



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

109935



B-172707

July 20, 1979

The Honorable Lucien N. Nedzi
Chairman, Subcommittee on Military Installations
and Facilities
Committee on Armed Services
House of Representatives

HSE00503



Dear Mr. Chairman:

In accordance with your April 10, 1979, request, as supplemented by a meeting with your office, we have reviewed the proposed closure of Fort Monroe, Virginia. Support for the proposal is contained in a Case Study and Justification Folder, dated February 6, 1979, which was prepared by the U.S. Army Training and Doctrine Command, Fort Monroe. (The Army provided for transfer of the Command Headquarters from Fort Monroe to Fort Eustis, Virginia, in 1984, and inactivation of other Army units at Fort Monroe. An Air Force and a Navy unit would remain.)

We found that the estimated annual savings were slightly understated. But we cannot determine the reasonableness of the estimates for several cost items until additional information is obtained and decisions are made by the Army, the Commonwealth of Virginia, and, possibly, other Government agencies. ((The decision to close Fort Monroe should be deferred until the Army has made a comprehensive estimate of all costs involved.

We selectively reviewed support for cost data justifying the closure and considered other matters which could affect the proposal, but the costs of these matters were not computed by the Army. We reviewed the Army Audit Agency's report and workpapers, visited Fort Monroe and Fort Eustis, and discussed the proposed closure with Army personnel at both installations. We also interviewed archeologists of the Virginia Research Center for Archeology and members of the Navy's Explosive Ordnance Disposal Group II.

Details of savings and cost items used by the Army and our differences where estimates can currently be made are shown in the enclosure. (Before the Army can excess the Fort, it must determine whether and how it can comply with Army and other regulations, at what cost, and who will take control.) The factors which make several cost items difficult, if not impossible to accurately estimate are discussed in the following sections.

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DECONTAMINATION OF THE FORT

Army Regulation 405-90 ^{1/} requires that all land prior to excessing be decontaminated of explosive ordnance. Compliance with this regulation is hindered by the Fort's age and its registration as a national historic landmark.

Fort Monroe was originally established as Fort Algernourne in 1609. With the exception of about 60 years, it has existed since under several names. Construction of the current Fort began in 1819 and it has been continuously garrisoned since 1823. It is the only Fort with a moat in the country which still serves as an active military installation. During the last 156 years, it has housed various Army activities, including a coast artillery school.

Based on a partial ordnance clearance of the top 2 feet of 4 feet of silt in the moat, the moat contains unexploded ordnance and artifacts. Because of the Fort's history, Command personnel are certain unexploded ordnance is also buried on the approximately 600 acres of land on which the Fort is located.)

In 1961, the entire Fort was registered as a national historic landmark and is included in the National Register of Historic Places. This registration requires that many undertakings at the Fort be reviewed and commented on by the Advisory Council on Historic Preservation and legally obligates the Army to assure the continued preservation of the Fort and its accessibility to the public. Therefore, the ordnance removal process needs to be done in a manner consistent with the preservation of artifacts and other items of historic significance. Artifacts were found in the moat and are assumed to be buried in the land. In January 1975, the Chief of Engineers, Department of the Army, prepared a document entitled "Contaminated Area Clearance and Land-Use Alternative" which discussed detection, clearance, and disposal of unexploded ordnance. It concluded that

--metal detection equipment is available to identify ordnance,

^{1/}Federal Property Management Regulations 101-47.402-4 also provides that property scheduled for disposal shall be decontaminated to prevent the property from being a hazard to the general public.

--successful clearing operations can be undertaken only after comprehensive field tests of identified devices have ascertained exact equipment/target sensitivities, and

--clearing of wetland normally will not be possible.

The document was based on studies at large installations where ordnance was primarily contained in open, wooded, or marshy areas. Fort Monroe contains buildings, pavement, trees, and wetland. Thus, clearance is a more complicated process. In order to comply with historic landmark requirements, ordnance clearance must be done in a manner which would preserve items of historical significance. Therefore, it would probably require hand shoveling by experienced ordnance and archeological personnel. The document gave some estimates of the cost of clearance under various open area conditions at various levels.

The Army estimate of \$2.5 million for clearance of the moat does not seem to adequately reflect the true costs of performing this work. These costs are likely to be much higher. For example, the Army did not consider an estimate for land clearance, although the Command estimated that about \$18 million would be needed to clear 25 percent of the land to the 4-foot level in 1 year, using 1,400 diggers. It estimated that 70 archeologists (1 for every 20 diggers) and 5 demolition experts would be needed. There is no support for the assumption that only 25 percent of the Fort contains ordnance or that all the ordnance lies within 4 feet of the surface. Further, according to archeologists interviewed, unless trained diggers are used, the ratio of archeologists to diggers would have to be 1 to 3. Therefore, to clear the land to the extent shown in the estimate, from 70 to 467 full-time archeologists would be needed. When the moat was partially cleared in 1978, the Army had difficulty hiring one archeologist to oversee the operation. Virginia Research Center archeologists said clearance is possible but only at enormous cost and considerable time (many years).

Army personnel told us they do not know what is involved and whether the capability to clear the ordnance currently exists. Further they believe there is no basis on which to make a reasonable estimate. However, we believe that with the type of surveys discussed in the Army's 1975 ordnance study, a reasonable estimate could be developed.

PRESERVATION OF BUILDINGS

The national historic landmark registration implies that all of the Fort's structures are historic. Obviously, certain structures, such as bus stop sheds, are not historical. Because the Army needs to know which structures are historic and require special preservation, the Fort Monroe Post Environmentalist (an archeologist) recently started a classification study. She estimates it will require 3 to 4 years to complete. Until the study is completed, an accurate estimate of the cost and time of caretaker service, pending takeover, cannot be made.

CONTROL OF THE FORT

The land on which the main part of the Fort is located was deeded to the U.S. Government in 1838 by the Commonwealth of Virginia for the purpose of fortification and national defense. If the Government uses the land for any other reason, the conveyance is void and the land returns to the Commonwealth. Other land has been obtained through accretion, fill, and condemnation. The Commonwealth has taken no action to reclaim the land and, according to Command personnel, it seems reluctant to do so. The same reluctance prevails at the U.S. Department of the Interior, which conceivably could take control since Fort Monroe is registered as a national landmark under the Historic Sites Act. Commonwealth takeover would mean U.S. Government-funded caretaker costs, for at least a part of the land, would cease. Takeover by another Government agency would mean such costs would continue. The Army's estimate, shown in the enclosure as Preservation Costs, is based on the assumption that only those buildings of a truly historic nature would be kept open.

AGENCY COMMENTS

We discussed a draft of this report with Army officials. They stated that they will have to hire experts in the areas of land ordnance clearing and moat clearing to evaluate the Fort Monroe situation and come up with a reliable estimate for those two items. Because of these undetermined cost items, they stated that the Army cannot, at this time, take a position on whether the decision to close Fort Monroe is economically justified.

CONCLUSION AND RECOMMENDATION

The Army does not currently have sufficient information available to determine whether it is feasible or even possible to clear Fort Monroe of ordnance. In order to reliably estimate the work involved and the total costs and savings, the Army must

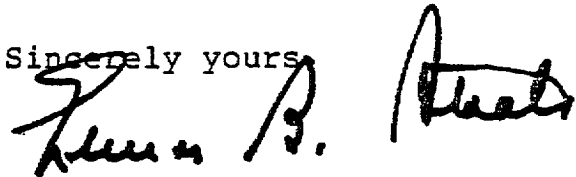
- determine the extent and depth of unexploded ordnance,
- consider the availability of archeologists to assist in clearing the area to preserve artifacts, and
- identify the buildings to be maintained and the ultimate custodian of the Fort.

We believe the constraints involved in the proposed closure need further study, and therefore recommend that the Secretary of the Army estimate all the costs involved, including costs to decontaminate the entire Fort.

We also recommend that the Secretary of Defense defer a decision on closing Fort Monroe until the Army has completed its study.

We are sending copies of this report to the Secretaries of Defense and the Army. As arranged with your office, the report is also being made available for unrestricted general distribution.

Sincerely yours,



Comptroller General
of the United States

Enclosure

COMPARISON OF GAO AND ARMY COSTS
AND SAVINGS FOR CLOSING
FORT MONROE, VIRGINIA

	<u>Army</u>	<u>GAO</u>	<u>Difference</u>
	(millions)		
NET ANNUAL SAVINGS:			
Military personnel	\$ 2.404	\$ -	\$ -
Civilian personnel	4.257	-	-
Other maintenance, Army	3.016	-	-
Communications	.025	-	-
Military family housing	<u>.702</u>	<u>-</u>	<u>-</u>
Total savings (note 1)	<u>\$10.404</u>	<u>10.682</u>	<u>.278</u>
ONE-TIME COSTS:			
<u>Construction</u>			
Headquarters			
building (note 2)	29.651	28.462	(1.189)
Family housing (note 3)	<u>a/8.070</u>	-	(8.070)
Administration			
building (note 4)	.659	.397	(.262)
Band training			
facility (note 4)	.955	1.019	.064
Bachelor officers			
quarters (note 4)	2.067	1.256	(.811)
<u>Non-construction</u>			
Military personnel	.401	.401	-
Civilian			
personnel (note 4)	1.325	.895	(.430)
Transportation	.662	.662	-
Put in caretaker status:			
Lay-up	1.287	1.287	-
Clear moat (note 5)	2.517	N.E.	N.E.
Decontamination (note 5)		N.E.	N.E.
Purchase Wherry			
housing (note 6)	1.000	N.S.	N.S.
Caretaker pending General			
Services Administration			
takeover (2-year period):			
Preservation (note 7)	4.063	N.E.	N.E.
Security (note 7)	.219	N.E.	N.E.
Wherry housing loan	.184	.184	-
Communications	.010	.010	-
Other	<u>1.205</u>	<u>1.205</u>	<u>-</u>
Total cost	54.275	N.T.	N.T.
Cost avoidance (note 8)	(2.370)	(1.472)	.898
Net cost	<u>51.905</u>	<u>N.T.</u>	<u>N.T.</u>

N.E. - Not estimatable.

N.S. - Not supported.

N.T. - No total as individual items are not estimated.

a/This figure should be \$8.046--a mathematical error was included in the Folder.

NOTES

1. This difference included several increases and decreases related to adjustments in estimated costs of family housing identified by the Army Audit Agency. (See note 3.) For example, an additional \$0.551 million will be paid annually to military personnel for off-base housing. We accept the Army Audit figures.
2. The total overstatement of \$1.189 million reflects certain adjustments identified by the Army Audit Agency and additional items identified by us. The Army Audit Agency identified a net understatement of \$0.484 million because of an understatement of personnel assigned and an overstatement of \$0.267 million because of the improper application of a technological factor. We also found that in computing space, the Command computed the administration space and divided by an efficiency factor of 70 percent. Army Regulation 415-17 suggests a factor of 75 percent. In addition, Command engineers said the building was to be designed for maximum efficiency. Considering these factors, the buildings were overstated by \$1.406 million.
3. Under Army Regulation 5-10 criteria, family housing at Fort Eustis is not allowable. The Army Audit Agency disallowed the entire amount. We accept this disallowance, but it is possible that some costs may be required. The Command has a large contingent of generals and colonels, some of whom may be designated as key or essential personnel, thereby requiring base housing. It appears Fort Eustis can satisfy this need with existing housing and no additional housing will be needed. If it cannot, some housing at about \$80,000 per unit might be required.
4. These are differences based on the number of personnel to be transferred. We accept the Army Audit Agency figures.
5. The Command included an estimate for moat clearing but none for decontamination of the land. Considerable cost will be incurred, but no estimate can be made until the Army determines the extent of work required and the method of performance.

6. Command personnel said they believe it would not be advisable to leave Wherry housing, now rented to military personnel, in private ownership if the Command leaves Fort Monroe. They believe the Army should buy it. They did not have a sound basis for the estimate. However, the Army could obtain a reasonable estimate through appraisal or other means. Army officials agreed to do this.
7. The Command estimated caretaker costs for 1 year and assumed that this service would be needed for 2 years. The Army Audit Agency disallowed \$1.373 million of the preservation cost because of a duplication. However, because of the factors discussed in note 5, a 2-year period seems unreasonable. Depending upon decisions made, the annual cost would be multiplied by the additional years in caretaker status or possibly as a reduction in annual savings.
8. The Army Audit Agency disallowed a cost avoidance for backlogged repair and maintenance. We accept the disallowance.