

# ASIANA AIRLINES

ALL A/C

UPRT

(UPSET PREVENTION AND RECOVERY TRAINING)

TRAINING GUIDE

OTCA066

FLIGHT CREW TRAINING TEAM

2026-03-31

REV 08

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## 2. RECORD OF REVISIONS

REV NBR	DATE	MODIFIED BY	REMARK
REV00	2020.07.01	천무근	제정
REV01	2020.08.03	천무근	개정 : UPRT교관 정기 훈련에 따른 개정
REV02	2021.04.15	천무근	<ul style="list-style-type: none"> <li>- MODUEL #3 with IDLE THRUST ONLY 추가</li> <li>- MODULE #3 – 10 "do not exceed bank 30" 문구 추가</li> <li>- MODULE #4 – 05 : "IDLE" 추가</li> <li>- MODULE # 4 "To use validated IOS functions" 추가</li> <li>- MODULE # 5 BOUNCED LANDING 추가</li> <li>LOSS OF RELIABLE AIRSPEED 추가</li> </ul>
REV03	2021.05.01	천무근	<p>HIGH ALT : between recommended max altitude and FL 350</p> <p>MODULE#1&amp;2: AIRBUS (① Normal Law ②Alternate Law ③ Direct Law)</p> <p>In case of using UPRT scenario on IOS, instructor may seat on the instructor seat.</p> <p>Motion is available.</p>
REV04	2024.07.21	천무근	<ul style="list-style-type: none"> <li>- 양식 변경</li> <li>- UPRT Standard Callout VIDEO CLIP ADDED</li> </ul>
REV05	2025.02.25	B777 훈련개발담당	<p>※ UPRT관련 훈련규정 개정에 따른 UPDATE (Core instructor guidelines)</p> <ul style="list-style-type: none"> <li>· TABLE 6.1 A. 10)항목 - initial transition upgrade 시 실시로 변경</li> <li>· TABLE 6.1 A. 11)항목 - 삭제</li> <li>· 교육 참고자료 CI 변경</li> </ul>

REV06	2025.02.28	A380 훈련개발담당	- 3개월미만 경력 운항승무원 입사자 요구량 변경 G/S 3시간, CBT 1시간
REV07	2025.08.15	B777 훈련개발담당	LOSS OF RELIABLE AIRSPEED FOR B777 PROFILE 추가
REV08	2026.03.31	B777 훈련개발담당	LOSS OF RELIABLE AIRSPEED FOR B777 PROFILE 수정

## 3. GENERAL

### 3.1 COURSE CODE

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– OTCA066

### 3.2 COURSE TITLE

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– UPSET PREVENTION AND RECOVERY TRAINING

### 3.3 COURSE OBJECTIVE

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– Initial/Transition/Upgrade/Instructor Training/Instructor recurrent

### 3.4 A/C type

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– ALL A/C

### 3.5 SUBJECTS AND HOURS

#### INITIAL / TRANSITION / UPGRADE

COURSE	REQUIRED TRAINING (HOURS)		
	G/S	CBT	FFS
UPRT	4+00	4+00	2+00

- Transition 또는 Upgrade 훈련 시 initial profile 을 사용함.

(For Transition or Upgrade, the initial profile is used)

※ 3개월 미만 경력 운항승무원 입사자의 경우 G/S 3시간, CBT 1시간으로 실시.

#### INSTRUCTOR INITIAL

COURSE	REQUIRED TRAINING (HOURS)		
	G/S	CBT	FFS
UPRT	4+00	-	2+00

#### INSTRUCTOR RECURRENT

COURSE	REQUIRED TRAINING (HOURS)		
	G/S	CBT	FFS
UPRT	1+00 (FFS SIM pre-briefing)	-	0+30

- G/S 은 SIM PRE-BRIEFING 으로 대체 가능함.

(SIM pre-briefing can be substituted for G/S)

### 3.6 Ground school (Academic training)

A. 운항승무원은 Initial/Transition/Upgrade 시 TABLE 6.1 에 언급된 모든 elements 를 학습한다.

(Flight crew members shall receive academic training on all elements mentioned in TABLE 6.1 during Initial, Transition, and Upgrade training)

B. 운항승무원은 Recurrent ground school 시에는 TABLE 6.1 에 언급된 항목을 EVEN/ODD year 에 따라서 학습하고, 2 년 동안 모든 element 를 학습한다.

(Flight crew members shall receive academic training on the elements mentioned in TABLE 6.1 during Recurrent Ground School, based on EVEN/ODD years, ensuring that all elements are covered over a two-year period.)

TABLE 6.1 Academic training elements

Academic Training Subjects and Elements	Initial Transition Upgrade	ODD Year	EVEN Year
<b>A. Aerodynamics</b>			
1) general aerodynamic characteristics	✓	✓	
2) advanced aerodynamics	✓	✓	
3) aeroplane certification and limitations	✓	✓	
4) aerodynamics (high and low altitudes)	✓	✓	
5) aeroplane performance (high and low altitudes)	✓	✓	
6) angle of attack (AOA) and stall awareness	✓	✓	
7) stick shaker activation	✓		✓
i) stick pusher activation	✓		✓
ii) Mach effects — if applicable to aeroplane type	✓		✓
8) aeroplane stability	✓		✓
9) control surface fundamentals			
i) trims	✓		✓
10) icing and contamination effects	✓		✓
<b>B. Causes and contributing factors of upsets</b>			

Academic Training Subjects and Elements	Initial Transition Upgrade	ODD Year	EVEN Year
1) environmental	✓	✓	
2) pilot-induced	✓	✓	
3) mechanical	✓	✓	
<b>C. Safety review of accidents and incidents relating to aeroplane upsets</b>	✓	✓	
<b>D. G-awareness</b>			
1) positive/negative/increasing/decreasing g-loads	✓		✓
2) lateral g-awareness (sideslip)	✓		✓
3) G-load management	✓		✓
<b>E. Energy management</b>			
1) kinetic energy vs. potential energy vs.chemical energy (power)	✓	✓	
2) relationship between pitch and power and performance	✓	✓	
3) performance and effects of differing engines	✓	✓	
<b>F. Flight path management</b>			
1) automation inputs for guidance and control	✓		✓
2) type-specific characteristics	✓		✓
3) automation management	✓		✓
4) manual handling skills	✓		✓
<b>G. Recognition</b>			
1) type-specific examples of instrumentation during developing and developed upset	✓	✓	
2) pitch/power/roll/yaw	✓	✓	
3) effective scanning (effective monitoring)	✓	✓	
4) stall protection systems and cues	✓	✓	
5) criteria for identifying stalls and upset	✓	✓	
<b>H. Upset prevention and recovery techniques</b>			

Academic Training Subjects and Elements	Initial Transition Upgrade	ODD Year	EVEN Year
1) timely and appropriate intervention	✓		✓
2) nose-high/wings-level recovery	✓		✓
3) nose-low/wings-level recovery	✓		✓
4) high bank angle recovery techniques	✓		✓
5) consolidated summary of aeroplane recovery techniques	✓		✓
<b>I. System malfunction</b>			
1) flight control anomalies	✓	✓	
2) power failure (partial or full)	✓	✓	
3) instrument failures	✓	✓	
4) automation failures	✓	✓	
5) fly-by-wire protection degradations	✓	✓	
6) stall protection system failures, including icing alerting systems	✓	✓	
<b>J. Specialized training elements</b>			
1) spiral dive (graveyard spiral)	✓		✓
6) recovery from stick pusher activation (as applicable)	✓		✓
<b>K. Human Factors section</b>			
1) situation awareness			
i) human information processing	✓	✓	
ii) inattention, fixation, distraction	✓	✓	
iii) perceptual illusions (visual or physiological) and spatial disorientation	✓	✓	
iv) instrument interpretation	✓	✓	
2) startle and stress response			
i) physiological, psychological, and cognitive effects	✓	✓	
ii) management strategies	✓	✓	

Academic Training Subjects and Elements	Initial Transition Upgrade	ODD Year	EVEN Year
3) threat and error management (TEM)			
i) TEM framework	✓		✓
ii) active monitoring, checking	✓		✓
iii) fatigue management	✓		✓
iv) workload management	✓		✓
v) crew resource management (CRM)	✓		✓

### 3.7 FSTD(SIM) training

A. 운항승무원은 Initial/Transition/Upgrade FSTD(SIM) 훈련 시 TABLE 6.2 에 언급된 모든 elements 를 훈련을 한다.

(Flight crew members shall complete training on all elements mentioned in TABLE 6.2 during Initial, Transition, and Upgrade training.)

B. 운항승무원은 Recurrent FSTD(SIM) 훈련 시에는 TABLE 6.2 에 언급된 항목을 EVEN/ODD year 에 따라서 훈련하고, 2 년 동안 모든 element 를 훈련한다.

(Flight crew members shall complete training on the elements mentioned in TABLE 6.1 during Recurrent Ground School, based on EVEN/ODD years, ensuring that all elements are covered over a two-year period.)

TABLE 6.2, FSTD(SIM) training elements

(\*) 표시된 일부 element는 EBT 정기 훈련에 포함하여 실시할 수 있다.

(The elements marked with (\*) can be included and conducted in EBT recurrent training.)

FSTD Training Subjects and Elements	Initial Transition Upgrade	ODD Year	EVEN Year
<b>MODULE #1</b>			
01. Maneuver at LOW ALT (TURN/CLB/DES) (*)	✓	✓	
02. Pitch & Power (TOGA), DIRECT LAW (*)	✓	✓	
03. Pitch & Power(IDLE), DIRECT LAW (*)	✓	✓	
04. Bank (30° BANK TURN) (*)	✓	✓	
05. Bank – Rudder (*)	✓		✓
06. VLS Effect with Speed Brake (*)	✓		✓
07. STEEP TURN	✓		✓
08. SLOW FLIGHT	✓		✓
09. ENG OUT WITH NO TRIM INPUT	✓		✓
10. HIGH/LOW SPD BUFFET (if applicable)	✓		✓
<b>MODULE #2 HIGH ALT</b>			
01. Maneuver at HIGH ALT (*)	✓	✓	

FSTD Training Subjects and Elements	Initial Transition Upgrade	ODD Year	EVEN Year
02. Pitch & Power (TOGA) (*)	✓	✓	
03. Pitch & Power (IDLE) (*)	✓	✓	
04. BANK (30° BANK TURN) (*)	✓	✓	
05. Bank - Rudder(*)	✓		✓
06. BANK vs Stall Speed	✓		✓
07.SLOW FLIGHT	✓		✓
08. HIGH/LOW SPD BUFFET (if applicable)	✓		✓
<b>UPRT MODULE #3 / STALL (ISI)</b>			
01. STALL RECOVERY with IDLE THRUST ONLY at LOW ALT	✓	✓	
02. CLEAN STALL at LOW ALT	✓	✓	
03. FULL STALL at LOW ALT (DEMONSTRATION ONLY by instructor)	✓	✓	
04. STALL RECOVERY with IDLE THRUST ONLY at HIGH ALT	✓		✓
05. CLEAN STALL at HIGH ALT	✓		✓
06. CLEAN STALL at HIGH ALT – FULL AFT CG	✓		✓
07. CLEAN STALL at HIGH ALT – G LOAD (abrupt back pressure)	✓		✓
08. CLEAN STALL at HIGH ALT – G LOAD (BANK)	✓		✓
09. STALL during approach (F/D ON, AP OFF, A/THR ON/OFF)	✓	✓	
10. STALL during departure (F/D ON, AP OFF, A/THR ON/OFF)	✓		✓
<b>UPRT MODULE #4 / RECOVERY (ISI)</b>			
01. NOSE HIGH	✓	✓	
02. NOSE HIGH &, BANK	✓		✓
03. HIGH BANK ANGLE	✓	✓	
04. NOSE LOW – SPD INCREASING	✓	✓	

FSTD Training Subjects and Elements	Initial Transition Upgrade	ODD Year	EVEN Year
05.HIGH ALT, NOSE LOW – SPD INCREASING	✓		✓
<b>UPRT MODULE #5</b>			
01. BOUNCED LANDING	✓	✓	
02. LOSS OF RELIABLE AIRSPEED	✓		✓

## 4. UPRT TRAINING

### 4.1 INTRODUCTION

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The goal of this training is to increase the ability of pilots to recognize and avoid situations that can lead to airplane upsets and to improve their ability to recover control of an airplane that diverges from a crew's desired airplane state.

### 4.2 COURSE OBJECTIVE

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The aim of this training aid is to:

- A. Acquire the knowledge to recognize and avoid upset situations
- B. Learn to take appropriate and timely measures to prevent further divergence
- C. Understand basic airplane aerodynamics
- D. Learn airplane maneuvering techniques throughout the airplane operational flight envelope to perform recoveries from upsets.

### 4.3 DEFINITION OF AIRPLANE UPSET

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An airplane upset is an undesired airplane state characterized by unintentional divergences from parameters normally experienced during operations. An airplane upset may involve pitch and/or bank angle divergences as well as inappropriate airspeeds for the conditions.

Note: undesired airplane state is defined in the Line Operations Safety Audit (LOSA) manual, ICAO Doc 9803, 1st edition.

Deviations from the desired airplane state will become larger until action is taken to stop the divergence.

Return to the desired airplane state can be achieved through natural airplane reaction to accelerations, auto-flight system response or pilot intervention.

### 4.4 MONITORING

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The OEMs believe that flight crew engagement combats complacency through active monitoring. Therefore, active monitoring is the critical element to ensure awareness and avoidance of undesired airplane states and provides the strongest countermeasure against startle. An engaged crew is in the best position to cope with undesired airplane states.

From the early stages of training, pilots acquire Knowledge, Skills and Attitudes to perform active monitoring throughout all operations and phases of flight. This should become part of the "competent pilot DNA".

Each pilot should:

- Know and understand the expected airplane state for the situation
- Communicate expectations
- Keep track of current airplane state
- Detect and communicate deviations from expectations
- Assess risk and decide on a response
- Update and communicate understanding
- Take timely corrective actions

## 4.5 CAUSES OF AIRPLANE UPSETS

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An airplane upset is not a common occurrence. There are a variety of reasons why upsets occur, including:

- Environmentally-induced
- Systems-induced.
- Pilot-induced

### **A. ENVIRONMENTALLY-INDUCED AIRPLANE UPSETS**

A predominant number of upsets has an environment element involved.

Because the crew cannot modify the environment, it is essential they are aware of the risks so they can be minimized or avoided all together.

Environmental conditions that could lead to an airplane upset include:

- Air Mass Related
- Wake Turbulence

### **B. SYSTEMS-ANOMALIES-INDUCED AIRPLANE UPSETS**

Improvement in airplane designs and equipment components has always been a major focus in the aviation industry. In spite of this continuing effort, there are still failures.

Some of these failures can lead to an airplane upset.

Most failures are survivable if correct responses are made by the flight crew.

Flight crews are trained to overcome or mitigate the impact of single or multiple failures.

- Flight Instruments
- Autoflight Systems
- Flight Control and Other Anomalies

### **C. PILOT-INDUCED AIRPLANE UPSETS**

## ① Instrument Cross-Check

pilots must cross-check and interpret the instruments. When a divergent indication exists from what was intended, it must be communicated to the other pilot and corrected with proper pitch, bank and power adjustments.

Misinterpretation of the instruments and/or lack of "active monitoring" by the pilots can lead to an airplane upset.

## ② Adjusting Attitude and Power

A satisfactory instrument cross-check is only part of the task because it is necessary for the pilot to ensure the correct adjustments to pitch, bank and power are made in order to control the airplane.

## ③ Inattention and Complacency

A review of airplane upsets shows that inattention or neglect of "actively monitoring" can result in upsets.

Many events can be traced to inadequate instrument cross-check; for example, neglecting to monitor all the instruments or fixating on certain instrument indications and not detecting changes in others.

Although flight path control responsibility is shared while under ATC radar vectoring, situational awareness and vigilance cannot be relaxed and/or delegated to ATC.

## ④ Distraction From Primary Cockpit Duties

Distractions can be external or self-induced.

"Control the airplane first" has always been a guiding principle in flying.

Cockpit discipline is the principle that must be respected to ensure that at least one pilot is actively monitoring. It is impossible to intervene to stop a divergence if the crew is not actively monitoring the airplane.

A pilot who is aware of the energy and flight

## ⑤ Pilot Incapacitation

## ⑥ Vertigo or Spatial Disorientation

**D. MISUSE OF AIRPLANE AUTOMATION**

Technology in modern airplanes includes flight directors, autopilots, auto-throttles and flight management systems.

Systems will react to what the pilot commands even if it is not what the flight crew intended. Failure to confirm and monitor intended modes of operation may lead to an airplane upset.

Reliability of modern technologies can lead to overconfidence and eventual complacency.

- Pilot-Induced Oscillations (PIO) / Airplane-Pilot Coupling (APC)

## 4.6 FLIGHT FUNDAMENTALS FOR PILOTS

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Airplanes are designed, tested and certified based on accepted assumptions of how pilots will operate them, as well as various environmental and technical constraints (e.g. gusts or engine failure dynamics).

### A. FLIGHT DYNAMICS

Control inputs appropriate at one point in the flight envelope might not be appropriate in another part of the flight envelope. Pilots must have a fundamental understanding of flight dynamics in order to correctly determine the control input(s) necessary.

### B. ENERGY STATES

### C. OPERATIONAL FLIGHT ENVELOPE

### D. AERODYNAMICS

- ① Angle of Attack and Stall
- ② Lateral and Directional Aerodynamic Considerations
  - Angle of Sideslip
  - Wing Dihedral Effects
  - Pilot-Commanded Sideslip
  - Crossover Speed - Jet Airplane (JET)
- ③ Stability
- ④ Maneuvering Flight ( Longitudinal, Lateral and Directional Controls )
- ⑤ Load Factor
- ⑥ High-Altitude Characteristics (JET)

### E. AIRPLANE PERFORMANCE

- ① L/D<sub>MAX</sub>
- ② Optimum Climb Speed Deviations
- ③ Maximum Altitude
- ④ Weight & Balance Effects on Handling Characteristics
- ⑤ Maximum Speeds

### F. ICING

### G. AUTOMATION

### H. ENGINE FLAMEOUT

## 4.7 RECOVERY FROM AIRPLANE UPSETS

### A. SITUATIONAL AWARENESS OF AN AIRPLANE UPSET

Troubleshooting the cause of the upset is secondary to initiating the recovery. However, the pilot still must recognize and confirm the situation before a recovery can be initiated. Regaining and then maintaining control of the airplane is paramount.

### B. MISCELLANEOUS ISSUES ASSOCIATED WITH UPSET RECOVERY

- ① Startle Factor
- ② Force less than 1 G
- ③ Use of Full Control Inputs
- ④ Counter-Intuitive Factors
- ⑤ Previous Training in Non-similar airplanes
- ⑥ Post Upset Conditions

### C. AIRPLANE UPSET RECOVERY TECHNIQUES

Training related to upset and/or stalls should emphasize awareness and avoidance. Situationally aware flight crews are those who actively monitor their flight. As such, they are able to assess the energy, arrest any flight path divergence and recover to a stabilized flight path before an extreme upset ever occurs.

#### ① STALL

The recovery techniques assume the airplane is not stalled.

If the airplane is stalled, it is necessary to first recover from the stalled condition before initiating upset recovery techniques.

Follow your OEM procedure for stall recovery.

- ② Consolidated Summary of airplane Recovery Techniques The following techniques represent a logical progression for recovering the airplane.

They are not necessarily procedural.

The sequence of actions is for guidance only and represents a series of options for the pilot to consider and to use depending on the situation.

Not all actions may, or should, be necessary once recovery is underway.

If needed, use pitch trim sparingly.

Careful use of rudder to aid roll control should be attempted only if roll control is ineffective and the airplane is not stalled.

These techniques assume the airplane is not stalled. A stalled condition can exist at any attitude and may be recognized by continuous stall warning activation accompanied by one or more of the following:

buffeting, which could be heavy at times;  
lack of pitch authority and/or roll control; and  
inability to arrest the descent rate.

It is not appropriate to wait until several stall cues are experienced prior to initiating the recovery

- ③ Nose High Recovery Techniques (Refer to proper FCTM)
- ④ Nose Low Recovery Techniques (Refer to proper FCTM)

## 4.8 KEY POINTS HIGHLIGHTED THROUGHOUT THE TRAINING AID

A pilot who is aware of the energy and flight path is less likely to be startled and therefore, more likely to deal with the situation with controlled inputs versus reactive responses.

Control inputs appropriate at one point in the flight envelope might not be appropriate in another part of the flight envelope. Pilots must have a fundamental understanding of flight dynamics in order to correctly determine the control input(s) necessary.

Exceed the critical angle of attack and the surface will stall, and lift will decrease instead of increase. This is true regardless of airplane speed or attitude or wing shape.

At any speed, large aggressive control deflection reversals can lead to loads that can exceed structural design limits.

Pilots must be or become situationally aware before they are able to take appropriate actions.

Troubleshooting the cause of the upset is secondary to initiating the recovery. However, the pilot still must recognize and confirm the situation before a recovery can be initiated. Regaining and then maintaining control of the airplane is paramount.

Troubleshooting the cause of the upset is secondary to initiating the recovery and regaining control of the airplane.

It is critical to guard against control reversals.

Training related to upset and/or stalls should emphasize awareness and avoidance.

Situationally aware flight crews are those who actively monitor their flight.

As such, they are able to assess the energy, arrest any flight path divergence and recover to a stabilized flight path before an extreme upset ever occurs.

The recovery techniques assume the airplane is not stalled.

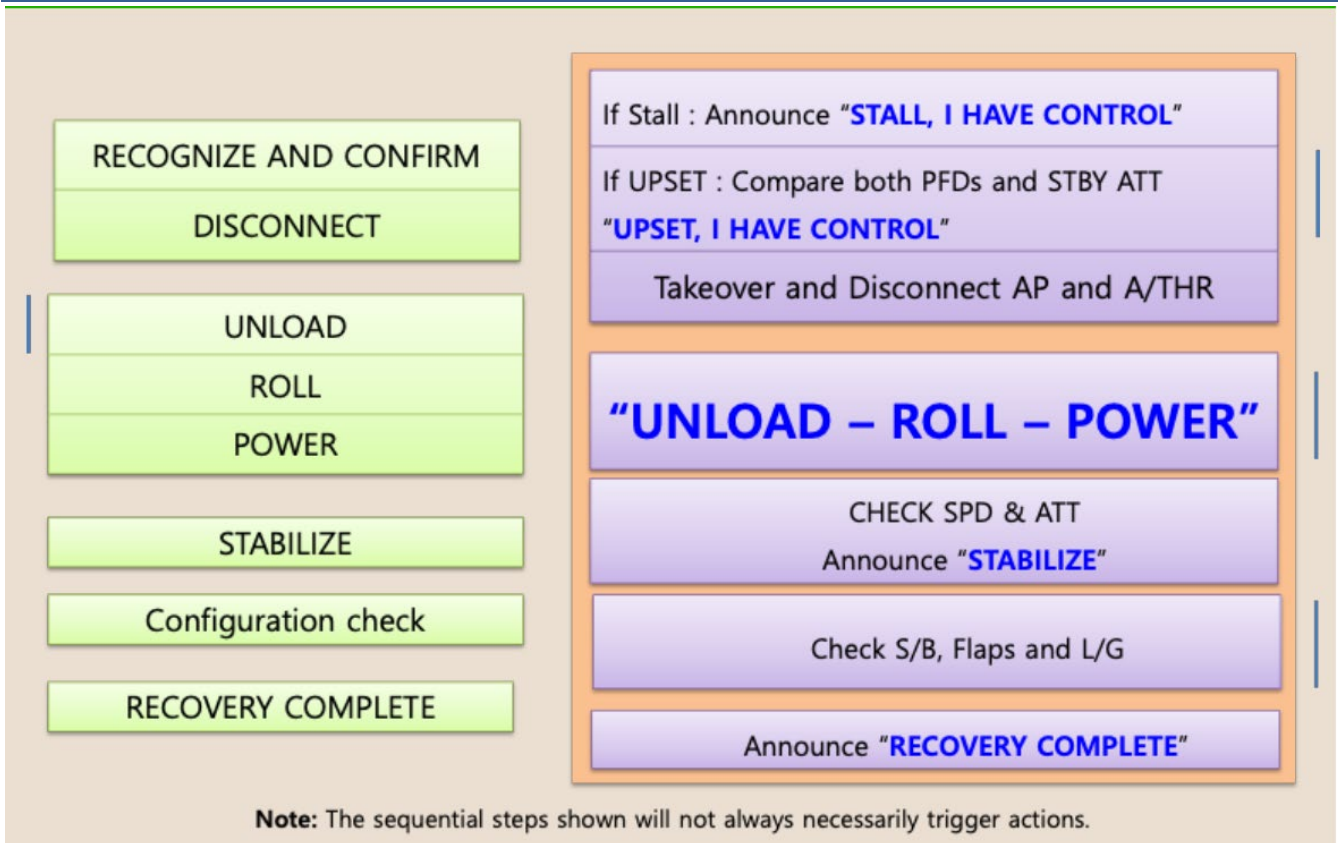
If the airplane is stalled, it is necessary to first recover from the stalled condition before initiating upset recovery techniques.

Follow your OEM procedure for stall recovery.

Warning: excessive use of pitch trim or rudder may aggravate the upset situation or may result in high structural loads.

~~Only a small amount of rudder input is needed. Too much rudder applied too quickly or held too long may result in loss of lateral and directional control and cause structural damage.~~

# 5. UPRT STANDARD STRATEGY



Asiana Airlines UPRT Standard Callout, Please watch the video before the UPRT training and then proceed with the training.

<p>YOUTUBE</p>		<p><a href="#">CLICK HERE</a></p> 
<p>Google drive</p>		<p><a href="#">CLICK HERE</a></p> 

## 6. FFS TRAINING

### 6.1 TRAINING ITEMS

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The practical training related to undesired aircraft states should include both of the following items:

A. Undesired aircraft state prevention:

- ① Understanding of the flight control laws principles and protections ( if applicable )
- ② Exploration of the normal flight envelope (low and high speeds, low and high altitudes), with a specific emphasis on angle of attack awareness
- ③ Energy management at low and high altitude
- ④ Manual handling skills reinforcement in normal and reconfiguration flight control laws at low and high altitude
- ⑤ Reminder of AP/FD and A/THR specificities (engagement and disengagement, operating limits, mode reversions, etc.).

B. Undesired aircraft state recognition and recovery:

- ① Recovery from unusual aircraft attitude at low and high altitude
- ② Approach to stall at low and high altitude
- ③ Understanding of the Flight Path vector (FPV) and when to use or not to use it during recovery
- ④ Full stall at low and high altitude (when mandated by the National Aviation Authority or decided so by the operator)

## 6.2 UNUSUAL ATTITUDE TRAINING

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To avoid negative learning, It is not recommends that trainees fly the entry profile of a nose high or nose low upset, with or without excessive bank angle.

Therefore, one of the two following options are recommended:

**A. To perform In-Seat Instruction (ISI): The instructor takes a pilot seat and flies the entry profile before transferring the controls to the trainee, or,**

**B. To use validated IOS functions**

## 6.3 USE OF MOTION

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After SIM has been upgraded for UPRT functions, motion is available for this training.

In addition, the FSTD “crash conditions” should be checked and the “crash inhibit” function should be activated if there is a risk of simulator freeze during the exercise

## 6.4 FFS SIM PROFILE

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- INITIAL TRAININIG

- LOSS OF RELIABLE AIRSPEED TRAINING (FOR B777)

- RECURRENT ODD/EVEN YEAR

- INITIAL INSTRUCTOR TRAININIG

- INSTRUCTOR RECURRENT ODD/EVEN YEAR

UPRT		INITIAL TRAINING					A/C ALL	
CLR	AAR XXXX, CLEARED TO LOCAL AREA, RW HDG, THEN AS FILED, 10,000ft, DEP' FREQ' 125,15 SQ4000					GATE	QNH 1013hpa Temp 15°C	
RWY	Wx	W&B	TIME	VERTICAL #	SCENARIO ELEMENT			
DAY RKSI	VIS CIG WIND	G/W (ZFW) CG	0+00		NORMAL T/O			
					<b>MODULE #1 / LOW ALT</b>			
					01. Maneuver at LOW ALT (TURN/CLB/DES)			
33L/R 5/5/5	CAVOK CALM	MLWT MID CG	0+10		02. Pitch & Power (TOGA), DIRECT LAW			
					03. Pitch & Power(IDLE), DIRECT LAW			
					04. Bank (30° BANK TURN)			
					05. Bank - Rudder			
			0+20		06. VLS Effect with Speed Brake			
					07. STEEP TURN			
					08. SLOW FLIGHT			
					09. ENG OUT WITH NO TRIM INPUT			
			0+30		10. HIGH/LOW SPD BUFFET ( if applicable )			
					<b>MODULE #2 HIGH ALT</b>			
					01. Maneuver at HIGH ALT			
			0+40		02. Pitch & Power(TOGA)			
					03. Pitch & Power(IDLE)			
					04. BANK (30° BANK TURN)			
					05. Bank - Rudder			
			0+50		06. BANK vs Stall Speed			
					07. SLOW FLIGHT			
					08. HIGH/LOW SPD BUFFET ( if applicable )			
			1+00		<b>UPRT MODULE #3 / STALL (ISI)</b>			
					01. STALL RECOVERY with IDLE THRUST ONLY at LOW ALT			
					02. CLEAN STALL at LOW ALT			
					03. FULL STALL at LOW ALT ( DEMONSTRATION ONLY by instructor ) :			
			1+10		04. STALL RECOVERY with IDLE THRUST ONLY at HIGH ALT			
					05. CLEAN STALL at HIGH ALT			
					06. CLEAN STALL at HIGH ALT – FULL AFT CG			
					07. CLEAN STALL at HIGH ALT – G LOAD (abrupt back pressure)			
			1+20		08. CLEAN STALL at HIGH ALT – G LOAD ( BANK )			
					09. STALL during approach (F/D ON, AP OFF, A/THR ON/OFF)			
					10. STALL during departure (F/D ON, AP OFF, A/THR ON/OFF)			
			1+30		<b>UPRT MODULE #4 / RECOVERY (ISI)</b>			
					01. NOSE HIGH			
					02. NOSE HIGH &, BANK			
					03. HIGH BANK ANGLE			
			1+40		04. NOSE LOW – SPD INCREASING			
					05. HIGH ALT, NOSE LOW – SPD INCREASING			
			1+50		<b>UPRT MODULE #5</b>			
					01. BOUNCED LANDING			
					02. LOSS OF RELIABLE AIRSPEED			
<b>E ENDS WHEN ALL ITEMS ARE COVERED</b>								
REMARK	(1) All items except those discribed : AIRBUS - ALTERNATE LAW, B777 - DIRECT MODE, PFC OFF. (2) All items except those discribed : F/D OFF, AP OFF, A/THR OFF (3) ISI ( In-Seat- Instruction ) : MODULE #3, MODULE #4 (4) MODULE #4 : ISI or Preselected UPRT menu on instructor panel may be used							

UPRT		LOSS OF RELIABLE AIRSPEED TRAINING				[FOR B777]	
CLR	AAR 102, CLEARED TO RJAA, TAKEOFF 33L EGOBA 2A, FPR, CLIMB TO FL230, DEP FREQ 125.15, SQ 4001				GATE	QNH 1025hpa Temp 0°C	
RWY	Wx	W&B	TIME	VERTICAL	#	SCENARIO ELEMENT	
DAY RKSI	VIS CIG WIND	G/W (ZFW) CG	0+00		1	IP PRESET SIM FOR TRAINING	
33L 5/5/5	CALM OVC 010	440.9 (392.7) 26%	0+05		2	» Re-position to RWY 33L T/O position TAKE OFF	
					3	CLB CLB VIA SID TO FL230	
			0+10		4	▲AIRSPEED UNRELIABLE	
			0+15		5	AIRSPEED UNRELIABLE PROC MEMORY ITEM ECL ※ Compare IAS on PFD & ISIS with GND SPD	
			0+20		6	AFTER ECL COMPLETED - ENDS	
REMARK	(1) Instructors have to know how to operate IOS panel for the training. (2) AIRSPEED UNRELIABLE: maybe showing only SPD difference on PFDs with or without EICAS MSG. (3) Finished the Training after [ <input type="checkbox"/> AIRSPEED UNRELIABLE] ECL completed.						

UPRT		정기(RECURRENT) 2nd half of ODD YEAR					A/C ALL	
CLR	AAR XXXX, CLEARED TO LOCAL AREA, RW HDG, THEN AS FILED, 10,000ft, DEP' FREQ' 125,15 SQ4000					GATE	QNH 1013hpa Temp 15°C	
RWY	Wx	W&B	TIME	VERTICAL	#	SCENARIO ELEMENT		
DAY RKSI	VIS CIG WIND	G/W (ZFW) CG	0+00			출수년 하반기 (2nd half of ODD YEAR)		
33L/R 5/5/5	CAVOK CALM	MLWT MID CG				<b>MODULE #1/ LOW ALT</b> 01. Maneuver at LOW ALT (TURN/CLB/DES) (*) (NORMAL, ALTERNATE, DIRECT LAW) 02. Pitch & Power (TOGA), DIRECT LAW (*) 03. Pitch & Power(IDLE), DIRECT LAW (*) 04. BANK (30° BANK TURN) (*)		
			0+10			<b>MODULE #2 HIGH ALT</b> 01. Maneuver at HIGH ALT (*) 02. Pitch & Power(TOGA) (*) 03. Pitch & Power(IDLE) (*) 04. BANK (30° BANK TURN) (*)		
						<b>UPRT MODULE #3 / STALL (ISI)</b> 01. STALL RECOVERY with IDLE THRUST ONLY at LOW ALT 02. CLEAN STALL at LOW ALT 03. FULL STALL at LOW ALT ( DEMONSTRATION ONLY by instructor ) : 09. STALL during approach (F/D ON, AP OFF, A/THR ON/OFF)		
			0+20			<b>UPRT MODULE #4 / RECOVERY (ISI)</b> 01. NOSE HIGH 03. HIGH BANK ANGLE 04. NOSE LOW – SPD INCREASING		
						<b>UPRT MODULE #5</b> 01. BOUNCED LANDING		
			0+30					
<b>E ENDS WHEN ALL ITEMS ARE COVERED</b>								
REMARK	(1) All items except those discribed : AIRBUS - ALTERNATE LAW, B777 - DIRECT MODE, PFC OFF. (2) All items except those discribed : F/D OFF, AP OFF, A/THR OFF (3) ISI ( In-Seat- Instruction ) : MODULE #3, MODULE #4 (4) MODULE #4 : ISI or Preselected UPRT menu on instructor panel may be used (5) The elements marked with (*) can be included and conducted in EBT recurrent training							

UPRT		정기(RECURRENT) 2nd half of EVEN YEAR				A/C ALL	
CLR	AAR XXXX, CLEARED TO LOCAL AREA, RW HDG, THEN AS FILED, 10,000ft, DEP' FREQ' 125,15 SQ4000				GATE	QNH 1013hpa Temp 15°C	
RWY	Wx	W&B	TIME	VERTICAL #	SCENARIO ELEMENT		
DAY RKSI	VIS CIG WIND	G/W (ZFW) CG	0+00		<b>짝수년 하반기 (2nd half of EVEN YEAR)</b>		
33L/R 5/5/5	CAVOK CALM	MLWT MID CG			<b>MODULE #1/ LOW ALT</b> 05. Bank - Rudder(*) 06. VLS Effect with Speed Brake(*) 07. STEEP TURN 08. SLOW FLIGHT 09. ENG OUT WITH NO TRIM INPUT 10. HIGH/LOW SPD BUFFET ( if applicable )		
			0+10		<b>MODULE #2 HIGH ALT</b> 05. Bank - Rudder(*) 06. BANK vs Stall Speed 07. STEEP TURN 08. SLOW FLIGHT		
			0+20		<b>UPRT MODULE #3 / STALL (ISI)</b> 04. STALL RECOVERY with IDLE THRUST ONLY at HIGH ALT 05. CLEAN STALL at HIGH ALT 07. CLEAN STALL at HIGH ALT – G LOAD (abrupt back pressure) 08. CLEAN STALL at HIGH ALT – G LOAD ( BANK ) 10. STALL during departure (F/D ON, AP OFF, A/THR ON/OFF)		
					<b>UPRT MODULE #4 / RECOVERY (ISI)</b> 02. NOSE HIGH &, BANK 05. HIGH ALT, NOSE LOW – SPD INCREASING		
			0+30		<b>UPRT MODULE #5 (SBE or SBT)</b> 02. LOSS OF RELIABLE AIRSPEED		
<b>E ENDS WHEN ALL ITEMS ARE COVERED</b>							
REMARK	(1) All items except those discribed : AIRBUS - ALTERNATE LAW, B777 - DIRECT MODE, PFC OFF. (2) All items except those discribed : F/D OFF, AP OFF, A/THR OFF (3) ISI ( In-Seat- Instruction ) : MODULE #3, MODULE #4 (4) MODULE #4 : ISI or Preselected UPRT menu on instructor panel may be used (5) The elements marked with (*) can be included and conducted in EBT recurrent training.						



UPRT		INSTRUCTOR RECURRENT (ODD YEAR)				A/C ALL
CLR	AAR XXXX, CLEARED TO LOCAL AREA, RW HDG, THEN AS FILED, 10,000ft, DEP' FREQ' 125,15 SQ4000				GATE	QNH 1013hpa Temp 15°C
RWY	Wx	W&B	TIME	VERTICAL	#	SCENARIO ELEMENT
DAY RCSI	VIS CIG WIND	G/W (ZFW) CG	0+00			Refert to UPRT Instructor Guide
33L/R 5/5/5	CAVOK CALM	MLWT MID CG				<p><b>MODULE #1/ LOW ALT</b></p> <p>01. Maneuver at LOW ALT (TURN/CLB/DES) (*)</p> <p>02. Pitch &amp; Power (TOGA), DIRECT LAW (*)</p> <p>03. Pitch &amp; Power(IDLE), DIRECT LAW (*)</p> <p>04. BANK (30° BANK TURN) (*)</p> <p><b>MODULE #2 HIGH ALT</b></p> <p>01. Maneuver at HIGH ALT (*)</p> <p>02. Pitch &amp; Power(TOGA) (*)</p> <p>03. Pitch &amp; Power(IDLE) (*)</p> <p>04. BANK (30° BANK TURN) (*)</p> <p><b>UPRT MODULE #3 / STALL (ISI)</b></p> <p>01. STALL RECOVERY with IDLE THRUST ONLY at LOW ALT</p> <p>02. CLEAN STALL at LOW ALT</p> <p>03. FULL STALL at LOW ALT ( DEMONSTRATION ONLY by instructor) :</p> <p>09. STALL during approach (F/D ON, AP OFF, A/THR ON/OFF)</p> <p><b>UPRT MODULE #4 / RECOVERY (ISI)</b></p> <p>01. NOSE HIGH</p> <p>03. HIGH BANK ANGLE</p> <p>04. NOSE LOW – SPD INCREASING</p> <p><b>UPRT MODULE #5</b></p> <p>01. BOUNCED LANDING</p>
			0+30			<p><b>Instructor training elements</b></p> <p>Training platforms (aeroplanes and devices)</p> <p>1) limitations of training platform</p> <p>2) operation of IOS and debriefing tools</p> <p>Review of LOC-I accidents/incidents</p> <p>Energy management factors</p> <p>Disorientation</p> <p>Workload management</p> <p>Distraction</p> <p>OEM recommendations</p> <p>UPRT recognition and recovery strategies</p> <p>Recognition of trainee errors</p> <p>Aeroplane type-specific characteristics*</p> <p>Operating environment</p> <p>How to induce the startle factor</p> <p>Value and benefits of demonstration</p> <p>How to assess pilot performance using core competencies if conducting CBT(Competency Based Training)</p>
<b>E ENDS WHEN ALL ITEMS ARE COVERED</b>						
REMARK	<p>(1) This is the training for instructors who finish the Asiana UPRT training. (0+30)</p> <p>(2) Istructors have to know how to make proper stall and Upset situation.</p> <p>(3) Instructors have to know how to operate IOS panel for the training.</p> <p>(4) MODULE #4 : ISI or Preselected UPRT menu on instructor panel may be used.</p> <p>(5) The elements marked with (*) can be included and conducted in EBT recurrent training.</p>					

UPRT		INSTRUCTOR RECURRENT (EVEN YEAR)				A/C ALL
CLR	AAR XXXX, CLEARED TO LOCAL AREA, RW HDG, THEN AS FILED, 10,000ft, DEP' FREQ' 125,15 SQ4000				GATE	QNH 1013hpa Temp 15°C
RWY	Wx	W&B	TIME	VERTICAL	#	SCENARIO ELEMENT
DAY RKSI	VIS CIG WIND	G/W (ZFW) CG	0+00			Refert to UPRT Instructor Guide
33L/R 5/5/5	CAVOK CALM	MLWT MID CG				<b>MODULE #1/ LOW ALT</b> 05. Bank - Rudder(*) 06. VLS Effect with Speed Brake(*) 07. STEEP TURN 08. SLOW FLIGHT 09. ENG OUT WITH NO TRIM INPUT 10. HIGH/LOW SPD BUFFET ( if applicable )  <b>MODULE #2 HIGH ALT</b> 05. Bank - Rudder(*) 06. BANK vs Stall Speed 07. STEEP TURN 08. SLOW FLIGHT  <b>UPRT MODULE #3 / STALL (ISI)</b> 04. STALL RECOVERY with IDLE THRUST ONLY at HIGH ALT 05. CLEAN STALL at HIGH ALT 07. CLEAN STALL at HIGH ALT – G LOAD (abrupt back pressure) 08. CLEAN STALL at HIGH ALT – G LOAD ( BANK ) 10. STALL during departure (F/D ON, AP OFF, A/THR ON/OFF)  <b>UPRT MODULE #4 / RECOVERY (ISI)</b> 02. NOSE HIGH &, BANK 05. HIGH ALT, NOSE LOW – SPD INCREASING  <b>UPRT MODULE #5 (SBE or SBT)</b> 02. LOSS OF RELIABLE AIRSPEED
			0+30			<b>Instructor training elements</b> Training platforms (aeroplanes and devices) 1) limitations of training platform 2) operation of IOS and debriefing tools Review of LOC-I accidents/incidents Energy management factors Disorientation Workload management Distraction OEM recommendations UPRT recognition and recovery strategies Recognition of trainee errors Aeroplane type-specific characteristics* Operating environment How to induce the startle factor Value and benefits of demonstration How to assess pilot performance using core competencies if conducting CBT(Competency Based Training)
<b>E ENDS WHEN ALL ITEMS ARE COVERED</b>						
REMARK	(1) This is the training for instructors who finish the Asiana UPRT training (0+30) (2) Istructors have to know how to make proper stall and Upset situation. (3) Instructors have to know how to operate IOS panel for the training (4) MODULE #4 : ISI or Preselected UPRT menu on instructor panel may be used. (5) The elements marked with (*) can be included and conducted in EBT recurrent training.					

UPRT		LOSS OF RELIABLE AIRSPEED TRAINING					[FOR B777]	
CLR	AAR 123, CLEARED TO LOCAL FLT, AFT DEP HDG 220 CLB 6000FT, DEP' FREQ' 125,15 SQ4001					GATE	QNH 1020hpa Temp -10°C	
RWY	Wx	W&B	TIME	VERTICAL	#	SCENARIO ELEMENT		
DAY	VIS	G/W	0+00		1	<b>SIM SET FOR TRAINING PURPOSE</b>		
RKSI	CIG	(ZFW)				CAPT's AIR DATA/ATT SW sets to ALTN		
	WIND	CG						
33L	CALM	460.0				» Re-position to RWY 33L T/O position		
5/5/5		(400.0)			2	<b>TAKE OFF</b>		
		28%	0+05			※ IP set OAT -20°C CLD BASE 1000FT / CLD TOP 15000FT		
					3	<b>CLB</b>		
						HDG 220, CLB 6000FT		
			0+10		4	<b>▲AIRSPEED UNRELIABLE</b>		
						AFTER LEVEL OFF AT 6000FT		
			0+15		5	<b>AIRSPEED UNRELIABLE PROC</b>		
						MEMORY ITEM ECL ※ Compare IAS on PFD with GND SPD		
			0+20		6	<b>AFTER ECL COMPLETED - ENDS</b>		
REMARK	(1) Instructors have to know how to operate IOS panel for the training. (2) CAPT's AIR DATA/ATT SW MUST BE SET TO ALTN, for training purpose. (3) AIRSPEED UNRELIABLE: maybe showing only SPD difference on PFDs without EICAS MSG. (Simulated condition) (4) Finished the Training after <input type="checkbox"/> AIRSPEED UNRELIABLE] ECL completed.							