Normal Procedures

AIRSPEEDS FOR NORMAL OPERATION

Unless otherwise noted, the following speeds are based on a maximum weight of 8750 pounds for takeoff and 8500 pounds for landing and may be used for any lesser weight. However, to achieve the performance specified for takeoff distance, climb performance, and landing distance, the speed appropriate to the particular weight must be used.

TAKEOFF:

Normal Climb, Flaps 20° . . . . . .90-100 KIAS
Short Field Takeoff, Flaps 20°, Speed at 50 Feet . . . . . .86 KIAS
Type II, Type III or Type IV Anti-ice Fluid Takeoff (Flaps UP) . . . . . .83 KIAS

ENROUTE CLIMB, FLAPS UP:

Cruise Climb . . . . . .110-120 KIAS
Best Rate of Climb, Sea Level to 10,000 Feet . . . . . .108 KIAS
Best Rate of Climb, 20,000 Feet. . . . . .92 KIAS
Best Angle of Climb, Sea Level to 20,000 Feet . . . . . .86 KIAS

LANDING APPROACH:

Normal Approach, Flaps UP . . . . . .100-115 KIAS
Normal Approach, Flaps FULL . . . . . .75-85 KIAS
Short Field Approach, Flaps FULL . . . . . .78 KIAS

(Continued Next Page)

AIRSPEEDS FOR NORMAL OPERATION (Continued)

BALKED LANDING:
Takeoff Power, Flaps 20° . . . . . .80 KIAS

MAXIMUM RECOMMENDED TURBULENT AIR PENETRATION SPEED:
8750 Pounds . . . . . .148 KIAS
7500 Pounds . . . . . .137 KIAS
6250 Pounds . . . . . .125 KIAS
5000 Pounds . . . . . .112 KIAS

MAXIMUM DEMONSTRATED CROSSWIND VELOCITY:
Takeoff or Landing . . . . . .20 KNOTS

CABIN

1. PITOT/ STATIC Tube Covers . . . . . .REMOVED
2. Pilot's Operating Handbook. . . . . .ACCESSIBLE TO PILOT
3. Garmin G1000 CRG . . . . . .ACCESSIBLE TO PILOT
4. Control Locks . . . . . .REMOVE (disengage RUDDER LOCK)
5. PARKING BRAKE . . . . . .SET

(Continued Next Page)

CABIN (Continued)

6. All Switches . . . . . .OFF
7. Circuit Breakers . . . . . .IN
8. ALT STATIC AIR . . . . . .OFF
9. INERTIAL SEPARATOR T-Handle . . . . . .NORMAL
10. STBY FLAP MOTOR Switch . . . . . .GUARDED NORM
11. OXYGEN SUPPLY PRESSURE (if installed) . . . . . .CHECK
12. Oxygen Masks (if installed). . . . . .CHECK AVAILABLE
13. FUEL TANK SELECTOR Valves . . . . . .BOTH ON
(feel against stop)
14. VENTILATION FANS/ AIR CONDITIONING (if installed) . . . . . .OFF
15. BLEED AIR HEAT Switch. . . . . .OFF (down)
16. EMERGENCY POWER Lever . . . . . .NORMAL
17. TRIM Controls. . . . . .SET
18. FUEL SHUTOFF Knob . . . . . .ON (push in)
19. CABIN HEAT FIREWALL SHUTOFF Control . . . . . .CHECK IN
20. BATTERY Switch . . . . . .ON
(verify deck skin fans audible and airflow from each fan)
21. AVIONICS No. 1 Switch . . . . . .ON
22. PFD 1 . . . . . .CHECK (verify PFD 1 - ON)
23. AVIONICS No. 2 Switch . . . . . .ON
24. PFD 2 and MFD . . . . . .CHECK (verify PFD2 and MFD - ON)
25. FUEL QTY . . . . . .CHECK QUANTITY
26. ENGINE Softkey. . . . . .SELECT SYSTEM
27. SYSTEM Softkey . . . . . .RST FUEL (if desired)
Reset Fuel Totalizer if desired. Select ENGINE Softkey to return to main page.
28. WING FLAPS Handle . . . . . .FULL DOWN
29. PITOT/STATIC and
STALL HEAT Switches . . . . . .ON FOR 30 SECONDS;
THEN OFF
30. AVIONICS No. 1 and No. 2 Switches . . . . . .OFF
31. BATTERY Switch . . . . . .OFF

LEFT SIDE

1. WING LIGHT. . . . . .CHECK (verify condition)
2. Fuel Reservoir Drain (bottom of fuselage or left side of cargo pod) . . . . . DRAIN (using fuel sampler) Drain to check for water, sediment, and proper fuel before each flight and after each refueling. If water is observed, take additional samples until clear. Take repeated samples from all fuel drain points until all contamination has been removed.

NOTE

Properly dispose of samples from all fuel drains. Aviation turbine fuel will deteriorate asphalt surfaces.

3. Main Landing Gear . . . . . .CHECK (check proper tire inflation and condition of gear)
4. Inboard Fuel Tank Sump and External SumpQuick-Drain Valves . . . . . DRAIN (using fuel sampler) Drain to check for water, sediment, and proper fuel before each flight and after each refueling. If water is observed, take additional samples until clear. Take repeated samples from all fuel drain points until all contamination has been removed.

LEFT WING Leading Edge

WARNING

• It is essential in cold weather to remove even the smallest accumulations of frost, ice, snow, or slush from the wing and control surfaces. To assure complete removal of contamination, conduct a visual and tactile inspection up to two feet behind the protected surfaces at one location along the wing span as a minimum. Also, make sure the control surfaces contain no internal accumulations of ice or debris. If these requirements are not performed, aircraft performance will be degraded to a point where a safe takeoff and climb may not be possible.

(Continued Next Page)

LEFT WING Leading Edge (Continued)

WARNING

• Prior to any flight in known or forecast icing conditions, check that PITOT/STATIC tube(s) and STALL warning heaters are warm to touch after turning PITOT/STATIC and STALL HEAT switches ON for 30 seconds, then OFF. Make sure the pitot covers are removed prior to turning PITOT/ STATIC HEAT ON.

1. Wing Tie-Down . . . . . .DISCONNECT
2. Stall Warning Vane . . . . . .CHECK
   (verify freedom of movement, audible warning and warmth)
   Ensure the elevator control is off the forward stop in order to check audible warning.
3. PITOT/ STATIC Tube . . . . . .CHECK
   (verify security, openings for stoppage and warmth)
4. LDG and TAXI/RECOG Lights . . . . . .CHECK
   (verify condition and cleanliness)
5. Fuel Quantity . . . . . .VISUALLY CHECK

6. Fuel Filler Cap . . . . . SECURE
7. Outboard Fuel Tank Sump
   Quick-Drain Valve. . . . . DRAIN (using fuel sampler) Drain to check for water, sediment and proper fuel before each flight and after each refueling. If water is observed, take additional samples until clear. Take repeated samples from all fuel drain points until all contamination has been removed.
8. NAV and STROBE Lights . . . . . .CHECK
   (verify condition and cleanliness)

LEFT WING Trailing Edge

1. Fuel Tank Vent . . . . . .CHECK
(verify no obstructions)
2. Aileron and Servo Tab. . . . . CHECK
(verify condition and security)
3. Static Wicks (4 total) . . . . . .CHECK
(verify condition)
4. Spoiler . . . . . .CHECK
(verify condition and security)
5. Flap Leading Edge Vortex Generators . . . . . .CHECK
(verify condition and security)
6. Flap . . . . . .CHECK
(verify condition and security)

EMPENNAGE

WARNING

It is essential in cold weather to remove even the smallest accumulations of frost, ice, snow, or slush from the tail and control surfaces. Exercise caution to avoid distorting the vortex generators on horizontal stabilizer while deicing. To assure complete removal of contamination, conduct a visual and tactile inspection of all critical surfaces. Also, make sure the control surfaces contain no internal accumulations of ice or debris. If these requirements are not performed, aircraft performance will be degraded to a point where a safe takeoff and climb may not be possible.

1. Baggage . . . . . .CHECK SECURE (through cargo door)
2. Cargo Door . . . . . .CLOSED and LATCHED
3. Horizontal Stabilizer Leading Edge . . . . . .CHECK
   Verify condition, security, and verify 18 vortex generators on the upper side of each horizontal stabilizer.
4. Control Surfaces and Elevator Trim Tabs . . . . . .CHECK
   Verify condition, security, freedom of movement and tab position.
5. Static Wicks (14 total) . . . . . .CHECK
   Verify condition and security; verify 4 static wicks per elevator half, 5 on the rudder, and 1 on the stinger.
6. Rudder Gust Lock . . . . . .DISENGAGE
7. NAV Light . . . . . .CHECK
   (verify condition and cleanliness)
8. Tail Tie-Down. . . . . .DISCONNECT
9. Oxygen Filler Door (if installed). . . . . .SECURE
10. Passenger Entry Door (if installed) . . . . . .CHECK
    (condition and security)

RIGHT WING Trailing Edge

1. Flap. . . . . .CHECK
(verify condition and security)
2. Spoiler. . . . . .CHECK
(verify condition and security)
3. Flap Leading Edge Vortex Generators . . . . . .CHECK
(verify condition and security)
4. Aileron and Trim Tab. . . . . .CHECK
(verify condition and security)
5. Static Wicks (4 total) . . . . . .CHECK
(verify condition)
6. Fuel Tank Vent . . . . . .CHECK
(verify no obstructions)

RIGHT WING Leading Edge

WARNING

• It is essential in cold weather to remove even the smallest accumulations of frost, ice, snow, or slush from the wing and control surfaces. To assure complete removal of contamination, conduct a visual and tactile inspection up to two feet behind the protected surfaces at one location along the wing span as a minimum. Also, make sure the control surfaces contain no internal accumulations of ice or debris. If these requirements are not performed, aircraft performance will be degraded to a point where a safe takeoff and climb may not be possible.

• Prior to any flight in known or forecast icing conditions, check that PITOT/ STATIC tube(s) and STALL warning heaters are warm to touch after turning PITOT/STATIC and STALL HEAT switches ON for 30 seconds, then OFF. Make sure the pitot covers are removed prior to turning PITOT/STATIC HEAT ON.

(Continued Next Page)

RIGHT WING Leading Edge (Continued)

1. NAV and STROBE Lights . . . . . .CHECK
(verify condition and cleanliness)
2. Fuel Quantity. . . . . .VISUALLY CHECK

3. Fuel Filler Cap. . . . . .SECURE

4. Outboard Fuel Tank Sump Quick-Drain Valve
(if airplane parked with one
wing low on a sloping ramp) . . . DRAIN (using fuel sampler) Drain to check for water, sediment and proper fuel before each flight and after each refueling. If water is observed, take additional samples until clear. Take repeated samples from all fuel drain points until all contamination has been removed.
5. LND and TAXI/ RECOG Lights . . . . . .CHECK
(verify condition and cleanliness)
6. PITOT/ STATIC Tube . . . . . .CHECK
(verify security, openings for stoppage and warmth)
7. Radome (if installed) . . . . . .CHECK
(verify condition and security)
8. Wing Tie-Down . . . . . .DISCONNECT
9. Inboard Fuel Tank Sump and External Sump
Quick-Drain Valves . . . . . DRAIN (using fuel sampler) Drain to check for water, sediment, and proper fuel before each flight and after each refueling. If water is observed, take additional samples until clear. Take repeated samples from all fuel drain points until all contamination has been removed.
10. Main Landing Gear . . . . . .CHECK
(check proper tire inflation and condition of gear)

NOSE

WARNING

It is essential in cold weather to remove even the smallest accumulations of frost, ice, snow, or slush from the propeller blades and spinner, and the air inlets (starter/generator, oil cooler and engine inlets). To assure complete removal of contamination, conduct a visual and tactile inspection of all critical surfaces. If these requirements are not performed, aircraft performance will be degraded to a point where a safe takeoff and climb may not be possible.

1. Right Crew Door . . . . . .CLOSED
2. Exhaust Cover (if installed). . . . . .REMOVE
3. Cowling. . . . . .OPEN
   (right side of upper cowling for access and check condition and security)
4. Engine (right side). . . . . .CHECK
   (verify general condition, security, fuel and oil leakage and damage to any components)

WARNING

Avoid touching the output connectors or coupling nuts or ignition excitor with bare hands.

5. Battery . . . . . .CHECK
   (verify condition and power cables security)
6. Exhaust System . . . . . .CHECK
   (verify condition, security, cracks, distortion and damage)
7. Cowling. . . . . .CLOSE and LATCH (right side)
8. Propeller Anchor. . . . . .REMOVE
9. Air Inlet Covers . . . . . .REMOVE
10. Air Inlets . . . . . .CHECK

Check starter/generator blast tube opening and oil cooler inlet (right) and engine induction air inlet (left) for condition, restrictions, and debris.

(Continued Next Page)

NOSE (Continued)

11 . Propeller . . . . . .CHECK
Inspect blades for nicks, gouges, looseness of material, erosion and cracks. Also, inspect blades for lightning strike (darkened area near tips), boots for security, condition and evidence of grease and oil leaks.
12. Propeller Spinner. . . . . .CHECK
(verify condition and security)
13. Nose Wheel Strut and Tire . . . . . .CHECK
Check condition, red over-travel indicator block and cable intact (not fallen into view), and proper inflation of tire.
14. Cowling . . . . . .OPEN
(left side of upper cowling for access and check condition and security)
15. Engine (left side) . . . . . .CHECK
(verify general condition, security, fuel, no oil leakage, and no damage to any components)
16. INERTIAL SEPARATOR Bypass Outlet . . . . . .CHECK CLOSED
(verify duct free of debris)
17. Oil Dipstick/Filler Cap . . . . . .CHECK
Check oil level. Check dipstick/ filler cap SECURE. Fill to within
1 1/2 quarts of MAX HOT or MAX COLD (as appropriate) on dipstick. Markings indicate U.S. quarts low if oil is hot.

WARNING

Make sure the oil dipstick cap is securely latched down. Operating the engine with less than the recommended oil level and with the dipstick cap unlatched will result in excessive oil loss and eventual engine stoppage.

18. Electrical Power Box Circuit Breakers and Diodes . . . . . .CHECK
(verify all circuit breakers, including standby alternators are IN and diodes are clear)
19. Standby Alternator and Belt. . . . . .CHECK (condition)
20. Fuel Filter . . . . . .CHECK FUEL FILTER BYPASS FLAG
(for proper location - flush)

(Continued Next Page)

NOSE (Continued)

21. Brake Fluid Reservoir . . . . . .CHECK LEVEL
22. Cowling. . . . . .CLOSE and LATCH (left side)
23. Fuel Filter Quick-Drain Valve . . . . . .DRAIN (using fuel sampler)

Drain to check for water, sediment, and proper fuel before each flight and after each refueling. If water is observed, take additional samples until clear. Take repeated samples from all fuel drain points until all contamination has been removed.

24. Fuel Drain Can . . . . . .DRAIN (until empty)
25. Fuel Pump Drain Reservoir . . . . . .DRAIN (until empty)

BEFORE STARTING ENGINE

1. Preflight Inspection . . . . . .COMPLETE
   (verify weight and balance is checked and tail stand is removed and stowed)
2. All Key Locking Cabin Doors . . . . . .UNLOCKED
   (except cargo configured aircraft)
   Cargo door can be locked if no passengers occupy cargo section of airplane.
3. Passenger Briefing . . . . . .COMPLETE
4. Cabin Doors . . . . . .LATCHED (check aft doors)
5. Left Crew Door Lock Override Knob and
   Right Crew Door Inside Lock . . . . . .UNLOCKED
6. PARKING BRAKE. . . . . .SET
   (depress brake pedals and pull control out)
7. Control Lock . . . . . .REMOVE
8. Seats, Seat Belts, Shoulder Harnesses ADJUST and SECURE
   (crew seat lock indicator pin(s) extended)

WARNING

Failure to correctly use seat belts and shoulder harnesses could result in serious or fatal injury in the event of an accident.

9. Switches . . . . . .OFF
10. IGNITION Switch . . . . . .NORM
11 . Circuit Breakers . . . . . .CHECK IN
12. FUEL TANK SELECTORS . . . . . .BOTH ON
13. VENTILATION FANS/ AIR CONDITIONING . . . . . .OFF
14. BLEED AIR HEAT Switch. . . . . .OFF (down)

(Continued Next Page)

BEFORE STARTING ENGINE (Continued)

CAUTION

Leaving the BLEED AIR HEAT Switch ON (up) can result in a hot start or abnormal acceleration to idle.

15. CABIN HEAT MIXING AIR Control . . . . . .FLT-PUSH
16. EMERGENCY POWER Lever. . . . . .NORMAL
17. POWER Lever. . . . . .IDLE
18. PROP RPM Lever . . . . . .MAX (full forward)
19. FUEL CONDITION Lever . . . . . .CUTOFF
20. FUEL SHUTOFF Knob . . . . . .ON (push in)
21. BATTERY Switch . . . . . .ON
22. WING FLAPS Handle . . . . . .UP
23. NO SMOKE/SEAT BELT Switches (if installed) . . . . . .ON
(or as required/ desired)
24. TEST SWITCH . . . . . PUSH UP (for FIRE DETECT warning) PUSH DOWN (for FUEL SELECTOR warning)

STARTING ENGINE (Battery Start)

1. BATTERY Switch . . . . . .ON
2. BCN Switch . . . . . .ON
3. AVIONICS No. 1 Switch . . . . . .ON
4. EIS . . . . . .CHECK PARAMETERS (verify no red X's)
5. BUS VOLTS . . . . . CHECK (24 volts minimum)
6. EMERGENCY POWER Lever. . . . . .NORMAL (full aft position)
(verify EMERG PWR LVR CAS MSG - OFF)

CAUTION

Make sure that the EMERGENCY POWER Lever is in the NORMAL (full aft) position or an over-temperature condition will result during engine start.

(Continued Next Page)

STARTING ENGINE (Battery Start) (Continued)

7. Propeller Area. . . . . .CLEAR
8. FUEL BOOST Switch . . . . . .ON
   a. FUEL BOOST ON CAS MSG . . . . . .ON
   b. FUEL PRESS LOW CAS MSG . . . . . .OFF
   c. FFLOW PPH . . . . . .ZERO
9. STARTER Switch . . . . . .START
   a. IGNITION ON CAS MSG . . . . . .ON
   b. OIL PSI. . . . . .CHECK
   c. Ng . . . . . .STABLE (12% minimum)
10. FUEL CONDITION Lever . . . . . .LOW IDLE
   a. FFLOW PPH . . . . . .CHECK (for 90 to 140 pph)
   b. ITT . . . . . .MONITOR
   (1090°C maximum, limited to 2 seconds)

CAUTION

• If ITT climbs rapidly towards 1090°C, be prepared to return the FUEL CONDITION Lever to CUTOFF.
• Under hot OAT and/or high ground elevation conditions, idle ITT can exceed maximum idle ITT limitation of 685°C. Increase Ng and/or reduce accessory load to maintain ITT within limits.

   c. Ng . . . . . .52% MINIMUM
11 . STARTER Switch . . . . . .OFF
   (verify STARTER ON CAS MSG OFF)
12. EIS . . . . . .CHECK NORMAL
13. GENERATOR . . . . . .CHECK LOAD
   (verify GENERATOR OFF CAS MSG OFF and BAT AMPS charging)
14. FUEL BOOST Switch . . . . . .NORM
   (verify FUEL BOOST ON CAS MSG - OFF)
15. AVIONICS No. 2 Switch . . . . . .ON
16. NAV LIGHTS. . . . . .ON
17. Cabin Heating, Ventilating and
   Defrosting Controls . . . . . .AS DESIRED

STARTING ENGINE (External Power Start)
(24-28 Volt, Minimum 800 Amp and Maximum 1700 Amp Capacity)

1. BATTERY Switch . . . . . .ON
2. AVIONICS No. 1 Switch . . . . . .ON
3. EIS . . . . . .CHECK PARAMETERS (verify no red X's)
4. EXTERNAL POWER Switch . . . . . .OFF
5. BUS VOLTS . . . . . CHECK (20 volts minimum)
6. AVIONICS No. 1 Switch . . . . . .OFF
7. BATTERY Switch . . . . . .OFF
8. External Power Unit. . . . . ENGAGE; then ON
9. EXTERNAL POWER Switch . . . . . .BUS

CAUTION

Make sure that the EMERGENCY POWER Lever is in the NORMAL position or an over-temperature condition will result during engine start.

10. BATTERY Switch . . . . . .ON
11. BCN Switch . . . . . .ON
12. AVIONICS No. 1 Switch . . . . . .ON
13. BUS VOLTS . . . . . .CHECK (MIN 20 Volts)
14. EXTERNAL POWER Switch . . . . . .STARTER
15. EMERGENCY POWER Lever. . . . . .NORMAL
(verify EMERG PWR LVR CAS MSG - OFF)
16. Propeller Area . . . . . .CLEAR
17. FUEL BOOST Switch . . . . . .ON
    a. FUEL BOOST ON CAS MSG. . . . . .ON
    b. FUEL PRESS LOW CAS MSG. . . . . .OFF
    c. FFLOW PPH. . . . . .ZERO

CAUTION

If the external power unit drops off the line, initiate engine shutdown.

18. STARTER Switch . . . . . .START
    a. IGNITION ON CAS MSG . . . . . .CHECK ON
    b. OIL PSI . . . . . .CHECK
    c. Ng. . . . . STABLE (12% minimum)

(Continued Next Page)

STARTING ENGINE (External Power Start) (Continued)

19. FUEL CONDITION Lever . . . . . .LOW IDLE
    a. FFLOW PPH . . . . . .CHECK (for 90 to 140 pph)
    b. ITT . . . . . .MONITOR
    (1090°C maximum, limited to 2 seconds)

CAUTION

- If ITT climbs rapidly towards 1090°C, be prepared to return the FUEL CONDITION Lever to CUTOFF.
- Under hot OAT and/or high ground elevation conditions, idle ITT can exceed maximum idle ITT limitation of 685°C. Increase Ng and/or reduce accessory load to maintain ITT within limits.

    c. Ng . . . . . .52% MINIMUM
20. STARTER Switch . . . . . .OFF
    (verify STARTER ON CAS MSG - OFF)
21. EIS . . . . . .CHECK NORMAL
22. EXTERNAL POWER Switch. . . . . OFF
23. External Power Unit . . . . . OFF, then DISENGAGE
24. GENERATOR . . . . . .CHECK LOAD
    (verify GENERATOR OFF CAS MSG OFF and BAT AMPS charging)
25. FUEL BOOST Switch . . . . . .NORM
    (verify FUEL BOOST ON CAS MSG - OFF)
26. AVIONICS No. 2 Switch . . . . . .ON
27. NAV LIGHTS. . . . . .AS REQUIRED
28. Cabin Heating, Ventilating and
    Defrosting Controls . . . . . .AS DESIRED

TAXIING

1. Brakes . . . . . .CHECK

NOTE

Propeller BETA range can be used during taxi with minimum blade erosion up to the point where Ngincreases (against beta range spring) to control taxi speed and improve brake life.

2. Flight Instruments . . . . . .CHECK

BEFORE TAKEOFF

1. PARKING BRAKE . . . . . .SET
2. Seats, Seat Belts, Shoulder Harnesses . . . . . .CHECK SECURE

WARNING

Failure to correctly use seat belts and shoulder harnesses can result in serious or fatal injury in the event of an accident.

3. Flight Controls . . . . . .FREE and CORRECT
4. Flight Instruments . . . . . .CHECK
5. Altimeters:
   - a. PFD 1 and 2 BARO . . . . . .SET
   - b. Standby Altimeter . . . . . .SET
6. ALT SEL . . . . . .SET
7. Standby Flight Instruments . . . . . .CHECK
8. FUEL BOOST Switch . . . . . .NORM
9. FUEL TANK SELECTORS . . . . . .BOTH ON
10. FUEL QTY. . . . . .CHECK
11. FUEL SHUTOFF Knob . . . . . .FULLY ON
12. ELEVATOR, AILERON, and RUD TRIM Controls. . . . . .3 SET (for takeoff)
13. POWER Lever. . . . . .400 FT-LBS
    - a. BUS VOLTS . . . . . .CHECK (MIN 28,5 volt)
    - b. INERTIAL SEPARATOR . . . . . .CHECK
      Turn control counterclockwise, pull to BYPASS position and check torque drop; move control back to NORMAL position and check that original torque is regained.
    - c. EIS . . . . . .CHECK

(Continued Next Page)

BEFORE TAKEOFF (Continued)

14. Overspeed Governor . . . . . .CHECK
(first flight of the day and after maintenance)
a. PROP RPM Lever . . . . . .MAX (full forward)
b. OVERSPEED GOVERNOR
TEST Button . . . . . .PRESS and HOLD
c. POWER Lever . . . . . .ADVANCE
(propeller RPM stabilize at 1750 ±60 RPM)
d. POWER Lever . . . . . .IDLE
e. OVERSPEED GOVERNOR TEST Button . . . . . .RELEASE
15. Quadrant Friction Lock . . . . . .ADJUST
16. Standby Power . . . . . .CHECK
(first flight of the day and before all flights into known icing conditions)
a. ENGINE Softkey. . . . . .SELECT SYSTEM
b. STBY ALT PWR Switch . . . . . .ON
c. GEN AMPS . . . . . .LOAD
(to approximately 30 amps)
Generator load can be increased by using the TAXI/RECOG Lights. Do not exceed 60 amps.
d. ALT AMPS . . . . . .VERIFY (alternator output near zero)
e. GENERATOR Switch . . . . . .TRIP
f. ALT AMPS . . . . . .VERIFY LOAD
g. BUS VOLTS . . . . . .CHECK
(for alternator output and voltage approximately one volt less than with generator ON)

NOTE

A fully charged battery will carry part of the electrical load when initially switching from generator to standby alternator power because of the generator's higher voltage regulation.

h. STBY PWR ON CAS MSG . . . . . .CHECK ON
(verify GENERATOR OFF CAS MSG ON)
i. GENERATOR Switch . . . . . .RESET
(verify GENERATOR OFF CAS MSG OFF)
j. STBY PWR ON CAS MSG . . . . . .CHECK OFF
k. STBY ALT PWR Switch . . . . . .OFF
(verify STBY PWR INOP CAS MSG ON)
l. STBY ALT PWR Switch . . . . . .ON

(Continued Next Page)

BEFORE TAKEOFF (Continued)

17. Manual Electric Pitch Trim (MEPT) . . . . . .CHECK and SET
    a. Push both sides of trim switch NOSE DOWN (verify correct trim wheel and pointer movement). Press AP DISC/TRIM INTER Switch (verify trim wheel stops moving).
    b. Push both sides of trim switch NOSE UP (verify correct trim wheel and pointer movement). Press AP DISC/TRIM INTER Switch (verify trim wheel stops moving).
    c. Verify pilot's trim switch command overrides copilot's trim switch command.
    d. Set trim as required within TAKEOFF band.
18. Known Icing System (if installed) . . . . . .PREFLIGHT COMPLETE
    (see Systems Checks prior to any flight in icing conditions)
19. Ice Protection (if installed). . . . . .AS REQUIRED
    a. PITOT/STATIC HEAT . . . . . ON (when OAT is below 5°C (41°F)
    b. STALL HEAT. . . . . .ON (when OAT is below 5°C (41°F)
    c. PROP HEAT . . . . . .ON (when OAT is below 5°C (41°F)
20. INERTIAL SEPARATOR . . . . . .SET
21. Avionics and Radar . . . . . .SET FOR DEPARTURE
22. Nav Source . . . . . .SET FOR DEPARTURE
23. XPDR . . . . . .ON ALT
24. STROBE Lights. . . . . .ON
25. CAS MSG(s) . . . . . .CHECK
26. WING FLAPS Handle . . . . . .SET FOR TAKEOFF
27. CABIN HEAT MIXING AIR Control . . . . . .FLT-PUSH
28. Window . . . . . .CLOSE
29. Brakes . . . . . .RELEASE
30. FUEL CONDITION Lever . . . . . .HIGH IDLE

(Continued Next Page)

BEFORE TAKEOFF (Continued)

WARNING

- **When ground icing conditions are present, a pre-takeoff visual and tactile check should be conducted by the pilot in command within five minutes of takeoff, preferably just prior to taxiing onto the active runway.**
- **Takeoff is prohibited with any frost, ice, snow, or slush adhering to the wings, tail, control surfaces, propeller blades, or engine air inlets.**
- **Even small amounts of frost, ice, snow, or slush on the wing can adversely change lift and drag. Failure to remove these contaminants will degrade airplane performance to a point where a safe takeoff and climb may not be possible.**
- **Make sure that the anti-ice fluid (if applied) is still protecting the airplane.**

TAKEOFF

NORMAL TAKEOFF

1. WING FLAPS Handle . . . .UP or TO/APR
   TO/APR Recomended
2. POWER Lever . . . . . .SET FOR TAKEOFF
   (observe Takeoff ITT and Nglimits)
3. CAS MSG(s). . . . . .CHECK
4. Rotate . . . . . .70-75 KIAS
5. Airspeed . . . . . .85-95 KIAS
6. WING FLAPS Handle
   RETRACT to UP (after reaching 95 KIAS)

SHORT FIELD TAKEOFF

1. WING FLAPS Handle . . . . . UP or TO/APR
   TO/APR Recomended
2. Brakes . . . . . .APPLY
3. POWER Lever. . . . . .SET FOR TAKEOFF
   (observe Takeoff ITT and Nglimits)
4. CAS MSG(s) . . . . . .CHECK
5. Brakes . . . . . .RELEASE
6. Rotate . . . . . .74 KIAS
7. Airspeed . . . . . 86 KIAS (until all obstacles are cleared)
8. WING FLAPS Handle
   RETRACT to 10° (after reaching 85 KIAS)
   RETRACT to UP (after reaching 95 KIAS)

TYPE II, TYPE III OR TYPE IV ANTI-ICE FLUID TAKEOFF

1. WING FLAPS Handle . . . . . .UP
2. Power Lever . . . . . .SET FOR TAKEOFF
   (observe Takeoff ITT and Nglimits)
3. CAS MSG(s) . . . . . .CHECK
4. Rotate . . . . . .83 KIAS
5. Airspeed . . . . . .104 KIAS

ENROUTE CLIMB

CRUISE CLIMB

1. Ice Protection (if installed). . . . . AS REQUIRED
   a. PITOT/STATIC HEAT . ON (when OAT is below 5°C (41°F)
   b. STALL HEAT. . . . . ON (when OAT is below 5°C (41°F)
   c. PROP HEAT . . . . . ON (when OAT is below 5°C (41°F)
2. INERTIAL SEPARATOR . . . . . .SET
3. Airspeed . . . . . .110-120 KIAS
4. PROP RPM Lever . . . . . .1600-1900 RPM
5. INERTIAL SEPARATPOR . . . . . .SET

NOTE

To achieve maximum flat rated horsepower, use a minimum of 1800 RPM.

(Continued Next Page)

CRUISE CLIMB (Continued)

6. POWER Lever . . . . . .SET
(observe Maximum Climb ITT and Nglimits)

NOTE

Engine operations which exceed 740°C ITT can reduce engine life.

CAUTION

For every 10° below -30°C ambient temperature, reduce maximum allowable Ngby 2.2%.

MAXIMUM PERFORMANCE CLIMB

1. Ice Protection (if installed) . . . . . .AS REQUIRED
   a. PITOT/STATIC HEAT . ON (when OAT is below 5°C (41°F)
   b. STALL HEAT . . . . . ON (when OAT is below 5°C (41°F)
   c. PROP HEAT. . . . . ON (when OAT is below 5°C (41°F)
2. INERTIAL SEPARATOR. . . . . SET
3. Airspeed . . . . . .104 KIAS (from sea level to 10,000 feet)
decreasing to 87 KIAS (at 20,000 feet)
4. PROP RPM Lever. . . . . .1900 RPM
5. POWER Lever . . . . . .SET (1865 ft-lbs maximum)
(observe Maximum Climb ITT and Nglimits)

CAUTION

- Engine operations which exceed 740°C ITT can reduce engine life.
- For every 10° below -30°C ambient temperature, reduce maximum allowable Ngby 2.2%.

CRUISE

1. Ice Protection (if installed). . . . . .AS REQUIRED
   a. PITOT/STATIC HEAT . ON (when OAT is below 5°C (41°F)
   b. STALL HEAT. . . . . ON (when OAT is below 5°C (41°F)
   c. PROP HEAT . . . . . ON (when OAT is below 5°C (41°F)
2. INERTIAL SEPARATOR . . . . . .SET
3. PROP RPM Lever . . . . . .1600 to 1900 RPM
4. POWER Lever. . . . . .SET
   (observe Maximum Cruise ITT and Nglimits)
   Refer to Cruise Performance and/or Cruise Maximum Torque charts
5. Fuel Balance . . . . . .CHECK
   (maximum 200 pounds imbalance)

NOTE

Engine operations which exceed 740°C ITT can reduce engine life.

CAUTION

For every 10° below -30°C ambient temperature, reduce maximum allowable Ngby 2.2%.

DESCENT

1. Ice Protection (if installed). . . . . AS REQUIRED
   a. PITOT/STATIC HEAT . ON (when OAT is below 5°C (41°F)
   b. STALL HEAT. . . . . ON (when OAT is below 5°C (41°F)
   c. PROP HEAT . . . . . ON (when OAT is below 5°C (41°F)
2. INERTIAL SEPARATOR . . . . . .SET
3. NO SMOKE/SEAT BELT SIGN Switches (if installed). . . . . .ON
4. Altimeters . . . . . .SET
5. NAV Source. . . . . SELECT

NOTE

The overspeed warning horn and MAXSPD annunciation will activate when either PFD1 or PFD2 airspeed reaches greater than 175 KIAS. In addition, the overspeed warning horn and MAXSPD annunciation may appear prior to 175 KIAS if the aircraft is accelerating at a rate that will rapidly exceed VMO.

DESCENT (Continued)

CAUTION

Set PROP RPM Lever at 1900 RPM prior to beginning any instrument approach procedure.

6. POWER Lever . . . . . .AS REQUIRED

BEFORE LANDING

1. Seats, Seat Belts, Shoulder Harnesses . . . . . .SECURE

WARNING

Failure to correctly use seat belts and shoulder harnesses could result in serious or fatal injury in the event of an accident.

2. FUEL TANK SELECTORS . . . . . .BOTH ON
3. FUEL CONDITION Lever . . . . . .HIGH IDLE
4. PROP RPM Lever. . . . . .MAX (full forward)
5. Radar . . . . . .STANDBY
6. AP/YD. . . . . .OFF
   (before 200 feet AGL on approach or 800 feet AGL)
7. WING FLAPS Handle . . . . . .SET

LANDING

NORMAL LANDING

1. WING FLAPS Handle . . . . . .FULL
2. Airspeed . . . . . .75-85 KIAS
3. Touchdown . . . . . MAIN WHEELS FIRST
4. POWER Lever . . . . . BETA RANGE AFTER TOUCHDOWN
5. Brakes. . . . . .APPLY

SHORT FIELD LANDING

1. WING FLAPS Handle . . . . . .LAND
2. Airspeed . . . . . .78 KIAS
3. POWER Lever. . . . . .REDUCE to IDLE (after clearing obstacles)
4. Touchdown . . . . . .MAIN WHEELS FIRST
5. POWER Lever. . . . . .BETA RANGE AFTER TOUCHDOWN

NOTE

Use of reverse thrust will reduce the landing roll by approximately 10%

6. Brakes . . . . . .MAXIMUM
   (while holding elevator control full aft)
7. WING FLAPS Handle . . . . . .RETRACT
   (for maximum brake effectiveness)

BALKED LANDING

1. POWER Lever. . . . . .ADVANCE (for takeoff power)
2. WING FLAPS Handle . . . . . RETRACT to 20°
3. Airspeed . . . . . .80 KIAS MINIMUM
   (until obstacles are cleared)
4. WING FLAPS Handle . . . . . .RETRACT
   (after reaching safe altitude and airspeed)

AFTER LANDING

1. WING FLAPS Handle . . . . . .UP
2. Ice Protection (if installed) . . . . . .OFF
    a. PITOT/STATIC HEAT . . . . . .OFF
    b. STALL HEAT . . . . . .OFF
    c. PROP HEAT. . . . . .OFF
3. STBY ALT PWR . . . . . .OFF
4. STROBE Lights . . . . . .OFF
5. LDG and TAXI/RECOG Lights . . . . . .SET
6. FUEL CONDITION Lever . . . . . .LOW IDLE
(when clear of the runway)

CAUTION

If the FUEL CONDITION Lever is moved past the LOW IDLE position and the engine Ng falls below 53%, moving the lever back to the LOW IDLE position can cause an ITT over-temperature condition. If the engine has started to shutdown in this situation, allow the engine to complete its shutdown sequence, and proceed to do a normal engine start using the “Starting Engine” checklist.

SHUTDOWN AND SECURING AIRPLANE

1. PARKING BRAKE . . . . . .SET
2. BLEED AIR HEAT, VENTILATION FANS/ AIR CONDITIONING (if installed). . . . . .OFF
3. POWER Lever. . . . . .IDLE
4. ITT. . . . . .STABILIZED (at minimum temperature for one minute)
5. PROP RPM Lever . . . . . .FEATHER
6. FUEL CONDITION Lever . . . . . .CUTOFF
7. LIGHTS . . . . . .OFF
8. FUEL BOOST Switch . . . . . .OFF
9. AVIONICS No 1 and No 2 Switches . . . . . .OFF
10. BATTERY Switch . . . . . .OFF
11. Control Lock . . . . . .INSTALL
12. OXYGEN SUPPLY Control Lever (if installed) . . . . . .OFF
13. FUEL TANK SELECTORS . . . . . .LEFT OFF or RIGHT OFF
    Turn high wing tank off if parked on a sloping surface to prevent crossfeeding.
14. Tie-Downs and Chocks . . . . . .AS REQUIRED
15. External Covers. . . . . .INSTALL
16. Fuel Filter . . . . . CHECK FUEL FILTER BYPASS FLAG (for proper location - flush)
17. Oil Breather Drain Can . . . . . .DRAIN (until empty)

NOTE

Possible delays of subsequent flights, or even missed flights, are often eliminated by routinely conducting a brief postflight inspection. Usually, a visual check of the airplane for condition, security, leakage, and tire inflation will alert the operator to potential problems, and is therefore recommended.