



ALPA Safety Alert



2010-01

SUBJECT: Use of Rudder During Upset Recovery

Background: In 2002, based on the NTSB Recommendations from the American 587 accident ALPA published Safety Alert Bulletin 2002-01, containing the information below. Recently the Transportation Safety Board of Canada (TSBC) investigated an A319 wake turbulence encounter with a B747 that resulted in very similar rudder control inputs by the flight crew as the 2001 American Airlines Flight 587 accident in New York. The rudder use cited by both the NTSB and TSBC involves sequential, aggressive, cyclical rudder inputs (e.g. Right followed rapidly by Left). These specific rudder inputs may result in structural damage or failure, which can lead to loss of aircraft control. Since the most recent event occurred several years after the publicity surrounding the 2001 event, this has prompted ALPA to reiterate the recommendations below.

NOTE: This information applies to all transport category aircraft, regardless of manufacturer.

Recommendations: Pilots should continue to operate their aircraft in accordance with current training and guidance material. Continue to use existing operational procedures regarding the use of flight controls for engine failure, gusty crosswind and upset recovery. However, be aware of the following:

- **The rudder limiter may not prevent structural damage or failure in the event of sequential, cyclical rudder inputs.**
- **Rapid and large alternating control inputs and full control inputs in more than one axis at the same time should be avoided as they may result in structural damage or failure at any speed, including below maneuvering speed.**

Please direct any questions or comments to the Engineering & Air Safety Department at 800-424-2470.

Captain Rory Kay
Executive Air Safety Chairman

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