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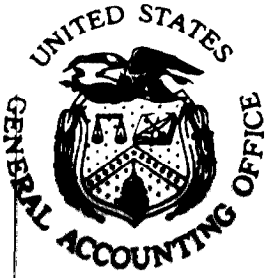
STUDY BY THE STAFF OF THE U.S.

General Accounting Office

Military Readiness, Mobilization Planning, And Civil Preparedness: Issues For Planning

The security of the United States and the safety of its citizens are the Nation's primary and most vital interests. The security, integrity, and well being of our allies are critical to U.S. security. To maintain the freedom and to protect the freedom of allies, the United States must be prepared to successfully overcome potential military challenges to its worldwide interests. The essential elements in preparedness involve developing workable contingency plans and maintaining required forces, material, and equipment at optimum levels of readiness.

This study examines current and emerging issues relating to contingency planning and readiness. It emphasizes major problems and concerns and congressional interest and needs. The study also represents the perspective GAO is using to organize its audit efforts.



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FOREWORD

The security of the United States and the safety of its citizens are the Nation's primary and most vital interests. The security, integrity, and well being of our allies are critical to U.S. security. To maintain the freedom and to protect the freedom of allies, the United States must be prepared to successfully overcome potential military challenges to its worldwide interests. The essential elements in preparedness involve developing workable contingency plans and maintaining required forces, material, and equipment at optimum levels of readiness.

However, we live in a society that limits the resources that can be devoted to defense. Therefore, the United States must have a basic strategic concept with an appropriate complement of workable contingency plans that recognizes U.S. interests and resource constraints. Further, because resources are limited, they must be used effectively and economically in developing and maintaining the desired readiness levels.

DOD is responsible for developing and maintaining U.S. military forces and materiel at optimum numbers and readiness levels, and for developing plans for successfully mobilizing, deploying and sustaining the forces, to assure a rapid, effective response to military threats against the United States.

GAO's responsibilities are for examining the adequacy of Defense forces' readiness and contingency planning, identifying and recommending ways to correct any deficiencies found, and for reporting its findings and recommendations to DOD and the Congress. Over the years, GAO's reviews of military preparedness/ readiness issues have addressed problems involving the following key elements:

--Personnel readiness.

--Major weapon systems acquisition.

--Contingency and mobilization planning.

--Force readiness and readiness reporting systems.

--Mobility of forces, equipment, and supplies.

--Command, control, communications, and intelligence.

--Fielded equipment readiness.

--Survivability of installations and logistics facilities.

--Industrial base capability.

--Civil preparedness.

Military preparedness is an objective that can be met only if all of these diverse yet interdependent elements that comprise the total system can function satisfactorily. One cannot argue that one element is more important than another since serious degradation in one will cause the system to be so weakened that it can no longer accomplish its mission.

The Comptroller General has assigned to the Procurement, Logistics, and Readiness Division (PLRD) primary audit responsibility for GAO's reviews of military preparedness/ readiness issues involving seven of the above ten key military readiness elements. This study is based on PLRD's audit plans for work in these seven assigned military readiness, mobilization planning, and civil preparedness areas. As discussed below, this document does not include audit plans for reviews involving three key elements assigned to other GAO divisions: (1) personnel readiness, (2) major weapon systems acquisition, and (3) command, control, and commuicatios.

Audits involving primarily military personnel readiness issues such as recruiting and retention, training and utilization, personnel mobilization, military personnel support, and military compensation, are assigned to GAO's Federal Personnel and Compenation Division. Their audit efforts for personnel readiness issues are included in a separate study entitled "Management And Compensation Of Military And Civilian Federal Work Forces: Issues For Planning" (FPCD-81-26, January 2, 1981).

GAO's new Mission Analysis and System Acquisitions Division is responsible for audits in the major weapon system acquisition element and the command, control, and communications elements.

On the basis of its work, GAO believes that certain issues need particular attention. This study is organized to highlight those issues PLRD believes deserve the greatest emphasis during the next 1-1/2 years to meet congressional concerns and to help resolve major readiness problems involving those key elements assigned to PLRD.

Information on this study and our audit plans can be obtained from Paul Math, Senior Group Director, Readiness Subdivision on (202) 275-3697.

Donald J. Horan

Director
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C O N T E N T S

CHAPTER 1

MILITARY READINESS, MOBILIZATION PLANNING, AND CIVIL PREPAREDNESS

INTRODUCTION

The United States is by most measures the strongest Nation in the World. The U.S. enjoys superior economic power, political stability, technological capability, and individual freedoms. To maintain its freedom and protect the freedom of its allies, the U.S. must be prepared to overcome potential military challenges to its worldwide interests.

The purpose of the Nation's military forces is to preserve the peace and security and provide for the defense of the country. Their most important goal in achieving this purpose is to deter war and, should deterrence fail, to see to it that the U.S. survives as a free and viable nation. The U.S. strategic and conventional forces are developed and maintained to meet these goals. For the most part, the strategic forces are designed to deter nuclear attack by having the capability to sustain a first strike and still deliver unacceptable retaliation by projecting destructive forces--primarily nuclear--over long distances from bases in the U.S. or from sea-based platforms, i.e., nuclear submarines. The conventional forces maintain forward defenses overseas. Critical to this concept is the ability to maintain a line of communication from the continental United States to supply and resupply the overseas forces and to reinforce them quickly with additional ready units and equipment.

Thus, military preparedness and the ability to mobilize U.S. military forces and industrial capability in the defense of the Nation and its interests are matters of vital national concern. Although military preparedness is not the only factor affecting the security of the nation--matters such as the strength of the U.S. economy, the U.S. political cohesiveness, the U.S. technological capacity, the U.S. national character, and the U.S. credibility as an international power, all play a prominent role--it is an important, and perhaps paramount, element.

Maintaining the desired levels of ready forces, equipment, material, and facilities that will insure successful implementation of mobilization plans is expensive. The DOD budget request for fiscal year 1981 was $158.7 billion. About $59 billion of this was for logistics functions that support U.S. military preparedness. However, DOD's budget

is not the total cost of preparedness. Other agencies such as the State Department, General Services Administration, and the Department of Health and Human Services also have functions and related expenses that support national preparedness goals.

Military readiness is a many faceted problem and should be examined from a number of perspectives. However, GAO believes that the key elements in achieving and maintaining a high level of national preparedness are:

--Workable contingency plans that, when implemented, will achieve a successful outcome. (Chapter 2)

--An industrial base that can rapidly respond to the need for increased levels of wartime production. (Chapter 7)

--Readiness reporting systems which accurately reflect the readiness status at time of deployment. (Chapter 3)

--Transportation capability that provides for rapid deployment of required combat forces and materials to contingency areas. (Chapter 4)

--Military units that are maintained in a high state of readiness to carry out assigned missions. (Chapter 5)

--Optimum levels of civil preparedness that assure national survival and recovery from a nuclear attack. (Chapter 9)

--Adequate security planning and capability that will assure military, key industrial, and other economic facilities are protected from sabotage and conventional and unconventional attack. (Chapter 8)

--Effective NATO coalition defense planning to assure the successful outcome of any coalition defense efforts the U.S. may get involved in. (Chapter 6)

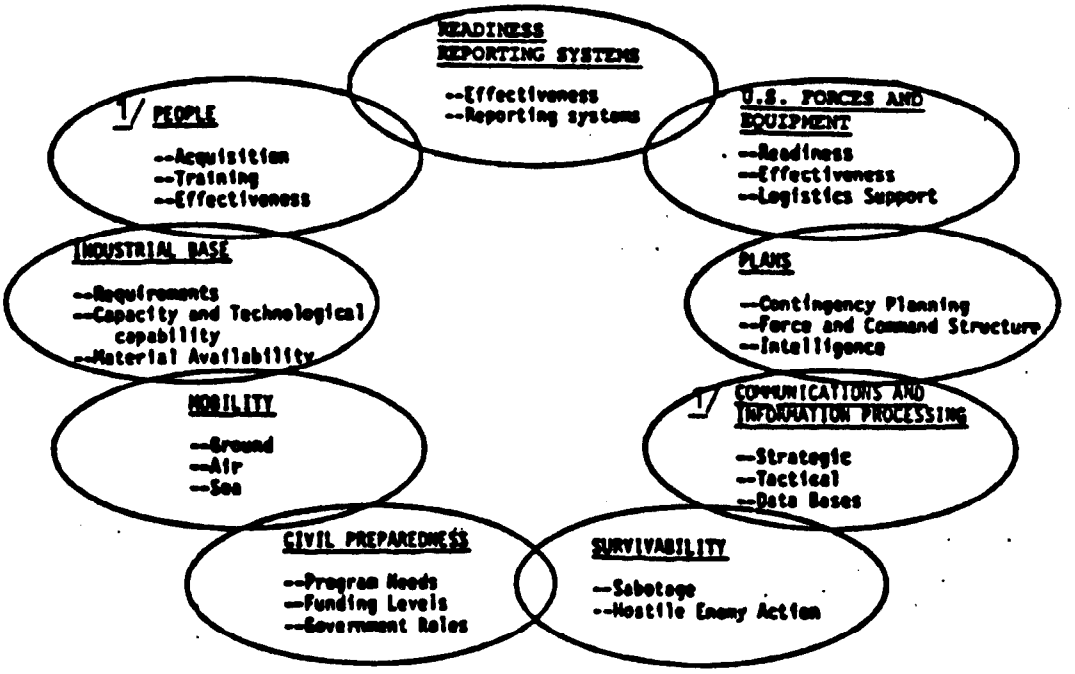
Effective and economical management of these key elements depends on many factors. These include establishing and implementing adequate procedures and policies for identifying requirements; developing and maintaining suitable logistics support systems including supply, transportation, and maintenance capabilities; maintaining accurate and useful information systems to monitor capabilities and direct funding priorities; and independently reviewing and exercising plans and resource requirements to identify weaknesses and implement corrective actions.

The military capabilities of the Soviet Union, the U.S. principal adversary, are not limitless and they cannot project forces everywhere at once. But then, neither can the United States. Therefore, the U.S. needs to develop workable contingency plans that recognize U.S. interests and resource constraints and define the magnitude of capabilities the U.S. should have available to overcome possible contingencies. Thus, constant management attention is needed to evaluate risks and allocate limited resources accordingly.

The objective of GAO's work in this issue area is to:

> Improve the policy and management processes that are used to develop mobilization plans and the readiness of the forces, materials, and equipment that will be required to assure the successful implementation of these plans.

Military preparedness is an objective that can be met only if all of the diverse, yet interdependent elements that comprise the total system can function satisfactorily. Each is equally important because serious degradation in one element could, and most likely would, cause the system to be so weakened that it could no longer accomplish its mission. The weakest link in the chain theory is exemplified by this issue area. The following diagram shows the critical elements of military preparedness and some of the key subelements.



1/ Work related to these key elements is not included in this study.

In addressing the problems GAO has identified in this study, GAO plans to emphasize those reviews that will evaluate policy, procedural, and logistics deficiencies that impair effective military preparedness, and the attainment and subsequent maintenance of desired readiness levels. GAO will continue to take a systematic approach that will enable it to cover, over time, major forces, equipment, mobilization requirements, and other areas that have a significant impact on the workability of mobilization plans and the readiness of U.S. and allied forces to carry out those plans.

In accordance with GAO's policy for reviewing military issues, GAO will not make its own judgements on military strategy and tactics or threat assessments--a Joint Chiefs of Staff responsibility. However, in order to appraise military preparedness, GAO does need to know the answers to such questions as:

--Who and what is the expected enemy?

--Where is combat expected to take place?

--How many troops, tanks, planes, ships, etc., will be needed?

--When will the force be required to be in place?

--How will the force be deployed and supported?

Answers to these questions are needed, if GAO is to assess the capability of the military to respond to the requirements they have determined to be essential.

In addition, GAO may review the underlying assumptions and factual bases for military decisions concerning such issues as the size, mix and deployment of forces required to counter a specific threat. If GAO's work discloses discrepancies in the information on which those decisions were based, it is GAO's responsibility to make this known. However, GAO will not substitute its own judgements for those of the military decisionmakers.

RELATED ISSUES

Effective mobilization planning covers nearly every Federal Government activity. Thus, this issue area, in effect, is related to virtually all other issue areas. However it is more closely related to the following:

--Automatic Data Processing

--Internal Auditing Systems for Federal and Federally Assisted Programs

--Accounting and Financial Reporting

--Federal Personnel Management and Compensation

--International Affairs

--Facilities Acquisition and Management

--Logistics Management

--Communications

--Energy

--Materials

--General Procurement

--Domestic Housing and Community Development Programs

--Transportation Systems and Policies

--Procurement of Major Systems

MAJOR ISSUES AND PROBLEMS

The primary reason for maintaining a large military force is to deter aggression, and should deterrence fail, repel any attack on the U.S. or its allies. Deterrence is usually a combination of several conditions. In GAO's view, the most important condition is a high state of readiness of the U.S. military forces. The U.S. must not only create the perception that it will respond quickly and decisively to any act of aggression, it must also back up these perceptions with a highly ready force.

For more than a decade, it has been generally accepted that credible deterrence must, among other factors, rest on a TRIAD of capabilities--strategic nuclear, theater nuclear, and non-nulcear forces. Three key military balances--the strategic nuclear balance, the military balance in Central Europe, and the worldwide maritime balance--contribute to the worldwide military balance that is the objective of U.S. and allied military programs. To achieve these balances, the U.S. maintains both strategic and general purpose forces. A DOD-prepared summary of the numbers of principal components of these forces, and of the airlift and sealift forces, at the end of selected fiscal years from 1964 to 1981 is included as appendix I.

According to the Secretary of Defense, the current administration, like its four predecessors, has decided that while it cannot and will not neglect the U.S. nuclear forces, it will keep the barrier to nuclear warfare--primarily in the form of non-nuclear capabilities--at a high level. In designing these forces, the U.S. general purpose forces, the U.S. has recognized that a major two theater attack on its allies and forces has become increasingly implausible. The highest concern is a major Warsaw Pact attack on NATO. However, according to the Secretary of Defense, to stress Europe is not to rule out a major attack elsewhere or a smaller attack in such sensitive areas as the Middle East and the Persian Gulf or the Korean Peninsula. Therefore, general purpose force sizing is based on one major attack (with Europe as the most likely and demanding location) and one lesser attack elsewhere. Given this setting of priorities, military readiness work is generally directed toward the general purpose forces for a NATO scenario.

While DOD is spending increasing amounts for the logistics support that should increase the readiness of U.S. forces, serious readiness problems continue to exist such as shortages of war reserve stocks, repair parts, and ammunition and weaknesses in the industrial base. For example, as shown below, DOD's budget requests for operation and maintenance funding have increased in recent years.

Fiscal year	Amount requested (billions)
1978	$35
1979	38
1980	46
1981	51

However, the DOD annual report for fiscal year 1981 states that DOD continues to have problems with materiel readiness, in part because of the advanced equipment coming into the forces.

In recent years, both the Congress and DOD have increasingly emphasized the need to improve the Department's capability to relate funding to materiel readiness. Congress has become very concerned that increasing levels of funding have not resulted in increased readiness levels. Therefore, in Section 812 of Public Law 95-79 Congress directed DOD to include, in future budget submissions, data relating funding levels to readiness levels. Last year GAO evaluated DOD's

attempts to develop a capability to do this and generally concluded that the DOD materiel readiness report does not adequately meet the congressional objectives.

More recently, in September 1980, Public Law 96-342 was passed and it includes a provision requiring the Secretary of Defense to relate operation and maintenance funding to readiness. It also provides for the annual authorization of operation and maintenance appropriations by the Armed Services Committees, thereby providing a second detailed level of congressional review for these appropriations. In addition, Public Law 96-342 requires the Secretary of Defense to make annual "combat readiness projections."

The adequacy of contingency planning for war reserve stocks and the amounts of equipment that should be pre-positioned in Europe are of continuing Congressional concern, not only because of the substantial funds programmed for them but because historically, there have been problems in storing and maintaining these items. Another facet of this concern is the probable length of future wars and the effect their length will have on the need for war reserve stocks, reserve forces, individual mobilization, and airlift and sealift.

With respect to industrial mobilization, many studies and evaluations of the industrial base by GAO and DOD have shown that current industrial preparedness planning is inadequate because the planning assumptions are unrealistic. According to the Secretary of Defense, the U.S. industrial base would be hard pressed to respond with the volume of war materiel necessary to assure uninterrupted support in a NATO conventional conflict after the inventories of war reserve materiel had been exhausted.

Equipment readiness is a continuing problem. The Secretary of Defense recently noted that one potential equipment readiness problem is that new weapons procurement has funding priority over readiness funding. Although this is undoubtedly true, in GAO's view additonal funding is not the only answer to solving equipment readiness problems. There are alternatives such as setting priorities and directing funding to the most critical problems. Other alternatives include increasing the efficiency of supply and maintenance systems to reduce equipment downtime.

Preparedness as a function for National survival is not only measured in the ability of the U.S. military forces to protect our interests but also in the ability of the nation to survive and recover from a nuclear attack. Yet, the U.S. today does not have a comprehensive civil preparedness policy. Until the establishment of FEMA, a number of Federal

agencies were responsible for various segments of civil preparedness planning but no one agency had overall responsibility. This resulted in a disjointed, splintered, multidirectional, and ineffective program.

Another preparedness concern is whether U.S. facilities and equipment can survive attempted sabotage and conventional and unconventional warfare. There is increased dependence on foreign nationals in overseas areas to perform support services, such as transportation, maintenance, and rear area protection for U.S. forces in Europe. This enhances the likelihood of persons with interests inimical to those of the United States having access to facilities critical to U.S.-NATO war plans and the opportunity to sabotage them. Also, increased terrorist activities threaten U.S. facilities at home and abroad.

The readiness of the U.S. allies and the effectiveness of NATO defense planning is a matter of increasing concern. While the NATO partners have taken a number of actions to improve long-term readiness through the Long Term Defense Improvement Program, significant readiness problems will remain until this program attains desired results. Because U.S. forces will fight with allied forces, the readiness of allies and the adequacy of joint support planning will require increasing review efforts in this area.

RECENT TRENDS AND OUTLOOK

The magnitude of this area is not likely to change substantially in the next 3-5 year period. The United States still faces worldwide challenges to its interests and it must maintain workable contingency plans and the required forces and material in a high state of readiness. However, with increasing demands on the overall Federal budget, DOD must learn to manage its resources more efficiently. For example, DOD cannot afford to match, tank-for-tank, the threat posed by the Warsaw Pact forces. What DOD must do in conjunction with the U.S. allies is find more efficient means of destroying enemy tanks even if it crosses traditional and many times "parochial" approaches to problem solving.

This is not an area that readily lends itself to a "solve this problem--move onto the next problem" approach. DOD believes that more funds should be directed toward training, materiel readiness, war reserves, and mobility. However, increased funding is not always the answer. More often it is a question of setting priorities within spending programs and directing funding to resolve weaknesses. While DOD does take corrective actions to resolve problems GAO has

pointed out, GAO's followup work shows that more management attention is needed to fully correct identified problems. GAO will continue to review the functions and procedures used to improve military preparedness to assure that solutions are found and that they are working effectively and efficiently.

MAJOR LEGISLATION IMPACTING ON READINESS ISSUES

Major legislation enacted by the Congress and impacting on military readiness issues includes:

--The various statues outlining the forces, missions and functions of the separate military services,

--The National Security Act of 1947, as amended, which established the Department of Defense and provided for a Secretary of Defense as a means for greater centralized control of the separate services,

--The Defense Production Act of 1950 which tasks the Secretary of Defense to assure the viability of the U.S. industrial base with maximum reliance on the private sector, while maintaining the nucleus of Government-owned plants and equipment to meet national emergencies,

--Section 812 of Public law 95-79 which requires DOD to include data relating funding levels to readiness in future budget submissions, and

--Section 1001 of Public Law 96-342 which requires DOD to submit to Congress an annual report on the Services' operations and maintenance, including combat readiness projections for all major units. It also provides for the annual authorization of DOD's operation and maintenance appropriations.

Also the DOD and other authorization and appropriation acts frequently contain requirements or restrictions to be complied with by agencies. Included are such things as maximum or minimum amounts to be expended for specific aspects of mobilization or for acquisition of particular goods or services to support mobilization needs. In addition, these acts can impose specific review and reporting requirements on GAO relating to readiness issues.

CONGRESSIONAL COMMITTEES

Congressional committee interest in this area is widespread. Based on past experience, the House and Senate Committees on Appropriations and Armed Services have expressed the most interest in GAO's work in this area.

AREAS INCLUDED IN THIS STUDY

GAO has identified 8 key areas which require its attention. The 8 areas, ranked according to GAO's priorities, are:

ARE U.S. FORCES AND FIELDED EQUIPMENT READY AND ADEQUATELY SUPPORTED? (Chapter 5)

CAN REQUIRED MOVEMENTS OF PERSONNEL, EQUIPMENT, AND SUPPLIES BE ACHIEVED IN A CRISIS? (Chapter 4)

CAN MOBILIZATION NEEDS BE MET BY THE INDUSTRIAL BASE? (Chapter 7)

IS CONTINGENCY PLANNING ADEQUATE TO MEET MILITARY THREATS AND CAN THE PLANS BE IMPLEMENTED? (Chapter 2)

HOW CAN MILITARY READINESS REPORTING SYSTEMS BE IMPROVED TO MORE ACCURATELY REFLECT CAPABILITIES AND NEEDS? (Chapter 3)

CAN U.S. FORCES, EQUIPMENT AND FACILITIES SURVIVE AND RECOVER FROM ATTEMPTED SABOTAGE AND CONVENTIONAL AND UNCONVENTIONAL WARFARE ACTION? (Chapter 8)

CAN THE READINESS OF NATO FORCES BE IMPROVED? (Chapter 6)

ARE CIVIL PREPAREDNESS PROGRAMS EFFECTIVE? (Chapter 9)

The remainder of this study examines these major issues and concerns in more detail and provides the perspective GAO is using to organize its audit efforts. Appendix II shows a listing of pertinent GAO reports and other key documents issued since January 1, 1979, in these areas.

CHAPTER 2

IS CONTINGENCY PLANNING ADEQUATE TO MEET MILITARY THREATS AND CAN THE PLANS BE IMPLEMENTED?

The United States is, by most measures, the strongest nation in the world. The U.S. enjoys superior economic power, political stability, technological capability, and individual freedoms. To further enhance these strengths and continue to be the leader for world peace and individual human rights, the U.S. must continue to face, and be prepared to overcome, military challenges to its worldwide interests. The primary challenger to U.S. interests continues to be the Soviet Union and its allies. However, there is growing concern that challenges could come from other countries in a number of third world locations including the Persian Gulf region. Concern for this newer challenge has resulted in the development of the much talked about Rapid Deployment Force. But regardless of the source, the first step in the Nation's preparedness to meet these potential challenges is to develop workable contingency plans.

Simply stated, planning is the preparation of a detailed program of action to meet identified objectives. Military contingency planning involves development of programs of action to meet perceived enemy threats. It has as its overall objective preserving the peace and security of the United States and providing for the defense of the country. The most important goal of the Nation's military forces in achieving this objective is to deter war and should deterrence fail, see to it that the United States and its allies survive as free and viable nations.

In its broadest sense, contingency planning encompasses many things. It would include both long range planning on such matters as force structure and size, and the need for improved technology and new equipment. It would also include the development of detailed progams of action for such things as near-term mobilization of troops, for large, intermediate and smaller scale conflicts; the provision of transportation to deploy them; the positioning of war reserve stocks in potential areas of conflict; the maintenance and storage of such resources; the provision of logistics support to deployed forces; evacuation of dependents; withdrawal of forces; and U.S. and allied command logistics support relationships.

There is a continuous concern about the adequacy of U.S. contingency plans. Questions have been raised regarding whether U.S. contingency planning adequately considers probable

warning time (mobilization period) and length and locations of future wars; the effect these important factors will have on the quantity and prepositioning requirements for war reserve stocks; active and reserve forces capabilities and requirements; industrial mobilization; and airlift and sealift resource requirements. Although the importance of contingency planning for all eventualities can not be overstated, two contingency planning issues appear to have the most importance in terms of congressional and DOD concern, currency of the problems identified, and overall impact on the United States' ability to develop and successfully implement contingency plans. These are:

--Planning of the Rapid Deployment Force.

--Planning of war reserve material both in terms of quantity and prepositioning of the material in areas of potential need.

Planning for the Rapid Deployment Force

The U.S. has always had a requirement to maintain a force capable of rapid deployment to a potential contingency. However, the U.S. involvement in large scale wars has tended to shape mobilization planning in that direction. But the recent events in Iran, Afghanistan, and now the conflict between Iran and Iraq have given new impetus to the need to develop and maintain a rapid deployment force capability. Since the President announced the establishment of the Rapid Deployment Force in late 1979, the relative merits of the force have been praised and criticized many times. Regardless of what is said, the success of the force will depend to a large extent on developing workable contingency plans. Important considerations include force structure, size, and the success of maritime prepositioning of equipment and supplies. These considerations will then have to be translated into workable deployment and other logistics support plans including a consideration of how much host nation support might be expected from the countries the U.S. is helping.

Since the potential battlefield could very likely be a desert, new maintenance support concepts and water distribution systems need to be studied and included in contingency plans. Of course, the impact of Rapid Deployment Force requirements in other contingency plans will have to be fully evaluated. Certainly, there are many problems in developing workable contingency plans for a rapid deployment force and these will have to be closely reviewed and resolved to assure the success of the rapid deployment force concept.

War Reserve Planning and Prepositioning

The adequacy of contingency plans for war reserve stocks and the amounts of equipment that should be prepositioned in Europe and other areas of potential need are of primary concern because of the substantial funds programmed for them and the fact that, historically, there have been problems in storing and maintaining these items. This subject is receiving much congressional attention.

For example, DOD's plan to increase the quantity of U.S. equipment prepositioned in Europe to meet short-warning contingencies has come under fire because adequate consideration has not been given to its survivability.

Also, much of the equipment to be prepostioned will be taken from active and reserve forces and may affect their readiness because of the nonavailability of sufficient equipment for training.

Still other concerns center around planning for the prepositioning of war reserve stocks for the rapid deployment force including the workability of planning to preposition these stocks on ships stationed near areas of potential conflict. And, to strengthen NATO's capability in the northern front, discussions are currently under way to preposition U.S. equipment in Norway. The impact of this on other prepositioning requirements will have to be fully evaluated.

GAO OBJECTIVES AND EMPHASIS

GAO's overall objectives in this area are to evaluate the contingency planning process, determine if contingency plans can be successfully implemented, and make recommendations for improving contingency plans. To achieve these objectives the following questions will need to be addressed.

1. How will contingency plans need to be improved to support a U.S. military strategy of worldwide power projection?

2. Is the JCS and DOD guidance for preparing contingency plans reasonable?

3. Do the services translate JCS and DOD guidance into workable contingency plans?

4. Are contingency plans sufficiently coordinated between the services and between them and applicable Federal agencies to assure rapid implementation?

5. Are contingency plans adequately exercised and identified problems resolved in subsequent reviews of the plans?

6. Are current command relationships and structures adequate for rapid implementation of contingency plans?

Most of our recent work in this area deals with questions 3 and 6. For example, our reports have examined how the Army, Air Force, and Navy have implemented DOD guidance in planning for war reserve materiel. Also, we recently issued a report on command and control relationships in the Pacific theater. It addressed question 6--command relationships and structures.

Our ongoing work in this area also deals with questions 1, 3, and 6. For example, based on a congressional request, we are reviewing Indian Ocean deployments and planning for the Rapid Deployment Force. We are also currently reviewing the prepositioning of equipment in Europe and the readiness of the NATO alliance.

We believe that our prior and ongoing work in this area has provided some of the answers to questions 1, 3, and 6. But, we do not have all the answers to these questions--especially as they relate to planning for the rapid deployment force, and planning for the prepositioning of equipment in areas of potential need. Therefore, our planned work in this area will address added aspects of questions 1 and 3 as they relate to these two key mobilization issues.

Most of our prior and ongoing work has been directed at military planning for a NATO scenario. But the recent events in Iran, Afghanistan, and now the conflict between Iran and Iraq has given new impetus to the need to develop and maintain a rapid deployment force capability. New plans are being developed and some plans are being revised to respond to these changing events. This means GAO will have to evaluate them (questions 1 and 3).

There have been changes in the planning for the prepositioning of equipment and war reserve materiel in areas of potential need. But are the assumptions regarding combat survivability, sustainability, and other important mobilization considerations underlying these changes in plans valid? Further, does the United States have the personnel and materiel to meet these requirements and what are the alternatives? These are all important planning questions that require our attention.

CHAPTER 3

HOW CAN MILITARY READINESS REPORTING SYSTEMS BE IMPROVED TO MORE ACCURATELY REFLECT CAPABILITIES AND NEEDS?

The Defense Department uses the term "military readiness" to express two basic conditions--(1) the ability of units, weapons systems, or other equipment to perform the missions or functions they were organized or designed for, and (2) the ability of U.S. Forces to adequately respond to military threats to U.S. interests. Therefore, military readiness includes not only the necessary units, equipment, and associated logistics support for them, but also the Forces' ability to perform their missions when and where called upon. Moreover, these Forces must be developed, modernized, and/or maintained with limited Defense resources.

Readiness reporting systems are a critically important means of measuring the capabilities of U.S. Forces. Because they indicate both capabilities and shortfalls, they also provide an important basis for resource allocation decisions--both for Defense and the Congress. But for years Defense, Congress, GAO, and others have been concerned over inadequacies of Defense readiness reporting procedures, in terms of design, accurate portrayal of force readiness, and use in deriving readiness appropriations levels.

These concerns were perhaps best exemplified by Congress' passage of P.L. 95-79, dated July 30, 1977, and the preceding discussions between Defense and Congress. Congress, in an attempt to determine the effect of alternative funding levels on Defense readiness, included language in the law (Section 812) requiring the Secretary of Defense to submit a report to the Senate and House Committees on Armed Services setting forth quantifiable and measurable materiel readiness requirements for Defense forces. The law also requires Defense in subsequent years, to notify the Committees of any subsequent changes in materiel readiness requirements and what effect requested appropriations would have on the materiel readiness posture. The Secretary of Defense, commenting on the proposed legislation stated that although the type of information Congress would require was desirable it was unobtainable partly because of inadequate readiness reporting systems. The Secretary commented that he was dissatisfied with Defense's ability to define and measure readiness and had tasked the Services to develop the necessary measurement, analysis, and resources programming capability for readiness measurement.

Congress' continuing concern for readiness is evidenced by passage this year of P.L. 96-342, which requires DOD to

submit to Congress an annual written report on the Services' operations and maintenance, including combat readiness projections for all major units.

Defense continues to stress the need for better readiness reporting procedures. Defense, for example, recently revised and expanded the old FORSTAT (Force Status Reporting) system and applied more universal reporting criteria across the Services. The new system, called UNITREP (Unit Status and Identity Report) was initiated in early 1980.

GAO OBJECTIVES AND EMPHASIS

Our objectives in this area are to improve readiness reporting systems to more accurately reflect military capabilities and needs, and to improve the systems' value as management tools for decisionmakers. These improvements should provide visibility over readiness deficiencies, facilitate corrective actions, and provide both Defense and the Congress a better basis for allocating scarce resources to the highest priority needs. To achieve these objectives we will need to address the following questions.

1. Do current Defense readiness reporting procedures provide decisionmakers an accurate portrayal of the readiness of U.S. Forces? Can the procedures be improved?

2. Do readiness reporting procedures identify the root cause(s) of degraded readiness?

3. Does the Defense UNITREP system provide the Services uniform readiness reporting criteria by which they can report their forces' readiness?

4. Do the Services apply UNITREP reporting criteria uniformly?

5. Does the UNITREP system adequately measure sustainability and mission accomplishment/capability?

6. How are readiness reports used by Defense decision-makers to improve force readiness? Can greater use of the reports be made for this purpose?

7. Do Defense readiness reports reflect the effects of funding increases or decreases on force readiness? Are such linkages used to justify requests for readiness funds in budget submissions to Congress? Can such linkages be strengthened?

We normally include in our readiness reviews examinations of the accuracy of units' readiness reporting (question 5). During recent years we have issued a number of reports addressing the accuracy of units' readiness reporting systems. For example, we addressed question 5 during our reviews of the readiness of Strategic Air Command (SAC) bomber and tanker aircraft, and the readiness of the U.S. Air Force Tactical Air Command. Both reports discussed inaccuracies in the readiness reporting procedure for the commands' aircraft. Our letter report on the readiness of Minuteman missiles, on the other hand, stated that readiness reports on the missiles appeared accurate. Currently, we are addressing question 5 by examining the accuracy of the readiness reports of selected corps units and divisions.

We also a reported on the DOD's efforts to better relate funding to readiness, in response to the provisions of P.L. 95-79 (question 7). Section 812 of the law required Defense to prepare for Congress a Materiel Readiness Report on the projected level of materiel readiness that could be attained from the Defense appropriations request. This review identified several problems Defense must resolve before it can provide the Congress reliable projections of materiel readiness based on requested appropriations.

Our major emphasis in this area in the future will involve evaluating the Defense UNITREP readiness reporting system (question 3) and whether the Services are uniformly applying the system's reporting criteria in their reports (question 4). Our secondary emphasis will be on monitoring the Defense reports to the Congress in response to P.L. 95-79 (Materiel Readiness Report, relating levels of expected materiel readiness with Defense budget requests) and P.L. 96-342 (Projected combat readiness of major Defense units). These assignments address questions 7 and 1, respectively.

CHAPTER 4

CAN REQUIRED MOVEMENTS OF PERSONNEL, EQUIPMENT, AND SUPPLIES BE ACHIEVED IN A CRISIS?

To accomplish its objectives worldwide--deterrence against attack and assuring victory if attacked--military strategy relies heavily on a strategic mobility capability that can rapidly deploy U.S. "mobility forces". Such a capability is essential to the credibility of conventional deterrence, the flexible response strategy, and global projection of U.S. combat power. Military theorists have noted that the vastly improved mobility of modern forces has increased the prospect of achieving decisive results by mere movements of forces, as opposed to actual combat.

The United States builds and maintains conventional air and ground forces principally for the defense of the North Atlantic Treaty Organization (NATO). However, the likelihood of United States involvement in more limited contingencies has increased. Greater international turbulence has been evidenced by events in Iran, Afghanistan, Korea, Southeast Asia, and the Caribbean.

The limited contingencies have added unique logistics problems to war planning. To deal with the contingencies, DOD has designated specific units of all services as components of a Rapid Deployment Force. The composition of the forces deployed will vary, depending on the nature and location of the crisis. DOD has stated that these units will not be able to respond adequately unless they can be moved with great rapidity to an area of crisis.

BACKGROUND

The movement of troops and material from the United States to a combat theater can be thought of in terms of three phases. The first stage of such a transportation effort--the "preparation phase" --consists of alerting and equipping troops with material at home bases and assigning them to airfields or seaports. The second phase of the movement--the "deployment stage" --begins once men and material arrive at airfields and seaports, where they are loaded onto aircraft or ships and dispatched. This phase involves the use of strategic resources--that is, transoceanic aircraft or ships. Airlift is obviously faster but also more expensive, so it is reserved for priority items. Sealift, accounting for the remainder, would transport greater tonnage of material and equipment too bulky to be moved by air.

The third major stage concerns the "theater" movement phase. Once troops and material arrive in theater, they can be moved by a variety of tactical--that is, intratheater--transport, including rail, truck, barge, and air.

U.S. airlift forces include aircraft under all services and the Civil Reserve Air Fleet. The Air Force's Military Airlift Command is responsible for common use airlift and has 76 C-5As and 280 C-141s assigned to its strategic airlift squadrons. Tactical, or intratheater, airlift responsibility is shared among the services. The Military Airlift Command, Air Force Reserve, and Air National Guard have 566 C-130s and 124 C-7s and C-123s assigned. Other aircraft commonly used in intratheater airlift include 31 C-1/C-2s (Navy carrier-on-board delivery), 522 CH-47/CH-54 helicopters, and 218 CH-53 helicopters. The above totals include only Primary Authorized Aircraft--additional aircraft are in the inventory for back-up purposes such as to replace aircraft undergoing maintenance.

The Civil Reserve Air Fleet (CRAF) consists of civilian passenger and cargo aircraft under contract to the Department of Defense for use in emergencies. These planes would be flown and maintained by commercial pilots and crews. As of January 1980, 373 aircraft have been committed to this program, 250 of which are passenger aircraft. The remaining 123 are cargo/convertible aircraft. These aircraft would be used primarily to augment MAC's fleet.

U.S. sealift resources consist of ships under the Military Sealift Command (MSC), the U.S. Merchant Marine, the National Defense Reserve Fleet (NDRF), the Effective U.S. Control Fleet (EUSC), and NATO flag ships.

As of March 1980, the MSC has a government-owned fleet of 74 ships, including 4 dry cargo ships. The remaining 70 ships include tankers, project, and fleet support ships. In addition, 25 dry cargo ships from the Merchant Marine are under contract to the MSC, bringing the total number of cargo ships within what is known as "the MSC-controlled fleet" to 29.

The U.S. Maritime Administration preserves retired cargo ships in the NDRF to augment the MSC fleet in the event of a major contingency and to provide back-up capability for the U.S. Merchant Marine. The ships are categorized in two groups. The first, the Ready Reserve Fleet is comprised of 23 newer ships which are capable of going on line to receive cargo with less than 10 days notice. The remainder of the NDRF is made up of 130 World War II Victory ships. It has been estimated that it would take a considerable amount of time, perhaps months, to put these ships in operable condition.

GAO OBJECTIVES AND EMPHASIS

Our emphasis will be in those areas having immediate Congressional interest as well as those which make the greatest contribution to covering our overall objectives.

During the recent past, we concentrated on transportation planning and problems in surface transportation, with some work on air transportation issues. The increased turbulence in widely scattered areas of the world, however, adds emphasis to DOD's efforts to improve the rapid response capability of U.S. forces. Therefore, we must re-examine U.S. forces' strategic lift capability in light of the greater priority placed by the President, DOD, and Congress on rapid response. Even so, we should continue to identify and suggest solutions for perennial problems in DOD's transportation and distribution systems. These perennial problems affect U.S. forces' mobility over a wide range of threat scenarios.

Our umbrella objective in this area is to identify ways to improve the capability of the U.S. to rapidly deploy and support its forces worldwide. Because of complexity and propensity to change described above, however, it is difficult to establish finite objectives which would effectively eliminate strategic mobility issues and problems. Nevertheless, to this end we have identified the following objectives which impact severely on each of the previously discusssed "phases" of mobility: preparation, deployment, and theater.

Our objectives for the preparation phase of deployment is to improve coordination and planning between and among those civil and defense agencies which must react to crisis situations and seek ways to eliminate choke points that would delay the movement of men and materials to and through ocean and aerial ports.

Our objective in the deployment phase is to validate and compare strategic airlift and sealift capability with requirements, identify Defense plans to improve capability, and where appropriate, advise the Congress of alternative means to meet validated requirements.

Our overall objectives in the final phase of mobilization deployment--the theater phase--are to disclose and alleviate problems presented once troops and materials arrive at overseas terminals.

To achieve these objectives, our work should be directed to the following questions.

Preparation phase

1. Do civil and defense agencies plan in advance and coordinate their efforts, so that they have the assets needed to mobilize, reduce bureaucratic delay, and expedite the mobilization process?

2. Do continental U.S. transportation systems, including ocean and aerial ports, have the capability to move, stage, and throughput the surge volumes of mobilization materials within required time frames?

Deployment phase

3. What are the U.S. strategic lift requirements, capabilities, and planned enhancements?

4. Are DOD's planned enhancements the most effective and economical means to improve our strategic lift capability?

5. Can the aircraft and ship use rates assumed in Defense plans be supported by available parts and supplies?

Theater phase

6. Have supply systems been structured to receive, stage, and throughput the surge and sustaining quantities of material needed to support U.S. Forces committed to NATO, Korea, and to the Rapid Deployment Force?

7. Are there sufficient combat support personnel and intratheater transportation (air-ground) to support and reposition troops and equipment in combat?

8 Will host country allies be able to provide needed transportation assets, support personnel, and logistic facilities in a crisis situation?

9. What is the condition of service reserve units earmarked for combat support roles in foreign theaters of conflict?

Within this framework we plan to emphasize answering the most pressing mobility questions: can we get there in time (deployment), and, once there, can we support our forces (theater phase). Current congressional interest

in mobility has focused almost entirely on the deployment and in-theater phases. Accordingly, our work is initially focused on the latter two phases. Later, however, we do wish to address critical problems in the preparation phase.

Past work directed at the preparation phase of mobility resulted in improved planning for land and sea mobilization by the Military Traffic Management Command and Maritime Administration. Ongoing work addresses readiness of petroleum transportation systems in the United States. Our planned preparation phase reviews will aim at known problem areas which have been disclosed in past GAO work.

For the deployment phase, we will address the previously cited deployment questions with an emphasis toward the needs of the Rapid Deployment Forces. Historically, DOD has projected shortfalls in the strategic lift capability needed to defend NATO, and has sought billions of dollars to enhance strategic lift. The needs of recently designated Rapid Deployment Forces further exacerbate the problem. To support these forces, DOD has requested additional billions for new aircraft and new ships. These and other mobility-related funding decisions will face the Congress in the next several years, and the Congress will continue to seek GAO assistance. We are currently reviewing the ships needed to support the Rapid Deployment Force to determine if existing merchant ships can be used in lieu of DOD's proposed multibillion dollar construction program for new ships (question 4).

For the in-theater phase we will address the previously cited questions, as they relate to supply system structure, intratheater transportation and host nation support. Over the past ten years theater combat support capability has deteriorated to the point that military commanders have grave doubts as to the adequacy of support personnel and transportation (air and ground) to throughput materials to forward deployed units. Although host nation support agreements have been signed which promise transportation and other support, perplexing problems persist. An ongoing review of intratheater airlift addresses air transportation capability to support and reposition troops and equipment in combat (question 7).

CHAPTER 5

ARE U.S. FORCES AND FIELDED EQUIPMENT READY AND ADEQUATELY SUPPORTED?

In today's environment, it is very possible that the outcome of a major conflict, such as an attack against NATO, may be determined in a short time and depend on the resources in place or available when the war begins. For these forces a fully combat ready status is a must because the luxury of mobilizing and deploying additional forces over an extended period may no longer be possible. If and when additional forces are needed, the current emphasis is on rapid reinforcement with highly ready forces.

The U.S. no longer has quantitative superiority over the Soviet Bloc. U.S. forces have been pared to peacetime levels. In addition, the Defense Department's Total Force Policy, implemented in the early 1970s, transferred many historically active force missions to the Selected Reserves. Moreover, advances in technology have led to the introduction of much more sophisticated weapons systems and has paralleled an evolving U.S. strategy to emphasize "qualitative" over "quantitative" weaponry. (Senator Nunn stated recently that technology is the cutting edge of our military capability and must be maintained.) Finally, the Soviets have pursued sustained expansion of their military forces for the last 20 years or more, erasing U.S. quantitative superiority. In fact, in 1979 alone the Soviet military effort was about 50 percent larger than our own, measured by what the programs would cost to the Soviets in the U.S. economy. Thus, it is vitally important that existing U.S. forces, both active and reserve be at the highest possible readiness levels to serve as a deterrent to enemy aggression, and failing deterrence be able to meet and repel any attack against the U.S. and her allies.

GAO, Congressional, Defense, and news media reports, along with events of the recent past, point to the need to substantially improve U.S. forces' readiness. Recent GAO reports have discussed the need for improved readiness of various elements of the Air Force, European and U.S. based active and Reserve Army units, and the Marine Corps. Congress' concerns are evidenced by discussions of the failed rescue attempt of U.S. hostages in Iran, support for the Rapid Deployment Force, passage of the draft registration legislation, support for increased defense spending, and laws requiring defense to submit annual military readiness reports to the Congress. Numerous defense reports, including Secretary Brown's Annual Defense Report for fiscal year 1981, have discussed the need for major improvements in all the services. Military readi-

ness became a major issue in the recent Presidential election. And, finally there has been a spate of news media articles recently discussing military readiness problems--ranging from overall military strategy to shortages of spare parts to personnel shortages.

GAO OBJECTIVES AND EMPHASIS

Our objective in this area is to improve the readiness of existing U.S. forces, including their equipment and the logistics support, by identifying the root causes of readiness deficiencies and providing recommendations and/or options for resolving (or at least improving on) them. To achieve this objective, the following questions will need to be addressed.

1. Are U.S. forces' organizational structures sound and ready to assure rapid mobilization and deployment in the event of an emergency?

2. Are high priority units properly manned and equipped to assure that they are ready to perform their missions (priority in resource allocation)?

3. Are Defense resource allocation systems developed so that earlier deploying forces have priority?

4. What alternatives exist for resolving the root causes of readiness deficiencies in the services' major force components?

5. What alternatives exist for improving the readiness of fielded equipment?

6. What improvements are needed in logistics support capabilities to assure a high level of force readiness?

7. What alternatives exist for resolving readiness deficiencies in the reserve forces?

Much of our prior and current work in this area has been concentrated on reviews of major force components (question 4) and major fielded equipment (question 5). We have emphasized work on readiness of the nuclear triad components and active Air Force components: equipment reviews have emphasized aircraft. For example, with the completion of assignments on the readiness of SAC's bomber and tanker fleet and on Minuteman strategic missiles, we have reviewed each leg of the triad in the last 3 years. Major Air Force component reviews have

included the readiness of the Tactical Air Command and the Military Airlift Command which, coupled with prior period reports on the readiness of U.S. Air Forces in Europe and the Pacific, have provided broad coverage of the Air Force components over the last 3 years. We also reviewed the readiness of the Navy's antisubmarine forces and completed equipment reviews on the readiness of Army helicopters and the logistics support provided the A-10 aircraft in Europe during this period.

Reviews in progress which deal with major force components include: the Army's plans for increasing their Prepositioned Materiel (POMCUS) program, the readiness of U.S. based Army Corps and Divisions, and the readiness of Naval Reserve and Coast Guard forces. Regarding major equipment, we are currently reviewing the readiness of Navy tactical missiles.

The major thrust of our future work will be on questions 4 and 2. Our concentration on question 4 will shift from nuclear triad and Air Force components toward more reviews of major Army components. Our emphasis on question 2 will be the readiness of high priority units, primarily those assigned to the Rapid Deployment Force (RDF). This is consistent with the current congressional and defense emphasis on building the RDF. Our emphasis on equipment readiness will continue and will include aircraft, but we will also begin reviews of the Army's heavy armored equipment. Our secondary emphasis will be on readiness of the reserve forces.

CHAPTER 6

CAN THE READINESS OF NATO FORCES BE IMPROVED?

The potential conflict facing the United States in Europe would not be fought with U.S. forces alone. Rather, U.S. forces would be part of the NATO defense effort. The NATO scenario is dependent on coalition defense planning to gain successful results. However, many questions have been raised regarding the adequacy of NATO defense planning.

The last four major wars the U.S. was involved in were coalition defense efforts. However, defense experts believe the effectiveness of the coalitions was limited because of a lack of advanced, well coordinated planning and generally "localized ad hoc" arrangements between nations forced on them due to the crisis situations. But strong coalition defense capability must be built prior to a crisis or war, both as a means to deter war and, should that fail, to ensure a successful outcome for the coalition forces.

Congress has become increasingly concerned about the readiness of the NATO forces. This concern has been demonstrated by the passage of legislation requiring DOD to provide an annual report on what is being done to achieve increased standardization and interoperability of equipment in NATO, an annual report on NATO readiness, and a report on allied commitments to defense spending. Congress also passed the NATO Mutual Support Act of 1979 which could enhance mutual logistics support arrangements between U.S. forces and the other NATO partners.

GAO has devoted considerable effort towards evaluating U.S. military readiness for a European scenario. These prior readiness reports, for the most part, have been directed at what the United States is doing unilaterally. However, in several prior reports GAO has acknowledged the importance of evaluating U.S. security concerns on a multilateral basis (i.e. NATO-wide basis). For example, in a recent report, GAO stated that with increased interdependence within the Alliance and the expansion of cooperative and NATO-wide approaches to defense, it may become more important for Congress to focus on allied and NATO actions as well as U.S. defense programs.

According to DOD estimates, the U.S. budgeted about $65 billion in fiscal year 1979 for U.S. forces committed to NATO. The Secretary of Defense has stated, however, that almost the entire Defense budget directly or indirectly supports the U.S. commitment to NATO. Further, the Advisor

to the Secretary of Defense on NATO Affairs has stated that without the European Alliance, the U.S. defense budget would be at least doubled. Besides, defense experts believe the United States could not defend the free world without the contributions of its many allies.

GAO OBJECTIVES AND EMPHASIS

Maintaining U.S. forces at a high readiness level is essential to the U.S. national security. However, in dealing with the NATO alliance, defending against a potential Warsaw Pact attack, the readiness of the whole coalition becomes a vitally important issue. The importance of maintaining strong coalition defense capabilities has grown--especially in view of the growth in the capabilities of the Warsaw Pact forces. There are still many weaknesses in NATO. For example, the U.S. and its allied partners have problems in readiness, logistics, command structures, communications, defense concepts, planning assumptions, Maritime issues, reserve mobilization, and a host of other problems.

Our principal objective in this area is to provide the Congress additional information on the military capabilities of the NATO alliance emphasizing the adequacy of command structures, logistics capabilities and overall capabilities to survive and sustain combat. This work is important because of the impact military capabilities of the alliance has on U.S. forces. Information on alliance military capabilities would provide Congress a better basis for considering different trade-offs and investment decisions for U.S. forces.

Another objective is to evaluate the adequacy of readiness information systems and if appropriate, to suggest ways to improve the existing system. Along this same line, a suggestion might be for the alliance to establish its own capability to audit alliance military programs.

During readiness audits of U.S. forces we actually visit the units in order to obtain a first hand view of some issues such as availability of equipment, equipment condition, spare part support, and personnel availability and competence. To satisfy our objectives in this line of effort we will examine the U.S. participation in NATO activities, but we probably cannot actually visit military units of other countries. We can, however, visit U.S. forces assigned to the alliance and obtain information on the military readiness of these forces and their perception of what is needed. We expect to rely much more on other sources of information to get a fair assessment of needs and conditions of the military capabilities of the other alliance forces.

We are mindful that the success of this effort is largely dependent on the information that can be obtained from various sources. Although our approach is directed to U.S. participation in NATO, we are aware that our efforts will often involve sovereign nations and thus our reports could be very sensitive. However, we are convinced that the questions outlined below are important questions that need to be addressed; that GAO has a role in providing the Congress information on these issues; and we should therefore deliberately and cautiously attempt to accomplish our objectives.

To achieve these objectives, the following questions need to be addressed.

1. Are current readiness reporting procedures standardized, specific, well defined, and evaluated to accurately reflect the readiness of allied forces for coalition defense; are problems corrected; and, what can be done to improve these readiness reporting procedures so that the major coalition commanders are provided with the data they need to make important military decisions?

2. Are command arrangements in NATO sufficient to enhance desired levels of readiness and/or corrective actions in peacetime, and to provide responsive and effective command and control of wartime coalition defense efforts?

3. Has coalition defense planning effectively addressed imbalances in allied forces' combat capabilities and readiness and what is the effect on U.S. forces readiness and responsibilities where this has not been done?

4. Are NATO's defense improvement goals firmly established, formally agreed to and published so that progress can be measured? If so, what is the process for making improvements and is it being executed effectively?

5. Have the logistics support requirements in the communication zones been arranged by the NATO commanders with the allies owning the resources so that the NATO commanders'operational plans can be logistically supported in the event of a Warsaw Pact attack?

6. How has implementation of the NATO Mutual Support Act of 1979 (Public Law 96-323) increased NATO forces' logistics support readiness and is the Act being implemented in accordance with congressional intent?

7. Are total NATO host nation support requirements identified and effectively coordinated and are the resources ready to successfully meet NATO's coalition defense requirements?

8. What improvements are needed in NATO's logistics support planning and capabilities to enhance NATO forces' readiness for sustained conventional combat operations?

9. Have the NATO commanders established policies and procedures implementing their responsibilities for coordination of logistics as directed in NATO orders MC 32-2 and 55-2?

We will seek ways to improve the readiness of NATO coalition defense planning and capability by concentrating on work in the logistics readiness of the allied forces (questions 6, 7, and 8) and improvements needed in NATO's command structure--especially the logistics structure needed to enhance NATO forces' readiness (questions 2 and 9).

We have selected these questions for emphasis because a high level of logistics readiness and sustainability is a primary ingredient in developing and maintaining a strong coalition defense capability. Further, our current overview review of NATO forces' readiness indicates there are a number of problems in the logistics readiness of the NATO forces.

CHAPTER 7

CAN MOBILIZATION NEEDS BE MET BY THE INDUSTRIAL BASE?

Given the assumption that nuclear war is not a likely occurrence, the capability of the U.S. industrial base to sustain the mobilized forces is critical to the successful development of a conventional deterrent. The U.S. industrial base is comprised of many separate, but interrelated, elements of industrial capacity in both the private and public sector. These industrial facilities manufacture the components and end items used by the U.S. military forces and civilian activities. This industrial base serves the twin function of providing military production capacity for peacetime needs as well as a basis for expansion to meet wartime needs. According to the Department of Commerce, the private sector of the industrial base includes over 300,000 manufacturing establishments. The Federal Government portion of the industrial base consists of about 146 plants and repair facilities such as depots, arsenals, and shipyards, which together with production equipment are worth about $18 billion.

The Defense Production Act of 1950 tasks the Secretary of Defense to assure the viability of this industrial base with maximum reliance on the private sector, while maintaining the nucleus of Government-owned plants and equipment to meet national emergencies. This poses many problems such as the degree of control over private vs. public elements of the base, the need for incentives to maintain a surge capability in the private sector and the need to balance economy and efficiency during peacetime operations while maintaining the capacity for wartime production.

DOD planning guidance for a conventional NATO conflict emphasizes the development of a strong initial defense capability. The long-term objective is to develop the capability for NATO to fight at least as long as Warsaw Pact forces. To accomplish U.S. objectives in NATO, the United States and its allies must have the logistics capability to sustain their military forces for the duration of the conflict. This capability depends to a large extent on having an adequate stockpile of raw materials, sufficient quantities of war reserves, a responsive industrial production base, and an efficient logistics support base.

The Secretary of Defense in his January 1980 report to the Congress on the FY 1981 budget stated, "the industrial base would be hard-pressed to respond with the volume of war materiel necessary to assure uninterrupted support in a NATO conventional conflict after the inventories of war reserve materiel were exhausted."

Results of a recent mobilization exercise, NIFTY NUGGET, confirmed that the U.S. industrial base was not responsive to meet mobilization needs and some of the machinery and items needed to satisfy particular needs were not readily available. To illustrate, shortages in ammunition stocks and stocks of prepositioned equipment that are supposed to be in Europe were evident. A separate analysis of the ability of the U.S. industry to meet quickly a surge in military demands indicated that "industry probably cannot provide additional new equipment during the early months of a short-warning conflict."

The Secretary of Defense's annual report for fiscal year 1980 provided some reasons for the noted deficiencies. Some of these include:

--Elimination of production facilities that are excess to peacetime needs.

--Subcontractors are turning to other, more profitable production.

--Industrial plants and equipment are aging with little modernization being done.

--Increased reliance on foreign manufacture of component parts resulting in a loss of U.S. industrial capability.

--Loss of production capacity due to stringent environmental controls.

No one can say with any assurance, what the length of future conventional conflicts might be. If they are long, there will certainly be a need for a highly responsive industrial base. Even if they are short, there will be a need to rapidly rebuild defense inventories to deter further aggression. However, given the current state of the U.S. industrial base, there is serious concern whether it could rapidly respond to either of these high priority requirements.

GAO OBJECTIVES AND EMPHASIS

Our objectives in this area are to determine the condition of the U.S. industrial base, the extent of deficiencies in the responsiveness and sufficiency of the base, and to evaluate the appropriateness of actions to remedy these deficiencies. To achieve these objectives, the following questions need to be addressed.

1. What are the industrial mobilization requirements for the private and public sector (and how quickly do they have to be met)?

2. What assurance is there that these requirements will be met when needed?

3. Are DOD plans and actions to reduce or eliminate production bottlenecks adequate?

4. To what extent does DOD use the D to P concept when considering investment decisions (war reserve stocks versus plant modernization)?

5. What type of planning should the Federal Government do with private industry?

6. How effective is the U.S material stockpile program?

7. Can private industry assume more of DOD's weapons systems repair responsibilities, and what effect would this have on their manufacturing responsibilities and DOD's own repair capability?

8. How does foreign procurement of defense items affect U.S. industrial mobilization requirements and what steps has DOD taken to assure U.S. manufacturing capability for these items during contingencies?

9. Are industrial modernization programs sufficiently justified and consistent with facility needs?

10. What actions have been taken to insure adequate labor skills for key operations in an emergency?

11. Has the role of the industrial base been adequately defined by Defense?

Much of our prior work has been directed toward determining how effective the services have been in identifying the mobilization requirements for certain types of industrial operations such as shipyards, aircraft maintenance depots, and arsenals (question 1). We have identified the degree of attention the services have given to the type of work that would be required, the type of skills necessary to do the work, and the location of the work (public or private facilities). At the request of the House Appropriations Committee, we have annually reviewed the Army's ammunition production and modernization programs (questions 1, 3, and 9). We are cur-

rently reviewing the FY 1982 DOD ammunition programs for the Committee.

In the future, we plan to continue our annual review of the ammunition production and modernization programs, (questions 1, 3 and 9) because of congressional interest, the significant amount of dollars being spent on these programs, and the severe ammunition base shortfalls identified during the NIFTY NUGGET exercise.

Long-lead time components and foreign source dependency for key components and materials have been cited by many leading Government and industry leaders in recent months both in the media and before congressional committees as being a major reason for the lack of industrial base responsiveness. Thus, we plan to concentrate on identifying the causes, impact, significance, and options related to these identified problems (questions 3 and 8).

One additional area we plan to concentrate on deals with DOD's implementation of the D to P concept (question 4). The Services have requested large sums of money in recent appropriations for war reserve stocks. It is generally believed that in the coming years large amounts of additonal monies will be requested. Prior work has shown that these funds are many times requested without a complete assessment of the tradeoffs between more stocks and what industry is capable of producing within given timeframes if investments were made in more modern equipment. The results of our efforts in this area could greatly affect significant investment decisions.

CHAPTER 8

CAN U.S. FORCES, EQUIPMENT, AND FACILITIES SURVIVE AND RECOVER FROM ATTEMPTED SABOTAGE AND CONVENTIONAL AND UNCONVENTIONAL WARFARE ACTIONS?

In the past, a great deal of concern has been given to the ability of U.S. military installations, facilities, and equipment to survive a nuclear attack. Recently, however, the issue of survivability has been extended to include U.S. forces' ability to withstand attempted sabotage and conventional and unconventional warfare actions that do not include the use of nuclear weapons. Increased public discussion about non-nuclear warfare actions has included the apparent willingness of the Soviets to use chemical warfare, as was demonstrated in the invasion of Afghanistan, and concern about the vulnerability of U.S. installations and facilities to attacks by terrorists and trained enemy agents.

While mobilization of troops, materiel, and equipment are critical to a wartime mission, the ability to prevent enemy sabotage before an attack and the capability to resupply and continue operations during and after an attack is also critical. Whereas the security of assets is a necessary component of retaining overall readiness of U.S. military forces, planning for the survival and continuity of military operations after an attack is also an essential component to the goal of winning a conflict.

Losses or sabotage of military assets are particularly sensitive because such incidents cast doubt on the military's preparedness and on the U.S. defense posture. Thus, adequacy of physical security is a key ingredient in military readiness. While Defense spends over $1.8 billion annually for physical security measures, there continues to be numerous reported security incidents. During the first seven months of 1980, at least five incidents were reported in the Norfolk area alone involving physical damage to major weapon systems and missing weapons. For example, in March 1980, a total of 10 Navy aircraft, each worth $10.5 million, were vandalized at the Oceana Naval Air Station. In July 1980, electrical cables were cut in seven helicopters at the Norfolk Naval Air Station.

In Europe, the United States is becoming increasingly dependent on host nations for many support-type services including transportation, maintenance, and rear area protection. The increased use of foreign nationals to perform

these services, in some cases nationals of countries other than the one where the services are being performed, enhances the likelihood of persons with interests inimical to the United States having access to facilities critical to U.S.-NATO war plans and the opportunity to sabotage them.

In light of evidence that the Soviets are using chemical warfare in Afghanistan, it is necessary that the U.S. re-examine its defense measures against this threat. Although there has been a reluctance, in the past, on the part of Congress to appropriate funds for chemical warfare, there has been an increased interest in the problems associated with defenses against possible chemical agent use by the enemy. These problems include the inadequacy of the Army's standard issue gas mask, M17A1, which is outdated and not compatible with modern arms. In addition, many authorities now believe effective chemical defense within practical means presumes the need for a credible chemical offensive posture.

As opposed to America's repugnance toward chemical warfare, the Soviets and Warsaw Pact nations consider the use and development of chemical warfare a natural extension of any other conventional warfare means. Further, not only has their development of weaponry moved forward, but there has been considerable action in the area of preparing shelters and means to save civilian populations from chemical weapon attack. To counter the formidable Soviet chemical warfare threat, the U.S. has concentrated on individual survival. But some Congressmen and military experts believe the only effective way to prevent the Soviets from using chemical weapons is to counter their threat with a credible U.S. capability of massive chemical retaliation. The Congress recently added funding to a military construction appropriations bill for a nerve gas production plant, the first such plant in the United States since 1969.

GAO OBJECTIVES AND EMPHASIS

Our objectives in this area are to ensure that (1) facilities and equipment vital to the defense of the United States are adequately protected, both in peacetime and wartime and (2) plans exist to allow for the continuation of vital missions if some facilities and equipment are successfully damaged by enemy attacks. To achieve these objectives, we will address the following questions.

1. Are Defense programs and plans to increase the survivability and recovery of key operations, facilities and equipment effective?

2. Is the management of survivability and sustainability measures in a specific theater, i.e., Europe, Pacific, and the Persian Gulf, adequate to insure that limited funds are applied to the most urgent projects?

3. Are physical security measures at defense installations and key industries adequate?

4. Does the military have adequate offensive and defensive chemical, biological and radiological plans, programs and capabilities in order to deter and survive such enemy actions?

The only recent assignment that has been completed in this area addressed question 2. Our July 1980 report--Key Logistics and Other Installations in Europe: Can They Survive the Initial Stages of Conflict?--pointed out that key support facilities are vulnerable. The report concluded, in part, that the limited funds available to improve survivability measures in Europe could be optimized if survivability improvement programs in Europe were prioritized and funds expended accordingly. The Secretary of Defense concurred with this recommendation and said he would implement it.

We have two on-going assignments in this area. One deals with DOD's system for managing physical security programs at U.S. military installations in the continental United States (question 3). The second deals with the adequacy of plans in Europe to allow for the continuation of vital missions if some facilities and equipment are successfully damaged by enemy attacks (question 1).

During the future our efforts will be directed toward addressing question 3 because in our on-going review of physical security at U.S. bases it is apparent that (1) there are systematic problems in the program and (2) the military spends large dollar amounts to provide security.

We will aso emphasize question 4 because in today's military environment the use of chemical warfare is very likely. The recent use of chemicals in Afghanistan has caused sufficient alarm in Congress to warrant a review of DOD's chemical warfare capabilities.

CHAPTER 9

ARE CIVIL PREPAREDNESS PROGRAMS EFFECTIVE?

Preparedness, as it relates to National survival, is not only the ability of military forces to protect the Government of the United States and its allies, but also the ability of the Nation's population to survive and recover from a nuclear attack. Thus, civil preparedness is concerned with the protection of the population during a nuclear attack and the ability of the Nation to recover from such an attack. Civil preparedness is also concerned with the issue of continuity of Government because the survivability of the population and its capability to recover after an enemy attack will depend greatly on the ability of the Government to function during and after a nuclear attack.

In 1979, the Federal Emergency Management Agency (FEMA) was organized to plan, coordinate and evaluate civil preparedness programs. In order to consolidate civil preparedness and disaster relief functions into a single responsible organization, the following five federal organizations were merged to form FEMA.

--Defense Civil Preparedness Agency (Defense)

--Federal Disaster Assistance Administration (HUD)

--Federal Preparedness Agency (GSA)

--Federal Insurance Administration (HUD)

--United States Fire Administration (Commerce)

Congress has shown increased concern about civil preparedness. For fiscal year 1981, it authorized $120 million for civil preparedness. The appropriation bill said that the sense of Congress was that

> "a civil defense program providing for the relocation of the population of risk areas, including the larger U.S. cities, during a period of strategic warning resulting from an international crisis may be effective in protecting the population."

The 1981 appropriation bill also says that the President, in developing a civil defense program should consider,

in part:

--Nuclear civil protection planning for more rapid population relocation during times of international crisis.

--Nuclear civil protection planning for improved inplace population protection during times of international crisis in the event circumstances preclude population relocation.

--A survey of the shelters inherent in existing facilities.

--Planning for the development during times of crisis of additional shelters.

--The improvement of civil defense warning systems.

--The improvement of emergency public information and training programs and capabilities.

Until the establishment of FEMA, a number of federal agencies were responsible for various segments of civil preparedness planning but no one agency had overall responsibility. This situation resulted in a program which was fragmented and lacked direction and strong support from high levels of the Government. However, with the organization of FEMA and the issuance of Presidential Directives 41 and 59, the civil preparedness program has acquired high-level interest and legitimacy.

According to Presidential Directive 41, the new civil defense program should

> "enhance deterrence" and "provide some increase in the number of surviving population and for greater continuity of government, should deterrence and escalation control fail, in order to provide an improved basis for dealing with the crisis and carrying out eventual national recovery."

Presidential Directive 41 further states that the civil defense program should

> "take advantage of the mobility of the population stemming from wide ownership of private automobiles, the entensive highway systems, and the larger number of non-urban potential housing facilities to achieve crisis relocation of the urban population."

Presidential Directive 59, issued during the summer of 1980, outlines a new strategy of emphasizing pinpoint, retaliatory attacks against Soviet military and political targets instead of major population centers. Critics of the announced strategy believe that America's important military installations are targets for Soviet missiles. Therefore, such a plan places citizens living near the country's military targets in even higher-risk territory than they are now, making civil preparedness measures that much more important in these locations.

GAO OBJECTIVES AND EMPHASIS

Our objectives in this area are to determine if the establishment of FEMA as the single federal agency responsible for planning, coordinating, and evaluating civil preparedness has overcome some of the problems which plagued prior civil preparedess programs and determine if current programs are realistic and workable. To achieve these objectives, the following questions need to be addressed.

1. Does the U.S. have a national strategy--Can it be a voluntary participative program?

2. How effective are the civil preparedness protection programs under the direction of FEMA?

3. Have adequate plans and programs been developed to address recovery following attack?

4. Have adequate plans and programs been developed to ensure the continuity of the Federal Government in a critical national emergency?

5. What progress have civil agencies made in correcting the many deficiencies in the mobilization planning identified in the recent NIFTY NUGGET exercise?

6. Are the civil preparedness warning and communications systems effective?

It has been almost two years since our last major review in this area. In an August, 1977, report, "Civil Defense: Are Federal, State, and Local Governments Prepared for Nuclear Attack?" we reported that as a result of poor planning and a lack of coordination at all levels of government, the United States did not have a comprehensive civil defense policy (question 1). In an April 1978 report, "Continuity of the Federal Government in a Critical National Emergency-A Neglected Necessity", we stated that plans for Continuity-of-Government during a national emergency

were hindered by inadequate direction, emphasis, and coordination (question 4). These reports provided impetus towards consolidating the responsibilities for civil preparedness under FEMA.

During the future we will try to determine if the many problems we found in the prior civil preparedness programs have been corrected as a result of the establishment of FEMA as the single federal agency responsible for civil preparedness (question 2). Emphasis will be given to this question because of (1) increased congressional interest, (2) increased federal funds for the civil preparedness program, and (3) the increased visibility given to the program as a result of recent Presidential Directives.

Our plans also include emphasizing issues dealing with the continuity of the Federal Government (question 4). This issue is being emphasized, because like question 2, it has been given increased visibility as a result of a recent Presidential Directive and because it is a key element to an effective civil preparedness program.

APPENDIX I

DEPARTMENT OF DEFENSE

STRATEGIC FORCES HIGHLIGHTS

	FY 64	FY 68	FY 78	FY 80	FY 81
STRATEGIC OFFENSIVE:					
LAND BASED ICBM'S:					
TITAN	108	54	54	54	54
MINUTEMAN I	600	570	-	-	-
MINUTEMAN II	-	394	450	450	450
MINUTEMAN III	-	-	550	550	550
BOMBER SQUADRONS:					
B-47, B-58	36	-	-	-	-
B-52C-F/D	26	17	5	5	5
B-52G/H	17	17	16	16	16
FB-111	-	-	4	4	4
FLEET BALLISTIC SUBMARINES:					
POLARIS	21	41	10	5	-
POSEIDON			31	31	31
TRIDENT				1	2
STRATEGIC DEFENSIVE:					
FIGHTER INTERCEPTOR SQDNS:					
ACTIVE:					
F-101, F-102, F-104	27	15	-	-	-
F-106	13	11	7	7	7
AIR NATIONAL GUARD:					
F-4	-	-	2	2	3
F-86, F-89, F-100	19	2	-	-	-
F-101	-	-	3	3	2
F-102	10	20	-	-	-
F-106	-	-	5	5	5
AIR DEFENSE BATTERIES:					
NIKE-HERCULES	147	123	-	-	-

APPENDIX I

DEPARTMENT OF DEFENSE

GENERAL PURPOSE FORCES HIGHLIGHTS

	FY 64	FY 68	FY 79	FY 80	FY 81
LAND FORCES:					
ARMY DIVISIONS:					
ACTIVE	16	19	16	16	16
RESERVE	23	8	8	8	8
MARINE CORPS DIVISIONS:					
ACTIVE	3	4	3	3	3
RESERVE	1	1	1	1	1
TACTICAL AIR FORCES:					
AIR FORCE WINGS:					
ACTIVE	21	25	26	26	26
RESERVE	7	8	11	11	12
MARINE CORPS WINGS:					
ACTIVE	3	3	3	3	3
RESERVE	1	1	1	1	1
NAVY ATTACK WINGS:					
ACTIVE	15	15	12	12	12
RESERVE	2	2	2	2	2
NAVAL FORCES:					
ACTIVE FLEET	803	875	388	395	418
CARRIERS	24	23	13	13	12
OTHER SHIPS (ACTIVE & NRF)	82	49	10	7	7
RESERVE SHIPS	62	54	53	53	42
FLEET AUXILIARY FORCE SHIPS		1	19	22	22

APPENDIX I

DEPARTMENT OF DEFENSE

AIRLIFT AND SEALIFT FORCE HIGHLIGHTS

	FY 64	FY 68	FY 79	FY 80	FY 81
STRATEGIC AIRLIFT:					
C-5 AIRCRAFT	·	·	77	76	76
C-141 AIRCRAFT	6	266	280	280	280
CRAF CONVERSIONS	·	·	·	6	7
TACTICAL AIRLIFT:					
AIR FORCE ACTIVE:					
C-130 AIRCRAFT	506	502	271	276	276
OTHER AIRCRAFT	684	352	·	·	·
AIR FORCE RESERVE & NATIONAL GUARD:					
C-130 AIRCRAFT	·	8	281	290	308
C-123 AIRCRAFT	53	·	70	70	53
C-7A AIRCRAFT	·	·	54	54	18
OTHER	802	638	·	·	·
ACTIVE NAVY & MARINE CORPS TACTICAL SUPPORT AIRCRAFT	120	116	54	61	60
NAVY & MARINE CORPS RESERVE TACTICAL SUPPORT AIRCRAFT	72	72	42	36	23
SEALIFT:					
SHIPS, ACTIVE					
TANKER	25	26	7	7	7
CARGO & STORES SHIPS	38	41	6	5	5
OTHER	38	63	·	·	·
CONTROLLED FLEET CHARTERS					
TANKER	·	·	14	14	14
CARGO	·	·	21	24	24
NATIONAL DEFENSE RESERVE FLEET	255	490	144	159	161

GAO REPORTS AND OTHER KEY DOCUMENTS ON MILITARY READINESS MATTERS ISSUED SINCE JANUARY 1, 1979

IS CONTINGENCY PLANNING ADEQUATE TO MEET MILITARY THREATS AND CAN THE PLANS BE IMPLEMENTED?

Prepositioning Of Additional Equipment In Europe--Issues And Problems (LCD-79-422, 9/05/79) (Secret).

Navy Determination Of War Reserve Needs Could Be Improved (C-LCD-80-9, 8/08/80) (Secret).

The Roles, Missions, And Relationships Of The Pacific Command Headquarters (C-LCD-80-6, 8/18/80) (Secret).

HOW CAN MILITARY READINESS REPORTING SYSTEMS BE IMPROVED TO MORE ACCURATELY REFLECT CAPABILITIES AND NEEDS?

A Need Exists To Better Determine The Naval Forces' Readiness/Capabilities (LCD-79-402, 4/24/79) (Secret).

GAO's Concerns With The Readiness Of U.S. Forces (LCD-79-423, 8/20/79) (Secret).

DOD's Materiel Readiness Report To The Congress--Improvements Needed To Better Show The Link Between Funding And Readiness (LCD-80-5, 10/12/79).

Document On GAO Military Readiness Reports Issued During The 15-Month Period Ended May 1980 (no number, 7/14/80).

Summary Of Major Military Preparedness/Readiness Issues Addressed By The U.S. General Accounting Office (no number, 11/28/80).

CAN REQUIRED MOVEMENTS OF PERSONNEL, EQUIPMENT, AND SUPPLIES BE ACHIEVED IN A CRISIS?

Strategic Mobility Planning For The Continental United States: Improvements Recommended (LCD-79-203, 2/02/79) (Secret).

A Time To Consider Alternative Sources Of Quick-Response Sealift Capability (LCD-78-244, 2/07/79).

Material Handling Equipment--A Weak Link In The Defense Logistics Chain (LCD-79-212, 8/10/79).

Emergency Plan Of MARAD (LCD-80-52, 4/17/80).

Transportation Vehicles Available In Europe For Medical Evacuations (LCD-80-71, 6/10/80).

Ammunition Logistics System In Korea Is Sound, But Can Be Improved (C-LCD-81-2, 10/30/80) (Confidential).

ARE U.S. FORCES AND FIELDED EQUIPMENT READY AND ADEQUATELY SUPPORTED?

Observations On The Fleet Support Provided By The Navy's Shore Installations In The Western Pacific And Indian Ocean (LCD-78-426A, 1/26/79).

Marine Amphibious Forces: A Look At Their Readiness, Role, And Mission (LCD-78-417A, 2/06/79).

The Readiness Of U.S. Forces In Europe--Selected Aspects And Issues (LCD-78-430A, 2/16/79).

The U.S. Air Force Tactical Air Command-- Is It Ready-- Can It Fulfill U.S. Commitments To Rapidly Increase Its Forces In Europe? (LCD-79-406, 4/23/79) (Secret).

Can The Army And Air Force Reserves Support The Active Forces Effectively? (LCD-79-404A, 4/25/79).

A-10 Aircraft Logistic Support Can Be Better Matched With Operational Requirements (C-LCD-80-2, 10/30/79) (Secret).

Improving The Effectiveness Of Joint Military Exercises--An Important Tool For Military Readiness (LCD-80-2, 12/11/79).

Bomber And Tanker Aircraft Problems Limit The Strategic Air Command's Ability To Accomplish Its Missions (C-LCD-80-4, 7/18/80) (Secret).

Foreign Military Sales To Egypt And Israel As A Result Of Mideast Peace Treaty--Impact On U.S. Readiness Minimized (C-LCD-80-7, 8/01/80) (Secret).

Letter Report On Readiness Of Minuteman Missiles (LCD-80-102, 9/16/80).

Antisubmarine Warfare: U.S. Navy's Capability In Question (C-LCD-81-01, 10/24/80) (Secret).

CAN COALITION DEFENSE PLANNING BE IMPROVED?

Air Force Efforts To Obtain Increased Host Nation Weather Support In Europe (LCD-79-413, 5/11/79).

CAN MOBILIZATION NEEDS BE MET BY THE INDUSTRIAL BASE?

Followup On Use Of Numerically Controlled Equipment To Improve Defense Plant Productivity (LCD-78-427, 1/17/79).

If Army Helicopter Maintenance Is To Be Ready For Wartime, It Must Be Made Efficient And Effective In Peacetime (LCD-79-407, 5/10/79).

Army Plans To Modernize The Rock Island Arsenal May Be Inappropriate (LCD-79-418, 6/06/79).

Army's FY 1980 Programs For Procuring Conventional Ammunition, Modernization, And Expansion (LCD-79-416, 6/15/79).

Inadequate Monitoring Of U.S. Merchant Tanker Fleet Hampers Mobilization Planning (LCD-79-215, 6/29/79).

The Navy Does Not Know If It Has Too Much Electronic/Electrical Depot Maintenance Capability, Too Little, Or The Right Kind (LCD-80-3, 11/02/79).

Navy Missile Maintenance Can Be Done Cheaper By Improving Productivity (LCD-80-43, 4/09/80).

Adjustments Recommended In Army's Ammunition Program (LCD-80-62, 6/12/80).

APPENDIX II

CAN U.S. FORCES, EQUIPMENT AND FACILITIES SURVIVE AND RECOVER FROM ATTEMPTED SABOTAGE AND CONVENTIONAL AND UNCONVENTIONAL WARFARE ACTIONS?

Key Logistics And Related Installations In Europe: Can They Survive The Initial Stages Of Conflict (C-LCD-80-5, 7/21/80) (Secret).

Information Regarding Military, Civilian, And Contract Employees Who Are Providing Physical Security At Military Installations (LCD-80-112, 9/30/80).

ARE CIVIL PREPAREDNESS PROGRAMS EFFECTIVE?

Review Of The Federal Emergency Management Agency's Planned Relocation Of Positions From Olney, Maryland, To Philadelphia, Pennsylvania (LCD-80-47, 3/28/80).

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