DOCUMENT RESUME

03592 - [B2994239] (Restricted/[redacted])

Air Force Maintenance Depots--the Need for More Responsiveness to Mobilization as Well as Peacetime Efficiency. LCD-77-425; B-162839. October 21, 1977.

Report to the Congress; by Elmer B. Staats, Comptroller General.

Issue Area: Facilities and Material Management: Operation and Maintenance of Facilities (708); Military Preparedness Plans: Mobilization-Oriented Industrial Maintenance Base (802).
Contact: Logistics and Communications Div.
Budget Function: National Defense: Department of Defense - Military (except procurement & contracts) (051).
Organization Concerned: Department of the Air Force.
Congressional Relevance: Congress.

The U.S. Air Force maintains depot repair capability to assure a controlled source of competence to keep aircraft and other equipment ready in peacetime, sustain this hardware in the initial surge of a contingency or war, and provide a base for rapid expansion. Immediate and flexible responsiveness is considered to be a higher priority than the need to obtain efficiency for peacetime operations. Findings/Conclusions: The Air Force has made significant progress in measuring the depot capability and capacity needed to meet mobilization needs. As currently configured, however, maintenance depots cannot support requirements for a surge period for weapon systems. Flying hour estimates for high-surge transport estimates exceed the number possible under present conditions. Recommendations: The Secretary of Defense, together with the Secretary of the Air Force, should: establish more realistic surge data for each weapon system based upon what is achievable rather than what can be achieved under unlikely optimum conditions; define what and how much contractors can support in mobilization; and evaluate its people, facilities and equipment, and repair parts, including production bottlenecks, to achieve better alignment of its resources and more timely response. The Secretary of the Air Force should require the Air Force Logistics Command to: increase methods work significantly; review, upgrade, update, and control labor standards; and make fuller use of various productivity measurement tools. The Air Force Logistics Command efforts to motivate its people could be enhanced if the command were to: insure first-line supervisors understand and fully exploit the advantages of the appraisal system; develop better means to recognize degrees of individual performance; better recognize the impact of pay scales in motivating employees; increase the use of awards; and accurately monitor training efforts and evaluate the results. (Author/SC)

COMPTROLLER GENERAL'S REPORT TO THE CONGRESS

AIR FORCE MAINTENANCE DEPOTS--THE NEED FOR MORE RESPONSIVENESS TO MOBILIZATION AS WELL AS PEACETIME EFFICIENCY
Department of Defense

D I G E S T

The U.S. Air Force, like the other military services, maintains depot repair capability to assure a controlled source of competence to

--keep aircraft and other equipment ready in peacetime,

--sustain this hardware in the initial surge of a contingency or war, and

--provide a base for rapid expansion.

Responsiveness, immediate and flexible, is considered to be of a higher priority than the need to obtain efficiency for peacetime operations.

How well has the Air Force alined its maintenance depot capability and capacity to respond to sudden need and expansion? How productively has it managed its resources in peacetime? GAO wanted to know and began by reviewing mobilization planning at Air Force Logistics Command, Headquarters, and by evaluating various productivity indicators and work processes at one of the five Air Force Logistics Centers. GAO also relied on previous work at two other centers. 1/

The Air Force spent about $7.7 billion in fiscal year 1976 to operate and maintain 8,450 aircraft, large numbers of missiles,

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1/"An Industrial Management Review of the Maintenance Directorate San Antonio Air Materiel Areas, San Antonio, Texas," (B-159896, Apr. 1974). "Assessment of the Air Force's Planning for the Technology Repair Center Concept" (LCD-76-429, July 1976).

and other equipment to keep them operational. Of this, about $2.8 billion was spent for operations and maintenance, primarily at the logistics centers.

PLANNING FOR MAINTENANCE DEPOTS: RESPONSIVENESS TO MOBILIZATION

The Air Force has made significant progress in measuring the depot maintenance capability and capacity it needs to meet mobilization requirements. Air Force planners have been concerned about the ability of depots to respond to high surges in maintenance during a war or contingency of intensity and short duration.

Maintenance depots, as currently configured, cannot support requirements which the Air Force anticipates in a "surge" period for most of its weapon systems. Under these conditions the Air Force had to determine which systems could and could not be supported. GAO questioned the Air Force plans because flying hour estimates for high surge transport aircraft exceeded the number possible under present conditions. (See pp. 8 to 14.)

Even if flying hour estimates were not questioned, the Air Force needs to consider subsidiary factors distorting its estimate of readiness such as not fully assessing the

--ability of contractors to meet their share of the surge requirements (see p. 14),

--number and skill levels of people needed to meet surge requirements at the depots (see pp. 16 to 18),

--ability to hire and train people needed in each geographical location (see p. 18),

--estimates for repair parts (see pp. 20 to 21), and

--facilities and equipment bottlenecks in depot production processes (see pp. 21 to 23).

MEASURING PEACETIME PRODUCTIVITY

If depots are to respond in wartime then people, facilities, and supply support have to be effectively integrated and efficient in peacetime. The more productive depots are, the easier it should be to change to a war or contingency.

Industrial engineering techniques greatly affect the depots' ability to produce. GAO found much could be done. Problems include:

--Analyzing job design/work methods, one of the first steps to successfully installing a work measurement system, has not been adequately emphasized. Savings of millions of dollars are possible. (See p. 26.)

--Labor standards are of questionable accuracy and are not kept current. (See p. 27.)

--Significant productivity is being lost because of chronic problems such as lack of repair parts. (See pp. 32 to 33.)

Subsequent to GAO's evaluation of the San Antonio Air Logistics Center in 1974, the Air Force indicated it was introducing a Depot Maintenance Programming, Budgeting and Costing System. The system was designed to implement actual hour, job order cost accounting in lieu of standard cost accounting and to correct the deficiencies of the current system. However, in September 1977 the Air Force canceled it. (See p. 33.)

PEOPLE

To achieve its mobilization objectives Air Force depots will have to realine vast numbers of personnel to match changes in weapon system support and absorb over 10,000 additional personnel quickly during the initial mobilization phase. GAO believes much work is needed to assure that in time of crises the Air Logistics Centers can perform their assigned tasks, including acquiring and training people.

Air Force Logistics Command has made significant efforts to motivate its personnel. One Center reported reduced sick leave, personnel turnover, overtime, and production time as a rfsult of a pilot job enrichment program. The Logistics Command has decided to do the same thing at all of its installations. A number of constraints may impair this because:

--Performance appraisals do not meet the objectives set forth for them and do not have the confidence of most of the work force. (See pp. 36 to 38.)

--Promotional and upward mobility opportunities are limited and people feel at a dead end. (See pp. 38 to 39.)

--Awards, a motivational tool, could be used more effectively to offset the lack of promotional opportunities. (See pp. 39 to 40.)

--Training opportunities and defined training objectives are limited. (See pp. 40 to 41.)

--The above factors limit first-line supervisors' influence. (See p. 41.)

RECOMMENDATIONS

GAO recommends that the Secretary of Defense, along with the Secretary of the Air Force:

--Establish more realistic surge data for each weapon system based upon what is achievable rather than what can be achieved under unlikely optimum conditions. Peacetime supportability, particularly bottlenecks, is a significant indicator to consider.

--Define what and how much contractors can support in mobilization.

--Evaluate its people, facilities and equipment, and repair parts, including production bottlenecks to achieve better alinement of its resources and more timely response.

The following recommendations are made in the context of the Air Force's continuing and aggressive efforts to improve the productivity of its maintenance facilities. The Secretary of the Air Force should require the Air Force Logistics Command to

--increase methods work significantly;

--review, upgrade, update, and control labor standards; and

--make fuller use of various productivity measurement tools.

The Air Force Logistics Command efforts to motivate its people could be enhanced if the command were to

--insure first-line supervisors understand and fully exploit the advantages of the appraisal system,

--develop better means to recognize degrees of individual performance,

--better recognize the impact of pay scales in motivating employees,

--increase the use of awards, and

--accurately monitor training efforts and evaluate the results.

AGENCY COMMENTS

In a May 18, 1977, letter, GAO asked the Secretary of Defense to comment on this report. As of the date of this report, Defense comments have not been received. GAO, however, met with Air Force officials and where appropriate has made changes in the report reflecting their comments.