COOLING PACK SYSTEM - MAINTENANCE PRACTICES

EFFECTIVITY: ALL

1. General

   A. This section gives the procedure to do a general inspection of the cooling pack components and adjacent area.

   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*
21-51-00-200-801-A	COOLING PACK SYSTEM - GENERAL INSPECTION	ALL

TASK 21-51-00-200-801-A
EFFECTIVITY: ALL

2. COOLING PACK SYSTEM - GENERAL INSPECTION

A. General

(1) This task gives the procedure to do a general inspection of the cooling pack components and adjacent area, as applicable.

(2) This procedure must be performed with the air cycle machine (ACM) removed from the aircraft.

B. References

REFERENCE	*DESIGNATION*
AMM TASK 21-25-01-200-801-A/600	FLAP OF RAM AIR VALVES - GENERAL VISUAL INSPECTION
AMM TASK 21-25-03-800-801-A/200	LINEAR ACTUATOR - ADJUSTMENT
AMM TASK 21-51-03-000-801-A/400	AIR CYCLE MACHINE (ACM) - REMOVAL
AMM TASK 21-51-03-400-801-A/400	AIR CYCLE MACHINE (ACM) - INSTALLATION
AMM TASK 21-51-13-200-801-A/600	WATER SPRAY NOZZLES - INSPECTION
AMM TASK 21-51-14-200-801-A/600	PACK DUCTS - GENERAL VISUAL INSPECTION

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*
2	Do the task	Cooling pack area

I. Preparation

SUBTASK 020-002-A

(1) Remove the air cycle machine (ACM) (AMM TASK 21-51-03-000-801-A/400).

J. General Inspection

SUBTASK 200-002-A

(1) Do an inspection of the removed air cycle machine (ACM) fan rotor for missing blades. If there is a fan rotor blade missing (broken at the root of the hub), do as follows:

(a) Do a visual inspection on the flap of the ram air valve to make sure that it is in the correct position (AMM TASK 21-25-01-200-801-A/600).

NOTE: An incorrect position of the flap (not in the fully UP position) may lead to an air cycle machine (ACM) failure due to a surge in the fan.

(b) If the flap of the ram air valve is not in the fully UP position, adjust the linear actuator (AMM TASK 21-25-03-800-801-A/200).

(c) Do an inspection of the dual heat exchanger (DHX) ram air outlet surface and diffuser bore.

1 Make sure that the air cycle machine (ACM) fan rotor missing blade (fragment) is not in the dual heat exchanger (DHX) ram air flow circuit.

NOTE: If the missing fragment is in the ram air flow circuit, it may result in immediate foreign object damage when the new or overhauled air cycle machine (ACM) starts working.

(2) Do an inspection of the water spray nozzle for blockage (AMM TASK 21-51-13-200-801-A/600).

NOTE:
- Do the test of the water spray nozzle using a syringe and water.
- Examine the NACA scoop for correct water spray out of the water spray nozzle.

(3) Do an inspection of the cooling pack ducts for good condition and correct attachment (AMM TASK 21-51-14-200-801-A/600).

NOTE:
- A disconnection of the cooling pack ducts may cause a rapid loss of air flow to the air cycle machine (ACM) compressor or turbine inlet, leading to a possible damage or total failure of the thrust and/or journal bearings.
- Pay special attention to the clamps installed in the ducts that interface with the torque-motor dual valve (TDMV) and the dual heat exchanger (DHX).

K. Follow-on

SUBTASK 420-002-A

(1) Install the air cycle machine (ACM) (AMM TASK 21-51-03-400-801-A/400).