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

PROCUREMENT, LOGISTICS,  
AND READINESS DIVISION

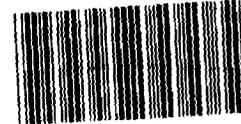
RELEASED

DECEMBER 22, 1981

B-172707 **RESTRICTED** — Not to be released outside the General Accounting Office except on the basis of specific approval by the Office of Congressional Relations.

The Honorable Allen E. Ertel  
House of Representatives

The Honorable William F. Goodling  
House of Representatives



117333

Subject: Realignment of Aircraft Maintenance Mission  
(PLRD-82-24)

On July 20, 1981, you asked us to evaluate the Department of the Army's justification for realigning its aircraft maintenance mission from the New Cumberland Army Depot, Pennsylvania, to the Corpus Christi Army Depot, Texas. You pointed out that the Army's original justification, which was prepared in 1977, may no longer be valid, considering the changes which have taken place since that time.

We examined the specific changes you mentioned and found that the Army had adequately evaluated them. Even with the changes, the decision to realign is sound from an economical and operational standpoint. Details of our findings are in the enclosure.

We briefly discussed our findings with Mr. Ertel's Office on August 31, 1981. As agreed, we did not obtain the Army's written comments. We did, however, discuss all the matters in the report with the Army, and there were no major areas of disagreement.

As arranged with Mr. Ertel's Office, we plan no further distribution of this report until 30 days from its date. At that time, we will send copies to the Secretary of Defense and other interested parties and make copies available to others upon request.

*Donald J. Horan*  
Donald J. Horan  
Director

Enclosure

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REALIGNMENT OF AIRCRAFT MAINTENANCE  
FUNCTION FROM NEW CUMBERLAND, PENNSYLVANIA,  
TO CORPUS CHRISTI, TEXAS

BACKGROUND

In December 1975 the Office of the Secretary of Defense advised the Army that its civilian employment and associated funds for fiscal year 1977 and subsequent years were to be reduced. To achieve further economies, the Army reviewed its base structure to identify various candidate activities for realignment. One of these was the possible consolidation of the aircraft maintenance function.

An Army task group reviewed the depots performing aircraft maintenance to identify the most economical and effective means of accomplishing aircraft maintenance. It identified four probable courses of action.

- Transfer all workload at New Cumberland to Corpus Christi.
- Transfer the CH-47 workload to a contractor and the remainder to Corpus Christi.
- Transfer the CH-47 workload to the Naval Air Repair Facility, Cherry Point, North Carolina, and the remainder to Corpus Christi.
- Transfer all workload at Corpus Christi to New Cumberland.

In September 1976 the task group determined that only the first two alternatives were feasible. It concluded, however, that none of the alternatives offered personnel or cost savings sufficient to justify implementation and recommended that no action be taken.

The Army's Material Development and Readiness Command (DARCOM) also studied the aircraft maintenance alternatives. In September 1977 DARCOM issued a case study and justification folder. DARCOM recommended that all aircraft maintenance, with the exception of that related to air delivery equipment items, be transferred to Corpus Christi. It concluded there would be an annual recurring savings of \$12.9 million after a one-time cost of \$9.36 million.

The Army deferred action on DARCOM's recommendation until it had considered the Governor of Pennsylvania's alternative. This alternative involved using the nearby facilities at the Harrisburg International Airport. DARCOM concluded that the alternative was feasible, but it was not the most economical.

The Army then asked the Army Audit Agency to review DARCOM's conclusions. In a January 1978 report, the Agency concluded that the data in the case study and justification folder could be relied on for decisionmaking purposes but adjusted the estimated annual cost savings to \$11.1 million and the one-time cost to \$7.6 million. In a July 1978 report, it also concluded that the data concerning the Harrisburg airport alternative was reasonable, except that some economic factors required further support.

Subsequent to the July 1978 Army Audit Agency report, the Army concluded that while its entire depot-level workload could be accommodated at the Harrisburg airport, the disadvantages nevertheless outweighed the advantages.

On March 29, 1979, the Army announced that it preferred consolidating the function at Corpus Christi. At the same time, it disclosed several management actions that would reduce New Cumberland's workload by 50 percent. These actions raised questions concerning assumptions DARCOM had made in its September 1977 case study and justification folder.

On April 6, 1979, Congressman William F. Goodling asked us to review the economic justification for DARCOM's choice of alternatives. In our July 31, 1979, report (LCD-79-324), we said that the savings were not quite as great as originally estimated, however, we concluded that the proposed realignment appeared economically justified.

In the fall of 1979, the Congress required the Army to prepare an environmental impact statement on the proposed realignment. DARCOM prepared a draft statement in July 1980 while simultaneously updating its September 1977 case study and justification folder. The draft statement was filed in November 1980, and the final statement was released in April 1981.

In October 1980 the Army Audit Agency reviewed the updated case study and justification folder. The Agency concluded that the study data could be relied on for decisionmaking purposes. It adjusted the forecasted annual savings downward to \$13.7 million and the one-time cost downward to \$3.7 million. The revision reflected the Agency's use of data more favorable than DARCOM's "worst case" data.

In a letter dated July 20, 1981, Congressmen Allen Ertel and William Goodling asked us to re-examine the justification for the proposed realignment in light of the following developments.

- The Army's personnel and dollar authorizations are no longer decreasing or projected to decrease, but instead are projected to increase.
- The Army prefers to have two helicopter maintenance facilities despite economic considerations.
- The CH-47 helicopter will still be used, and other helicopter (UH-60) procurements will increase substantially over prior estimates.
- The Army's 1977 economic cost study is no longer valid. For example, the projected savings were based partly on the Navy's plans to leave Corpus Christi. However, these plans have not materialized.

PERSONNEL AND DOLLAR AUTHORIZATIONS  
ARE NO LONGER DECREASING

One of the basic reasons for the Army considering changes in the base structure, including the consolidation of the aircraft maintenance function, was the substantial reduction by the Secretary of Defense of the Army's personnel and dollar authorizations for operation and maintenance for fiscal year 1977 and beyond. Recently, however, the operation and maintenance funding has increased.

We discussed this change with Army officials to see what effect it was having on the decision to consolidate. According to these officials, the increases in operation and maintenance funding were not large enough to allow for much growth in the maintenance area. In the Army's view, the decision reflects a concerted effort to use limited funds economically, thereby also conforming to the Office of Management and Budget's campaign to trim excess wherever it occurs.

THE ARMY PREFERS TWO  
MAINTENANCE FACILITIES

Questions have been raised as to whether the Army or DARCOM actually prefers having two maintenance facilities as opposed to just one. Concern has also been raised as to whether the disestablishment of New Cumberland might adversely affect mobilization capacity, particularly in light of the planned increases in helicopter procurement.

In our review of the original case study and justification folder and in discussions with Army officials, we did not find that DARCOM actually preferred to maintain two in-house maintenance facilities. The two-location consideration was simply

listed as an advantage of maintaining the status quo; that is, keeping both New Cumberland and Corpus Christi. It was countered, however, with the disadvantages of continued underutilization of both facilities and of continued use of facilities (New Cumberland) which were not designed for aircraft maintenance.

Underutilization, according to the Army, is a major concern. Currently, the New Cumberland facility is operating at only 30 percent of its single shift capacity and the Corpus Christi depot is operating at 48 percent. Even at those percentages, New Cumberland's utilization is overstated because the depot is performing maintenance for Reserve and National Guard units which are geographically close to New Cumberland, even though these units would normally perform their own maintenance. The present capacities of the two facilities are shown below.

	Single shift capacity (8 hours/day - <u>5 days/week</u> )	Maximum shift capacity (3-8 hour shifts/ <u>day - 7 days/week</u> )
New Cumberland	1.838 million manhours	3.750 million manhours
Corpus Christi	5.822 million manhours	13.750 million manhours

The Army believes it can handle the peacetime workload in one shift at Corpus Christi. It also believes it can handle its mobilization requirements of 6.014 million manhours within Corpus Christi's maximum capacity.

Two other factors support the Army's contention that the workload can be handled at Corpus Christi. First, the Army will contract out part of the workload, using Boeing-Vertol Corporation of Philadelphia to modernize all series A, B, and C model CH-47 helicopters. Second, when the modernization is completed, all these aircraft, as with the newer UH-60 aircraft, will have a modular configuration, which will allow much of the maintenance previously done at the depot to be done in the field. Consequently, there will be less frequent depot overhaul necessary.

#### FORECASTED INCREASES IN THE HELICOPTER FLEET

One factor which will have some effect on maintenance requirements is the forecasted increase in UH-60 helicopter procurement. Nevertheless, the maintenance capacity needed in a mobilization situation does appear to be well within the Army's in-house maximum capacity.

During the early years of the Carter administration, the Army procurement projection of the UH-60 aircraft was 600.

This projection was changed to 1,100 between October 1979 and April 1980, and it has not changed since then. The number refers to the Army-defined requirements and not necessarily to the number that will be procured.

DARCOM officials stated that long-range planning has included programming of maintenance for 1,100 UH-60s. Even with the lack of a formal impact study, these officials cite a number of reasons why there would be no adverse impact on maintenance mobilization capability. The UH-60 is of a modular design, as is the modernized CH-47, which will allow field-level maintenance to increase and depot-level maintenance to decrease. Also, acquisition of the UH-60 is intended to be spread over a number of years; thus, the first round of depot-level maintenance would not be an all-at-once happening and would not start until the late 1980s. The UH-60 is planned to replace the UH-1 helicopter at the rate of one UH-60 to every 1.3 UH-1. The UH-1s will probably find their way to the Reserves or National Guard who would do most of the maintenance work. Any UH-1 sent back to the depot would receive a low priority in the scheduled work.

#### VALIDITY OF ECONOMIC COST DATA

Questions have been raised about the validity of the economic data justifying DARCOM's recommendation to realine all depot aircraft maintenance at Corpus Christi. On the basis of our review, we believe the Army's data is valid and current.

The economic data has been updated and appears in two documents: the updated summary case study and justification folder and the environmental impact statement. These studies estimate an annual savings of \$15.7 million versus a one-time cost of \$6.1 million. However, as mentioned previously, the Army Audit Agency adjusted the one-time cost to \$3.7 million and the annual savings to \$13.7 million and concluded that the data could be relied on for decisionmaking purposes.

There are currently no plans for the Navy to abandon or close the Corpus Christi Naval Air Station. Corpus Christi is the headquarters of the Naval Air Training Command and is the beginning aviator's flight training facility. It provides basic services to the Army through an interservice support agreement.

The current agreement calls for the Army to pay the Navy about \$7.7 million annually. About \$4.1 million of this is for utilities, \$1.4 million for maintenance support of base facilities, and \$2.2 million for other services. The last two categories

include such services as fire protection, industrial waste disposal, and real property maintenance. Services, such as transportation, religious services, safety, and most of the communication services, are provided on a nonreimbursable basis.

It is not expected that a consolidation will change the structure or basic content of the agreement because the Navy will not be required to provide extra services or new facilities. The impact on the agreement will be on those items that would vary directly with the level of capacity utilization. For example, the item having the largest impact will be utilities, which already account for 53 percent of the agreement's price. This and all other factors were included factored into the Army's cost analysis.

The Navy's possible abandonment of Corpus Christi was never included as a factor in the 1977 case study and justification folder. It was not until February 8, 1978, that the Navy requested the Army to provide cost data on the Army taking over Corpus Christi. In late February 1978, DARCOM provided the cost data to the Army, who in turn released it to the Navy. Then, on December 5, 1978, the Navy released a memorandum stating that the Navy intended to continue using Corpus Christi as a flight facility. This memorandum was the last mention by the Navy about leaving Corpus Christi.

The data developed on the Army's takeover of Corpus Christi was treated as an action separate from the realignment action. According to the data, the Army proposed transfer of operation and maintenance funds from the Navy to the Army to run the base.

The consolidation of the Army's aircraft maintenance function at Corpus Christi is not expected to generate any new requests for military construction appropriations. Corpus Christi is operating at 48 percent of the one shift, regular workweek capacity and has more than enough space in its present facilities to comfortably accommodate the additional workload. The only construction costs associated with the move are for the transfer of the whirl tower, which is used to balance the CH-47 helicopter's rotor blades. These costs were included in the one-time cost of \$3.7 million.

There is a request for funds for the Corpus Christi Army Depot aircraft maintenance function in the fiscal year 1982 construction appropriations. The funds will allow for the construction of an enlarged power train facility to handle the overhauling and testing of the new UH-60 helicopter power train. The request is independent of the consolidation.

#### CURRENT STATUS OF THE REALINEMENT

On September 23, 1981, the Secretary of the Army decided to proceed with the consolidation of the maintenance function.

Action will proceed in stages, with all new overhaul work on the CH-47 helicopter to be transferred to the contractor, Boeing-Vertol, by January 1, 1982. Boeing-Vertol will be modernizing the series A, B, and C CH-47 aircraft and converting them to series D models. New Cumberland will finish all work in process.

All other helicopter airframe maintenance and aircraft component and accessory maintenance work will be transferred to the Corpus Christi Army Depot. This will be accomplished by October 1, 1982.

Air delivery and ground equipment maintenance will remain at New Cumberland. The CH-47 engine and transmission function is already at Corpus Christi.

The contracting out will eliminate 151 positions at New Cumberland. The transfer of the workload to Corpus Christi will eliminate 16 military and 332 civilian positions. Two more military and 65 more civilian positions will be transferred from New Cumberland to Corpus Christi, with the New Cumberland civilians given an opportunity to transfer.

The New Cumberland Army Depot will still be the Army's primary east coast supply depot. The depot will employ more than 3,330 civilian and 400 military personnel.

#### CONCLUSION

Although a number of events and changes have occurred since the initial decision was made to consolidate the aircraft maintenance function at Corpus Christi, we believe the move is still justified from an economical and operational standpoint. In our opinion, the Army has adequately considered all pertinent changes which might affect its decision to consolidate.