

UNSCHEDULED MAINTENANCE CHECKS

1. General

- A. During Operation, the Airplane may be Subjected to: Hard/overweight landings - detailed in paragraph 3 . Overspeed - Exceeding placard speeds of flaps or landing gear exceeding airplane design speeds - detailed in paragraph 4 . Severe air turbulence or severe maneuvers - detailed in paragraph 5 . Lightning strike - detailed in paragraph 6 . Foreign object damage - detailed in paragraph 7 . Towing with a large fuel unbalance or high drag/side loads due to ground handling - detailed in paragraph 8 .
- B. These conditions are defined in paragraph 2. When any of these conditions are reported by the flight crew, a visual inspection of the airframe and specific inspection of components and areas involved must be accomplished.
- C. The inspections are performed to determine and evaluate the extent of damage in local areas of visible damage, and to the structure and components adjacent to the area of damage.
- D. When a lightning strike is encountered, a comprehensive inspection of the airplane exterior is performed to locate possible damage.
- E. If foreign object damage is encountered (suspected or actual), a visual inspection of the airplane must be accomplished before airplane is returned to service.
- F. Airplanes having wings removed for any purpose which have more than 10,000 flight hours or are more than ten years old, must remove all wing and wing carry thru lug bushings from the main and rear spar caps of the removed wing and conduct an inspection for corrosion and/or cracks in the lugs. Contact Cessna Citation Customer Services for tools and inspection procedures.

2. Unscheduled Maintenance Checks Defined

A. Hard/Overweight Landings.

- (1) Any landing made by an airplane at what is believed to be an excessive sink rate. Closely related to hard landing, is overweight landing, which is defined as landing the airplane at any gross weight which exceeds placard landing weights.

NOTE: If the hard/overweight landing is combined with high drag/side loads, additional checks are required.

B. Overspeed.

- (1) Any time an airplane has exceeded one or both of the following:
 - (a) Airplane overspeed exceeding placard speed limits of flaps and/or landing gear.
 - (b) Airplane overspeed exceeding design speeds.

C. Severe Air Turbulence or Severe Maneuvers.

- (1) May be defined as atmospheric conditions producing violent buffeting of airplane. Severe maneuvers can be defined as any maneuvers exceeding flight manual limits.

D. Lightning Strike.

- (1) If flown through an electrically stressed region of the atmosphere, where electrical discharges are transferred from cloud to cloud and from cloud to earth, the airplane may become a part of this discharge path. During a lightning strike, the current enters the airplane at one point and exits at another, usually at opposite extremities. It is in these areas, wing tips, nose and tail sections, where damage is most likely to occur. Burning and/or eroding of small surface areas of the skin and

- (3) Leading edge - Inspect skin attach rivets along leading edge of wing inboard of gear for working rivets.

C. Fuselage (Chapter 53).

- (1) Forward and Center Fuselage - Inspect the skin for buckles, failed or working fasteners and any evidence of structural damage. Inspect the areas around the wing attachments, cabin entry door and emergency exit for any evidence of structural damage.
- (2) Tailcone - Inspect the skin for buckles, failed or working fasteners and any evidence of structural damage. Inspect the areas around the baggage door and engine beams for any evidence of structural damage.

6. Lightning Strike Check

- A. As the following checks are performed, complete Lightning Strike/Static Discharge Incident Reporting Form. Completed form must be mailed to Cessna Citation Customer Service, P.O. Box 7706, Wichita, KS 67277 Attn: Avionics Customer Service.

B. Communications (Chapter 23).

- (1) Antennas - Inspect all antennas for evidence of burning or eroding. If damage is noted, perform functional check of affected system.

C. Navigation (Chapter 34).

- (1) Radar reflector, feed horn, motor box assembly and mounting structure - Inspect for damage. If damage is noted, perform a bench check of system. If superficial pitting or burning of mount structure only is noted, perform a functional check of radar system.
- (2) Glideslope antenna - Inspect for burning and pitting. If damage is noted, perform a functional check of glideslope system.

- (3) Standby compass - Should be considered serviceable if the corrected heading is within +10 or -10 degrees of heading indicated by remote compass system. If remote compass is not within tolerance, remove, repair or replace.

D. Fuselage (Chapter 53).

- (1) Radome - Inspect for evidence of burning or eroding.
- (2) Skin - Inspect surface of fuselage skin for evidence of damage.
- (3) Stinger - Inspect static dischargers for damage.

E. Stabilizers (Chapter 55).

- (1) Rudder - Inspect static dischargers for damage.
- (2) Elevator - Inspect static dischargers for damage.

F. Wings (Chapter 57).

- (1) Skins - Inspect for evidence of burning and eroding.
- (2) Wing Tips - Inspect for evidence of burning and pitting. Inspect static dischargers for damage.
- (3) Flaps, ailerons and speed brakes - Inspect for burning and pitting. Inspect static dischargers for damage.

G. Engine (Chapter 72).

- (1) Engine - Refer to the engine maintenance manual for lightning strike inspection.

PRATT & WHITNEY CANADA
MAINTENANCE MANUAL
MANUAL PART NO. 3017542

- (a) Remove fuel pump outlet filter element and check for shut off or no fuel contamination (Ref. 73-10-02). Install new filter element.
- (b) Check fuel pump (Ref. 71-00-00).
- (c) Check fuel filter element following fuel pump check. If contaminated, replace fuel pump (Ref. 73-10-02).

H. Lightning Strike



Aircraft or engine subjected to lightning strike: visually inspect engine inlet. If evidence of arcing (pitting, black scarring) is present on inlet cone or LP compressor blades, remove engine from service. Return engine to an approved overhaul facility for lightning strike Special Conditions inspection in Overhaul Manual.

I. Engine Exposed to Fire Extinguishing Agent

- (1) If engine has **ingested** fire extinguishing foam, fire extinguishing powder or other chemical fire extinguishers from aircraft or other fire extinguishing systems, remove engine and send to an approved overhaul facility for procedures in accordance with Overhaul Manual, 72-00-00, LIGHT OVERHAUL, Special Conditions Inspections - Fire Extinguishing Agent Ingested by Engine.
- (2) If engine has been exposed to fire extinguishing foam, fire extinguishing powder or other chemical fire extinguishers from aircraft or other fire extinguishing systems **externally only**, refer to 71-00-00, CLEANING and perform Engine External Wash. Following external wash, inspect engine for corrosion at periodic inspection intervals (Ref. 72-00-00, Inspection).
- (3) If the engine has been exposed to Halon from aircraft or other fire extinguishing systems, internally or externally, no maintenance action is required.
- (4) If engine has been involved in an incident involving fire extinguishing agents, but has not ingested or been exposed externally to fire extinguishing foam, fire extinguishing powder or other chemical fire extinguishers from aircraft or other fire extinguishing systems, no maintenance action is required.

J. Heavy/Hard Landing

NOTE: Refer to the Aircraft Maintenance Manual for additional inspection requirements

- (1) Check aircraft/engine connections for security.
- (2) Inspect the engine mounts for cracks or distortion.
- (3) Inspect the engine inlet and fan case and the engine exhaust duct for distortion or damage.
- (4) Check all engine mounted accessories for security.
- (5) Remove and inspect the engine main oil filter (Ref. 79-20-01).

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LIGHTNING STRIKE/STATIC DISCHARGE INCIDENT REPORTING FORM
Part 2

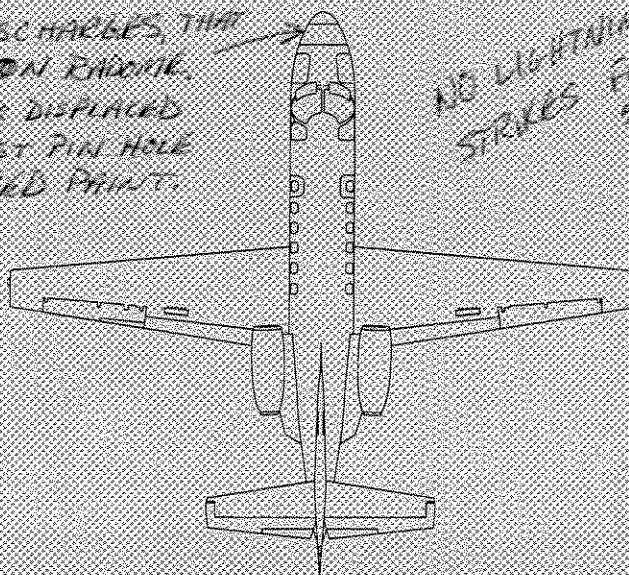
1. Ground Crew must complete Part 2.

NOTE: Attach additional sheet(s) to provide complete description. Photos and sketches of damage are recommended and must be itemized and referenced in their description.

NOTE: If damage is severe, please report the lightning strike as soon as possible. Inspection by Cessna Engineering Representative(s) may be required.

A. List any sweeping points, such as burn marks, divots, etc., and skin penetrations on airplane skin believed to be the result of the lightning strike. Itemize and reference location(s) of damage on drawing provided. Indicate top, bottom, left or right.

(9) STATIC DISCHARGES, THAT
ARE MINOR, ON RADOME.
NO BURNS OR DISPLACED
MATERIAL, JUST PIN HOLE
SIZED POPPED PAINT.



NO LIGHTNING
STRIKES FOUND
5/7



B. Describe damage to structure and external components caused by previously mentioned damage points. In the case of skin penetration(s), indicate hole diameter(s). List all damage to radome and any other composite structure, such as fairings, control surfaces, etc. If lightning diverter strips are damaged, include lightning diverter strip location(s) on radome. For damage to composite structure, paint thickness must be included in description.

C. List any damage to avionics and electrical components believed to be the result of the lightning strike, including damaged wiring, disengaged circuit breakers, etc. Include manufacturer, model number and serial number of damaged units where applicable.

D. Estimate cost of repair *N/A*

E. Mention severity of damage (light, moderate, heavy). *NONE FOUND*

F. Additional comments

Part 2 completed by



Date *5-7-09* Phone



GROUND CREW FORM

Rev 2
2-18-03



COMPASS CALIBRATION

A/C S/N: 551-0359

Registration #: N740JB

Service Order #: 71052

Date: 5-8-09

MAGNETIC HEADING	COMPASS		WHISKEY COMPASS		RMI		ADF HEADING	ADF (197 degrees)	
	#1 ± 2 deg.	#2 ± 2 deg.	Power Off ± 10 deg.	Power On ± 30 deg.	#1 ± 2 deg.	#2 ± 2 deg.		#1 ± 5 deg.	#2 ± 5 deg.
000	001	001	356	345	001	001	197		
015							180		
030	032	031	025	010	031	031	165		
060	061	061	054	042	060	060	135		
090	090	090	085	080	089	089	105		
120	120	121	119	125	119	119	075		
150	149	150	150	164	149	149	045		
180	180	181	184	196	179	180	015		
197							000		
210	211	210	213	225	209	210	345		
240	241	241	244	250	241	240	315		
270	271	271	272	275	270	271	285		
300	300	301	301	299	301	300	255		
330	331	331	329	320	331	331	225		

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SMALL CARD

LARGE CARD

INSP

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