

COMMUTER CATEGORY CONVERSION INCREASED MAXIMUM TAKEOFF WEIGHT

# **PILOT CHECK LISTS**

NORMAL PROCEDURES

EMERGENCY PROCEDURES

ABNORMAL PROCEDURES

FOR

KING AIR B200GT AIRPLANES WITH HIGH FLOTATION LANDING GEAR

AND

KING AIR B200 and B200C AIRPLANES WITH ROCKWELL COLLINS PROLINE 21 AVIONICS AND HIGH FLOTATION LANDING GEAR

MODIFIED IN ACCORDANCE WITH CENTEX AEROSPACE HALO 275 STC SA11103SC

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This document is an abbreviation of the check lists and procedures contained in Section 3 Emergency Procedures, Section 3A Abnormal Procedures, and Section 4 Normal Procedures of the FAA Approved Airplane Flight Manuals for King Air B200 series airplanes with Pro Line 21 Avionics and B200GT series airplanes. This document also merges the respective procedures from the CenTex Aerospace Halo 275 STC (SA11103SC) Commuter Category conversion and gross weight increase so the pilot operator has a single document to go to for combined procedures. These procedures are in abbreviated form so most explanatory items and some notes and cautions have been omitted for brevity. Consequently, users of this check list must be familiar with and operate the airplane in accordance with the applicable procedures contained in the FAA Approved basic Airplane Flight Manual and STC SA11103SC Airplane Flight Manual Supplement.

#### NOTES

Operators should add to these check lists any procedures from the applicable Airplane Flight Manual or Pilot's Operating Handbook and AFM Supplement(s) not already included in these check lists as required by 14 CFR 91.503.

Some checklist procedures will vary between aircraft with the "old" environmental system and aircraft with the new dual zone environmental system. Where applicable, the checklist procedures will be noted "old environmental system", or "new environmental system".

Old Environmental System: BB-1834, BB-1843 thru BB-1977, BB-1979 thru BB-1987 BL-148 thru BL-151

New Environmental System BB-1978, BB-1988 thru BB-2019 BL-152 thru BL-171 BY-1 thru BY-116, BY-118

These check lists apply to the following King Air 200 series airplanes with high flotation landing gear: B200 series airplanes with Pro Line 21 Avionics B200GT series airplanes

Current with AFMS 006-2A HW, Initial Release

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SUBJECT

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# NORMAL PROCEDURES PILOT CHECK LIST

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#### NOTE

SEE POH FOR EXPANDED AND OTHER PROCEDURES NOT CONTAINED IN THIS CHECKLIST.

All airspeeds quoted in this section are indicated airspeeds (IAS) and assume zero instrument error.

#### AIRSPEEDS FOR SAFE OPERATION

NORMAL PROCEDURES

PILOT CHECK LIST

Maximum Demonstrated Crosswind Component
Maximum Demonstrated Wind Components for Coupled Approaches
Crosswind 16 Knots
Tailwind 10 Knots
Takeoff - Flaps Up
Decision Speed, V <sub>1</sub> See TAKEOFF SPEEDS – FLAPS UP, NP-18
Rotation, V <sub>R</sub> See TAKEOFF SPEEDS – FLAPS UP, NP-18
Safety Speed, V2See TAKEOFF SPEEDS – FLAPS UP, NP-18
Enroute Climb, V <sub>ENR</sub> See TAKEOFF SPEEDS – FLAPS UP, NP-18
Takeoff - Flaps Approach
Decision Speed, V <sub>1</sub> See TAKEOFF SPEEDS – FLAPS APPROACH, NP-18
Rotation, V <sub>R</sub> See TAKEOFF SPEEDS – FLAP <mark>S APPRO</mark> ACH, NP-18
Safety Speed, V2See TAKEOFF SPEEDS – FLAPS APPROACH, NP-18
Enroute Climb, V <sub>ENR</sub> See TAKEOFF SPEEDS – FLAPS APPROACH, NP-18
Two-Engine Best Angle-of-Climb (V <sub>x</sub> ) 100 Knots
Two-Engine Best Rate-of-Climb (V <sub>Y</sub> ) 125 Knots
Cruise Climb:
Sea level to 10,000 feet 160 Knots
10,000 feet to 20,000 feet 140 Knots
20,000 feet to 25,000 feet 130 Knots
25,000 feet to 35,000 feet
Maximum Airspeed for Effective Windshield Anti-icing
Operating Maneuvering Speed (V <sub>o</sub> )
Turbulent Air Penetration
CAUTION

For turbulent air penetration, use an airspeed of 170 knots. Avoid over-action on power levers. Turn off autopilot altitude hold. Keep wings level, maintain attitude and avoid use of trim. Do not chase airspeed and altitude. Penetration should be at an altitude which provides adequate maneuvering margins when severe turbulence is encountered.

## Landing Approach:

Flaps Down	V <sub>REF</sub> , see LANDING SPEEDS, NP-24
Balked Landing Climb	V <sub>REF</sub> , see LANDING SPEEDS, NP-24
Intentional One-Engine-Inoperative Speed	(V <sub>SSE</sub> ) 104 Knots
Air Minimum Control Speed (V <sub>MCa</sub> )	
Hartzell propellers	
Raisbeck Hartzell STC SA2698NM-S,	Flaps Up 91 Knots
	Flaps Approach 88 Knots
BLR Hartzell STC SA02130SE,	Flaps Up 92 Knots
	Flaps Approach 87 Knots

#### PREFLIGHT INSPECTION

After the first flight of each day, the Preflight Inspection may be omitted except for items marked with a "+". Fuel tank caps, engine oil quantity, and filler cap need not be checked unless system(s) were serviced. External inspections with flaps down may be conducted at intervals deemed appropriate by the pilot.

CABIN/COCKPIT

- 1. Monogram Electric Toilet (If Installed) KNIFE VALVE OPEN
- + 2. Baggage SECURE
  - 3. Emergency Lighting Cabin Switch ON
  - 4. Emerg Cabin Light Control Switch ARM
  - 5. Emergency Cabin Flood Lamps CHECK (illuminated)
  - 6. Emergency Exit SECURE AND UNLOCKED
  - 7. Control Locks REMOVE AND STOWED
  - 8. Trim Tabs SET TO "0" UNITS

# CAUTION

The elevator trim system must not be forced past the limits which are indicated on the elevator trim indicator scale, either manually, electrically, or by action of the autopilot.

- 9. Condition Levers FUEL CUTOFF
- 10. Landing Gear Control DN
- 11. Parking Brake SET
- 12. Ignition and Engine Start ENSURE OFF
- 13. Battery ON, CHECK 23 VOLT MINIMUM
- 14. Emergency Cabin Flood Lamps CHECK (not illuminated)
- 15. Fuel Quantity (Main and Auxiliary) CHECK
- 16. Gear Down Annunciators ILLUMINATED
- 17. Flap Control (if desired) APPROACH, THEN DOWN (check indicator)
- 18. Airstair Door Warning Annunciator Circuitry CHECK
- 19. Oxygen System Preflight Inspection COMPLETE
- + 20. Battery OFF
  - 21. Emergency Lighting Cabin Switch OFF

22. Emergency Escape Path Markings – MUST BE UNCOVERED & VISIBLE

#### LEFT WING AND NACELLE

- 1. Cabin Door Seal, Step Extension Cable, Light Wire, Damper, and Handrails – CHECK
- 2. Cabin Windows CHECK
- + 3. Auxiliary Fuel Tank Cap SECURE
  - Flaps (condition, asymmetry protection and flap tracks) CHECK
     Oil Breather Vent CLEAR
- + 6. Brake Lines, Brake Wear, Brake Deice Lines (if installed) CHECK
   7. Fire Extinguisher CHECK PRESSURE

	FIRE	EXTING	UISHER	PRESSU	JRE VS.	IEIVIPEF	ATURE		1
°F	-40	-20	0	20	40	60	80	100	120
°C	-40	-29	-18	-7	4	16	27	38	49
PSI	190	220	250	290	340	390	455	525	605
RANGE	То	То	То	То	То	То	То	То	То
	240	275	315	365	420	480	550	635	730

#### FIRE EXTINGUISHER PRESSURE VS. TEMPERATURE

- 8. Aileron and Aileron TrimTab CHECK
- 9. Flush Outboard Wing Fuel Tank Sump DRAIN
- 10. Static Wicks (4) CHECK
- 11. Navigation, Recognition, & Strobe Lights CHECK
- + 12. Main Fuel Tank Cap SECURE 🧹
  - 13. Stall Warning Vane CHECK
- + 14. Tiedown REMOVED
  - 15. Outboard Deice Boot and Stall Strip CHECKED
  - 16. Ice Light CHECK
  - 17. Heated Fuel Vent CLEAR
  - 18. Ram Scoop Fuel Vent CLEAR
  - 19. Gravity Line Drain DRAIN
  - 20. Inverter Cooling Louvers CLEAR
  - 21. Wing Leading Edge Tank Sump DRAIN
- + 22. Landing Gear (Doors, Wheel Well, Strut, Tires, Brakes) CHECK
- + 23. Chock REMOVE
  - 24. Fuel Filter and Fuel Strainer Drains DRAIN
- + 25. Engine Oil CHECK QUANTITY, CAP SECURE

- 26. Engine Compartment Door (Outbd) SECURE, BLEED VALVE EXHAUST CLEAR (B200)
- 27. Exhaust Stack (Outbd) CHECK FOR CRACKS
- 28. Top Cowling Locks (Outbd) SECURE
- 29. Nacelle Cooling Ram Air Inlets CLEAR
- +30. Propeller CHECK FOR NICKS, DEICE BOOT SECURE
- 31. Engine Intake CLEAR
- 32. Top Cowling Locks (Inbd) SECURE
- 33. Exhaust Stack (Inbd) CHECK FOR CRACKS
- 34. Generator Cooling Inlet CLEAR
- 35. Engine Compart. Door (Inbd) SECURE, BLEED VALVE EXHAUST CLEAR
- 36. Heat Exchanger Inlet CLEAR
- 37. Hydraulic Landing Gear Service Door SECURE
- 38. Inboard Deice Boot CHECK
- 39. Heat Exchanger Outlet CLEAR
- 40. Hydraulic Landing Gear Vent Lines CLEAR
- 41. Auxiliary Fuel Tank Sump DRAIN
- 42. Lower Antennas and Beacon CHECK

#### NOSE SECTION

- 1. OAT Probe/Relief Tube Vent CHECK
- 2. Brake Reservoir Vent CLEAR
- 3. Left Avionics Access Panel SECURE
- 4. Air Conditioner Condenser Exhaust Duct CLEAR
- 5. Windshield and Wipers CHECK
- 6. Radome CHECK
- 7. Pitot Masts CLEAR
- 8. Landing and Taxi Lights CHECK
- + 9. Nose Gear (shimmy damper, stop block, torque knee strut, tire) CHECK
- +10. Chocks REMOVE
- 11. Nose Gear Doors and Wheel Well CHECK
- 12. Air Conditioner Condenser Intake Duct CLEAR
- 13. Right Avionics Access Panel SECURE

RIGHT WING AND NACELLE

NORMAL PROCEDURES

PILOT CHECK LIST

- 1. Ejector Exhaust CLEAR
- 2. Auxiliary Fuel Tank Sump DRAIN
- 3. Battery Drain CLEAR
- 4. Heat Exchanger Outlet CLEAR
- 5. Inboard Deice Boot CHECK
- 6. Heat Exchanger Inlet CLEAR
- 7. Engine Oil CHECK QUANTITY, CAP SECURE
   8. Engine Compartment Door (Inbd) SECURE, BLEED VALVE EXHAUST CLEAR (B200)
  - 9. Exhaust Stack (Inbd) CHECK FOR CRACKS
- 10. Top Cowling Locks (Inbd) SECURE
- 11. Nacelle Cooling Ram Air Inlets CLEAR
- +12. Propeller CHECK FOR NICKS, DEICE BOOT SECURE
- 13. Engine Intake CLEAR
- 14. Top Cowling Locks (Outbd) SECURE
- 15. Exhaust Stack (Outbd) CHECK FOR CRACKS
- 16. Generator Cooling Inlet CLEAR
- 17. Engine Compart. Door (Outbd) SECURE, BLEED VALVE EXHST CLEAR
- 18. Fuel Filter and Fuel Strainer Drains DRAIN
- +19. Landing Gear (Doors, Strut, Tires, Wheel Well) CHECK
- 20. Fire Extinguisher CHECK PRESSURE
- +21. Chock REMOVE
- 22. Heated Fuel Vent CLEAR
- 23. Ram Scoop Fuel Vent CLEAR
- 24. Gravity Line Drain DRAIN
- 25. Inverter Cooling Louvers CLEAR
- 26. Wing Leading Edge Tank Sump Drain
- +27. External Power Door CLOSED
- 28. Ice Light CHECK
- 29. Outboard Deice Boot and Stall Strip CHECK
- +30. Tiedown REMOVE
- 31. Flush Outboard Wing Fuel Tank Sump DRAIN
- +32. Main Fuel Tank Cap SECURE
- 33. Navigation, Recognition, and Strobe Lights CHECK
- 34. Static Wicks (4) CHECK
- 35. Aileron and Bendable Tab CHECK
- 36. Flaps CHECK
  - (condition, asym protect, flap tracks, limit sws, & position transmitter)
- +37. Brake Lines, Brake Wear, Brake Deice Lines (If installed) CHECK
- 38. Oil Breather Vent CLEAR
- +39. Auxiliary Fuel Tank Cap SECURE
- 40. Cabin Windows CHECK

#### RIGHT AFT FUSELAGE

- 1. Lower Antennas CHECK
- 2. Ventral Fin Drain Holes CLEAR
- 3. Lower Aft Cabin Access Door SECURE
- +4. Tiedown REMOVED
- 5. Oxygen Service Access Door SECURE
- 6. Static Ports CLEAR
- 7. Cabin Air Exhaust CLEAR
- 8. Access Panel SECURE

#### TAIL

- 1. Ventral Fin and Static Wick (1) CHECK
- 2. VOR Antennas (Right and Left) CHECK
- 3. Rudder, Rudder Tab, Stinger and Static Wicks (4) CHECK
- 4. Horizontal Stabilizer, Boots and Static Wicks (Right and Left) CHECK
- Elevator, Tab, and Static Wicks (3 each side) CHECK Verify Tabs are in "0" (Neutral) Position

#### NOTE

The elevator trim tab "0" (neutral) position is determined by observing that the trailing edge of the elevator trim tab aligns with the trailing edge of the elevator when the elevator is resting against the down stops.

6. Position Light, Tail Floodlights (Left and Right) - CHECK

#### LEFT AFT FUSELAGE

- 1. Access Panel SECURE
- 2. Static Ports CLEAR
- 3. Oxygen Overpressure Discharge and Aft Compartment Drain Tubes – CLEAR
- 4. Relief Tube CLEAR

#### **BEFORE ENGINE STARTING**

#### NOTE

Items marked with an "\*" may be omitted at pilot's discretion after the first flight of each day.

#### NOTE

Power Settings and Performance shall be based on the OAT from the pilot's side console display and not from the temperature displayed on the pilot's PFD and MFD

## WARNING

Only a crew member or properly trained ground personnel should close and lock the airstair door and cargo door (if installed).

- 1. Airstair Door (B200GT) LOCKED
  - a. Close and lock the door.
  - b. Ensure that the door handle will not move out of the locked position without depressing the release button.
  - c. Lift the top door step and ensure that the red safety arm is around the plunger.
  - d. Ensure that the green index mark on each of the 4 locking bolts aligns with the black pointer in the observation port.
- 2. Cargo Door (B200CGT) LOCKED
  - a. Check upper handle position CLOSED AND LOCKED
     (Open access panel on upper left side of door and attempt to open cargo door latches without releasing safety lock.)
  - b. Ensure that the orange index mark on each of the four rotary cam locks aligns with the notch in the plate on the door frame.
  - c. Check Lower Pin Lock Handle Position CLOSED AND LOCKED
  - (Open access panel on lower forward area of door and attempt to rotate the handle without lifting the orange lock hook.)
  - d. Ensure that the orange stripe on the latch pin linkage is aligned with the orange pointer. (Observe through window at lower aft corner
- 3. Airstair Door (B200CGT) LOCKED
  - a. Close and lock the door.
  - b. Ensure that the door handle will not move out of the locked position without depressing the release button.
  - c. Lift the door step and ensure that the red safety arm is around the plunger.
  - d. Ensure that the orange index mark on each of the 6 rotary cam locks aligns with the notch in the plate on the door frame.

- \* 4. Monagram Electric Toilet (if installed) KNIFE VALVE CONFIRM OPEN
  - 5. Emergency Lighting Cabin Switch ON
  - 6. Load and Baggage CONFIRM SECURE
  - 7. Weight and C.G. CHECKED
  - 8. Seats and Tables POSITIONED
    - a. All Seats Seat backs upright, Headrests fully extended
    - b. Lateral-tracking seats Outboard position
    - c. Tables Stowed
  - 9. Emergency Exit CONFIRM SECURE AND UNLOCKED
- 10. Passenger Briefing COMPLETE
- 11. Control Locks CONFIRM REMOVED
- 12. Seats and Rudder Pedals ADJUSTED
- 13. Seatbelts and Shoulder Harnesses FASTENED
- \*14. Oxygen System Preflight Inspection CONFIRM COMPLETE
- 15. ELT ARM, Yellow [XMT] EXTINGUISHED
- 16. Fuel Panel Circuit Breakers IN
- 17. Pilots Instrument Panel and Subpanel CHECK
  - a. ESIS Power TEST (Green Light ILLUMINATED)
  - b. ESIS Power ON (Amber Light ILLUMINATED)
  - c. Parking Brake CONFIRM SET
  - d. Engine Anti-ice Switches ON

# NOTE

The engine anti-ice system should be ON for all ground operations to minimize ingestion of ground debris. Turn engine anti-ice off when required to maintain oil temperature within limits.

- e. Pilot Air Control AS REQUIRED (Old Environmental System)
- f. Defrost Air Control AS REQUIRED (Old Environmental System)
- g. Landing Gear Control DN
- h. Landing Gear Relay Circuit Breaker IN
- i. All Other Switches OFF
- \*18. Pilot's Clock (Control wheel) (if installed) CHECK AND SET
- 19. Pilot's Audio SET
- 20. Power Console CHECK
  - a. Power Levers IDLE, FRICTION SET
  - b. Propeller Levers FULL FORWARD, FRICTION SET
  - c. Condition Levers FUEL CUT OFF, FRICTION SET
  - d. Elevator, Aileron, and Rudder Trim Controls SET
  - e. Oxygen System Ready CONFIRM ON
  - \* f. Flashlight CHECK
  - g. Landing Gear Alternate Extension Handle STOWED

- 21. Pedestal CHECK
  - a. Cabin Pressure Switch PRESS
  - b. Rudder Boost Switch ON
  - c. Pressurization Controller SET
- 22. Reversionary Switch Panel CHECK
  - a. DG FREE/NORM NORM
  - b. Slew +/- CENTER
  - c. ATC Select STBY
  - d. Pilot Display NORM
  - e. AHRS NORM
  - f. ADC NORM
  - g. TUNE NORM
  - h. RMT TUNE NORM
  - i. Slew +/- CENTER
  - j. DG FREE/NORM NORM
  - k. GND COM EXTINGUISHED
- \* 23. Copilot's Clock (control wheel) (if installed) CHECK AND SET
- 24. COPILOT'S Audio SET
- 25. Copilot's Subpanel CHECK
  - a. Cabin Sign NO SMOKE & FSB
  - b. Bleed Air Valve Switches ENVIR OFF
  - c. Oxygen Pressure CONFIRM
  - New Environmental System
    - 1) ECS Mode OFF
    - 2) Cockpit and Cabin Blowers AUTO

Old Environmental System

- 1) Vent Blower Switch AUTO
- 2) Cabin Temp Mode Control OFF
- 3) Cabin/Cockpit Air Control AS REQUIRED
- 4) Copilot Air Control AS REQUIRED
- d. All Other Switches OFF
- 26. Electric Heat AS REQUIRED WITH GPU (*New Environmental System*)
  - a. Battery VERIFY ON
  - b. External Power Source TURN OFF, CONNECT TO AIRPLANE; TURN ON
  - c. Voltmeter 27.5 to 28.4 VOLTS
  - d. External Power [EXT PWR] ILLUMINATED
  - e. ECS Mode ELEC HEAT, [ELEC HEAT ON] ILLUMINATED
  - f. All other Switches OFF

# CAUTION

Do not operate the electric heat with the pedestal floor outlet blocked or the cockpit door closed. [ELEC HEAT ON] must extinguish when ELEC HEAT mode is de-selected. Electric heat must be off at least 2 minutes prior to and during engine start.

- 27. Right Panel Circuit Breakers CHECK
- \*28. Pilot's Static Air Source NORMAL
- 29. Overhead Switch Panel (if installed)
  - a. BARO ALT AS REQUIRED
  - b. BARO AS REQUIRED
  - c. FL 180 AS REQUIRED
  - d. AVIONICS MAINT OFF
- \*30. Fire Extinguisher (Under Copilot's Chair) CHECK
- 31. Battery ON
- \*32. Fuel System CHECK
- 33. Fuel Quantity (Main and Auxiliary) CHECK
- \*34. Landing Gear Handle Lights PRESS TO TEST
- \*35. Hydraulic Fluid Sensor TEST, [HYD FLUID LOW] ILLUMINATED
- 36. Beacon ON
- 37. DC Volt/Loadmeters PRESS TO CHECK VOLTAGE, (23 volts minimum)
- \*38. Annunciators TEST
- \*39. Stall Warning TEST
- \*40. Fire Detectors and Fire Extinguishers TEST
- 41. Cockpit Voice Recorder Panel TEST
- 42. Left Power Lever ADVANCE TO AT LEAST 80% POSITION
- 43. Autofeather Switch ARM
- 44. Elevator Trim Warning System TEST
- 45. Elevator Trim Control SET FOR TAKEOFF
- 46. Autofeather Switch OFF
- 47. Left and Right Power Levers IDLE

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## ENGINE STARTING (Battery)

- 1. Right Ignition and Engine Start ON [R IGNITION ON] – ILLUMINATED and [R FUEL PRESS] – EXTINGUISHED
- 2. Right Condition Lever (13%  $N_1$  or above) LOW IDLE
- 3. Right ITT and  $N_1$  MONITOR (1000°C maximum)

# CAUTION

If no ITT rise is observed within 10 seconds after moving the condition lever to LOW IDLE, move the condition lever to FUEL CUTOFF. Allow 60 seconds for fuel to drain and starter to cool, and then follow ENGINE CLEARING Procedures.

- 4. Right Oil Pressure CHECK
- 5. Right Ignition and Engine Start (50%  $N_1$  or above) OFF
- 6. Right Condition Lever HIGH IDLE
- 7. Right Generator RESET, THEN ON
- 8. Battery CHARGE (until loadmeter reads approximately 50% or less)
- 9. Left ignition and Engine Start ON
  - [LIGNITION ON] ILLUMINATED and [LFUEL PRESS] EXTINGUISHED
- 10. Left Condition Lever (13%  $N_1$  or above) LOW IDLE
- 11. Left ITT and  $N_1$  MONITOR (1000°C maximum)
- 12. Left Oil Pressure CHECK

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- 13. Left Ignition and Engine Start (50% N<sub>1</sub> or above) OFF
- 14. D.C. Volt/Loadmeters PRESS TO CHECK VOLTAGE (27.5 to 29.0 volts)
- 15. Left Generator RESET, THEN ON
- 16. Right Condition Lever REDUCE TO LOW IDLE

#### ENGINE STARTING (External Power)



NEVER CONNECT AN EXTERNAL POWER SOURCE TO THE AIRPLANE UNLESS A BATTERY INDICATING A CHARGE OF AT LEAST 20 VOLTS IS IN THE AIRPLANE. If the battery voltage is less than 20 volts, the battery must be recharged, or replaced with a battery indicating at least 20 volts, before connecting external power.

#### NOTE

When an external power source is used, it must be set to 28.0 to 28.4 volts and be capable of producing 1000 amperes momentarily and 300 amperes continuously. The battery should be on to absorb transients present in some external power sources. An EXT PWR annunciator is provided to alert the crew when an external DC power plug is connected to the airplane.

- 1. Avionics Master Switch CONFIRM OFF
- 2. Left and Right Generator Switches CONFIRM OFF
- 3. Battery ON
- 4. External Power Source TURN OFF, THEN CONNECT TO AIRPLANE
- 5. External Power Source TURN ON
- 6. Voltmeter 28.0 to 28.4 VOLTS
- 7. Propeller Levers FEATHER
- Right Ignition and Engine Start ON [R IGNITION ON] – ILLUMINATED and [R FUEL PRESS] - EXTINGUISHED
- 9. Right Condition Lever (13% N<sub>1</sub> or above) LOW IDLE
- 10. Right ITT and N<sub>1</sub> MONITOR (1000°C maximum)

# CAUTION

If no ITT rise is observed within 10 seconds after moving the condition lever to LOW IDLE, move the condition lever to FUEL CUTOFF. Allow 60 seconds for fuel to drain and starter to cool, and then follow ENGINE CLEARING Procedures.

- 11. Right Oil Pressure CHECK
- 12. Right Ignition and Engine Start (50%  $N_1$  or above) OFF
- 13. Left Ignition and Engine Start ON
  - [L IGNITION ON] ILLUMINATED and [L FUEL PRESS] EXTINGUISHED
- 14. Left Condition Lever (13% N<sub>1</sub> or above) LOW IDLE
- 15. Left ITT and N<sub>1</sub> MONITOR (1000°C maximum)
- 16. Left Oil Pressure CHECK
- 17. Left Ignition and Engine Start (50% N<sub>1</sub> or above) OFF
- 18. External Power Source TURN OFF, DISCONNECT, SECURE DOOR
- 19. Left and Right Generators RESET, THEN ON
- 20. Propeller Levers FULL FORWARD

#### HOT START OR HUNG START

If rate of ITT increase predicts an over-temperature occurrence, or if  $N_1$  ceases to accelerate in a normal manner.

- 1. Condition Lever FUEL CUTOFF
- 2. Ignition and Engine Start STARTER ONLY (for remainder of time limitation)
- 3. Ignition and Engine Start OFF
- 4. Do not attempt another start until the cause of the hot start or hung start has been corrected.

#### **NO LIGHT START**

If no ITT rise is observed within 10 seconds after moving the Condition Lever to LOW IDLE

- 1. Condition Lever FUEL CUTOFF
- 2. Ignition and Engine Start OFF
- 3. Follow ENGINE CLEARING procedure

#### ENGINE CLEARING

Use the following procedure to remove internally trapped fuel and vapor, or, if there is evidence of a fire within the engine.

- 1. Condition Lever CONFIRM FUEL CUT OFF
- 2. Starter COOL FOR 1 MINUTE AFTER PREVIOUS START ATTEMPT
- 3. Ignition and Engine Start STARTER ONLY (for a maximum of 40 seconds)
- 4. Ignition and Engine Start OFF

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5. Starter – COOL FOR 1 MINUTE BEFORE ATTEMPTING ANOTHER START

#### **BEFORE TAXI**

#### NOTE

Items marked with an " \* " may be omitted at pilot's discretion after the first flight of the day

- 1. Loadmeters PARALLEL WITHIN 10%
- 2. Avionics Master ON
- 3. External Lights AS REQUIRED
- 4. Cabin Lights AS REQUIRED
- 5. Furnishings AS REQUIRED
- 6. Cabin Sign NO SMK & FSB
- 7. Environmental System Controls SET
- 8. Bleed Air Valves OPEN or ENVIR OFF

Use ENVIR OFF for more efficient cooling on the ground.

- \* 9. Brake Deice (if installed) CHECK (see basic AFM/POH)
- 10. ESIS Display INITIALIZATION COMPLETE
- 11. Prop Sync ON
- 12. TCAS I (if installed) TEST (see basic AFM/POH)
- 13. TCAS II (if installed) TEST (see basic AFM/POH)
- 14. EMER FREQ EXTINGUISHED
- 15. EGPWS (if installed) PREFLIGHT (see basic AFM/POH)
- 16. TAWS+ (if installed) PREFLIGHT (see basic AFM/POH)
- 17. Flight and Engine Instruments CHECK
  - a. Altimeters SET
  - b. ESIS Altimeter SET
- 18. Flaps CHECK AND SET
- 19. Flight Controls CHECK FOR FULL FREEDOM OF MOVEMENT AND PROPER DIRECTION OF TRAVEL
- 20. Brakes RELEASE AND CHECK

#### BEFORE TAKEOFF (Runup)

#### NOTE

Items marked with an " \* " may be omitted at pilot's discretion after the first flight of the day.

- 1. Avionics and Radar CHECK
- 2. Pressurization CHECK AND SET
- 3. Autopilot CHECK
- 4. Yaw Damp CHECK
- \* 5. Electric Pitch Trim CHECK



Operation of the electric elevator trim system should occur only when both elements of the dual-element switch are activated. Any movement of the elevator trim wheel while activating only one element denotes a system malfunction. The elevator trim control switch must then be turned OFF and flight conducted only by manual operation of the elevator trim wheel.

- 6. Trim Tabs CONFIRM SET
- 7. Engine Control Friction Locks SET
- \* 8. Primary Governors, Overspeed Governors and Rudder Boost CHECK
- \* 9. Autofeather CHECK
- 10. Autofeather ARM
- 11. Manual Prop Feathering CHECK
- \* 12. Vacuum and Pneumatic Pressure CHECK
- \* 13. Engine Anti-ice CHECK

## WARNING

Either the MAIN or STANDBY engine anti-ice actuator must be operational on each engine before takeoff.

- 14. Ice Protection Equipment (if required) CHECK
- 15. Surface Deice Switch SINGLE CYCLE, THEN RELEASE
- 16. Stall Warning Ice Mode Annunciator ILLUMINATED
- 17. Stall Warning TEST
- 18. Stall Warning Ice Mode Annunciator PRESS (to select Normal Mode)

#### NOTE

The stall warning system must not be in the Ice Mode during takeoff and initial climb-out. If a takeoff is conducted with the stall warning system in the Ice Mode, a misleading stall warning following lift-off will likely occur.

- 19. Fuel Quantity, Flight and Engine Instruments CHECK
- 20. V<sub>1</sub>, V<sub>R</sub>, V<sub>2</sub>, V<sub>ENR</sub>, and Minimum Takeoff Power CONFIRM

#### **BEFORE TAKEOFF (Final Items)**

- Auto Ignition ARM (if required)
  - [L IGNITION ON] and [R IGNITION ON] ILLUMINATED, if ARMED
- 2. Engine Anti-Ice AS REQUIRED [L ENGINE ANTI-ICE] and [R ENGINE ANTI ICE] – ILLUMINATED if ON
- 3. Autofeather CONFIRM ARMED
- 4. Exterior Lights AS REQUIRED
- 5. Ice Protection ON (if Required)
  - a. Windshield Anti-ice NORMAL/HI (if required)
  - b. Prop Deice (if required) AUTO
  - c. Left and Right Fuel Vent Heat ON
  - d. Brake Deice (if installed) OFF
  - e. Stall Warning Heat ON
  - f. Left and Right Pitot Heat ON
    - [L PITOT HEAT] and [R PITOT HEAT] EXTINGUISHED
- 6. Transponder SELECT 1 OR 2
- 7. Prop Levers CONFIRM FULL FORWARD
- 8. Trim CONFIRM SET
- 9. Flaps CONFIRM SET
- 10. Interior Lights AS REQUIRED
- 11. Bleed Air Valves OPEN
- 12. Envir Bleed Air SET (New Environmental System)
  - a. OAT above 10°C AUTO or LOW
  - b. OAT at or below 10°C AUTO or NORMAL
- 13. ECS Mode AS REQUIRED (New Environmental System)
  - a. Cockpit and Cabin Blowers AS REQUIRED
  - b. Cockpit and Cabin Temps AS REQUIRED

# CAUTION

Use of electric heat is for ground operations only and should not be selected for takeoff or flight operations. [ELEC HEAT ON] must be extinguished when ELEC HEAT mode is de-selected.

- 14. Elec Heat OFF (Old Environ System) [ELEC HEAT ON] EXTINGUISHED
- 15. Aft Blower AS REQUIRED (Old Environmental System)
- 16. Generator Load CHECK
- 17. Battery Ammeter CHECK (Charge current 10 amps or less if required)
- 18. Annunciators EXTINGUISHED OR CONSIDERED

# TAKEOFF

# WARNING

Do not cycle deice boots during takeoff.

- 1. Brakes HOLD
- 2. Power SET (Ensure Minimum Takeoff Power is available)
- 3. [L AFX] and [R AFX] ILLUMINATED or
  - [LAUTOFEATHER] and [RAUTOFEATHER] ILLUMINATED
- 4. Brakes RELEASED

#### NOTE

Increasing airspeed will cause torque and ITT to increase.

- 5. V<sub>R</sub> ROTATE TO APPROX 8° NOSE UP ATTITUDE
- 6. Landing Gear (when positive climb established) UP
- 7. Airspeed MAINTAIN V2 UNTIL CLEAR OF OBSTACLES
- 8. Flaps (at V<sub>2</sub> + 5 Knots) UP

TAKEOFF SPEEDS – FLAPS UP					
Weight	V1	VR	V2	V <sub>ENR</sub>	
14,000 LBS	117	117	126	126	
13,500 LBS	115	115	125	125	
13,000 LBS	113	113	123	123	
12,500 LBS	111	111	121	121	
12,000 LBS	109	109	120	120	
11,500 LBS	107	107	118	118	
11,000 LBS	Takeoff speeds vary with pressure altitude.				
and less	See AFMS 006-2A HW, Section 5 Performance				

#### TAKEOFF SPEEDS – FLAPS APPROACH

Weight	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	V <sub>ENR</sub>
14,000 LBS	97	98	108	126
13,500 LBS	96	97	107	125
13,000 LBS	95	97	106	123
12,500 LBS	95	97	105	121
12,000 LBS	94	97	104	120
11,500 LBS	94	97	104	118
11,000 LBS	Takeoff speeds vary with pressure altitude.			
and less	See AFMS 006-2A HW, Section 5 Performance			

#### CLIMB

- 1. Yaw Damp ON
- 2. Climb Power SET
- 3. Propellers 1800 RPM (B200GT)
  - 1900 RPM (B200)
- 4. Windshield Anti-Ice NORMAL

# CAUTION

It is recommended to turn on the windshield anti-ice early in the flight if it is anticipated that it will be required later. Activating the windshield anti-ice after the windshield has been cold-soaked may cause the windshield to crack.

- 5. Engine Instruments MONITOR
- 6. Cabin Sign AS REQUIRED
- 7. Pressurization CHECK
- ECS Mode AS REQUIRED (*New Environmental System*)

   a. Cockpit and Cabin Blowers AS REQUIRED
   b. Cockpit and Cabin Temps AS REQUIRED
- 9. Lights AS REQUIRED

## CLIMB IN ICING CONDITIONS

- 1. Engine Anti-Ice ON, [L ENG ANTI-ICE] & [R ENG ANTI-ICE] ILLUMINATED
- 2. Auto Ignition ARM
- 3. Prop Deice AUTO
- 4. Stall Warning Heat CONFIRM ON
- 5. Left and Right Fuel Vent Heat CONFIRM ON
- 6. Left and Right Pitot Heat CONFIRM ON
- 7. Windshield Anti-Ice CONFIRM NORMAL OR HI
- At first sign of ice accretion on aircraft.
  - 8. Surface Deice Switch SINGLE AND RELEASE (repeat as required)
- 9. Stall Warning Ice Mode Annunciator ILLUMINATED
- 10. Climb Power SET MAX CONT POWER (to expedite climb)
- 11. Airspeed 148 KNOTS MINIMUM AIRSPEED

## CRUISE

5.

#### WARNING

Do not lift power levers in flight.

#### NOTE

Power settings and performance shall be predicated on the OAT from the pilot's side console display and not from the temperature displayed on the pilot's PFD and MFD.

- 1. Cruise Power SET PER CRUISE POWER TABLES OR GRAPHS
- 2. Autofeather OFF
- 3. Engine Instruments MONITOR
- 4. Auxiliary Fuel Gages MONITOR

(Ensure fuel is being transferred from the auxiliary tanks)

Pressurization – MONITOR (Reset if cruise altitude changes by 1,000 feet or more)

## CRUISE IN ICING CONDITIONS

At first sign of ice accretion on aircraft.

- 1. Airspeed 148 KNOTS MINIMUM
- 2. Surface Deice Switch SINGLE AND RELEASE
- 3. Stall Warning Ice Mode Annunciator VERIFY ILLUMINATED
- OUTSIDE OF ICING CONDITIONS AND WINGS FREE OF ICE
- 1. Stall Warning Ice Mode Annunciator PRESS (to select Normal Mode)
- 2. Stall Warning Ice Mode Annunciator EXTINGUISHED

ICING CONDITIONS

# WARNING

Due to distortion of the wing airfoil, ice accumulation on the leading edges can cause a significant loss in rate of climb and in cruise speed, as well as increases in stall speed. Even after cycling deicing boots, the ice accumulation remaining on the boots plus ice accumulations on unprotected areas can cause large performance losses. In order to minimize ice accumulation on unprotected surfaces of the wing, maintain a minimum of 148 knots during operations in sustained icing conditions. In the event of windshield icing, reduce airspeed to 226 knots or below. Prior to a landing approach, cycle the deicing boots to shed any accumulated ice. The stall warning system will sound the aural warning at 15 to 20 knots above the normal warning speed when it is in the ice mode, which is appropriate when there is ice on the wings.

#### 1. Engine Ice Protection

When visible moisture is encountered at an OAT of +5°C and below, or;

At night when freedom from visible moisture is not assured at an OAT of +5°C and below (Operation of strobe lights will sometimes show ice crystals not normally visible)

a. Engine Anti-Ice – ON

[L ENG ANTI-ICE] and [R ENG ANTI-ICE] – ILLUMINATED b. Check for proper operation by noting a drop in torque.

# WARNING

Engine icing can occur even though no surface icing is present. If freedom from visible moisture cannot be assured, engine ice protection should be activated. Visible moisture is moisture of any form: clouds, ice crystals, snow, rain, sleet, hail or any combination of these. Operation of strobe lights will sometimes show ice crystals not normally visible. If in doubt, actuate the Engine Anti-Ice System.

## NOTE

Illumination of the [L ENG ICE FAIL] or [R ENG ICE FAIL] caution annunciator indicates failure of selected system on affected engine. Immediate illumination indicates loss of power to the actuator. Select the other actuator(s).

#### 2. Auto Ignition – ARM

# NOTE

Auto Ignition must be ARMED for icing flight, precipitation, and operation during turbulence. To prevent prolonged operation of the igniters with the system ARMED, do not reduce power levers below 500 ft-lbs torgue.

# 3. Prop Deice – AUTO

a. The system may be operated continuously in flight, and will function automatically until the switch is turned off.

b. Relieve propeller imbalance due to ice by increasing rpm briefly and returning to the desired setting. Repeat as necessary.

# CAUTION

If the deice ammeter does not indicate 18 to 24 amps or the automatic timer fails to switch, refer to AP-12, ABNORMAL PROCEDURES.

#### 4. Surface Deice

# WARNING

All components of the surface deice system must be monitored during icing flight to ensure the system is functioning normally. These components include:

#### Pneumatic Pressure Gage

The gage should indicate 12.0 to 20.0 psi before activating boots. The pressure will momentarily decrease when the boots are activated.

#### Vacuum Gage

The gage should indicate in the green arc. Vacuum will momentarily decrease when the boots are activated.

#### Pneumatic Boots

Visually monitor the boots, where possible, to ensure ice is being removed.

# CAUTION

Operation of the surface deice system in ambient temperatures below -40°C can cause permanent damage to the deice boots.

# NOTE

Either engine will supply sufficient pneumatic pressure for deice operation.

At first sign of ice accretion on aircraft:

- a. Airspeed 148 KNOTS MINIMUM
- b. Surface Deice Switch SINGLE AND RELEASE
- c. Stall Warning Ice Mode Annunciator VERIFY ILLUMINATED
- d. Repeat as required

If Single Position of the Surface Deice Switch Fails:

e. Surface Deice Switch – MANUAL AND HOLD

FOR A MINIMUM OF 6 SECONDS, THEN RELEASE

f. Stall Warning Ice Mode Annunciator – VERIFY ILLUMINATED

g. Repeat as required.

OUTSIDE OF ICING CONDITIONS AND WINGS FREE OF ICE

a. Stall Warning Ice Mode Annunciator – PRESS (to select Normal Mode)
b. Stall Warning Ice Mode Annunciator – EXTINGUISHED

#### 5. Windshield Anti-Ice – NORMAL/HIGH

NOTE: Maximum airspeed for effective windshield anti-icing is 226 Knots.

- 6. Left and Right Fuel Vent Heat CONFIRM ON
- 7. Left and Right Pitot Heat CONFIRM ON
- 8. Stall Warning Heat CONFIRM ON
- 9. Ice Lights AS REQUIRED
- 10. Alt Static Air Source (if req) Refer to AP-13 ABNORMAL PROCEDURES

#### DESCENT

1. Pressurization – SET PER TABLE (Refer to NP-27)

- a. Cabin Altitude SET
- b. Rate Control AS DESIRED
- 2. Altimeter SET
- 3. Cabin Sign AS REQUIRED
- 4. Windshield Anti-ice AS REQUIRED
- 5. ECS Mode AS REQUIRED (*New Environmental System*)
  - a. Cockpit and Cabin Blowers AS REQUIRED
  - b. Cockpit and Cabin Temps AS REQUIRED
- 6. Fuel Balance CHECK
- 7. Power AS REQUIRED

#### NOTE

Approximately 75%  $N_1$  is required to maintain the cabin pressurization schedule during descent.

- 8. Seats and Tables POSITIONED
  - a. All Seats Seatbacks Upright, Headrests fully extended
  - b. Lateral tracking seats Outboard position
  - c. Tables Stowed

#### **BEFORE LANDING**

- 1. Landing Approach Speed CONFIRM VREF
- 2. Autofeather ARM
- 3. Pressurization CHECK
- 4. Cabin Sign NO SMOKE & FSB
- 5. Flaps APPROACH
- 6. Landing Gear DN
- 7. Lights AS REQUIRED

NOTE

Under low visibility conditions, landing and taxi lights should be left off due to light reflections.

8. Radar - AS REQUIRED

9. Surface Deice - CYCLE AS REQUIRED

If wings are free of ice:

- 10. Stall Warning Ice Mode Switch PRESS (to select Normal Mode)
- If ice remains on wing boots and/or unprotected surfaces:
- 11. Surface Deice CYCLE
- 12. Stall Warning Ice Mode Annunciator ILLUMINATED
- 13. Landing Approach Speed and Distance INCREASE V<sub>REF</sub> BY 15 KNOTS AND INCREASE EXPECTED LANDING DISTANCE BY 25 PERCENT

#### NOTE

Prior to the landing approach, cycle the wing deice boots to shed as much ice as possible, regardless of the amount of ice remaining on the boots. Stall speeds can be expected to increase as much as 15 knots if ice is present on the wings and/or horizontal tail surfaces.

#### NOTE

If crosswind landing is anticipated, determine crosswind component from Section 5, PERFORMANCE in the basic AFM/POH. Immediately prior to touchdown, lower upwind wing and align the fuselage with the runway by use of rudder. During rollout, hold aileron control into the wind and maintain directional control with rudder and brakes. Use propeller reverse as desired.

LANDING APPROACH SPEEDS (Note - no ice on wings)

	Flaps DOWN	
Weight	V <sub>REF</sub> Speeds,	
Lbs	Knots	
14,000	106	
13,000	104	
12,000	102	
11,000	99	
10,000	96	
9,000	93	

#### NORMAL LANDING

1. Flaps – DOWN

2. Airspeed  $- V_{REF}$  (With ice on wings,  $V_{REF}$  + 15)

3. Yaw Damper – OFF

4. Power Levers – IDLE

5. Prop Levers – FULL FORWARD

CAUTION

To ensure constant reversing characteristics, the propeller levers must be in the high rpm position.

After Touchdown:

6. Power Levers – LIFT AND SELECT GROUND FINE

7. Brakes – AS REQUIRED

#### MAXIMUM REVERSE THRUST LANDING

- When Landing Is Assured:
- 1. Flaps DOWN
- 2. Airspeed  $V_{REF}$  (With ice on wings,  $V_{REF} + 15$ )
- 3. Yaw Damp OFF
- 4. Condition Levers HIGH IDLE
- 5. Power Levers IDLE
- 6. Propeller Levers -FULL FORWARD

#### After Touchdown:

- 7. Power Levers LIFT THROUGH GROUND FINE AND LIFT TO REVERSE
- 8. Brakes AS REQUIRED
- 9. Condition Levers LOW IDLE

# CAUTION

If possible, propellers should be moved out of reverse at approximately 40 knots to minimize blade erosion. Care must be exercised when reversing on runways with loose sand, dust, or snow on the surface. Flying gravel will damage propeller blades and dust or snow may impair the pilot's visibility.

#### **BALKED LANDING**

- 1. Power MAXIMUM ALLOWABLE
- 2. Airspeed MAINTAIN  $V_{REF}$

When clear of obstacles or 400 Feet AGL, establish a normal climb

- 3. Flaps (at V<sub>REF</sub> + 10) APPROACH
- 4. Landing Gear UP
- 5. Flaps (at 125 knots) UP

#### AFTER LANDING

- 1. Auto Ignition OFF
- 2. Engine Anti-ice ON

# CAUTION

The engine anti-ice system should be on for all ground operations to minimize ingestion of ground debris. Turn engine anti-ice off, when required, to maintain oil temperatures within limits.

- 3. Lights AS REQUIRED
- 4. Ice Protection OFF
- 5. Transponder STANDBY
- 6. Radar STANDBY or OFF
- 7. Trim Tabs SET
- 8. Flaps UP
- 9. Pressurization Differential VERIFY 0
- 10. Bleed Air Valves OPEN or ENVIR OFF

Use ENVIR OFF for more efficient cooling on the ground

#### SHUTDOWN AND SECURING

- 1. Parking Brake SET
- 2. Electric Heat OFF (Old Environmental System)
- 3. Standby Boost Pumps and Crossfeed OFF
- 4. Avionics Master OFF
- 5. ESIS Power OFF
- 6. Autofeather OFF
- 7. Lights OFF
- 8. Oxygen System Ready PUSH OFF
- 9. ECS Mode OFF (New Environmental System)
- 10. Cockpit and Cabin Blowers AUTO (New Environmental System)
- 11. Vent Blower AUTO (*Old Environmental System*)
- 12. Cabin Temp Mode OFF (Old Environmental System)
- 13. Aft Blower OFF (Old Environmental System)
- 14. Battery CHARGED
- 15. ITT STABILIZED AT MIN OBTAINABLE TEMP FOR ONE MINUTE
- 16. Condition Levers FUEL CUT OFF

# CAUTION

Monitor ITT during shutdown. If sustained combustion is observed, proceed immediately to the engine clearing procedure. During shutdown, ensure that the compressors decelerate freely. Do not close the firewall fuel valves for normal engine shutdown.

17. Propeller Levers – FEATHER

After Generators Drop Off Line [L DC GEN] and [R DC GEN] illuminated

18. DC Volt/Loadmeters – CHECK VOLTAGE

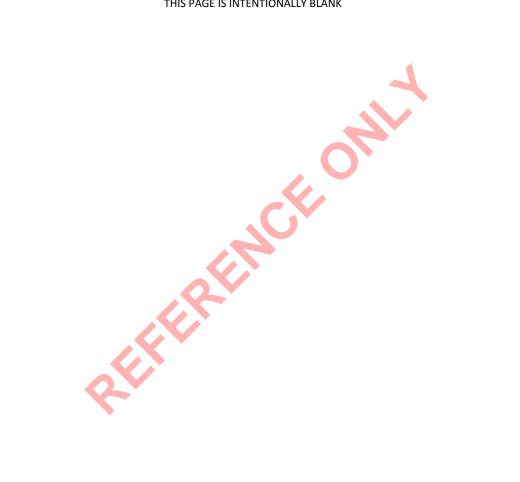
No voltage indicates current limiter is out

- 19. Overhead Panel Switches OFF
- 20. Emerg Cabin Lt Switch OFF
- 21. Battery and Generator Switches (below 15% N<sub>1</sub>) OFF
- 22. Control Locks INSTALL
- 23. Emergency Exit LOCKED
- 24. Emergency Cabin Light Power Switch OFF
- 25. Monagram Electric Toilet (if installed) SERVICE AS REQUIRED
- 26. Tiedowns and Chocks AS REQUIRED
- 27. External Covers AS REQUIRED
- 28. Propeller Locks AS REQUIRED
- 29. Oil Quantity CHECK IF REQUIRED
- 30. Parking Brake OFF
- 31. Baggage Compartment Light OFF
- 32. Cabin Entry Lights OFF

#### PRESSURIZATION CONTROLLER SETTING FOR LANDING

Closest	Add to
Altimeter Setting	Airport Elevation
28.00	+2400
28.10	+2300
28.20	+2200
28.30	+2100
28.40	+2000
28.50	+1900
28.60	+1800
28.70	+1700
28.80	+1600
28.90	+1500
29.00	+1400
29.10	+1300
29.20	+1200
29.30	+1100
29.40	+1000
29.50	+900
29.60	
29.70	
29.80	
29.90	
30.00	
30.10	
30.20	
30.30	
30.40	
30.50	
30.60	
30.70	
30.80	
30.90	500
END	

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EMERGENCY PROCEDURES

EMERGENCY PROCEDURES

All airspeeds quoted in this section are Indicated Airspeeds (IAS) and assume zero instrument error.

Closed [BRACKETS] in this section denote annunciator(s).

# NOTE

Immediate action procedures are delineated by bold type with the remaining procedures following.

#### EMERGENCY AIRSPEEDS

EMERGENCY PROCEDURES

PILOT CHECK LIST

One-Engine Inoperative Best Angle-of-C		
One Engine Best Rate of Climb (V <sub>YSE</sub> )		12 <mark>4</mark> Knots
One-Engine-Inoperative Enroute Climb	(V <sub>ENR</sub> ):	
	14,000 pounds	126 Knots
	13,000 pounds	123 Knots
	12,000 pounds	
	11,000 pounds	115 Knots
	10,000 pounds	111 Knots
	9,500 pounds	
Air Minimum Control Speed (V <sub>MCa</sub> )		. 86 Knots
Raisbeck Engineering STC Prop Inst	tallation (V <sub>MCA</sub> )	. 91 Knots
BLR Aerospace STC Prop Installatio		
Emergency Descent		181 Knots
Maximum Range Glide		136 Knots
EN	<b>ID</b>	

# **ENGINE FAILURE**

NOTE

To obtain best performance with one engine inoperative, the airplane must be banked  $3^{\circ}$  to  $5^{\circ}$  into the operating engine while maintaining a constant heading.

#### **EMERGENCY ENGINE SHUTDOWN**

UNSCHEDULED ENGINE TORQUE INCREASE IN FLIGHT (Not Responsive to Power Lever Movement)

ENGINE FIRE IN FLIGHT [L ENG FIRE] OR [R ENG FIRE]

ENGINE FAILURE IN FLIGHT

#### Affected Engine:

1. Condition Lever – FUEL CUTOFF

2. Propeller Lever – FEATHER

3. Firewall Shutoff Valve – CLOSE

4. Fire Extinguisher (if fire warning persists) – ACUTATE

5. Generator – OFF

6. Auto Ignition – OFF

7. Autofeather – OFF

8. Brake Deice (if installed) - OFF

9. Electrical Load – MONITOR

# ENGINE FIRE ON GROUND [LENG FIRE] OR [R ENG FIRE]

Affected Engine:

1. Condition Lever – FUEL CUTOFF

2. Firewall Shutoff Valve – CLOSE

3. Ignition and Engine Start – STARTER ONLY

If fire warning persists

4. Fire Extinguisher – ACTUATE

EMERGENCY ENGINE SHUTDOWN ON THE GROUND

1. Condition Levers – FUEL CUTOFF

2. Prop Levers – FEATHER

3. Firewall Shutoff Valves – CLOSE

4. Master Switch, Left & Right Generator Switches (gang bar) - OFF

5. ESIS Power - OFF

ENGINE FAILURE DURING TAKEOFF (AT OR BELOW  $V_1$ ) – TAKEOFF ABORTED

- 1. Power Levers GROUND FINE
- 2. Brakes AS REQUIRED TO ACHIEVE STOPPING DISTANCE

3. Operative Engine – MAXIMUM REVERSE or AS REQUIRED

# WARNING

Extreme care must be exercised when using single engine reversing on surfaces with reduced traction.

# ENGINE FAILURE DURING TAKEOFF (AT OR ABOVE $V_1$ ) – TAKEOFF CONTINUED

- 1. V<sub>R</sub> Speed ROTATE TO APPROX 8° NOSE UP ATTITUDE
- 1. VR Speed KOTATE TO APPROX 8 NOSE OF ATTITOD
- 2. Landing Gear (when positive climb established) UP
- 3. Airspeed  $V_2$ , MAINTAIN TO 400 FEET AGL
- 4. Propeller Inoperative Engine VERIFY FEATHERED
- 5. Airspeed at 400 Feet AGL VENR
- 6. Flaps (if extended) UP AT V<sub>2</sub> + 5 KNOTS
- 7. Climb to 1,500 Feet AGL

# WARNING

Do not retard engine power lever until the Autofeather system has completely feathered the propeller and propeller rotation has stopped. To do so will deactivate the autofeather circuit and prevent automatic feathering.

- 8. Clean up (Inoperative engine)
- a. Condition Lever FUEL CUTOFF
- b. Propeller Lever FEATHER
- c. Firewall Shutoff Valve CLOSE
- d. Auto Ignition OFF
- e. Autofeather OFF
- f. Generator OFF
- g. Prop Sync OFF
- 9. Electrical Load MONITOR

#### ENGINE FAILURE IN FLIGHT BELOW AIR MIN CONTROL SPEED VMCa.

- **1.** Power Reduce as required to maintain directional control.
- 2. Nose Lower to accelerate above V<sub>MCa</sub>.
- 3. Power (operative engine) AS REQUIRED
- 4. Failed Engine SECURE (See EMERGENCY ENGINE SHUTDOWN)

ENGINE FLAMEOUT (2<sup>ND</sup> Engine)

1. Power Lever - IDLE

- 2. Propeller Lever DO NOT FEATHER
- 3. Condition Lever FUEL CUT OFF

4. Conduct Air Start Procedures (ABNORMAL PROCEDURES - AP-2)

NOTE

The propeller will not unfeather without engine operating.

### OIL PRESSURE LOW [L OIL PRESS] OR [R OIL PRESS]

1. Oil Pressure – CONFIRM BELOW 60 PSI

If Confirmed

2. Engine – SECURE (See Emergency Engine Shutdown)

Or

3. Land at the nearest suitable airport using the minimum power required to sustain flight.

## **FUEL SYSTEM**

### FUEL PRESSURE LOW [L FUEL PRESS] OR [R FUEL PRESS]

1. Standby Pump (Failed Side) – ON

2. [FUEL PRESS] – EXTINGUISHED

3. Oil Temperature and Pressure Indicators (failed side) – MONITOR

## SMOKE AND FUME ELIMINATION

Attempt to identify the source of smoke or fumes. Smoke associated with electrical failures is usually gray or tan in color, and irritating to the nose and eyes. Smoke produced by environmental system failures is generally white in color, and much less irritating to the nose and eyes. If smoke is prevalent in the cabin, cabin oxygen should not be intentionally deployed. If masks are automatically deployed due to an increase in cabin altitude, passengers should be instructed not to use them unless the cabin altitude exceeds 15,000 feet.

### WINDSHIELD ELECTRICAL FAULT

The smell of an electrical overheat, or observing smoke and/or fire at the lower inboard corner of either windshield, adjacent to the center post, may indicate an overheat condition in the electrical power terminal for the normal heat mode of the pilot's or copilot's windshield heat.

1. WSHLD ANTI-ICE - OFF

If Smoke and /or Fire does not cease:

2. Conduct ELECTRICAL SMOKE OR FIRE procedure.

If Smoke and/or Fire cease:

3. Continue flight with Windshield Anti-Ice OFF, if possible.

*If Windshield Anti-Ice is required:* 

4. If the source of the smell, smoke, or fire can be isolated to the pilot's or copilot's windshield, the opposite windshield (without the overheat condition) may be operated in the NORMAL or HI windshield heat mode.

### **ELECTRICAL SMOKE OR FIRE**

- 1. Oxygen Mask(s) DON
- 2. Mask Selector Switch EMER POSITION
- 3. MIC Switch(es) OXY

### New Environmental System

- 4. ECS Mode MAN HEAT
- 5. Envir Bleed Air NORMAL
- 6. Cockpit Temp FULL INCREASE
- 7. Cabin Temp FULL DECREASE
- 8. Man Temp AS REQUIRED
- 9. Cockpit and Cabin Blowers AS REQUIRED
- 10. Master Switches (Batt. & Generators) OFF, Use ESIS for airplane control
- 11. Avionics Master OFF
- 12. Nonessential Electrical Equipment OFF
- 13. Cockpit Door OPEN
- 14. If Fire or Smoke Persists SKIP TO STEP 27
- If Fire or Smoke Ceases:
- 15. Battery ON
- 16. Individually restore avionics and equipment previously turned off.
- 17. Isolate defective equipment. (SKIP TO STEP 18, EP-7)

### Old Environmentl System

- 4. Master Switches (Batt & Generators) OFF, (Use ESIS for airplane control)
- 5. Avionics Master OFF
- 6. External Lights OFF
- 7. Ice Protection OFF
- 8. Internal Lights and Furnishings OFF
- 9. Aft Blower OFF
- 10. Vent Blower AUTO
- 11. Cabin Temp Mode OFF
- 12. Cockpit Door OPEN
- 13. If Fire or Smoke Persists SKIP TO STEP 27

If Fire or Smoke Ceases:

14. Battery – ON (SKIP TO STEP 18, EP-7)

### WARNING

Dissipation of smoke is not sufficient evidence that a fire has been extinguished. If it cannot be visually confirmed that no fire exists, land at the nearest suitable airport.

Check the following areas for the source of the smoke. If smoke is present, pull the respective circuit breaker to isolate equipment.

- 18. Instrument Panel
  - a. Pilots's PFD Heater (pull PILOT PFD HEATER circuit breaker)
  - b. MFD (pull MFD circuit breaker)
  - c. MFD Heater (pull MFD HTR circuit breaker)
  - d. Pilot's Audio Control Panel (pull PILOT AUDIO CONT circuit breaker)
- 19. Pedestal
  - Data Base Unit (DBU) (pull DBU circuit breaker)
- 20. Generators ON
- 21. Avionics ON
- 22. Maintain Wings-Level Unaccelerated Flight Until AHRS Alignment is Complete.

Check the following areas for the source of the smoke. If smoke is present, pull the respective circuit breaker to isolate equipment

- 23. Instrument Panel
  - a. Pilot's and/or Copilot's PFD (pull PILOT PFD and/or COPILOT PFD circuit breaker(s).
  - b. Pilot's and/or Copilot's DCP (pull PILOT DCP and/or COPILOT DCP circuit breaker(s).
  - c. Copilot's PFD Heater (pull COPILOT PFD HEATER circuit breaker).
  - d. Copilot's Audio Control Panel (pull COPILOT AUDIO CONT circuit breaker)
  - e. Radio Tuning Unit (RTU) (pull RTU circuit breaker)
- 24. Pedestal
  - CDU No. 1 (and CDU No. 2 if installed) (pull CDU NO. 1 and/or CDU NO. 2 circuit breaker(s))
- 25. Below the Cabin Floor
  - a. DC Converter No. 1 (pull DC CONV NO. 1 circuit breaker)
  - b. Radio Altimeter (pull RADIO ALTM circuit breaker)
- 26. Other Required Electrical Equipment RESTORE ONE AT A TIME
  - (if smoke resumes, isolate equipment by turning switch back off)

If Smoke Persists or if Extinguishing of Fire is Not Confirmed:

27. Cabin Pressure (if required) – DUMP

(battery must be ON while dumping pressure)

- 28. Storm Window (if required) OPEN
- 29. GND COM Switch (as required) PRESS TO RESTORE COMM 1
- 30. Flaps DO NOT ACTIVATE
- 31. Landing Gear LOWER MANUALLY
- 32. Land NEAREST SUITABLE AIRPORT

### **ENVIRONMENTAL SYSTEM SMOKE OR FUMES**

- 1. Oxygen Mask(s) DON
- 2. Mask Selector Switch EMER POSITION
- 3. MIC Switch(es) OXY

#### New Environmental System

- 4. ECS Mode MAN HEAT
- 5. Cockpit and Cabin Blowers AS REQUIRED
- l

#### Old Environmental System

- 4. Cabin Temp Mode OFF
- 5. Vent Blower HIGH
- 6. Left Bleed Air Valve ENVIR OFF

### If Smoke Decreases:

7. Continue operation with left bleed air off.

### If Smoke Does Not Decrease:

- 8. Left Bleed Air Valve OPEN
- 9. Right Bleed Air Valve ENVIR OFF

If Smoke Decreases:

10. Continue operation with right bleed air off

## NOTE

Each bleed air valve must remain closed long enough to allow time for smoke purging to positively identify the smoke source.

If smoke persists:

- 11. Bleed Air Valves ENVIR OFF
- 12. Cabin Pressurization DUMP
- 13. Storm Window (if required) OPEN
- 14. Land NEAREST SUITABLE AIRPORT

## AIRSTAIR DOOR / CARGO DOOR UNLOCKED [DOOR UNLOCKED]

## WARNING

Do not attempt to check the security of the airstair door or cargo door in flight. Remain as far from the door as possible with seatbelts securely fastened.

If The [DOOR UNLOCKED] Illuminates, or, If An Unlatched Airstair Door/Cargo Door Is Suspected:

- 1. All Occupants SEATED WITH SEAT BELTS SECURELY FASTENED
- 2. Cabin Sign NO SMOKE & FSB
- 3. Cabin Differential Pressure REDUCE TO LOWEST VALUE PRACTICAL
  - (zero is preferred)

- a. Descend and/or
- b. Select higher cabin altitude setting.
- 4. Oxygen AS REQUIRED
- 5. Land NEAREST SUITABLE AIRPORT.

## **EMERGENCY DESCENT**

- 1. Power Levers IDLE
- 2. Prop Levers FULL FORWARD
- 3. Flaps (200 knots maximum -- APPROACH
- 4. Landing Gear (181 knots maximum) DN
- 5. Airspeed 181 KNOTS MAXIMUM

GLIDE	WARNING
1. Landing Gear – UP	Determine that procedures for restarting
2. Flaps – UP	first and second failed engines are
3. Propellers – FEATHERED	ineffective before feathering second
4. Airspeed – 136 KNOTS	engine propeller.

- Glide Ratio 2.0 nautical miles for each 1000 feet of altitude. Decrease by 0.2 nautical miles for each 10 knots of headwind.
- 6. ELT Switch ON (Yellow XMT BLINKING)

## ELECTRICAL

## DUAL GENERATOR FAILURE [L DC GEN] and [R DC GEN]

The following procedure will provide 30 minutes of battery duration if the following criteria are met:

## NOTE

Ensure that the IGNITION AND ENGINE START switches are selected OFF otherwise it will not be possible to reset the generators.

- Load shedding is completed within 5 minutes
- Discharge current at completion of load shedding does not exceed approximately 35 amps.
- The battery is in good condition and was not subjected to cold soaking prior to the flight.

### 1. Generators – RESET, THEN ON

If Either Generator Will Reset:

- 2. Operating Generator Loadmeter DO NOT EXCEED 100%
  - (88% above 31,000 feet)

## 3. Inoperative Generator – OFF

*If Neither Generator Will Reset:* 

- 4. No. 3 & No. 4 Bus Feeder Circuit Breakers (2 ea. On Fuel Panel) PULL
- 5. Avionics No. 2 & Avionics No. 3 Circuit Breakers (right panel) PULL
- 6. Left & Right Fuel Control Heat Circuit Breakers (B200) (right panel) PULL
- 7. ECS Mode OFF (*New Environmental System*)
- 8. Cockpit and Cabin Blowers AUTO (New Environmental System)
- 9. Generators OFF
- 10. Non-Essential Equipment
  - a. Auto Ignition OFF
  - b. Engine Anti-Ice LEAVE IN EXISTING POSITION
  - c. All Exterior Lights OFF, Beacon ON when required
  - d. All Ice Protection except L Pitot Heat OFF
  - e. Cabin Furnishings, Lights, No Smoke/FSB OFF
  - f. Right Bleed Air Valve ENVIR OFF
  - g. Prop Sync OFF
  - h. Vent Blower AUTO (Old Environmental System)
  - i. Aft Blower OFF (Old Environmental System)
  - j. Cabin Temp Mode Control OFF (Old Environmental System)
  - k. Instrument Indirect Lights ON (if required)
  - I. All Other Cockpit Lights OFF
- 11. Land NEAREST SUITABLE AIRPORT
- 12. Flaps DO NOT LOWER
- 13. Landing Gear EXTEND MANUALLY

### 14. Battery Ammeter – MONITOR BATTERY DISCHARGE CURRENT

(should not exceed approximately 35 amps)

- 15. Revert to the ESIS if the Pilot's PFD fails.
- 16. The following equipment will be operational until the airplane battery is depleted:
- Pilot PFD, AHRS 1, ADC 1, RTU, DCP 1, NAV 1, COMM 1, and DC Converter No. 1

## ENVIRONMENTAL SYSTEMS

### USE OF OXYGEN

### WARNING

Beards and mustaches should be carefully trimmed so that they will not interfere with the proper sealing of an oxygen mask. The fit of the oxygen mask around the beard or mustache should be checked on the ground for proper sealing. Studies conducted by the military and the FAA conclude that oxygen masks do not seal over beards and mustaches. Hats and "ear-muff" type headsets must be removed prior to donning crew oxygen masks. Headsets and eyeglasses worn by crew members may interfere with quick-donning capabilities.

## WARNING

The following table sets forth the average time of useful consciousness (TUC) (time from onset of hypoxia until loss of effective performance) at various altitudes. Rapid decompression can reduce these times to 1/3 - 1/2 of their original value.

Altitude	Time of Useful Consciousness
et	1/2 - 1 minute
et	1 - 2 minutes
et	3 to 5 minutes
et	5 to 10 minutes
feet	30 minutes or more
	Altitude et et et et feet

### CREW

- 1. Oxygen Masks DON
- 2. Mic Switches OXY
- 3. Oxygen Duration CONFIRM

(Refer to Oxygen Duration in Section 4 of POH)

To Discontinue Use:

- 4. Oxygen Mask(s) RETURN TO OVERHEAD COMPARTMENT
- 5. Mic Switches NORMAL

### PASSENGERS

### WARNING

Adequate oxygen pressure is not provided to the passengers for sustained flight at cabin altitudes above 34,000 feet. The highest recommended cabin altitude for sustained flight is 25,000 feet.

- 1. Passenger Manual Drop-Out PULL ON [PASS OXY ON] ILLUMINATED
- 2. Lanyard Pin For Each Mask Used PULL OUT
- 3. Mask DON
- 4. Oxygen Duration CONFIRM

(refer to Oxygen Duration in Section 4, NORMAL PROCEDURES of AFM)

To Discontinue Use:

- 5. Passenger Manual Drop-Out PUSH OFF
- Lanyard Pin INSERT
- Mask RETURN TO COMPARTMENT
- 8. Compartment Cover (if cabin altitude is below 12,500 feet) CLOSE

### FIRST AID OXYGEN

- 1. Oxygen Compartment PULL COVER TO OPEN
- 2. 2.ON/OFF Valve ON
- 3. Mask DON

To Discontinue Use:

- 4. ON/OFF Valve OFF
- 5. Mask RETURN TO COMPARTMENT
- 6. Compartment Cover CLOSE

### PRESSURIZATION LOSS [ALT WARN]

- 1. Oxygen Mask(s) DON
- 2. Mic Switch(es) OXY
- 3. Passenger Manual Drop-Out PULL ON [PASS OXY ON] ILLUMINATED
- 4. Descend AS REQUIRED
- 5. Passengers PULL LANYARD PIN, DON MASK

### WARNING

Adequate oxygen pressure is not provided to the passengers for sustained flight at cabin altitudes above 34,000 feet. The highest recommended cabin altitude for sustained flight is 25,000 feet.

- 6. Range DETERMINE FOR FINAL CRUISE ALTITUDE
- 7. Oxygen Duration CONFIRM
  - (refer to Oxygen Duration in Section 4, NORMAL PROCEDURES of AFM)

### HIGH DIFFERENTIAL PRESSURE

(Cabin Differential Pressure Exceeds 6.6 psi)

1. Bleed Air Valves – ENVIR OFF

- 2. Oxygen (Crew and Passengers) AS REQUIRED
- 3. Descend AS REQUIRED

## AUTO-DEPLOYMENT OXYGEN SYSTEM FAILURE [ALT WARN] ILLUMINATED, [PASS OXY ON] EXTINGUISHED

### 1. Passenger Manual Drop Out – PULL ON

2. First Aid Mask (if required) - DEPLOY MANUALLY

To Isolate Oxygen Supply to the Crew and First Aid Mask:

- 3. OXYGEN CONTROL Circuit Breaker PULL
- 4. Passenger Manual Drop Out PUSH OFF

## BLEED AIR FAIL [L BL AIR FAIL] OR [R BL AIR FAIL]

The warning annunciators should be monitored during engine start. Either engine will extinguish both annunciators upon starting.

Illumination of an annunciator in flight indicates a possible rupture of a bleed air line aft of the engine firewall.

1. Bleed Air Valve (affected engine) – PNEU & ENVIR OFF [L BL AIR OFF] or [R BL AIR OFF] ILLUMINATED

NOTE

The bleed air warning annunciator will not extinguish after closing the Bleed Air Valve.

- 2. ECS Mode MAN HEAT (New Environmental System)
- 3. MAN TEMP INCR/DECR FULL DECREASE (30 SECONDS) (New Enviro System)
- 4. Engine Instruments MONITOR

## **EMERGENCY EXIT**

• Emergency Exit Handle – PULL

NOTE

This is a plug-type hatch that opens into the cabin. The hatch can either be set aside inside the cabin, or placed outside the cabin through the hatch opening.

The outside handle may be locked from the inside with the EXIT LOCK lever. The inside EXIT-PULL handle will unlatch the door regardless of the position of the EXIT LOCK lever. Before flight, make certain the lock lever is in the unlocked position.

### SPINS

Intentional spins are prohibited. If an unintended spin is encountered, perform the following procedure IMMEDIATELY – THE LONGER THE DELAY, THE MORE DIFFICULT RECOVERY WILL BECOME. Steps 1 through 3 should be done AGGRESSIVELY and SIMULTANEOUSLY. The full forward position of the control column may be reduced slightly, if required, to prevent the airplane from exceeding a 90° nose down (inverted) attitude.

- 1. Control Column FULL FORWARD, AILERONS NEUTRAL
- 2. Full Rudder OPPOSITE DIRECTION OF SPIN
- 3. Power Levers IDLE
- 4. Rudder NEUTRALIZE WHEN ROTATION STOPS
- 5. Execute a smooth pullout.

### NOTE

The Federal Aviation Administration does not recommend the spin-testing of multi-engine airplanes. The recovery technique presented above is based upon the best available information, but shall not be construed as any assurance that the airplane can, in fact, be recovered from a spin. In accordance with industry practice, no spin tests have been conducted on this airplane.

## FLIGHT CONTROLS

### UNSCHEDULED ELECTRIC ELEVATOR TRIM ACTIVATION

- 1. Airplane Attitude MAINTAIN (using elevator control)
- 2. AP/Trim Disconnect DEPRESS FULLY & HOLD

### [TRIM] – ILLUMINATED ON PFDs

### NOTE

Autopilot will disengage when the disconnect switch is depressed.

- 3. Manually retrim airplane.
- 4. AP/Tim Disconnect RELEASE

If Trim Continues to Run:

5. AP/Trim Disconnect – DEPRESS FULLY & HOLD

[TRIM] – ILLUMINATED on PFDs

- 6. Pitch Trim Circuit Breaker (right panel) PULL
- 7. AP/Trim Disconnect RELEASE
- 8. Manually retrim airplane.
- 9. Autopilot DO NOT ENGAGE

### UNSCHEDULED RUDDER BOOST ACTIVATION

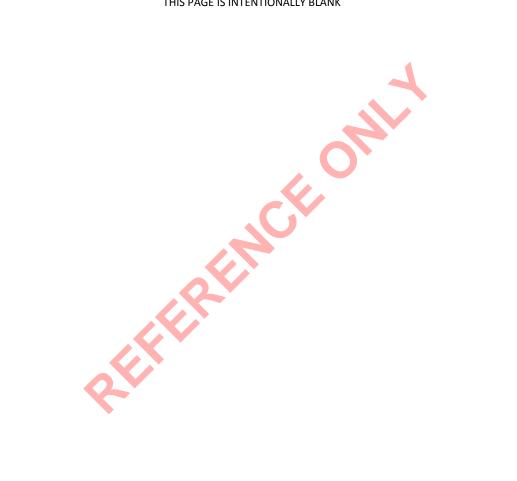
Rudder boost operation without a large variation of power between the engines indicates a failure of the system.

- 1. Directional Control MAINTAIN USING RUDDER PEDALS
- 2. Rudder Boost OFF
- If Condition Persists
- 3. Rudder Boost Circuit Breaker -- PULL
- 4. Either Bleed Air Valve PNEU & ENVIR OFF
- 5. Rudder Trim AS REQUIRED
- 6. Perform normal landing.

## **AVIONICS**

See basic AFM/POH and applicable system AFM Supplement(s)

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## ABNORMAL PROCEDURES

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ABNORMAL PROCEDURES

CENTEX AEROSPACE CKL 006-2A HW JUNE 2017

All airspeeds quoted in this section are indicated airspeeds (IAS) and assume zero instrument error.

Closed [BRACKETS] in this section denote annunciator(s).

## **AIR START**

## CAUTION

The pilot should determine the reason for engine failure before attempting an air start. Do not attempt an air start if  $N_1$  indicates zero and mechanical failure is suspected.

### STARTER ASSIST

## CAUTION

Air starts may not be possible above 25,000 feet. Descend to a lower altitude if necessary. Above 20,000 feet, starts tend to be hotter. During engine acceleration to idle speed, it may become necessary to move the condition lever periodically into FUEL CUT OFF in order to avoid an over temperature condition.

- 1. ECS Mode OFF (New Environmental System)
- 2. Cockpit/Cabin Blower AUTO (New Environmental System)
- 3. Cabin Temp Mode OFF (Old Environmental System)
- 4. Vent Blower AUTO (Old Environmental System)
- 5. Bleed Air Valve (inoperative engine) ENVIR OFF
- 6. Aft Blower OFF (Old Environmental System)
- 7. Furnishings OFF
- 8. Radar STANDBY
- 9. Windshield Heat OFF
- 10. Power Lever IDLE
- 11. Prop Lever (inoperative engine) LOW RPM
- 12. Condition Lever FUEL CUTOFF
- 13. Firewall Shutoff Valve OPEN
- 14. Generator (inoperative engine) OFF

### NOTE

If Conditions permit, reduce operative engine ITT to  $700^{\circ}$ C or less to reduce the possibility of exceeding ITT limit. Reduce electrical load to minimum consistent with flight conditions.

15. Ignition and Engine Start – ON

ABNORMAL PROCEDURES

17. ITT and N<sub>1</sub>- MONITOR (1000°C maximum)
 18. Ignition and Engine Start (>50% N<sub>1</sub>) - OFF
 19. Prop Lever - AS REQUIRED
 20. Power Lever - AS REQUIRED
 21.Generator - ON
 22. Auto Ignition - ARM
 23. Prop Sync - ON
 24. Bleed Air Valve - OPEN
 25. ECS Mode - AUTO (*New Environmental System*)
 26. Cabin Temp Mode - AUTO (*Old Environmental System*)
 27. Electrical Equipment - AS REQUIRED
 28. Aft Blower - AS REQUIRED (*Old Environmental System*)
 29. Cockpit/Cabin Blower - AS REQUIRED (*New Environmental System*)
 30. Radar - AS REQUIRED
 31. Windshield Heat - AS REQUIRED

### NO STARTER ASSIST (WINDMILLING ENGINE AND PROPELLER)

# CAUTION

Windmill air starts tend to be hotter if the start  $N_1$  is less than 13%. During engine acceleration to idle speed, it may become necessary to move the condition lever periodically into FUEL CUTOFF to avoid an over temperature condition.

1. Power Lever - IDLE

 Propeller Lever - FULL FORWARD, CONFIRM 2000 RPM
 Condition Lever - FUEL CUTOFF
 Engine Anti-ice (inoperative engine) - OFF
 Firewall Shutoff Valve - OPEN
 Generator (inoperative engine) - OFF
 Airspeed - 140 KNOTS MINIMUM
 Altitude - BELOW 20,000 Feet
 Auto Ignition – ARM [IGNITION ON] - ILLUMINATED
 Condition Lever (11.5% N1 or above) - LOW IDLE
 ITT and N1 - MONITOR (1000°C MAXIMUM
 Power (after ITT has peaked) - AS REQUIRED
 Generator – ON
 Prop Sync - ON

## LANDING

### FLAPS UP LANDING

Refer to Section 5 of Supplement AFM 006-2A HW for Flaps Up Landing Distance.

WEIGHT ~ POUNDS	V <sub>REF</sub> (Flaps Up) ~ KNOTS	
14,000	128	
13,500	126	
13,000	124	
12,000	121	
11,000	118	
10,000	115	
9,000	111	
9,000	111	

- 1. Approach Speed, V<sub>REF</sub> (Flaps UP) CONFIRM
- 2. Autofeather ARM
- 3. Pressurization CHECK
- 4. Cabin Sign NO SMOKE & FSB
- 5. Flaps UP



Do not silence the landing gear warning horn, since the flap actuated portion of the landing gear warning system will not be actuated during a flaps up landing.

- 6. Flap Override SELECT
- 7. Landing Gear DN

8. Lights - AS REQUIRED

### NOTE

Under low visibility conditions, landing and taxi lights should be left off due to light reflections.

9. Radar - AS REQUIRED

### 10. Surface Deice - CYCLE AS REQUIRED

If wings are free of ice: 11. Stall Warning Ice Mode Switch - PRESS (to select Normal Mode)

*If residual ice remains on wing boots:* 

12. Surface Deice - CYCLE

13. Stall Warning Ice Mode Annunciator - ILLUMINATED

14. Approach Speed and Landing Distance – INCREASE V<sub>REF</sub> BY 15 KNOTS AND INCREASE LANDING DISTANCE BY 25 PERCENT.

See LANDING DISTANCE chart in Section 5 of Supplement AFM 006-2A HW

### NOTE

Prior to the landing approach, cycle the wing deice boots to shed as much residual ice as possible, regardless of the amount of ice remaining on the boots. Stall speeds can be expected to increase if ice is not shed from the deice boots.

### NOTE

If crosswind landing is anticipated, determine Crosswind Component from Section 5, PERFORMANCE in the basic AFM/POH. Immediately prior to touchdown, lower upwind wing and align the fuselage with the runway by use of rudder. During rollout, hold aileron control into the wind and maintain directional control with rudder and brakes. Use propeller reverse as desired.

When Landing Is Assured:

- 15. Approach Speed, VREF ESTABLISHED (With ice on wings, VREF + 15)
- 16. Yaw Damp OFF
- 17. Power Levers IDLE

18. Propeller Levers - FULL FORWARD

After Touchdown:

- 19. Power Levers LIFT AND SELECT GROUND FINE OR REVERSE (as required)
- 20. Brakes AS REQUIRED

### **ONE-ENGINE-INOPERATIVE APPROACH AND LANDING**

	Flaps DOWN			
Weight	V <sub>REF</sub> Speeds,			
Lbs	Knots			
14,000	106			
13,500	105			
13,000	104			
12,000	102			
11,000	99			
10,000	96			
9,000	93			

1. Approach Speed, V<sub>REF</sub> – CONFIRM

- 2. Fuel Balance CHECK
- 3. Pressurization CHECK
- 4. Cabin Sign NO SMOKE & FSB

When it is certain that the field can be reached:

- 5. Flaps APPROACH
- 6. Landing Gear DN
- 7. Propeller Lever (operating engine) FULL FORWARD
- 8. Airspeed  $V_{REF}$  + 10 KNOTS
- 9. Interior and Exterior Lights AS REQUIRED
- 10. Radar As Required
- 11. Surface Deice CYCLE AS REQUIRED

If wings are free of ice:

12. Stall Warning Ice Mode Switch – PRESS (to select Normal Mode)

If residual ice remains on wing boots:

- 13. Surface Deice CYCLE
- 14. Stall Warning Ice Mode Annunciator ILLUMINATED

15. Approach Speed and Landing Distance – INCREASE V<sub>REF</sub> BY 15 KNOTS AND INCREASE LANDING DISTANCE BY 25 PERCENT

See LANDING DISTANCE chart in Section 5 of Supplement AFM 006-2A HW.

### NOTE

Prior to the landing approach, cycle the wing deice boots to shed as much residual ice as possible, regardless of the amount of ice remaining on the boots. Stall speeds can be expected to increase if ice is not shed from the deice boots.

#### NOTE

If crosswind landing is anticipated, determine Crosswind Component from Section 5, PERFORMANCE in the basic AFM/POH. Immediately prior to touchdown, lower upwind wing and align the fuselage with the runway. During rollout, hold aileron control into the wind and maintain directional control with rudder and brakes.

#### CONTINUED

NI

When It is Certain There is No Possibility of a Go-Around 16. Flaps – DN 17. Airspeed -  $V_{RFF}$  (With ice on wings,  $V_{RFF}$  + 15)

18. Perform normal landing.

## NOTE

Single-engine reverse thrust may be used with caution after touchdown on smooth, dry, paved surfaces.

### **ONE-ENGINE-INOPERATIVE GO-AROUND**

1. Power - MAXIMUM ALLOWABLE

2. Landing Gear - UP

3. Flaps – UP AT V<sub>RFF</sub> + 10 KNOTS

4. Airspeed – V<sub>REF</sub> + 20 KNOTS

### **OVERWEIGHT LANDING**

aps ·	– UP AT V <sub>REF</sub> + 10 KNOT eed – V <sub>REF</sub> + 20 KNOTS	S	4
RW	EIGHT LANDING		
	WEIGHT ~ POUNDS	<b>V</b> <sub>REF</sub> ~ KNOTS	
	14,000	106	
	13,500	105	
en Lo	anding Is Assured:		
Flap	os – DOWN		
Airs	speed – V <sub>REF</sub>		
Yav	v Damp – OFF		
Dev			

When Landing Is Assured:

- 1. Flaps DOWN
- 2. Airspeed V<sub>RFF</sub>
- 3. Yaw Damp OFF
- 4. Power Levers IDLE
- 5. Propeller Levers FULL FORWARD

### CAUTION

To ensure constant reversing characteristics, the propeller levers must be in the high rpm position.

6. Sink Rate - TOUCHDOWN WITH NOMINAL OR LESS SINK RATE

### After Touchdown:

- 7. Power Levers LIFT AND SELECT GROUND FINE
- 8. Brakes AS REQUIRED

## NOTE

An overweight landing is defined as any landing made when the airplane gross weight is greater than 13,500 pounds, which is the maximum landing weight limitation. When the airplane is landed at a gross weight above 13,500 pounds the pilot should request that an inspection in accordance with the King Air 200 Series Maintenance Manual Section 5-50-00, Inspection After Hard Landing be performed before the next flight.

## SYSTEMS

### **ENGINE OIL SYSTEM**

LOW OIL PRESSURE INDICATION -60 PSI THROUGH 89 PSI (-52 ENGINE)

(YELLOW INDICATION) 60 PSI THROUGH 99 PSI (-42 ENGINE) 1. 85-89(-52)/99(-42) PSI at 21,000 Feet and Above – NO ACTION REQUIRED 2. 60-85 PSI at 21,000 feet and above or 60-89(-52)/99(-42) PSI below 21,000 feet

a. Do not exceed 1100 ft-lbs of torque

b. Correct fault prior to next flight

For oil pressures below 60 psi, see EMERGENCY PROCEDURES.

HIGH OIL PRESSURE INDICATION (Above 135 psi Not Exceeding 200 psi). Ground Operation, excluding transients during cold ground starts:

Correct fault prior to flight

In Flight:

- 1. Continue flight to destination at pilot's discretion
- 2. Correct fault prior to next flight.

CHIP DETECT [L CHIP DETECT] OR [R CHIP DETECT]

- 1. Engine Instruments MONITOR
- 2. If Abnormal SHUT DOWN ENGINE AT PILOT'S DISCRETION

### FUEL SYSTEM

CROSSFEED (ONE-ENGINE-INOPERATIVE OPERATION)

1. Crossfeed – LEFT OR RIGHT, AS REQUIRED

[FUEL CROSSFEED] – ILLUMINATED

- 2. Standby Pumps OFF
- 3. Auxiliary Tank Transfer AUTO
- 4. Fuel Balance MONITOR

If Fuel is Required from the Inoperative Engine's Auxiliary Fuel Tank and the Reason for Shutdown was Not an Engine Fire or Fuel Leak:

5. Firewall Shutoff Valve (inoperative engine) – OPEN

[FUEL PRESS] - EXTINGUISHED

6. No Transfer Light (inop engine) – EXTINGUISHED IN 30 - 50 SECONDS

TO DISCONTINUE CROSSFEED

7. Crossfeed Flow Switch – OFF (centered)

AUXILIARY FUEL TRANSFER FAILURE (NO TRANSFER LIGHT)

- 1. Auxiliary Tank Transfer OVERRIDE
- 2. No Transfer Light EXTINGUISHED

(If light does not extinguish, auxiliary fuel may not be available.)

- 3. Auxiliary Fuel Quantity MONITOR
- 4. Auxiliary Tank Transfer AUTO (when auxiliary fuel tank is empty)

### ELECTRICAL SYSTEM

SINGLE GENERATOR FAILURE [L DC GEN] OR [R DC GEN]

- 1. Loadmeter VERIFY GENERATOR IS OFF (0% LOAD)
- 2. Generator RESET, THEN ON

*If generator will not reset:* 

- 3. Generator OFF
- 4. Loadmeter DO NOT EXCEED 100% (88% Above 31,000 feet)

In the event of a single generator failure, the following systems may be shut off to reduce the electrical load below 100%:

- Furnishing Systems
- Tail Flood Lights
- Prop Sync
- Copilot Windshield Anti-Ice
- Strobe Lights
- Cabin Lights
- Cockpit/Cabin Blowers (Low Speed) (New Environmental System)

### EXCESSIVE LOADMETER INDICATION (over 100%)

- 1. Battery OFF (monitor loadmeter)
- If Loadmeter Still Indicates Above 100%:
- 2. Nonessential Electrical Equipment OFF
- If Loadmeter Indicates 100% or Below:
- 3. Battery ON

### CIRCUIT BREAKER TRIPPED

- 1. Nonessential Circuit DO NOT RESET IN FLIGHT
- Essential Circuit (necessary for continued safe flight)

   Circuit Breaker (allow to cool for 10 seconds min.) PUSH TO RESET
- If Circuit Breaker Trips Again

b. Circuit Breaker – DO NOT RESET

BUS FEEDER CIRCUIT BREAKER TRIPPED

(FUEL PANEL BUS FEEDERS AND RIGHT CIRCUIT BREAKER PANEL BUS FEEDERS)

• A short is indicated, do not reset in flight.

### NOTE

The items that may be inoperative can be determined from the electrical system schematic in Section 7, SYSTEMS DESCRIPTION in the basic POH/AFM.

### LANDING GEAR SYSTEM

HYDRAULIC FLUID LOW [HYD FLUID LOW]

If The {HYD FLUID LOW] Illuminates During Flight:

1. Landing Gear – ATTEMPT TO EXTEND NORMALLY AT DESTINATION.

If Landing Gear Fails To Extend:

2. Follow LANDING GEAR MANUAL EXTENSION PROCEDURES.

LANDING GEAR MANUAL EXTENSION

*If the Landing Gear Fails to Extend After Placing the Landing Gear Control Down, Perform the Following:* 

- 1. Landing Gear Relay Circuit Breaker (pilot's subpanel) PULL
- 2. Landing Gear Control CONFIRM DN
- 3. Alternate Extension Handle UNSTOW AND PUMP
  - a. Pump handle up and down until the three green gear-down annunciators are illuminated.
  - b. While pumping, do not lower handle to the level of the securing clip as this will result in loss of pressure.

If All Three Green Gear-Down Annunciators Are Illuminated:

- 4. Alternate Extension Handle STOW
- 5. Landing Gear Controls DO NOT ACTIVATE
  - a. The Landing Gear Control and the Landing Gear Relay Circuit Breaker MUST NOT BE ACTIVATED.
  - b. The landing gear should be considered UNSAFE until the airplane is on jacks and the system has been cycled and checked.

If One or More Green Gear-Down Annunciators Do Not Illuminate for Any Reason and a Decision is Made to Land in this Condition:

- 6. Alternate Extension Handle CONTINUE PUMPING
  - a. Continue to pump the handle until maximum resistance is felt.
  - b. When pumping is complete, leave handle at the top of the stroke. DO NOT LOWER AND STOW.

Prior To Landing

7. Alternate Extension Handle – PUMP AGAIN

a. Pump the handle again until maximum resistance is felt.

b. When pumping is complete, leave handle at the top of the stroke. DO NOT LOWER AND STOW.

After Landing

- 8. Alternate Extension Handle PUMP AGAIN WHEN CONDITIONS PERMIT
  - a. Pump the handle again, when conditions permit, to maintain hydraulic pressure until the gear can be mechanically secured.
  - b. DO NOT STOW HANDLE
  - c. DO NOT ACTIVATE THE LANDING GEAR CONTROL OR THE LANDING GEAR RELAY CIRCUIT BREAKER.
  - d. The landing gear should be considered UNLOCKED until the airplane is on jacks and the system has been cycled and checked.

### ENVIRONMENTAL SYSTEMS

DUCT OVERTEMPERATURE [DUCT OVERTEMP]

New Environmental System

- ECS Mode MAN HEAT
   MAN TEMP INCR/DECR DECR(30 seconds)
   If Condition Persists:
   A total former Seconds
- 3. Left Bleed Air Valve ENVIR OFF
- If the [DUCT OVERTEMP] Does Not Extinguish After 2 Minutes:
- 4. Oxygen AS REQUIRED
- 5. Right Bleed Air Valve ENVIR OFF
- 6. Descend AS REQUIRED

Old Environmental System

- 1. Electric Heat OFF
- 2. Vent Blower HIGH
- 3. Cabin/Cockpit Air PUSH TO INCREASE AIRFLOW TO CABIN
- If Condition Persists:
- 4. Cabin Temp Mode MAN HEAT
- 5. Manual Temp DECR (60 Seconds)
- If Condition Continues to Persist:
- 6. Left Bleed Air Valve ENVIR OFF
- If The [DUCT OVERTEMP] Does Not Extinguish After 2 Minutes:
- 7. Oxygen AS REQUIRED
- 8. Right Bleed Air Valve ENVIR OFF
- 9. Descend AS REQUIRED

ELECTRIC HEAT ON [ELEC HEAT ON] (New Environmental System)

*If the* [ELEC HEAT ON] *does not extinguish when ELEC HEAT is de-selected during ground operations:* 

• ECS Mode – ELEC HEAT

(Initiate SHUTDOWN AND SECURE PROCEDURES when practical) If the [ELEC HEAT ON] illuminates in Flight and the ECS Mode is in the ELEC HEAT position:

1. ECS Mode – SELECT ANOTHER MODE

- If Annunciator Remains Illuminated:
  - 2. Cockpit Blower HIGH
  - 3. Loadmeters MONITOR

### NOTE

Turn off non-essential equipment as necessary to maintain loads within limits

### ICE PROTECTION SYSTEM

ELECTROTHERMAL PROPELLER DEICE (Auto System) Abnormal Reading on Deice Ammeter (Normal operation is 18 to 24 amps):

- 1. Zero Amps:
  - a. Automatic Prop Deice CHECK ON
  - b. If OFF, reposition to ON after 30 seconds.
  - c. If ON with zero amps reading, system is inoperative: position the switch to OFF.
  - d. Use manual prop deice system.
- 2. Below 18 amps:
  - a. Continue operation.
  - b. If propeller imbalance occurs, increase rpm briefly to aid in ice removal.
- 3. Over 24 amps.
  - a. If the Auto Prep Deice circuit breaker switch does not trip, continue operation.
  - b. If propeller imbalance occurs, increase rpm briefly to aid in ice removal.
  - c. If the Auto Prop Deice circuit breaker switch trips, use the manual system. Monitor loadmeter for excessive current drain.
  - d. If the Prop Deice Control circuit breaker or the Left or Right Prop Deice circuit breaker trips, avoid icing conditions.

ELECTROTHERMAL PROPELLER DEICE (MANUAL SYSTEM)

- 1. Manual Prop Deice MANUAL FOR 90 SECONDS
- 2. Loadmeters MONITOR FOR SMALL NEEDLE DEFLECTION (APPROX 8%)
- 3. Repeat as required.

ENGINE ANTI-ICE FAILURE [L ENG ICE FAIL] OR [R ENG ICE FAIL]

1. Engine Anti-ice Actuator – SELECT OTHER ACTUATOR

IF [ENG ICE FAIL] Does Not Extinguish:

- 2. Exit icing conditions.
- 3. Assume engine anti-ice is ON for performance calculations.

PITOT STATIC MAST HEAT FAILURE [L PITOT HEAT] OR [R PITOT HEAT] Illumination of the L or R PITOT HEAT annunciator indicates that pitot mast heat is inoperative. The annunciator will also illuminate anytime the PITOT switch is in the OFF position.

### BRAKE DEICE (IF INSTALLED)

If operation does not automatically terminate approximately 10 minutes after gear retraction, system must be manually selected OFF.

If inadequate pneumatic pressure is developed for proper wing boot inflation, select brake deice system OFF.

### STATIC AIR SYSTEM

### PILOT'S ALTERNATE STATIC AIR SOURCE

THE PILOT'S ALTERNATE STATIC AIR SOURCE SHOULD BE USED IN SITUATIONS WHERE THE NORMAL STATIC SOURCE HAS BEEN OBSTRUCTED. After the airplane has been exposed to moisture and/or icing conditions (especially on the ground), the possibility of obstructed static ports should be considered. Partial obstructions will result in the rate of climb indication being sluggish during a climb or descent. Verification of suspected obstruction is possible by switching to the alternate system and noting a sudden sustained change in rate of climb. This may be accompanied by abnormal indicated airspeed and altitude changes beyond normal calibrated differences.

Whenever Any Obstruction Exists in The Normal Static Air System, or, When The Alternate Static Air System Is Desired For Use:

- 1. Pilot's Static Air Source (right side panel) ALTERNATE
- 2. For Airspeed Calibration and Altimeter Correction, refer to basic AFM/POH SECTION 5 PERFORMANCE.

### NOTE

Be certain the static air valve is in the NORMAL position when the alternate system is not needed.

### CRACKED OR SHATTERED WINDSHIELD

The following procedure should be used when one or more cracks occur in the inner or outer ply of the windshield. The procedure is also applicable if the windshield shatters. This usually occurs in the inner ply and is characterized by a multitude of cracks which will likely obstruct the crew members' vision and may produce small particles or flakes of glass that can break free of the windshield.

- 1. Altitude MAINTAIN 25,000 FEET OR LESS, IF POSSIBLE
- 2. Pressurization Controller RESET
  - a. Cruise and Descent MAINTAIN A CABIN DIFFERENTIAL PRESSURE OF 2.0 TO 4.6 PSI (A cabin differential pressure of 4.6 psi will produce approximately a 10,500-foot cabin altitude at an airplane altitude of 25,000 feet)
  - b. Before Landing DEPRESSURIZE CABIN PRIOR TO TOUCHDOWN
- 3. Other In-flight Considerations
  - a. Visibility through a shattered windshield may be sufficiently reduced to dictate flying the airplane from the opposite side of the cockpit.
  - b. Precautions should be taken to prevent particles or flakes of glass from a shattered inner ply of the windshield from interfering with the crew's vision.
  - c. A cracked outer windshield ply may damage operating windshield wipers.
  - d. Windshield heat may be inoperative in the area of the crack(s).
  - e. The structural integrity of the windshield will be maintained.

4. Postflight Considerations - SEE SECTION 2 LIMITATIONS IN BASIC AFM/POH

### CRACK IN ANY SIDE WINDOW (COCKPIT OR CABIN)

- 1. Altitude DESCEND IF REQUIRED
  - a. Descend to an altitude not requiring oxygen, if possible or
- b. Descend to at least 25,000 feet if passengers are on board.
- 2. Crew and Passengers DON OXYGEN MASKS, IF REQUIRED
- 3. Pressurization Controller RESET AS REQUIRED TO DEPRESSURIZE CABIN
- 5. Cabin Pressure switch DUMP
- 6. Postflight Considerations SEE SECTION 2, LIMITATIONS IN BASIC AFM/POH

## SEVERE ICING CONDITIONS

THE FOLLOWING WEATHER CONDITIONS MAY BE CONDUCIVE TO SEVERE INFLIGHT ICING:

- Visible rain at temperatures below 0° Celsius outside air temperature.
- Droplets that splash or splatter on impact at temperatures below 0° Celsius outside air temperature.

### PROCEDURES FOR EXITING THE SEVERE ICING ENVIROMENT:

These procedures are applicable to all phases of flight from takeoff to landing. Monitor the ambient air temperature. While severe icing may form at temperatures as cold as -18° Celsius, increased vigilance is warranted at temperatures around freezing with visible moisture present. If the visual cues specified in Section 2 Limitations of the Halo 250 FAA Approved AFM Supplement for identifying severe icing conditions are observed, accomplish the following.

- Immediately request priority handling from Air Traffic Control to facilitate
  a route or an altitude change to exit the severe icing conditions in order
  to avoid extended exposure to flight conditions more severe than those
  for which the airplane has been certificated.
- 2. Avoid abrupt and excessive maneuvering that may exacerbate control difficulties.
- 3. Do not engage the autopilot.
- 4. If the autopilot is engaged, hold the control wheel firmly and disengage the autopilot.
- 5. If an unusual roll response or uncommanded roll movement is observed, reduce angle-of-attack.
- 6. Do not extend flaps when holding in icing conditions. Operation with the flaps extended can result in a reduced wing angle-of-attack, with the possibility of ice forming on the upper surface further aft on the wing than normal, possibly aft of the protected area (i.e., leading-edge boot).
- If the flaps are extended, do not retract them until the airframe is clear of ice.
- 8. Report these weather conditions to Air Traffic Control.

### AVIONICS

See basic AFM/POH and applicable system AFM Supplement.

ABNORMAL PROCEDURES PILOT CHECK LIST

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