

REPORT BY THE

Comptroller General

OF THE UNITED STATES.

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Undergraduate Helicopter Pilot Training: Consolidation Could Yield Significant Savings

The Department of Defense proposes to consolidate existing undergraduate helicopter pilot training programs into one program at Fort Rucker, Alabama. Consolidation should make significant savings possible over the next 5 years.



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The Honorable Bill Chappell and
The Honorable Richard C. White
House of Representatives

On February 13, 1979, you asked us to evaluate the Secretary of Defense's proposal to consolidate undergraduate helicopter pilot training (UHPT) at Fort Rucker, Alabama. Your basic request was that we determine the most objective cost comparisons for use in fiscal year 1980 budget deliberations. In addition, your letter raised several issues regarding forecasted savings and/or the feasibility of consolidation, namely

- the proposed consolidation ignores the advantages of training within the services' unique environments;
- an alleged Navy report showed savings of only \$27 million over the next 5 years; and
- even this Navy report did not consider:
 - increased costs due to opening additional flying facilities,
 - purchase of additional Army training helicopters,
 - the need to either construct new quarters at Fort Rucker or house displaced military personnel in the civilian community, and
 - Fort Rucker's reduced surge potential for responding to emergencies requiring large training loads.

As your letter recognizes, significant savings are forecasted as a result of the proposed consolidation of UHPT. The proposal is necessarily predicated on future events and involves variables associated with the assumptions chosen. Therefore, we must emphasize that we are dealing with estimates and that true economies depend upon actual operation of a consolidated program. What we have done in our review is to test the validity of the cost estimates and related savings.

POSSIBLE EFFECT OF INCREASED FUEL CONSUMPTION AND
PRICES ON ESTIMATED SAVINGS FROM CONSOLIDATION

	<u>Gallons required</u> <u>(fiscal years 1980-84)</u>		
	<u>Aviation</u> <u>gas</u>	<u>Jet</u> <u>propulsion</u> <u>fuel</u>	<u>Total</u>
Gallons consumed under consolidation	9,867,252	127,211,098	137,078,350
Cost/gallon	\$ <u>0.63</u>	\$ <u>0.45</u>	\$ <u>-</u>
	<u>\$6,216,368</u>	<u>\$ 57,244,994</u>	<u>\$ 63,461,362</u>
Gallons consumed if UHPT is not consolidated	16,641,797	117,450,738	134,092,535
Cost/gallon	\$ <u>0.63</u>	\$ <u>0.45</u>	\$ <u>-</u>
	<u>\$10,484,332</u>	<u>\$ 52,852,832</u>	<u>\$ 63,337,164</u>
Difference in gallons consumed	(6,774,545)	9,760,360	2,985,815
Cost/gallon	\$ <u>0.63</u>	\$ <u>0.45</u>	\$ <u>-</u>
	<u>\$(4,267,963)</u>	<u>\$ 4,392,162</u>	<u>a/\$ 124,199</u>
Cost/gallon (doubled)			<u>\$ 248,379</u>
Cost/gallon (tripled)			<u>\$ 372,598</u>

a/Comparison is based on fuel consumption for the total DOD UHPT program. A similar comparison, i.e., fuel consumption for Navy's separate program with the incremental fuel consumption for Army to train Navy's helicopter pilots, would yield the same differential in gallons consumed and costs. This difference in fuel use and cost has been considered in the current cost estimates.

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PROPOSED CONSOLIDATION

There are now two UHPT programs:

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- An Army program at Fort Rucker, Alabama, which trains Army and Air Force students and which uses an all rotary-wing syllabus.
 - A Navy program at Whiting Field near Pensacola, Florida, which trains Navy, Marine Corps, and Coast Guard students and which uses a combination fixed-wing/rotary-wing syllabus.

DOD proposes to consolidate these two programs into an all rotary-wing program at Fort Rucker, Alabama. This training would consist of a common core curriculum supplemented by service-unique segments. Existing service-unique follow-on training for UHPT graduates would remain essentially the same.

DOD forecasts approximately \$100 million in savings over the next 5 years and believes a consolidated program will offer training as good as or better than that Navy's students now receive.

Our findings on those issues raised in your letter and on others related to this proposal are discussed below.

ISSUE: OBJECTIVE COST
COMPARISONS/SAVINGS

Cost comparisons have consistently shown that consolidation of training facilities for helicopter pilots can reduce training costs and result in significant savings. DOD's official position is that the difference between Navy cost avoidance of \$233.5 million and increased Army costs of \$135.8 million--\$97.7 million--constitutes forecasted savings over a 5-year period. These figures are based on the Secretary's April 1977 study adjusted to reflect Defense Audit Service findings of March 1978 and subsequent program implementation slippages. GAO, which had recommended consolidation as early as May 1974, reviewed the Secretary's 1977 study and reported in May 1977 that forecasted savings appeared conservative.

In this current effort to test the validity of forecasted savings, we reviewed the services' most recent cost estimates, which were prepared under assumptions in the May 1979 Army/Navy

joint memorandum of understanding to implement consolidation 1/. These estimates show total costs and related savings for fiscal years 1980-84 as follows:

	<u>Unaudited</u>
	(millions)
Navy's estimated cost avoidance to give up UHPT	\$266.6
Army's estimated incremental cost to train Navy's requirements	<u>203.3</u>
Savings	\$ <u>63.3</u>

We found that increases were necessary in both estimates. The required increase in the Army's incremental cost estimate is about \$17 million, of which \$12 million is due to changing its fiscal year 1979 dollar base to a fiscal year 1980 dollar base. The increase to the Navy's cost avoidance estimate cannot be accurately determined at this time on the basis of data provided by the Navy. Officials from the Department of the Navy agree that its estimate needs revision and are preparing a revised estimate. Nonetheless, the overall Navy adjustments needed should exceed the \$17 million adjustment made to the Army's estimate. Thus, the amount of savings should exceed the \$63.3 million shown above 2/.

Other considerations that could affect savings

During the debate over savings from consolidation, questions have arisen about the impact of certain other factors on forecasted savings. We assessed the impact of some of the more important of these on forecasted savings, and our conclusions are as follows.

Long-range impact on costs and savings

Your office requested that we analyze the impact of consolidation on costs and related savings over the next

1/The Secretary has not yet approved the plan; but the services have projected a significant increase in pilot needs, thus driving up projected cost estimates.

2/As of the date of this report, the adjustments to the Navy's cost data had not been completed. We continue to believe that the net effect of the adjustments should result in net 5-year savings from UHPT consolidation of more than \$63.3 million.

20 years. To reliably estimate its long range effects, such an analysis should be based on cost data in its final form, i.e., after all adjustments have been made. Without data in this form, any quantification of costs or savings could be misleading. Long-range estimates are also highly sensitive to assumptions concerning projected cost flows; aircraft life, including replacement time; and inflation rates. Because the Department of the Navy is making adjustments to its estimate and because DOD had not completed its review of the services' estimates, we could not reliably estimate the impact of consolidation on costs and related savings over the 20-year period.

Fuel consumption and prices

Consolidating UHPT would cause an increase in fuel use but only by about 3 million gallons over the 5-year period from fiscal years 1980 through 1984. Increased fuel consumption under a consolidated program is primarily due to additional flying time for Navy's students in advanced rotary-wing aircraft. They are expected to get about 145 syllabus hours instead of some 65 hours they now receive. DOD officials believe the additional hours will greatly enhance the effectiveness of training in rotary-wing flight skills and thus prove cost effective.

In June 1979 hearings before the Senate Subcommittee on Manpower and Personnel, Committee on Armed Services, the Chairman questioned the validity of fuel price figures used in the services' cost estimates. The DOD-approved prices for costing purposes, as used in the estimates, are about \$0.45/gallon for jet propulsion fuel and about \$0.63/gallon for aviation gas. The rate of fuel price increases over the next 5 years is of course open to speculation. However, a doubling or tripling of the above prices at the beginning of fiscal year 1980 would decrease savings by \$0.2 million or \$0.4 million, respectively, during the 5-year period. (See app. I for further details on fuel use and costs.)

Neither the increased fuel use nor the effects of future fuel price increases should materially affect the overall estimated savings from consolidating UHPT. Moreover, the Secretary's proposal does not consider alternatives that could conserve DOD's use of fuel, alternatives which deserve attention regardless of UHPT consolidation. These include, for example, reducing actual flight time through more simulated training exercises; increasing flight time in more fuel-cost-effective aircraft, with a proportionate reduction in the less fuel-cost-effective aircraft, and/or cutting back on mission-specific follow-on training.

Retirement costs and veterans' benefits.

UHPT consolidation will also allow DOD to reduce both military and civilian manpower. Forecasted savings, therefore, will increase due to reduced retirement costs and veterans' benefits. We did not estimate the amount of savings based on the projected manpower reductions under the May 1979 implementation plan. In May 1977, however, GAO reported that the Secretary's proposal did not recognize these savings and estimated that the present value of the unfunded retirement costs for military spaces alone was \$29 million over the 5-year period under analysis. Savings due to reduced future retirement costs and veterans' benefits are both legitimate and significant and should be included in total savings.

Additional factors

Two other factors will affect projected savings:

--DOD, in realigning its activities, must help alleviate the economic and social impact of realignment on the affected region. In May 1977, DOD's Office of Economic Adjustment assessed the economic impact of realignment on the Pensacola area and concluded that the region had strong economic growth and adjustment potential. It estimated costs associated with the economic impact of consolidation at approximately \$2.6 million. These costs will reduce forecasted savings.

--DOD now has 36 rotary-wing TH-57 aircraft committed to primary helicopter pilot training for Navy students. A consolidated program will free these assets for sale or use elsewhere in the Government. Since they are unique to Navy's UHPT, DOD plans to sell the aircraft. Sale to the public will increase forecasted savings.

ISSUE: PROPOSAL IGNORES ADVANTAGES OF TRAINING WITHIN THE SERVICES' UNIQUE ENVIRONMENTS

The syllabus approved by the Secretary in June 1977 will provide Navy students with training for the Navy-unique environment. It consists of a common core of 145 flight hours and 40 hours of simulator time for all DOD students, plus an additional 50 hours of flight time and 10 hours of simulator time for Navy's students. This "unique" portion of the syllabus, taught by Navy instructors, is designed to provide students with the knowledge, skills, and techniques necessary

to operate a helicopter in the Navy's environment. Navy officials, including those responsible for flight training, believe that this syllabus will produce quality pilots. For example, the Secretary of the Navy, testifying in June 1979 before the Senate Subcommittee on Manpower and Personnel, Committee on Armed Services, stated that a consolidated program would provide significantly more effective helicopter pilot training to Navy's students.

ISSUE: ALLEGED NAVY REPORT SHOWING ONLY \$27 MILLION IN SAVINGS

The \$27 million figure appeared in two separate informal documents. In neither was the figure reliable or representative of savings forecasted from UHPT consolidation. Therefore, whether either one considered the costs of opening additional flying facilities, the purchase of additional Army training helicopters, and either construction of new personnel quarters at Fort Rucker or housing displaced military personnel in the civilian community is no longer really pertinent to the alleged report. In reviewing Army's cost estimate, however, we determined whether costs associated with these factors were included, as appropriate, to support consolidated training and found that:

- DLG 2428
- Existing flying facilities will be used for consolidated training, so that no funds are required for opening additional facilities.
 - Additional helicopters required will not be procured but obtained through use of existing DOD assets. Army's cost estimate included \$1.5 million for returning to flyable status 40 rotary-wing primary trainers in storage at the Military Aircraft Storage and Disposition Center, Davis-Monthan Air Force Base, Arizona. We visited Davis-Monthan; examined the aircraft and inventory records; and found, as the Army claimed, that the helicopters have not been cannibalized and can be brought back to a flyable status within the estimated cost range.
 - Existing facilities, both on and off base, appear capable of supporting projected increases in personnel; therefore, no new construction is planned. In April 1979, Navy officials examined facilities at Fort Rucker and surrounding communities and concluded that housing and support facilities were adequate to

handle additional requirements and would not degrade quality of life for Navy personnel. Army officials consider it unlikely that consolidation will displace a significant number of military personnel living on base.

ISSUE: REDUCED SURGE POTENTIAL OF
THE ONE-SITE TRAINING PROGRAM

Fort Rucker, DOD's proposed site for consolidated training, appears adequate to accommodate anticipated pilot training loads over the next 5 years. Estimated annual output capacity at the site is, peacetime, between 2400 and 2600 pilots and, mobilization, about 4500 pilots. Projected service requirement for helicopter pilots in fiscal year 1984, including foreign students, is 2482. DOD's need for pilots, which is subject to review and amendment during annual planning, programming, and budgeting cycles, would be affected by an emergency situation such as war. Should such a situation arise and require more pilots over a sustained period than any one site can handle, expansion of some training functions to other locations would be necessary, as was the case during the Vietnam surge.

CONCLUSIONS AND RECOMMENDATIONS

We believe that the Secretary of Defense's proposal to consolidate UHPT should result in significant savings. Based on the assumptions under the May 1979 Army/Navy joint memorandum of understanding to implement consolidation, the estimated savings should exceed \$63.3 million over the next 5 years. The advantages and disadvantages of consolidation have been aired in studies, in audits, and in hearings before members of the Congress. We believe that the preponderance of the evidence favors consolidating UHPT.

Estimated savings depend upon assumptions used and timing of implementation and could vary. True economies cannot be precisely determined without actually operating a consolidated program. To verify the forecasted savings and to facilitate proper management of implementation, we recommend that the Secretary of Defense

- establish a mechanism that accounts for the costs, tracks the milestones for implementation, and records the savings associated with consolidation; and

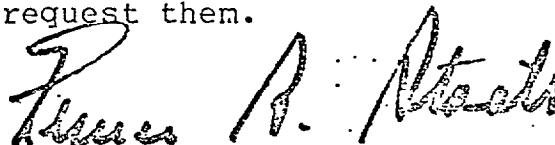
--report back to the Congress at appropriate intervals concerning the progress of implementation, related costs, and savings.

SCOPE OF REVIEW

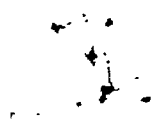
To obtain the information you requested, we reviewed Army and Navy cost estimates, as well as estimates of related savings from consolidation; and we analyzed documentation relating both to training within the services' unique environments and to the alleged report held by the Navy. We also observed and inspected facilities and equipment the Army has identified for use in support of consolidated training. In addition, we discussed the issues with key officials from the Office of the Secretary of Defense, the Department of the Army, and the Department of the Navy.

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As instructed by your office, we did not obtain official written comments from the Department of Defense; but we did discuss the results of our work with officials from Defense and incorporated their comments where appropriate. We also briefed your staff on five occasions; other Congressmen's staff and interested parties attended some of these briefings. As arranged with your office, we are sending copies of this report to the Department of Defense and to other interested parties who request them.



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