



National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: October 6, 2016

In reply refer to: A-16-32

Mr. W. Douglas Parker
Chairman and Chief Executive Officer
American Airlines Group Inc. and
American Airlines Inc.
P.O. Box 619616
DFW Airport, Texas 75261-9616

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge American Airlines to take action on the safety recommendation being issued in this letter.

On September 13, 2016, we adopted our report concerning the March 5, 2015, accident in which Delta Air Lines flight 1086, a Boeing MD-88, N909DL, crashed after it departed the left side of runway 13 during landing at LaGuardia Airport, New York, New York.¹ Additional information about this accident and the resulting recommendations may be found in the report of the investigation, which can be accessed at our [Aviation Information Resources](#) webpage under report number NTSB/AAR-16/02.

As a result of this investigation, we issued 14 new recommendations, including 10 to the Federal Aviation Administration; 2 to Boeing; 1 to The Port Authority of New York and New Jersey; and the following recommendation to US operators of MD-80 series airplanes, including American Airlines:²

¹ National Transportation Safety Board, *Runway Excursion During Landing, Delta Air Lines Flight 1086, Boeing MD-88, N909DL, New York, New York, March 5, 2015*, NTSB/AAR-16/02 (Washington, DC: National Transportation Safety Board, 2016).

² Other US operators of MD-80 series airplanes are Delta Air Lines and Allegiant Air.

A-16-32

Collaborate with the Federal Aviation Administration and Boeing to (1) conduct a study to examine reverse thrust engine pressure ratio (EPR)-related operational data, procedures, and training and (2) identify industry-wide best practices that have been shown to be effective in reliably preventing EPR exceedances to mitigate the risks associated with rudder blanking.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred in this recommendation.

The NTSB is vitally interested in this recommendation because it is designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement it. When replying, please refer to the safety recommendation by number. We encourage you to submit your response electronically to correspondence@ntsb.gov. If it exceeds 10 megabytes, including attachments, please e-mail us at the same address for instructions. Please do not submit both an electronic copy and a hard copy of the same response.

[Original Signed]

By: Christopher A. Hart,
Chairman



National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: October 6, 2016

In reply refer to: A-16-32

Mr. Ed Bastian
Chief Executive Officer
Delta Air Lines, Inc.
P.O. Box 20706
Atlanta, Georgia 30320-6001

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Delta Air Lines to take action on the safety recommendation being issued in this letter.

On September 13, 2016, we adopted our report concerning the March 5, 2015, accident in which Delta Air Lines flight 1086, a Boeing MD-88, N909DL, crashed after it departed the left side of runway 13 during landing at LaGuardia Airport, New York, New York.¹ Additional information about this accident and the resulting recommendations may be found in the report of the investigation, which can be accessed at our [Aviation Information Resources](#) webpage under report number NTSB/AAR-16/02.

As a result of this investigation, we issued 14 new recommendations, including 10 to the Federal Aviation Administration; 2 to Boeing; 1 to The Port Authority of New York and New Jersey; and the following recommendation to US operators of MD-80 series airplanes, including Delta Air Lines:²

A-16-32

Collaborate with the Federal Aviation Administration and Boeing to (1) conduct a study to examine reverse thrust engine pressure ratio (EPR)-related operational

¹ National Transportation Safety Board, *Runway Excursion During Landing, Delta Air Lines Flight 1086, Boeing MD-88, N909DL, New York, New York, March 5, 2015*, NTSB/AAR-16/02 (Washington, DC: National Transportation Safety Board, 2016).

² Other US operators of MD-80 series airplanes are American Airlines and Allegiant Air.

data, procedures, and training and (2) identify industry-wide best practices that have been shown to be effective in reliably preventing EPR exceedances to mitigate the risks associated with rudder blanking.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred in this recommendation.

The NTSB is vitally interested in this recommendation because it is designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement it. When replying, please refer to the safety recommendation by number. We encourage you to submit your response electronically to correspondence@ntsb.gov. If it exceeds 10 megabytes, including attachments, please e-mail us at the same address for instructions. Please do not submit both an electronic copy and a hard copy of the same response.

[Original Signed]

By: Christopher A. Hart,
Chairman



National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: October 6, 2016

In reply refer to: A-16-32

Mr. Maurice J. Gallagher, Jr.
Chairman and Chief Executive Officer
Allegiant Air
P.O. Box 371477
Las Vegas, Nevada 89137

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Allegiant Air to take action on the safety recommendation being issued in this letter.

On September 13, 2016, we adopted our report concerning the March 5, 2015, accident in which Delta Air Lines flight 1086, a Boeing MD-88, N909DL, crashed after it departed the left side of runway 13 during landing at LaGuardia Airport, New York, New York.¹ Additional information about this accident and the resulting recommendations may be found in the report of the investigation, which can be accessed at our [Aviation Information Resources](#) webpage under report number NTSB/AAR-16/02.

As a result of this investigation, we issued 14 new recommendations, including 10 to the Federal Aviation Administration; 2 to Boeing; 1 to The Port Authority of New York and New Jersey; and the following recommendation to US operators of MD-80 series airplanes, including Allegiant Air: ²

A-16-32

Collaborate with the Federal Aviation Administration and Boeing to (1) conduct a study to examine reverse thrust engine pressure ratio (EPR)-related operational

¹ National Transportation Safety Board, *Runway Excursion During Landing, Delta Air Lines Flight 1086, Boeing MD-88, N909DL, New York, New York, March 5, 2015*, NTSB/AAR-16/02 (Washington, DC: National Transportation Safety Board, 2016).

² Other US operators of MD-80 series airplanes are Delta Air Lines and American Airlines.

data, procedures, and training and (2) identify industry-wide best practices that have been shown to be effective in reliably preventing EPR exceedances to mitigate the risks associated with rudder blanking.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred in this recommendation.

The NTSB is vitally interested in this recommendation because it is designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement it. When replying, please refer to the safety recommendation by number. We encourage you to submit your response electronically to correspondence@ntsb.gov. If it exceeds 10 megabytes, including attachments, please e-mail us at the same address for instructions. Please do not submit both an electronic copy and a hard copy of the same response.

[Original Signed]

By: Christopher A. Hart,
Chairman