



IFALPA
The Global Voice of Pilots

Effective Upset Prevention and Recovery Training

IFALPA

Managing the Flight Path of the Aircraft is a basic pilot skill

To prevent or recover from any aircraft upset,
Pilots need:

- Knowledge
- Manual Handling & operational skills
- Recency of Experience

Required Pilot Skills



Upset Prevention, Recognition, and Recovery are required Pilot Skills to mitigate LOC-I events

Manual Flight Operations training should be emphasized to consolidate the principles of airplane flight path and energy management skills

UPRT – What is it?



Prevention

Pilot actions to avoid any divergence from a desired airplane state

Recognition

Pilot's recognition of conditions of an impending divergence, a developing or developed upset

Recovery

Any pilot's actions that return an airplane that is diverging to a safe desired airplane state

UPRT provided throughout all stages of a Pilots Career



- **Primary/Ab-initio flight training**
- **CPL (include on-aeroplane training)**
- **MPL (include on-aeroplane training)**
- **ATPL (type rating, FSTD training)**
- **Refresher training at defined intervals**

Pilot Skills are developed by “Repetition over time”

- **Requires more than just a single exposure**
- **On-aeroplane training needs to be trained over several flights, not just one**
- **UPRT Training is continuous – not a one-time course**
- **Periodic Refresher Training – provides recency and practice of UPR Skills**

Pilot On-Aeroplane UPRT Training can be implemented into existing ab-initio, CPL,

Type and recurrent training programs

- **Fits within your existing training framework
- traditional, ATPL, AQP, ATQP, MPL**
- **Many successful programs exist worldwide**

Industry guidance already exists for implementing effective UPRT training

- **FAA AC 120-109, “Stall and Stick Pusher Training**
- **Industry Airplane Upset Recovery Training Aid (rev 2)**
- **RAeS paper – “Aeroplane Upset Recovery Training, History, Core Concepts & Mitigation”**
- **ICAO UPRT Manual (Doc 10011)**

UPRT Instructors need specialized skills and training in order to conduct UPRT

- **Qualified by CAA to conduct UPRT**
- **UPRT specialized Instructor training**
- **Certificate and rating in the category, class, type**
- **Operational experience on type**
- **Understand capabilities and limitations of FSTD**

Use appropriate training device for training specific skills

- **Knowledge Training**
- **Aeroplane Requirements**
- **FSTD**

Aeroplane Training - What do pilots expect ?



Minimum of on-aeroplane training at the CPL training level (Basic MPL phase)

- **aerobatic aircraft**
- **all envelope/all attitude flying**

Simulator Requirements



Use appropriate training device for training specific skills

- **Qualified by CAA to provide UPRT**
 - **No grandfathering**
- **Provides proper cues**
- **FSTD only used within capabilities of aero model**
- **Avoid negative transfer of training**

Crew procedures should be developed to aid pilots in effectively dealing with any Upset event

FIRST EDITION - September, 2012



IPITS

IFALPA Pilot Training Standards
Guide for Best Practices

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