Attachment 21

To Operations Group Factual Report

DCA15FA085

Boeing Flight Operations Bulletin MD-80-02-03

F O B FLIGHT OPERATIONS BULLETIN	*FLIGHT OPERATIONS*

Boeing Long Beach

November 5, 2002
ATA: 78-30, Thrust Reverser
Bulletin No. MD-80-02-03

Applicable to: *All MD-80 Aircraft*

Subject: **REVERSE THRUST EPR CONTROL**

Boeing LBD is issuing this bulletin to comply with recommendations as set forth in a recent NTSB Aircraft Accident Report, as well as to amplify the reasons for the recommendation. This bulletin, and the NTSB recommendations, reiterates information currently incorporated in the Boeing MD-80 Flight Crew Operating Manual.

The NTSB has recommended that information be provided to all operators of MD-80 series aircraft, cautioning that 1.3 engine pressure ratio (EPR) should be used as the maximum reverse thrust power under wet or slippery runway conditions. In cases where difficulty in maintaining directional control is experienced during reverse thrust operation, reduce thrust as required and select forward idle if necessary to maintain or regain control.

Due to the geometry of the MD-80 thrust reversers, the exhaust gas efflux pattern will, at certain rollout speeds and EPR settings, interfere with the free-stream airflow across the rudder surfaces. This will result in partial *"rudder blanking"*; with a resultant reduction in directional control authority. As rudder effectiveness is more critical on wet or slippery surfaces, *"rudder blanking"* becomes a concern above a reverse thrust level of 1.3 EPR. Normal dry runway maximum reverse thrust power is 1.6 EPR.

Approach briefings provide the opportunity for the crews to anticipate the conditions that are likely to be encountered upon landing, and reverse thrust EPR targets may be identified at this time. After thrust reverser deployment on rollout, the Pilot-Not-Flying (PNF) duties should include monitoring reverse thrust deployment and advising the Pilot-Flying (PF) of excessive EPR settings should they occur.

Should additional information be required, please submit your inquiries through your local field service representative or to Boeing Long Beach, ATTN: Flight Operations Customer Service, 3855 Lakewood Boulevard, Mail Code: D081-0038, Long Beach, California 90846-0001, USA, fax: [redacted].

[redacted]
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