TABLE 1

INSPECTION GUIDE

ENGINE COMPONENT AND INSPECTION	INSPECTION TIME CATEGORIES			
	Daily	Periodic		HSI (Ref. Para. 3.D.)
		Every 300 HRS	Every 600 HRS	
	1	2	3	4
A. Check the engine inlet duct for:				
(1) Deterioration, damage, and loose rivets.	x	x	x	x
(2) Integrity of anti-icing boot (if installed).	x	x	x	x
(3) Presence of foreign objects.	x	x	x	x
B. Check the overspeed governor-to-flowmeter fuel line, engine external lines, ports, flanges, clamps, and brackets for the following:				
(1) Check the overspeed governor-to-flowmeter fuel line for chafing. Replace line if evidence of chafing exists (73-00).		x	x	x
(2) Check engine external lines, ports, flanges, clamps, and brackets for:				
(a) Security.	x	x	x	x
(b) Damage.	x	x	x	x
(c) Evidence of Leakage.	x	x	x	x
(d) Chafing.	x	x	x	x
C. Evidence of leakage (fuel, oil, air):				
(1) Surface beneath the engine.	x			
(2) Engine surface and accessories.		x	x	x

TABLE 1

INSPECTION GUIDE (Cont)

ENGINE COMPONENT AND INSPECTION	INSPECTION TIME CATEGORIES			
		Periodic		HSI (Ref. Para. 3.D.)
	Daily	Every 300 HRS	Every 600 HRS	
	1	2	3	4
CAUTION: REPLACE O-RINGS WHENEVER THEY ARE EXPOSED DURING WORK ON THE LUBE SYSTEM.				
D. Check the lube system for contamination as follows:				
NOTE: A leak check must be performed after any part of the lube system is disrupted/disconnected and reassembled as referenced in Section 72-00, figure 503.				
(1) Remove and inspect the lube filter for metallic particles per Inspection/Checks, Section 79-00. Clean and reinstall filter.		x	x	x
NOTES: 1. At 300 hours, the disposable Type "D" filter is to be replaced or may be inspected and rinsed in clean engine oil or rinsed in Stoddard Solvent, Federal Specification P-D-680 (Shell Chemical Co., Petro Chemical Division, 750 Union Commerce Bldg., Cleveland, OH 44115) and dried. Replace filter at 600 hours.				
2. Inspect accessory and transfer gearbox magnetic drain plugs whenever lube and filter exhibits metal.				
(2) Remove the magnetic drain plugs from the accessory and transfer gearboxes. Inspect the plugs for metallic particles per Inspection/ Checks, Section 79-00. Clean and reinstall plugs.		x	x	x
(3) Check oil level. Maintain oil level at or slightly below the FULL mark on the oil tank dipstick.	x	x	x	x

TABLE 1

INSPECTION GUIDE (Cont)

ENGINE COMPONENT AND INSPECTION	INSPECTION TIME CATEGORIES			
		Periodic		HSI (Ref. Para. 3.D.)
	Daily	Every 300 HRS	Every 600 HRS	
	1	2	3	4
NOTE: Oil will seep from the oil tank to the gearbox when the engine is inactive and will give a false indication of a low oil level. Check oil level immediately after engine shutdown.				
(4) Change oil. Refer to Servicing Section 79-00. Inspect drained oil for presence of particles per Inspection/Checks, Section 79-00.			x	x
CAUTION: REPLACE O-RINGS WHENEVER THEY ARE EXPOSED DURING WORK ON THE FUEL SYSTEM.				
E. Check the fuel system for contamination: (Refer to Section 73-00.)				
NOTE: A leak check must be performed after any part of the fuel system is disrupted/disconnected and reassembled as referenced in Section 72-00, figure 503.				
(1) Remove the filters from the fuel pump (Section 73-13) and fuel control (Section 73-21); check contamination, clean and reinstall filters.		x	x	x
(2) Clean the overspeed governor servo filter per Section 73-14-0.				x
NOTE: Always check overspeed governor servo filter whenever other fuel filters are found to be contaminated. Source of contamination should be determined.				

TABLE 1

INSPECTION GUIDE (Cont)

ENGINE COMPONENT AND INSPECTION	INSPECTION TIME CATEGORIES			
	Daily	Periodic		HSI (Ref. Para. 3.D.)
		Every 300 HRS	Every 600 HRS	
	1	2	3	4
F. Check the engine inlet and front frame areas for: (Refer to Section 72-31-0 for serviceable limits.)				
NOTE: A leak check must be performed after any part of the air system is disrupted/disconnected and reassembled as referenced in Section 72-00, figure 503, step 12.				
(1) Security and cracks at the forward engine mount.		x	x	x
(2) Front frame casing cracks.			x	x
(3) Dome assembly (Bullet nose) for:				
(a) Dents.	x	x	x	x
(b) Looseness.		x	x	x
(c) Cracks.		x	x	x
(4) Front frame struts for:				
(a) Nicks and dents.	x	x	x	x
(b) Cracks.			x	x
(5) Variable vanes for:				
(a) Nicks and dents.	x	x	x	x
(b) Cracks.			x	x
(6) Missing pin and clips from visible variable vane levers.		x	x	x
(7) Missing cotter pins from visible variable vane outer shanks.		x	x	x
(8) Rubs between variable vanes and shrouds.			x	x

TABLE 1

INSPECTION GUIDE (Cont)

ENGINE COMPONENT AND INSPECTION	INSPECTION TIME CATEGORIES			
		Periodic		HSI (Ref. Para. 3.D.)
	Daily	Every 300 HRS	Every 600 HRS	
	1	2	3	4
(9) Distorted variable vane actuator ring.			x	x
(10) Security of anti-icing valve, line, and clamps.			x	x
(11) Evidence of leaking gaskets at anti-icing valve.			x	x
(12) Variable geometry system looseness. (Check per Section 75-00.)				x
G. Check the compressor stator and rotor assemblies for: (Refer to Sections 72-32-0 and 72-33-0.)				
WARNING: HANDLING BLADED COMPONENTS WEAR LEATHER PALM GLOVES (WELDER'S TYPE WITH GAUNTLET) WHEN HANDLING COMPONENTS WITH ASSEMBLED BLADES AND VANES. BLADES AND VANES ARE SHARP AND CAN CAUSE SERIOUS INJURY.				
(1) Free rotation of the compressor rotor.	x	x	x	x
NOTE: Check by spinning rotor by hand or watching rotor during coastdown.				
(2) Broken rotor studs - Rotate rotor slowly (by hand) and listen for rattling noise, or listen as rotor coasts down during shutdown.	x	x	x	x
(3) Visible compressor rotor blades for nicks, dents, and tip curl.	x	x	x	x
(4) Cracked rotor blades.			x	x

TABLE 1

INSPECTION GUIDE (Cont)

ENGINE COMPONENT AND INSPECTION	INSPECTION TIME CATEGORIES			
	Daily	Periodic		HSI (Ref. Para. 3.D.)
		Every 300 HRS	Every 600 HRS	
	1	2	3	4
(5) Compressor casings for dents and cracks.				x
(6) Bleed valve for:				
(a) Security.			x	x
(b) Lubricate. (Refer to Section 75-32-0.)				x
(c) Inspect rollers. (Refer to to Section 75-32-0.)				x
WARNING: PENETRANT METHOD OF INSPECTION PROLONGED OR REPEATED INHALATION OF POWDERS AND VAPORS OF CLEANING SOLVENTS, DEVELOPERS, AND EMULSIFIERS USED IN FLUORESCENT PENETRANT INSPECTION CAN IRRITATE MUCOUS MEMBRANE AREAS OF THE BODY. CONTINUAL EXPOSURE TO PENETRANT INSPECTION MATERIALS CAN IRRITATE THE SKIN. DIRECT EXPOSURE OF EYES TO BLACK LIGHT AND PROLONGED EXPOSURE OF SKIN TO BLACK LIGHT CAN INFLAME AND DAMAGE EYES AND SKIN. WEAR NEOPRENE GLOVES WHEN HANDLING PENETRANT INSPECTION MATERIALS. KEEP INSIDES OF GLOVES CLEAN. STORE ALL PRESSURIZED SPRAY CANS CONTAINING PENETRANTS, DEVELOPERS, AND EMULSIFIERS IN A COOL, DRY AREA PROTECTED FROM DIRECT SUNLIGHT, HEAT, AND OPEN FLAMES. TEMPERATURES HIGHER THAN 120°F (49°C) MAY CAUSE PRESSURIZED CAN TO BURST AND CAUSE INJURY. IF DIRECT EYE CONTACT WITH BLACK LIGHT CAUSES EYE PROBLEMS, IMMEDIATELY GET MEDICAL HELP. WHEN USING BLACK LIGHT FOR FLUORESCENT INSPECTIONS, WEAR SAFETY GLASSES.				
(d) Fluorescent-penetrant inspect pushrod assembly.				x

TABLE 1

INSPECTION GUIDE (Cont)

ENGINE COMPONENT AND INSPECTION	INSPECTION TIME CATEGORIES			
	Daily	Periodic		HSI (Ref. Para. 3.D.)
		Every 300 HRS	Every 600 HRS	
	1	2	3	4
(7) Igniter leads for security and damage.				x
(8) Ignition exciter for security and damage.			x	x
(9) Eighth-stage and exit guide vanes.				x
H. Check the mainframe assembly for: (Refer to Section 72-34-0.)				
(1) Fuel manifold for security and chafing.		x	x	x
(2) Mainframe casing and struts for cracks.				x
(3) Mainframe internal flowpath for corrosion.				x
(4) Fuel nozzles for condition and operation per Section 73-18-0, paragraph 3.A.(2), 3.B.(2) and 3.C. Flow check per Section 73-18-0, paragraph 4.				x
I. Check the accessory drive section for: (Refer to Sections 72-62-0, 72-63-0, and 72-64-0.)				
(1) Security of transfer gearbox on brackets and brackets on mainframe.		x	x	x
(2) Security of accessory gearbox on brackets and brackets on front frame and/or mainframe.		x	x	x

TABLE 1

INSPECTION GUIDE (Cont)

ENGINE COMPONENT AND INSPECTION	INSPECTION TIME CATEGORIES			
	Daily	Periodic		HSI (Ref. Para. 3.D.)
		Every 300 HRS	Every 600 HRS	
	1	2	3	4
(3) Security of components mounted on gearboxes.		x	x	x
(4) Spline wear:				
(a) Axis C spline(s) driving generator(s).		x*	x*	x*
(b) All accessory splines: fuel pump, overspeed governor, hydraulic pump, and A-C generator (if installed).				x*
J. Check the combustion section for: (Refer to Section 72-40.)				
(1) Hot spots, bulges, and cracks on the outer casing per Section 72-41-0.	x	x	x	x
WARNING: IGNITER PLUGS BEFORE ENERGIZING THE IGNITION CIRCUIT, BE CERTAIN THAT NO FUEL OR OIL IS PRESENT. HAVE FIRE EXTINGUISHING EQUIPMENT PRESENT. HIGH VOLTAGE IS PRESENT. BE CERTAIN THE IGNITION UNIT AND PLUGS ARE GROUNDED BEFORE ENERGIZING THE CIRCUIT. NEVER TOUCH OR MAKE CONTACT WITH THE ELECTRICAL OUTPUT CONNECTOR WHEN OPERATING ANY IGNITION COMPONENT. NEVER HOLD OR MAKE CONTACT WITH THE IGNITER PLUG WHEN ENERGIZING THE IGNITION COMPONENT				
(2) Replace igniter plugs per Section 80-23-0.		See Note	x	x
*Clean and lubricate mating splines.				

TABLE 1

INSPECTION GUIDE (Cont)

ENGINE COMPONENT AND INSPECTION	INSPECTION TIME CATEGORIES			
	Daily	Periodic: Every 300 HRS	Periodic: Every 600 HRS	HSI (Ref. Para. 3.D.)
	1	2	3	4
(3) The combustion liner shells must be removed permanently and replaced with new shells. The cowl and dome assembly, including the fuel nozzle ferrules and igniter washer, are not to be disassembled or replaced unless there is an obvious defect. Refer to SEI-136, Section 72-42-0 for limits.				x*
NOTE: Igniter plug life is a function of engine time, proper immersion depth, ignition cycles, and period of ignition use. The most reliable operation can be obtained by alternatively replacing the top and bottom units at intervals of 100-150 hours, or at intervals consistent with the operator's experience and use of ignition in flight.				
(4) Combustion inner casing for hot spots, bulges, and cracks.				x
(5) Inspect outer combustion casing per Section 72-41-0.				x
K. Check the turbine section for: (Refer to Sections 72-51-0, 72-52-0, and 72-53-0 for serviceable limits.)				
(1) Turbine casing cracks.				x
(2) Turbine nozzles for operation defects.				x
(3) Turbine rotor assembly.				x

*On CJ610-9 engines, the inner and outer shells are life limited to 1,200 hours and must be replaced at every other 600-hour hot section inspection. This applies to Part No. 6008T94 liners only.

TABLE 1

INSPECTION GUIDE (Cont)

ENGINE COMPONENT AND INSPECTION	INSPECTION TIME CATEGORIES			
	Daily	Periodic		HSI (Ref. Para. 3.D.)
		Every 300 HRS	Every 600 HRS	
	1	2	3	4
L. Check the exhaust cone for:				
(1) Casing cracks, distortion, and hot spots (Refer to Section 78-11-0.)	x	x	x	x
(2) Security of exhaust pressure probes (Refer to Section 77-11-0.)	x	x	x	x
(3) Inspect and clean exhaust pressure probes (Refer to Section 77-11-0.)				x
(4) The exhaust gas thermocouple harness for:				
(a) Breaks or missing loops. (Refer to Section 77-21-0.)	x	x	x	x
(b) Insulation resistance. (Refer to Section 77-21-0.)				x
(c) Indication when local heat is applied. (Refer to Section 77-21-0.)				x
M. Functionally check engine operation per Adjustment/Test, Section 72-00, figure 503.		See Note 1	See Note 1	x
N. Motoring check.		See Note 2	See Note 2	x
O. Clean compressor per Section 72-00.		See Note 3	See Note 3	See Note 3

TABLE 1

INSPECTION GUIDE (Cont)

ENGINE COMPONENT AND INSPECTION	INSPECTION TIME CATEGORIES			
		Periodic		HSI (Ref. Para. 3.D.)
	Daily	Every 300 HRS	Every 600 HRS	
	1	2	3	4

NOTES:

1. Functional Checks indicated at 300 or 600 hour intervals are recommended if engines have been idle for more than 1 month prior to the check. This check is also recommended if pilot's post flight report indicates there may be an engine operational problem.

2. This check can be accomplished as part of cleaning or igniter plug change. Pilot's normal starting procedure can be used to monitor starter torque capability of 12% Ng RPM in 12 seconds or better.

3. A high rate of landings, especially in areas where there is airborne soot or dirt, may require additional cleaning intervals to maintain efficient compressor operation.