OPERATING LIMITATIONS
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OPERATING LIMITATIONS

NOTICE

CERTIFICATION AND OPERATIONAL LIMITATIONS ARE CONDITIONS OF THE TYPE AND AIRWORTHINESS CERTIFICATES AND MUST BE COMPLIED WITH AT ALL TIMES AS REQUIRED BY LAW.

CERTIFICATION STATUS

This airplane is certified in accordance with FAR 25.

WEIGHT LIMITATIONS

Maximum Design Ramp Weight	15,000 Pounds (6,804 Kilograms)
Maximum Design Takeoff Weight	14,800 Pounds (6,713 Kilograms)
Maximum Design Landing Weight	13,500 Pounds (6,123 Kilograms)
Maximum Design Zero Fuel Weight	11,300 Pounds (5,125 Kilograms)

Takeoff weight is limited by the most restrictive of the following requirements:

Maximum Certified Takeoff Weight	14,800 Pounds (6,713 Kilograms)
Maximum Takeoff Weight Permitted by Climb Requirements	Refer to Section IV - Performance, Takeoff Data
Takeoff Field Length	Refer to Section IV - Performance, Takeoff Data

Landing weight is limited by the most restrictive of the following requirements:

Maximum Certified Landing Weight	13,500 Pounds (6,123 Kilograms)
Maximum Landing Weight Permitted by Climb Requirements or Brake Energy Limits	Refer to Section IV - Performance, Approach and Landing Data
Landing Distance	Refer to Section IV - Performance, Approach and Landing Data

CENTER-OF-GRAVITY LIMITS

Center-of-Gravity Moment Envelope	Refer to Figure 2-1

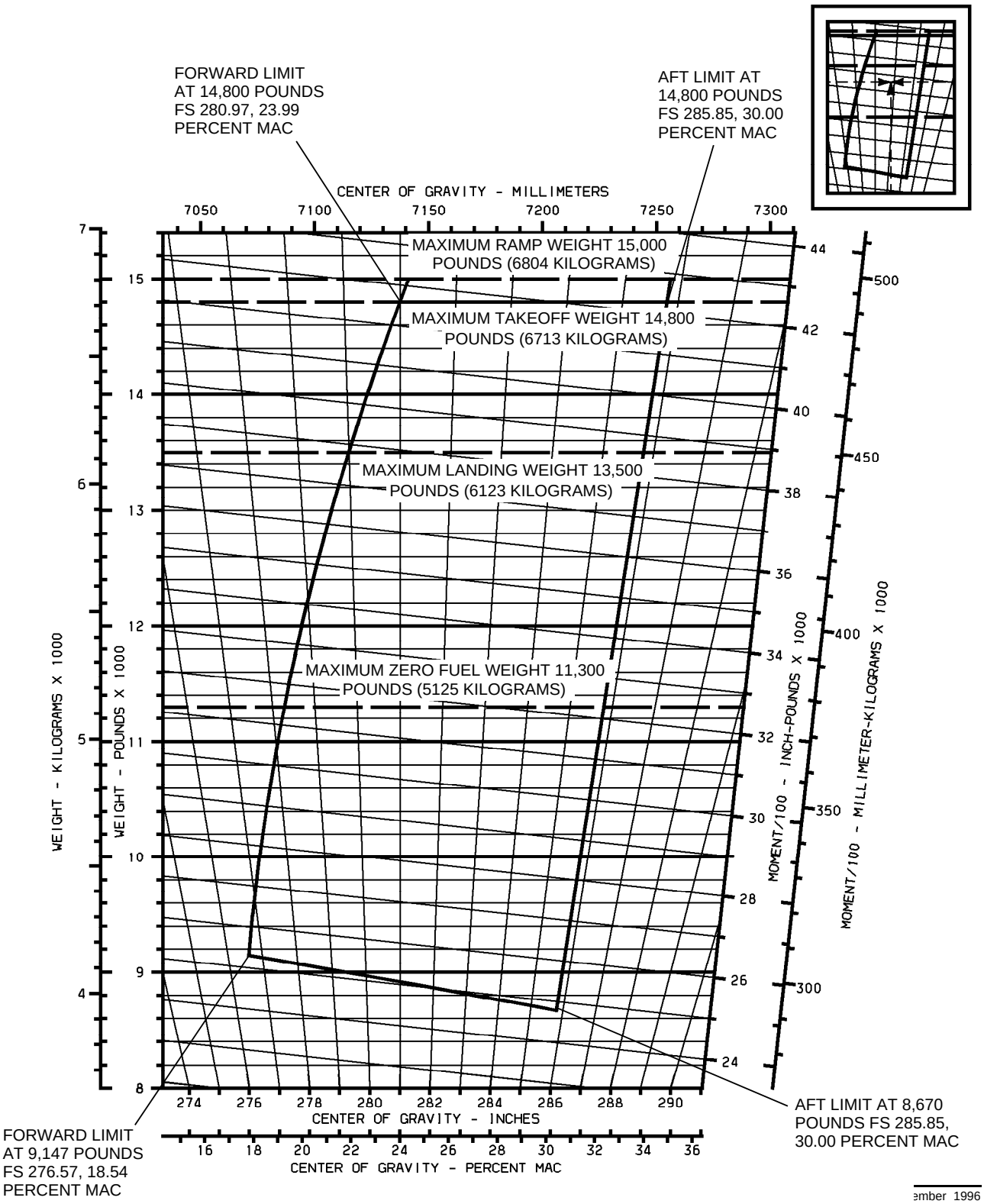
WEIGHT AND BALANCE DATA

The airplane must be operated in accordance with the approved loading schedule. (Refer to Weight and Balance Data Sheet and Model 550 Citation Bravo Weight and Balance Manual.)

POWERPLANT LIMITATIONS

Engine Type	Pratt and Whitney Canada Inc. PW530A Turbofan
Engine Operating Limits	Refer to Figure 2-2
Inter-Turbine Temperatures Limits	Refer to Figure 2-3
Engine Overspeed Limits	Refer to Figure 2-4
Takeoff/Go-Around Thrust Setting	Refer to Figure 4-9
Maximum Continuous Thrust Setting	Refer to Figure 4-10

CENTER-OF-GRAVITY LIMITS ENVELOPE GRAPH



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REVISED 23 April 1998

Figure 2-1

ENGINE OPERATING LIMITS

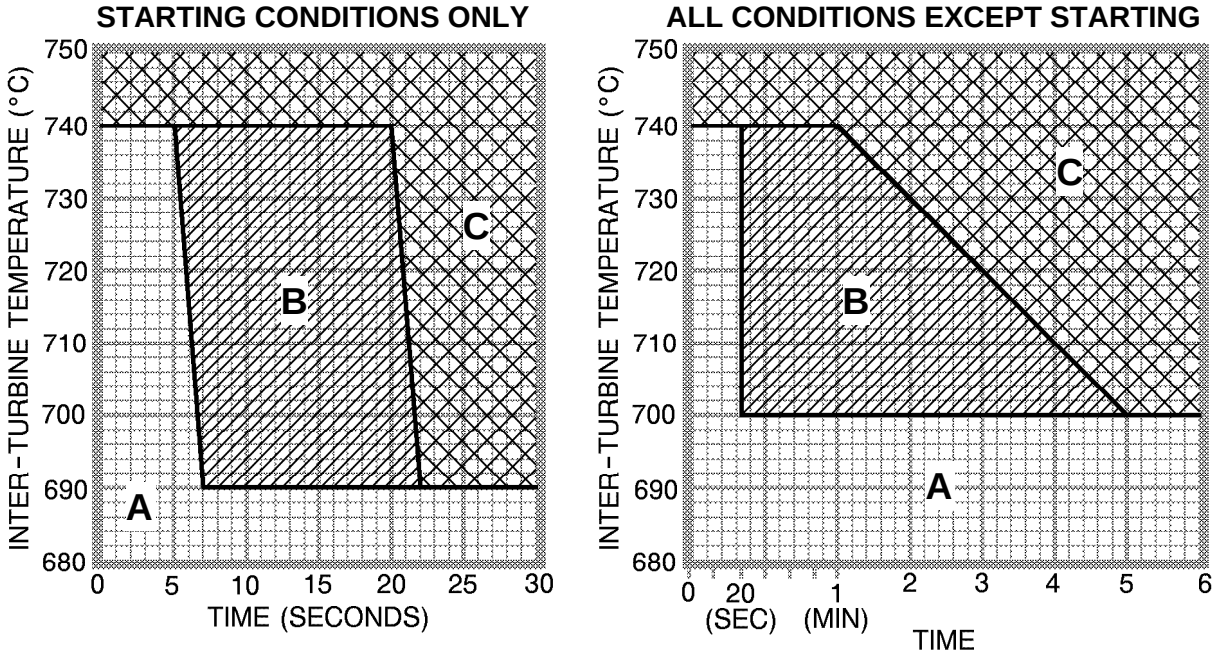
OPERATING CONDITIONS	OPERATING LIMITS					
THRUST SETTING	TIME LIMIT (MINUTES)	ITT TEMPERATURE °C	N_2 % TURBINE RPM	N_1 % FAN RPM	OIL PRESSURE PSIG (NOTE 2)	OIL TEMPERATURE °C
TAKEOFF	5	700	100	100 (NOTE 4)	45 TO 140	10 TO 121
MAXIMUM CONTINUOUS	CONTINUOUS	700	100	100 (NOTE 4)	45 TO 140	10 TO 121
GROUND IDLE (NOTE 7)	CONTINUOUS	---	45.3 (MIN) (NOTE 5)	---	20 (MIN)	–40 TO 121
FLIGHT IDLE (NOTE 7)	CONTINUOUS	580	49.4 (MIN) (NOTE 6)	---	20 (MIN)	–40 TO 121
STARTING	N/A	740 FIGURE 2-3	---	---	(NOTE 3)	–40 (MIN)
TRANSIENT	20 SEC	740 FIGURE 2-3	102	102	0-250	0 TO 121

NOTES

1. The maximum start limit is 740°C; refer to Figure 2-3.
2. Normal oil pressures are 45 to 140 PSIG above 60% TURBINE RPM. Oil pressures below 45 PSIG are undesirable and should be tolerated only for the completion of the flight, preferably at reduced power setting. Oil pressures below 20 PSIG are unsafe and require that either the engine be shut down or a landing be made as soon as practical, using the minimum power required to sustain flight.
3. For starting, oil pressure may exceed 140 PSIG (not to exceed 250 PSIG) for up to 300 seconds.
4. N_1% Fan RPM is limited to either 100% N_1 or the appropriate thrust setting chart in Section IV (Standard Charts), whichever is less.
5. Ground idle (LOW) turbine RPM is 45.3 minimum, pressurization bleed air OFF, and oil temperature stabilized. Maximum ground idle (LOW) turbine RPM should not exceed the HI setting.
6. Flight idle (HI) turbine RPM is 49.4 +1.0%, -0%, pressurization bleed air OFF and oil temperature stabilized.
7. With pressurization bleed air ON, idle speeds may be up to 1.5% N_2 less than noted above.

Figure 2-2

INTER-TURBINE TEMPERATURE LIMITS



AREA **A** - NO ACTION REQUIRED

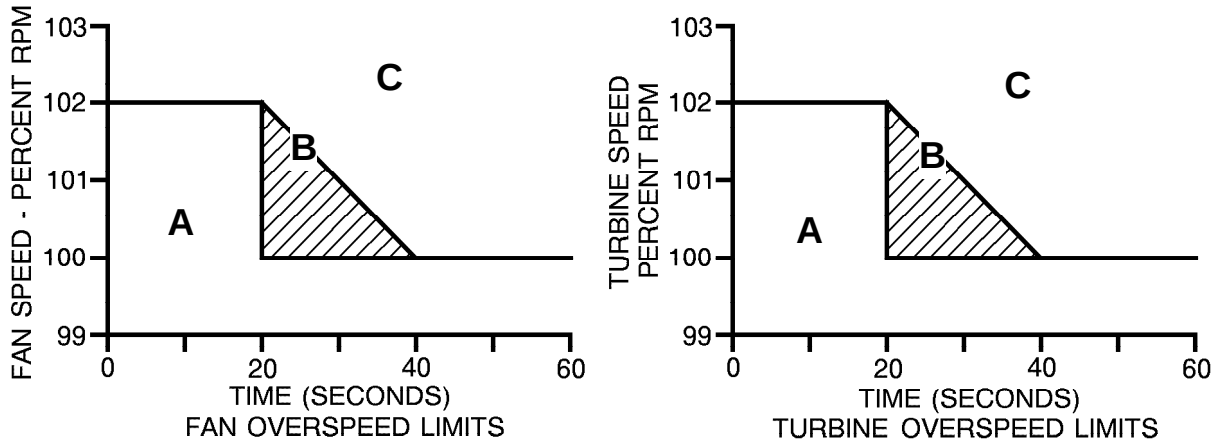
AREA **B** - (1) DETERMINE CAUSE AND CORRECT
- (2) INSPECT HOT SECTION USING BORESCOPE
- (3) RECORD IN ENGINE LOG BOOK.

AREA **C** - RETURN ENGINE TO AN OVERHAUL FACILITY

6584C6049
6584C6050

Figure 2-3

ENGINE OVERSPEED LIMITS



AREA **A** - NO ACTION REQUIRED

AREA **B** - RECORD IN ENGINE LOG BOOK

AREA **C** - RETURN ENGINE TO AN OVERHAUL FACILITY

6584C6051

Figure 2-4

ENGINE FAN INSPECTION

To assure accurate fan speed thrust indication, inspect the fan for damage prior to each flight.

NOTE

Refer to the exterior inspection in the Normal Procedures Section of this manual for engine duct and fan inspection.

BATTERY AND STARTER CYCLE LIMITATIONS

Starter Limitation . . . . . Three engine starts per 30 minutes. Three cycles of operation with a 30-second rest period between cycles is permitted.

NOTE

This limitation is independent of starter power source: i.e., battery, generator assisted cross start, or external power unit.

(Continued Next Page)

BATTERY AND STARTER CYCLE LIMITATIONS (Continued)

Battery Limitation . . . . . Three engine starts per hour. Refer to notes 2 and 3.

NOTE

1. If battery limitation is exceeded, a deep cycle including a capacity check must be accomplished to detect possible cell damage. Refer to Chapter 24 of the Maintenance Manual for procedure.
2. Three generator assisted cross starts are equal to one battery start.
3. If an external power unit is used for start, no battery cycle is counted.
4. Use of an external power source with voltage in excess of 28 VDC or current in excess of 1000 amps may damage the starter.

PROLONGED GROUND OPERATION

Continuous engine ground static operation up to and including five minutes at takeoff thrust is limited to ambient temperatures not to exceed 39°C above ISA. (Refer to Figure 4-9).

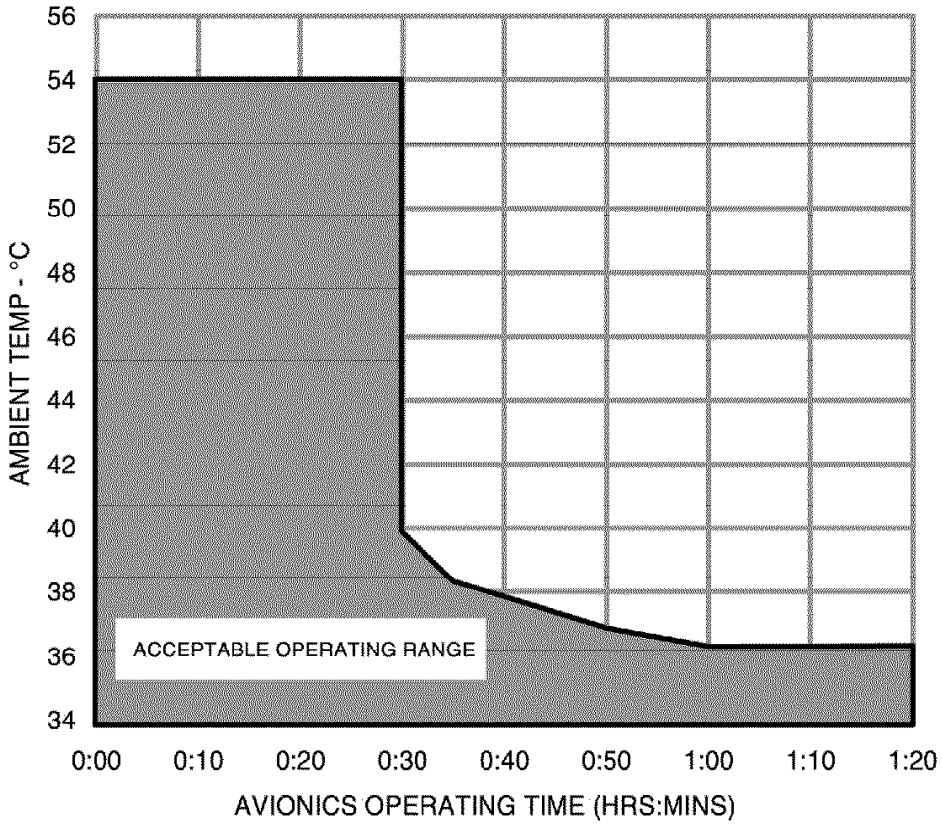
Continuous ground operation of the starter-generator above 315 amperes is prohibited.

Limit ground operation of pitot/static heat to two minutes to preclude damage to the pitot/ static tubes and the angle-of-attack probe.

Timing for Avionics Ambient Temperature limits begins when all avionics are powered on. (Refer to Figure 2-5.)

AVIONICS AMBIENT TEMPERATURE LIMIT

A969



NOTE

Timing for these limitations begins when all avionics are powered on.

Figure 2-5

WINDSHIELD ICE PROTECTION FLUID

Use TT-I-735 isopropyl alcohol for windshield anti-ice.

HYDRAULIC FLUID

Use Skydrol 500B-4, or LD-4; or Hyjet, Hyjet IVA or IVA Plus only.

APPROVED OILS

The following oils are approved for use:

MOBIL JET OIL II	EXXON TURBO OIL 2380	AERO SHELL TURBINE OIL 500
MOBIL JET OIL 254	ROYCO TURBINE OIL 500	AERO SHELL TURBINE OIL 560
CASTROL 5000	ROYCO TURBINE OIL 560	

In addition, oils listed for the engine in the latest revision to Pratt and Whitney Canada Inc. Maintenance Manual P/N 30J1112 are approved.

CAUTION

WHEN CHANGING FROM AN EXISTING LUBRICANT FORMULATION TO A “THIRD GENERATION” LUBRICANT FORMULATION (AERO SHELL/ROYCO TURBINE OIL 560 OR MOBIL JET 254) THE ENGINE MANUFACTURER STRONGLY RECOMMENDS THAT SUCH A CHANGE SHOULD ONLY BE MADE WHEN AN ENGINE IS NEW OR FRESHLY OVERHAULED. FOR ADDITIONAL INFORMATION ON USE OF THIRD GENERATION OILS, REFER TO THE ENGINE MANUFACTURER’S PERTINENT OIL SERVICE BULLETINS.

Should oils of nonapproved brands or of different viscosities become intermixed, drain and flush complete oil system and refill with an approved oil in accordance with Engine Maintenance Manual instructions.

Minimum oil temperature for starting is –40°C.

FUEL LIMITATIONS

The following fuels are approved for use in accordance with Figure 2-6.

COMMERCIAL KEROSENE JET A, JET A-1, JET B, JP-4, JP-5 and JP-8 per CPW 204 specification.

NOTE

JP-4, JP-5 and JP-8 type fuels have anti-icing additive preblended by the refinery. Refer to Section III, Normal Procedures for blending and checking fuel anti-ice additives.

Boost Pumps - ON; when low fuel lights illuminate or at approximately 200 pounds or less indicated fuel. To crossfeed, turn boost pump OFF on side opposite selected tank.

FUEL LIMITATIONS AND ADJUSTMENTS

FUEL GRADE	FUEL SPECIFICATION	MINIMUM FUEL TEMPERATURE (TAKEOFF)	MAXIMUM FUEL TEMPERATURE (TAKEOFF)
JET A	ASTM-D1655	-35°C	+56°C
JET A-1	ASTM-D1655	-40°C	+56°C
JET B *	ASTM-D1655	-45°C	+56°C
JP-4 *	MIL-T-5624	-54°C	+56°C
JP-5	MIL-T-5624	-40°C	+56°C
JP-8	MIL-T-83133	-40°C	+56°C

* Refer to Figure 2-6A for altitude operating limitations with JET B or JP-4 fuel.

Figure 2-6

Maximum asymmetrical fuel differential for normal operations . . . . . 200 pounds
Maximum emergency asymmetrical fuel differential . . . . . 600 pounds

NOTE

Flight characteristics requirements were not demonstrated with unbalanced fuel above 200 pounds.

UNUSABLE FUEL

Fuel remaining in the fuel tanks when the fuel quantity indicator reads zero is not usable in flight.

JET B/JP-4 FUEL OPERATING LIMITATIONS

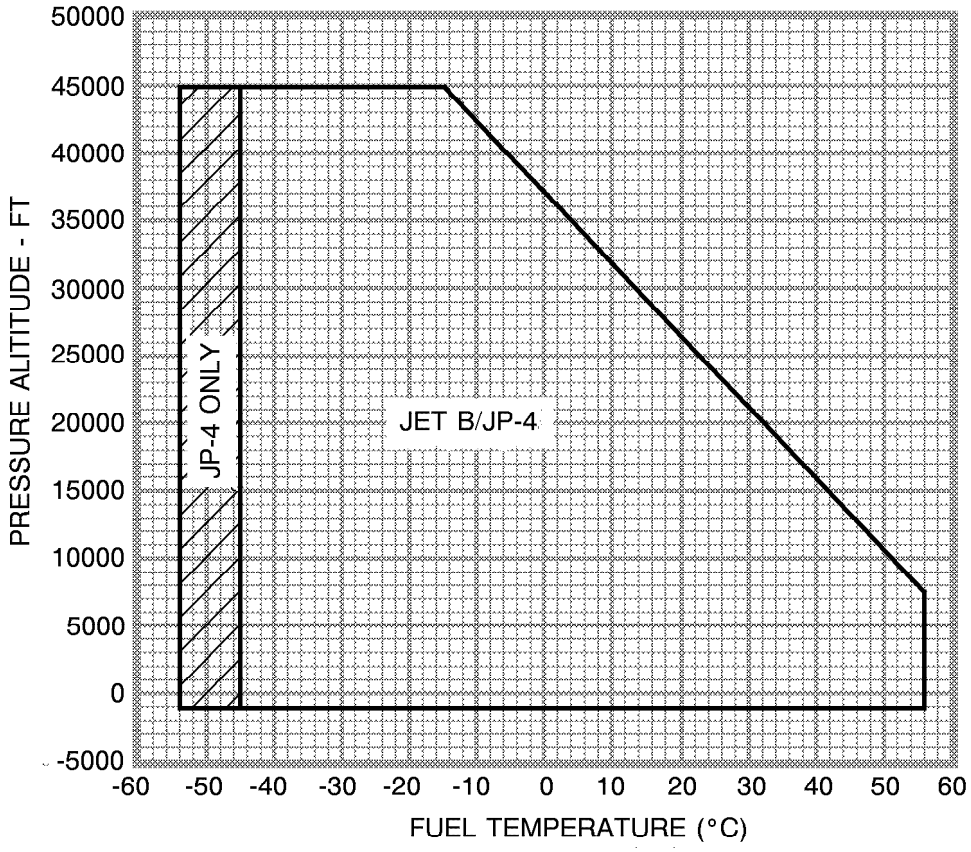


Figure 2-6A

SPEED LIMITATIONS

Maximum Operating Limit Speeds

M_{MO} (Above 27,900 Feet) . . . . . 0.700 Mach (Indicated)

V_{MO} (Between 8000 Feet and 27,900 Feet) . . . . . 275 KIAS

V_{MO} (Between Sea Level and 8000 Feet) . . . . . 260 KIAS

The maximum operating limit speeds may not be deliberately exceeded in any regime of flight (climb, cruise or descent) unless a higher speed is authorized for flight test or pilot training.

Maximum Maneuvering Speeds - V_A . . . . . Refer to Figure 2-7

Full application of rudder and aileron controls as well as maneuvers that involve angles-of-attack near the stall should be confined to speeds below maximum maneuvering speed.

Maximum Flap Extended Speed - V_{FE}

Full Flaps - LAND Position (40°) . . . . . 174 KIAS

Partial Flaps - T.O. & APPR Position (15°) . . . . . 200 KIAS

Maximum Landing Gear Extended Speed - V_{LE} . . . . . 260 KIAS

Maximum Landing Gear Operating Speed - V_{LO} (Extending) . . . . . 250 KIAS

- V_{LO} (Retracting) . . . . . 200 KIAS

Maximum Speed Brake Operation Speed - V_{SB} . . . . . No Limit

Minimum Control Speeds (V_{MCA} and V_{MCG}) . Refer to Section IV, Performance General

Autopilot Operation . . . . . 275 KIAS or 0.700 MACH

FUEL LIMITATIONS

The following fuels are approved for use in accordance with Figure 2-6.

COMMERCIAL KEROSENE JET A, JET A-1, JP-5 and JP-8 per CPW 204 specification.

NOTE

JP-5 and JP-8 type fuels have anti-icing additive preblended by the refinery. Refer to Section III, Normal Procedures for blending and checking fuel anti-ice additives.

Boost Pumps - ON; when low fuel lights illuminate or at approximately 200 pounds or less indicated fuel. To crossfeed, turn boost pump OFF on side opposite selected tank.

FUEL LIMITATIONS AND ADJUSTMENTS

FUEL GRADE	FUEL SPECIFICATION	MINIMUM FUEL TEMPERATURE (TAKEOFF)	MAXIMUM FUEL TEMPERATURE (TAKEOFF)
JET A	ASTM-D1655	-35°C	+56°C
JET A-1	ASTM-D1655	-40°C	+56°C
JP-5	MIL-T-5624	-40°C	+56°C
JP-8	MIL-T-83133	-40°C	+56°C

Figure 2-6

Maximum asymmetrical fuel differential for normal operations . . . . . 200 pounds
Maximum emergency asymmetrical fuel differential . . . . . 600 pounds

NOTE

Flight characteristics requirements were not demonstrated with unbalanced fuel above 200 pounds.

UNUSABLE FUEL

Fuel remaining in the fuel tanks when the fuel quantity indicator reads zero is not usable in flight.

SPEED LIMITATIONS

Maximum Operating Limit Speeds

M_{MO} (Above 27,900 Feet)	0.700 Mach (Indicated)
V_{MO} (Between 8000 Feet and 27,900 Feet)	275 KIAS
V_{MO} (Between Sea Level and 8000 Feet)	260 KIAS

The maximum operating limit speeds may not be deliberately exceeded in any regime of flight (climb, cruise or descent) unless a higher speed is authorized for flight test or pilot training.

Maximum Maneuvering Speeds - V_A . . . . . Refer to Figure 2-7

Full application of rudder and aileron controls as well as maneuvers that involve angles-of-attack near the stall should be confined to speeds below maximum maneuvering speed.

Maximum Flap Extended Speed - V_{FE}	
Full Flaps - LAND Position (40°)	174 KIAS
Partial Flaps - T.O. & APPR Position (15°)	200 KIAS
Maximum Landing Gear Extended Speed - V_{LE}	260 KIAS
Maximum Landing Gear Operating Speed - V_{LO} (Extending)	250 KIAS
- V_{LO} (Retracting)	200 KIAS
Maximum Speed Brake Operation Speed - V_{SB}	No Limit
Minimum Control Speeds (V_{MCA} and V_{MCG})	Refer to Section IV, Performance General
Autopilot Operation	275 KIAS or 0.700 MACH

TAKEOFF AND LANDING OPERATIONAL LIMITS

Maximum Altitude Limit . . . . . 14,000 Feet
Maximum Tailwind Components . . . . . 10 Knots
Maximum Ambient Temperature . . . . . ISA +39°C (Refer to Figures 2-8 and 4-5)
Minimum Ambient Temperature . . . . . –54°C

Takeoffs and landings are limited to paved runways

Engine synchronizer must be OFF for takeoff and landing.

The autopilot and yaw damper must be OFF for takeoff and landing.

Goodyear part numbers 184F08-1 and BFGoodrich/Michelin part number 031-613-8, are the only nose tires approved. Tire pressure for the nose gear is 120 PSIG (±5 PSIG, unloaded); 125 PSIG (±5 PSIG, loaded).

Maximum Tire Ground Speed . . . . . 165 Knots

All Vertical navigation systems must be OFF below 500 feet AGL.

Takeoffs and landings are limited to paved runways unless equipped with optional Gravel Runway Modification, either factory installed or through appropriate Cessna Service Bulletin.

The nosewheel must be in firm contact with the ground prior to extending speed brakes and/or deploying thrust reversers.

ENROUTE OPERATIONAL LIMITS

Maximum Operating Altitude . . . . . 45,000 Feet
Maximum Operating Altitude (Single Pressurization Source) . . . . . 43,000 Feet
Maximum Ambient Temperature . . . . . Refer to Figure 2-8
Minimum Ambient Temperature . . . . . Refer to Figure 2-8
Generator Load . . . . . 400 Amperes Up to 35,000 Feet
315 Amperes Above 35,000 Feet

OPERATIONS AUTHORIZED

This airplane is approved for day, night, VFR and IFR, and flight into known icing conditions.

MINIMUM CREW

Minimum Flight Crew for All Operations . . . . . 1 Pilot and 1 Copilot

LOAD FACTOR

In Flight

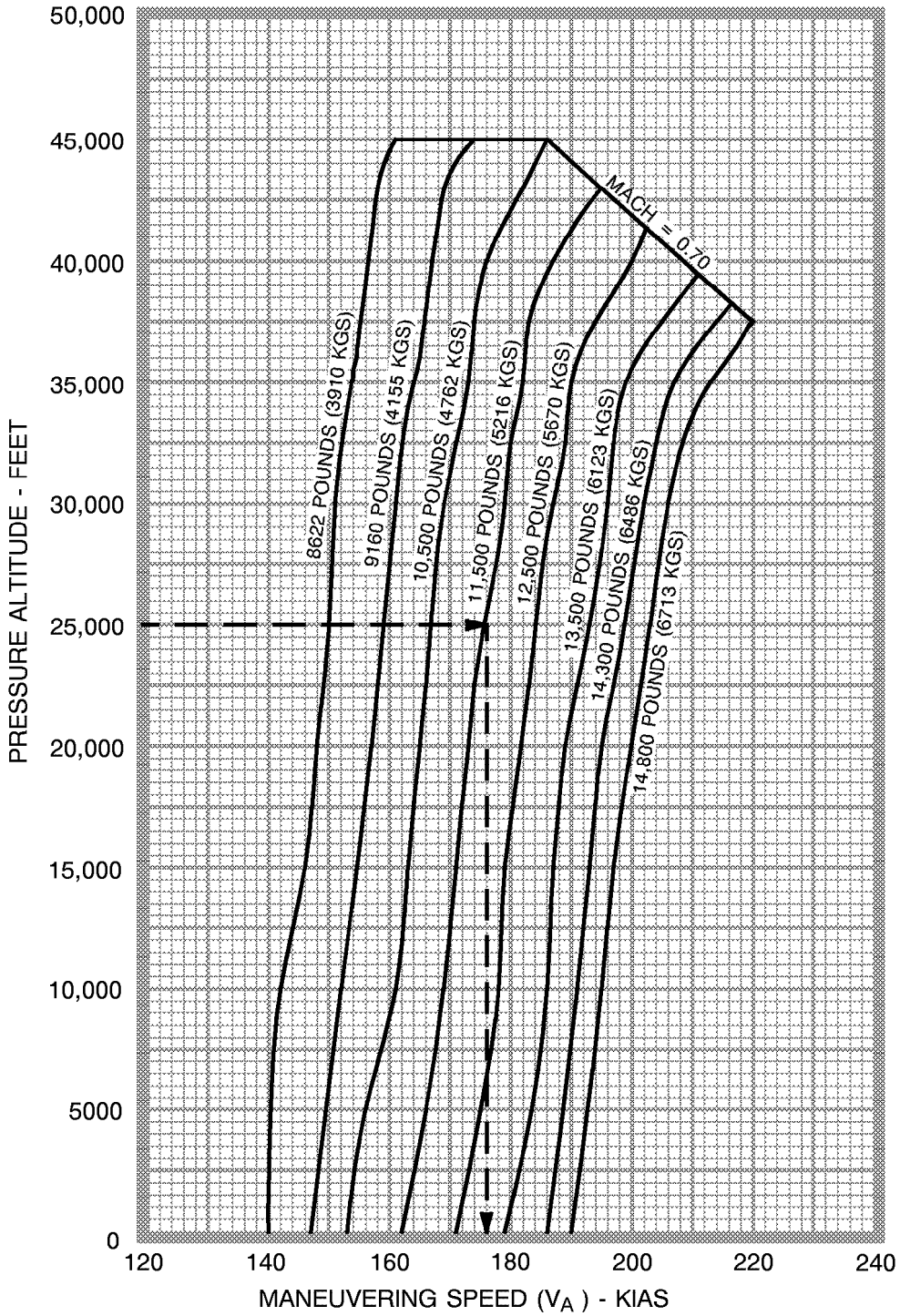
Flaps UP Position (0°) . . . . –1.44 to +3.6 Gs at 14,800 Pounds (6,713 Kilograms)
Flaps T.O. & APPR to LAND Position
(15° To 40°) . . . . . 0.0 to +2.0 Gs at 14,800 Pounds (6,713 Kilograms)

These accelerations limit the angle-of-bank in turns and limit the severity of pull-up maneuvers.

Landing

Flaps - T.O. & APPR to LAND Position
(15° to 40°) . . . . . +3.38 Gs at 13,500 Pounds (6,123 Kilograms)

MAXIMUM MANEUVERING SPEEDS



EXAMPLE:
Pressure Altitude - 25,000 FEET
Weight - 11,500 POUNDS (5216 Kilograms)
Maximum Maneuvering Speed - 176 KNOTS

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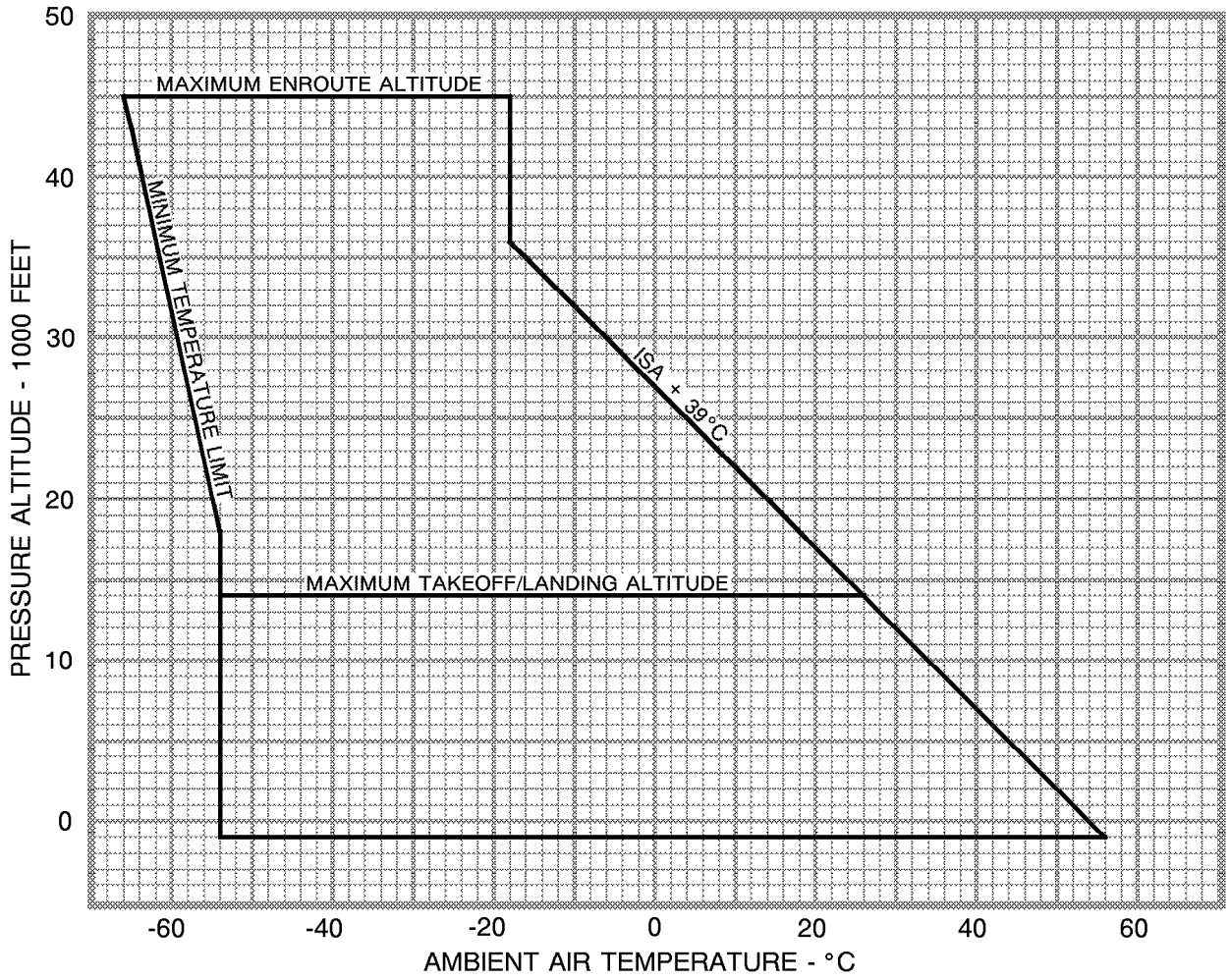
Figure 2-7

TAKEOFF/LANDING/ENROUTE TEMPERATURE LIMITATIONS



NOTE: Ambient Air Temperature Limit is Indicated Ram Air Temperature (RAT) adjusted for Ram rise (refer to Figure 4-2).

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Figure 2-8

CABIN PRESSURIZATION LIMITATIONS

Normal Cabin Pressurization Limitations . . . . . 0.0 to 8.9 PSI, ±0.1 PSI Differential
Single pressurization source maximum operation altitude . . . . . 43,000 feet

MANEUVERS

No acrobatic maneuvers, including spins, are approved. No intentional stalls permitted above 25,000 feet.

PASSENGER SEAT POSITION

For all takeoffs and landings, seats must be fully upright and outboard. The seat just aft of the emergency exit must be to the most aft position (toward rear of airplane). Seats near the exit door must be positioned to allow access.

OPERATIONS IN SEVERE ICING CONDITIONS

WARNING

SEVERE ICING MAY RESULT FROM ENVIRONMENTAL CONDITIONS OUTSIDE OF THOSE FOR WHICH THE AIRPLANE IS CERTIFIED. FLIGHT IN FREEZING RAIN, FREEZING DRIZZLE, OR MIXED ICING CONDITIONS (SUPERCOOLED LIQUID WATER AND ICE CRYSTALS) MAY RESULT IN ICE BUILD-UP ON PROTECTED SURFACES EXCEEDING THE CAPABILITY OF THE ICE PROTECTION SYSTEM, OR MAY RESULT IN ICE FORMING AFT OF THE PROTECTED SURFACES. THIS ICE MAY NOT SHED WHEN THE ICE PROTECTION SYSTEMS ARE USED, AND MAY SERIOUSLY DEGRADE THE PERFORMANCE AND CONTROLLABILITY OF THE AIRPLANE.

All wing icing inspection lights must be operative prior to flight into known or forecast icing conditions at night.

NOTE

This supersedes relief provided by the Master Minimum Equipment List.

Severe icing conditions that exceed those for which the airplane is certificated shall be determined by the following visual cues:

1. Unusually extensive ice accumulation on the airframe and windshield in areas not normally observed to collect ice.
2. Accumulation of ice on the upper surface of the wing aft of the protected area.

If one or more of these visual cues exist:

1. Use of the autopilot is prohibited.
2. Immediately request priority handling from Air Traffic Control to facilitate a route or altitude change to exit the icing conditions.
3. Leave flaps in current position, do not extend or retract.
4. Avoid abrupt and excessive maneuvering that may exacerbate control difficulties.
5. If unusual or uncommanded roll control movement is observed, reduce angle-of-attack.

Since the autopilot, when installed and operating , may mask tactile cues that indicate adverse changes in handling characteristics, use of the autopilot is prohibited when:

1. Unusual lateral trim is required while the airplane is in icing conditions.
2. Autopilot trim warnings are encountered while the airplane is in icing conditions.

AIRPLANE BATTERY

If the BATT O'TEMP light illuminates during ground operation, do not take off until after the proper maintenance procedures have been accomplished.

ANGLE-OF-ATTACK/STICK SHAKER SYSTEM

The angle-of-attack (AOA) indicating system may be used as a reference system but does not replace the airspeed display in the PFD as a primary instrument. The AOA gage and Low Airspeed Awareness (LAA) indications must be verified in flight against Airplane Flight Manual speeds prior to use as a reference.

The angle-of-attack system can be used as a reference for approach speed (1.3 V_{S1}) at all airplane weights and center-of-gravity locations at zero, takeoff/approach and landing flap positions. 1.3 V_{s1} is indicated by approximately .6 on the AOA gage and by the top of the white tape on the pilot's and copilot's airspeed indicators.

If the stick shaker does not operate during the warning system test, it must be repaired before flight.

INSTRUMENT MARKINGS

Left and Right Oil Pressure Indicators . . . . . Red Line - 20 PSI
Yellow Band - 20 to 45 PSI
Green Band - 45 to 140 PSI
Red Triangle - 250 PSI

Left and Right Turbine RPM Indicators . . . . . Red Light and Flashing Readout - 100% RPM
Normal Operating - 45 to 100% RPM

Left and Right Oil Temperature Indicators . . . . . Red Line - 121°C
Green Band - 0 to 121°C

Airspeed Indicator . . . . . Below 8000 feet MSL: Red Line - 260 KIAS
Between 8000 feet and 45,000 feet MSL: Red Line - 275 KIAS
- 0.700 Mach

Left and Right Inter-Turbine Temperature Indicators . . . . . Red Triangle - 740°C
Red Line - 700°C
Green Band - 200 to 700°C

Left and Right Fan RPM Indicators . . . . . Red Line - 100.0%
(Refer to Section IV for Thrust Setting Limits) Green Band - 20 to 100.0%

Left and Right Ammeter Indicators . . . . . Red Line - 400 Amps
Yellow Arc - 315 to 400 Amperes

Cabin Differential Pressure Indicator . . . . . Red Line - 8.9 PSI
Green Arc - 0.0 to 8.9 PSI

Oxygen Pressure Indicator . . . . . Red Line - 2000 PSI
Yellow Arc - 0.0 to 400 PSI
Green Arc - 1600 to 1800 PSI

Brake and Gear Pneumatic Pressure Indicator (In Right Nose Compartment) . . . . . Wide Red Arc - Above 2050 PSI
Narrow Red Arc - 0.0 to 1600 PSI
Yellow Arc - 1600 to 1800 PSI
Wide Green Arc - 1800 to 2050 PSI

Brake Hydraulic Accumulator Pressure Indicator (In Left Nose Compartment) . . . . . Light Green Arc - Static Pressure
Dark Green Arc - Pressurized Pressure

AIRPLANE BATTERY

If the BATT O'TEMP light illuminates during ground operation, do not take off until after the proper maintenance procedures have been accomplished.

ANGLE-OF-ATTACK/STICK SHAKER SYSTEM

The angle-of-attack (AOA) indicating system may be used as a reference system but does not replace the airspeed display in the PFD as a primary instrument. The AOA gage and Low Airspeed Awareness (LAA) indications must be verified in flight against Airplane Flight Manual speeds prior to use as a reference.

The angle-of-attack system can be used as a reference for approach speed (1.3 V_{S1}) at all airplane weights and center-of-gravity locations at zero, takeoff/approach and landing flap positions. 1.3 V_{s1} is indicated by approximately .6 on the AOA gage and by the top of the white tape on the pilot's and copilot's airspeed indicators.

If the stick shaker does not operate during the warning system test, it must be repaired before flight.

INSTRUMENT MARKINGS

Left and Right Oil Pressure Indicators . . . . . Red Line - 20 PSI
Yellow Band - 20 to 45 PSI
Green Band - 45 to 140 PSI
Red Triangle - 250 PSI

Left and Right Turbine RPM Indicators . . . . . Red Light and Flashing Readout - 100% RPM
Normal Operating - 45 to 100% RPM

Left and Right Oil Temperature Indicators . . . . . Red Line - 121°C
Green Band - 0 to 121°C

Airspeed Indicator . . . . . Below 8000 feet MSL: Red Line - 260 KIAS
Between 8000 feet and 45,000 feet MSL: Red Line - 275 KIAS
- 0.700 Mach

Left and Right Inter-Turbine Temperature Indicators . . . . . Red Triangle - 740°C
Red Line - 700°C
Green Band - 200 to 700°C

Left and Right Fan RPM Indicators . . . . . Red Line - 100.0%
(Refer to Section IV for Thrust Setting Limits) Green Band - 20 to 100.0%

Left and Right Ammeter Indicators . . . . . Red Line - 400 Amps
Yellow Arc - 315 to 400 Amperes

Cabin Differential Pressure Indicator . . . . . Red Line - 8.9 PSI
Green Arc - 0.0 to 8.9 PSI

Oxygen Pressure Indicator . . . . . Red Line - 2000 PSI
Yellow Arc - 0.0 to 400 PSI
Green Arc - 1600 to 1800 PSI

Brake and Gear Pneumatic Pressure Indicator (In Right Nose Compartment) . . . . . Wide Red Arc - Above 2050 PSI
Narrow Red Arc - 0.0 to 1600 PSI
Yellow Arc - 1600 to 1800 PSI
Wide Green Arc - 1800 to 2050 PSI

Brake Hydraulic Accumulator Pressure Indicator (In Left Nose Compartment) . . . . . Light Green Arc - Static Pressure
Dark Green Arc - Pressurized Pressure

AIRPLANE BATTERY

If the BATT O'TEMP light illuminates during ground operation, do not take off until after the proper maintenance procedures have been accomplished.

ANGLE-OF-ATTACK/STICK SHAKER SYSTEM

The angle-of-attack (AOA) indicating system may be used as a reference system but does not replace the airspeed display in the PFD as a primary instrument. The AOA gage and Low Airspeed Awareness (LAA) indications must be verified in flight against Airplane Flight Manual speeds prior to use as a reference.

The angle-of-attack system can be used as a reference for approach speed (1.3 V_{S1}) at all airplane weights and center-of-gravity locations at zero, takeoff/approach and landing flap positions. 1.3 V_{S1} is indicated by approximately .6 on the AOA gage and by the top of the white tape on the pilot's and copilot's airspeed indicators.

If the stick shaker does not operate during the warning system test, it must be repaired before flight.

INSTRUMENT MARKINGS

Oil Pressure Indicators

Scale Markings . . . . . Red Triangle 251 PSI
Red Line (MAX) ≥141 PSI
Green Band ≥45 to <141 PSI
Yellow Band >20 to <45 PSI
Red Line (MIN) ≤20 PSI

Analog Tape . . . . . Red ≥251 PSI
Red ≥141 PSI (≥20 sec)
White ≥ 45 to <141 PSI
Yellow > 20 to < 45 PSI
Red ≤20 PSI

NOTE

- In reversionary mode the oil pressure indication will be digital only and the color of the digits will correspond to the scale range colors listed above.
- Tape and digital readout (reversionary mode) will turn yellow or red if outside normal operating limits.
- White analog tape or green digits (reversionary mode) represents green band.
- During engine start and shutdown, the yellow and redline range changes will be suppressed. The red triangle will still be active.
- For engine start, the oil pressure may exceed 140 PSI (not to exceed 250 PSI) for up to 300 seconds. The analog tape will turn red 20 seconds after the engine reaches idle speed if 140 PSI is still exceeded.

Turbine (N_2) RPM Indicators

Digital Readout . . . . . Red ≥100.1% RPM
Green <100.1% RPM

Oil Temperature Indicators

Scale Markings . . . . . Red Line >121°C
Green Band ≥10 to ≤121°C

Analog Tape . . . . . Red >121°C
White ≥10 to ≤121°C

NOTE

- In reversionary mode the oil temperature indication will be digital only and the color of the digits will correspond to the scale range colors listed above.
- Tape and digital readout (reversionary mode) will turn red if outside normal operating limits.
- White analog tape or green digits (reversionary mode) represents green band.

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INSTRUMENT MARKINGS (Continued)

Inter-Turbine Temperature Indicators

Engine Start:

Scale Markings	Red Triangle 740°C Red Line ≥701°C
Analog Tape	Red ≥701°C White ≥150°C to <701°C
Digital Readout	Red ≥701°C Green ≥150°C to <701°C

NOTE

- Tape and digital readout will turn red if outside normal operating limits.
- Engine Running Red Line does not apply while ITT Start Limit (Red Triangle) is displayed.
- White analog tape represents green band.

Engine Running:

Scale Markings	Red Line ≥701°C
Analog Tape	Red ≥701°C White ≥150°C to <701°C
Digital Readout	Red ≥701°C Green ≥150°C to <701°C

NOTE

- Tape and digital readout will turn red if outside normal operating limits.
- White analog tape represents green band.

Fan (N_1) RPM Indicators (Refer to Section IV for Thrust Setting Limits)

Scale Markings	Red Line 100.0% RPM
Analog Tape	Red ≥100.1% RPM White <100.1% RPM
Digital Readout	Red ≥100.1% RPM Green <100.1% RPM

NOTE

- Tape and digital readout will turn red if outside normal operating limits.
- White analog tape represents green band.

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INSTRUMENT MARKINGS (Continued)

Airspeed Indicator . . . . . Below 8000 feet MSL: Red Line - 260 KIAS
Between 8000 feet and 43,000 feet MSL: Red Line - 275 KIAS
- 0.700 Mach

Left and Right Ammeter Indicators . . . . . Red Line - 400 Amps
Yellow Arc - 315 to 400 Amperes

Cabin Differential Pressure Indicator . . . . . Red Line - 8.9 PSI
Green Arc - 0.0 to 8.9 PSI

Oxygen Pressure Indicator . . . . . Red Line - 2000 PSI
Yellow Arc - 0.0 to 400 PSI
Green Arc - 1600 to 1800 PSI

Brake and Gear Pneumatic Pressure Indicator
(In Right Nose Compartment) . . . . . Wide Red Arc - Above 2050 PSI
Narrow Red Arc - 0.0 to 1600 PSI
Yellow Arc - 1600 to 1800 PSI
Wide Green Arc - 1800 to 2050 PSI

Brake Hydraulic Accumulator Pressure
Indicator (In Left Nose Compartment) . . . . . Light Green Arc - Static Pressure
Dark Green Arc - Pressurized Pressure

AIRPLANE BATTERY

If the BATT O'TEMP light illuminates during ground operation, do not take off until after the proper maintenance procedures have been accomplished.

ANGLE-OF-ATTACK/STICK SHAKER SYSTEM

The angle-of-attack (AOA) indicating system may be used as a reference system but does not replace the airspeed display in the PFD as a primary instrument. The AOA gage and Low Airspeed Awareness (LAA) indications must be verified in flight against Airplane Flight Manual speeds prior to use as a reference.

The angle-of-attack system can be used as a reference for approach speed (1.3 V_{S1}) at all airplane weights and center-of-gravity locations at zero, takeoff/approach and landing flap positions. 1.3 V_{S1} is indicated by approximately .6 on the AOA gage and by the top of the white tape on the pilot's and copilot's airspeed indicators.

If the stick shaker does not operate during the warning system test, it must be repaired before flight.

INSTRUMENT MARKINGS

Oil Pressure Indicators

Scale Markings	Red Triangle 251 PSI
	Red Line (MAX) ≥141 PSI
	Green Band ≥45 to <141 PSI
	Yellow Band >20 to <45 PSI
	Red Line (MIN) ≤20 PSI
Analog Tape	Red ≥251 PSI
	Red ≥141 PSI (≥20 sec)
	White ≥ 45 to <141 PSI
	Yellow > 20 to < 45 PSI
	Red ≤20 PSI

NOTE

- In reversionary mode the oil pressure indication will be digital only and the color of the digits will correspond to the scale range colors listed above.
- Tape and digital readout (reversionary mode) will turn yellow or red if outside normal operating limits.
- White analog tape or green digits (reversionary mode) represents green band.
- During engine start and shutdown, the yellow and redline range changes will be suppressed. The red triangle will still be active.
- For engine start, the oil pressure may exceed 140 PSI (not to exceed 250 PSI) for up to 300 seconds. The analog tape will turn red 20 seconds after the engine reaches idle speed if 140 PSI is still exceeded.

Turbine (N_2) RPM Indicators

Digital Readout	Red ≥100.1% RPM
	Green <100.1% RPM

Oil Temperature Indicators

Scale Markings	Red Line >121°C
	Green Band ≥10 to ≤121°C
Analog Tape	Red >121°C
	White ≥10 to ≤121°C

NOTE

- In reversionary mode the oil temperature indication will be digital only and the color of the digits will correspond to the scale range colors listed above.
- Tape and digital readout (reversionary mode) will turn red if outside normal operating limits.
- White analog tape or green digits (reversionary mode) represents green band.

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INSTRUMENT MARKINGS (Continued)

Inter-Turbine Temperature Indicators

Engine Start:

Scale Markings	Red Triangle 740°C Red Line ≥701°C
Analog Tape	Red ≥701°C White ≥150°C to <701°C
Digital Readout	Red ≥701°C Green ≥150°C to <701°C

NOTE

- Tape and digital readout will turn red if outside normal operating limits.
- Engine Running Red Line does not apply while ITT Start Limit (Red Triangle) is displayed.
- White analog tape represents green band.

Engine Running:

Scale Markings	Red Line ≥701°C
Analog Tape	Red ≥701°C White ≥150°C to <701°C
Digital Readout	Red ≥701°C Green ≥150°C to <701°C

NOTE

- Tape and digital readout will turn red if outside normal operating limits.
- White analog tape represents green band.

Fan (N_1) RPM Indicators (Refer to Section IV for Thrust Setting Limits)

Scale Markings	Red Line 100.0% RPM
Analog Tape	Red ≥100.1% RPM White <100.1% RPM
Digital Readout	Red ≥100.1% RPM Green <100.1% RPM

NOTE

- Tape and digital readout will turn red if outside normal operating limits.
- White analog tape represents green band.

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INSTRUMENT MARKINGS (Continued)

Airspeed Indicator . . . . . Below 8000 feet MSL: Red Line - 260 KIAS
Between 8000 feet and 43,000 feet MSL: Red Line - 275 KIAS
- 0.700 Mach

Left and Right Ammeter Indicators . . . . . Red Line - 400 Amps
Yellow Arc - 315 to 400 Amperes

Cabin Differential Pressure Indicator . . . . . Red Line - 8.9 PSI
Green Arc - 0.0 to 8.9 PSI

Oxygen Pressure Indicator . . . . . Red Line - 2000 PSI
Yellow Arc - 0.0 to 400 PSI
Green Arc - 1600 to 1800 PSI

Brake and Gear Pneumatic Pressure Indicator
(In Right Nose Compartment) . . . . . Wide Red Arc - Above 2050 PSI
Narrow Red Arc - 0.0 to 1600 PSI
Yellow Arc - 1600 to 1800 PSI
Wide Green Arc - 1800 to 2050 PSI

Brake Hydraulic Accumulator Pressure
Indicator (In Left Nose Compartment) . . . . . Light Green Arc - Static Pressure
Dark Green Arc - Pressurized Pressure

AUTOPILOT

1. One pilot must remain in his seat with the seat belt fastened during all autopilot operations.
2. Autopilot operation is prohibited if any comparison monitor annunciator illuminates in flight.
3. Minimum autopilot use height for enroute is 1000 feet AGL. Minimum autopilot use height for approaches is 180 feet AGL.

HONEYWELL PRIMUS-1000 FLIGHT GUIDANCE SYSTEM

1. The Honeywell P-1000 Integrated Flight Control System Pilot's Manual P/N A28-1146-109-00 revision 00 or later revision for the Cessna 550 Citation Bravo, must be immediately available to the flight crew.
2. Both flight director and autopilot coupled Category II approaches are not approved using the Honeywell P-1000 EFIS displays.
3. EFIS ground operation with the pilot's NOSE AVN FAN FAIL annunciator light illuminated is limited to 30 minutes or until either PFD HOT or MFD HOT annunciator light illuminates, whichever occurs first.
4. Dispatch is prohibited if the PFD HOT, MFD HOT or IC HOT annunciator light is illuminated.
5. Dispatch is prohibited following a flight during which the PFD HOT, MFD HOT or IC HOT annunciator light was illuminated, until the condition is identified and corrected.
6. The pilot's and copilot's PFDs must be installed and operational in the normal (non-reversionary) mode for takeoff.
7. The P-1000 system must be verified to be operational by a satisfactory preflight test as contained in the NORMAL procedures.
8. Dual PFD SG reversion to the MFD is prohibited.
9. Flight director and autopilot coupled VOR approaches without DME are not approved.
10. When NAV mode is engaged for enroute navigation, and VOR is the source, HDG mode must be engaged prior to changing the active VOR frequency. After positive acquisition of the new VOR frequency and course, reselect NAV mode and verify capture and tracking of the new course.

STANDBY FLIGHT INSTRUMENTS

1. A satisfactory preflight test must be accomplished on the standby gyro system.
2. The standby flight instruments, ATT, ALT/ASI and HSI must be functioning prior to takeoff.

OXYGEN MASK

The pressure demand sweep-on oxygen mask must be properly stowed to qualify as a quick-donning oxygen mask.

NOTE

Headsets, eyeglasses or hats worn by the crew may interfere with the quick-donning capabilities of the oxygen masks.

SUPPLEMENTAL OXYGEN SYSTEM

Continuous use of the supplemental oxygen is prohibited above:
25,000 feet when passengers are using dropout oxygen masks.
37,000 feet with crew only using pressure demand sweep-on oxygen masks.

HIGH FREQUENCY (HF) AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS

The ADF bearing information may be erratic when keying the HF transmitter. Should this occur, disregard the ADF bearing during periods of transmission.

THRUST REVERSERS

Reverse thrust power must be reduced to the idle reverse detent position at 60 KIAS on landing roll.

Maximum reverse thrust setting is limited to 82.3% N_1 for ambient temperatures at or above -18°C, and 76% N_1 for ambient temperautres below -18°C.

Maximum allowable thrust reverser deployed time is 15 minutes in any one-hour period.

Engine static ground operation is limited to idle power (if thrust reversers are deployed).

Use of thrust reversers is prohibited during touch and go landings.

The thrust reverser(s) must be verified to be operational by the Before Takeoff test in Section III Normal Procedures.

Use of thrust reversers is prohibited at speeds greater than 115 KIAS. Nose down column pressure is required with thrust reversers deployed at speeds greater than 60 KIAS.

The use of thrust reversers to back the airplane is prohibited.

AUTOPILOT

1. One pilot must remain in his seat with the seat belt fastened during all autopilot operations.
2. Autopilot operation is prohibited if any comparison monitor annunciator illuminates in flight.
3. Minimum autopilot use height for enroute is 1000 feet AGL. Minimum autopilot use height for approaches is 180 feet AGL.

HONEYWELL PRIMUS-1000 FLIGHT GUIDANCE SYSTEM

1. The Honeywell P-1000 Integrated Flight Control System Pilot's Manual P/N A28-1146-109-00 revision 00 or later revision for the Cessna 550 Citation Bravo, must be immediately available to the flight crew.
2. Both flight director and autopilot coupled Category II approaches are not approved using the Honeywell P-1000 EFIS displays.
3. EFIS ground operation with the pilot's NOSE AVN FAN FAIL annunciator light illuminated is limited to 30 minutes or until either PFD HOT or MFD HOT annunciator light illuminates, whichever occurs first.
4. Dispatch is prohibited if the PFD HOT, MFD HOT or IC HOT annunciator light is illuminated.
5. Dispatch is prohibited following a flight during which the PFD HOT, MFD HOT or IC HOT annunciator light was illuminated, until the condition is identified and corrected.
6. The pilot's and copilot's PFDs must be installed and operational in the normal (non-reversionary) mode for takeoff.
7. The P-1000 system must be verified to be operational by a satisfactory preflight test as contained in the NORMAL procedures.
8. Dual PFD SG reversion to the MFD is prohibited.
9. Flight director and autopilot coupled VOR approaches without DME are not approved.
10. When NAV mode is engaged for enroute navigation, and VOR is the source, HDG mode must be engaged prior to changing the active VOR frequency. After positive acquisition of the new VOR frequency and course, reselect NAV mode and verify capture and tracking of the new course.

STANDBY FLIGHT INSTRUMENTS

1. A satisfactory preflight test must be accomplished on the standby gyro system.
2. The standby flight instruments, ATT, ALT/ASI and HSI must be functioning prior to takeoff.
3. The Meggitt standby flight display is not approved for instrument approaches.

OXYGEN MASK

The pressure demand sweep-on oxygen mask must be properly stowed to qualify as a quick-donning oxygen mask.

NOTE

Headsets, eyeglasses or hats worn by the crew may interfere with the quick-donning capabilities of the oxygen masks.

SUPPLEMENTAL OXYGEN SYSTEM

Continuous use of the supplemental oxygen is prohibited above:
25,000 feet when passengers are using dropout oxygen masks.
37,000 feet with crew only using pressure demand sweep-on oxygen masks.

HIGH FREQUENCY (HF) AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS

The ADF bearing information may be erratic when keying the HF transmitter. Should this occur, disregard the ADF bearing during periods of transmission.

THRUST REVERSERS

Reverse thrust power must be reduced to the idle reverse detent position at 60 KIAS on landing roll.

Maximum reverse thrust setting is limited to 82.3% N_1 for ambient temperatures at or above -18°C, and 76% N_1 for ambient temperautres below -18°C.

Maximum allowable thrust reverser deployed time is 15 minutes in any one-hour period.

Engine static ground operation is limited to idle power (if thrust reversers are deployed).

Use of thrust reversers is prohibited during touch and go landings.

The thrust reverser(s) must be verified to be operational by the Before Takeoff test in Section III Normal Procedures.

Use of thrust reversers is prohibited at speeds greater than 115 KIAS. Nose down column pressure is required with thrust reversers deployed at speeds greater than 60 KIAS.

The use of thrust reversers to back the airplane is prohibited.

AUTOPILOT

1. One pilot must remain in his seat with the seat belt fastened during all autopilot operations.
2. Autopilot operation is prohibited if any comparison monitor annunciator illuminates in flight.
3. Minimum autopilot use height for enroute operation is 1000 feet AGL. Minimum autopilot use height for approaches is 180 feet AGL.

HONEYWELL PRIMUS-1000 FLIGHT GUIDANCE SYSTEM

1. The Honeywell P-1000 Integrated Flight Control System Pilot's Manual P/N A28-1146-109-00 revision 00 or later revision for the Cessna 550 Citation Bravo, must be immediately available to the flight crew.
2. Both flight director and autopilot coupled Category II approaches are not approved using the Honeywell P-1000 EFIS displays.
3. EFIS ground operation with the pilot's NOSE AVN FAN FAIL annunciator light illuminated is limited to 30 minutes or until either PFD HOT or MFD HOT annunciator light illuminates, whichever occurs first.
4. Dispatch is prohibited if the PFD HOT, MFD HOT or IC HOT annunciator light is illuminated.
5. Dispatch is prohibited following a flight during which the PFD HOT, MFD HOT or IC HOT annunciator light was illuminated, until the condition is identified and corrected.
6. The pilot's and copilot's PFDs must be installed and operational in the normal (non-reversionary) mode for takeoff.
7. The P-1000 system must be verified to be operational by a satisfactory preflight test as contained in the NORMAL procedures.
8. Dual PFD SG reversion to the MFD is prohibited.
9. Flight director and autopilot coupled VOR approaches without DME are not approved.
10. When NAV mode is engaged for enroute navigation, and VOR is the source, HDG mode must be engaged prior to changing the active VOR frequency. After positive acquisition of the new VOR frequency and course, reselect NAV mode and verify capture and tracking of the new course.

STANDBY FLIGHT INSTRUMENTS

1. A satisfactory preflight test must be accomplished on the standby gyro system.
2. The standby flight instruments, ATT, ALT/ASI and HSI must be functioning prior to takeoff.
3. The standby airspeed limitations listed on the ALT/KIAS placard apply only to the standby indicators and should be used only when both pilot's and copilot's PFD airspeed tapes are unreliable or inoperative.

OXYGEN MASK

The pressure demand sweep-on oxygen mask must be properly stowed to qualify as a quick-donning oxygen mask.

NOTE

Headsets, eyeglasses or hats worn by the crew may interfere with the quick-donning capabilities of the oxygen masks.

SUPPLEMENTAL OXYGEN SYSTEM

Continuous use of the supplemental oxygen is prohibited above:
25,000 feet when passengers are using dropout oxygen masks.
37,000 feet with crew only using pressure demand sweep-on oxygen masks.

HIGH FREQUENCY (HF) AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS

The ADF bearing information may be erratic when keying the HF transmitter. Should this occur, disregard the ADF bearing during periods of transmission.

THRUST REVERSERS

Reverse thrust power must be reduced to the idle reverse detent position at 60 KIAS on landing roll.

Maximum reverse thrust setting is limited to 82.3% N_1 for ambient temperatures at or above -18°C, and 76% N_1 for ambient temperautres below -18°C.

Maximum allowable thrust reverser deployed time is 15 minutes in any one-hour period.

Engine static ground operation is limited to idle power (if thrust reversers are deployed).

Use of thrust reversers is prohibited during touch and go landings.

The thrust reverser(s) must be verified to be operational by the Before Takeoff test in Section III Normal Procedures.

Use of thrust reversers is prohibited at speeds greater than 115 KIAS. Nose down column pressure is required with thrust reversers deployed at speeds greater than 60 KIAS.

The use of thrust reversers to back the airplane is prohibited.

AUTOPILOT

1. One pilot must remain in his seat with the seat belt fastened during all autopilot operations.
2. Autopilot operation is prohibited if any comparison monitor annunciator illuminates in flight.
3. Minimum autopilot use height for enroute is 1000 feet AGL. Minimum autopilot use height for approaches is 180 feet AGL.

HONEYWELL PRIMUS-1000 FLIGHT GUIDANCE SYSTEM

1. The Honeywell P-1000 Integrated Flight Control System Pilot's Manual P/N A28-1146-109-00 revision 00 or later revision for the Cessna 550 Citation Bravo, must be immediately available to the flight crew.
2. Both flight director and autopilot coupled Category II approaches are not approved using the Honeywell P-1000 EFIS displays.
3. EFIS ground operation with the pilot's NOSE AVN FAN FAIL annunciator light illuminated is limited to 30 minutes or until either PFD HOT or MFD HOT annunciator light illuminates, whichever occurs first.
4. Dispatch is prohibited if the PFD HOT, MFD HOT or IC HOT annunciator light is illuminated.
5. Dispatch is prohibited following a flight during which the PFD HOT, MFD HOT or IC HOT annunciator light was illuminated, until the condition is identified and corrected.
6. The pilot's and copilot's PFDs must be installed and operational in the normal (non-reversionary) mode for takeoff.
7. The P-1000 system must be verified to be operational by a satisfactory preflight test as contained in the NORMAL procedures.
8. Dual PFD SG reversion to the MFD is prohibited.
9. Flight director and autopilot coupled VOR approaches without DME are not approved.
10. When NAV mode is engaged for enroute navigation, and VOR is the source, HDG mode must be engaged prior to changing the active VOR frequency. After positive acquisition of the new VOR frequency and course, reselect NAV mode and verify capture and tracking of the new course.

STANDBY FLIGHT INSTRUMENTS

1. A satisfactory preflight test must be accomplished on the standby gyro system.
2. The standby flight instruments, ATT, ALT/ASI and HSI must be functioning prior to takeoff.

OXYGEN MASK

The pressure demand sweep-on oxygen mask must be properly stowed to qualify as a quick-donning oxygen mask.

NOTE

Headsets, eyeglasses or hats worn by the crew may interfere with the quick-donning capabilities of the oxygen masks.

SUPPLEMENTAL OXYGEN SYSTEM

Continuous use of the supplemental oxygen is prohibited above:
25,000 feet when passengers are using dropout oxygen masks.
37,000 feet with crew only using pressure demand sweep-on oxygen masks.

HIGH FREQUENCY (HF) AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS

The ADF bearing information may be erratic when keying the HF transmitter. Should this occur, disregard the ADF bearing during periods of transmission.

THRUST REVERSERS

Reverse thrust power must be reduced to the idle reverse detent position at 60 KIAS on landing roll.

Maximum reverse thrust setting is limited to 82.3% N_1 for ambient temperatures at or above -18°C, and 76% N_1 for ambient temperautres below -18°C.

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The thrust reverser(s) must be verified to be operational by the Before Takeoff test in Section III Normal Procedures.

Use of thrust reversers is prohibited at speeds greater than 115 KIAS. Nose down column pressure is required with thrust reversers deployed at speeds greater than 60 KIAS.

The use of thrust reversers to back the airplane is prohibited.

GROUND IDLE SWITCH

The ground idle switch must be in HIGH position when conducting touch and go landings.

The ground idle switch must be in HIGH position when making a generator assisted cross start from an operating engine.

DEICE/ANTI-ICE SYSTEMS

Operation of the deice boots below -40°C is prohibited.

All anti-ice systems must be ON when operating in visible moisture and the indicated RAT is +10°C or lower.

Limit ground operation of pitot static heat to 2 minutes ON with 2 minutes OFF between cycles to preclude system damage.

RAT INDICATOR

RAT indications on the ground are unreliable. Use reported surface temperature from the appropriate ground station for determining takeoff thrust setting.