

**LIMITATIONS**

## SYSTEMS AND EQUIPMENT LIMITS

**2.18 SYSTEMS AND EQUIPMENT LIMITS****2.18.1 NICKEL-CADMIUM BATTERY LIMITATION**

No battery engine starting must be attempted if the bus voltage is lower than 23.0 VDC or battery temperature is over 120°F (BAT TEMP/BATTERY caution light ON).

No takeoffs authorized with temperature indication over 150°F (BAT OVHT/BATTERY warning light ON).

**2.18.2 FLAP SYSTEM LIMITATION**

No takeoff authorized without flaps or with non symmetrical flap configuration or annunciated flap asymmetry.

Maximum operating altitude 20,000 FT

**2.18.3 HYDRAULIC PUMP**

Operate continuously only with at least one engine running.

Hydraulic pump must be on and operating and nosewheel steering on and operating for single engine taxiing.

**2.18.4 STEERING SYSTEM LIMITATION****NOTE**

The following limitations must be observed only for airplanes NOT installing Mod. S.B.80-0454 or 80-0425 (new NWSS):

Steering in TAXI position only for ground taxi.

Maximum Speed (in T.O. mode) 60 KTS

Steering engagement during landing is prohibited.

**2.18.5 FUEL SYSTEM LIMITATION**

Crossfeed operation is not approved for takeoff or landing.

**2.18.6 MAXIMUM TIRE SPEED**

The maximum tire speed is 154 KTS

## 4.2.4 BEFORE TAXI

1. EPU - TEST
2. EPU switch - ARM
3. Avionics switch - ON
4. Environmental temperature - AUTO AND TEMP SELECT AS NECESSARY
5. Cockpit blower - AS REQUIRED

## NOTE

Depending on ambient temperature, combined operation of both the Heating and Cooling Systems up to 20,000 ft. may be required.

6. Cooling system main control switch - ON (if desired)
7. FAN CKPT and FAN CABIN switches - AS REQUIRED

## NOTE

When on ground, during hot day operation, it may be necessary to increase  $N_G$  up to 58% maximum in order to maintain the ITT within limits or temporarily to switch the bleed air OFF (in this case no outside air is circulating in the cabin).

8. Bleed air switches - SET to L and R positions
9. Pressurization Auto/Man switch - AUTO and CHECK SELF TEST

## NOTE

The FAULT indication light on the control panel should momentarily illuminate (3 seconds maximum) during self test. If FAULT indication light fails to extinguish or re-illuminate, set AUTO/MAN switch to MAN and then back to AUTO to repeat self test.

## CAUTION

No flight should be initiated in the automatic mode if the FAULT light fails to extinguish.

10. Auto Sched/Cab sel switch - AUTO SCHED
11. Landing altitude - SET

12. Barometric correction - SET
13. Rate selection - SET (PIP mark)
14. Engine oil coolers - AS REQUIRED
15. Integrated Stand-by Instrument -CHECK INITIALIZATION COMPLETED  
then SET brightness
16. ADC1 and ADC2 - CHECK
17. AHC1 and AHC2 - CHECK
18. Avionics fan - TEST
19. Radio altimeter - TEST
20. Overspeed warning - TEST
21. Hydraulic system - TEST
22. ANTISKID pushbutton (if installed) - PUSH (Antiskid pushbutton amber light "OFF" disappears and built-in Auto-Test starts: after about 8 seconds the ANTISKID INOP amber light on the annunciator panel or, depending on configuration, ANTISKID INOP amber lights close to both Master Warning/ Master Caution panels switch off)
23. Steering system - TEST
24. Steering - TAXI
25. Pitot/stall/static heat - CHECK

**NOTE**

If operations in heavy rain or snow or icing conditions are envisaged:

24 a. Pitot HTR L&STALL - ON

24 b. [If TAT heater inhibition on-ground (ref. para 4.0 (NOTE)) is installed  
]: Pitot HTR R & TAT - ON

**CAUTION**

If TAT heater inhibition on-ground (ref. para 4.0 (NOTE)) is NOT installed: Pitot HTR R&TAT must be kept OFF

26. Stall warning - TEST
27. Flap system - TEST

**WARNING**

No takeoff authorized with non symmetrical flap configuration or annunciated failure.

- 28. Flaps - MID
- 29. Trim systems - TEST and set for take-off

**CAUTION**

Failure to set the correct trim for take-off may result in high rotation forces, delayed rotation and a substantial increase in take-off distance.

- 30. Ice detector - TEST
- 31. WSHLD heat - CHECK
- 32. Engine ice vane and oil cooler intake - CHECK
- 33. Engine inlet de-ice boots - CHECK

**WARNING**

Do not operate engine inlet de-ice boots below  $-40^{\circ}\text{C}$ .

No takeoff authorized with frost, snow or ice adhering to propellers, windshields, powerplant installation and pitot/static ports, or with snow or ice adhering to the wings, vertical and horizontal stabilizer or control surfaces.

**NOTE**

Perform Main and Fwd wing anti ice tests if ice conditions are known or expected.

- 34. Anti ice Main wing - TEST
- 35. Anti ice Fwd wing - TEST
- 36. PFD/MFD display reversion - CHECK

**WARNING**

Takeoff not authorized if reversionary function fails operating.

- 37. ADC1/ADC2 reversion - CHECK
- 38. AHC1/AHC2 reversion - CHECK
- 39. RTU/CDU reversion - CHECK
- 40. Autopilot - TEST
  - a. Battery switch - CHECK BAT
  - b. Circuit Breakers - CHECK IN
  - c. PFD - CHECK Attitude and Heading flags out of view

**4.2.7 BEFORE TAKEOFF**

1. Circuit breakers - CHECK IN
2. Anti coil lights - AIR
3. Windshield heat - AS REQUIRED
4. Seat belts and no smoking signs - ON
5. Flight instruments - SET and CHECK
6. Weather Radar - CHECK
7. Engine indications - CHECK
8. Warning and caution lights - CHECK OFF
9. Transponder - SET
10. Bleed air switches - CHECK to L and R positions

**NOTE**

When operating from high altitude airports with high SAT, it may be necessary to switch off both bleed air to reduce engine ITT.

11. Fuel pumps - CHECK MAIN
12. Condition levers - CHECK MAX RPM
13. Autopilot and Yaw Damper - DISENGAGE
14. Flaps - CHECK MID
15. Longitudinal trim - CHECK TAKEOFF SET
16. Aileron trim - CHECK NEUTRAL
17. Rudder trim - CHECK NEUTRAL
18. Flight controls - CHECK FREE
19. Steering - TAKEOFF
20. Oil cool - OFF
21. Taxi/landing lights - AS REQUIRED
22. Navigation lights - AS REQUIRED
23. Ice protection systems - AS REQUIRED
24. Pitot/Static HTR L&STALL and R&TAT - ON

**NOTE**

If "TAT heater inhibition on-ground" change (ref. para 4.0) is NOT installed, it is recommended to set R&TAT ON before line up and takeoff. When TAT heater is selected a total air temperature increase may be detected on ground until the system is stabilized after airborne. Thereafter TAT indication is valid.