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National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: June 15, 1987

In reply refer to: A-87-68

Dr. R. R. Shaw
Assistant Director, General-Technical
Technical Department
International Air Transport Association
2000 Peel Street
Montreal, Canada H3A2R4

The National Transportation Safety Board has recently surveyed the transmission and communication of in-flight weather reports from oceanic areas under U.S. air traffic control. In the course of the survey, the Safety Board discovered that the headings that designate a report as an Air Report (AIREP) or an AIREP SPECIAL are not being used in accordance with International Civil Aviation Organization (ICAO) doctrine, nor is the surface communications system presently programmed to accept these headings in every case.

The heading AIREP and its coded equivalent ARP identify a report containing routine weather information, while the AIREP SPECIAL and its coded equivalent ARS describe weather phenomena, such as severe turbulence or severe icing, which are potentially hazardous to aircraft or to crewmembers and passengers. The system is a principal source of aviation weather information over oceanic areas and often is the only source of hazardous weather information. For weather forecasters and dispatchers to warn aircraft of hazardous conditions, the AIREP SPECIAL reports must be identified and brought to their attention. At present, this can only be done by visual inspection of the reports which, considering the thousands of observations received daily, is almost an impossible task.

The Safety Board believes that those reports describing hazardous weather should be tagged so that they can be readily recognized either by visual inspection or by computer program. This will allow National Weather Service forecasters, military weather forecasters, Federal Aviation Administration flight service specialists, and airline dispatchers to use the information readily in preparing warnings to the flightcrews of aircraft transiting regions of severe weather.

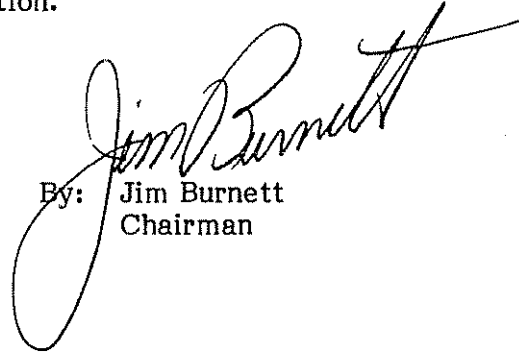
The Safety Board has recommended that the agencies handling overseas AIREPs program their systems to identify AIREP SPECIALs. This in itself, however, is insufficient. For the system to function properly, the flightcrews making the reports will have to designate as AIREP SPECIAL each in-flight weather observation describing a potentially hazardous weather condition. Therefore, to ensure that weather conditions potentially hazardous to flightcrews of international flights are properly reported and identified for regional dissemination, the National Transportation Safety Board recommends that the International Air Transport Association:

Recommend to the airlines of member States that flightcrews use the headings "AIREP SPECIAL" or the telegraphic contraction "ARS," as promulgated by the International Civil Aviation Organization (ICAO) Procedures for Air Navigation Services, Rules of the Air and Air Traffic Services (PANS-RAC), when they make international position reports that contain an observation of weather phenomena hazardous to aircraft or passengers. (Class II, Priority Action) (A-87-68)

The Safety Board has also issued a recommendation to Aeronautical Radio Incorporated (ARINC) to develop procedures to code AIREP SPECIAL reports and recommendations to the Air Transport Association of America (ATA), the Department of the Air Force, and the Department of the Navy to solicit the use of the prescribed ICAO air-report headings.

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility ". . . to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation A-87-68 in your reply.

BURNETT, Chairman, GOLDMAN, Vice Chairman, and NALL and LAUBER, Members, concurred in this recommendation.


By: Jim Burnett
Chairman