

STATEMENT OF JOSEPH M. DEL BALZO, DIRECTOR, EASTERN REGION,  
FEDERAL AVIATION ADMINISTRATION, BEFORE THE HOUSE COMMITTEE ON  
SCIENCE AND TECHNOLOGY, SUBCOMMITTEE ON TRANSPORTATION,  
AVIATION, AND MATERIALS, CONCERNING THE SOUTHBOUND APPROACH TO  
WASHINGTON NATIONAL AIRPORT. MARCH 21, 1984.

Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to appear before you to discuss the reviews the FAA has conducted of the southbound approach to Runway 18 at National Airport and the steps we have taken in order to add to the safety of that approach.

As Director of the Eastern Region, I am responsible, through my flight standards, air traffic, and airway facilities offices, for the development and maintenance of safe approaches to all airports in the region, including Washington National Airport. To assist me in answering your questions, I have with me today John Kern, Deputy Director of the Office of Aviation Safety, who is head of a task force comprised of headquarters, regional, and field personnel that is reviewing the southbound approach to National; Harry Hubbard, Manager of the National Airport Tower; Dave Venti, Manager of Data Systems at the tower; and Norbert Owens, Manager of the Eastern Region Air Traffic Division.

I would like to take this opportunity to summarize the events which have occurred and the actions FAA has taken concerning

the southbound approach to Runway 18 at National. On December 28, 1982, a Piedmont Airlines flight using the VOR/DME approach was reported by ground witnesses to have flown unusually close to the 390-foot USA Today building. In response to these reports, both FAA and NTSB conducted investigations into the incident. As a result of its investigation, NTSB submitted four safety recommendations to FAA on March 24, 1983. Three of these recommendations dealt with changes to the instrument approach--angling it away from Rosslyn; adding a visual descent point (VDP) to require pilots to maintain at least the minimum altitude until intercepting the Visual Approach Slope Indicator (VASI) glide slope; and changing the approach chart to depict the transition to visual flight over the Potomac River similar to that depicted on the current Localizer Type Directional Aid (LDA) approach, along with an advisory on maintaining minimum descent altitude until the visual descent point. The fourth recommendation was that the ARTS-III antenna array be moved to a site where it would provide more reliable operation of the Minimum Safe Altitude Warning (MSAW) system.

In July, FAA sent NTSB a letter indicating we did not concur with these recommendations based on our assessment that the procedures in place were safe and that the proposed changes would raise problems with environmental concerns and would not be consistent with the U.S. standard for Terminal Instrument

Procedures (TERPS) criteria. The FAA found no evidence that the MSAW equipment was not operating satisfactorily with the antenna in its present location.

In November, NTSB urged the FAA to reconsider its position, and subsequently, the Secretary of Transportation and the Administrator agreed to conduct another review of the safety of the approach. While the approach met all existing operational standards, it was determined to "go the extra mile" to see if changes could be made to improve the already high safety factor of the approach. Accordingly, a review team of specialists from Washington Headquarters, the Eastern Region, Washington Metropolitan Airports, and the Flight Inspection Field Office in Atlantic City conducted an additional review.

As a result of this re-examination of the approach, the team recommended some changes to the Administrator, who approved them last December. These changes included one of the original NTSB recommendations, and several other changes which respond to the intent of NTSB recommendations, and, we believe, go beyond what they had originally suggested, in terms of providing vertical guidance to approaching aircraft. We have worked closely with NTSB safety experts in developing these changes, and they have been fully supportive of our proposals.

The visual descent point (VDP) requested for the VOR/DME approach was adopted, and it took effect last Thursday, March 15. What it does is tell the pilot not to descend below the minimum descent altitude (MDA) prior to reaching a point 2.2 miles from the distance measuring equipment (DME) transmitter located at the VOR. The cockpit instruments will display this distance to the pilot to assist him in deciding when he can descend. The MDA is established at 720 feet, the USA Today building height is 390 feet, and the building is located about 2.6 miles from the DME antenna. Therefore, in addition to the horizontal separation the approach provides from the building, no aircraft should ever fly within 330 vertical feet of it.

We have published this new VDP in the current approach chart. In addition, we have sent a telex to all of our regions, requesting them to have the principal operations inspectors personally notify all affected carriers of this change. We intend to follow-up on this to make sure the carriers take action to inform their crews, paying particular attention to those carriers with flights into National. Having taken these steps to ensure that flight deck crews are aware of the new VDP, we intend to investigate and, if necessary, take vigorous enforcement action against any pilots who violate this procedure.

Another improvement is the development of a second Localizer Type Directional Aid (LDA) approach, following the same track as the VOR/DME approach. This is the most important change we are proposing to improve the safety of this approach, which is the one which has been the subject of attention concerning the USA Today building. For the first time, vertical guidance will be automatically provided to the cockpit, through the new state-of-the-art equipment which we will be installing. Upon installation of the glide slope, the ground proximity warning device--which is installed in all air carrier aircraft--will give the pilot an aural warning if the aircraft deviates from the glide slope. This will further ensure that proper altitude is maintained upon the final approach.

At the same time we install the new LDA approach, we will be upgrading the existing southbound LDA approach with the same state-of-the-art equipment. Our original expedited schedule called for installation of both LDA's by September 27th. As the Secretary announced last week, we have since pulled that forward to August 2nd. FAA believes that the installation of this solid state system will more than meet the intent of NTSB's recommendation that we alter the flight path for approaching aircraft.

A further step we are taking is the expansion of a lead-in light test program to help keep aircraft over the center of the

Potomac River. Originally planned for just Memorial Bridge, the expansion would add lights to the 14th Street/George Mason, Roosevelt, and Key Bridges. This program underscores the fact that, in addition to the vertical separation from the Rosslyn buildings, the approach is also designed to provide considerable horizontal separation. Thus, by strengthening the guidance to the pilot in both of these dimensions, we believe planes will be much less likely to deviate from the approved approach paths.

An issue which has been related to the concern over the southbound approach is the reliability of the Minimum Safe Altitude Warning (MSAW) system. This device is designed to alert the controller to a potentially unsafe condition by sounding an aural alarm and presenting a visual alert. In the wake of questions raised as to the reliability of the MSAW at National, this equipment was examined, and flight tests were conducted to ascertain that the equipment performed as intended. These reviews have uncovered no evidence of problems with the MSAW. Moreover, discussions with FAA electronic engineers have not revealed any unusual performance characteristics. However, we will continue to monitor the system to ensure its performance, and to determine if there any areas where the system can be improved.

Concerning the reported incidents two weeks ago, we are still involved in investigating those reports. We have begun the process of reviewing data, but have not yet been able to draw even preliminary conclusions from it. I regret that we cannot go into the details of our investigation, because it may be the basis for possible enforcement action. I want to assure the Subcommittee, however, that we will vigorously pursue all appropriate action, both in the enforcement area and in the realm of possible changes necessary to ensure safety. We believe that the changes we have proposed will be enough to accomplish this, but if we uncover any evidence that further steps are needed, be assured that we will take those steps.

Mr. Chairman, that concludes my prepared statement. At this time, my colleagues and I would be pleased to respond to your questions.