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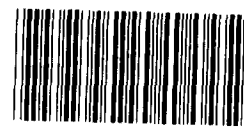
REPORT BY THE U.S.

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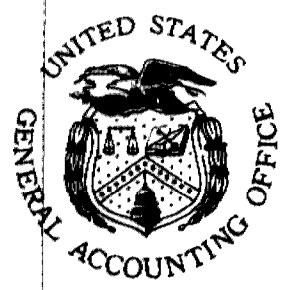
DOD's Materiel Readiness Report To The Congress--Improvements Needed To Better Show The Link Between Funding And Readiness

This report deals with the Department of Defense's (DOD's) attempts to develop a capability to relate funding to readiness and its materiel readiness report provided to the Congress under Public Law 95-79, section 812.

DOD needs to develop better concepts for managing readiness. DOD also needs to develop guidance for the services' input to the materiel readiness report. Such guidance is needed to provide better information for congressional decisions on alternatives for readiness funding.



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OCTOBER 12, 1979

B-146896

The Honorable Harold Brown
The Secretary of Defense

Dear Mr. Secretary:

In recent years, both the Congress and the Department of Defense have increasingly emphasized the need to improve the Department's capability to relate funding to materiel readiness. This report discusses the Defense Department's materiel readiness report to the Congress required by Public Law 95-79, section 812, and its management efforts to better relate funding to readiness.

This report contains recommendations to you on pages 9 and 16. 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 recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs 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 Director, Office of Management and Budget; the Secretaries of the Army, Navy, and Air Force; and the Chairmen, House and Senate Committees on Armed Services.

Sincerely yours,



R. W. Gutmann
Director



GENERAL ACCOUNTING OFFICE
REPORT TO THE SECRETARY
OF DEFENSE

DOD'S MATERIEL READINESS
REPORT TO THE CONGRESS--
IMPROVEMENTS NEEDED TO BET-
TER SHOW THE LINK BETWEEN
FUNDING AND READINESS

D I G E S T

The Department of Defense (DOD) spends billions each year to maintain the readiness of its weapon systems but cannot accurately project how much readiness a dollar will buy or determine how much readiness is needed.

To obtain better information for funding decisions, the Congress requires DOD to submit an annual materiel readiness report on the projected level of materiel readiness resulting from the appropriations request. 1/ To date, DOD has made little progress in linking funding and materiel readiness and has not achieved an adequate materiel readiness report for the Congress. Its officials told GAO that the size and complexity of the problem has seriously hampered their attempts.

In April 1979 GAO provided the Senate and House Committees on Armed Services with a discussion paper containing GAO's comments on the second annual materiel readiness report to the Congress submitted in February 1979. In this report, GAO amplifies and expands on the information provided to the Committees.

CENTRAL COORDINATION OF SERVICES'
EFFORTS TO RELATE RESOURCES TO
READINESS NEEDED

In 1977 the Secretary of Defense established a Readiness Management Steering Group and called for:

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1/Public Law 95-79, section 812.

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perform its mission due to maintenance and/or supply problems. However, readiness problems related to maintenance and supply activities are often caused by factors other than funding. (See p. 12.)

Second, the report does not show the tradeoff between funding for maintenance and supply. In some cases, lowered materiel readiness is primarily caused by maintenance problems; in others supply shortage is the major problem. However, DOD projections show only the combined effect of maintenance and supply problems. (See pp. 13 and 14.)

A number of other problems in the readiness report relate to a lack of reporting criteria. (See pp. 14 and 15.)

COMMITTEE REQUEST FOR MORE DETAILED DATA

In commenting on DOD's February 1978 materiel readiness report, the Senate Committee on Armed Services said that "future reports should contain more detailed and explicit data relating funding requests to materiel readiness." The Committee also said that DOD should provide detailed historical materiel readiness data on seven specific aircraft programs, including an explanation of the effect of prior funding on changes in readiness. However, in all but two cases, the readiness changes reported by DOD are attributed to management actions or logistics problems. (See p. 2.)

CONCLUSIONS

DOD's materiel readiness report does not adequately meet the objectives of providing the Congress with reliable projected readiness data based on funds requested to enable better funding decisions for readiness. DOD's Readiness Management Steering Group has not established effective management

factors contributing to readiness, and the type of analytical tools needed.
(See p. 9.)

3 The Secretary of Defense should also require the Readiness Management Steering Group to provide criteria for the services to use in future materiel readiness reports.
(See p. 16.)

AGENCY COMMENTS

Officials from the Office of the Secretary of Defense, the Joint Chiefs of Staff, the Army, the Navy, and the Air Force generally agreed with the factual information in the report. However, they said it should place more emphasis on the difficulty and complexity of relating resources to readiness and to the progress which is being made. They said it should also recognize that DOD has not held back information and that the materiel readiness reports provided to the Congress have contained the best information currently available.

GAO recognizes that a materiel readiness report is a complex task. However, DOD has not productively used the time available to develop a better report. In the last 2 years, the Readiness Management Steering Group has failed to take the necessary action to carry out the Secretary of Defense's directive to establish a long-range plan for relating resources to readiness. (See pp. 4 and 5.)

DOD officials also did not agree with GAO's conclusion that the criteria for the readiness report should address such questions as funding alternatives, priorities, and tradeoffs because section 812 merely requires a projection of readiness based on the single level of funding requested in the budget submission.

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CHAPTER 1

INTRODUCTION

This report discusses the Department of Defense's (DOD's) materiel readiness report required by Public Law 95-79, section 812, and DOD's actions to develop better capabilities to relate funding resources to military readiness. In April 1979 we provided the House and Senate Committees on Armed Services with a discussion paper containing our comments on DOD's materiel readiness report submitted with the fiscal year 1980 budget. This report amplifies and expands on the information provided to the Committees.

NEED FOR RELATING FUNDING TO READINESS

On July 30, 1977, the Congress passed Public Law 95-79. Section 812 of this law requires the Secretary of Defense to make an annual report to the House and Senate Committees on Armed Services on DOD's materiel readiness requirements.

The law called for a comprehensive materiel readiness report to be submitted in February 1978 with DOD's budget request and an annual report of changes to be submitted with DOD's budget in subsequent years. The February 1978 report was to set forth "quantitative and measurable materiel readiness requirements" for the Armed Forces and reserve components and was to include

- the monthly readiness status of the Armed Forces during fiscal year 1977,
- projected readiness status for fiscal years 1978 through 1983, and
- reasons for changes in the readiness status.

In subsequent years, DOD is to report changes in the materiel readiness requirements and data projecting the effect requested appropriations will have on materiel readiness.

Section 812 was passed because the Congress needs quantitative information on the effect appropriations have on readiness to provide better oversight for decisions on

AGENCY COMMENTS

Officials from the Office of the Secretary of Defense, the Joint Chiefs of Staff, the Army, the Navy, and the Air Force generally agreed with the factual information in the report. However, they said it should place more emphasis on the difficulty and complexity of relating resources to readiness and on the progress being made. They said that it should also recognize that DOD has not held back information and that the two materiel readiness reports have contained the best information currently available. DOD officials also did not agree with our conclusion that the criteria for the readiness report should address such questions as funding alternatives, priorities, and tradeoffs because section 812 merely requires a projection of readiness based on the single level of funding requested in the budget submission.

The Secretary of Defense, more than 2 years ago, recognized that the task of relating resources to readiness would be difficult but decided to proceed. However, as discussed in chapter 2, DOD has still not taken the necessary action to implement the Secretary's directives for improving capabilities for relating resources to readiness. We also recognize that the law does not specifically require data based on more than a single level of funding. However, both the Congress and DOD are ultimately interested in developing resources to readiness systems which deal with the most effective use of available funds for maximizing readiness. To achieve this objective, we believe funding priorities and the effects of funding alternatives and tradeoffs must be considered.

The PPG indicated that each service should begin to define the most efficient route toward acquiring this capability. The PPG also recognized the need for further DOD guidance to ensure consistency in the services' systems. However, the services have not received this guidance.

In May 1977 when the House and Senate Committees on Armed Services were contemplating a requirement for a materiel readiness report, DOD commented unfavorably on the proposed bill. According to DOD, its readiness reporting and measurement systems were not then capable of providing a detailed materiel readiness report. However, DOD recognized that a materiel readiness report was clearly desirable.

In spite of DOD's objections, the Congress enacted the requirement for the materiel readiness report. The Secretary of Defense issued a memorandum dated November 2, 1977, creating the Readiness Management Steering Group. The Steering Group was given the responsibility for overseeing the annual materiel readiness report and for developing guidelines for a comprehensive long-range readiness plan that would

- ensure that DOD had meaningful and consistent measures of readiness and the factors contributing thereto, including both materiel and personnel readiness;
- develop the analytical tools necessary to relate resource inputs to resulting readiness; and
- provide for tracking and projecting of resource inputs necessary for these analyses, including the relevant weapon system operating and support costs.

The memorandum also stated that the Steering Group should meet by November 11, 1977, and provide the Secretary of Defense with a preliminary plan of action and milestones by December 14, 1977. The preliminary plan and milestones and the comprehensive long-range readiness plan have never been developed.

DOD officials told us that they recently took action to obtain information needed for the preliminary plans and milestones and the comprehensive long-range readiness plan

It also appears that the Steering Group has not acted to provide enough manpower to develop the materiel readiness report and guidelines for the comprehensive long-range readiness plan. Personnel in the Office of the Secretary of Defense working on the report told us they are heavily involved in other work that has taken priority over this project.

Another problem has been that DOD officials did not know what information the Committees wanted in response to the initial requirement. Moreover, they were not sure what information the Committees wanted in the February 1979 report. We believe there should have been more contact between DOD and the Committees to resolve these questions.

SERVICES' EFFORTS NEED
DOD COORDINATION

The services were tasked with developing the overall capabilities needed for linking resources and readiness. They have been working toward this goal independently with informal DOD monitoring but without the benefit of formal DOD guidance and coordination. For example, the Center for Naval Analyses (CNA) is completing a study of the feasibility of developing a meaningful Navy system to relate resources to readiness. The study, among other issues, reviewed completed readiness studies the services made going back to the early 1960s. CNA researched 95 relevant previous studies and identified study objectives, readiness and resource measures, and methods for linking resources and readiness.

After initiating the study in June 1978, CNA had a number of basic questions about the guidelines for a system relating resources to readiness. These questions included what measures of readiness to use, whether to confine the system to materiel readiness, and how "universal" the system coverage should be in terms of resources and military units. CNA study team members met with DOD representatives of the Readiness Management Steering Group to find out more about what the Congress and DOD wanted. We believe that such questions could have been resolved in 1977 if DOD had worked with the services to develop written guidance for relating resources to readiness.

Resource-to-readiness models are developed, but nobody outside the sponsoring office is responsible for keeping track of all of them, gathering them into a library, or using them to build the needed analytical tools. We believe that the need for such control applies not only to the Navy, but also to DOD's oversight of the services' efforts. DOD is monitoring the service studies but as yet has not completed its own long-range plan for achieving the goals set out by the Secretary to improve readiness management. Rather than just monitoring, DOD should be planning, setting objectives, and coordinating service studies.

CONCLUSIONS

The Secretary of Defense's Readiness Management Steering Group has not taken adequate or timely action to ensure the effective development of the analytical tools and capabilities needed to link resources to readiness. Also, the Steering Group has not provided the services with the overall guidance and coordination they need to develop these capabilities. Without such action, there is no assurance that valid and consistent measures of readiness will be developed or that the materiel readiness report will be compatible among the services and provide the information the Congress requested.

RECOMMENDATIONS

We recommend that the Secretary of Defense require the Steering Group to:

- Coordinate with the Senate and House Committees on Armed Services to better understand the type of report the Committees need, specific limitations in prior reports, and how future reports can be improved.
- Set milestones to provide the services with detailed guidance to better measure overall readiness and to improve future materiel readiness reports. Such guidance should be formulated to reflect the type of report the Committees need, the services' responsibilities, and the desired time frames. All elements which must be coordinated to achieve stated DOD objectives, such as meaningful and consistent measures of readiness, factors contributing to readiness, and the type of analytical tools needed should also be identified.

ESSENTIAL ELEMENTS OF A
MATERIEL READINESS REPORT

As noted in chapter 2, the Secretary of Defense indicated that relating funding to materiel readiness is a complex process of defining materiel readiness, developing quantitative readiness measures, isolating the funding categories which apply, and studying the effect of funding on the readiness measures developed so that accurate readiness projections can be made. Also, the extent of materiel readiness needed by the services or for their weapon systems should be determined by the mission activities to be performed. These elements are closely interrelated and if not developed thoughtfully, unsatisfactory reporting may result. However, DOD has not yet resolved these issues. This must be done before a sound approach to projecting materiel readiness can be implemented.

BETTER DEFINITION AND MEASURES
OF MATERIEL READINESS NEEDED

The report defines readiness as "the ability of a force, unit, weapon system, or equipment to perform the functions and missions for which it was designed and organized." It also establishes materiel readiness measures but does not specifically define materiel readiness. DOD officials said that materiel readiness is implicitly defined in the report. We believe, however, that report users should have an explicit definition of materiel readiness when considering the information in the materiel readiness report.

Materiel readiness measures used in the report consist of operationally ready (OR) and/or mission capable (MC) rates of weapon systems and equipment. The definition of OR is not standard among the services, but it has been revised and standardized for aircraft (i.e., an aircraft that is capable of performing at least one of its missions).

When a weapon system is not OR, it is designated NOR, which is further broken down to classify whether the weapon system is not operationally ready due to supply (NORS) or is not operationally ready due to maintenance (NORM). Thus, OR rates are affected by both supply and maintenance problems.

According to the materiel readiness report, DOD is not satisfied with OR/MC rates as a measure of materiel readiness

NEED TO CONSIDER THE READINESS
EFFECT OF FUNDING TRADEOFFS

The overall readiness of DOD's weapon systems depends on balancing all the elements of readiness, including spare parts, people, training, and reliability. By the same token, the materiel readiness report should show funding tradeoffs for both supply and maintenance since OR rates are determined by both these elements. For example, if a weapon system is NOR 30 percent of the time, of which 25 percent is caused by maintenance, what is the effect on materiel readiness of shifting funds from supply to maintenance or of applying additional funds for maintenance? What is the tradeoff value in improved readiness?

DOD's materiel readiness report does not disclose the tradeoff between funding for maintenance versus supply. Projections, based on requested funding, are for overall OR rates by each service. However, the report, which contains detailed data on seven aircraft systems, indicates that in some cases maintenance is a greater materiel readiness problem, while in other cases supply is the major problem.

DOD officials believe that, generally, there is more "readiness leverage" in considering tradeoffs between procurement and depot level maintenance, rather than putting funds into unit level maintenance which affects NORM. They said that maintenance is not as serious a readiness problem. NORM time does not degrade readiness in the same manner as NORS because NORM rates reflect peacetime operations and could be improved in wartime.

We asked officials from the Office of the Secretary of Defense for evidence to support their contention that there is no need to consider the effects of tradeoffs of resources between NORS and NORM. They said that they do not have studies or data to demonstrate their position, which is based on familiarity with the problems involved. We do not dispute that in some instance funding for NORS should be emphasized over NORM. However, in cases where NORM rates are extreme, tradeoffs with NORS should be considered.

DOD's materiel readiness report provides OR/NORS/NORM statistics for seven types of aircraft through fiscal year 1978. As indicated in the schedule below, maintenance is a greater problem for the Army and Air Force aircraft, whereas supply is a greater problem for Navy aircraft.

In our opinion, even if accurate projections of materiel readiness rates are made based on requested funding, they are useless if they cannot be compared with materiel readiness requirements.

IMPROVED REPORTING NEEDED
FOR DECISIONMAKING

Section 812 allows DOD to determine the weapon systems and the level of detail to be included in its annual materiel readiness report to the Congress. For example, the 1979 report omits some major weapon systems (ships) and gives some readiness projections for specific types of weapon systems (missiles) and some for broad classes of weapon systems (aircraft).

In our opinion, the report should contain sufficient detail for each major weapon system to show the readiness effect of funding alternatives. The report also should identify funding priorities according to their impact on overall U.S. materiel readiness. This would give the Congress more of the information it needs to make informed readiness funding decisions.

NO QUANTITATIVE BASIS FOR
READINESS PROJECTIONS

The materiel readiness projections in the report are based on historical trends which, in some cases, include the cause/effect relationship between funding and readiness. However, DOD has not yet developed a systematic and consistent method for relating funding to materiel readiness projections. The report indicates:

"* * * We do not have, as yet, any reliable functional relationships that relate resources applied to materiel condition status. Quantitative equipment condition projections have, therefore, been made using specific analytical functional relationships when available, but with a heavy reliance on historical trends and the application of experienced judgment."

The report acknowledges that DOD lacks the basic capabilities needed to make materiel readiness projections based on funding. And DOD officials admit that significant improvements are several years away. However, as we discussed in chapter 2, DOD has not taken effective action to ensure the development of such capabilities.

Armed Services in Senate Report 95-826 dated May 15, 1978. The Committee requested that DOD provide detailed materiel readiness data on specific aircraft programs--the S-3A, F-14, F-15, A-10, AH-1S, OV-1, and AV-8A--as follows:

- "--Identify all of the materiel readiness criteria used in assessing the materiel readiness of these systems.
- Identify the items that contribute to these readiness criteria, i.e., spares, repair of repairables, component improvements, etc.
- Identify the budget accounts that contain funds to support the items that contribute to readiness criteria.
- Identify the amount of funding in the fiscal year 1980 budget that are in these budget accounts in support of these aircraft.
- Identify the amount of funds that have been included in the related budget accounts for these aircraft for each of the past 5 years.
- Identify the trends in the determined readiness criteria over the past 5 years.
- Explain if funds have been expended in the areas of readiness criteria, as identified, in the past 5 years, and how readiness has improved. If readiness has not improved, explain why."

Our comments on DOD's response to the above request primarily address the answer provided to the last question and whether or not the report shows the effect of funding on readiness. In most cases, changes in readiness explained in the report are not attributed to funding, but rather to logistics problems or management. There is little indication, with two exceptions, of the specific effect of funding on readiness changes.

In evaluating DOD's answer to this question, we noted 12 instances where readiness changes were discussed and explained in the report. Of the 12, 2 instances of changes in NORS rates for the AH-1S and A-10 were attributed to funding.

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