November 2008

To: Nicholas A. Sabatini Associate Administrator for Aviation Safety AVS-1 800 Independence Avenue, SW FOB 10-A, Room 1000 West Washington, DC 20591

cc: Greg Kirkland Acting Manager, Air Transportation Division **AFS-200** 800 Independence Avenue, SW FOB 10-A, Room 831 Washington, DC 20591

cc: Dan Jenkins Manager, Air Carrier Training Branch AFS-210 800 Independence Avenue, SW FOB 10-A, Room 831 Washington, DC 20591

cc: Gloria LaRoche **Aviation Safety Inspector** Air Carrier Training, AFS-210 800 Independence Avenue, SW FOB 10-A, Room 831 Washington, DC 20591

Dear Mr. Sabatini:

We are pleased to provide you this "Airplane Upset Recovery Training Aid Revision 2". This document was developed in response to FAA request for us to convene an industry and government working group to develop guidance to flight crews as it pertains to issues associated with operations, unintentional slowdowns, and recoveries in the high altitude environment. In the interest of defining an effective document, it has been decided to introduce this package as a supplement to the Airplane Upset Recovery Training Aid first released in 1998. While the Airplane Upset Recovery Training Aid specifically addressed airplanes with 100 seats or greater, the information in this supplement is directly applicable to most jet airplanes that routinely operate in this environment. This supplemental information has been inserted in the Airplane Upset Recovery Training Aid Rev 2 completed October 2008.

As a group of industry experts, we are confident we achieved the goal of defining a reference that will be effective to educate pilots so they have the knowledge and skill to adequately operate their airplanes and prevent upsets in a high altitude environment. The key point is that no reference material published is of value unless it is used. To that end, we implore the FAA to produce language to support implementation of this material that will motivate operators to use it. Indeed, the current Airplane Upset Recovery Training Aid serves as an excellent example of a collaborative reference produced at the insistence of the FAA, with little endorsement or requirement for implementation. The industry result is an assortment of products available with no standard reference. This competes against the very motivation for producing a collaborative document in the first place.

Several recommendations have been provided to our team from the FAA certification group. We are encouraged they continue to look at ways to improve future aircraft. We are confident this supplement and the Airplane Upset Recovery Training Aid, for airplanes in service today, are effective references, if implemented, to provide flight crews information and skills that respond to the suggestions this FAA group are studying.

Your review and agreement to the attached Training Aid will allow us to produce and deliver it to industry.

Sincerely.

Captain Dave Carbaugh The Boeing Company

Co-chair Upset Recovery Industry Team Co-chair Upset Recovery Industry Team

Captain Larry Rockliff

Airhus

Bob Vandel

Flight Safety Foundation

Co-chair Upset Recovery Industry Team

Dear Sir/Madam:

It is a pleasure to provide to you this "Airplane Upset Recovery Training Aid Revision 1". Our goal is to see it implemented within your organization and throughout the aviation industry. This training tool is the culmination of a painstaking, concentrated effort of an industry and Government working group representing a broad segment of the aviation community.

The training aid was originally released in 1998 using the same industry and Government process. These teams were composed of both domestic and international experts representing a wide range of knowledge and interests. This updated consensus document represents the most recent information available on upset recovery training. We are providing this training aid to you as a means of enhancing knowledge of, and recovery from, airplane upset situations.

The information and techniques presented in this training aid are aimed at industry solutions for large swept-wing turbofan airplanes typically seating more than 100 passengers. Other type airplanes may have characteristics that are different and guidance from the manufacturers of these types of airplanes should be followed.

The training recommended in this aid was based on the capabilities of today's modern airplanes and simulators. It is hoped that training organizations will find this material easy to adapt to their training programs and equipment. The modular design of the training allows the individual training departments to use the segments that provide benefits to their organizations. The industry team agreed that a training program that stresses academic understanding and practical simulation would provide the individual pilot the tools necessary to recover should an upset situation occur. Today's modern simulators, when kept within the boundaries of valid data, provide an adequate environment in which to perform the recommended training and exposure to upset recovery.

The incorporation of this Upset Recovery Training Aid into your training programs is strongly recommended. In order to reduce the number of loss of control accidents we must have a consistent industry standard of knowledge and training regarding airplane upset recovery. We hope the use of this training aid will help us all to improve aviation safety.

Sincerely,

Captain Dave Carbaugh The Boeing Company

Co-Chair Upset Recovery Industry Team

Captain Larry Rockliff

Airbus

Co-chair Upset Recovery Industry Team