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DEPARTMENT OF TRANSPORTATION
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20591

A-68-26

OFFICE OF
THE CHAIRMAN

September 20, 1968

Mr. David D. Thomas
Acting Administrator
Department of Transportation
Federal Aviation Administration
800 Independence Avenue, S.W.
Washington, D. C. 20590

Dear Mr. Thomas:

The Safety Board has recently adopted the attached aircraft accident report culminating our investigation of the midair collision involving Piedmont Aviation, Inc., Boeing 727, N68650, and Lanseair, Inc., Cessna 310, N3121S, which occurred near Hendersonville, North Carolina, on July 19, 1967. This report is due to be released to the public on September 27, 1968.

The report contains a number of recommendations which will be of interest to the Federal Aviation Administration in terms of possible corrective action. In order to comply with our policy of affording your agency advance notice of safety recommendations prior to their being made public, there is transmitted herewith a copy of the aforesaid report. Your attention is directed in particular to the "Recommendations" section at page 46 of the report.

Sincerely,

Joseph J. O'Connell, Jr.,
Chairman

Enclosure

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3. RECOMMENDATIONS

With respect to the discussions of the landing approach charts relevant to this accident, the Board is aware of continuing programs by the FAA to review and modify aeronautical chart displays in order to facilitate current navigational requirements. Among the planned changes to the C&G landing approach charts will be the pictorial display of all navigational aid facilities, or fixes, applicable to the approach, or missed approach procedure for the type of approach being displayed.

In particular, this will result in the future depiction of the Asheville RBN on the Asheville ILS approach chart inasmuch as the Asheville RBN is a facility utilized in the missed-approach procedure.

The FAA is proposing continued modification of the landing approach charts as changes become necessary or desirable and is being assisted in this endeavor by the Flight Information Advisory Committee (FIAC) whose members represent the aviation interests of both Government and industry.

It is recognized that pilot/ATC radio communications in non-radar terminal areas represent the primary means by which air traffic separation is safely effected. Conformity to established ATC procedures by both pilots and controllers is the only means by which the margin of safety and system flexibility can be increased.

In view of anticipated increases in ATC system utilization, the Board urges continued improvement in communication methods and procedures, especially with regard to IFR aircraft in non-radar environments. Specific areas for study might include the feasibility of mandatory clearance readbacks by pilots,

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revisions to recommended controller phraseology which will provide specific instructions with regard to clearances that affect flightpath changes, and more frequent monitoring of the progress of an aircraft in a non-radar terminal area through appropriate ATC communications. The addition of surveillance radar to these areas, as it becomes available, will of course diminish the problems of control experienced in the non-radar terminals. The Board recommends expeditious increases in ATC radar coverage as the economics of money and manpower allow.

Another recognized problem with respect to the safe and efficient operation of the system is the widely varied experience levels of the user pilots. At one end of the scale is the highly trained and proficient air carrier pilot who, for the most part, is intimately familiar with the aspects of the air traffic system. At the other end is the newly instrument-rated general aviation pilot with a relatively low amount of pilot time and with limited "actual instrument" flying experience. The system cannot, and is not geared to, fully exploit either end of the spectrum; however, it is designed to be flexible enough to provide a safe operation for all pilots "qualified" to participate. In addition to providing a means of air traffic separation, functional requirements of the system demand that it be adaptable to an expeditious air carrier and military operation as is necessary to meet the essential needs of traveling public and the Department of Defense.

In essence, the system and its procedures must be sophisticated to the degree that a rapid and efficient traffic flow is assured, yet simplified

to the point where a neophyte instrument pilot can be safely controlled. From the standpoint of system modification, it is apparent that these factors work against one another. Moreover, as system traffic loads increase, the variance between the pilot proficiency levels widen, and the continuing need for system modification becomes more pronounced.

While the Board strongly favors the simplification of air traffic control procedures as both a means to improve the programmed margin of safety and to facilitate the less proficient IFR pilots, it recognizes that modification in this direction can go only so far without a deleterious effect on the efficiency of the system as it now exists. Any attempt to radically simplify the procedures in order to totally accommodate the lower proficiency pilots can only result in a dual standard of control within the ATC complex. The Board believes this would be an undesirable situation, and as the present system nears the saturation point, one wherein the overall level of safety would be considerably reduced.

Therefore, in addition to seeking methods by which ATC procedures may be improved and simplified, the Board also recommends that more stringent requirements be established for the pilots using the system.

It is suggested that the FAA review the existing minimum levels of skill required for the issuance of an instrument pilot rating and evaluate these requirements against present and anticipated system proficiency level requisites. A valid criterion for these requirements should be a minimum level of proficiency wherein a pilot receiving an initial instrument rating is truly qualified for immediate and unrestricted operation in the system.

Further, it is recommended that the FAA establish a requirement for an annual proficiency flight check for all instrument-rated pilots utilizing the system to insure a continued level of proficiency which is at least compatible with the initial requirements.

The establishment of higher requirements for instrument ratings would not be, and is not meant to be, an attempt to constrict the utilization of the system or to eliminate any pilot categories from continued use. As a matter of practicability, it is the only way that the disparity in the proficiency levels can be narrowed thereby improving the efficiency and safety of the overall operation. In the long run, those pilots not now required to demonstrate any proficiency level at all after receipt of an instrument rating would benefit, at the very least, by the instructional value associated with an annual proficiency flight check.

BY THE NATIONAL TRANSPORTATION SAFETY BOARD:

/s/ JOSEPH J. O'CONNELL, Jr.
Chairman

/s/ OSCAR M. LAUREL
Member

/s/ JOHN H. REED
Member

/s/ LOUIS M. THAYER
Member

/s/ FRANCIS H. McAdams
Member