

- 16. There was no failure or malfunction of the airplane structure, powerplants, or components prior to impact.
- 17. Flightcrew procedures were not conducted in accordance with prescribed company procedures.

(b) Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the decision of the pilot to initiate and continue an instrument approach under weather conditions which precluded adequate visual reference and the faulty techniques used by the pilot during the landing phase of that approach.

The Board also finds that the flightcrew's nonadherence to prescribed operational practices and procedures compromised the safe operation of the flight.

3. RECOMMENDATIONS

The Safety Board is concerned with the fact that the aviation industry continues to be plagued by accidents which occur during the approach and landing phase of flight. These accidents tend to demonstrate the same deficiencies; namely that the approved operating procedures and normal flightcrew discipline are being modified or ignored to the extent that an accident ensues.

In a letter to the Administrator of the Federal Aviation Administration dated January

19, 1969, the Board expressed concern about the incidence of accidents that occurred during the approach and landing phases of flight. In that letter, we recommended several measures aimed at reducing these occurrences.

The FAA issued Air Carrier Operations Bulletin No. 71-9, which emphasized the common faults noted in the execution of non-precision approaches, and proposed several recommendations to eliminate these faults. The Board endorsed this Bulletin, both as to content and intent.

However, in the light of recent events, we must reiterate our concern with the problem of approach and landing accidents, and reemphasize the importance of flightcrews' adhering more meticulously to approved procedures and regulations.

In view of the foregoing, the Safety Board recommends that the Federal Aviation Administration:

- 1. Reemphasize to all flight crewmembers the necessity for total crew coordination and adherence to approved procedures. (Recommendation No. A-72-224).
- 2. Insure that all flight crewmembers are currently apprised of the contents of Air Carrier Operations Bulletin 71-9, emphasizing that a "nonprecision" approach requires as much, if not more, crew coordination than a "precision" approach because of the lack of precise guidance from electronic navigational aids outside the aircraft. (Recommendation No. A-72-225).