CASA Form 61-1498 Knowledge Requirements

Ground Component – Knowledge Requirements & References

2.1 Knowledge Requirements		
(a)	Privileges and limitations of the type rating	CASR 61.375
(b)	Flight review requirements	CASR 61.800
(c)	Navigation and Operating systems	
(d)	Normal, Abnormal and Emergency flight procedures	
(e)	Operating limitations	
(f)	Weight and Balance Limitations	
(g)	Aircraft performance data, including take-off and landing performance data	
(h)	Flight planning	
2.2 Knowledge Requirements (IFR Operations Only)		
(a)	Privileges and limitations of the type rating for IFR operations	CASR 61.805
(b)	Navigation and flight management system	
(c)	Conducting IFR operations in aircraft covered by type rating	

Regulatory Knowledge

CASR 61 Privileges and Limitations of Type Rating

CASR 61 – Privieges and Limitations of an Aircraft Type Rating	
62.375	**Aircraft Category/Class Type Rating Privileges** - Holder can only exercise privileges of licence in an aircraft of a particular category / class aircraft rating. - Type Rating is not required if operating as Cruise Relief and holding a Cruise Relief Type Rating - Additional Rating may be required for IFR, Night VFR, Night Vision, Low Level, Flight Instruction, Flight Examination. - Holder of MPL/ATPL/ATPL may operate under IFR/Night VFR without holding an Instrument Rating. **Categories** : Aeroplane, Helicopter, Powered-Lift Aircraft, Gyroplane, Airship **Class** : Single-Engine Aeroplane, Multi-Engine Aeroplane, Single-Engine Helicopter, Powered Lift Aircraft, Single-Engine Gyroplane, Airship Note : Single-Engine Aeroplane includes Multi-Engine Centreline Thrust and Multi-Engine Aeroplanes under 61.050
61.395	**Recent Experience for Passenger Flights** **Day Recency - 90 Days** : 3x Take-offs & 3x Landings (Aircraft or Simulator) – **Day or Night** **Night Recency - 90 Days** : 3x Take-offs & 3x Landings (Aircraft or Simulator) – **At Night** - Each Takeoff to 500 ft AGL The 90 day requirements are considered met if: - In the past 90 days passed an IPC/OPC/Night Vision Check/Instructor Check/Flight Review with at least one (day and night) take-off and landing; or - Successful participant in a 61.040 approved Operator Check & Training System (specific approval for night)
61.775	**Minimum Experience to Exercise Type Rating gained in a Simulator** For Type Rating conducted in a simulator – for PIC, holder requires at least 25 hours of flight time as a pilot of an aircraft covered by the rating. This requirement is met for Turbo-Jet aircraft if holder has: - At least 1,000 hours flight time as a pilot of a turbo-jet aircraft; or - At least 2,000 hours and at least 500 hours PIC of turbo-jet aircraft
61.780	**Differences Training for Type Variant** Where differences training is required to for a variant the holder of a type rating must under go that differences training prior to exercising the privileges of the type rating on that variant.
61.785	**Single vs Multi Crew Operations** - Holder of a multi-crew type rating only authorised to exercise privileges in a multi-crew operation - Single Engine Pilot Type Rating requires approved training course in multi crew operations to operate multi crew after 01.Sep.15
61.790	**Operating Type Under IFR** - Holder can only exercise privileges of Type Rating under IFR if flight test for rating was under IFR; or holder has completed an IPC in an aircraft covered by the rating.
61.795	**Recent Experience on Aircraft Model** Holder can only exercise privileges of Type Rating in an aircraft model covered by the rating if within the previous 24 months: - Exercised the privileges of the rating in the aircraft model; or - Passed a Type Rating Flight Test or Flight Review in the aircraft model; or - If differences training is required under 61.055/61.060 for the aircraft model – completed the differences training.
61.800	**Flight Review** - Exercise of the Type Rating Privileges requires a valid Flight Review for the Rating. - Flight Review is valid for 24 (end of) months; original expiry stands if renewal check is within last 3 months. - Flight Review is validated by TRT/IPC/OPC/Night Vision/Aerial Application Check, Instructor/Examiner PC, as well as Operational Rating or Design Feature Training in an aircraft of the class covered by the type rating. - Flight Review is considered for holder participating in an Operator 61.040 Approved Check and Training System for operation of an aircraft type covered by the rating.

CASR 61 – Privieges and Limitations of an Aircraft Type Rating	
61.805	**Instrument Proficiency Check** Holder of a Type Rating may exercise the privileges under IFR only if holding a valid Instrument Proficiency Check (IPC) for the aircraft type covered by the rating. - Not for Single Pilot Turbine; and - Valid for 24 (end of) months after a Flight Test (IPC/TRT/ATPL/OPC, etc) of that Type of aircraft; and - If an Instrument Endorsement Flight Test is passed more than 6 months of the Type Rating Test in an aircraft of that Type; then IPC is valid for 24 (end of) months after the Endorsement Flight Test. - Anytime when operating as a successful participant in a 61.040 approved Operator Check & Training System for IFR Operations in aircraft of that type. This approval is only valid for operations conducted by that operator. - If a renewal check is completed within 3 months of the expiry of an IPC, the 24 month validity commences from the original expiry date. - Any failure to successfully complete an IPC invalidates an Instrument Rating for the type of aircraft belonging to the category of aircraft in which the check was failed (includes Aircraft, ME Aircraft, Helicopters).

Systems Knowledge

Flight Director Indications in TOGA during a Normal Go-Around (FCOM 04.20.24)

- TO/GA is enabled in flight below 2,000 ft RA; or above with Flaps not UP or G/S captured; or on Landing after wheel spin up.
- TO/GA is initiated by pushing either TO/GA switch.
- AP will disconnect unless Dual AP configuration is established (**FLARE**)
- **Pitch Mode** : **TO/GA** - commands 15° Nose Up until reaching a programmed rate of climb; the reverts to Target Airspeed MCP IAS blanks; Target Speed is min manoeuvring speed for the Flap Setting at Maximum Takeoff Weight)
- **Roll Mode** : **TO/GA** (becoming **LNAV** at 50 ft in **FD** / 400 ft in **CMD**) – commands current Ground Track.
- **Thrust Mode** : A/T will respond to TO/GA switch if the A/T switch is at ARM.
  Below 2,000 ft RA : Engages in FMA **GA** and commands N1 thrust setting for 1,000-2,000 fpm.
  - Second TO/GA switch selects FMA **N1** and full go-around N1 limit.
  Above 2,000 ft RA : Engages in FMC **N1** and commands full go-around N1 limit.

TO/GA Mode after Touchdown

- TO/GA mode is enabled after touchdown (wheel spin up) during manual landings.
- Selecting a TO/GA switch will engage Pitch in **TO/GA**
- Roll remains blank; LNAV will not engage;

TO/GA Mode Termination

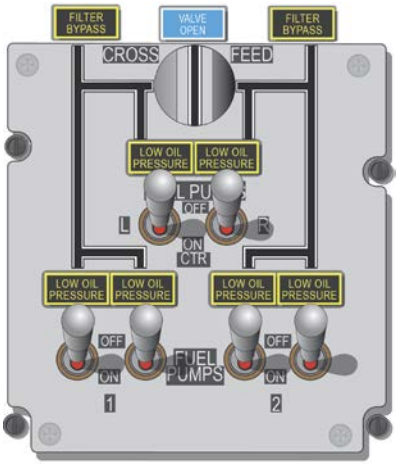
- **Below 400 ft RA** : both F/D switches must be turned OFF (and AP disengaged).
- **Above 400 ft RA** : selection of another pitch/roll mode. Note that selecting a Pitch Mode reverts the Roll to **HDG SEL**
- **AP Engagement** : Engaging an AP reverts pitch **MCP SPD** and therefore roll into **HDG SEL**

Dual FMC Failure – can the VOR and LOC be displayed on the ND?

- Tuning of the NAV radios is unaffected by the loss of both FMC's.
- VOR and LOC indications can be displayed on the ND in APP and VOR modes
- MCP Course Bar selectors are used to select courses for Left/Right ND's.

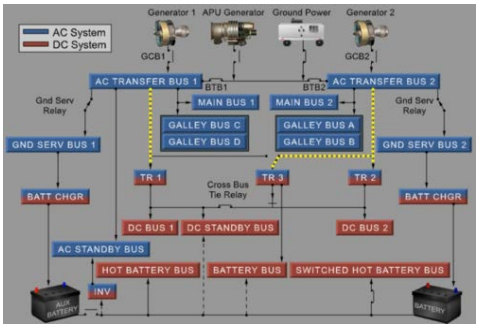
Aircraft Fuel Pumps

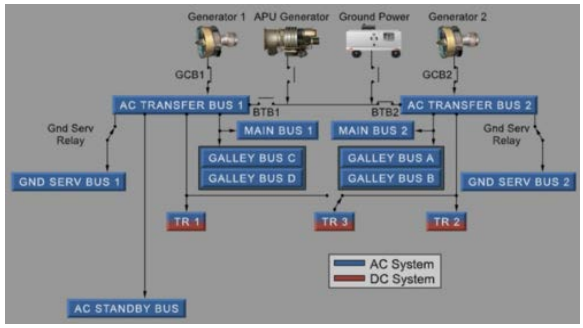
- All Fuel Pumps (Main and Center) are located in the Center Tank.
- The #1/#2 Main Pumps (located in the Left/Right side of the Center Tank) feed fuel from the #1/#2 Tanks into a common manifold.
- Fuel Pumps are powered by the Transfer Busses
  - **Transfer Bus 1** : Main Tank #1 Fwd; Main Tank #2 Aft; Center Tank Left
  - **Transfer Bus 2** L Main Tank #1 Aft; Main Tank #2 Fwd; Center Tank Right
- Fuel Pumps are cooled and lubricated by fuel passing through the pump.
- Center Tank Pumps have a higher output (23 vs 10 PSI) than the Main Tank pumps.
- Suction feed is through dedicated line that bypasses the pumps. As the aircraft climbs, air may collect in the suction lines and restrict fuel flow. At high altitude, thrust deterioration or flamout may occur as a result.



Electrics

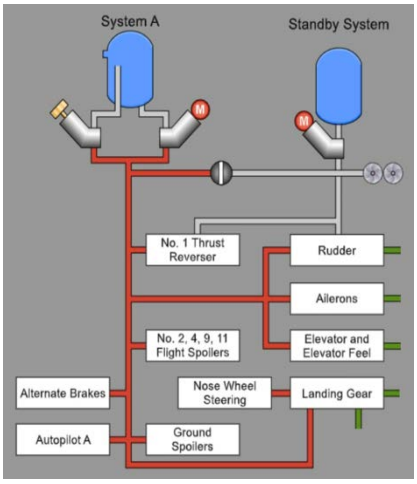
- Primary AC Power comes from 2x Engine Driven Generators (IDGs) and on APU Generator.
- Primary DC Power comes from 3x TRU's connected to the AC Transfer Busses.

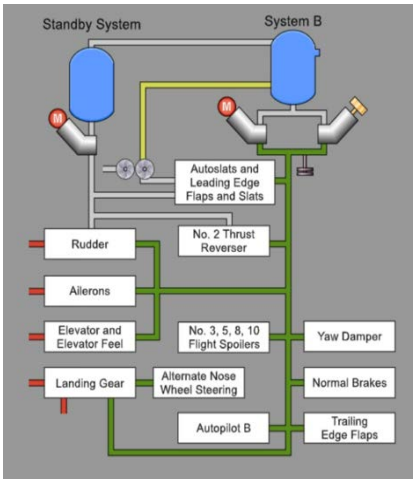


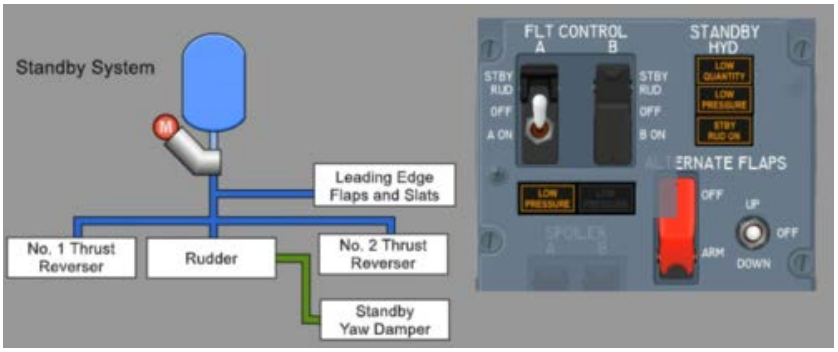


Hydraulics

- **System A** :
  Ailerons (B), Rudder (B/STBY); Elevator & Feel (B); Flight Spoilers (2/4/9/11 - 2x/Wing); **Ground Spoilers** (1/6/7/12 - All); **Alternate Brakes** (Normal Brakes); #1 Thrust Reverser (STBY - Slow); Autopilot A; **Normal Nose Wheel Steering** (Alternate); **Landing Gear** (Manual Ext, No Retract); **Power Transfer Unit** (PTU).
- **System B :**
  Ailerons (A); Rudder (A/STBY); Elevator & Feel (A); Flight Spoilers (3/5/8/10 - 2x/Wing); **Leading Edge Flaps & Slats** (STBY Extend only); **Normal Brakes/Autobrake** (Alternate); #2 Thrust Reverser (STBY - Slow); Autopilot B; **Alternate Nose Wheel Steering**; **Landing Gear Transfer Unit**; Autoslats (STBY); Yaw Damper (STBY); **Trailing Edge Flaps** (Elec)
- **Standby Hydraulics** :
  - Standby Rudder & Yaw Damper;
  - Leading Edge Flaps/Slats (Extend only);
  - Thrust Reversers (Slow)







Normal Procedures

- Fuel is normally loaded into the Main Tanks, followed by the Center Tank.
- Main Tanks must be scheduled Full if the Center Tank contains >453 kg
- **IMBAL** if Main Tanks differ by >453 kg (remains until 91 kg)
- **LOW** if any Main Tank quantity is <907 kg (remains until 1,134 kg)
- **CONFIG** if Center Tank has >726 kg; Engines Running, Both Center Tank fuel pump switches OFF (remains until 363 kg)
- Pilot Flying announces (most of the) FMA changes.

Limitations

- Max Crosswind Take-off : Dry 34 kts / Wet 25 kts
- Max Crosswind Landing : Dry 40 kts / Wet 40 kts (SSW 37 kts)
- Severe Turbulence Penetration : Lower of 280 KIAS/M0.76 (On descent, below 15,000 below Max LDW, 250 kts clean)
- AP engagement after Take-off : 400 ft RA

Weight and Balance

- Max Take-off Weight : 79,015 kg
- Max Landing Weight : 66,360 kg
- Max Zero Fuel Weight : 62,731 kg

Flight Tolerances and Support Calls

Non-Normal Checklist Memory Items

CABIN ALTITUDE

CABIN ALTITUDE WARNING or RAPID DEPRESSURIZATION

Condition : One or more of these occur:

- A cabin altitude exceedance
- In flight, the intermittent cabin altitude/configuration warning horn sounds or a **CABIN ALTITUDE** light illuminates

1 Don oxygen masks and set regulators to 100%.

2 Establish crew communications.

3 Pressurisation mode selector ..... MAN

4 Outflow VALVE switch ..... Hold in CLOSE until the outflow VALVE indication shows fully closed

5 **If** cabin altitude is **uncontrollable**:

Passenger signs .....ON

PASS OXYGEN switch .....ON

▶ ▶ **Go to the Emergency Descent checklist**.

EMERGENCY DESCENT

Condition : One or more of these occur:

- Cabin altitude cannot be controlled
- A rapid descent is needed.

1 Announce the emergency descent. The pilot flying will advise the cabin crew, on the PA system, of impending rapid descent. The pilot monitoring will advise ATC and obtain area altimeter setting.

PF : "**This is the Captain, Emergency Descent**"

2 Passenger signs..... ON

3 **Without delay**, descend to the lowest safe altitude or 10,000 feet, whichever is higher.

4 ENGINE START switches (both) ..... CONT

5 Thrust levers (both) ..... Reduce thrust to minimum or as needed for anti-ice

6 Speedbrake.....FLIGHT DETENT

7 Set target speed to MMO/VMO.

If structural integrity is in doubt, limit speed as much as must a possible and avoid high manoeuvring loads.

Emergency Descent on Autopilot

1. Initiate a turn in **HDG SEL** if required
2. Select MCP Altitude (10,000 ft or MSA)
3. Engage **LVL CHG**
4. Thrust Levers..... IDLE
5. Speedbrake .....FLIGHT DETENT
6. Select MCP Speed ..... MMO/VMO or Limited
7. Refine MCP **Heading** selection.
8. Refine MCP **Altitude** selection.

Approaching Level Off Altitude:

- Reduce MCP Speed to LRC/300 Knots (away from VMO)
- Stow Speedbrake smoothly to avoid overspeed

PM Flow – Further Consideraitons

PM flow should include considerations of:

- Engine Anti-Ice for the Descent
- Transponder 7700, TCAS Below

ENGINE LIMIT OR SURGE OR STALL

Condition : One or more of these occur:

- Engine indications are abnormal
- Engine indications are rapidly approaching or exceeding limits
- Abnormal engine noises are heard, possibly with airframe vibration
- There is no response to thrust lever movement or the response is abnormal
- Flames in the engine inlet or exhaust are reported.

Objective : To attempt to recover normal engine operation or shut down the engine if recovery is not possible.

1 Autothrottle (if engaged) ..... Disengage

2 Thrust lever (affected engine) … Confirm … Retard until engine indication stay within limits or the thrust lever is closed

START VALVE OPEN

START VALVE OPEN

Condition : The START VALVE OPEN alert indicates the start valve fails to close.

1 ENGINE START switch ..... OFF/AUTO

2 Choose one:

- START VALVE OPEN alert **extinguishes**:

  ■ ■ ■ ■

- START VALVE OPEN alert **stays illuminated**:

  ▶▶ *Checklist removes bleed air until* The *engine start valve closes.*

  ■ ■ ■ ■

LOSS OF THRUST ON BOTH ENGINES

Condition : Both of these occur:

- Both engines have a loss of thrust
- Both ENG FAIL alerts show

Objective : To restart at least one engine.

1 ENGINE START switches (*both*) ..... FLT

2 Engine start levers (*both*) ..... CUTOFF

3 **When** EGT decreases:

Engine start lever (*affected engine*) ... Confirm .....CUTOFF, then IDLE detent

4 **If** EGT reaches a redline or there is no increase in EGT within 30 seconds:

Engine start lever (*affected engine*) ... Confirm .....CUTOFF, then IDLE detent

If EGT reaches a redline or there is no increase in EGT within 30 seconds, repeat as needed:

Further Considerations:

- Above FL270 : Airspeed 275 knots.
- Below FL270 : Airspeed 300 knots
- Do **not** wait for successful engine start before starting APU

AIRSPEED UNRELIABLE

Condition : Airspeed or Mach indications are suspected to be unreliable.

Objective : To identify a reliable airspeed indication, if possible, or to use the Flight With Unreliable Airspeed table in the Performance Inflight chapter for the remainder of the flight.

1 Autopilot (*if engaged*) ..... Disengage

2 Autothrottle (*if engaged*) ..... Disengage

3 F/D switches (*both*).....OFF

4 Set the following gear up pitch attitude and thrust:

Flaps extended..... 10° and 80% N1

Flaps up..... 4° and 75% N1

RUNAWAY STABILIZER

Condition : Uncommanded stabilizer trim movement occurs continuously or in a manner not appropriate for flight conditions.

1 Control column ..... Hold firmly

2 Autopilot (*if engaged*) ..... Disengage

3 Autothrottle (*if engaged*) ..... Disengage

4 Control column and thrust levers ..... Control airplane pitch attitude and airspeed

5 Main electric Stabilizer trim .....Reduce control column forces

6 **If** the runaway **stops** after the autopilot is disengaged:

Do **not** re-engage the autopilot or autothrottle.

■ ■ ■ ■

7 **If** the runaway **continues** after the autopilot is disengaged:

STAB TRIM cutout switches (*both*) ..... CUTOUT

If the runaway **continues**:

Stabilizer trim wheel ..... Grasp and hold

– –

ABORTED ENGINE START

Condition : **On the ground, an aborted engine start is needed.**

Objective : To shut down the engine and motor it

1 Engine start lever (*affected engine*) .....CUTOFF

2 Choose one:

◆ ENGINE START switch is in **GRD**:

Motor engine for 60 seconds.

ENGINE START switch (*affected engine*) .... OFF

■ ■ ■ ■

◆ ENGINE START switch is in **OFF/AUTO**:

▶ ▶ **Go to step 3**

3 **After** N2 decreases below 20%:

ENGINE START switch (*affected engine*) ..... GRD

Motor the engine for 60 seconds.

ENGINE START switch (*affected engine*) . OFF/AUTO

■ ■ ■ ■

ENGINE FIRE
or ENGINE SEVERE DAMAGE OR SEPARATION

Condition : One or more of these occur:

- Engine fire warning
- Airframe vibrations with abnormal engine indications
- Engine separation

1 Autothrottle (*if engaged*) ..... Disengage

2 Thrust lever (*affected engine*) ... Confirm ..... Close

3 Engine start lever (*affected engine*) ... Confirm ..CUTOFF

4 Engine fire switch (*affected engine*) ... Confirm.....Pull

To manually unlock the engine fire switch, press the override and pull.

5 **If** the engine fire switch or ENG OVERHEAT light stays illuminated:

Engine fire switch..... Rotate to the stop and hold for 1 second

If after 30 seconds the engine fire switch or ENG OVERHEAT light stays illuminated:

Engine fire switch ..... Rotate to the other stop and hold for 1 second

ENGINE TAILPIPE FIRE

Condition : **An engine tailpipe fire occurs on the ground with no engine fire warning.**

1 Engine start lever (affected engine) ....CUTOFF

2 Advise the cabin

3 Choose one:

◆ Bleed air is **available**:

▶▶ *Checklist motors engine until the tailpipe fire is extinguished.*

■ ■ ■ ■

◆ Bleed air is **not** available

Advise ATC.

■ ■ ■ ■

ABORTED ENGINE START

Condition : **On the ground, an aborted engine start is needed**

Objective : To shut down the engine and motor it

1 Engine start lever (affected engine) ..... CUTOFF

– –

APU FIRE

Condition : Fire is detected in the APU

1 APU fire switch … Confirm .....Pull, rotate to the stop, and hold for 1 second

3 APU switch..... OFF

LANDING CONFIGURATION

Condition : In flight, the steady warning horn sounds.

1 Assure correct airplane landing configuration

RUNAWAY STABILIZER

Condition : Uncommanded stabilizer trim movement occurs continuously or in a manner not appropriate for flight conditions.

1 Control column ..... Hold firmly

2 Autopilot (*if engaged*) ..... Disengage

3 Autothrottle (*if engaged*) ..... Disengage

4 Control column and thrust levers .... Control airplane pitch attitude and airspeed

5 Main electric Stabilizer trim . Reduce control column forces

6 **If** the runaway **stops** after the autopilot is disengaged:

Do **not** re-engage the autopilot or autothrottle.

■ ■ ■ ■

7 **If** the runaway **continues** after the autopilot is disengaged:

STAB TRIM cutout switches (*both*) ..... CUTOUT

If the runaway **continues**:

Stabilizer trim wheel .....Grasp and hold

– –

WARNING HORN (INTERMITTENT)
or
WARNING LIGHT – CABIN ALTITUDE OR TAKEOFF CONFIGURATION

Left Forward Panel **Right Forward Panel**

TAKEOFF CONFIG	CABIN ALTITUDE	CABIN ALTITUDE	TAKEOFF CONFIG

Condition : One of these occurs:

- In flight, at an airplane flight altitude above 10,000 ft MSL, the intermittent warning horn sounds, or a CABIN ALTITUDE light illuminates.
- On the ground, the intermittent warning horn sounds or a TAKEOFF CONFIG light illuminates when advancing the thrust levers to takeoff thrust.

1 If the intermittent warning horn sounds or a **CABIN ALTITUDE** light illuminates in flight at an airplane flight altitude above 10,000 feet MSL:

Don the oxygen masks and set the regulators to 100%

Establish crew communications

▶ ▶ **Go to the CABIN ALTITUDE WARNING or Rapid Depressurization checklist**.

■ ■ ■ ■

2 If the intermittent warning horn sounds or a **TAKEOFF CONFIG** light illuminates **on the** ground when advancing the thrust levers to takeoff thrust:

Assure correct airplane configuration

– –

TAKEOFF CONFIG	TAKEOFF CONFIGURATION

Condition : On the ground, the intermittent cabin altitude/configuration warning horn sounds or a TAKEOFF CONFIG light (if installed and operative) illuminates when advancing the thrust levers to takeoff thrust.

1 Assure correct airplane landing configuration

Non-Normal Manoeuvres

APPROACH TO STALL OR STALL RECOVERY	
Pilot Flying	**Pilot Monitoring**
• **Initiate** the Recovery: - Hold the control column firmly - Disengage AP and A/T - Smoothly apply nose down elevator to reduce the angle of attack until buffet or stick shaker stops. - Nose down stabilizer trim may be needed. [1]	• Monitor altitude and airspeed. • Verify all needed actions have been done and call out any omissions. • Call out any trend toward terrain contact.
• **Continue** the Recovery: - Roll in the shortest direction to wings level if needed. [2] - Retract the Speedbrakes. - Do not change gear or flap configuration, except: ▪ During liftoff, if the flaps are Up, call for Flaps 1.	• Monitor altitude and airspeed. • Verify all needed actions have been done and call out any omissions. • Call out any trend toward terrain contact. • Set the FLAP lever as directed
• **Complete** the Recovery: - Check airspeed and adjust thrust as needed. - Establish Pitch Attitude. - Return to the desired flight path. • Re-engage the AP and A/T if desired.	• Monitor altitude and airspeed. • Verify all needed actions have been done and call out any omissions. • Call out any trend toward terrain contact. • Set the FLAP lever as directed

1. If the control column does not provide the needed response, stabilizer trim may be needed. Excessive use of pitch trim can aggravate the condition, or can result in loss of control or in high structural loads.
2. Excessive use of pitch trim or rudder can aggravate the condition, or can result in loss of control or in high structural loads.

Notes/Techniques:

- Recover from Approach to Stall as if the Stall has occurred.
- Immediate recovery at the first indication of Stall (Buffet/Stick Shaker).
- Do not use Flight Director commands during the recovery.
- Aim for a Pitch Rate of 2.5°/sec, keeping 2.5° away from the PLIU's, towards an initial pitch attitude of 2.5°.
- As the Pitch Attitude lowers to 10° (un-stalled) this is a reasonable time to roll wings level.

UPSET RECOVERY

Pilot Flying	Pilot Monitoring
• Recognise and confirm the developing situation – if necessary, Stall Recovery. • Disengage Autopilot & Autothrottle	
Nose High Recovery • Disengage Autopilot & Autothrottle • **Recover**: - Apply as much nose-down elevator as needed to obtain a nose down pitch rate. - Apply appropriate nose down stabilizer trim [1] - Reduce thrust [2] - Roll (adjust bank angle) to obtain a nose down pitch rate [1] • **Complete the Recovery**: - When approaching the horizon, roll to wings level - Check airspeed and adjust thrust - Establish pitch attitude.	• **Call Out** attitude, airspeed and altitude throughout the recovery. • **Verify** all needed actions have been done and call out any continued deviation.
Nose Low Recovery • **Recover**: (Recover from Stall, if needed) - Roll in the shortest direction to wings level. - If bank angle is more than 90°, unload and roll [1] • **Complete the Recovery**: - Apply nose up elevator - Apply nose up trim, if needed [1] - Adjust thrust and drag (Speedbrake, Gear), if needed	

1. Excessive use of pitch trim or rudder can aggravate an upset, result in loss of control or result in high structural loads.
2. Thrust reduction here typically refers requiring a thrust reduction to generate a nose down pitching moment.

Notes/Techniques:

- Upset Condition is any time an aircraft is diverting from the intended airplane state. Traditional Values are Pitch +25°/-10°; Bank >45°; Inappropriate Airspeed.
- Aim for a Pitch Rate of 2.5°/sec, keeping 2.5° away from the PLIU's, towards an initial pitch attitude of 2.5°.
- For Nose High - as the Pitch Attitude lowers to 10° (un-stalled) this is a reasonable time to roll wings level.

BREAKOUT PROCEDURE

Pilot Flying	Pilot Monitoring
• Disengage Autopilot (leave A/T engaged) - Consider turning to assigned Heading & commencing Climb/Descent to assigned Altitude.	• Set Breakout Heading. • Set Breakout Altitude. • Cycle both Flight Directors OFF … ON
• Call "**Engage Heading Select**" and turn to assigned heading. • Call "**Engage Level Change**"	• Action PF mode changes. • Read back Heading Altitude breakout instructions to ATC
• Continue to fly the breakout procedure and configure the aircraft as needed. • TO/GA can be used if appropriate.	• Configure the aircraft as directed by the PF • Monitor airplane heading, speed and altitude.
• The Autopilot is available once the aircraft is established on the breakout heading.	

Notes/Techniques:

- The Heading and Altitude changes should be commenced immediately.
- Using TO/GA to turn the Breakout into a Go-Around will disconnect the AP and revert the lateral mode to HDG SEL into LNAV (or TO/GA).

WINDSHEAR CAUTION/WARNING AND WINDSHEAR ESCAPE

Precautions		**Takeoff :**	• Maximum Rated Thrust; Flaps 5/10/15; Increased VR (+20) as available • Longest Runway away from Windshear – or … Don't Take-off!
		Approach :	• Flap 30; Approach with Electronic Glidepath • Most suitable runway away from reported Windshear
WINDSHEAR CAUTION			**MONITOR RADAR DISPLAY** **- Manoeuvre as needed to avoid the Windshear.**
WINDSHEAR WARNING	Takeoff	**Pilot Detected :**	Lack of Acceleration; Shift in IAS/GS. - (very) Prior to V1 ⇨ Reject. - (near) After V1 ⇨ **Windshear Escape Manoeuvre**
		Predictive :	**WINDSHEAR AHEAD, WINDSHEAR AHEAD** - Prior to V1 ⇨ Reject. - After V1 ⇨ Perform the **Windshear Escape Manoeuvre**
	Approach	**Pilot Detected :**	Unacceptable flight path deviations from normal steady state flight conditions below 1,000 ft AAL Speed ± 15 kts VS ± 500 fpm Pitch ± 5° ± 1 dot G/S - unusual thrust lever position for a significant period of time. - "**Windshear TO/GA**" ⇨ Windshear Escape Manoeuvre
		Reactive :	(Two-Tone) & **WINDSHEAR WINDSHEAR WINDSHEAR** - "**Windshear TO/GA**" ⇨ Windshear Escape Manoeuvre
		Predictive :	**GO-AROUND WINDSHEAR AHEAD** - "**Windshear TO/GA**" ⇨ Windshear Escape Manoeuvre; or - Normal Go-Around

WINDSHEAR ON TAKE-OFF

- If windshear is encountered before V1, there may not be sufficient runway remaining to stop if an RTO is initiated at V1. If there is insufficient runway to stop at VR (*or if slower - no later than 2,000ft/600m to the end of the Runway*), rotate at a normal rate toward a 15° pitch attitude.
- Ensure maximum thrust is set.

Captain : Call "**Windshear - Continue**" and set Maximum Thrust.
Pilot Flying : Once airborne, perform the Windshear Escape Manoeuvre.

WINDSHEAR ESCAPE MANOEUVRE (AFTER TAKEOFF OR ON APPROACH)

Pilot Flying		Pilot Monitoring
• Call "**Windshear TOGA**"		
Manual Flight	**Automatic Flight**	
• Disengage Autopilot • Push TO/GA Switch • Aggressively apply maximum thrust [1] • Disengage Autothrottle • Simultaneously Roll Wings Level, and Pitch towards 15° [2] • Retract Speedbrakes • Follow Flight Director TO/GA guidance (if available) [2]	• Push TO/GA Switch [3] • Verify TO/GA annunciation. • Verify N1 GA thrust. • Retract Speedbrakes • Monitor system performance [2]	• Verify Maximum/GA Thrust • Verify all needed actions have been completed and call any omissions • Advise ATC "**Windshear Escape**"
• Do not change gear/flap configuration until Windshear is no longer a factor. • Monitor vertical speed and altitude. • Do not attempt to regain lost airspeed until Windshear is no longer a factor.		• Monitor vertical speed and altitude. • Call out any trend toward terrain contact, descending flight path or significant airspeed changes.

Windshear Escape Recovery Procedure

• Set appropriate Pitch/Power settings and establish Performance. Eg : *Pitch 15°, N1 90%, After Take-off Climb Performance* • Call for MCP Altitude Selector setting. • Call for Flight Directors Cycle / ON (as required) • Call for Autothrottle switch … ARM (verify MCP Speed) • Call for Vertical (LVL CHG) and Lateral (HDG SEL) modes • Satisfy Flight Directors, Trim & engage Autopilot as required.	• Make appropriate selections at the direction of the PF • ATC Calls as appropriate

1. Maximum thrust can be obtained by advancing the thrust levers full forward if the EECs are in the normal mode. If terrain contact is imminent, advance thrust levers full forward.
2. Do not exceed the Pitch Limit Indicators (PLI).
3. Selecting TO/GA without Dual AP engagement (FLARE) disconnects the AP - revert to **Manual Flight Windshear Escape**.
4. WARNING : Severe windshear can exceed the performance of the AFDS. Be prepared to disengage the autopilot and autothrottle and fly manually.

Notes/Techniques:

- Aft control column force increases as the airspeed decreases. In all cases, the pitch attitude that results in intermittent stick shaker or initial buffet is the upper pitch attitude limit. Flight at intermittent stick shaker may be needed to obtain a positive terrain separation. Use smooth, steady controls to avoid a pitch attitude overshoot and stall
- Selecting TO/GA does not disarm LNAV or VNAV - be wary of automatic engagement after Take-off in Windshear.
- Be wary of excessive performance in the recovery, typically indications of positive windshear.

GPWS Alerts & Terrain Escape

TERRAIN CAUTION	**SINK RATE, TERRAIN, DON'T SINK, TOO LOW FLAPS/GEAR/TERRAIN, GLIDESLOPE, BANK ANGLE, AIRSPEED LOW, CAUTION TERRAIN/OBSTACLE** **- Correct the Flight Path, Aircraft Configuration or Airspeed.**
TERRAIN WARNING	**PULL UP, OBSTACLE OBSTACLE PULL UP**; other situations resulting in unacceptable flight towards terrain. - **Accomplish the Terrain Escape Manoeuvre**.

Terrain Escape Manoeuvre

Pilot Flying	Pilot Monitoring
• Disengage Autopilot & Autothrottle • Aggressively apply Maximum Thrust [1] • Simultaneously roll wings level and rotate to an initial pitch attitude of 20°. • Retract Speedbrakes. • If terrain remains a threat, continue rotation up to the pitch limit indicator (if available) or stick shaker or initial buffet.	• Assure maximum thrust. [1] • Verify all needed actions have been done and call out any omissions.
• Do not change gear or flap configuration until terrain separation is assured. • Monitor radio altimeter for sustained or increasing terrain separation. • When clear of terrain, slowly decrease pitch attitude and accelerate.	• Monitor vertical speed and altitude (radio altitude for terrain clearance and barometric altitude for a minimum safe altitude.) • Call out any trend toward terrain contact.

Terrain Escape Recovery Procedure

• Set appropriate Pitch/Power settings and establish Performance. Eg : *Pitch 15°, N1 90%, After Take-off Climb Performance* • Call for MCP Altitude Selector setting. • Call for Flight Directors Cycle / ON (as required) • Call for Autothrottle switch … ARM (verify MCP Speed) • Call for Vertical (LVL CHG) and Lateral (HDG SEL) modes • Satisfy Flight Directors, Trim & engage Autopilot as required.	• Make appropriate selections at the direction of the PF • ATC Calls as appropriate

1. Maximum thrust can be obtained by advancing the thrust levers full forward if the EECs are in the normal mode. If terrain contact is imminent, advance thrust levers full forward.

Notes/Techniques:

- CAUTION : If a terrain caution occurs when flying under daylight VMC, and positive visual verification is made that no obstacle or terrain hazard exists, the alert may be regarded as cautionary and the approach may be continued.
- WARNING : As above, however positive visual verification must be made **before** terrain/obstacle warning.
- Below Glideslope Deviation can be cancelled or inhibited for Localizer/Back Course; Circling from an ILS; when a deliberate below glideslope is required.
- Aft control column force increases as the airspeed decreases. In all cases, the pitch attitude that results in intermittent stick shaker or initial buffet is the upper pitch attitude limit. Flight at intermittent stick shaker may be needed to obtain a positive terrain separation. Use smooth, steady control to avoid a pitch attitude overshoot and stall.
- Do not use Flight Director commands.
- Be wary of excessive performance in the recovery, typically indications of positive windshear.

Civil Aviation Safety Regulations 1998 : 61 Pilot Licencing (Type Rating)

61.375 Limitations on exercise of privileges of pilot licences—ratings

(1) This regulation applies to the holder of a pilot licence.

(2) The holder is authorised to exercise the privileges of the licence in an aircraft of a particular category only if the holder also holds, as the associated aircraft category rating for the licence, the aircraft category rating for that category of aircraft.

Note: An aircraft category rating has effect only in conjunction with the licence for which it is granted. It does not authorise the exercise, in the aircraft category covered by the rating, of the privileges of any other licence held by the holder of the rating: see the definition of associated in regulation 61.010.

(3) The holder is authorised to exercise the privileges of the licence in an aircraft, other than an aircraft mentioned in subregulation (5), only if the holder also holds an appropriate aircraft class rating for the aircraft.

(4) For subregulation (3), either of the following is an appropriate aircraft class rating for an aeroplane in the single-engine aeroplane class:

(a) the single-engine aeroplane class rating;
(b) the multi-engine aeroplane class rating.

(5) The holder is authorised to exercise the privileges of the licence in:

(a) a multi-crew aircraft; or
(b) an aircraft:

(i) that is certificated for single-pilot operation; and
(ii) for which a single-pilot type rating is required by a legislative instrument under regulation 61.060;

only if the holder also holds the appropriate pilot type rating for the aircraft type.

(6) However, the holder is not required to hold the pilot type rating for the aircraft if:

(a) the person is acting as a cruise relief co-pilot for the aircraft; and
(b) the person holds a cruise relief co-pilot type rating for the aircraft type.

(7) The holder is authorised to conduct an activity mentioned in column 1 of an item in table 61.375 in the exercise of the privileges of the licence only if the holder also holds the rating mentioned in column 2 of the item.

(8) However:

(a) the holder of a multi-crew pilot licence with an aeroplane category rating is authorised, without holding an instrument rating, to pilot an aeroplane in a multi-crew operation:

(i) under the IFR; or
(ii) at night under the VFR; and

(b) the holder of an air transport pilot licence with an aeroplane category rating is authorised, without holding an instrument rating, to pilot an aeroplane:

(i) under the IFR; or
(ii) at night under the VFR; and

(c) the holder of an air transport pilot licence with a powered-lift category rating is authorised, without holding an instrument rating, to pilot a powered-lift aircraft:

(i) under the IFR; or
(ii) at night under the VFR.

Table 61.375 Activities for which ratings are required		
Item	**Column 1 : Activity**	**Column 2 : Rating**
1	An operation under the IFR, other than an operation mentioned in item 2	Instrument rating
2	A private operation under the IFR	Either: (a) instrument rating; or (b) private instrument rating
3	An operation at night under the VFR	Either: (a) night VFR rating; or (b) instrument rating
4	An operation at night using a night vision imaging system	Night vision imaging system rating
5	A low-level operation	Either: (a) low-level rating; or (b) aerial application rating
6	An aerial application operation below 500 ft AGL	Aerial application rating
7	An activity mentioned in paragraph 61.1165(a), (c), (d), (e) or (f) in an aircraft	Flight instructor rating
8	An activity mentioned in paragraph 61.1165(g), (h) or (i)	Either: (a) flight instructor rating; or (b) simulator instructor rating
9	An activity mentioned in paragraph 61.1190(a), (c), (d), (e) or (f) in a flight simulation training device	Flight examiner rating

61.395 Limitations on exercise of privileges of pilot licences—recent experience for certain passenger flight activities

(1) The holder of a pilot licence is authorised to pilot, during take-off or landing, an aircraft of a particular category carrying a passenger by day only if the holder has, within the previous 90 days, in an aircraft of that category or an approved flight simulator for the purpose, conducted, by day or night:

(a) at least 3 take-offs; and
(b) at least 3 landings;

while controlling the aircraft or flight simulator.

(2) The holder of a pilot licence is authorised to pilot, during take-off or landing, an aircraft of a particular category carrying a passenger at night only if the holder has, within the previous 90 days, in an aircraft of that category or an approved flight simulator for the purpose, conducted, at night:

(a) at least 3 take-offs; and
(b) at least 3 landings;

while controlling the aircraft or flight simulator.

(3) For paragraphs (1)(a) and (2)(a), each take-off must be followed by a climb to at least 500 ft AGL.

(4) The holder is taken to meet the requirements of subregulation (1) if:

(a) within the previous 90 days, in an aircraft of that category or an approved flight simulator for the purpose, the holder has:

(i) successfully completed a relevant check or review; or
(ii) passed a flight test for a pilot licence or a rating on a pilot licence;

that includes at least one take-off and at least one landing; or

(b) both:

(i) the holder is successfully participating in an operator's training and checking system for an operation in an aircraft of that category; and
(ii) the operator holds an approval under regulation 61.040 for the system for this subregulation and operations in aircraft of that category.

(5) Also, the holder is taken to meet the requirements of subregulation (2) if:

(a) within the previous 90 days, in an aircraft of that category or an approved flight simulator for the purpose, the holder has:

(i) successfully completed a relevant check or review; or
(ii) passed a flight test for a pilot licence or a rating on a pilot licence;

that includes at least one take-off, and at least one landing, at night; or

(b) both:

(i) the holder is successfully participating in an operator's training and checking system for an operation at night in an aircraft of that category; and
(ii) the operator holds an approval under regulation 61.040 for the system for this subregulation and operations in aircraft of that category.

(6) In this regulation:

relevant check or review means any of the following:

(a) an instrument proficiency check;
(b) a night vision imaging system proficiency check;
(c) an instructor proficiency check;
(d) an operator proficiency check;
(e) a flight review.

61.400 Limitations on exercise of privileges of pilot licences—flight review

(1) For this Part, successful completion of a flight review for a rating on a pilot licence requires demonstration, to a person mentioned in subregulation (2), that the holder of the rating is competent in each unit of competency mentioned in the Part 61 Manual of Standards for the rating.

(2) For subregulation (1), the persons are as follows:

(a) CASA;
(b) the holder of an approval under regulation 61.040 for this regulation;
(c) a pilot instructor who is authorised to conduct a flight review for the rating.

(3) The flight review must be conducted in:

(a) an aircraft that can be flown under the rating; or
(b) an approved flight simulator for the flight review.

61.770 Privileges of pilot type ratings

Subject to Subpart 61.E and regulations 61.775 to 61.805, the holder of a pilot licence and a pilot type rating is authorised to exercise the privileges of the licence in an aircraft of the type covered by the rating.

Note 1: Subpart 61.E sets out certain limitations that apply to all pilot licences, and ratings and endorsements on pilot licences.

Note 2: The aircraft types for which pilot type ratings may be granted are set out in legislative instruments under regulations 61.055 (multi-crew aircraft) and 61.060 (single-pilot aircraft).

61.775 Limitations on exercise of privileges of pilot type ratings—flight test in flight simulator

(1) This regulation applies to the holder of a pilot type rating for a type rated aircraft that is a multi-engine turbine-powered aircraft if the holder passed the flight test for the rating in a flight simulator.

(2) The holder is authorised to exercise the privileges of the rating as pilot in command only if the holder has at least 25 hours of flight time as pilot of an aircraft covered by the rating.

(3) The holder is taken to meet the requirements of subregulation (2) if the holder has:

(a) for a type rating for a turbojet-powered aeroplane:

(i) at least 1 000 hours of flight time as pilot of a turbojet-powered aeroplane; or
(ii) at least 2 000 hours of flight time, including at least 500 hours of flight time as pilot of a turbojet-powered aeroplane; or

(b) for a type rating for a turboprop-powered aeroplane:

(i) at least 1 000 hours of flight time as pilot of a turboprop-powered aeroplane; or
(ii) at least 2 000 hours of flight time, including at least 500 hours of flight time as pilot of a turboprop-powered aeroplane; or

(c) for a type rating for a turbine-powered helicopter:

(i) at least 1 000 hours of flight time as pilot of a turbine-powered helicopter; or
(ii) at least 2 000 hours of flight time, including at least 500 hours of flight time as pilot of a turbine-powered helicopter; or

(d) for a type rating for a powered-lift aircraft:

(i) at least 1 000 hours of flight time as pilot of a multi-engine turbine-powered helicopter or powered-lift aircraft; or
(ii) at least 2 000 hours of flight time, including at least 500 hours of flight time as pilot of a multi-engine turbine-powered helicopter or powered-lift aircraft.

61.780 Limitations on exercise of privileges of pilot type ratings—variants

(1) This regulation applies if:

(a) the holder of a pilot type rating passed the flight test for the rating in:

(i) an aircraft model covered by the rating (the first variant); or
(ii) an approved flight simulator for the first variant; and

(b) differences training is required by a legislative instrument under regulation 61.055 or 61.060 for another aircraft model covered by the rating (the second variant).

(2) The holder is authorised to exercise the privileges of the rating in an aircraft of the second variant only if the holder has completed the differences training for the second variant.

61.785 Limitations on exercise of privileges of pilot type ratings—single-pilot operation and multi-crew operation

(1) On and after 1 September 2015, the holder of a single-pilot type rating is authorised to exercise the privileges of the rating in a multi-crew operation only if:

(a) the holder also holds a multi-crew type rating; or
(b) the holder has completed an approved course of training in multi-crew cooperation.

(2) The holder of a multi-crew type rating is authorised to exercise the privileges of the rating only in a multi-crew operation.

61.790 Limitations on exercise of privileges of pilot type ratings—IFR operation

The holder of a pilot type rating is authorised to pilot an aircraft under the IFR only if:

(a) the flight test for the rating is conducted under the IFR; or

(b) the holder has completed an instrument proficiency check in an aircraft covered by the rating.

61.795 Limitations on exercise of privileges of pilot type ratings—recent experience on aircraft models

The holder of a pilot type rating is authorised to exercise the privileges of the rating in an aircraft model covered by the rating only if:

(a) within the previous 24 months, the holder has:

(i) exercised the privileges of the rating in the aircraft model; or
(ii) passed the flight test for the rating in the aircraft model; or
(iii) successfully completed a flight review in the aircraft model; or
(iv) if differences training is required by an instrument under regulation 61.055 or 61.060 for the aircraft model—completed the differences training; or

(b) both:

(i) the holder is successfully participating in an operator's training and checking system for an operation in the aircraft model; and
(ii) the operator holds an approval under regulation 61.040 for the system for this regulation and operations in that aircraft model.

61.800 Limitations on exercise of privileges of pilot type ratings—flight review

(1) The holder of a pilot type rating is authorised to exercise the privileges of the rating as the pilot in command of an aircraft only if the holder has a valid flight review for the rating.

(2) For subregulation (1), the holder has a valid flight review for the rating during the period beginning when the holder successfully completes a flight review for the rating in accordance with subregulation (3) and ending:

(a) at the end of the 24th month after the month in which the holder completes the review; or
(b) if:

(i) the holder already has a valid flight review for the rating (the previous flight review) when the holder successfully completes the flight review; and
(ii) the validity of the previous flight review is due to expire within 3 months after the holder successfully complete the flight review;

at the end of the 24th month after the validity of the previous flight review expires.

(3) For subregulation (2), the flight review must be conducted in:

(a) if the aircraft covered by the rating is a type of single-engine helicopter prescribed by an instrument under regulation 61.063:

(i) a helicopter of the type covered by the rating; or
(ii) an approved flight simulator for that type of helicopter; or
(iii) a type of single-engine helicopter prescribed by the instrument as equivalent to the type covered by the rating; or
(iv) an approved flight simulator for that type of helicopter; or

(b) in any other case:

(i) an aircraft of the type covered by the rating; or
(ii) an approved flight simulator for that type of aircraft.

(4) For subregulation (2), the holder is taken to have successfully completed a flight review for the rating if the holder:

(a) passes the flight test for the rating; or
(b) passes the flight test for an operational rating in an aircraft of the class covered by the type rating; or
(c) completes flight training for a design feature endorsement in an aircraft of the class covered by the type rating; or
(d) successfully completes:

(i) an operator proficiency check that covers operations in the type; or
(ii) a proficiency check mentioned in subregulation (5) in an aircraft of the type or an approved flight simulation training device for the purpose.

(5) For subparagraph (4)(d)(ii), the proficiency checks are as follows:

(a) an instrument proficiency check;
(b) a night vision imaging system proficiency check;
(c) an aerial application proficiency check;
(d) an instructor proficiency check;
(e) an examiner proficiency check.

(6) For subregulation (1), the holder is taken to have a valid flight review for the rating if:

(a) the holder is successfully participating in an operator's training and checking system for an operation in an aircraft of the type covered by the rating; and
(b) the operator holds an approval under regulation 61.040 for the system for this subregulation and operations in aircraft of that type.

Note: For general rules in relation to flight reviews, see regulation 61.400.

61.805 Limitations on exercise of privileges of pilot type ratings—instrument proficiency check

(1) The holder of a pilot type rating is authorised to exercise the privileges of the rating under the IFR only if the holder has a valid instrument proficiency check for the aircraft type covered by the rating.

(2) Subject to subregulations (4) and (4B), for subregulation (1), the holder is taken to have a valid instrument proficiency check for an aircraft type, other than a single-pilot turbojet aeroplane type, during the following periods:

(a) if the holder passes the flight test for an instrument rating, private IFR rating, multi-crew pilot licence or air transport pilot licence in an aircraft of that type—the period from when the holder passes the flight test to the end of the 24th month after the month in which the holder passes the flight test;

(aa) if the holder passes the flight test for the pilot type rating in an aircraft under the IFR—the period from when the holder passes the flight test to the end of the 24th month after the month in which the holder passes the flight test;

(b) if:

(i) the holder passes the flight test for an instrument endorsement in an aircraft of that type; and
(ii) the flight test is conducted more than 6 months after the holder passes the flight test for the rating;

the period from when the holder passes the flight test for the endorsement to the end of the 24th month after the month in which the holder passes the flight test for the endorsement;

(c) if the holder successfully completes an operator proficiency check that covers IFR operations in an aircraft of that type, and that is conducted by a flight examiner who holds an instrument rating flight test endorsement—the period from when the holder successfully completes the check to the end of the 24th month after the month in which the holder successfully completes the check;

(d) if:

(i) the holder is successfully participating in an operator's training and checking system for an IFR operation in an aircraft of that type; and
(ii) the operator holds an approval under regulation 61.040 for the system for this subregulation and operations in aircraft of that type;

the period during which the holder is successfully participating in the system;

(e) if the holder successfully completes an instrument proficiency check for the aircraft type—the period from when the holder successfully completes the check to the end of the 24th month after the month in which the holder successfully completes the check;

(f) if:

(i) the holder is taken to have a valid instrument proficiency check under any of paragraphs (a) to (e) for the aircraft type (the existing check); and
(ii) within 3 months before the validity of the existing check expires, the holder successfully completes an instrument proficiency check for the aircraft type;

the period from when the validity of the existing check expires to the end of the 24th month after the validity of the existing check expires.

(3) Subject to subregulations (4) and (4B), for subregulation (1), the holder is taken to have a valid instrument proficiency check for a single-pilot turbojet aeroplane type during the following periods:

(a) if the holder passes the flight test for the instrument rating or private IFR rating that is conducted as a single-pilot operation in an aircraft of that type—the period from when the holder passes the flight test to the end of the 12th month after the month in which the holder passes the flight test;

(b) if:

(i) the holder passes the flight test for an instrument endorsement in an aircraft of that type; and
(ii) the flight test is conducted more than 6 months after the holder passes the flight test for the rating;

the period from when the holder passes the flight test for the endorsement to the end of the 12th month after the month in which the holder passes the flight test for the endorsement;

(c) if the holder successfully completes an operator proficiency check that covers IFR operations in an aircraft of that type, and that is conducted by a flight examiner who holds an instrument rating flight test endorsement—the period from when the holder successfully completes the check to the end of the 12th month after the month in which the holder successfully completes the check;

(d) if:

(i) the holder is successfully participating in an operator's training and checking system for an IFR operation in an aircraft of that type; and

(ii) the operator holds an approval under regulation 61.040 for the system for this subregulation and operations in aircraft of that type;

the period during which the holder is successfully participating in the system;

(e) if the holder successfully completes an instrument proficiency check for the aircraft type—the period from when the holder successfully completes the check to the end of the 12th month after the month in which the holder successfully completes the check;

(f) if:

(i) the holder is taken to have a valid instrument proficiency check under any of paragraphs (a) to (e) for the aircraft type (the existing check); and

(ii) within 3 months before the validity of the existing check expires, the holder successfully completes an instrument proficiency check for the aircraft type;

the period from when the validity of the existing check expires to the end of the 12th month after the validity of the existing check expires.

(4) If, at any time, the holder attempts, but does not successfully complete, an instrument proficiency check mentioned in subregulation (4A) (the failed check), the holder is no longer taken to have a valid instrument proficiency check for a type of aircraft belonging to the aircraft category in which the holder attempted the failed check.

(4A) For subregulation (4), the failed check may be any of the following:

(a) an instrument proficiency check for an aircraft category;
(b) an instrument proficiency check for multi-engine aeroplanes or helicopters;
(c) an instrument proficiency check for an aircraft type.

(4B) If the holder is taken to have a valid instrument proficiency check for the aircraft type only because of the holder's participation in an operator's training and checking system, the check is taken to be valid only for operations conducted by the operator.

(5) For paragraphs (2)(e) and (f) and (3)(e) and (f), the holder successfully completes an instrument proficiency check for the relevant aircraft if:

(a) CASA or a flight examiner:

(i) assesses the holder's competency to conduct operations under the IFR in a relevant aircraft as meeting the standards mentioned in the Part 61 Manual of Standards for an instrument proficiency check in the relevant aircraft; and

(ii) endorses the holder's licence document to the effect that the holder has completed the instrument proficiency check; and

(iii) includes in the endorsement the matters mentioned in subregulation (8); or

(b) a person mentioned in subregulation (7) assesses the holder as competent to conduct operations under the IFR in a relevant aircraft, and CASA or a flight examiner:

(i) conducts an oral assessment of the holder's knowledge of IFR operation procedures to the standards mentioned in the Part 61 Manual of Standards for an instrument proficiency check; and

(ii) endorses the holder's licence document to the effect that the holder has completed the instrument proficiency check; and

(iii) includes in the endorsement the matters mentioned in subregulation (8).

(6) For paragraphs (2)(e) and (f) and (3)(e) and (f), the instrument proficiency check must be conducted in a relevant aircraft or an approved flight simulation training device for the proficiency check.

(7) For paragraph (5)(b), the person is the holder of an approval under regulation 61.040 to conduct the proficiency check.

(8) For subparagraphs (5)(a)(iii) and (b)(iii), the matters are:

(a) the date on which the instrument proficiency check is conducted; and
(b) the aircraft type to which the instrument proficiency check relates.

(1) This regulation applies to an applicant for a pilot type rating if the applicant is not taken to meet the requirements for the grant of the rating under regulation 61.815 or 61.820.

(2) The applicant must hold:

(a) a pilot licence; and

(b) an aircraft category rating for the category of aircraft that includes aircraft of the type covered by the pilot type rating.

Note: Subregulation (2) is satisfied, in relation to a licence or rating, if the applicant holds a certificate of validation of an overseas flight crew licence, rating or endorsement that is equivalent to the licence or rating: see item 36 of Part 2 of the Dictionary.

(3) The applicant must also have:

(a) completed an approved course of training for the rating that includes:

(i) theory and technical training; and
(ii) flight training in accordance with the approved course, consisting of:

(A) dual flight in an aircraft of the type covered by the rating; or
(B) dual simulated flight in an approved flight simulator for the training; and

(b) passed an examination, conducted by the operator or organisation that conducted the training mentioned in paragraph (a), testing the applicant's aeronautical knowledge against the standards mentioned in the Part 61 Manual of Standards for the rating; and
(c) passed the flight test mentioned in the Part 61 Manual of Standards for the rating.

Note 1: For paragraph (a), for the requirements for an approved course of training, see Division 61.B.2.
Note 2: For paragraph (c), for the conduct of flight tests, see Division 61.B.4.

(4) For paragraph (3)(a), the approved course of training must be conducted by:

(a) a Part 141 or 142 operator that is authorised under Part 141 or 142 to conduct the course; or
(b) the holder of an approval under regulation 141.035 or 142.040 to conduct the training.