MAINT	RII/INSP

Execution / Start Date:	
End Date:	

	MAINT	RII/INSP

Nr.	Hardtime	Task	Spec.	Related Documents
1.		F2	REI	MM 34–10–01 rev . MMS–328 341001 00200 rev 14/01/08 MPD 04–34–02.C rev .

Check: 24 MTH

Zones: 112

Access:

NRC YES ❍ NO ❍ IF YES, NUMBER(S): . . . . . .

CONDITION: **ELECTRICAL POWER ON.**

AIR DATA SYSTEM FUNCTIONAL CHECK.

Operational check out:

Central Air Data Computer Self–Test: *Except where specified all refereces to switches, control, indicators and legends, apply to the self–test panel on the front of the CADC.*

A) AIR DATA and ALTM VIB Nr1 and 2 cb's: CLOSED.

B) Failure Annunciator Check: Each one of the three failure annunciators (ALT, MACH, IAS) shall display a white center. If the white center is red, the failure monitor in the corresponding altitude Mach or indicated airspeed module has sensed a failure condition during flight or ground run–up.

NOTE: ***During the following monitor checks the external flag excitation is removed. This can be noted by direct observation of the failure flags in the TAS, SAT and machmeter part of Mach/Airspeed indicator.***

C) Failure Monitor Check (Altitude Module): Rotary selector switch to ALT MONITOR. The meter needle shall move into the GREEN area on the scale, indicating a failure monitor output of approx. 28VDC. Set and hold 600 FPM/MONITOR sw at MONITOR. After a delay, meter indication shall drop approx. zero (lower 5% of scale), indicating that the failure monitor is operating properly. Release switch. After a delay, meter indication shall return to the GREEN area of scale. ALT failure annunciator shall not indicate a failure condition as a result of this test being performed.

D) Failure Monitor Check (Indicate Airspeed Module): Repeat the test described in step C above, except set rotary switch to IAS MONITOR. The failure annunciator shall not indicate a failure condition as a result of this being performed.

E) Failure Monitor Check (Mach Module): Repeat the test described in step C above, except set the rotary switch to MACH MONITOR. The MACH failure annunciator shall not indicate a failure condition as a result of this test being performed.

F) Altitude Readout Check

CAUTION: The ALT slew switch shall be released when the altimeters stop slewing to prevent excessive clutch wear (2 minutes max.).

G) Set AAU–19/A altimeter to RESET mode.

	MAINT	RII/INSP

H) CADC rotary selector at ALTITUDE READ, press and hold 60 FT/ALT SLEW sw. at ALT SLEW and check yhe following.

a) Observe that each digitizer lamp event illuminate.
b) While ALT SLEW sw. is depressed, the aircraft altimeter will increase and event. return to STANBY.
c) TAS & SAT indicator will start to slew after ALT SLEW sw. is depressed for 60 sec
d) TAS shall increase.
e) SAT shall decrease.
f) Mach–part of MACH/AIRSPEED indicator shall start slewing but will be covered by D flag until 0.40 Mach is reached. Mach meter shall slew up to a reading between 0.47 and 0.50 Mach.
g) Release switch.

I) Wait 2 min. before the next step to allow the CADC drive to return to initial position.

J) Altitude Rate Check: Set rotary selector to ALT RATE1. Set and hold 60 FT/ALT SLEW sw. at ALT SLEW. The meter needleshall move into GREEN area on the scale, indicating that the velocity generator is driving the Nr1 alt rate ampl. properly. Release switch.

K) Delta 60 Foot Check: Set rotary selector sw. to OFF. Set and hold the 60 FT/ALT SLEW sw. at 60FT. This applies a signal which drives the gear train in the altitude module to a position equivalent to an altitude approx. 60 feet above ambiant pressure altitude. Check for response on the pilot or copilot altimeters. Release switch, the altitude module servo loop will rebalance at the pressure altitude.

L) Indicated Airspeed Module Slew Check: Set rotary selector sw. to AIS SLEW.
Set AIS–M SLEW/5KN sw. at AIS–M SLEW and hold for 10 sec. The meter needle shall move in the GREEN area on the scale. Release sw, after a delay, the meter needle shall drop approx. zero.

M) Mach Module Slew Check: Set rotary selector sw. to MACH SLEW.
Set AIS–M SLEW/5KN sw. at AIS–M slew. After adelay, the meter needle shall first move into the GREEN area on the scale then drop approx. zero as the servo loop drives to rebalance. Release sw, after adelay, the meter needle shall again move into the GREEN area on the scale (since removal of the test signal again unbalances loop) then drop approx. zero once again as the motor drives loop to a rebalanced condition.

N) Set rotary selector to OFF.

<u>Total air temperature indicator check:</u>

A) Verify that total air temperature–probe heat cb on panel P3 is CLOSED.

B) Place thermometer adjacent to the TAT probe and shield both from wind and direct sunlight.

C) The total air temperature indicator should read ambient temperature at the probe within +/–2˚C.

<u>CAUTION:</u> IF PROBE HEATER SWITCH IS LEFT ON WHILE THE AIRCRAFT IS NOT MOVING THE TEMPERATURE PROBE WILL BE DAMAGED. ENSURE PITOT COVERS ARE REMOVED FROM THE PROBE BEFORE HEATER SWITCH IS TURNED ON.

D) Set total probe heater switch on overhead panel to ON.

E) Check that the temperature on the total air temperature indicator starts to rise. Immediatly set PROBE HEATER sw. to OFF.

	MAINT	RII/INSP

Static air temperature indication check:

A) PROBE HEATER sw.: OFF
AIR DATA cb's on P5: CLOSED.

B) Place a thermostat adjacent to the TAT probe and shield both wind and direct sunlight.

C) Verify that SAT indicator on copilot panel indicate ambient temperature with +/–2˚C of thermometer indication and that striped flag is removed from view.

D) TOTAL AIR TEMP cb on P3: CLOSED.

CAUTION: IF THE TOTAL TEMPERATURE PROBE HEATER SWITCH IS LEFT ON WHILE THE AIRCRAFT IS NOT MOVING, THE TOTAL TEMPERATURE PROBE WILL BE DAMAGED.

E) TOTAL TEMPERATURE PROBE HEATER sw. ON.

F) Check that the temperature on the SAT indicator stars to rise. Immediatly set total temperature probe heater sw. to OFF.

True airspeed indication check:

A) Total temperature TOTAL PROBE HEATER cb on P3 CLOSED.
AIR DATA cb on P5 CLOSED.

B) Total temperature probe heater sw.: ON.

C) The true airspeed indicator will start to count.

NOTE: ***When the aircraft is not moving, the TAS indicator is meaningless. It will vary according to temperature and wind gust.***

D) When a speed indication is obtained, immediatly set PROBE HEATER sw. OFF.