

SCHLEEDER

JP-20

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

Log 1552

ISSUED: December 20, 1982

Forwarded to:

Honorable J. Lynn Helms  
Administrator  
Federal Aviation Administration  
Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

A-82-146 through -149

The National Transportation Safety Board began a followup special investigation <sup>1/</sup>of the Air Traffic Control (ATC) system of the United States on October 1, 1982. The purpose of this investigation is to evaluate the safety of the ATC system at a later point in its rebuilding phase following the controllers' strike of August 3, 1981. The investigation has involved surveying 50 ATC facilities, including 16 air route traffic control centers (ARTCC's) and 34 terminal radar and non-radar facilities, and interviewing about 350 facility managers, staff, controllers, controller trainees, and military controllers temporarily assigned to the Federal Aviation Administration (FAA). Safety Board investigators have observed ATC operations at the facilities, while riding in the cockpits of commercial airlines, and while flying airplanes within the system.

The Safety Board has not yet completed its analysis of all the information gathered during the field phase of its followup investigation. Once the analysis is completed, the Safety Board will issue a final report of the special investigation. However, the investigation has revealed some specific safety problems which the Board believes require immediate, corrective action by the FAA. The safety problems relate to the manner in which on-the-job training (OJT) is being administered and regulated by ATC facility management.

Before May 7, 1982, a controller assigned to conduct OJT for a trainee (developmental) controller was required first to receive FAA-approved instructor training in accordance with Chapter 3, Section 2, Paragraph 100.C(3) of FAA Handbook 3120.4F, "Air Traffic Training." However, on May 7, 1982, the FAA issued a general notice (GENOT), which waived this requirement for ATC facilities "where resources prohibit administering appropriate training courses" until May 1, 1983. The Safety Board believes that the FAA should reconsider its decision on this matter for several reasons.

<sup>1/</sup> For additional information, read; Special Investigation Report—"Air Traffic Control System" (NTSB-SIR-81-7) issued December 8, 1981, which was based on investigative data spanning the period August 3, 1981, to October 9, 1981.

During its investigation of the ATC system, the Safety Board learned that many facilities are using newly certified controllers to provide OJT on both radar and nonradar control positions immediately after the newly certified controllers have been "signed-off" on a control position, but before they have had time to develop either sufficient experience or "seasoning" at that position or receive FAA-approved instructor training. ATC facility personnel, including experienced controllers, newly certified controllers, and facility staff have expressed concern to the Board's investigators about the prudence and reasonableness of this practice. In some instances, developmental controllers were certified on a position in the morning and were conducting OJT at that same control position for another developmental controller in the afternoon of the same day. It was also learned that one developmental controller, certified on a radar position, gave OJT to another developmental controller during a part of the shift and, later in the same shift, they reversed their roles at another radar control position. Since the waiver to the standards on May 7, 1982, there presently are no ATC system-wide standards in effect governing the amount of experience at a control position or the amount of classroom training in instructor techniques a controller should have before he/she is assigned as an OJT instructor.

During the Safety Board's initial investigation of the ATC system in the fall of 1981, the FAA stated that no significant modifications of facility training programs to qualify controllers were being undertaken or planned. Further, Chapter 3, Section 2, Paragraph C(1) (not waived) of FAA Handbook 3120.4F, requires that an OJT instructor, "Be proficient on the position at which the training is being conducted." "Proficient" is defined as being "highly skilled." Based on the foregoing information, the Safety Board believes that the existing implementation of OJT at many facilities is not in keeping with the intent of this important criterion and may have a deleterious effect on the proficiency and capabilities of the newly trained controller workforce. Therefore, the Safety Board believes that the FAA should immediately cancel the waiver governing instructor training requirements, and the FAA should immediately reexamine its use of newly certified developmental controllers as OJT instructors.

Experienced OJT instructors now have a double incentive to spend considerable extra time conducting OJT. The first incentive is the newly enacted ATC pay package which includes extra pay for conducting OJT. The second incentive is the desire of senior controllers' to qualify trainees rapidly so they can return to a normal workweek and vacation schedule. Additionally, these personal incentives are reinforced by the manager's desires to meet training goals. As a result, OJT instructors are often scheduled by management for extensive training periods and because they feel obligated to train new controllers to rebuild the workforce, the instructors willingly comply with management's instructions and undertake the assignment. As a result, many senior controllers are conducting OJT for 5 to 7 hours per shift which the Safety Board has determined to be very stressful for the instructors and trainees in heavy workload situations. Additionally, the extended hours of OJT do not provide for a meaningful learning situation for the trainees.

The Board's investigators learned that this situation became so serious at one facility surveyed by the Safety Board that the Facility Advisory Board members brought it to the attention of facility management. Additionally, the Board's investigators learned that, at an "all hands" meeting at this facility, senior controllers complained about the exceedingly stressful effects of the existing OJT workload to facility management. As a result of those complaints, actions were taken to allow full performance controllers at the facility to schedule certain days during which they would not conduct OJT. The OJT instructors expressed relief to the Safety Board's investigators at the easing of the excess stress of conducting continued OJT. It is the responsibility of managers to recognize the

adverse consequences of conducting protracted OJT and to develop realistic methods of keeping the amount of OJT required to be provided by controllers at an acceptable level. Therefore, the Safety Board believes that the FAA should consider adopting and formalizing this particular measure of controlling the amount of OJT systemwide to relieve undue controller stress at other facilities with heavy OJT workloads.

Safety Board investigators also studied a procedure developed at LaGuardia Tower, a level-four terminal facility, to control and monitor the controller training process during the rebuilding of the ATC workforce. The facility manager pooled the two Evaluation, Proficiency and Development Specialists (EPDS) and the one Planning and Procedures Specialist (PPS), who was also performing as an EPDS at the time, and assigned one of them to each of the three facility controller teams, shortly after the strike began in August 1981. The specialists' responsibilities include oversight of OJT and classroom and administrative training requirements for their respective team members. They are also responsible for coordination of all training activities with the respective team manager. Although this practice was originally set up on a temporary basis, the positive experience and results of the arrangement have caused the facility manager to continue the practice, and to recommend it to FAA ATC regional and headquarters staff as a permanent team position entitled Evaluation, Proficiency, and Procedures Specialist (EPPS). The proposed EPPS position would perform the combined functions of an EPDS and PPS, and thereby satisfy the needs of each team in training, administration, evaluation, proficiency development, program development, and program planning.

The Safety Board's investigators were impressed by both the quality and quantity of training conducted by and directed by the team-assigned EPDS's (EPPS), and their ability to monitor and control first-hand the training of their respective team members. Therefore, the Safety Board believes that this concept should be analyzed and considered by the FAA for adoption at other ATC facilities. The implementation of a team-assigned "EPPS" or a similar procedure could enhance the ATC system controller workforce recovery process and could assist in the resolution of many of the shortcomings of the existing OJT program, which are of concern to the Safety Board.

In view of the above, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Cancel immediately the waiver of the FAA Handbook "Air Traffic Training," 3120.4F, Chapter 3, Section 2, Paragraph 100.C(3), which requires instructor techniques training prior to being assigned to conduct on-the-job training. (Class I, Urgent Action) (A-82-146)

Provide air traffic control facility managers with guidance and criteria to govern the use of newly certified developmental controllers as on-the-job instructors to ensure that the instructors are experienced, proficient and trained in instructor techniques before being assigned to conduct training. (Class II, Priority Action) (A-82-147)

Provide air traffic control facility managers with guidance and procedures to place a more measured control on the amount of on-the-job training that controllers are assigned to conduct commensurate with workload and the complexity of the traffic being handled at the control position. (Class II, Priority Action) (A-82-148)

Develop and adopt the team-assigned Evaluations, Proficiency and Procedures Specialist concept, based on that in use at the LaGuardia Tower, or a similar concept, in place of the existing staff-assigned Evaluations, Proficiency and Development Specialist/Planning and Procedures Specialist concept in use at appropriate air traffic control facilities. (Class II, Priority Action) (A-82-149)

BURNETT, Chairman, GOLDMAN, Vice Chairman, McADAMS, BURSLEY, and ENGEN, Members, concurred in these recommendations.

*Patricia A. Goldman*  
for  
By: Jim Burnett  
Chairman