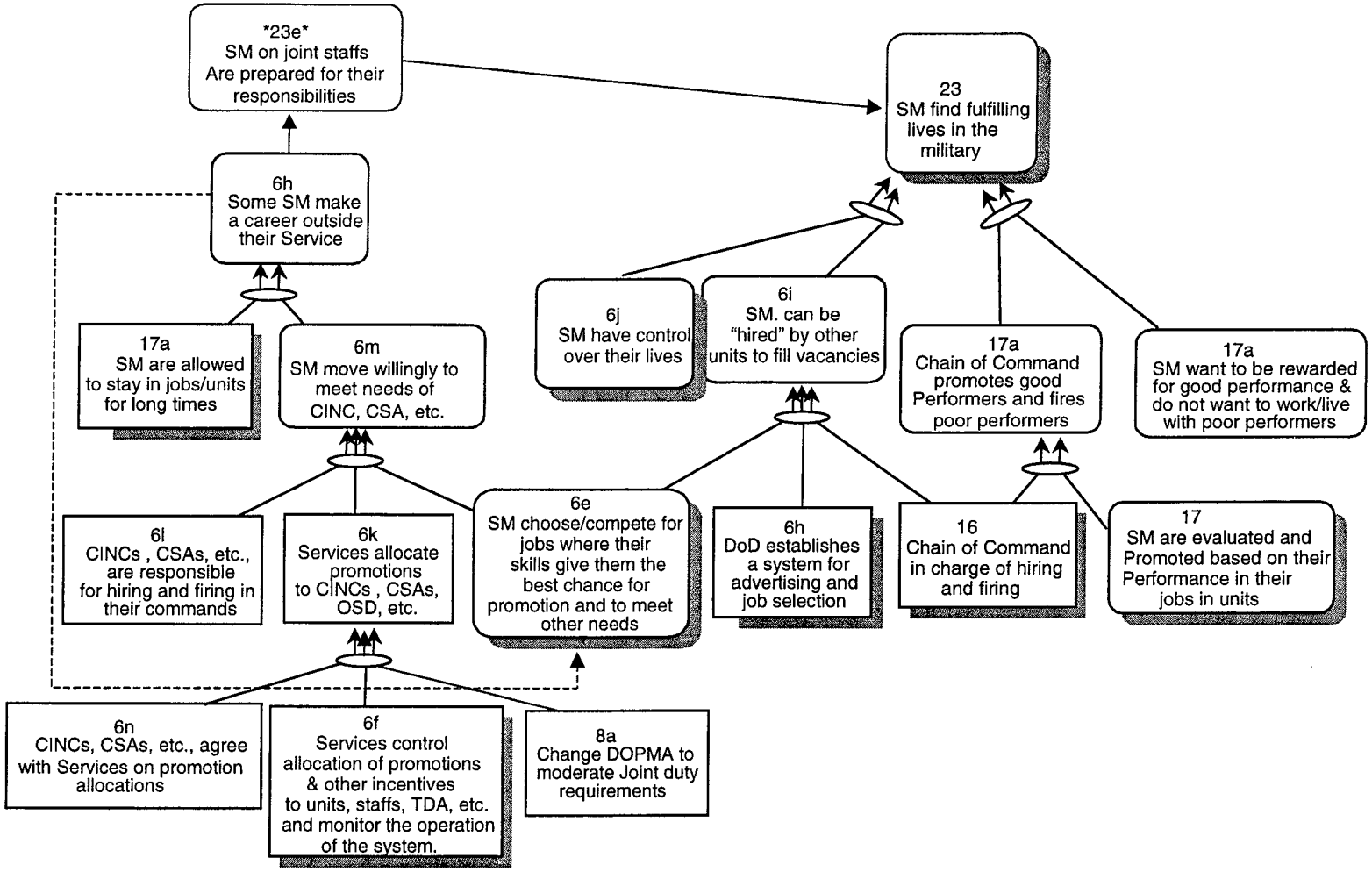


Figure A-4. The Future Reality Tree (Con't)



Note: The use of a shadow on an entity indicates that the entity is used more than once on the FRT.

Figure A-4. The Future Reality Tree (Con't)

- If (21) Service members become unit oriented, and if (21a) service to unit is an important motivating factor, then (21c) it is reasonable to conclude that Service members will replace threat motivation with unit motivation.

It is possible to move through the FRT in this manner from bottom to top to reach each of the desirable effects that we specified earlier. In reaching these goals when starting from the status quo we identified a number of changes in policies, practices, and measures that seemed necessary given cause-effect logic. Figure A-5 lists those changes. Once again, should DoD create a team to conduct a TOC analysis of the tempo problem, the team would come up with its own solution that would likely be quite different from the solutions we developed in this study.

1
Services give priority to units

5a
Services provide equity to units

5b
Services manage TEMPO by unit

6a
Put individuals in charge of their careers

6c
Services develop incentives to motivate SM to move to jobs and locations that meet Service needs

6f
Services control allocation of promotions & other incentives to units, staffs, TDA, etc., and monitor the operation of the system.

6h
DoD establishes a system for advertising and job selection

6k
Services allocate promotions to CINCs , CSAs, OSD, etc.

6l
CINCs , CSAs, etc., are responsible for hiring and firing in their commands

6n
CINCs, CSAs, etc., agree with Services on promotion allocations

8
Change DOPMA to moderate up or out policy

8a
Change DOPMA to moderate Joint duty requirements

15
Services give promotion authority to unit commanders at appropriate levels and provide performance based promotion criteria

16
Chain of Command in charge of hiring and firing

17a
SM are allowed to stay in jobs/units for long times

22
Chain of Command, Services, & CINCs evaluate unit & individual performance

24
Units have home bases from which they deploy and to which they return

25
MS move units not individuals to meet day to day and contingency projection needs

Figure A-5. Summary of Potential Changes

Appendix B
ADDITIONAL ARMY DATA

Appendix B
ADDITIONAL ARMY DATA

Some time after completing our research at Army and Air Force bases, we discovered that the Army had conducted a detailed study of sexual harassment in its ranks. Just as the IDA team, while investigating tempo-related problems, had found a number of other problems, the Senior Review Panel, while investigating sexual harassment problems, found a number of other problems. Many of the Army-documented problems are the same as those we found and are presented here to reinforce those findings we identified as "other problems." The reader should note the differences between the reports of junior and senior officer and enlisted personnel. Beyond this introduction, this appendix is wholly excerpted from *The Secretary of the Army's Senior Review Panel on Sexual Harassment* (Part III, Volume II, P. 54ff). It does not include extracts regarding the panel's findings on sexual harassment, as those findings are not related to the IDA tempo study. The Army report is available on the internet at www.rmd.belvoir.army.mil/rmda/

MILITARY FOCUS GROUPS

Subjects

A total of 487 military focus group discussions were conducted with 5,887 soldiers. Groups were conducted with soldiers selected at random at each location the Panel visited. Groups were formed based on rank and gender. Junior Enlisted (E4 and below), Junior NCOs (E5 and E6), Senior NCOs (E7 and above), Company Grade Officers (Captains and below), and Field Grade Officers (Majors and above) were the rank groupings used. All male and all female groups were conducted, with same gender facilitators and note takers. In some remote locations, mixed gender facilitators and note takers were used due to the small number of staff that visited those locations. There were no differences in the comment categories most frequently mentioned for these groups, so they have been included in this overall analysis.

Summary of Results

♦ *The most satisfying aspects of an Army career involved interpersonal interaction and the job itself. The most dissatisfying aspects of an Army career involved leadership and the impact of downsizing.*

When asked about the most satisfying aspects of their career in the Army, different assignments, and the people they had worked with, the most frequently mentioned comments were: the job itself; travel opportunities; sense of accomplishment; and opportunity for leadership. For example, one soldier remarked that the most satisfying aspect of the Army was the "ability to make a difference, even at a small level." Another soldier mentioned that it was "the challenge, new jobs and new positions" that was exciting. The interpersonal aspects of the Army were cited by many as a positive. For example, one soldier commented on "the comradeship- [and how] it is unique in the military and you don't find it anywhere else." Several comments from focus groups indicated that "the people [and] quality of the solders and NCO's" made their career in the Army satisfying.

With regard to dissatisfying aspects of their Army career, frequently mentioned comments from focus groups indicated poor leadership, lack of benefits, unfair treatment, and downsizing. Comments indicated that soldiers perceived leaders as being "afraid to make decision[s] because they're afraid of rank" and "reluctant to take care of soldiers below them." A common complaint was that "leaders are not visible." Another area of dissatisfaction revolved around the effects of downsizing on troops and available benefits. Describing the impact of downsizing, one of the comments from a focus group stated that "[it] has led to back stabbing and going back to a high school mentality." In addition to creating a fiercely competitive environment, several comments from focus groups indicated that there has been an overall "loss of respect for the institution as a result of the drawdown." Downsizing has reduced available resources. A soldier in a focus group felt that "if you're dedicated to the Army, the Army should be dedicated to you...benefits are dwindling." Eroding family medical and dental benefits was a common concern voiced in many focus groups.

♦ *When assessing whether they had gotten a fair deal in their promotions, senior officers' comments were largely positive. Other rank groups' comments indicated that they believed the system was broken.*

When asked to reflect on their promotions and whether or not they "have gotten a fair deal," senior officers' comments were more positive than other rank groups. Among senior officers, the sentiment was that the system was effective. In other rank groups there was a common belief that the system was broken and "based on who you know." They felt that the system was unfair, laden with preferential treatment for certain populations and based too much on civilian education credits. Soldiers' concerns regarding quotas were exemplified by one soldier's statement that "I'm not getting promoted and I'm told that there are race and sexual quotas." The emphasis on education was particularly worrisome for those who were "always deployed overseas [and did] not have enough opportunity to go to school." Across all ranks many felt that the system had to be worked to get the jobs needed for promotion. One soldier poignantly stated that "it gets to the point to where you have to do things almost to the point of back stabbing to get ahead." Soldiers in several focus groups commented that "you should be told by the DA board why you did not get promoted."

♦ *When assessing whether they had gotten a fair deal in getting assignments that were good for their career about half felt they had. Most soldiers indicated that branch managers were the key to receiving good assignments.*

Reflecting on their assignments, about half felt that they received assignments that were good for their career. This was most frequently attributed to managing their own career and staying in close contact with the branch manager. One soldier commented "I've gotten everywhere I wanted to go, but you have to work the system." Another soldier remarked that "calling DA helps."

Soldiers who felt they had not received assignments that were good for their careers often mentioned that they had problems with their branch manager. For example one soldier stated that "promotion and assignments has a vicious cut throat cycle. You have to get to be buddies with [the] branch manager." A large number of soldiers commented on how receiving career enhancing assignments depended on who you know. This was exemplified by one group's discussion of the "good old boy network."

♦ *Generally, soldiers reported getting jobs that were good for their career. However, soldiers who were not working in their MOS felt that they were not receiving career enhancing job positions.*

Most comments indicated that soldiers have gotten jobs in their units that were good for their career; that is, if they were working in their MOS. Those that have been

working in their MOS found "assignments and job positions are not a problem." Some soldiers commented that they "can't get jobs that are needed for promotion." An example would be receiving promotions and career enhancing positions. Soldiers also commented that getting jobs that were good for their career depended on who you knew. Another frequently mentioned reason for not receiving needed jobs was not working in their MOS. One soldier stated, "I've worked in my MOS six months in the last five years."

Some female soldiers felt that they did not receive the same consideration for jobs as men. One woman explained, "there is no level playing field in being selected for jobs. Most women are not considered the first choice for a tough job." A few women indicated that they had not received a job because of being women. For example, "my senior rater did not like women in the Army and stated he would do his best to get them out."

♦ *The majority of enlisted and NCOs comments indicated that they did not think that people in the unit treated each other with dignity and respect.*

More female comments than male comments indicated that soldiers were not being treated with respect and courtesy. Comments from enlisted soldiers were more negative than those from officers. Enlisted women were the most negative and male field grade officers the most positive. Several comments focused on the lack of respect between officers and enlisted. For example, "respect goes both ways, officers here always demand respect but do not give it." Another soldier explained, "a lot of officers and senior NCOs are stepping on subordinates to get ahead."

♦ *Most comments by enlisted soldiers and junior officers indicated that their leaders did not maintain fair standards.*

Overall, comments from enlisted soldiers indicated that they did not believe that leaders maintained fair standards. Field grade officers were largely more positive in their comments. Double standards among officer-enlisted; senior enlisted-junior enlisted and male-female were the most frequently mentioned lack of fair standards. There was a general sentiment that "rules apply to 'us' and not to 'them.'" For example one soldier stated, "My commander always picks males over females; [there are] no females in leadership" Another stated that "some men and senior officers have a different standard." Several other comments addressed cliques or "favorites" receiving special treatment. Some references were made to the type of standards in the unit. One officer explained that "in order to maintain fair standards, you have to have standards." Going even

further, another officer continued, "if you have a hard core standard, people adhere to it. If you have a soft standard, people adhere to that."

MILITARY LEADER INTERVIEWS

Subjects

Interviews were conducted with male and female military leaders in a variety of positions such as Chaplains, Inspector Generals, Commanders, First Sergeants, and Sergeants Major selected at random from sample installations. A total of 612 interviews were conducted. Due to the small number of females in some of the positions, the results are presented with males and females combined.

Summary of Results

♦ *Leaders reported good climate and facilities as positive features of their installation while downsizing and poor location were negative features.*

When asked about the positive and negative aspects of life at their post location, leaders commented that the following four were the most positive aspects. The most positive aspect cited was good command climate. An example of this was, "Good atmosphere, respect and dignity are preached within the company." The second most positive aspect was good post location and the outside community. One leader said, "Pretty post, good community involvement (civilian, military activity). NCO, soldier, volunteer of month gets awards from community." Good facilities and activities were also mentioned. For example, "Clean area and nice facilities. The post support are very helpful." The fourth positive aspect was that leaders viewed their jobs as a positive mission and an enjoyable job overall. As one leader stated, "It's an honor to be in leadership environment and be a first sergeant (1SG)."

The most negative aspect mentioned by leaders were the issues surrounding the downsizing such as the lack of resources and personnel shortages. One of the comments mentioned by a leader was that there are "Not enough people to do the mission. Training has been affected due to the downsizing." Another negative aspect was the poor services, facilities, and housing. Most of the comments focused on the housing situation, "Hard to find housing that is suitable." Some leaders also commented that their post was in a poor location and the outside location was rather lacking in things to do. For example, "Have to drive 1 hour to get anywhere" and "Nothing to do here after hours." These examples

not only apply to the leaders, but their family members as well. The fourth negative comment mentioned was the high operations tempo and the negative aspects of deployment. This comment ties in with the downsizing issues as well. As one leader put it, "Operations tempo (OPTEMPO) is going nuts - nothing being done to slow it down."

♦ *Thoughts on whether or not leaders duty positions were viewed as enjoyable or frustrating.*

Leaders were asked to think about their current duty position, and without respect to its career implications, would they say it is enjoyable or frustrating. The most frequently mentioned comment made by leaders was that they enjoyed working with the soldiers. As one leader said, "It's like being a parent - when my soldiers do well, it's exhilarating. When they do poorly, it's depressing." Comments were also made about the job being enjoyable in general, "Enjoyable - no two days are the same." Another enjoyable aspect of their job included training soldiers and developing them professionally. For example, one of the leaders said, "Most rewarding seeing soldiers who first come in with discipline problems, then turn around and graduate." And fourth, leaders view their jobs as enjoyable because they feel like they are making a difference and having an impact on their soldiers. A leader summed up this by saying that the job is "rewarding because I can have a positive impact on others. Strong believer in spending time with troops."

The most frustrating thing about their jobs mentioned was the lack of resources/money. As one leader put it, "I have a lot of confidence in people who work for me, but I would hate to go to war because I don't think we have the resources." Another frustrating aspect of the leader's job included the lack of personnel which also ties in with lack of resources. A leader commented that, his "staff has been cut by 20% over the past year. [I] fear that experienced personnel are going to go faster than we can replace them." There were also quite a few general comments made about the job being frustrating in general. For example, "the job is more frustrating than enjoyable." The fourth most frequently mentioned comment made by leaders concerning frustration were the problems with and lack of support from the chain of command. An example given of the lack of support from the chain of command was, "Part [of the frustration] is when you try to put a soldier out of the Army because of discipline problem, but battalion commander won't let you - does not support your judgment call."

REPORT DOCUMENTATION PAGE	Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22203-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	October 1999	

4. TITLE AND SUBTITLE	5. FUNDING NUMBERS
Reducing the Impact of Tempo	DASW01 98 C0067 BE-6-1544
6. AUTHOR(s) John C. F. Tillson	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Institute for Defense Analyses 1801 N. Beauregard Street Alexandria, VA 22311	8. PERFORMING ORGANIZATION REPORT NUMBER IDA Paper P-3508
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Mr. Joseph Angello Director, Readiness Programming and Assessment The Pentagon, Room 3D819 Washington, D.C. 20301	10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT	12b. DISTRIBUTION CODE
Approved for public release; distribution unlimited.	

13. ABSTRACT (Maximum 200 words)

The demands of the new, post-Cold War National Security Strategy appear to have led to a higher tempo of operations for U.S. forces. The higher tempo is widely believed to be having a negative effect on the men and women of the U.S. Armed Forces. The Institute for Defense Analyses conducted a study to identify tempo-related problems and alternative approaches to resolving them. This analysis found that the core conflict, or central cause, of tempo problems is the Service need to both manage individuals and manage units. The analysis also identified a number of assumptions—all associated with the operations of the current personnel system—that are no longer valid. The analysis concluded that major changes need to be made in the personnel systems throughout the DoD and identified a number of potential changes.

14. SUBJECT TERMS	15. NUMBER OF PAGES
Tempo, optempo, perstempo, personnel system, DOPMA, mobilization, OPMS, leadership	98
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UL