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Report to the Chairman, Subcommittee
on Investigations, Committee on Armed
Services, House of Representatives

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DEFENSE PROCUREMENT

Acquiring Technical Data for Spare Parts Reprocurement



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National Security and
International Affairs Division

B-245503

September 13, 1991

The Honorable Nicholas Mavroules
Chairman, Subcommittee on
Investigations
Committee on Armed Services
House of Representatives

Dear Mr. Chairman:



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In response to your request, we have assessed the Department of Defense's (DOD) progress in implementing section 1213 of the Defense Procurement Reform Act of 1984. Section 1213 requires that an agency head consider acquiring technical data and the right to use it for competitive reprocurments when preparing a solicitation for a development or production contract for a major system. Section 1213 is intended to help ensure that the government will be able to reprocur spare parts for major systems competitively to avoid excessively priced spare parts.

Our objectives were to determine (1) how DOD implements and enforces this provision of the act, (2) whether technical data is being acquired, and (3) whether the acquisition of the technical data packages¹ has resulted in lower prices and increased competition.

The other two topics discussed in your request—technical data repository management and DOD use of Federal Aviation Administration parts approval procedures—will be addressed in separate reports.

Results in Brief

Provisions of the Defense Procurement Reform Act of 1984, Section 1213, have been incorporated into the Defense Federal Acquisition Regulation Supplement. Since the law was passed in 1984, DOD and the military services have taken several actions to enforce and monitor the technical data acquisition early in the system development life cycle.

Our review of 14 major systems that transitioned from development to production since 1984—10 Navy, 2 Air Force, and 2 Army—indicated

¹A technical data package is a description of an item adequate for supporting an acquisition strategy, production, engineering, and logistics support. It consists of all applicable technical data such as drawings and associated lists, specifications, standards, performance requirements, quality assurance provisions, and packaging details.

that program managers have been emphasizing the acquisition of technical data. For 11 of the 14 systems, program managers had purchased the technical data for their systems. For the remaining three systems, the program managers were either in the process of buying the technical data (2 systems) or did not anticipate any further reprocurments (1 system).

It is difficult to assess DOD's progress in reprocurring spare parts competitively. To date, only a limited number of major systems have been directly affected by this legislation, and there are several complicating factors that would impede such an assessment.

Background

In reaction to the excessive spare parts prices, Congress wanted to ensure that the government would be able to obtain, on a competitive basis, items used with major systems. These items are likely to be repetitively purchased in substantial quantities during the service life of the system. Congress stated that one key to solving the problem of excessively priced spare parts was to ensure that the government would be able to reprocur such items competitively. Congress also indicated that, too often in the acquisition planning stages, the capability to purchase replenishment items from multiple sources was not adequately considered.

The U. S. Navy Technical Data Reprocurment Handbook states in part, that, in the past, little attention was given to the adequacy and availability of technical data. This was due, in large part, to the little emphasis given to competition once an item entered full-scale engineering and manufacturing development. Some of the potential advantages of acquiring technical data as early as possible in a system's life cycle include: lower costs, improved quality and reliability, enhanced industrial base, and supplier motivation to suggest innovative ways to reduce costs rather than incur cost growth.

Section 1213 of the Defense Procurement Reform Act of 1984 requires that DOD program managers consider acquiring technical data and the right to use it for competitive reprocurments for major systems early in the life cycle of the system to competitively reprocur spare parts for these systems and avoid excessively priced spare parts. Although similar administrative requirements existed in the services before the law's passage, the 1984 law placed more emphasis on planning for technical data acquisition.

Technical data is defined in 10 U. S. C. 2302, as recorded information (regardless of the form or method of the recording) of a scientific or technical nature (including computer software documentation) relating to supplies procured by an agency. Technical data does not include computer software or financial, administrative, cost or pricing, management data, or other information incidental to contract administration. In essence, technical data describes and documents an engineering design or product configuration in enough detail to allow the duplication of the original items. It is used to support production, engineering, logistics, and acquisition activities.

Provisions Incorporated and Implemented Into the Regulations Since 1984

Since the enactment of the Defense Procurement Reform Act of 1984, DOD has incorporated provisions of section 1213 in the Defense Federal Acquisition Regulation Supplement and issued implementing instructions. The section's provisions have also been included in the Federal Acquisition Regulation. Additionally, DOD has developed guidance for planning for technical data acquisition and increased emphasis on acquiring technical data early in the program life cycle.

The applicable provisions are found in the regulations dealing with the development of acquisition plans and the acquisition of component parts and technical data rights. Some of these provisions constitute a specific implementation of the section. However, even though other Federal Acquisition Regulation and Defense Federal Acquisition Regulation Supplement provisions are not so directed, they also effectively cover section 1213 requirements. For example, Defense Federal Acquisition Regulation Supplement subpart 207.1 requires the preparation of written acquisition plans for production and service acquisitions of major defense systems. Technical data is a component of such plans. Further, Defense Federal Acquisition Regulation Supplement section 207.105 requires a complete discussion on the use of procurement data to increase competition, including the funding available for such data. This requirement encompasses the process called for in section 1213 of the act.

Various policies, statements, procedures, memoranda, instructions, manuals, and directives provide guidance for acquiring technical data. We found guidance at the DOD level, at the service level, at the command level, and in one case, at a subordinate organization level.

This guidance calls for, among other things, program managers to prepare a separate technical or engineering data management plan early in

a program's life cycle. This plan may be incorporated in the program's overall acquisition plan or integrated logistics support plan. The data management plan is to describe the acquisition of technical data, including the key elements of technical data to be ordered, the program phases in which the data will be ordered, and the intended use of the data.

Many Program Managers Have Acquired Technical Data

Our review of the 14 major systems indicated that the program managers had purchased reprourement technical data for 11 of these systems, or about 80 percent of them. For two of the three remaining major systems, the program managers indicated that they planned to buy the reprourement technical data in the near future, and the program manager for one system indicated that no requirement for reprourement was anticipated. (See table 1.)

Table 1: Extent to Which Technical Data Was Acquired for Major Systems

Service	Technical data purchased
Army	
Abrams Tank System	Yes
Avenger System	Yes
Navy	
SH-60 F Helicopter	No (in process of purchasing technical data)
E-6A Tacamo Aircraft	No (no reprocrements are anticipated)
DDG-51 Missile Destroyer	Yes
LCAC Landing Craft	Yes
LHD Ship	Yes
AN/SQQ-89(V) System	Yes
MK-48 ADCAP Torpedo	Yes
Phalanx Weapon System	Yes
AOE-6 Ship	No (in process of purchasing technical data)
Standard Missile 2	Yes
Air Force	
Lantirn System	Yes
Maverick Missile	Yes

For 6 (3 Navy, 2 Air Force, and 1 Army) of the 11 systems, program managers had purchased the technical data for their program before the law was passed.

Efforts to Monitor and Enforce Planning for Procurement of Supplies

DOD and the services have a number of enforcement and monitoring techniques to ensure that technical data considerations are addressed early in the program's life cycle.

DOD

According to DOD officials, DOD generally monitors technical data acquisition through the data requirements review board and integrated logistics support procedures. The data requirements review board is to validate the need for all data requirements proposed in a contract. This process is intended to ensure that all data requirements and associated tasks are reviewed by a cross section of the functional groups providing support to the program. Members of the review group may represent the following functional areas: engineering, finance, procurement, production, logistics support, legal counsel, configuration management, product assurance, and safety. Other functional areas are included as appropriate.

The integrated logistics support process is designed to ensure that support considerations are effectively integrated into the system design and that the system will be both supportable and supported when fielded. Technical data is 1 of the 10 major elements to be addressed in the process.

Navy

To monitor and enforce technical data regulations, Navy procedures call for, among other things, program managers to prepare a technical data management plan. This plan will be reviewed by the logistics review group to ensure effective implementation of its technical data requirements.

The logistics review group is to evaluate the progress of the logistics elements of acquisition programs at decision milestones. Its evaluation is to include the functional areas of (1) maintenance planning; (2) technical data; (3) computer resources; (4) manpower, personnel, and training; (5) packaging, handling, and transportation; and (6) supply support. If technical data is not adequately addressed in the plan, the logistics review group will not certify the program to proceed to the next milestone.

Air Force

To monitor and enforce technical data regulations, Air Force procedures call for, among other things, the program managers to designate an engineering data² management officer and to prepare an engineering data management plan. That officer is responsible for acquiring and managing engineering data. The engineering data management plan is required to be developed as early as practicable in the acquisition program. This plan is to outline all tasks, schedules, and responsibilities necessary for engineering data preparation, review, audit, inspection, acceptance, and delivery. Plans that do not adequately address technical data are not to be certified for the next milestone.

Army

To monitor and enforce technical data acquisition regulations, Army procedures call for, among other things, a policy compliance review. This review is to include functional assessments required by law, regulation, or executive order. The policy compliance review is intended to ensure compliance with policy and to identify and correct policy, procedures, or systemic problems. After a review is completed, an action item report is to be issued detailing the audit findings and recommendations. Corrective actions are to be monitored to make sure that the problems have been addressed.

DOD Progress in Achieving Increased Spare Parts Competition Cannot Be Assessed

It is difficult to measure whether section 1213 has actually resulted in increased competition and lower prices. Even if a substantive number of parts had been procured, tracking a specific system's spare part reprocurments would not be easy because when the Defense Logistics Agency assumes responsibility for reprocurement of replacement spare parts, these parts often cannot easily be broken out by system. In addition, the complexity of the spare parts procurement process makes it difficult to measure savings and attribute the extent of those savings to section 1213 as opposed to a combination of contributing factors.

Agency Comments

We did not obtain official agency comments on this report. However, we met with responsible DOD officials and obtained their oral comments. The officials told us that the information in this report is factual. They suggested some minor clarifications, which we have incorporated into the report, where appropriate.

²Engineering data is a subset of technical data.

Scope and Methodology

We interviewed responsible officials at the Office of the Secretary of Defense; Defense Logistics Agency; and Departments of the Army, Navy, and Air Force in the Washington, D.C., metropolitan area. We also reviewed related documents, including regulations, policies, instructions, directives, plans, handbooks, memoranda, and other relevant guidance on the acquisition and management of technical data, as well as the legislative history of section 1213.

To avoid duplication of effort, we coordinated our work with that of the Army Audit Agency's ongoing comprehensive review of the Army's policies and procedures for acquiring technical data packages.

To assess the extent to which technical data was being acquired, we focused our work on those systems that transitioned from development into full-scale production.

We performed our review between August 1990 and August 1991 in accordance with generally accepted government auditing standards.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 15 days after its issue date. At that time, we will send copies to the Chairmen, House and Senate Committees on Armed Services and on Appropriations, Senate Committee on Governmental Affairs, and House Committee on Government Operations and the Secretaries of Defense, the Army, Navy, and Air Force. We will also make copies available to other interested parties upon request.

Please contact me at (202) 275-8400 if you or your staff have any questions concerning this report. Major contributors to this report are John A. Rinko, Assistant Director; Shirley E. Hendley, Evaluator-in-Charge; and Joy Labez, Evaluator.

Sincerely yours,



Paul F. Math
Director, Research, Development,
Acquisition, and Procurement Issues