

STATEMENT OF ANTHONY J. BRODERICK, ASSOCIATE ADMINISTRATOR FOR AVIATION STANDARDS, FEDERAL AVIATION ADMINISTRATION, BEFORE THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, SUBCOMMITTEE ON NUCLEAR REGULATION, CONCERNING THE FAA'S REGULATORY PROCESSES. OCTOBER 20, 1987.

Mr. Chairman and Members of the Subcommittee:

I am Anthony J. Broderick, FAA's Associate Administrator for Aviation Standards. I am responsible for FAA's safety programs concerning our Nation's airlines, including the development of safety regulations and the conduct of our surveillance and inspection programs. I am pleased to have the opportunity to appear before the Subcommittee to describe for you today our regulatory and compliance approach to the airline industry. We believe that these programs have worked well and have demonstrably assisted in fostering an outstanding safety record in the air transportation industry.

The FAA has regulations governing virtually all aspects of aviation safety. I would like today to narrow my discussion to the process we use in the initial safety certification of an airline which seeks to provide service to the public. I believe that process is illustrative of the kind of detailed and cautious measures we use in fulfilling our safety responsibilities in all areas. I would also like to provide you with a brief insight into

the way we promulgate regulations and enforce compliance with those regulations. Before doing so, however, I believe it is important to highlight for the Subcommittee the general way in which the Federal Government approaches its overall aviation responsibilities, since I believe this approach works well.

In brief, aviation safety is the responsibility of the FAA. The economic aspects of aviation were traditionally the responsibility of the Civil Aeronautics Board. With the sunset of the Board, the remaining economic responsibilities were assumed by the Office of the Secretary of Transportation (OST). The National Transportation Safety Board is an independent agency with responsibility for investigating aircraft accidents, determining probable cause, and issuing safety recommendations to the FAA. This overall framework has proven highly effective in focusing the FAA's efforts on safety, while at the same time providing us with an independent assessment of perceived problems in the system and recommendations for dealing with those issues.

The process used by the FAA to develop regulations conforms to the Administrative Procedure Act. That process typically involves the issuance of a Notice of Proposed Rulemaking (NPRM), which is published in the Federal Register to offer an opportunity for public comment. We then shape a final rule following a full review of the comments received. In some cases, we hold informal

hearings to apprise the public of our rulemaking proposal and to seek additional comments. Also, in some instances, we issue what we call an Advance Notice of Proposed Rulemaking to solicit information on which to base a proposed rule that would then be issued in an NPRM.

Our rules are developed from a variety of sources. Many proposals emanate from internal FAA analyses. Some rules are developed following recommendations from the National Transportation Safety Board or are based on proposals received from airlines, manufacturers, professional associations or unions. We also receive petitions for rulemaking from outside parties. Proposals may also emanate from FAA-industry seminars, conferences, or symposia on safety matters. In short, there are a variety of ways in which regulatory concepts are formulated. We typically work closely with the aviation community in shaping an approach to dealing with an issue before proposing an NPRM. We are also vitally interested in having the benefit of their views concerning our proposals when they are published for public comment. As a policy matter, though, we discourage ex parte contacts during the course of a rulemaking. If such contacts occur, we place in the rulemaking docket a summary of the contact which occurred.

I believe we are genuinely fortunate in aviation that the community shares the common goal of enhancing safety. In that

regard, we generally find that the aviation community is as interested as we in developing and promulgating reasonable requirements that will advance safety. On the whole, we operate in a climate in which there is impetus for positive change, although this is not to suggest that there are not disagreements among the constituent elements of the community over how to attain a given safety objective.

As I noted earlier, our regulations govern the entire facet of aviation safety activities. Although many are detailed and specific in nature, where feasible, we often describe rules in a "performance" oriented way, permitting regulated parties latitude in developing an approach that will satisfy the intended safety objective of a rule. For example, rather than describing the particulars of how an aircraft must be designed--since this would stifle creativity and innovation--our aircraft certification regulations typically prescribe objectives and standards which must be demonstrated by a particular design. One illustration might be a requirement that an aircraft be capable of sustained flight after loss of an engine rather than a requirement that an aircraft have a specific number of engines.

The regulations which govern the safety certification of new air carriers are found in Part 121 and Part 135 of the Federal

Aviation Regulations and Special Federal Aviation Regulation 38-2. Guidance on how to apply these regulations to applicants for certification is supplied to our field facilities through our airworthiness and flight operations orders or "handbooks" which are developed in headquarters. The handbook guidance is further supported or elaborated through memoranda and frequent telephone conversations between headquarters and regional staff.

Since 1958, the process used by FAA to certify new air carriers has remained basically the same. An applicant for an air carrier operating certificate applies for certification through our flight standards field offices. Typically, informal meetings are held to inform the applicant of the requirements and procedures for certification and for the FAA to make initial assessments of the applicant's potential capabilities. The action which more formally begins the process is a "Pre-Application Statement of Intent" to start operations, which the applicant completes and provides to the FAA field office. This outlines, in general terms, the applicant's proposed scope and type of operations, type of equipment, areas of operations, and airports to be used, etc. Our field offices are instructed not to process this form unless it appears likely that the applicant will proceed toward full certification.

The next step is for the carrier to flesh out the details of its

proposed enterprise by submitting a formal application. Accompanying the formal application, or to be followed shortly thereafter, are the carrier's proposed general operations, maintenance and training manuals along with checklists, Approved Airplane Flight Manuals, Minimum Equipment List, and other documents needed to evaluate its readiness to conduct air transportation in compliance with the regulations and safe operating practices. We evaluate such factors as whether the carrier has the capability to maintain aircraft in an airworthy condition, to properly train crewmembers, dispatchers and maintenance personnel, to safely turn around aircraft and crews from one flight to the next flight, and other pertinent parts of an air carrier operation. We also require that resumes of key management officials be submitted with the formal application.

As part of the formal application the new carrier would be required to submit an initial compliance statement, which lists all regulations appropriate to its proposed operations and how it intends to meet those regulations. Typically, the compliance statement cites appropriate provisions in its required manuals which spell out in detail how these functions will be carried out. FAA, of course, reviews this document to make sure that all pertinent regulations have been listed, and that the proposed means of compliance are adequate. The initial compliance statement provides an early review of how the applicant intends to

conduct its operations as well as allows for changes as the certification process continues. A final compliance statement is provided later.

As these "paper" reviews are being conducted, we move into the next phase of our examination of the carrier--that is field inspections. FAA inspectors monitor the performance of such tasks as the training and checking of personnel and the inspection of proposed maintenance facilities. We examine the aircraft to be used to see if they meet certification and operational requirements. As this process evolves, we look at the proposed management personnel to see if they have the knowledge and experience needed to operate an airline. We also look at the compliance history of the people who will be involved in the management of the company.

At some point, usually in the later phases of the process, the carrier applicant would be required to submit to the FAA a plan for "proving flights" which, as the name suggests, are flights in which the applicant proves to FAA's satisfaction that it has the capability to actually run an airline in compliance with the regulations and safe operating practices. While a carrier may receive credit for ferry flights and FAA-observed training flights, it must also make plans to conduct flights which would be representative of their proposed operation, a dress rehearsal, so to speak. A carrier may request a reduction in the hours of

proving flights required, based on the capabilities and past experience of its personnel. Despite any reduction which may be granted when FAA accepts the plan, the key factor is that the carrier must prove to the FAA's satisfaction, through the proving flights, that it can properly and safely run an airline. Thus, if the FAA discovers any deficiencies in the carrier applicant's procedures, that applicant will have to correct the problems and demonstrate that it has done so, even if this results in having to fly more hours of proving flights than called for in the plan. Likewise, if a carrier demonstrates its capabilities to FAA's satisfaction prior to the completion of the number of hours of proving flights called for by the plan, no further flights would be required. In short, the carrier applicant must demonstrate its ability to comply with the applicable regulations and the procedures and programs contained in its manuals irrespective of the number of hours of proving flights in its plan.

Once the plan for proving flights is accepted, FAA begins more intensive surveillance of the applicant. An emergency evacuation demonstration is conducted which tests the emergency equipment as well as the applicant's ability to maintain such equipment. The evacuation demonstration also verifies in a practical manner the quality of training given to the cockpit and cabin crewmembers on the use of the emergency equipment and the procedures to be used during an emergency evacuation. This capability can be

demonstrated through a partial evacuation. During ferry or training flights, the applicant's maintenance programs, procedures, and capabilities are examined. The carrier applicant would be required to fly into a number of the airports that are representative of those it proposes to serve. During these flights, FAA inspectors examine the competence of flight crews, flight dispatchers, flight attendants, and ground personnel; the adequacy of maintenance programs and fueling procedures; and management's capabilities in the exercise of operational control. We also pose hypothetical problems for the crews and the company's operational control systems to see how they would react in unusual situations such as weather diversions and/or equipment failures. In essence, the proving flights are used by the FAA to verify that the carrier applicant can actually conduct its operations in accordance with the proposed methods and conditions set forth in its compliance statement.

After each proving flight, an FAA inspector briefs the applicant's management on any deficiencies detected during the flight or during ground operations, and the applicant must take action to correct these deficiencies. If they are major, the applicant must demonstrate the effectiveness of the corrective action by conducting additional flights. Once the FAA is satisfied that the carrier applicant's programs and systems adequately provide for compliance with the regulations and safe operating practices, the

proving flights are terminated. Only after a successful demonstration by way of proving flights is an Air Carrier Operating Certificate granted to the carrier, along with operations specifications, which detail the conditions under which the carrier may operate.

The flight standards field office is required to prepare a certification report and forward it to the region which in turn forwards a copy to headquarters. The field office also notifies OST that we have granted the certificate. Once the carrier has obtained a certificate of public convenience and necessity from OST, the carrier may begin to operate.

Once a carrier has been certificated by the FAA, our involvement with that carrier does not stop. We exercise on-going oversight over the carrier to assure that it is in continuing compliance both with our safety regulations and its internal manuals and procedures which have been developed pursuant to our regulations. To do that, we employ a work force of aviation safety inspectors with expertise in aircraft operations, maintenance, and avionics. As a means of assuring that all operators are receiving appropriate levels of surveillance, we have established a comprehensive aviation inspection work program in headquarters requiring that our field inspectors conduct specified numbers of inspections, by type of inspections, of designated operators

throughout the country. We also have established a program of in-depth inspections, using aviation safety inspectors from outside the normal jurisdiction which oversees a given carrier, to inspect all operators from top to bottom on a cyclical basis. We recently established an evaluation staff at headquarters which enables us to better analyze data developed during our field inspections to determine if trends are developing, and to more fully track changes which are occurring in industry so that we can adapt our practices to conform to them as needed. Further, we have been developing and implementing new and more comprehensive training and guidance materials for our inspectors to assist them in the performance of their surveillance efforts. In addition, we have been engaged in an extensive program of recruiting and hiring additional aviation safety inspectors to enable us to do a more effective job of surveillance. We believe strongly that these measures, along with a strong enforcement program, have contributed to an increased posture of safety compliance within the industry.

That concludes my prepared statement, Mr. Chairman. At this time, I would be pleased to elaborate on any aspects of our aviation safety programs you may wish or to respond to questions you may have concerning our approach to aviation safety.