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Serious Shortcomings in FAA's Training Program Must Be Remedied

Statement for the Record by

Kenneth M. Mead
Director, Transportation Issues
Resources, Community, and Economic
Development Division

Before the
Subcommittee on Transportation, Aviation
and Materials
Committee on Science, Space, and Technology
House of Representatives

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to submit this testimony for the record. It provides our comments on the training of the Federal Aviation Administration's (FAA) safety-related work forces, primarily air traffic controllers, aviation safety inspectors, and maintenance technicians. A well-trained FAA staff is absolutely essential to having an efficient and safely-functioning air traffic control system and to ensure the safety of the flying public.

On June 6, 1990, in testimony before the Subcommittee on Investigations and Oversight, House Committee on Public Works and Transportation, we provided the results of our effort to evaluate FAA's progress in implementing its training modernization effort--Flight Plan for Training. In addition to assessing the Flight Plan, we identified two other issues--contract training and class scheduling and attendance--which impact FAA's ability to effectively train its work force. Our specific findings were as follows:

-- FAA's training needs are extensive and are probably greater today than at any other time in the agency's history. FAA has one of the largest and most diverse training programs in the federal government. Last year

alone, about 28,000 employees attended training. Moreover, the influx of large numbers of new staff, coupled with the modernization of the air traffic system and the new requirements for safety inspection, dictates an even greater need for new training curricula and for improving the way in which training is provided to FAA's safety-related work forces.

-- FAA's Flight Plan for Training, a $406 million, 6-year, training modernization program, has made little progress. This plan has received limited funding and, although only in its second year, is already being significantly revised in part because some projects were not well thought out and may not be needed.

-- FAA internal appraisals and Department of Transportation (DOT) Inspector General audits have found cases in which, because FAA did not evaluate training contracts promptly, specifications and contractor performance were not adequate, and scarce training dollars were wasted.

-- FAA is not fully using its existing training capability because it has not established clear accountability for class attendance. Faced with training backlogs and tight budgets, the agency can ill afford having large numbers of

"no-shows" and failing to enroll employees in scheduled courses.

The remainder of this statement discusses our findings in more detail, and our recommendations on what needs to be done to help get FAA's training program back on track.

FAA HAS EXTRAORDINARY TRAINING NEEDS

To address its safety-related work force training needs, FAA has instituted one of the largest and most diverse training programs of any federal agency. FAA's centralized training budget was $133 million in fiscal year 1989 to train about 28,000 employees, including controllers, technicians, inspectors, engineers, and support personnel. This diversified training encompasses such areas as flight training on the latest aircraft, air traffic equipment maintenance, and clerical and human relations training.

Moreover, each of FAA's safety-related work forces face major changes that will further heighten the need to obtain new skills and improve current skills. More than 5,000 new controllers are being developed to control air traffic. The entire 17,000 member controller work force, including its new controllers, will have to be trained to operate new systems, which are coming on line as part

of FAA's modernization effort, as well as receive refresher training on existing systems.

The inspector work force is faced with applying new inspection methods that will be required to assess aging aircraft--a significant challenge since about 50 percent of the commercial jet transport fleet is 15 years old or older. The inspectors will also have to certify new aircraft that are being introduced into the growing fleet and to oversee the industry's implementation of self-audit programs. Furthermore, FAA plans to hire about 300 new inspectors who will require initial training.

FAA's maintenance technician work force faces similar needs. FAA plans to hire about 2,900 technicians through fiscal year 1993. These new hires, as well as FAA's existing work force of about 8,700, will require training on how to maintain new systems that are coming on line through modernization efforts and through the introduction of new technologies.

FAA's training programs have another dimension that distinguishes them from most other agencies: Deficiencies in training safety-related work forces can be life threatening. The National Transportation Safety Board has linked deficiencies in training to impairments in air traffic safety. For example, according to the Safety Board, deficiencies in controller training contributed to loss of life in 1987 midair collisions in Independence, Missouri,

and Orlando, Florida. In the Safety Board's judgment, improved radar training for controllers would have prevented these accidents.

I will now discuss several factors impeding FAA's ability to provide sufficient and adequate training.

FLIGHT PLAN FOR TRAINING

In early 1988, FAA recognized that it needed a comprehensive, long-term plan for all of its work forces to meet its recruitment, hiring, and training needs. Accordingly, FAA developed an agencywide, 6-year, $406 million Flight Plan for Training (Flight Plan), which encompasses 47 projects within eight major areas that involve designing new training curricula, recruiting and screening applicants better, and establishing better ties with academia and industry. Although this plan covered many areas of training, it did not cover certain aspects, such as the current process for determining training needs and problems with class scheduling and attendance. FAA started to implement its plan in July 1988.

To date, Flight Plan progress has been slow--31 of the 47 projects are behind schedule, some by as much as a year. These delays are affecting FAA's ability to meet certain staffing goals, such as those for experienced controllers. For example, in January 1990, FAA projected that it would not meet the congressionally mandated

goal of having 12,725 experienced controllers for this fiscal year--falling short by 1,945. This shortfall will occur, in part, because delays in making increased use of simulation for controller training necessitate heavy reliance on lengthy and costly on-the-job training for controllers.

Several factors are responsible for the Flight Plan being off-track. Shortcomings in FAA's planning and budgeting process and in its contract oversight and specifications are major reasons for the slippages. Some Flight Plan projects were poorly planned and may not be needed. For example, a planned $169 million project intended to establish four regional radar training centers for controllers was not started because FAA did not fully consider the project's high cost. FAA is now exploring an alternative proposal, costing about $47 million, as part of its effort to reevaluate all projects and revise the Flight Plan.[1]

The purpose of both the original and alternative radar training project proposals is to reduce FAA's overreliance on on-the-job training and increase its use of simulator training. Using simulators would enable FAA to train air traffic controllers in a shorter time frame with greater effectiveness. The original project involved constructing new regional facilities. The alternative project would upgrade FAA's current radar simulator

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[1]FAA plans to discuss its revision of the Flight Plan with the Administrator by the end of this month and publish it by the end of September.

capability at air route traffic control centers, which will accomplish the same results as the original project at less cost.

Another problem plaguing Flight Plan implementation was FAA's lack of contingency plans to respond to alternative funding levels. For example, the project milestones for FAA's Flight Plan were developed anticipating that the Plan would receive its entire fiscal year 1989 funding requirement of about $20 million. When only about $6 million was made available for the Flight Plan, FAA had to determine how to target its limited funds because it did not have priorities for allocating funds to the most deserving projects.

Furthermore, because of the interrelated nature of these projects, the schedule delays are creating a ripple effect. To illustrate, FAA has a project to improve its curricula for training maintenance technicians and for on-the-job training. This project cannot begin until FAA updates maintenance technicians' job tasks. Since the updating project is already a year behind schedule, FAA cannot begin improving its training curricula. FAA is therefore left without a blueprint for designing the training it needs for maintenance technicians and will have to rely on outdated curricula.

In some cases, the Flight Plan is also experiencing schedule delays due to poor contractor performance. During the initial

phase of a key Air Traffic Control Screening project, for example, the contractor was to research procedures currently used by others for screening potential employees and to develop a controller screening proposal for FAA's use. But this project is a year behind schedule because FAA did not determine that the contractor's methodology was illogical and technically inaccurate until after the contractor had completed a 7-month study. FAA therefore spent almost $650,000 on this study, much of which will have to be redone.

The purpose of the Air Traffic Control Screening project is to (1) dramatically shorten the time it takes to select air traffic controller candidates from the current 42 days to 5 days or less, (2) develop a more effective screening method, and (3) reduce screening program costs. The screening process will be shortened by replacing classroom training with simulator training and testing. Further, FAA expects that simulator training will provide a more realistic test and a more effective method to determine the candidates' aptitude to complete more advanced training at field facilities. The cost of the current screening process is great and a much shorter process will reduce it significantly.

I would now like to discuss the two other issues that we identified during our assessment of the Flight Plan--contract training and class scheduling and attendance.

CONTRACTOR-PROVIDED AIR TRAFFIC FIELD TRAINING

Inadequate contract performance extends beyond Flight Plan projects. Recent GAO, FAA, and DOT Inspector General reports cited inadequate contractor performance, unclear contract specifications, and untimely FAA evaluation of contractor performance regarding contracts to provide current air traffic field training.

As we reported last year, air traffic field managers were concerned about the quality of contractor training provided.[2] For example, since contract instructors were not familiar with current procedures and equipment, some controllers were trained to use air traffic procedures that were outdated and some received poor instruction. To address these concerns, we recommended that FAA evaluate contractor performance.

Two other studies, subsequent to our report, support the need for better FAA evaluation of contractor performance. In one study, FAA found that contract administration was inadequate to ensure that air traffic field training was standardized and that contractor claims were verified. In another study, the DOT's Inspector General found that contract specifications were inadequate and

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[2] FAA Training: Continued Improvements Needed in FAA's Controller Field Training Program (GAO/RCED-89-83, Mar. 29, 1989).

instructors lacked relevant, recent controller experience at the Chicago O'Hare airport terminal. Some instructors had never controlled traffic at a large facility like O'Hare. Of the three instructors with O'Hare experience, the most recent experience dated back to 1973. In addition, during the first 10 months of the contract, the contractor instructed only 1 of 28 classes and FAA certified only 1 of 10 contract instructors as qualified. In this instance, FAA incurred about $600,000 in contract costs while training the instructors and basically still providing its own training.

FAA is beginning to come to grips with its contract deficiencies. It has, for example, drafted contract administration procedures to improve oversight, but these procedures have yet to be implemented. Despite these problems, FAA plans to expand contract training to other terminal facilities, such as its New York terminal radar approach control facility.

LACK OF ACCOUNTABILITY FOR TRAINING RESOURCES

According to an FAA internal appraisal, the agency has no policy for holding managers accountable for the use of training slots and confusion exists about where the responsibility lies for ensuring training. The report stated that, during fiscal year 1989, about 3,500 training slots were not filled through its quota allocation

process, while at the same time some students attended classes who were not formally enrolled. FAA agreed that some slots may have been filled with non-enrolled students, but believed that the agency was not using as much training as it could provide. For example, the Academy--which is FAA's major provider of centralized training--canceled 54 classes due to insufficient enrollments. These classes could have accommodated 850 students. When asked who was accountable for ensuring that the training slots were used, training providers thought that it was the Service Organizations' responsibility--that is Air Traffic, Flight Standards, and Airway Facilities; meanwhile, the Service Organizations thought it was the regions' role, and the regions thought that accountability fell to field office managers.

The importance of filling these seats is illustrated in the following example. In fiscal year 1989, FAA hired 300 inspectors to meet its staffing goal, but did not have either the instructors or the space to train them. As a result, new inspectors had to wait until they could be slotted for training. Of those scheduled for training, there were 41 no-shows and FAA had to cancel two classes due to low enrollments. In April 1990 testimony before the House Transportation Subcommittee, FAA officials stated that about one-half of the 300 inspectors have been trained. Since FAA intends to hire another 300 inspectors this year, it faces a similar dilemma.

Even if all training slots are effectively used, FAA does not have the capability to adequately meet its training needs. For example, the demand for training newly hired maintenance technicians will outstrip the Academy's capacity in fiscal years 1991 and 1992 when plans call for hiring about 900 and 800 new technicians, respectively. The Academy can accommodate only 640 new hires each year. Although less desirable than academy classroom training, FAA plans to meet the excess demand by using computer-based instruction.

Another problem is FAA's inability to account for training funds. FAA could not tell us the total funds it required and used for training its work forces. Only centrally provided training is identified separately in FAA's budget request. Training provided by FAA regions, by contractors at air traffic facilities, or as part of some National Airspace System (NAS) Plan projects is not identified separately in the budget. To illustrate, one NAS Plan computer system project included costs of $4.2 million for a contractor to develop and provide initial training to FAA's maintenance technicians.

CONCLUSIONS AND RECOMMENDATIONS

Although FAA is aware of the many problems it faces with its training, implementation of the programs designed to fix the deficiencies has been slow and ineffective. FAA's training program

must continue to grow to meet the needs of an expanding work force and the introduction of new equipment and systems. However, about 65 percent of the projects that make up FAA's training modernization program are behind schedule, and FAA did not have contingency plans to respond to alternative funding levels. We believe establishing criteria to determine its project priorities will help ensure that limited funds are directed to the most important projects within FAA's modernization program. Such criteria, at a minimum, should include benefit-cost ratios, mission needs, and safety considerations.

As part of its efforts to provide adequate training, FAA has contracted for controller field training in some locations and plans to expand the contracts to other facilities. However, inadequate FAA contract administration and oversight resulted in unclear contract specification and inadequate contractor performance. As a result, FAA incurred greater costs than necessary to train contractor instructors.

Finally, existing training resources are not being fully utilized because it is not clear who is accountable for ensuring that training slots are used. A clear designation of this responsibility is needed.

To address these concerns, we recommended that the Secretary of Transportation direct the Administrator of FAA to

-- develop criteria for determining priorities for its training modernization program, Flight Plan for Training;

-- develop performance standards for controller field training contracts with measurable tasks and milestones, and implement them before expanding contracted instruction; and

-- clearly designate management accountability for ensuring the use of training slots.

We transmitted these recommendations to the Secretary of Transportation on June 6, 1990. The Secretary is now considering them, and we expect a formal response by August. The FAA acknowledged, in testimony given on the above date, that it was in general agreement with our findings. However, FAA did not mention what actions it would take to implement our recommendations.

In summary, Mr. Chairman, FAA's training programs are not fully meeting the needs of existing employees and FAA seems to be making very limited progress in its training modernization efforts. In view of the extraordinary training needs that FAA faces, as well as the link between deficiencies in safety-related work force training and impairments in air traffic safety, FAA management must begin to resolve these issues now. Continuing to delay will only increase the potential for safety-related problems to occur.