



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



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AUGUST 8, 1979

The Honorable Lucien N. Nedzi  
Chairman, Subcommittee on Military  
Installations and Facilities  
Committee on Armed Services  
House of Representatives *1-5200503*



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Dear Mr. Chairman:

In response to your request of April 10, 1979, we have reviewed the Air Force's economic justification for the proposed reduction of operations at Loring Air Force Base, Limestone, Maine. We examined the most significant items of cost and cost avoidance associated with the reduction and computed the payback period. Cost and savings estimates are part of the decision justification that the Secretary of Defense is required to submit to the House and Senate Committees on Armed Services.

Loring is one of several military installations for which the Department of Defense announced realignment actions on March 29, 1979. The Air Force is planning a two-phased reduction. The first phase will remove all B-52s and 10 of 30 KC-135 aircraft. The second phase, scheduled to begin in 1982 or 1983, depending on completion of the first phase, will remove the remaining KC-135 aircraft. When the reduction is complete, Loring will be a forward operating base with 10 KC-135 rotational aircraft, 800 military authorizations, and 490 civilian employees of the Air Force and contractors.

Presuming the Air Force implements the realignment as presently planned, the reduction of Loring appears economically justified. The associated one-time costs will be paid back within 1 year, well within the 7- to 10-year payback period established by the Department of Defense as the basis for economic justification for base closure or realignment. The cost and cost avoidance items reviewed appeared reasonable and were calculated in accordance with Air Force cost estimating instructions.

Details of each item reviewed are discussed in the enclosure. As you suggested, we did not obtain written comments

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from the Air Force. However, we discussed these matters with Air Force officials, and their comments are included in the enclosure. On May 18, 1979, we briefed your staff on the results of our review.

We are sending copies of this report to the Director, Office of Management and Budget; the Secretary of Defense; and other interested parties upon request.

Sincerely yours,

A handwritten signature in black ink, appearing to read "R. G. Keller". The signature is written in a cursive style with a large, looping initial "R".

ACTING Comptroller General  
of the United States

Enclosure

REVIEW OF PHASED REDUCTION OFLORING AIR FORCE BASE, LIMESTONE, MAINEINTRODUCTION

Loring Air Force Base is a Strategic Air Command base located in northeastern Maine, near the communities of Limestone and Caribou and about 5 miles from the Canadian border. The base was constructed from 1946 to 1953, when the 42d Heavy Bombardment Wing was activated. The wing currently is authorized 14 B-52 and 30 KC-135 aircraft.

Background on the decision

In November 1975 the Department of Defense (DOD) directed the Air Force to save staffing and costs through base closure/realignment actions. From that time the future of Loring has been uncertain, as the Air Force has studied prospective air bases for reduction or closure to achieve operating cost economies.

On September 3, 1976, the Air Force released a draft environmental impact statement and held public hearings on the proposed reduction of Loring. Because of strong objections to the definition of the geographic area expected to be affected, the Air Force issued a revised draft on April 7, 1977. Public hearings were held at Loring on July 7, 1977, and the final environmental impact statement was issued on November 1, 1977.

The Air Force plans to reduce operations at Loring in two phases. The first to begin in the summer of 1979, will remove the 14 B-52s and 10 of the 30 KC-135 aircraft. Depending on completion of phase 1, the second phase will begin in 1982 or 1983, and will remove the remaining 20 KC-135 aircraft. Loring will then have been reduced from a main operating base to a forward operating base. According to the Air Force, the stretched out implementation will provide operational utility while allowing time for orderly community planning and integration of Federal assistance.

The B-52 and KC-135 aircraft will be reassigned to units at other Air Force bases. Personnel and activities at Loring will be reduced to the level required to support 10 KC-135 aircraft on rotational duty from other Strategic Air Command bases, two F-106 aircraft also on rotational duty, a defense

meterological program, and a residual base operating support force. The base will have authorizations for 800 military and 240 civilian employees. The Air Force also estimated that an additional 250 persons would be employed by civilian contractors for base support functions. These changes reduce the authorized personnel positions at Loring by 3,030--1,530 military eliminated and 1,120 transferred to other bases, and 340 civilian eliminated and 40 transferred.

#### SCOPE OF REVIEW

We interviewed Air Force officials at

- U.S. Air Force Headquarters, Pentagon, Arlington, Virginia;
- Loring Air Force Base, Limestone, Maine; and
- Strategic Air Command Headquarters, Offut Air Force Base, Nebraska.

We also discussed the proposed realignment with representatives of a private consulting firm hired by a concerned citizen's group to estimate the expected costs and savings.

We selected four significant costs and savings items for detailed review. We examined military and civilian personnel cost savings, representing about 93 percent of the Air Force's estimated annual recurring savings. We also examined one-time costs associated with military permanent change-of-station (PCS) and homeowner assistance, representing about 61 percent of estimated one-time costs.

#### SAVINGS AND COSTS ASSOCIATED WITH THE REDUCTION

The Air Force estimated that the reduction would ultimately save \$26.7 million annually. For the most part, the savings would be brought about by eliminating 1,530 military positions and 340 civilian positions from Loring. The Air Force also showed a one-time savings of \$26.6 million in military construction. The savings were compared with one-time costs of \$8.7 million.

Our review of selected one-time costs and recurring cost avoidance items did not indicate the need for significant adjustments. However, the \$26.6 million construction cost

avoidance claimed by the Air Force is questionable. The construction projects require additional agency and congressional approval, but an estimate of an amount that may be approved cannot be determined at this time.

DOD has established a 7- to 10-year payback period as the basis for economic justification of base closure/realignment actions. Reducing Loring to a forward operating base appears economically justified, since the payback period for one-time cost recovery is less than 1 year. The favorable cost/cost avoidance relationship, however, depends on the Air Force eliminating the planned number of authorized military and civilian positions.

Details of selected items reviewed are discussed below. All elements of costs and savings are shown in enclosure II.

#### Annual recurring savings

The Air Force estimated that annual savings of \$13.5 million would result from phase I, with ultimate annual savings of \$26.7 million at the completion of phase II. Since phase II is scheduled for completion in fiscal year 1983, annual savings would be \$13.5 million for each of the next 4 fiscal years.

Military and civilian personnel cost savings represent \$24.7 of the \$26.7 million ultimate savings. We found that military personnel cost savings were understated by over \$811,000 and civilian personnel cost savings were overstated by about \$769,000.

#### Military personnel

The Air Force derived its estimate by multiplying the planned reduction of personnel authorizations for officers and airmen by average annual cost factors, as follows.

Officers	180 x \$23,952 =	\$ 4,311,360
Airmen	<u>1,350</u> x 10,251 =	<u>13,838,850</u>
Total	<u>1,530</u>	<u>\$18,150,210</u>

Annual cost factors were obtained from Air Force Regulation 173-10, Table 22--Annual Military Pay and Allowance Factors, which excluded the 1978 pay increase. We used the current table to obtain the following estimates.

Officers	180 x \$25,024 =	\$ 4,504,320
Airmen	<u>1,350</u> x 10,709 =	<u>14,457,150</u>
Total	<u>1,530</u>	<u>\$18,961,470</u>

We tested the validity of the current pay and allowance factors at Loring by calculating the averages based on authorizations by grade for assigned personnel. The actual average annual costs differed from the standard factors by less than 1 percent.

#### Civilian personnel

The Air Force incorrectly increased the average civilian pay by 13.3 percent for fringe benefits, or about \$769,000, that had already been considered in obtaining average pay. The Air Force used the \$17,007 average annual pay cost per civilian, including fringe benefits, developed for the Rickenbacker Air Force Base, Ohio, closure. The Air Force calculated the annual saving for the planned civilian personnel authorization reduction at Loring as follows:

Pay	340 x \$17,007	= \$5,782,380
Benefits	340 x (\$17,007 x 0.133) =	<u>769,056</u>
Total		<u>\$6,551,436</u>

We requested Strategic Air Command Headquarters to provide us with the current budget projection for personnel assigned at Loring for the fourth quarter of fiscal year 1979. The average was \$17,039, based on a budget of \$9,112,600 for 534.8 assigned civilian personnel. The variance between the Loring and Rickenbacker civilian pay averages is not significant enough to change the savings estimate.

The Air Force overstated its estimate of annual civilian personnel savings by \$1 million by incorrectly computing the cost of contract labor to replace some of the Air Force's eliminated military and civilian positions. The net change in civilian employment, including contract, is shown on the following page.

	<u>Civilian employees</u>	<u>Contract labor years</u>
Current authorization	620	30
Less positions transferred to other bases	<u>40</u>	<u>-</u>
Total	580	30
Less reduction of civilian positions	340	-
Add contract labor years	<u>-</u>	<u>220</u>
Authorized after change	<u>240</u>	<u>250</u>

The Air Force computed costs for contractor personnel as follows.

250 staff-years x \$18,221	\$4,555,250
Less:	
Current support, contract (30 staff-year)	\$ 910,000
Elimination of support costs for authorizations (\$920 x 1,870)	<u>1,720,400</u>
Net cost of support requirement	<u>\$1,924,850</u>

Since the Air Force has an existing base operating support contract (30 staff-years at \$910,000), we questioned the average annual salary (\$18,221) used to estimate additional contractor support costs. Air Force officials stated that, in addition to personnel cost, this contract included costs for materials, equipment, contractor profit, and overhead. In view of this, they stated the contract should not be used to estimate additional contractor costs. They further stated that the average salary they used was wrong and that they should have used the same estimate (\$17,007) that was used to estimate civilian cost savings. However, they could not support the use of such an average.

The offset of \$1.7 million is the savings in support functions no longer required, based on an Air Force-wide average of \$920 per authorization.

Considering the absence of any other data, we used the average annual salary for civilian employees to estimate the additional contractor costs.

Cost:		
220 staff-years x \$17,007		\$3,741,540
30 staff-years currently under contract		<u>910,000</u>
		4,651,540
Less elimination of support costs for authorizations (\$920 x 1,870)		<u>1,720,400</u>
Net cost of support requirement		<u><u>\$2,931,140</u></u>

#### One-time costs

The Air Force estimated a total one-time cost of \$8.7 million. The largest elements are \$1.8 million for homeowner assistance and \$3.5 million for military PCS. We reviewed these two elements. The estimate for homeowner assistance appears reasonable and consistent with Air Force cost estimating factors. The military PCS estimate was understated by over \$184,000.

#### Homeowner assistance

The Air Force showed that \$1.8 million of homeowner assistance costs would be incurred to compensate employees for losses on the sale of homes in the Loring area. The Air Force estimate was provided by the Army Corps of Engineers, which is responsible for reimbursing expenses under the Homeowner Assistance Program.

The cost to the Government results from providing assistance in the following situation.

- Private sale. Person qualifying for assistance sells at a price below fair-market value. The Corps reimburses the individual for part of the loss.
- Government purchase. Occurs when the house cannot be sold on the open market.

The Corps estimated that 10 percent of the total 3,030, or 303, military and civilian personnel affected by the reduction will require homeowner assistance. The Corps estimated that 101 persons will not be able to sell their homes and the Government will have to purchase them at an average cost of



\$10,000 and 202 will sell their homes below market value at an average Government cost of \$4,000. Thus, the Corps arrived at an estimated assistance cost of \$1,818,000.

We examined information provided by Corps officials from prior base reductions and closures. According to that experience, 5 to 15 percent of all personnel at those bases were eligible for homeowners assistance. The average costs per closed case were as follows.

	<u>Private sale</u>	<u>Government purchase</u>
Payment to seller from disposition of property	\$2,707	\$7,222
Other Government costs:		
Appraisal fee	144	144
Administrative expense	1,085	1,085
Federal Housing Admini- stration overhead expense (note a)	<u>-</u>	<u>1,022</u>
Total costs to Government	<u>\$3,936</u>	<u>\$9,473</u>

a/The Federal Housing Administration acts as the agent for the home and is reimbursed for expenses incurred for advertising, renovation, brokerage, taxes, and upkeep costs prior to resale.

Corps officials explained that estimates provided the military services often prove high, but that is preferable to underestimating. As an example, they cited the Kincheloe Air Force Base, Michigan, closure action for which homeowner assistance expenses were estimated at \$3 million. Actual cost turned out to be only \$476,000.

#### Military permanent change of station

The Air Force understated its estimate of military PCS cost by \$184,135 by twice deducting the cost of normal military personnel turnover. The costs of authorized military positions transferred were reduced by the turnover rates for normal rotational PCS moves that would ordinarily be experienced without the proposed action. The costs were incorrectly deducted again for the authorized military positions eliminated

by the change in operations at Loring. Since military personnel not making PCS moves to Loring would make them to some other base, no further offset to one-time costs is indicated.

Using average cost factors for officers and enlisted personnel and the total military authorizations eliminated or transferred, the Air Force estimated PCS costs. The Air Force plans to eliminate authorizations for 180 officers and 1,350 airmen and transfer authorizations for 200 officers and 920 airmen. The Air Force estimated PCS costs to be about \$3.5 million. We estimated the costs as follows.

Eliminated:		
Officers	180 x \$2,782	\$ 500,760
Airmen	1,350 x \$1,230	1,660,500
Transferred:		
Officers	$\frac{a}{200} \times \$2,782 \times (0.846)$	470,714
Airmen	$920 \times \$1,230 \times (0.913)$	<u>1,033,151</u>
Total		<u><u>\$3,665,125</u></u>

a/Turnover rates of 15.4 percent for officers and 8.7 percent for airmen are subtracted from 100 percent to arrive at net number of moves. Rates and average cost factors are from the Air Force's June 1, 1978, Memorandums on Base Closure Cost/Cost Avoidance Estimating and Air Force Regulation 173-10, table 27, October 1977.

We were unable to verify that PCS averages, and turnover rates used were appropriate for Loring. We found that although gaining bases incur some costs for incoming personnel, most expenses are billed directly to cost centers other than the bases involved in the PCS move.

#### One-time cost avoidance for military construction

The Air Force also estimated one-time savings of \$26.6 million from military construction avoided through the realignment. However, certain of the projects will be required regardless of the realignment action. Other projects for which the Air Force claimed as costs avoided will require additional agency and congressional approval. We do not

know what amount, if any, would ultimately be approved. In view of this, we have taken the most conservative approach and, for comparison purposes, have excluded the entire \$26.6 million.

Air Force officials explained that military construction projects were held in abeyance while Loring was considered a candidate for realignment. From fiscal year 1976 to fiscal year 1979, only one project for Loring has been authorized and approved by the Congress--a \$359,000 Industrial Waste Treatment Facility project submitted in fiscal year 1979. This project is not part of the \$26.6 million and would be required even if Loring were reduced to a forward operating base.

#### CONCLUSION

Based on the items of cost and cost avoidance examined, the Loring realignment action appears economically justified. The one-time costs associated with the reduction will be recovered in less than 1 year and recurring savings through personnel authorization reduction will increase from \$13.5 to \$26.7 million when phase II is completed.

The costs and cost avoidances reviewed resulted in minor adjustments to three of the four items. One-time savings from military construction were not considered in payback period calculation.

CALCULATION OF PAYBACK PERIOD FROM  
ANNUAL COST AVOIDANCE AND  
ONE-TIME COSTS FOR LORING AIR FORCE BASE

	<u>Air Force</u>	<u>GAO</u>	<u>Adjustment</u>
------(millions)-----			
Annual savings:			
Military personnel	\$ <u>18.1</u>	\$ <u>18.9</u>	\$ <u>0.8</u>
Civilian personnel	6.6	5.8	-
Less contractor support costs	<u>1.9</u>	<u>2.9</u>	-
Net savings	4.7	2.9	-1.8
Military family housing	0.7	0.7	-
Communications	0.1	0.1	-
Real property maintenance	<u>3.1</u>	<u>3.1</u>	-
Total	<u>\$26.7</u>	<u>\$25.7</u>	<u>-\$1.0</u>
One-time costs:			
Military PCS	\$3.5	\$3.7	\$0.2
Civilian transfer	0.8	0.8	-
Civilian severances	0.2	0.2	-
Civilian placement	0.8	0.8	-
Civilian lump sum payments	0.1	0.1	-
Homeowner assistance	1.8	1.8	-
Material transportation	0.5	0.5	-
Other relocation costs	<u>1.0</u>	<u>1.0</u>	-
Total	<u>\$8.7</u>	<u>\$8.9</u>	<u>\$0.2</u>

Payback Period: Less than 1 year

Note: Costs which may be incurred by other Federal agencies are not included for purposes of payback calculation. A private consultant firm hired by a concerned citizen's group estimated \$97 million of other Federal agency cost over a 5-year period. The Air Force acknowledged \$25 million, but has not been able to obtain estimates from all agencies involved. According to Air Force officials, some agencies were not contacted again because initial contact made at the time of the final environment impact statement produced no estimate and little hope for one in the future.

We do not know the extent of other Federal agency costs, but they appear to range between the \$25 and \$97 million cited above. As agreed with the Subcommittee, we did not contact the agencies involved nor did we consider their costs in our payback period calculation.