

AFTER STARTING AND TAXI

1. Transfer Pumps - ON
2. Crossfeed Switch - AUTO
3. D.C. Voltage and Loadmeters - CHECK
4. Inverter - CHECK BOTH and SELECT inverter to be used
5. Avionics Master Switch - ON
6. Lights - AS REQUIRED
7. Fuel Control Heat - ON
8. Cabin Temperature and Mode - AS REQUIRED (Observe N_1 , ITT and generator limits if air conditioning or electric heat is used.)
9. Annunciator Lights - TEST, then CLEAR
10. Instruments - CHECK
11. Brakes - CHECK

NOTE

Propeller Beta range may be used during taxi with minimum blade erosion up to the point where N_1 increases. Care must be exercised when taxiing on unimproved surfaces. If possible conduct engine check-out on a hard surface, free of sand and gravel to preclude pitting of propeller blades and airplane surfaces.

CAUTION

If either CHIP DETECT annunciator illuminates during runup, do not take off. Shut down the engine, investigate the cause, and initiate necessary repairs.

BEFORE TAKEOFF (RUNUP)

1. Boost Pumps and Auto Crossfeed - TEST
 - a. Left Boost Pump - OFF (LH FUEL PRESSURE light off and FUEL CROSSFEED light on)
 - b. Left Boost Pump - ON
 - c. Crossfeed - CLOSED, then AUTO
 - d. Right Boost Pump - OFF (RH FUEL PRESSURE light off and FUEL CROSSFEED light on)
 - e. Right Boost Pump - ON
 - f. Crossfeed - CLOSED, then AUTO
2. Avionics and Radar - CHECK
3. Pressurization - CHECK and Set
 - a. Cabin Altitude Selector Knob - ADJUST SO THAT INNER SCALE (ACFT ALT) INDICATES PLANNED CRUISE ALTITUDE PLUS 500 FEET. (If this setting does not result in an outer scale (CABIN ALT) indication of at least 500 feet above take-off field pressure altitude, adjust as required.)
 - b. Rate Control Selector Knob - SET as desired
4. Autopilot - CHECK, then OFF
5. Electric Elevator Trim Control - CHECK
 - a. Tab Control Switch - ON
 - b. Pilot's and Copilot's Switches - CHECK OPERATION
 - c. Trim Disconnect - DEACTIVATION OF SYSTEM
 - d. Tab Control Switch - OFF, then ON

WARNING

Operation of the electric trim system should occur only by movement of pairs of switches. Any movement of the elevator trim wheel while depressing only one switch denotes a system malfunction. The elevator tab control switch must then be turned OFF and flight conducted only by manual operation of the trim wheel.

6. Trim Tabs - SET
7. Engine Control Friction Locks - SET
8. Flaps - CHECK AND SET
9. Flight Controls - CHECK FREEDOM OF MOVEMENT AND PROPER RESPONSE
10. Autofeather - CHECK then ARM (LO IDLE)
- *11. Overspeed Governors - TEST:
 - a. Propeller Controls - FULL INCREASE RPM
 - b. Power Levers - BELOW 1900 RPM
 - c. Overspeed Governor Test Switches - HOLD TO PROP GOV TEST
 - d. Power Levers - INCREASE TO STABILIZED RPM (1900 to 2100; observe ITT and Torque Limits)
 - e. Power Levers - REDUCE TO 1900 RPM
 - f. Overspeed Governor Test Switches - RELEASE
- *12. Primary Governors - EXERCISE AT 1900 RPM
- *13. Engine Ice Protection Controls - CHECK (at 1900 rpm): EXTEND (Check torque drop): RETRACT (Regain original torque)
14. Instrument Vacuum and Deice Pressure - CHECK (1900 rpm)
15. Power Levers - IDLE
16. Propeller Feathering (manual) - CHECK (LO IDLE)
17. Flight and Engine Instruments - CHECK (See LIMITATIONS Section for Oil Temperature Required for Flight.)
18. Bleed Air Valves - OPEN
19. Ice Protection - AS REQUIRED (See ICING FLIGHT, this section)

*May be omitted for quick turn-around at pilot's discretion.

TAKEOFF

WARNING

If a CHIP DETECT annunciator light illuminates during takeoff, return to the field for investigation of the cause and initiate corrective action.

Refer to PERFORMANCE Section for minimum take-off power, take-off speed, distance, and climb data. Monitor ITT and engine torque, and ascertain that the AUTOFEATHER armed lights illuminate while applying power. Increasing airspeed will cause torque and ITT to increase. Rotating beacons and strobe lights and tail flood lights (if installed) should be turned off at the pilot's discretion when encountering conditions of haze, fog, or clouds.

1. Propeller Levers - HIGH RPM
2. Power Levers - ADVANCE TO MAXIMUM POWER (1315 ft lbs TORQUE and/or 695°C ITT, 2200 RPM)
3. Airspeed - TAKEOFF SPEED
4. Landing Gear - RETRACT after airplane is positively climbing and insufficient runway remains for landing.

CLIMB

1. Climb Power - SET (Observe maximum ITT, torque and N_1 rpm limits.)
2. Propeller - 2000 RPM (Cruise Climb) or 2200 RPM (Maximum Climb)
3. Propeller Synchrophaser - ON
4. Autofeather Switch - OFF
5. Engine Instruments - MONITOR
6. Cabin Sign - AS REQUIRED
7. Pressurization Rate Control - SET AS DESIRED

CRUISE

WARNING

DO NOT LIFT POWER LEVERS IN FLIGHT.

1. Cruise Power - SET per CRUISE POWER GRAPH OR TABLES
2. Engine Instruments - MONITOR

WARNING

Any illumination (or flicker) of either CHIP DETECT annunciator light requires immediate shutdown of the affected engine. See EMERGENCY PROCEDURES Section, "ENGINE FAILURE/ILLUMINATION OF MAGNETIC CHIP DETECTOR ANNUNCIATOR". After securing the engine, proceed to the nearest facility for investigation and necessary corrective action prior to further flight.

3. Battery Condition - MONITOR Battery Charge annunciator. If annunciator illuminates in flight, perform the IN FLIGHT BATTERY CONDITION CHECK.

CABIN PRESSURIZATION FOR CRUISE

If revised flight plan calls for an altitude change, select the new cruise altitude plus 500 feet on the ACFT ALT dial of the cabin pressurization controller.

DESCENT

1. Cabin Pressurization Controller - SET
 - a. Cabin Altitude Selector Knob - SET per PRESSURIZATION CONTROLLER SETTING FOR LANDING graph, or so that "CABIN ALT" DIAL INDICATES LANDING FIELD PRESSURE ALTITUDE PLUS 500 FEET.
 - b. Rate Control Selector Knob - SET INDEX AS REQUIRED.
2. Altimeter - SET
3. Cabin Sign Switch - AS REQUIRED
4. Windshield Anti-Ice - AS REQUIRED (TURN ON well before descent into warm, moist air, to aid in defogging)
5. Power - AS REQUIRED to give desired rate of descent.

NOTE

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

APPROACH

NOTE

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

If crosswind landing is anticipated, determine the crosswind component from Wind Components in the PERFORMANCE section. Immediately prior to touchdown, lower up-wind wing and align the fuselage with the runway. During rollout, hold aileron control into the wind and maintain directional control with rudder and brakes. Use propeller reverse as desired.

1. Pressurization - CHECK
2. Cabin Sign Switch - BOTH or NO SMOKE & FSB
3. Autofeather Switch - ARM
4. Flaps - APPROACH
5. Landing Gear - DOWN
6. Landing and Taxi Lights - AS REQUIRED
7. Propeller Synchrophaser - OFF
8. Radar (if installed) - STANDBY OR OFF

WHEN LANDING ASSURED

1. Flaps - DOWN (100%)
2. Propeller Levers - FULL FORWARD AFTER TOUCHDOWN
3. Power Levers - BETA RANGE OR REVERSE (AS REQUIRED)

MAXIMUM REVERSE THRUST LANDING

CAUTION

To ensure consistent reversing characteristics, the Propeller Controls must be in FULL INCREASE RPM position.

1. Condition Levers - HIGH IDLE
2. Propeller Controls - FULL INCREASE RPM
3. Power Levers - LIFT AND REVERSE AFTER TOUCHDOWN
4. Condition Levers - LOW IDLE

CAUTION

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

Section IV - Normal Procedures

BALKED LANDING

1. Power - MAXIMUM ALLOWABLE
2. Propeller RPM - FULL INCREASE
3. Climb - BALKED LANDING CLIMB SPEED OR ABOVE
4. Airspeed - 95 KNOTS MINIMUM
5. Flaps - UP
6. Gear - UP

AFTER LANDING

1. Landing and Taxi Lights - AS REQUIRED
2. Autofeather Switch - OFF
3. Ice Protection - OFF
4. Electrical Load - OBSERVE LIMITS
5. Trim - SET
6. Flaps - UP

SHUTDOWN AND SECURING

1. Parking Brake - SET
2. Transfer Pumps - OFF
3. Crossfeed - CLOSED
4. Inverter - OFF
5. Avionics Master Switch - OFF
6. Cabin Mode Control - OFF; Blower - AUTO
7. Subpanel and Avionics Switches - OFF
8. Overhead Panel Switches - OFF
9. Oxygen Supply Control Handle - OFF
10. Battery - CHARGED (if BATTERY CHG annunciator is illuminated, refer to BATTERY CONDITION CHECK this section)
11. ITT - STABILIZED AT MINIMUM OBTAINABLE TEMPERATURE FOR ONE MINUTE
12. Condition Levers - CUT-OFF
13. Propellers - FEATHERED

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 Shutoff Valve for normal engine shutdown.

14. Boost Pumps - OFF below 10% N_1 or less
15. DC Volt/Loadmeters - CHECK VOLTAGE (No voltage on one side indicates current limiter out.)
16. Battery and Generator Switches (below 15% N_1) - OFF

NOTE

N_1 decreasing below 15% indicates the starter relay is not engaged.

17. Control Locks, Tie-down, and Chocks - AS REQUIRED
18. External Covers - INSTALL as required

CAUTION

The boost pumps and crossfeed are connected to the battery bus. Failure to turn these switches OFF will discharge the battery.