

ALPA SAFETY ALERT Bulletin 2001-07

SUBJECT: Aggressive Aircraft Maneuvering

Background: Since the tragic events of September 11th, many pilots have expressed thoughts on the use of aggressive aircraft maneuvering to disable a hijacker attempting to take control of the airplane. While we are all looking for ways to combat such attempts, aggressive maneuvering can seriously injure or kill innocent people in the cabin, place the airplane in extreme attitudes from which recovery may not be possible, and cause structural damage. ALPA is currently in discussions with test pilots from the aircraft manufacturers to develop recommendations for maneuvers that can delay or deny a hijacker's attempt to take over the airplane, while avoiding the aforementioned hazards.

While many of us have experienced aerobatic maneuvering in the military or sport aviation, none of us has been trained to aggressively maneuver an airliner. It is critical to remember that, unlike aerobatic-capable airplanes, airliners are severely handicapped by several factors, including: heavy weight, large CG range, small load-limit (g) envelope, and limited control authority, resulting in slow pitch and roll rates. These factors combine to limit controllability and significantly increase the risks associated with aggressive maneuvering. Intentionally exceeding established limits or ignoring warnings can be extremely hazardous.

Recommendations: Please consider the following risks as you assess the tools that you have available to you to combat a hijacker.

WARNING

Large and/or aggressive control inputs, especially when done in repetitive fashion, may cause serious injury or death to passengers and crew.

- **Structural Damage.** Aggressive reversal of rudder inputs may result in structural damage.
- **Loss of Control.** Aggressive, sustained control inputs, especially at high altitudes, may cause an aircraft upset that could lead to a loss of control.
- **Loose Objects.** Loose objects such as flight bags and galley service carts can move rapidly and unpredictably about the cabin during aggressive maneuvering, with potentially hazardous consequences.
- **Loss of Generators.** A CSD with minimum servicing will last only a few seconds in zero or negative "G". Prolonged flight at zero or negative "G" may result in loss of all generators.

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

Captain John Cox
Executive Air Safety Chairman

October 5, 2001