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[Continuing Educational Programs for Scientists and Engineers].
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Report to Secretary, Department of the Air Force; by Richard W. Gutmann, Director, Procurement and Systems Acquisition Div.

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Organization Concerned: Department of Defense.

A survey was conducted of the continuing educational programs conducted for scientists and engineers at the Air Force Geophysics Laboratory (AFGL) and the Electronic Systems Division (ESD). Both AFGL and ESD support an array of continuing educational activities, offer a variety of incentives to encourage participation, and provide ample training funds. AFGL and ESD scientists and engineers generally agreed that both organizations encourage participation in continuing educational activities. The types of continuing educational activities were considered valuable, and the specific incentives were effective in encouraging participation. Management training was thought to be more rewarding than technical training. More than half of the interviewees considered that maintaining technical expertise is not an effective way to enhance promotion prospects. The Air Force organizations generally provide the same continuing educational opportunities and incentives as two of their Federal Contract Research Center counterparts. The principal difference is that the two contractors emphasize in-house and during-duty hours programs. Even though scientists and engineers at AFGL and ESD rank classes during duty hours as the greatest incentive to participate in continuing education, overall participation at the Air Force institutions without this incentive is higher than at the contractors. (RRS)

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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

**PROCUREMENT AND SYSTEMS
ACQUISITION DIVISION 14**

MAR 6 1978

B-169062

**The Honorable
The Secretary of the Air Force**

Dear Mr. Secretary:

The General Accounting Office recently completed a survey of the continuing educational programs conducted for scientists and engineers at the Air Force Geophysics Laboratory (AFGL) and the Electronic Systems Division (ESD) (assignment code 952160). Both AFGL and ESD support an array of continuing educational activities, offer a variety of incentives to encourage participation, and provide ample training funds. We are furnishing our observations for your consideration. We have no plans to review this subject further at this time.

We evaluated continuing education at AFGL and ESD by randomly selecting and interviewing 53 civilian scientists and engineers (out of 495 employed) and comparing their views with the organizations' policies and practices. AFGL and ESD scientists and engineers generally agreed that both organizations encourage participation in continuing educational activities. They also felt that the types of continuing educational activities available to them are valuable and the specific incentives provided them are effective in encouraging participation. However, some of their comments indicated that AFGL and ESD programs could be further enhanced.

Most of the scientists and engineers looked upon management training as more rewarding than technical training. Twelve of 17 non-supervisory scientists and engineers interviewed at AFGL considered management training more likely to result in rewards, including advancement; 16 of 23 interviewees at ESD concurred in this view. We did not determine whether these views affected the desire of the individuals to stay abreast of scientific and technological developments but are bringing this matter to your attention because this outlook, if prevalent, could result in technical obsolescence.

More than half of the interviewees considered that maintaining technical expertise is not an effective way to enhance promotion prospects. Promotions and awards are based upon job performance and, while special recognition may not be given to skill enhancement

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(952160)**

through education, there would be an indirect benefit when such activities improve performance upon which rewards are based. Nevertheless, their perception of nonrecognition might discourage some individuals from participating in continuing educational activities.

The Air Force organizations generally provide the same continuing educational opportunities and incentives as two of their Federal Contract Research Center counterparts--the Massachusetts Institute of Technology's Lincoln Laboratory and the MITRE Corporation. The principal difference is that Lincoln and MITRE, unlike AFGL and ESD, emphasize in-house and during-duty hour programs. Even though scientists and engineers at AFGL and ESD rank classes during duty hours as the most effective incentive to encourage participation in continuing education, it is interesting to note that overall participation at AFGL and ESD without this incentive is greater than at Lincoln and MITRE.

If you desire additional information on our survey, please contact Jack Heinbaugh or Robert Lindemuth on (202) 275-3195. Copies of this letter are being sent to the Secretary of Defense and the Commanders, Air Force Systems Command, Air Force Geophysics Laboratory, and the Electronic Systems Division.

Sincerely yours,



R. W. Gutmann
Director