

A300 Operating Manual

BULLETIN

Subject: Upset Recovery / Unusual Attitudes

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Upset Recovery / Unusual Attitudes

General

The information contained in this bulletin provides recommended piloting techniques, maneuvers and guidelines for recovery from an upset / unusual attitude as recommended by Airbus, and replaces the Unusual Attitudes procedure on MANEUVERS 12.

Introduction

An upset / unusual attitude can generally be defined as unintentionally exceeding the following conditions:

- Pitch attitude more than 25° nose up, or
- Pitch attitude more than 10° nose down, or
- Bank angle more than 45°, or
- Within the above parameters, but flying at airspeeds inappropriate for these conditions.

Aerodynamic Fundamentals

Pitch Control

When an airplane is at a balanced "in-trim" angle of attack, it will seek to return to the trimmed angle of attack if upset by external forces or momentary pilot inputs. This is due to the longitudinal stability of the airplane.

Changes of airplane configuration affect pitch attitude:

- Flap extension usually generates a nose-down pitching moment.
- Flap retraction usually generates a nose-up pitching moment.
- When extended, speed brakes usually produce a nose-up pitching moment.

Pitch attitude is also affected by thrust variation. Reducing thrust generates a nose-down pitching moment, and conversely, increasing thrust generates a nose-up pitching moment.