ATTITUDE AND DIRECTION - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

   A. This section gives the procedures to do a check of the Attitude and Direction systems after a lightning strike.

   B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	*DESCRIPTION*	*EFFECTIVITY*
34-20-00-700-801-A	ATTITUDE AND DIRECTION - OPERATIONAL TEST AFTER LIGHTNING STRIKE	ALL

TASK 34-20-00-700-801-A
EFFECTIVITY: ALL

2. ATTITUDE AND DIRECTION - OPERATIONAL TEST AFTER LIGHTNING STRIKE

A. General

(1) This task gives the procedures to make sure that the Attitude and Direction system operates correctly after a lightning strike.

(2) This task is only applicable when the standby magnetic compass is not replaced or removed from its support.

NOTE: If the standby magnetic compass is replaced or removed from its support and installed again, you must do the compensation of the standby magnetic compass (AMM TASK 34-25-00-700-801-A/500).

B. References

REFERENCE	*DESIGNATION*
AMM SDS 23-00-00/1	
AMM SDS 30-31-00/1	
AMM SDS 30-41-00/1	
AMM SDS 30-42-00/1	
AMM SDS 31-42-00/1	
AMM SDS 33-00-00/1	
AMM SDS 34-00-00/1	
AMM SDS 34-22-00/1	
AMM SDS 34-61-00/1	
AMM SDS 34-62-00/1	
AMM TASK 20-13-01-910-802-A/200	LANDING GEARS WINGS MOUNTS AND ENGINE YOKES - DEGAUSSING
AMM TASK 34-25-00-700-801-A/500	STANDBY MAGNETIC COMPASS - COMPENSATION
AMM TASK 49-10-00-910-802-A/200	APU - START
AMM TASK 49-10-00-910-803-A/200	APU - SHUTDOWN
AMM TASK 49-13-00-910-802-A/200	APU - START
AMM TASK 49-13-00-910-803-A/200	APU - SHUTDOWN
AMM TASK 71-00-01-910-801-A/200	ENGINE START PROCEDURE (NORMAL)
AMM TASK 71-00-01-910-804-A/200	ENGINE STOP PROCEDURE

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Control in the cockpit	Cockpit
1	External aid	Ramp

I. Preparation

SUBTASK 841-002-A

(1) Move the aircraft to the service area.

NOTE:
- Make sure that there is no magnetic material or metallic object (for example, vehicle, hangar or other aircraft) in a radius of 60 meters (197 feet) from the aircraft. Only the tractor which moves the aircraft is permitted in the adjacent area.
- Make sure that this area is free of buried metal objects.

(2) Make sure that the cockpit voice-recorder area microphone is installed.

(3) Set the BATT 1 and BATT 2 switches, on the overhead panel, to the AUTO position to start the APU with the aircraft batteries.

(4) Start the APU (AMM TASK 49-10-00-910-802-A/200 for APU T-62T-40C11 or AMM TASK 49-13-00-910-802-A/200 for APU T-62T-40C14).

(5) Start the engine (AMM TASK 71-00-01-910-801-A/200).

(6) Shutdown the APU (AMM TASK 49-10-00-910-803-A/200 for APU T-62T-40C11 or AMM TASK 49-13-00-910-803-A/200 for APU T-62T-40C14).

(7) Make sure that the systems below are serviceable:

- Electronic Flight Instrument System (EFIS) (AMM SDS 34-22-00/1).
- Integrated Computer System (AMM SDS 31-42-00/1).
- (Aircraft with AHRS AH-900 or IRS) FMS (Honeywell) (AMM SDS 34-61-00/1) or FMS (Universal) (AMM SDS 34-62-00/1).

(8) (Aircraft with AHRS) Make sure that the AHRS1 and AHRS2 circuit breakers, on the circuit breaker panel, are closed.

(9) (Aircraft with IRS) Make sure that the IRS1 and IRS2 circuit breakers, on the circuit breaker panel, are closed.

(10) Set to on all navigation (AMM SDS 34-00-00/1) and communication (AMM SDS 23-00-00/1) services used in cruise flights.

(11) Make sure that the overhead panel lights are off (AMM SDS 33-00-00/1) and the windshield wipers (AMM SDS 30-41-00/1) are in the parking position.

(12) Set the heating system of the pitot/static sensors to on (AMM SDS 30-31-00/1).

(13) Make sure that the windshield heating system is off (AMM SDS 30-42-00/1).

J. Attitude and Direction - Operational Test After Lightning Strike

SUBTASK 720-002-A

(1) (Aircraft with AHRS AH-900 or IRS) Do the alignment as follows:

NOTE:
- The AHRS or IRS must receive the present position for the alignment to be completed. The FMS position must be updated to permit this data to be read by the AHRS or IRS.
- If the aircraft is moved during the alignment, the AHRU or IRU stops the alignment and starts a full alignment again 30 seconds after the motion stops.

(a) (Aircraft with IRS) Turn the MSU1 switches to the ALIGN position.

– The ALIGN annunciator (amber) lights.

– The ON BATT and the NO AIR annunciators (amber) may come on momentarily.

(b) (Aircraft with FMS Honeywell) Do the FMS position update as follows:

1 On the FMS CDU1, push the NAV mode key and the NEXT function key.

- The NAV INDEX 2/2 page is shown.

2 Push the POS INIT line select key.

- The POS INIT 1/1 page is shown.

3 Push the LOAD line select key to update the FMS position with the last saved position.

- The FMS CDU shows the LOADED POSITION coordinates.

(c) (Aircraft with FMS Universal) On the INIT 1/1 page, on FMS CDU1, push the ACCEPT line select key to update the FMS position.

(d) Wait until the alignment is completed. The alignment time depends on the local latitude, and may range from 5 to 20 minutes.

- (Aircraft with AHRS AH-900) After the alignment is completed, the flags ATT FAIL and HDG FAIL go out of PFD1 and MFD1, and a valid attitude and heading data are shown.
- (Aircraft with IRS) After the alignment of the IRS is completed, the NAV RDY annunciator (green) comes on.

(e) (Aircraft with IRS) Turn the MSU1 rotary switches to the NAV position.

- The ALIGN and NAV RDY annunciators go out of the MSU.
- The flags ATT FAIL and HDG FAIL go out of PFD1 and MFD1, and a valid attitude and heading data are shown.

(2) Compare the heading values as follows:

(a) Read AHRS1 or IRS1 heading on PFD1 (WX mode) or MFD1 (PLAN mode).

(b) (Aircraft with AHRS AH-800) Read AHRS2 heading on PFD2 (WX mode) or MFD2 (PLAN mode).

(c) Read standby compass indication, according to the correction card.

(d) (Aircraft with AHRS AH-800) If the difference between AHRS1 and AHRS2, or AHRS1 and standby compass, or AHRS2 and standby compass is greater than 4 degrees, do a Degaussing Procedure (AMM TASK 20-13-01-910-802-A/200).

(e) (Aircraft with AHRS AH-900 or IRS) If the difference between AHRS1 or IRS1 and standby compass is greater than 4 degrees, do a Degaussing Procedure (AMM TASK 20-13-01-910-802-A/200).

(3) Turn the aircraft 90 degrees.

(4) Do step 2 again.

K. Follow-on

SUBTASK 842-002-A

(1) Set the GEN 1, 2, 3, and 4 pushbutton switches to the ON position. Make sure that the related striped bars remain off.

(2) Set the ESSENTIAL POWER pushbutton to the AUTO position. Make sure that the striped bar remains off.

(3) Deenergize the Pitot/Static Sensor Heating System (AMM SDS 30-31-00/1).

(4) Deenergize all navigation (AMM SDS 34-00-00/1) and communication services (AMM SDS 23-00-00/1).

(5) Stop the engines (AMM TASK 71-00-01-910-804-A/200).

(6) Set the BATT 1 and BATT 2 switches to OFF.