



UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

2269  
119107

PROCUREMENT, LOGISTICS,  
AND READINESS DIVISION

B-202120

JULY 19, 1982

The Honorable Caspar W. Weinberger  
The Secretary of Defense



119107

Attention: Director, GAO Affairs

Dear Mr. Secretary:

Subject: Evaluation of DOD's Readiness Report in  
Response to Public Law 96-342 (GAO/PLRD-82-96)

In an attempt to obtain a clearer understanding of the relationship between defense funding levels and military readiness, the Congress, in 1977, enacted Public Law 95-79 requiring the Department of Defense (DOD) to submit an annual materiel readiness report describing the effect of its appropriations request on materiel readiness. In the same vein, with the passage of Public Law 96-342 in 1980, the Congress tasked DOD to submit another annual report projecting unit combat readiness (C-ratings) resulting from funds requested in DOD's budget for the upcoming fiscal year. However, this reporting requirement was rescinded with the passage of Public Law 97-86.

Because the Congress continues to lack full visibility of how funding will improve readiness and DOD is still required to develop the ability to link readiness and funding, we have assessed DOD's progress to do so.

The Office of the Secretary of Defense (OSD), the Joint Chiefs of Staff (JCS), and the military services all have systems in place or initiatives underway for addressing this relationship. However, we found that DOD has been unable to adequately articulate this relationship and that the various organizations involved are not benefiting fully from each others' efforts. There is no DOD-wide program or capability to integrate or coordinate these efforts toward meeting stated congressional needs. (See enc. I for details on these conditions.) In our opinion, a focal point is needed within DOD to assure that the various DOD organizations' efforts provide the Congress adequate bases for relating funding levels with readiness.

(947459)

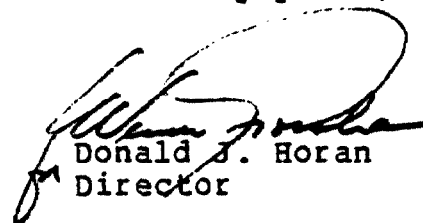
022994

Accordingly, we recommend that you establish a DOD focal point within OSD to effectively manage efforts to link funding and readiness. This office should be responsible for identifying all ongoing and planned initiatives to link funding to readiness and for providing the necessary guidance and coordination to minimize duplication.

As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendation to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Chairmen of the above-mentioned Committees and to the Chairmen of the Senate and House Committees on Armed Services. Copies of this report are also being sent to the Secretaries of the military departments and the Chairman of the JCS.

Sincerely yours,



Donald J. Horan  
Director

Enclosures - 3

GAO OBSERVATIONS ON DOD INITIATIVES  
TO LINK FUNDING TO READINESS

BACKGROUND

The Congress has long expressed an interest in the relationship between defense funding and its corresponding effect on military readiness. Through legislation, it has mandated DOD to develop the ability to describe this relationship and to report on it annually to the Congress. While progress has been made, DOD still lacks the ability to project changes in readiness that would result from funding levels requested in its annual budget submission.

The Congress' first legislative attempt to determine the effect of funding levels on defense readiness was the passage of Public Law 95-79. This law required DOD to submit a report, by February 1978, setting forth its readiness requirements, and in subsequent years, an annual report on changes in materiel readiness requirements and the effect requested appropriations would have on materiel readiness. From the beginning, DOD acknowledged that it lacked the ability to satisfy this mandate.

In 1979 we evaluated <sup>1/</sup> DOD's second materiel readiness report submitted to the Congress. DOD's actions on our recommendations resulted in an improved report. Due to coordination with congressional committees, DOD has a better understanding of what information the Congress needs and has improved the report over the years.

On September 8, 1980, the Congress, in a further attempt to obtain information on the funding to readiness link, passed Public Law 96-342. This law required an annual report that projected expected changes in the Unit Status and Identity Report (UNITREP) C-ratings based on the current budget year funding levels by DOD.

The Congress later deleted the UNITREP C-rating projection requirement on December 1, 1981, with Public Law 97-86. Nevertheless, the fiscal year 1982 Department of Defense Authorization Act Conference Report recognized the need to continue working toward developing a means to project readiness. The report

---

<sup>1/</sup>"DOD's Materiel Readiness Report to the Congress--Improvements Needed to Better Show the Link Between Funding and Readiness" (LCD-80-5, October 12, 1979).

required only that DOD submit an "\* \* \* overall readiness assessment that fulfills the needs of the Congress to the maximum possible extent." DOD, however, was specifically directed to allocate the necessary resources to develop automated models to make resource-related projections of readiness.

#### OBJECTIVES, SCOPE, AND METHODOLOGY

Our principal initial objectives were to

- evaluate DOD's unit readiness report, as required by Public Law 96-342, in terms of its responsiveness to congressional needs;
- examine the parameters and the definition of the term readiness; and
- identify and evaluate DOD's efforts to link funding to readiness.

Because DOD's unit readiness reporting requirement was rescinded, we concentrated our efforts on assessing DOD's initiatives to link funding with readiness. To do so, we reviewed the materiel and unit combat readiness reporting requirements and other relevant literature and documentation provided by DOD and contractors. We discussed with appropriate DOD, military services, and contractor representatives, readiness reporting needs, reporting capabilities, and the methodology and status of initiatives within DOD to link funding to readiness. Also, we held discussions with congressional staff members.

#### INITIATIVES TO LINK RESOURCES TO READINESS SHOULD BE COORDINATED

OSD, JCS, and the military services have attempted to develop systems to link funding to readiness. These efforts, however, have been largely uncoordinated; the players are largely unaware of others' efforts and have not always shared information to the extent necessary.

#### Need for better coordination of resources to readiness initiatives

DOD's experience in coordinating efforts for its materiel readiness report, GAO's 1979 report, and the Logistics Management Institute's (LMI's) 1980 study all point out the critical importance of coordination and sustained top-level support for efforts to link funding to readiness.

In 1977 the Secretary of Defense established a Readiness Management Steering Group to provide the needed coordination for materiel readiness reporting purposes. However, according to DOD officials, the group was disbanded because it lost top-level support.

In 1979, based on a review of DOD's Materiel Readiness Report, we reported that the services were working independently toward materiel readiness reporting goals, without the benefit of formal DOD guidance and coordination. We recommended, among other things, that greater coordination of efforts be effected. As a result, DOD advised us that an "institutionalized" process for materiel readiness reporting has been developed.

On July 27, 1979, OSD contracted with LMI to develop a framework for managing readiness in DOD. The resulting 1980 report noted that there was no lack of effort within DOD to address certain aspects of the readiness management problem--a situation we found to be true today. However, LMI saw the multiplicity of approaches presenting a problem in itself. It concluded that "coordination of readiness management efforts \* \* \* can be improved through the assignment of responsibility for readiness management to specific offices and individuals with top-level visibility."

Despite these past recommendations, the problem continues. We identified 10 independent initiatives which lack a concerted direction toward developing an overall DOD ability to link funding and readiness. The duplicative efforts of JCS, the Army, and the Navy to determine the impact of funding on readiness using C-ratings illustrate the effect of an absence of coordination.

In 1981 JCS contracted with the Institute for Defense Analysis (IDA) to relate funding to C-ratings. IDA's first attempt was unsuccessful and its results were not published. JCS initiated a second IDA study with the same goal hoping to achieve better results by using an improved methodology.

Without consulting with JCS or IDA, the Army pursued a similar goal. Although it participated with JCS in evaluating the first IDA study, the Army was unaware of the second IDA study and only by chance learned of it. The Army subsequently canceled its study after JCS agreed to redirect its effort to serve the needs of both the Army and itself. Fortunately, the potential for further duplication of effort was avoided in this case.

While JCS and the Army were working independently, the Navy had already developed the ability to relate C-ratings and funding levels that was suitable for its purposes. While JCS may have benefited from the Navy's experience, no evidence exists that information was shared.

Coordination of these types of activities by a focal point within DOD will help it to avoid future duplicated efforts and enable it to utilize knowledge already gained.

DOD efforts to link funding to  
readiness should build on past experience

Many efforts to link resources to readiness are producing results useful to their sponsors. However, none by themselves can provide the Congress with a complete picture of how funding affects readiness levels. Nevertheless, these efforts can become parts of a total, concerted program by DOD. The JCS/IDA study is the only one we are aware of that is being designed for DOD-wide application and that builds on past DOD efforts to link funding to readiness. However, other studies are available to DOD. For example, during the Program Objective Memorandum review process, OSD (Manpower, Reserve Affairs, and Logistics) uses contractors' studies to aid it in analytically assessing military readiness at given resource levels.

Systems are also available to DOD to serve as building blocks which address various aspects of the funding-to-readiness relationship. Such systems include the following:

- The Logistics Capability Measurement System which is used to develop the Air Force's Program Objective Memorandum. According to Air Force officials, the system can be used to produce a graphic display of logistics support needs for petroleum, munitions, and reparable spares and the impact of different funding levels on readiness.
- The LMI model which relates sorties flown to inputs at selected resource levels.
- The Rand Corporation models. One model will determine platoon action outputs, based on 11 types of resource inputs. The other will assess the effect of funding levels for various logistics functions on peacetime materiel readiness and wartime sustainability of Air Force and Navy air forces.

(See enc. II for a more detailed discussion of available systems.)

In our opinion, DOD should use the systems and studies to develop a DOD-wide approach suitable for providing information to the Congress. In addition, DOD should establish a DOD focal point to monitor progress and to ensure that past experience is used in future efforts.

Efforts to improve readiness measurement should be applicable to linking funding to readiness

DOD has used UNITREP, C-ratings, and mission capable rates as bases for its Public Laws' 95-79 and 96-342 mandated reports to the Congress. However, experience has shown that these readiness measurement systems are not adequate for linking funding to readiness. Therefore, we believe DOD should become actively involved in existing and future attempts to develop a readiness measurement system that links funding to readiness. To the extent possible, this system should isolate and measure changes in readiness that occur from changes in funding.

DOD's experience in projecting readiness from the UNITREP C-ratings and mission capable rates systems illustrates this point. UNITREP C-ratings were designed to measure unit readiness at a specific point in time for operational purposes, not for projecting readiness based on funding. Consequently, DOD was unable to project readiness to the satisfaction of the Congress. Mission capable rates were designed to measure current equipment status, not for projecting equipment status based on funding. Only after several years of effort to develop a methodology to project readiness was DOD confident of its projections contained in the materiel readiness report.

We identified an Air Force readiness measurement improvement effort that illustrates a conscious effort to develop a system for projecting improvements in readiness as a result of funding. The Air Force Integrated Readiness Measurement System is intended to provide Air Force decisionmakers with a complete, timely, and accurate assessment of the Air Force's combat readiness. This system is intended also to be used, among other things, in budget and resource allocation decisions. Since this system is new, we did not evaluate its applicability to DOD's efforts to link resources to readiness.

It is evident that to project improvements in readiness due to changes in funding levels, DOD must first have an appropriate system to measure existing levels of readiness. At this time, one does not exist. Therefore, DOD needs to place a high priority on developing, on an interservice basis, a readiness measurement system that would serve as an appropriate basis from which to project future readiness levels.

Uniformity is required in using the  
standard definition of readiness

The Congress has expressed concern in the past that there was no standard definition of readiness. A 1980 House readiness panel report concluded that readiness is an imprecise term and that DOD lacks a definition of readiness applicable to broad congressional concerns, that is, linking improvements in readiness to funds appropriated. This conclusion is borne out by a March 1980 Air Force-sponsored study that cited 44 different readiness definitions and readiness-related terms used within DOD.

DOD has taken the initiative to develop a standard definition of readiness and its individual components. In an August 1981 memorandum to JCS, the Deputy Secretary of Defense suggested a definition of "military capability" which included "four pillars"--readiness, sustainability, modernization, and force structure (see enc. III). A JCS-sponsored interservice group has gained the services' acceptance of these definitions for inclusion into the JCS Publication 1, the dictionary of military terms. This definition will be official once the publication is issued in July 1982.

These accepted definitions are quite broad and are subject to interpretation for the purpose of identifying which expenditures affect readiness or any other component of military capability. For example, the Navy views the purchase of all aircraft within the concept of "force structure" and the Air Force views purchases of replacement aircraft as "modernization." Neither service views the other's definition as acceptable for its use. Also, the Air Force is concerned that the four pillars give inadequate consideration to mobilization and survivability which it believes should be addressed separately. Finally, there is some question among the services as to when readiness ends (D-day or D-day plus 72 hours) and when sustainability begins.

Within DOD there are several initiatives underway to identify which budget expenditures affect readiness and its four components. The Navy has already identified the budget line items that fall within each pillar for its internal programing purposes. OSD is involved in a similar study, except OSD intends for its study results to be used by all service components in the DOD-wide programing process. However, representatives from the services have not been involved in the OSD project. OSD and Navy officials stated that important differences will exist between the two study results which will



render them incompatible. JCS has contracted with IDA to identify individual budget items that affect unit readiness and to relate this to potential changes in UNITREP C-ratings. JCS is working with the individual services on this project.

It is apparent that while these efforts may serve individual service purposes, they may not serve DOD in its efforts to develop a DOD-wide funding to readiness link. We believe that a DOD focal point can play a significant role in coordinating DOD's efforts to identify expenditures that affect readiness.

DOD EFFORTS TO LINK RESOURCES TO READINESS

The list below discussed studies and systems that have been completed or are underway to determine the impact of various funding levels on readiness. This is not a complete list as it contains only some examples of current initiatives.

1. Effects of Resource Levels on Sortie Generation Capability

Responsible Office: A LMI product sponsored by Office of the Assistant Secretary of Defense (OASD), Manpower, Reserve Affairs and Logistics (MRA&L)

Purpose: The sortie generation model estimates the number of sorties that can be flown by tactical aircraft in a wartime scenario using aircraft characteristics, maintenance, manpower, and recoverable spares levels. MRA&L, to assess the adequacy of the Air Force's resource allocations as reflected in its Program Objective Memorandum, uses this system to determine if alternatives exist to achieve more readiness within the same funding levels.

Status: In use by OSD.

2. Resource Readiness of Combined Arms Units

Responsible Office: A Rand Corporation study sponsored by OASD (MRA&L)

Purpose: This study uses a simulation model, Armored Unit Readiness Assessor, to determine platoon action outputs based on 11 types of resource inputs. It is intended to be used to analyze the Army's Program Objective Memorandum to determine if alternative mixes of resource inputs will provide greater capability outputs.

Estimated Cost: \$125,000.

Status: Under development.

3. Assessing the Peacetime Materiel Readiness and Wartime Sustainability of U.S. Air Forces

Responsible Office: A Rand Corporation study sponsored by OASD (MRA&L)

Purpose: This model will assess the effect of varying funding levels for various logistics functions on the peacetime materiel readiness and wartime sustainability of Air Force and naval air forces. The product would be used by OSD, the Air Force, and the Navy to prepare and review programs and budgets.

Status: Under development.

4. IDA studies

Responsible Office: JCS (Operations)

Purpose: IDA's first attempt to identify the individual budget items that affect the readiness by military unit and to relate this to potential changes in C-ratings was unsuccessful. IDA is now doing a second study, concentrating on Army combat divisions, using Army historical readiness ratings and funding to determine the causal relationship that exists. No reliable relationship has been defined to date. JCS hopes that by concentrating on one service at a time and with the services cooperation, such a relationship can be identified.

Costs: Initial study, \$200,000; the second effort, \$250,000.

Status: Under development.

5. Logistics Capability Measurement System (LCMS)

Responsible Office: A combination of two models developed by LMI and the Synergy Corporation sponsored by the Air Force Deputy Chief of Staff (Logistics & Engineering)

Purpose: The LMI model is an aircraft availability model that considers assets on hand and determines the effect on aircraft peacetime availability, based on various levels of maintenance and procurement funding. The Synergy model, using wartime operations plans, measures the ability to execute each scenario by varying funding impacts for petroleum, munitions, and spares. The Logistics Capability Measurement System is used routinely in developing the Air Force's Program Objective Memorandum.

Status: Operational.

6. Balanced Resource Analysis

Responsible Office: Air Force Deputy Chief of Staff  
(Logistics & Engineering)

Purpose: This analysis graphically indicates, over time, the effect of various funding levels of petroleum, munitions, and reparable spares on a weapon system's ability to perform adequately in wartime. The data used in this analysis are generated by the Logistics Capabilities Measurement System models. This has been used to support Air Force resource needs to the Secretary of Defense and the Congress.

Status: Operational.

7. Aircraft Mission Capable Rates to Resources Project

Responsible Office: Navy Program Planning Office (Mathtech  
contract)

Purpose: This project uses selected budget accounts that affect readiness, such as spares, engines, and engine re-work, to determine the relationship between prior funding and historical mission capable rates. If successful, the Navy will then identify the causal relationship between funding and readiness as reflected by mission capable ratings.

Status: Under development.

8. UNITREP C-Ratings to Resources Project

Responsible Office: Navy Program Planning Office (Mathtech contract)

Purpose: Using resources identified as affecting personnel C-ratings, Navy analysts use regression analyses on historical C-ratings and funding levels to develop a relationship between them from which the Navy projects personnel C-ratings based on expected funding.

Status: Operational.

9. Training Requirements and Cost Evaluation System

Responsible Office: A study by Decision and Design, Inc. for the Marine Corps, Operations Division

Purpose: The objective of this system is to use Marine Corps Combat Readiness Evaluation System scores to identify the impact of additional training funds on improvements in performance in combat situations.

Status: Under development.

10. Modification of the Marine Corps AutomatedReadiness Evaluation System

Responsible Office: Marine Corps Headquarters, Materiel Division

Purpose: This project will expand the present capability of the existing Marine Corps Automated Readiness Evaluation System. This logistics evaluation system identifies, over time, equipment availability, deadline rates, and other readiness indicators. This project is intended to relate funding to materiel readiness achieved in the field.

Status: Under development.

DEFINITION OF MILITARYCAPABILITY

The following definition was extracted from a Deputy Secretary of Defense memorandum to the Director, Joint Staff, dated August 14, 1981.

"MILITARY CAPABILITY is the ability to achieve a specified wartime objective (e.g., win a war or battle, destroy a target set). It has four components:

- FORCE STRUCTURE: numbers, size, and composition of the units that comprise our Defense forces, e.g., divisions, ships, airwings.
- MODERNIZATION: technical sophistication of forces, units, weapon systems, and equipments.
- READINESS: ability of forces, units, weapon systems, or equipments to deliver the outputs for which they were designed (includes the ability to deploy and employ without unacceptable delays).
- SUSTAINABILITY: the 'staying power' of our forces, units, weapon systems, and equipments, often measured in numbers of days."