PRE-FLIGHT INSPECTION

1. Operating Manual ..... ACCESSIBLE TO PILOT
2. PARKING BRAKE ..... SET
3. All Switches ..... OFF
4. ALT STATIC AIR ..... OFF
5. INERTIAL SEPARATOR T-Handle ..... NORMAL
6. STBY FLAP MOTOR Switch ..... GUARDED NORM
7. OXYGEN SUPPLY PRESSURE ..... CHECK
8. FUEL TANK SELECTOR Valves ..... BOTH ON (feel agains stop)
9. VENTILATION FANS/ AIR CONDITIONING ..... OFF
10. BLEED AIR HEAT Switch ..... OFF (Down)
11. EMERGENCY POWER Lever ..... NORMAL
12. TRIM Controls ..... SET
13. FUEL SHUTOFF Knob ..... ON (Push in)
14. CABIN HEAT FIREWALL SHUTOFF Control ..... CHECK IN
15. BATTERY Switch . ON (Verify deck skin fans audible and airflow from each fan)
16. AVIONICS No. 1 Switch ..... ON
17. PFD 1 ..... CHECK (Verify PFD 1 - ON)
18. AVIONICS No. 2 Switch ..... ON
19. PFD 2 and MFD ..... CHECK (verify PFD2 and MFD - ON)
20. FUEL QTY ..... CHECK QUANTITY
21. ENGINE Softkey ..... SELECT SYSTEM
22. SYSTEM Softkey ..... RST FUEL (if desired)
23. WING FLAPS Handle ..... FULL DOWN
24. PITOT/STATIC and STALL HEAT Switches .. ON FOR 30 SECONDS THEN OFF
25. AVIONICS No. 1 and No. 2 Switches ..... OFF
26. BATTERY Switch ..... OFF

BEFORE STARTING ENGINE

1. Preflight Inspection ..... COMPLETE
2. Cabin Doors (if installed) ..... LATCHED
3. PARKING BRAKE ..... SET (depress brake pedals and pull control out)
4. Seats ..... ADJUST
5. Switches ..... OFF
6. IGNITION Switch ..... NORM
7. FUEL TANK SELECTORS ..... BOTH ON
8. VENTILATION FANS/ AIR CONDITIONING ..... OFF
9. BLEED AIR HEAT Switch ..... OFF (down)

CAUTION

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

10. CABIN HEAT MIXING AIR Control ..... FLT-PUSH
11. EMERGENCY POWER Lever ..... NORMAL
12. POWER Lever ..... IDLE
13. PROP RPM Lever ..... MAX (full forward)
14. FUEL CONDITION Lever ..... CUTOFF
15. FUEL SHUTOFF Knob ..... ON (push in)

THIS CHECKLIST IS INTENDED FOR SIMULATION PURPOSES ONLY.

16. BATTERY Switch ..... ON
17. WING FLAPS Handle ..... UP
18. NO SMOKE/ SEAT BELT Switches (if installed) ON (or as required/desired)
19. 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 appear)
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 overtemperature condition will result during engine start.

7. Propeller Area ..... CLEAR
8. FUEL BOOST Switch ..... ON
   a. FUEL BOOST ON CAS MSG ..... ON
   b. FUEL PRES LOW CAS MSG ..... OFF
   c. FFLOW PPH ..... ZERO
9. STARTER Switch ..... START
   a. IGNITION ON and STARTER ON CAS MSG ..... ON
   b. OIL PSI ..... CHECK
   c. Ng ..... STABLE (12& minimum)
10. FUEL CONDITION Lever. ..... LOW IDLE
    a. FFLOW PPH ..... CHECK (for 80 to 110 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 loads to maintain ITT within limits.

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

External Power Start

1. BATTERY Switch ..... ON
2. AVIONICS No. 1 Switch ..... ON
3. EIS ..... CHECK PARAMETERS (verify no red X's appear)
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 ..... ONON
11. BCN Switch ..... ON
12. AVIONICS No. 1 Switch ..... ON
13. BUS VOLTS ..... CHECK (24-28.5 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)
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

THIS CHECKLIST IS INTENDED FOR SIMULATION PURPOSES ONLY.

TAXIING

1. Brakes ..... CHECK

NOTE

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

2. Flight Instruments ..... CHECK

BEFORE TAKEOFF

1. PARKING BRAKE ..... SET
2. Seat ..... 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
    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
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)

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

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 . . PREFLIGHT COMPLETE (see Systems Checks prior to any flight in icing conditions)

19. Ice Protection . . . . . 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

WARNING

When ground icing conditions are present, a pretakeoff 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.

THIS CHECKLIST IS INTENDED FOR SIMULATION PURPOSES ONLY.

TAKEOFF

NORMAL TAKE OFF

1. WING FLAPS Handle ..... 20°
2. POWER Lever .... SET FOR TAKEOFF (observe Takeoff ITT and Ng limits)
3. CAS MSG(s) ..... CHECK
4. Rotate ..... 70-75 KIAS
5. Airspeed ..... 85-95 KIAS
6. WING FLAPS Handle RETRACT to 10° (after reaching 85 KIAS) - RETRACT to UP (after reaching 95 KIAS)

SHORT FIELD TAKEOFF

1. WING FLAPS Handle ..... 20°
2. Brakes ..... APPLY
3. POWER Lever .... SET FOR TAKEOFF (observe Takeoff ITT and Ng limits)
4. CAS MSG(s) ..... CHECK
5. Brakes ..... RELEASE
6. Rotate ..... 70 KIAS
7. Airspeed ..... 83 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 Ng limits)
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 SEPARATOR ..... SET

NOTE

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

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

NOTE

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

CAUTION

For every 10° below -30°C ambient temperature, reduce maximum allowable Ng by 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 Ng limits)

CAUTION

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

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

CRUISE

1. Ice Protection ..... 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 Ng limits)
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 Ng by 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 ..... 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.

CAUTION

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

6. POWER Lever ..... AS REQUIRED

THIS CHECKLIST IS INTENDED FOR SIMULATION PURPOSES ONLY.

BEFORE LANDING

NOTE

Refer to Landing Distance chart in Section 5 for anticipated ground roll and total distance requirements.

1. Seat ..... 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 LADING

1. WING FLAPS Handle ..... FULL
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 ..... 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 ..... 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 ..... OFF
13. FUEL TANK SELECTORS .. LEFT OFF or RIGHT OFF - Turn high wing tank off if parked on a sloping surface to prevent crossfeeding.

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.

THIS CHECKLIST IS INTENDED FOR SIMULATION PURPOSES ONLY.