

STATEMENT OF THE HONORABLE QUENTIN S.C. TAYLOR, DEPUTY ADMINISTRATOR OF THE FEDERAL AVIATION ADMINISTRATION, BEFORE THE HOUSE COMMITTEE ON GOVERNMENT OPERATIONS, SUBCOMMITTEE ON GOVERNMENT ACTIVITIES AND TRANSPORTATION. AUGUST 14, 1979.

Mr. Chairman and Members of the Subcommittee:

You have asked the FAA to address a number of issues today concerning the FAA's maintenance activities.

For one thing, you have asked me to describe our organizational changes which relate to maintenance. Until recently, in our headquarters flight standards organization, the responsibility for national oversight and direction of maintenance was placed in our air carrier and general aviation divisions whose focus was on aircraft operations. In our new organization, however, the maintenance functions have been integrated with our engineering and manufacturing functions in one office of airworthiness. This shift recognizes organizationally the interrelationship of design, manufacturing, and maintenance in assuring the continued airworthiness of an aircraft. Under this new structure, the same group of people will conduct headquarter's oversight over an aircraft from its certification, through the manufacturing process, and

throughout its service life. We are confident that, through this organizational change, the conduct of our total airworthiness programs will be improved by an environment which will stress a much closer coordination between engineering and maintenance specialists.

You have also asked me to speak about the adequacy of FAA's manpower levels in the maintenance area as well as how does the FAA know that, through our reporting systems, service difficulties are in fact reported to us. The response to these two issues necessarily must be qualified. Let me explain why.

In the exhaustive review we conducted, pursuant to an order of investigation, into the maintenance practices of the domestic operators of DC-10's, we discovered, and have made public, instances of unacceptable maintenance practices. Clearly, we are concerned that maintenance procedures and practices be of a high order to assure that the safety of the travelling public is not compromised by the failure to adequately maintain the airworthiness of aircraft.

In light of the recent maintenance discrepancies we found, we will be taking a hard look at the way maintenance is regulated

and performed, and specifically at what refinements must be made to the system to be sure that maintenance programs are adequately prescribed and complied with.

One facet of our intended review will focus on our aviation safety staffing generally, both at headquarters and in the field. Chuck Foster will review the types, skill mix, and level of staffing in both our airworthiness and flight operations areas to determine if changes in the structure of our workforce are necessary to better fulfill our responsibilities. If changes are called for, Administrator Bond has indicated they will be made.

Our review of staffing cannot, however, be conducted in a vacuum. This assessment will have to be made in conjunction with our other efforts to assess the conduct of maintenance activities generally. In other words, if changes in the way we do business are called for by our analysis of maintenance activities, then there may be resource implications. These resource implications are unquantifiable, though, until we have progressed further in our reviews. Let me elaborate a little on this point.

We currently have an authorized total of 186 air carrier maintenance inspectors, 54 of which are designated as Principal Maintenance Inspectors (PMIs). The PMIs and their staffs are responsible for overseeing the maintenance activities of the airlines. Their role, as we have pointed out before, is to work with the carrier to improve maintenance practices and to oversee compliance by the carrier with the carrier's maintenance program. In recent years, much of the focus of FAA's maintenance workforce has been on the development and performance of maintenance systems rather than detailed involvement, as our maintenance focus was a number of years ago, in the "nuts and bolts", day-to-day aspects of a carrier's maintenance program. The difficult question which the FAA has to resolve at this point is the extent to which it may be desirable to insert ourselves more into the day-to-day aspects of maintenance.

As far as all reportable service difficulties having been reported to the FAA in the past, we know after our extensive studies pertaining to the DC-10 that this is not the case. Though we have in place a system that requires a continuing flow of information to us, it is apparent to us now that we have not always received all the information the system is

designed to provide us. For one thing, as we have mentioned in our reports, our regulation which requires the reporting of major repairs appears in need of refinement, as it has not been consistently interpreted by those called upon to report such major repairs. For example, during our maintenance investigation following the DC-10 accident, we learned that one carrier had classified a repair to a damaged aft pylon bulkhead as "minor"; we disagree with that assessment. The change to our regulation concerning major repairs can possibly be done either through a change in definition or through the use of more definitive examples of major repairs. This issue, as well as others to be identified in our further maintenance reviews, will be considered for regulatory change through our rulemaking processes. Of course, we will also take action in those areas where we can make improvements without the need for amendments in our regulatory structure. For example, in areas where our regulations are adequate, we may still, by internal directive, find it desirable to shift emphasis of our maintenance workforce from one area to another.

You have also asked me to describe what the requirements are to be certificated by the FAA as a mechanic or inspector. Let me

briefly describe our requirements for mechanic certification. To qualify as a certificated mechanic, you must meet the general eligibility, knowledge, experience, and skill requirements prescribed by Part 65 of the Federal Aviation Regulations, which is concerned with certification of airmen other than flight crewmembers.

Before attaining eligibility to take the FAA's written test, an applicant must first have met the applicable experience required. This experience may be satisfied by having completed coursework at a certificated aviation maintenance technician school, or by at least 18 months of practical experience working with airframes or powerplants, as appropriate to the rating sought. In the case of an applicant for both a powerplant and airframe rating, at least 30 months of practical experience is required in performing concurrently the duties appropriate to both the airframe and powerplant ratings. The applicant's work experience is reviewed by the FAA to assure that it reflects adequate familiarity with the procedures, practices, materials, tools, and equipment generally used in aircraft maintenance.

If the applicable experience requirements are met, an applicant for a certificate must take and pass a written test covering: the construction and maintenance of aircraft appropriate to the rating sought, the pertinent regulations in Part 65, and the applicable provisions of Parts 43 (Maintenance, Preventive Maintenance, Rebuilding, and Alteration) and 91 (General Operating and Flight Rules) of the Federal Aviation Regulations. I have attached a sample written test to this prepared statement for your information.

In addition, an applicant must pass an oral and a practical test to determine how well the applicant can make use of his knowledge and his basic skill in performing practical projects on the subjects which were covered by the written test. Sample oral test questions and practical test projects are also attached to my prepared statement.

With respect to inspection personnel, the regulations require that the person have an appropriate certificate to perform the required inspection (i.e., appropriate rating for the type of work) and be properly trained, qualified, and authorized to do so. Further, an inspector may not perform a required

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inspection unless he is under the supervision of an inspection unit, separate from the unit performing the maintenance, and has not performed the item of work required to be inspected.

I should also note that one of the certification requirements of an air carrier under Part 121 of the Federal Aviation Regulations is to have in place a training program to ensure that each person, including an inspector, who is responsible for determining the adequacy of work performed is fully informed about procedures and techniques and new equipment in use, and is competent to perform his duties.

Though our requirements for mechanic certification are reasonably stringent, and despite the fact that there are a number of checks and balances in the regulatory regime under which maintenance is to be performed, it was still apparent to us from our recent order of investigation into maintenance practices that maintenance was not being consistently performed as it should be. Therefore, as another facet of our assessment of maintenance activities, we intend to look at the training the carriers provide their maintenance personnel and their compliance with prescribed company maintenance procedures as

well as the adequacy and understandability of the procedures themselves. Beyond that, we intend to look specifically at the carriers' inspector to mechanic ratios as one aspect of determining the adequacy of their maintenance programs.

In closing, Mr. Chairman, I want to assure you and the Members of the Subcommittee that the extensive studies we conducted before returning the DC-10's to service are not the culmination of our efforts in the aftermath of the Chicago tragedy. To the contrary, we have identified areas where, in our view, there is a need for further refinement in the conduct of maintenance. And we intend to carefully look at those areas and to make whatever changes are indicated by a critical assessment of both the FAA and the airlines' roles in the maintenance process.

Mr. Chairman, that completes my prepared statement. We are available to respond to questions you may have at this time.

