



[4910-13]

Department of Transportation

Federal Aviation Administration

14CFR Parts 121, 135, and 142

[AC 120-UPRT and AC 120-109A]

Advisory Circular for Upset Prevention and Recovery Training and Advisory Circular for Stall Prevention and Recovery Training

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Notice of availability of proposed Advisory Circular for Upset Prevention and Recovery Training and proposed revision to Advisory Circular for Stall Prevention and Recovery Training, request for comment.

SUMMARY: The Federal Aviation Administration (FAA) is announcing the availability of proposed Advisory Circulars (AC) 120-UPRT and 120-109A. AC 120-UPRT provides recommended practices and guidance for academic and flight simulation training device (FSTD) training for pilots to prevent developing upset conditions and ensure correct and consistent recovery responses to upsets. AC 120-109A provides guidance and best practices for training, testing, and checking for pilots to ensure correct responses to impending and full stalls.

DATE: Written comments must be received on or before {INSERT DATE 60 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER.}

ADDRESSES: Send comments identified by AC 120-UPRT or AC 120-109A using any of the following methods:

- Aviation Safety Draft Document Open for Comment website: Go to [http://www.faa.gov/aircraft/draft\\_docs/afs\\_ac/](http://www.faa.gov/aircraft/draft_docs/afs_ac/) and follow the online instructions for sending your comments electronically.
- Mail: Send comments to 1625 K Street NW, Suite 300, Washington, DC 20006.

- Fax: Fax comments to 202-223-4615. Attn: Susan Hill.
- Hand Delivery: Bring comments to the 1625 K Street NW, Suite 300, Washington, DC between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays

FOR FURTHER INFORMATION CONTACT: Robyn LaPorte, Air Transportation Division, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone: 202-267-8166; facsimile: 202-267-5229; email: robyn.laporte@faa.gov.

## BACKGROUND

These draft ACs provide guidance regarding the new training requirements contained in the Qualification, Service, and Use of Crewmembers and Aircraft Dispatchers final rule published November 12, 2013 (FAA Docket FAA-2008-0677).

### Advisory Circular 120-UPRT

The primary goal of this proposed AC is to provide recommended practices and guidance for academic and flight simulation training device (FSTD) training for pilots to prevent developing upset conditions and ensure correct and consistent recovery responses to upsets. This AC was developed based on a review of recommended practices developed by major airplane manufacturers, labor organizations, air carriers, training organizations, simulator manufacturers, and industry representative organizations. This AC provides guidance to Title 14 Code of Federal Regulations (14 CFR) part 121 air carriers implementing the regulatory requirements of § § 121.419, 121.423, 121.424, and 121.427. Core principles of this AC include:

- Enhanced instructor training on the limitations of simulation.
- Comprehensive pilot academic training on aerodynamics.
- Early recognition of divergence from intended flight path.
- Upset prevention through improvements in manual handling skills.
- Progressive intervention strategies for the pilot monitoring.

### Advisory Circular 120-109A

The primary goal of this proposed AC revision is to provide guidance and best practices for training, testing, and checking for pilots to ensure correct responses to impending and full stalls. This AC was developed based on a review of recommended practices developed by major airplane manufacturers, labor organizations, air carriers, training organizations, simulator manufacturers, and industry representative organizations. Core principles of this Advisory Circular include:

- Reducing angle of attack is the most important pilot action in an impending or full stall.
- Pilot training should emphasize teaching the same recovery technique for impending stalls and full stalls.

- Evaluation criteria for a recovery from an impending stall should not include a predetermined value for altitude loss. Instead, criteria should consider the multitude of external and internal variables which affect the recovery altitude.
- Once the stall recovery procedure is mastered by maneuver-based training, stall prevention training should include realistic scenarios that could be encountered in operational conditions, including impending stalls with the autopilot engaged and at high altitudes.
- Full stall training should be led by the instructor, but must allow the pilot to experience the associated flight dynamics and execute a recovery.

The agency will consider all comments received by {INSERT DATE 60 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER}. Comments received after that date may be considered if consideration will not delay agency action on the review. A copy of the advisory circulars is available for review at [http://www.faa.gov/aircraft/draft\\_docs/afs\\_ac/](http://www.faa.gov/aircraft/draft_docs/afs_ac/).

Issued in Washington, DC on March 5, 2014.

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