PC Check-Ride Techniques

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Steep Turns Procedural Technique

Configuration: Level flight 280Kts. (Turn 180 degrees left or right then 180 degrees back the other direction)

Consideration: Bank Angle: 45 degrees. Initiate *turn slowly and smoothly*, no yanking and banking.

- Maintain: 5 Degrees pitch up
- Thrust: Slight increase to maintain speed
- Lead the rollout by 20 degrees
- Apply nose down to: approx. 2-3 degrees
- Consider using both hands on the yoke for more stability when turning
- Reduce thrust slightly while continuing roll in opposite direction
- Add thrust back to original setting

Rejected Takeoff Procedural Technique

Configuration: Master Caution / Master Warning / E.O. etc. ***before*** V1 during Takeoff roll (HIGH speed)

Recognition: Master Caution / Master Warning / Eng. Failure / Unsafe to fly

1. Recognition: Captain Callout "Reject…. I have the Aircraft"
2. *Close* thrust levers
    a. Disconnect: Auto-throttles (Below 80Kts)
    b. Verify: RTO operation and or *Max* braking / verify A/C decelerating
3. *Apply max reverse* thrust all Engines (If Engine Failure; on symmetrical engines only)
4. Extend speed brakes (If it did not automatically deploy) (FO) **Verifies** Items #1-#4 has occurred.
5. Notify ATC " flight number --- rejecting takeoff on R/W request the men and equipment"
6. PA: Announce:
    a. "Cabin crew to stations"
    b. "Please remain seated / remain seated"
7. Assess the problem.
8. STOP the aircraft on the R/W. ---- Don't set parking brake…
9. *Accomplish* the appropriate checklist.
10. Decide if EVAC is necessary and notify FA. (Consider pax exiting / wind issues?)
11. Break energy chart: Consult Volume 1. --- (Fuse plug issue?)
12. Contact and coordinate efforts with emergency crews. (Consider remote parking)

Note: Only consider exiting the R/W after EVAC decision and emergency equipment assessment of the aircraft has been completed.

Engine Fire / Severe Damage / E.O. Procedural Technique

Configuration: Engine Fire / Sev. Damage / E.O. after V1 during Takeoff roll

Recognition: Master warning, yaw, displacement of runway centerline (after V1 call)

1. Maintain aircraft track (rudder control / ailerons: keep <u>*wings*</u> level) --- *Track / Wings level*
2. Apply slightly nose down (control yoke)
3. Parallel centerline of Runway only if deviation has occurred
4. Slowly rotate to: 12 Degrees pitch up (lag at 8 degrees is ok)
5. After positive climb (PF) call: "Gear up"
6. 250' "Autopilot to command"
7. 400' "Heading select" (MCP) --- <u>*Recognition*</u>: (EICAS double beep and failure display)
8. <u>**Navigate:**</u> Engine Failure Procedure commence (R/W heading or turn procedure)
9. <u>**Query non-flying pilot:**</u> "Engine Status" (PM) States engine status… (PF) Verifies
10. **(PF)** States: **"Confirmed"**
11. Notify ATC:
    a. "Tell them we have a: "Eng. fire / Eng. Sev. Damage / Eng. failure"
    b. We are: "proceeding straight ahead **OR** following our E/O on our engine failure procedure: (define briefly)
        i. We are: "declaring an emergency" and we will get back with them.
12. If Eng. Fire / Severe Damage: Call for appropriate checklist "Memory Items" approximately 1000' AGL (seizure / separation)
13. At E/O acceleration altitude (1.0K): Clean up aircraft to a flaps up / CON or CLM Thr. Ref. configuration.
14. After Aircraft is cleaned up: Call for the "*appropriate checklist*".
15. *After Takeoff checklist.*

<u>Considerations and inquiry:</u>

16. Contact ATC:
    a. Get current field conditions, runway in use. **"Asses and decide"**
    b. (PF) reference: Approach page (FMS) note: aircraft weight (Dump considerations)
17. Inquire: (PM) "Recall review and obtain landing assessment for our current weight."

<u>ATC Vector: - Crosswind / Downwind</u>:

18. (PF) States: "I have the aircraft and the radios"
19. (PF) states: (If **NOT** in LNAV i.e. vector) "Select R/W with a course fix intercept"
20. "Flaps: 25" (or "30")
21. "Auto brakes: 4"…. (Or as appropriate from landing assessment)
22. Notify: Lead Flight Attendant "TEST" / Company / ATC: "Men & Equip Standing by"
23. Positive transfer of aircraft: (Airspeed / Heading / Altitude)
    a. Brief Approach
    c. Call: "Descent checklist" and
    d. Call: "Approach checklist" (below transition altitude)

<u>Configure A/C according to Atlas procedures:</u>

Land or MAP procedure…

Two Engine Inoperative Procedural Technique

Configuration: MAP probably a fire on the second engine… / Two engines have failed:
Auto throttle is ***disconnected*** *after placing the fuel control switch to cutoff.*

Recognition: Warning indications & EICAS --- Note: aircraft may decelerate quickly

1. (PF) call: "Engine status"
2. (PM) Identify the engine and then cancel the Fire warning
3. (PM) State: Engine status….
4. (PF) Verifies and states: **"Confirmed"**
5. Select: MCP 1,500'- 2,000' (Situation dictates appropriate altitude)
6. "Declare an emergency notify ATC that we lost a 2nd Engine"
7. *Select:* Flight level change or VNAV (Aircraft will revert into SPD mode at ALT capture)
8. At level off altitude initiate: "Memory items" (depending on issue)
9. At Flap configuration desired (Flaps 5 or less) Call: "*Engine Fire Checklist* (or appropriate checklist)
10. Call: "*After Takeoff Checklist*"

*****Condition simulator environment:* Radar out / self vectoring / Visual

Contact ATC:

a. Get current field conditions, runway in use. "Asses and decide"

11. Inquire: (PM) "Recall review and obtain landing assessment for our current weight & condition."
12. Notify & Coordinate with ATC for an immediate return back to the airport.
13. Setup like a VNAV approach:
    a. Select: xxxx approach (ILS / RNAV / LOC / RW.) "Course Fix Intercept"
    b. Flaps 25 / Runway assessment
    c. Max breaking…

Downwind Leg:

14. *Call for and review:* "2 Engine inoperative checklist"

Base Leg:

15. LVSA procedure (LNAV / VNAV / SPD and MCP altitude) or (if visual req.) Extend the R/W
    Note: (R/W extension mark is 14.2 miles) Distance x 3 = 3 *to one* G/P (plus a few miles).
16. Select Flaps 5 ---- (If not selected already)

Final Leg:

17. Glide-path alive Call: "Flaps 10" / "set speed"
18. Glide-path Capture: "Gear Down Flaps 20" / "set speed"
19. Approaching 1,000 ft. AGL--- "Flaps 25" / "set speed", (PF) states: "Zero rudder trim".
20. (PF) Call: "*Landing checklist"*
21. Disengage autopilot and land.

Stall Recovery Techniques

Clean Configuration Stall & Recovery Procedural Flow (High Altitude)

Configuration: Autopilot: *engaged* / Gear is up / Flaps are up / Auto throttle: *Off* / Idle Thrust

****Heading select and altitude hold

After Recognition: Low Airspeed / Buffet or Stick shaker

1. Disconnect: *autopilot* and auto-throttle (if engaged)
2. Reduce pitch (a pitch below the horizon may be required)
3. Simultaneously add thrust and *verify* speed brake lever D.N.
4. Adjust trim as necessary
5. Once recovery speed obtained. (Leaving amber low speed tape and back to bug)
6. Level A/C off when safe to do so.
7. *Verify* altitude at recovery and notify ATC
8. Adjust MCP Altitude if necessary to recovery altitude
9. Flight level change: select
10. Adjust trim as necessary
11. Auto Pilot to: command
12. Reselect VNAV if required
13. Verify FMAs [Thrust / Roll / Pitch]

Clean Configuration Stall & Recovery Procedural Flow (Low Altitude)

Configuration: Autopilot: *Off* / Gear is up / Flaps are up / Auto throttle: *engaged*

****Level off Aircraft manually (Disengage autopilot) prior to reaching assigned altitude without reselecting MCP altitude

After Recognition: Low airspeed / Buffet or Stick shaker

1. Disconnect: autopilot and *auto-throttle*
2. Reduce pitch and the angle attack to un-stall the wing (whatever pitch attitude that is based on altitude, configuration and airspeed) Note: For training purposes avoid unnecessary high descent rates.)
3. Simultaneously add thrust as necessary and *verify* speed brake lever D.N.
4. Adjust trim as necessary
5. Once recovery speed obtained
6. *Verify* altitude at recovery and notify ATC
7. Adjust MCP Altitude to current altitude
8. Select FLCH or VNAV as required
9. Auto Pilot to: command
10. Verify FMAs [Thrust / Roll / Pitch]

Turning Base Leg Configuration & Stall Recovery Procedural Flow

Configuration: Autopilot: *engaged* / Gear is up / Flaps: 5 / Auto throttle: Off / Idle Thrust

**** Heading: Select / Altitude Hold: Give a turning vector

After Recognition: Low Airspeed, Buffet or Stick shaker

1. Disconnect: *autopilot* and auto-throttle (if engaged)
2. Reduce pitch / *level* wings.
3. Simultaneously add thrust and *verify* speed brake lever D.N.
4. Adjust trim as necessary
5. Once recovery speed obtained
6. Heading: select
7. *Verify* altitude at recovery and notify ATC if required
8. Adjust MCP Altitude if necessary
9. Flight level change or VNAV: select
10. Auto Pilot to: command
11. Verify FMAs [Thrust / Roll / Pitch]

Landing Configuration Stall & Recovery Procedural Flow

Configuration: Autopilot: *engaged* / Gear is D.N / Flaps: 30 / Auto throttle: Off / Thrust: 55%

**** Coupled ILS approach at 1,500 feet

After Recognition: Low Airspeed, Buffet or Stick shaker

1. Disconnect: *autopilot* and auto-throttle (if engaged)
2. Reduce pitch (keep pitch below "pitch limiter")
3. Simultaneously add thrust and *verify* speed brake lever D.N.
4. Adjust trim as necessary
5. Once recovery speed obtained (VREF)

6. Push: TOGA ---- Execute: Go-Around procedure-----
7. Call: "Go-around"
8. Call: "Flaps 20"
9. (PM) "Positive climb" (PF): "Gear up"
10. (PF) "Autopilot to command"
11. Select: LNAV (400')
12. Notify: ATC
13. Select: VNAV (1.0K)
14. Clean up aircraft on flaps "up" schedule

Departure Stall Configuration & Stall Recovery Procedural Flow

Configuration: Autopilot: *Off* / Gear is up / Flaps: 10-20 / Auto throttle: Off / Idle Thrust

**** Heading: Select / Give a turning vector / VS. 900 ft. per minute

After Recognition: Buffet or Stick shaker

1. Disconnect: *autopilot* and auto-throttle (if engaged)
2. Reduce pitch (keep pitch below the stall "pitch limiter") / *level* wings.
3. Simultaneously add thrust and *verify* speed brake lever D.N.
4. Adjust trim as necessary
5. Once recovery speed obtained

Return to departure clearance:

6. Heading select or LNAV (arm or engaged)
7. VNAV: Re-engage for flaps cleanup
8. Auto Pilot to: command
9. Verify FMAs [Thrust / Roll / Pitch]