



EMERGENCY MANEUVER TRAINING

# Online Training: Core Upset Recovery Concepts for Professional Jet Pilots

Featuring Principles, Aerodynamics  
and Procedures based on the:

## Airplane Upset Recovery Training Aid – Revision 2



### WEB-BASED TRAINING

Why an online course?

**Convenient:** As pilots struggle to balance the demands of work and home, e-Learning allows professionals to learn from work, home and on the road.

**Relevant:** Founded on the most recent developments in all-attitude recovery procedures.

**Immediate:** Delivered through the Internet, e-Learning allows people to begin their training now, with just a few mouse clicks.

**Easy to Use:** All that is needed is a web browser and Internet connection; HTML based and designed to load quickly and get learning fast.

**Self-Directed:** Learn at any desired pace. Focus on what's needed – skim the known, study the challenging areas.



TO TAKE THIS COMPUTER-BASED TRAINING COURSE:  
[WWW.APSTRaining.COM/CBT](http://WWW.APSTRaining.COM/CBT) OR CALL TOLL FREE: 1-866-359-4273



# Core Upset Recovery Concepts for Professional Jet Pilots

## Online Training - Course Content

In the interest of safety and the desire to acknowledge the commonality in recovery techniques, the Airplane Upset Recovery Training Aid (URTA) was created as a reference guide to professional pilots. Aerodynamic principles applied to large, swept-wing jet airplanes are similar among all manufacturers, and the recommended techniques for recovering from an upset in an airplane subject to these principles are also compatible. Pilots who understand the conditions of an upset, though such an event is unlikely, will be better prepared to recover from it. The course includes:

### CAUSES OF AIRPLANE UPSETS

- Environmentally-Induced Airplane Upsets
- Systems-Anomalies-Induced Airplane Upsets
- Pilot-Induced Airplane Upsets

### SWEPT-WING AERODYNAMICS

- Flight Dynamics • Energy States
- Load Factors • Angle of Attack and Stall
- Aerodynamic Flight Envelope
- Camber • Crossover Speed

### CONTROL SURFACE FUNDAMENTALS

- Spoiler-Type Devices
- Lateral and Directional Aerodynamics
- Angle of Sideslip • Wing Dihedral Effects
- Pilot-Commanded Sideslip

### HIGH ALTITUDE OPERATIONS

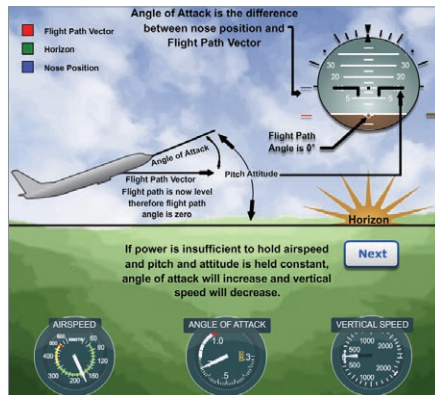
- Stability and Speed Divergence
- Mechanics of Turning Flight
- Flight at Extremely Low Airspeeds
- Flight at Extremely High Speeds

### RECOVERY FROM AIRPLANE UPSETS

- Situational Awareness of an Airplane Upset
- Use of Full Control Inputs • Counter-Intuitive Factors

### UPSET RECOVERY TECHNIQUES

- Stall • Nose-High, Wings-Level Recovery Techniques
- Nose-Low, Wings-Level Recovery Techniques
- High-Bank-Angle Recovery Techniques
- Consolidated Summary of Airplane Recovery Techniques



Course Screenshot 1

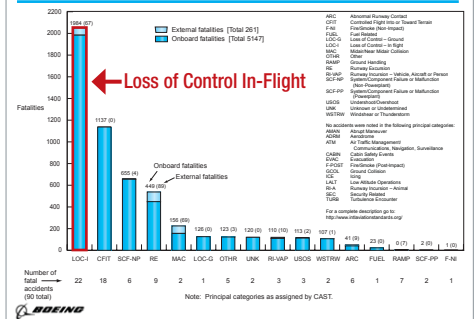


Course Screenshot 2

“Pilots who are knowledgeable about aerodynamics and who possess the skills to apply basic recovery techniques can return an upset airplane to normal flight parameters.”

Airbus Industrie, [Aerodynamic Principles of Large-Airplane Upsets](#), FAST Airbus Technical Digest Special - June 1998

### Fatalities by CAST/ICAO Common Taxonomy Team (CITT) Aviation Occurrence Categories



Loss of airplane control in flight is a leading cause of fatalities in the commercial aviation industry. A variety of reasons exist for airplane upsets, but none is statistically significant. Reducing the number of reasons for upsets is a continual training process, and eliminating one reason will not necessarily reduce the number of loss-of-control accidents and fatalities. Therefore, pilots must have the necessary knowledge and skills to recover an upset airplane.

*Airplane Upset Recovery Training Aid*

The following are a few of the organizations that participated in the development of the Airplane Upset Recovery Training Aid:

- The Boeing Company • Airbus
- Air Line Pilots Association
- Bombardier Aerospace Training Center
- Federal Aviation Administration
- Flight Safety Foundation
- National Transportation Safety Board

## About APS Emergency Maneuver Training

APS has a diversity of turnkey solutions to mitigate the Loss of Control threat. Whether looking for an online Computer-Based Training (CBT) solution or a fully integrated full motion simulator curriculum complimented by real aircraft training, APS has the answer. Our team is committed to providing the highest quality upset recovery training available in the industry at the best value for the training dollar. Each one of our instructor pilot's professional flight experience spans a highly specialized spectrum of aviation uniquely qualifying them as ideal training providers. Each APS instructor has extensive experience in; all-altitude all-envelope maneuvering in jet aircraft, military instruction, technologically advanced aircraft and transport category flight operations. Combined with 13-years of hands-on business experience and over 12,000 flight hours dedicated to refining upset recovery training techniques common to all categories of fixed wing aircraft, these capabilities make APS an unparalleled training resource.

Our staff excels in quality customer service and, as well as providing world-class training in leading-edge equipment, we put the customer first while simultaneously ensuring our training services are being delivered in strict adherence to contracted performance standards.

## CONTACT INFORMATION

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