UPSET PREVENTION AND RECOVERY TRAINING SYLLABUS A-320

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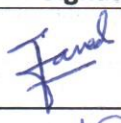
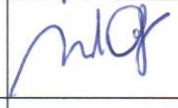
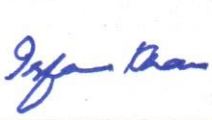
ISSUED BY:

FLIGHT CREW TRAINING DIVISION

FLIGHT OPERATIONS DEPARTMENT

UPSET PREVENTION AND RECOVERY TRAINING SYLLABUS

A-320

Activity	Name	Designation	Signature	Date
Prepared By	Capt. Vaqas Javed	Chief Pilot Tech		27th July 2026
Reviewed By	Capt. Majid Akhter	DCP A-320		28th July 2026
Vetted By	Capt. Omar Akhtar	Chief Pilot Crew Training		28th July 2026
Vetted by	Capt. Irfan Khan	Chief of Flight Operations		29th July 2026

HEADQUARTERS
Pakistan Civil Aviation Authority
Flight Standards Directorate
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Ref: HQCAA / 1076 / 021 / FSAC /0593 Dated: 31ST July, 2026

Dear Sir,

UPRT SYLLABUS A320
M/S PAKISTAN INTERNATIONAL AIRLINES CORPORATION LIMITED

Reference to your letter CPCT / R-05 / 34530 dated 31st July, 2026.

2. Enclosed please find duly approved and stamped ***UPRT SYLLABUS A320***.

3. You are being advised to ensure that in case of any contradiction between the ***UPRT SYLLABUS A320*** and Civil Aviation Rules, Air Navigation Orders, Air Safety Circulars or any other Instructions/ Directives issued by Pakistan Civil Aviation Authority from time to time the later shall have precedence.

Encl: ***As Stated***

(CAPT. AMIR AFTAB)
Flight Inspector (Pilot)
for Director Flight Standards
Telephone (021) 9907 2620

To,

Director Flight Operations,
M/s Pakistan International Airlines,
JIAP, Karachi

Copy to:-

- Technical Library, FSD, PCAA

TRAINEE'S NAME_____ P NO _____ DATE_____

DURATION 02:00 HOURS PER TRAINEE AS PILOT FLYING

DISCUSSION ITEMS	BRIEFING
NORMAL LAW	FCOM/FCTM
PROTECTION IN NORMAL LAW	FCOM/FCTM
ALTERNATE LAW AND AIRCRAFT RESPONSE	FCOM/FCTM
PROTECTIONS IN ALTERNATE LAW	FCOM/FCTM
DIRECT LAW AND AIRCRAFT RESPONSE	FCOM/FCTM
UPRT PREVENTION AND RECOVERY	FCOM/FCTM

TIME ATTEMPTS	EXERCISES/			EVENTS		PF TRAINEE 1	
00:00	00:05	1	CREW INSTALLATION	FPV	AP	FD	A/THR
	• Performance preparation by instructor • Cockpit preparation by instructor • FMS preparation by instructor OPKC–OPIS, FL 350/-46, CI 10, Tailwind component 35 Kts • ZFW 54.5 tons, Fuel 10 Tons, ZFW CG and TOCG as per IOS, fuel freeze • Weather wind 280/10kts, temperature 33 C, QNH 1005, Visibility 8 KM, Cloud base 800 feet cloud top 36000 feet • Take off performance by Instructor • Take Snap shot for the next session						
00:05	00:07	2	**TAKE OFF WITHOUT AUTO FLIGHT SYSTEM- CLIMB FL 100 RWY 25L**	~~FPV~~	~~AP~~	~~FD~~	~~A/THR~~
	Objective: To practice departure with no AP, No FD, No A/THR (basic pitch and thrust flight) Facilitate in procedure. • Fly the SID without the automation • Thrust reduction/ pitch change • Acceleration/ pitch change • Clean up and accelerate to 250 Kts						
00:12	00:06	3	**USE OF AUTO FLIGHT SYSTEMS**	FPV	AP	FD	A/THR
	Objective: To prevent aircraft upset due to improper use of the automation **Reposition at FL 100 IAS 250 Kts** • PF to Disengage Reengage AP and FDs while respecting task sharing and standard callouts. Repeat till proficiency • A/THR disconnection and activation PF to disconnect the A/THR by instinctive push button PF to engage A/THR • **FOR DEMOSTRATION ONLY** When the trust is at idle **HIGHLIGHT THAT DOING SO IS NOT RECOMENDED BY AIRBUS** • Observe thrust lock function, the indicators and the locked thrust • PF to announce the reference thrust and bring back the thrust levers to the reference. • PF reengages A/THR and reduce speed to Green Dot so the thrust comes to Idle. • Highlight potential risk of THR LK at idle. If not detected the speed will continue to decrease below target speed.						

00:18	00:08	4	**FLIGHT GUIDANCE AND MODE REVERSION**	FPV	AP	FD	A/THR

Objective: To prevent some potential causes of upset linked to the misuse of flight guidance

1. **Misusing the flight guidance**
2. **Mode reversions**

Reposition at FL 150 IAS 250 Kts ask to turn on a heading of 180 (to avoid GPWS)

1. **Misuse of flight guidance:**

- PF to pull first then turn the altitude knob to Initiate a climb or descend.

2. **Mode Reversions:**

- PF to proceed direct to NH in NAV mode and descend to FL 100, pull heading see mode reversion in V/S and observe double clicks.
- PF to proceed direct to NH in NAV mode and climb then pull heading see mode reversion in Open Climb and observe double clicks.
- PF to Climb or descend. At ALT* ask them to change altitude and see mode reversion
- **IAS 250 Kts PF to turn on a heading of 180 (to avoid GPWS)**
- PF to descend to 2000 ft with ROD -6000 FPM
- When VMAX is reached the V/S is boxed in amber and speed does not exceed VMAX

00:26	00:07	5	**HIGH AND LOW SPEED AT LOW ALTITUDE WITH NO AUTOFLIGHT SYSTEM**	FPV	~~AP~~	~~FD~~	~~A/THR~~

Objective: To fly the aircraft at high and low speeds at low altitude

1. **To remind normal law and protections**
2. **To understand FPV and angle of attack awareness**
3. **To fly at high and low speed and study energy management at low altitude**

Reposition at FL 100 IAS 250

1. **Normal law and associated protections:**

- Review behavior of the aircraft in normal law
- Review the protections available in normal law.

2. **Use of FPV:**

- Flight crew to note the angle of attack.

3. **Energy Management:**

- Set climb thrust
- Observe the angle of attack reduction and acceleration capability
- Observe the High-Speed Protection and the PF counters the pitch up and maintains height till the speed settles at VD then pitch down authority reduces.
- PF to set the side stick in neutral position. Aircraft comes back in the normal envelope. Overspeed warning stops.
- Set thrust lever to idle
- Observe the augmentation in the angle of attack and rate of deceleration, PF to extend the Speed Brakes and see deceleration and effect on VLS
- Observe High Angle of Attack protection with side stick **neutral and then with full back deflection**

00:33	00:06	6	**ALTERNATE/DIRECT LAW HANDLING AT LOW ALTITUDE**	FPV	~~AP~~	~~FD~~	A/THR

Objective: To fly the aircraft at low altitude in reconfiguration control laws

Reposition at FL 100 IAS 250, Bird on A/THR on *ALTERNATE LAW from IOS (UPRT-ALTERNATE LAW)*

1. **F/CTL ALTN LAW (PROT LOST)**
- Observe indication of alternate law on PFD and on ECAM
- PF to turn either way and increase speed while maintaining level flight. PF to feel the trim wheel and observe that auto trim is available.
- PF to reduce speed while maintaining level flight. PF to feel the trim wheel and observe that auto trim is available.
- PF to reduce speed to Green Dot, configure the aircraft for flaps 2 while reducing the speed then Gears down.

2. **F/CTL DIRECT LAW (PROT LOST)**
- Observe indication of direct law on PFD and on ECAM
- Configure aircraft with configuration 3 and Gears Down.
- Decelerate to F speed
- PF to maintain 3 deg path with ROD 700 FPM
- When stabilized in the descent the crew to executes a go around
- Observe the use of manual pitch trim
- When gears are retracted the aircraft goes in **ALTN LAW**

00:39	00:15	7	**STALL RECOVERY AT LOW ALTITUDE WITH ASE FUNCTION**	FPV	~~AP~~	~~FD~~	~~A/THR~~

Objective: To practice stall recovery at first stall indication at low altitude

Reposition at FL 100 IAS 250 bird on, *ALTERNATE LAW.* LOSS OF ALTITUDE IS NOT A CONCERN

1. **Stall recovery clean configuration at first stall indication:**
- Aircraft in clean configuration
- PF decelerates UPTO 25 deg of bank
- During deceleration the PM announces Angle of Attack
- At first stall indication PF Calls “Stall I have control” and applies the stall recovery procedure
- PF must reduce the Angle of attack first before recovering the bank. (Lateral input leads to spoiler deployment and loss of lift).
- Altitude cannot be maintained and altitude loss is not of importance.
- Pitch up effect with increase in thrust
- Keep flaps 1 selection in recovery

2. **Stall recovery in flaps 2 configuration (take-off configuration)**
- Same as Exercise 1

3. **Aircraft in flap 3 and landing gear down configuration (landing configuration)**
- Same as Exercise 1

4. **Aircraft in flap 3 landing gear down (DEEP STALL)**
- PF not to touch the side stick till the instructor advises to recover.
- With no side stick inputs, the aircraft automatically decelerates to Full Stall then stabilizes without freezing.
- Identify aerodynamic buffet and then stall buffet
- Flight crew to apply the stall recovery procedure.

5. **Aircraft in flap 3 landing gear down configuration (DEEP STALL)**
- PF not to touch the side stick till the instructor advises to recover.

	• In this recovery the ***crew to identifies aerodynamic buffet and then stall buffet*** • With no side stick inputs, the aircraft automatically decelerates to Full Stall then stabilizes without freezing • Flight crew to recover						
00:54	00:06	8	**UPSET RECOVERY NOSE HIGH ATTITUDE AT LOW ALTITUDE**	~~FPV~~	~~AP~~	~~FD~~	A/THR
	Objectives: **1. To recognize and confirm the upset situation** **2. To practice the upset recovery nose high with and without bank at low altitude** **AP OFF, FD OFF, Bird OFF, A/THR ON ALTERNATE LAW** • Trainees to close their eyes while the Simulator settles in the upset position • When the simulator settles instructor asks the flight crew to recover. • The flight crew shall become situational aware and analyze the situation meaning assess energy state, attitude and communicate with the other crew member before applying the recovery. • Trainees to close their eyes while the Simulator settles in the upset position • When the simulator settles the instructor asks the flight crew to recover • The flight crew shall become situationally aware and analyze the situation. Meaning assess; energy state, attitude, and communicate with the other crew member before applying the recovery.						
01:00	00:06	9	**UPSET RECOVERY NOSE LOW ATTITUDE AT LOW ALTITUDE**	~~FPV~~	~~AP~~	~~FD~~	A/THR
	Objectives: **1. To recognize and confirm the upset situation** **2. To practice the upset recovery nose low with and without bank at low altitude** • Trainees to close their eyes while the Simulator settles in the upset position • When the simulator settles instructor asks the flight crew to recover. • The flight crew shall become situational aware and analyze the situation meaning assesses energy state, attitude and communicate with the other crew member before applying the recovery. • Trainees to close their eyes while the Simulator settles in the upset position • When the simulator settles the instructor asks the flight crew to recover • The flight crew shall become situational aware and analyze the situation meaning assesses energy state, attitude and communicate with the other crew member before applying the recovery.						
01:06	00:10	10	**ILS WITHOUT AUTO FLIGHT SYSTEMS RWY 25l**	~~FPV~~	~~AP~~	~~FD~~	~~A/THR~~

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	Objectives: To practice instrument approach with no AP, No FD, No A/THR (basic pitch and thrust flight) **1. Fly an early stabilized approach** • On intercept heading fly the approach in RAW DATA • Balked landing will be induced at touchdown, follow the balked landing procedure.						
01:16	00:04	11	**GO AROUND AFTER A BALKED LANDING**	~~FPV~~	~~AP~~	FD	~~A/THR~~
	Objectives: To practice Go Around in case of a BALKED LANDING • PF executes a Go Around related to Balked Landing • Do not try to avoid the second touchdown during the Balked Landing • Delay flaps and landing gear retraction until safely established in the go around trajectory						

01:20	00:02	12	**STARTLE EFFECT**	~~FPV~~	~~AP~~	~~FD~~	~~A/THR~~
	Objectives: To evaluate the flight crew's capability to manage emotions following a startle effect • Startle will be introduced by the instructor						
01:22	00:09	13	**HIGH ALTITUDE AERODYNAMICS**	FPV	~~AP~~	~~FD~~	~~A/THR~~
	Objectives: To Fly manually at high altitude and study energy management **1. Loss of automation at high altitude** **2. High altitude turns and effect of g-load at high altitude** **3. Effect of speed brake extension at high altitude** **4. Flight at Green Dot** **5. Flight at VLS (behind the power curve)** **FL 350 AP ON, FD ON A/THR ON. Weight will be increased to 73 tons or more so that CRZ altitude is very near to the MAX REC** • **Observe the reduced margins between VMO and V Alpha Max compared to low altitude** • At high altitudes and high Mach numbers **it is very important to adopt a calm and flexible attitude without aggressiveness** • Minimal inputs are required to maintain the safe flight path in case of loss of automation at high altitudes • PF to select FDs off A/THR off. For training purposes keep FPV Off • Note pitch and N1 Thrust settings. Observe their use in case of unreliable airspeed indications in cruise • Knowledge of the standard pitch and thrust values in cruise is of high importance **1. High altitude turns and effect at high altitude** • PF to do a 20 deg bank turn either side • Observe the V Alpha PROT coming up • PF to increase the bank until buffet occurs. Observe the impact of V Alpha MAX and V Alpha PROT • PF to maintain wings level **2. PF to extend the speed brakes** • Observe impact of VLS, V Alpha MAX and V Alpha PROT. **3. PF to reduce the speed to Green DOTt by disconnecting A/THR** • At Green DOT note the pitch and thrust settings. • PF to set climb thrust while observing the low rate of acceleration **4. PF to decelerate to VLS** • At VLS observe pitch and thrust settings. • Observe the high thrust and pitch settings to maintain altitude. • PF to set climb thrust, then MCT and then TOGA. Observe that there is no difference in thrust ratings at this altitude. • Observe that there is no acceleration since the aircraft is on the back side of the Total Drag Curve. Where drag has increased due to low speed. Observe that there is no other way to accelerate other than to lower nose and lose a little height.						
01:31	00:04	14	**ALTERNATE/DIRECT LAW AT HIGH ALTITUDE**	FPV	~~AP~~	~~FD~~	A/THR
	Objectives: To manually fly the aircraft at high altitude in reconfiguration control laws. **Reposition at FL 350 IAS Mach .78, Bird on A/THR on *ALTERNATE LAW at* weight 64.5 Tons.** **1. F/CTL ALTN LAW (PROT LOST)** • Observe that at high altitude, descent by approximately 4000 ft below the REC MAX ALT significantly reduces the occurrence of stall warning in turbulence (FCTM) • Observe indication of alternate law on PFD and on ECAM • PF to turn either way and increase speed while maintaining level flight. PF to feel the trim wheel and observe that auto trim is available. • PF to reduce speed while maintaining level flight. PF to feel the trim wheel and						

	observe that auto trim is available. 2. **F/CTL DIRECT LAW (PROT LOST)** • Observe indication of Direct Law on PFD and on ECAM • PF to make shallow turns and trim as required						
01:35	00:10	15	**STALL AT HIGH ALTITUDE**	FPV	~~AP~~	~~FD~~	~~A/THR~~
	Objectives: **1. To practice Stall recovery at First indication of Stall** **2. To practice full stall recovery** **3. Stall recovery at first indication (STALL BUFFET AT HIGH ALTITUDE COMES BEFORE THE STALL WARNING) Height loss is not of any concern:** • Aircraft clean configuration • PF decelerates in level flight • PF to increase Angle of Attack continuously • Observe aerodynamic buffet then stall buffet • On the onset of STALL BUFFET PF applies the recovery **1. Recovery from FULL STALL** • PF not to touch the side stick and till the instructor asks to recover • With no side stick inputs, the aircraft automatically decelerates to Full stall then stabilizes without freezing. • Observe aerodynamic buffet and then stall buffet. • Flight crew to apply the stall recovery procedure. **2. Recovery from full stall (Exercise)** • PF not to touch the side stick and till I say to recover • With no side stick inputs, the aircraft automatically decelerates to Full stall then stabilizes without freezing. • Flight crew identifies aerodynamic buffet and then stall buffet and **stall warning** • Flight crew to apply the stall recovery procedure.						
01:45	00:06	16	**UPSET RECOVERY NOSE LOW ATTITUDE AT HIGH ALTITUDE**	~~FPV~~	~~AP~~	~~FD~~	A/THR
	Objectives: **1. To recognize and confirm the upset situation** **2. To practice the upset recovery nose low with and without bank at high altitude** **For Operational training only:** • Trainees to close their eyes while the Simulator settles in the upset position • **Trainees to observe that at high altitudes and high Mach numbers it is very important to adopt calm flexible flying attitude without aggressiveness.** • When the simulator settles instructor asks the flight crew to recover. • The flight crew shall become situationally aware and analyze the situation, meaning assess energy state, attitude, and communicate with the other crew member before applying the recovery. • Trainees to close their eyes while the Simulator settles in the upset position • When the simulator settles, Instructor asks the flight crew to recover • The flight crew shall become situationally aware and analyze the situation, meaning assess energy state, attitude, and communicate with the other crew member before applying the recovery.						

01:51	00:06	17	**UPSET RECOVERY NOSE HIGH ATTITUDE AT HIGH ALTITUDE**	FPV	AP	FD	A/THR
	Objectives: **1. To recognize and confirm the upset situation** **2. To practice the upset recovery nose high with and without bank at High altitude** **For Operational training only:** • Trainees to close their eyes while the Simulator settles in the upset position • When the simulator settles the instructor asks the flight crew to recover. • The flight crew shall become situational aware and analyze the situation meaning, assess energy state, attitude, and communicate with the other crew member before applying the recovery. • Trainees to close their eyes while the Simulator settles in the upset position • When the simulator settles, the instructor asks the flight crew to recover • The flight crew shall become situationally aware and analyze the situation, meaning asses energy state, attitude, and communicate with the other crew member before applying the recovery.						
1:57	00:10	BREAK 10 MIN					

TRAINEE'S SIGNATURE	INSTRUCTOR'S SIGNATURE	INSTRUCTOR'S LICENSE NO