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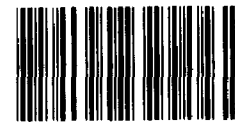
UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

NATIONAL SECURITY AND  
INTERNATIONAL AFFAIRS DIVISION

16 APR 1984

B-214958

The Honorable Lawrence J. Korb  
Assistant Secretary of Defense  
(Manpower, Installations and Logistics)



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Dear Mr. Korb:

Subject: Control of Aircraft Parts at Maintenance  
Depots (GAO/NSIAD-84-103)

In recent fiscal years, the Department of Defense has been spending nearly \$4 billion annually on depot level maintenance to keep its aircraft operationally ready. Aircraft entering Army, Navy, and Air Force maintenance depots go through a process of inspection, disassembly, repair, modification, reassembly, and testing. During this process, the depots need to control the thousands of diverse parts that are stored, routed to repair shops, and ultimately returned to the aircraft for reassembly.

In 1975 and 1979, GAO reported<sup>1/</sup> on opportunities to increase aircraft depot maintenance efficiency. For example, concurrent rework of aircraft and their components was occurring when the items needed to reassemble the aircraft were available from supply. Thus the cost advantages of batch processing versus repair of components one at a time were lost. In addition, the depots' management information systems required increased Army system discipline and integrity in inputting data.

As part of our continuing evaluation of aircraft depot operations, we reviewed selected aspects of the depots' control over parts as an aircraft goes through disassembly and reassembly. We did not evaluate whether there were enough parts in the services' supply systems or the supply systems' ability to support depot maintenance operations. We did focus on how well depot maintenance personnel used existing parts and whether new

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<sup>1/</sup>Navy Aircraft Overhaul Depots Could Be More Productive (LCD-75-432, Dec. 23, 1975).

If Army Helicopter Maintenance Is To Be Ready for Wartime, It Must Be Made Efficient and Effective in Peacetime (LCD-79-407, May 10, 1979).

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automated storage and retrieval systems being planned and installed in the depots would overcome existing problems. Better parts management can reduce supply shortages, reduce repair parts cost, and reduce aircraft flowtime through the depots while increasing worker efficiency and supply support.

We were impressed with the efforts the services have under way to correct their parts control problems. These include new procedures or systems to track parts in storage and those routed to repair shops and installing sophisticated automated storage and retrieval systems.

For this reason, we limited our review and do not plan to issue a report. However we do have some observations and suggestions that might be helpful to the services. These observations and suggestions were discussed in detail with top management at the depots visited (Sacramento Air Logistics Center, Alameda Naval Air Rework Facility and Corpus Christi Army Depot).

While the existing and planned tracking systems have the potential to provide good visibility over stored and routed parts, some of them did not track all parts or track their movement to all locations. In some cases, user discipline was poor as regards inputting transactions to reflect parts movement. Further, although the automated systems for storage and retrieval provide secure storage, a great deal of material was and will continue to be stored in unsecured areas and thus will be vulnerable to undocumented diversion.

Concurrent rework of components continues in the depots even when the item is available from supply and, therefore, the advantages of batch processing are lost. This situation exists because management does not take the time to determine how components needed in reassembly are actually acquired by the aircraft repair crews.

The success of a depot's operation depends on good management. Good management, in turn, depends on good systems and subsystems feedback on how the jobs are actually being done. We suggest that to overcome the above problems, the depots:

- Require that a requisition be processed and a backorder be received before a part is routed for concurrent repair. This assures that the generally accepted least costly and most timely method of filling the need is tried before the more costly concurrent repair method is scheduled.
- Require that the lists of components needed to reassemble an aircraft be annotated as to the source of the components using the requisition or

backorder numbers. This will result in an audit trail which will enable management to analyze actions taken by maintenance personnel.

- Require management to review selected parts and routed items lists to insure employees are following good parts management practices, such as maximum use of the supply system, timely return of unserviceable items, and maintaining visibility over routed parts to insure their timely return.
- Improve physical security over parts by increased use of fencing and caged carts as a way of minimizing the amount of parts diversion which now occurs in the depots.

We would be happy to discuss these matters with you in detail if you like. We are sending copies of this report to the Secretaries of Defense, Army, Navy and Air Force and other interested parties.

Sincerely yours,

  
Henry W. Connor  
Senior Associate Director