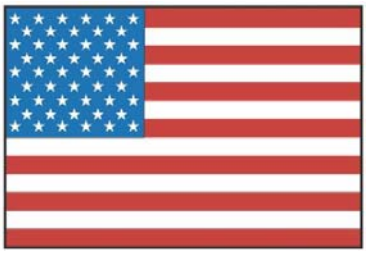
U.S. Department of Transportation
Federal Aviation Administration

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



ALERT NUMBER 368

MARCH 2009

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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON, DC 20590

AVIATION MAINTENANCE ALERTS

The Aviation Maintenance Alerts provides a common communication channel through which the aviation community can economically interchange service experience, cooperating in the improvement of aeronautical product durability, reliability, and safety. This publication is prepared from information submitted by those who operate and maintain civil aeronautical products. The contents include items that have been reported as significant, but have not been evaluated fully by the time the material went to press. As additional facts such as cause and corrective action are identified, the data will be published in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported via a Malfunction or Defect Report (M or D) or a Service Difficulty Report (SDR). Your comments and suggestions for improvement are always welcome. Send to: FAA; ATTN: Aviation Data Systems Branch (AFS-620); P.O. Box 25082; Oklahoma City, OK 73125-5029.

(Editor's notes are provided for editorial clarification and enhancement within an article. They will always be recognized as italicized words bordered by parentheses.)

AIRPLANES

CESSNA

Cessna: A150K; Water Block of Air Intake; ATA 7160

A mechanic provides this excellent analysis of his customer's aircraft problems. "The owner took off for some pattern work. *(Since...)* the weather had been cold and clear for several days he thought it perfect for touch-&-goes. On the downwind leg he began his normal landing check list—including checking the carburetor heat. After pulling *(this heat control)* 'ON' the engine died. He turned off carburetor heat and the engine restarted on its own without pilot input. He continued the pattern and gradually reapplied carburetor heat on base and final. On short final the engine died and the pilot glided to a safe touchdown just beyond the end of the runway. He was able to restart the engine and taxi back to parking without incident. We looked at the engine...and found the Scat hose (model 150 & A150; 1970-77 parts manual; figure 56; sheet 2; item 29) coming from the front baffle down to the front of the exhaust shroud had filled with water. The installed hose is in the form of a 'J', and the bottom of this 'J' was full of water and ice. In our damp climate we have noticed this before and usually ensure each scat hose has a drain hole in any low areas. Somehow this *(particular)* aircraft had been missed. We have found water and ice in similar installations on Cessna 150 and 172 series aircraft. Because of their location, the air intake scoops in the front baffle funnel rain water into the SCAT hose, *(filling)* the forward hose. Sometimes the water overflows the front hose and flows along the lower inside of the heater shroud, *(attempting...)* to also fill the carburetor heat box-to-right-shroud Scat hose (model 150 & A150; 1970-77 parts manual; figure 56; sheet 2; item 19). This results in the engine receiving a large slug of water or ice when the carburetor heat is applied. Whether the water is in a liquid or solid form depends on the duration of the flight and whether the heat of the operating engine has melted any ice that may have formed during periods of inactivity. This is a dangerous condition during weather conditions when carburetor icing is a possibility. The pilot would *(be prompted)* to turn on the carburetor heat to clear any icing that may have formed through the normal induction system. Instead of getting warm air as expected, the engine would suddenly receive a small to very large burst of water or ice into the induction system that could instantly refreeze, plugging the induction system entirely. So far, we have not seen this happen. We normally encounter this problem in warmer months when we receive more rain. Under those conditions the pilots notice a rough running engine when carburetor heat is applied, and turn the heat off before

the water is fully removed—or *(they opt)* to continue with the heat *(applied and the resulting engine roughness...)*—until the water clears from the hose. One way to check for this problem on any aircraft is to *(examine)* the scat tube reinforcing wire for rust in the lower areas. The occasional water build-up will cause these reinforcing wires to have more pronounced rust on the lower portions where water would sit on the wire wraps. Any aircraft showing abnormal wire deterioration in those areas should consider installing drain holes. (See Cessna 170B parts manual: figure 50; items 35 & 36. See also Cessna 172A, B, C and 175A, B, C parts manual: figure 59; items 31 & 33.)"

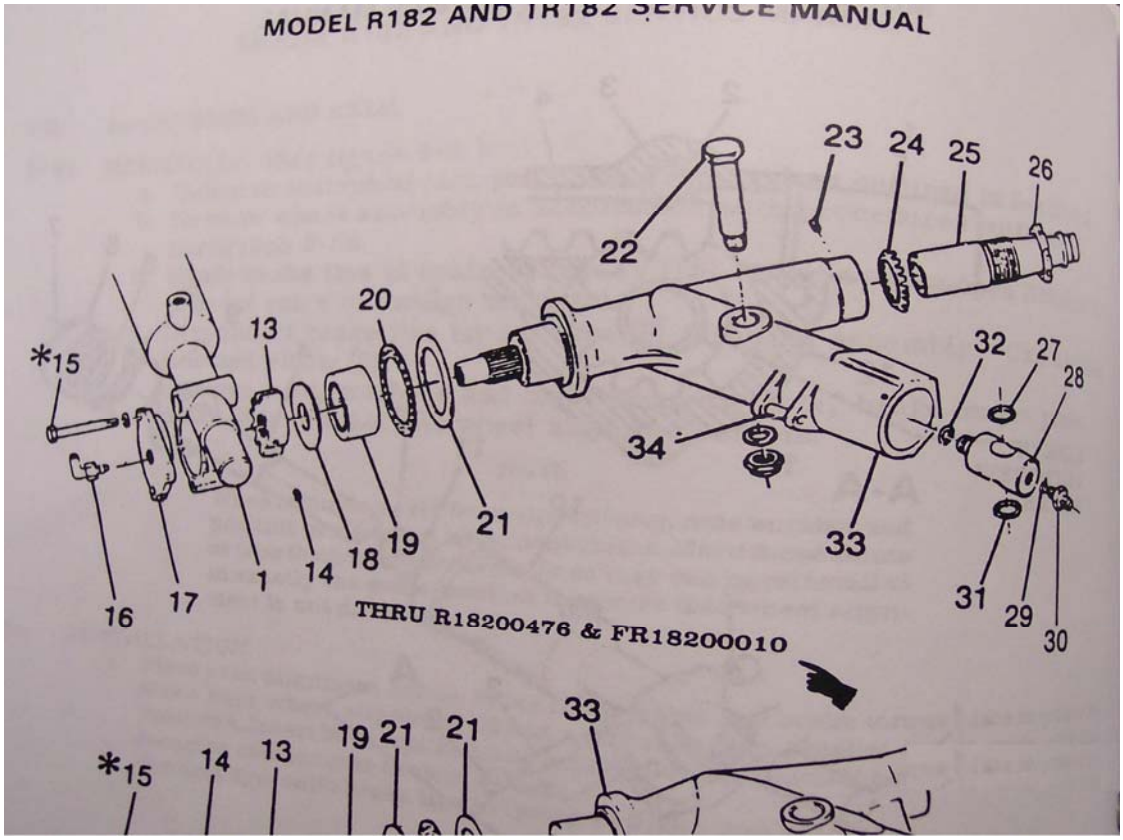
(R/H Air intake hose P/N: S1053E16T. Thank you for the detailed description. You can work on my airplane any day. Of course, I haven't finished it yet...perfect timing—Ed.)

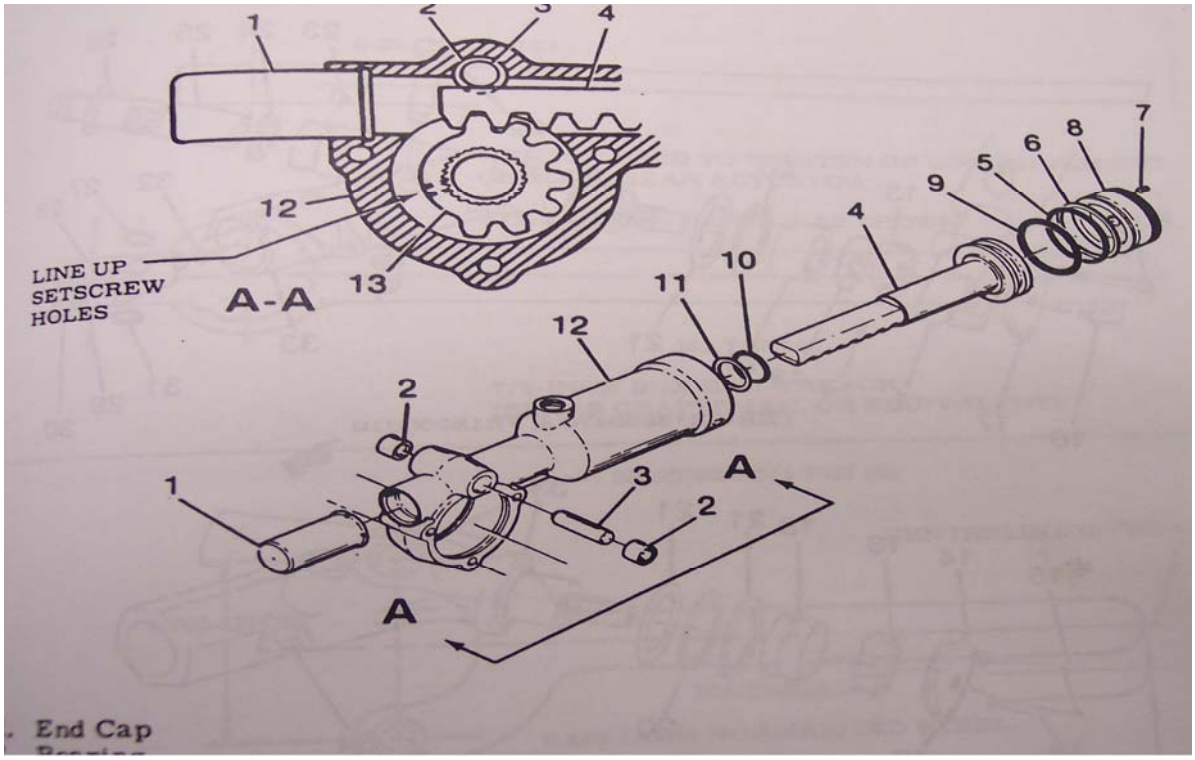
Part Total Time: (unknown).

Cessna: R182; Sheared Main Gear Pivot; ATA 3233

(Friend and cohort Chief Inspector James Kelly of Embry-Riddle Aeronautical University provides the following discrepancy report. Mechanical mavens might note the possibility of another "metallurgical treat" referencing this report in the near future...stay tuned!)

"During slow flight maneuvers the instructor noticed the green, landing gear 'safe light' was not illuminated. The student observed the left gear was hanging out—and swinging. The gear was cycled, but the left main remained free and disconnected. After contacting dispatch the instructor elected to retract the right and nose gears and land gear-up. Maintenance found the left gear pivot had sheared at the spline shaft. The right gear was removed and Zyglo checked. Close inspection found the right pivot was cracked three quarters of the circumference around the spline shaft, nearing complete failure. This crack area is not normally accessible during regular inspections without removing the gear actuator. Cessna has been notified of the problem. At this time there are no replacement steel pivots available for these aircraft." *(Gear pivot P/N: 22411143.)*




1
2
3
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7
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6
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9
4
12
LINE UP
SETSCREW
HOLES
A-A
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10
11
12
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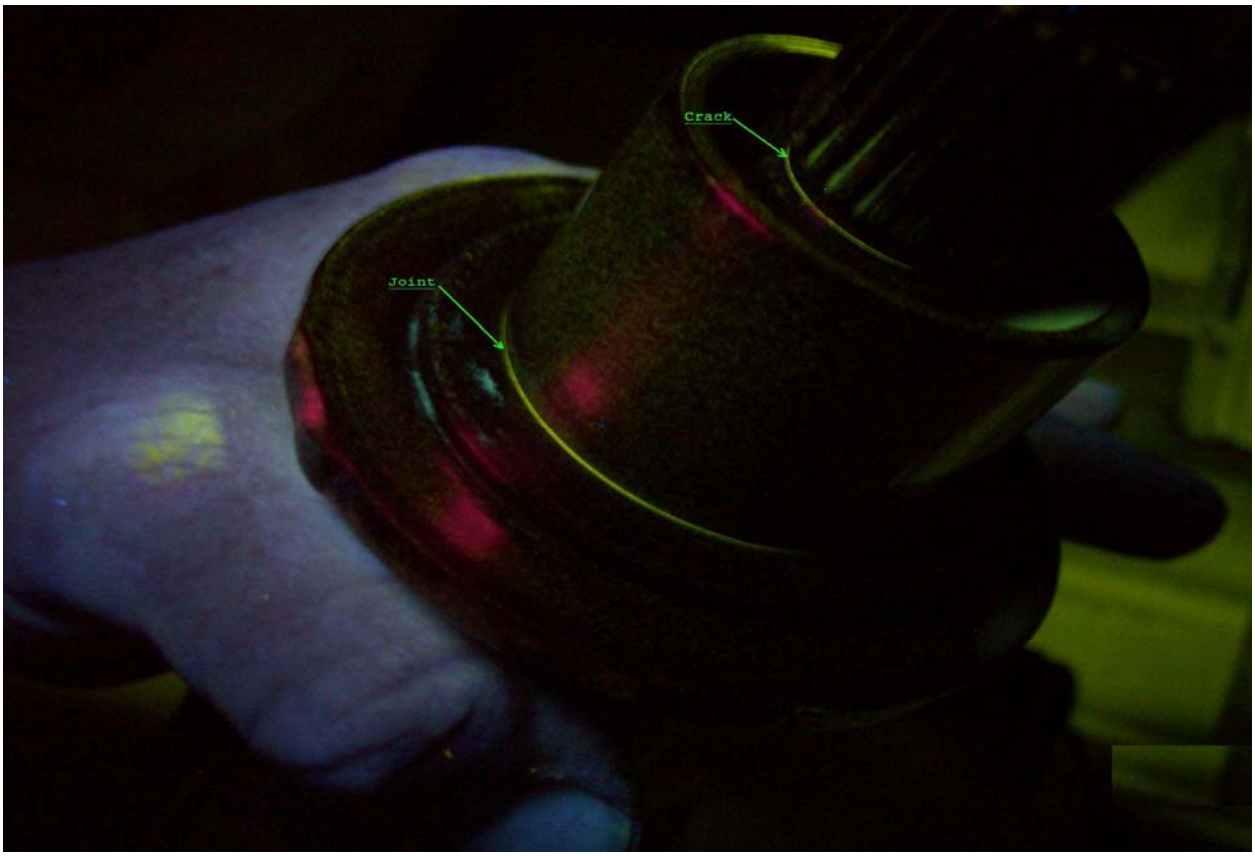
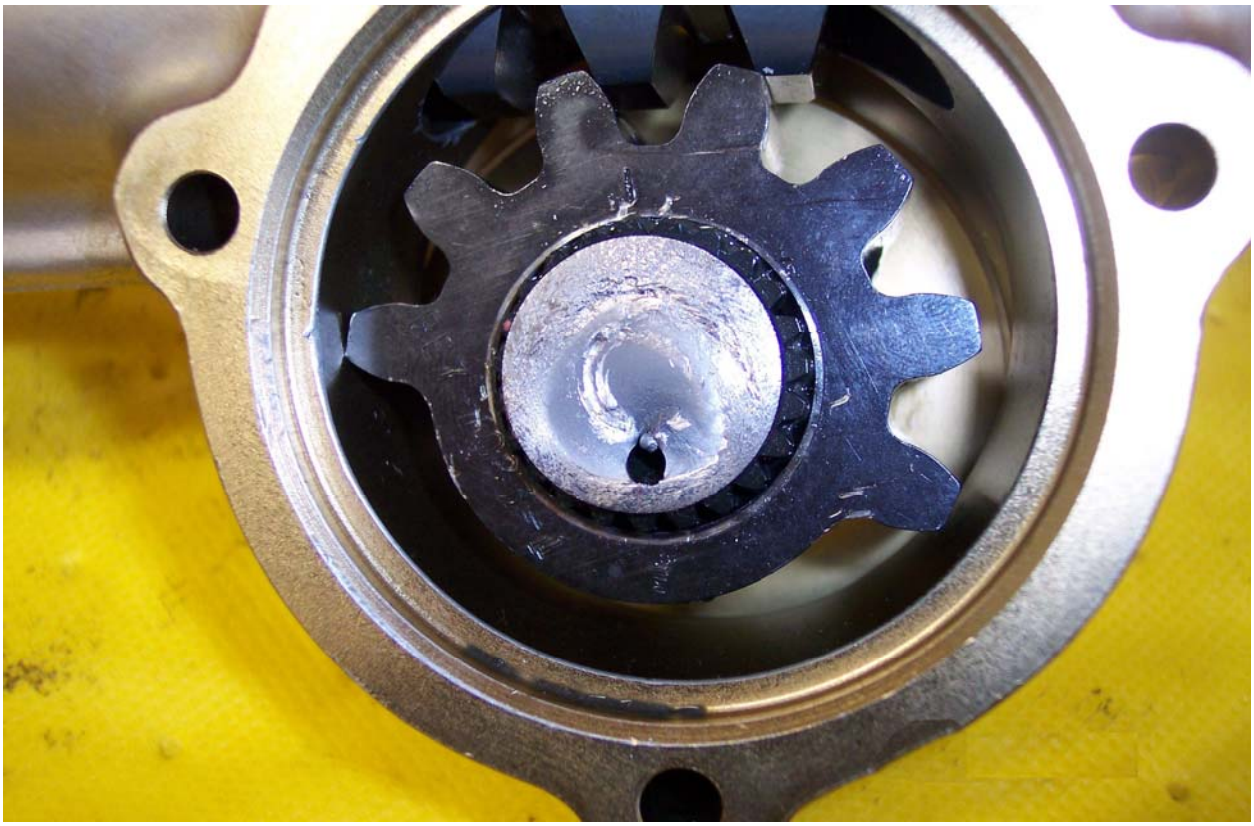
1
3
A
2
A
End Cap

02/27/2009


Crack
Joint



(Okay Pat.... How many times did you take this last shot to get such a clean picture? I can almost stick my finger in there. At 500% magnification in MS Word, a scratch/crack line can just be discerned at the 5 o'clock position—initiation point? Readers might surmise and note their own failure start point for later comparison against "electron scrutiny" –should it become available. Thanks again for your continuing support and efforts.)

Part Total Time: 4,754.0 hours.

Cessna: 421B; Frayed Aileron Cables; ATA 2710

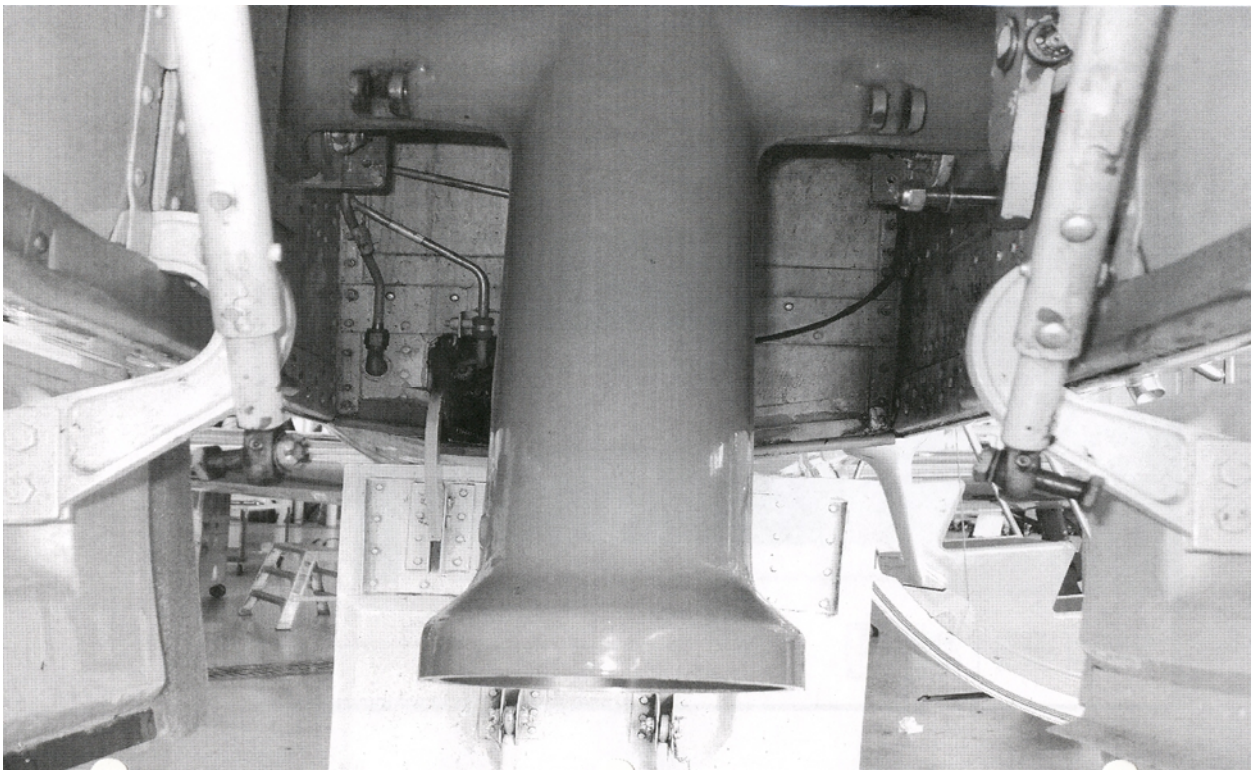
An A&P holding an *Inspector's Authorization* writes, "*(I)* found the left aft aileron cable frayed at wing station 58.94—the pulley was frozen. No defects were found on the other cable systems. *(During)* replacement of this cable it was also found frayed at wing station 87.29. The pulleys at this station were turning freely. When installing the new cable I also noticed the forward aileron cable with broken strands at *(the same)* wing station 87.29. *(It too required new cable installation.)*

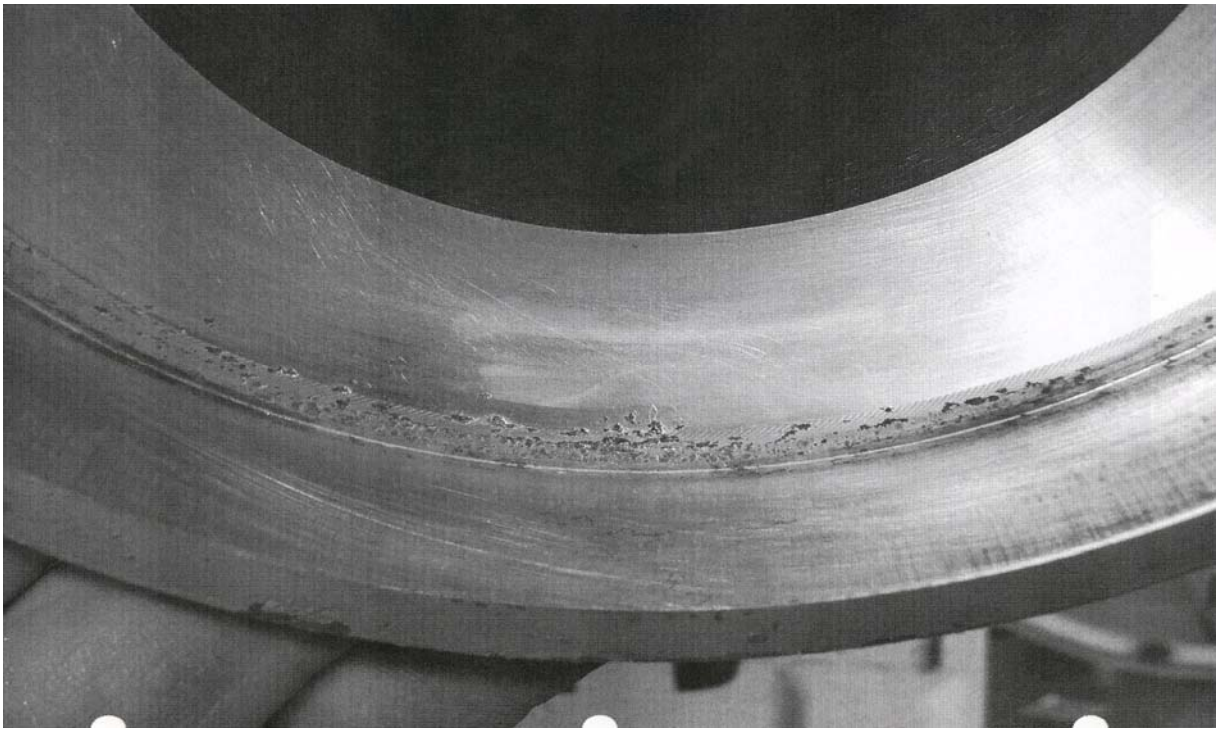
"I suggest everyone be reminded of these locations (including wing station 106.79) as these access panels are in the wheel well with the pulleys off to the side and down. *(This)* is a hard area to inspect, *(requiring)* the ailerons to be moved to their travel limits for complete *(cable)* inspection. These cables were broken in small, localized spots." *(Left aileron cable P/N's: 5000008-66 and -67. Aircraft total time: 5,567.2 hours).*

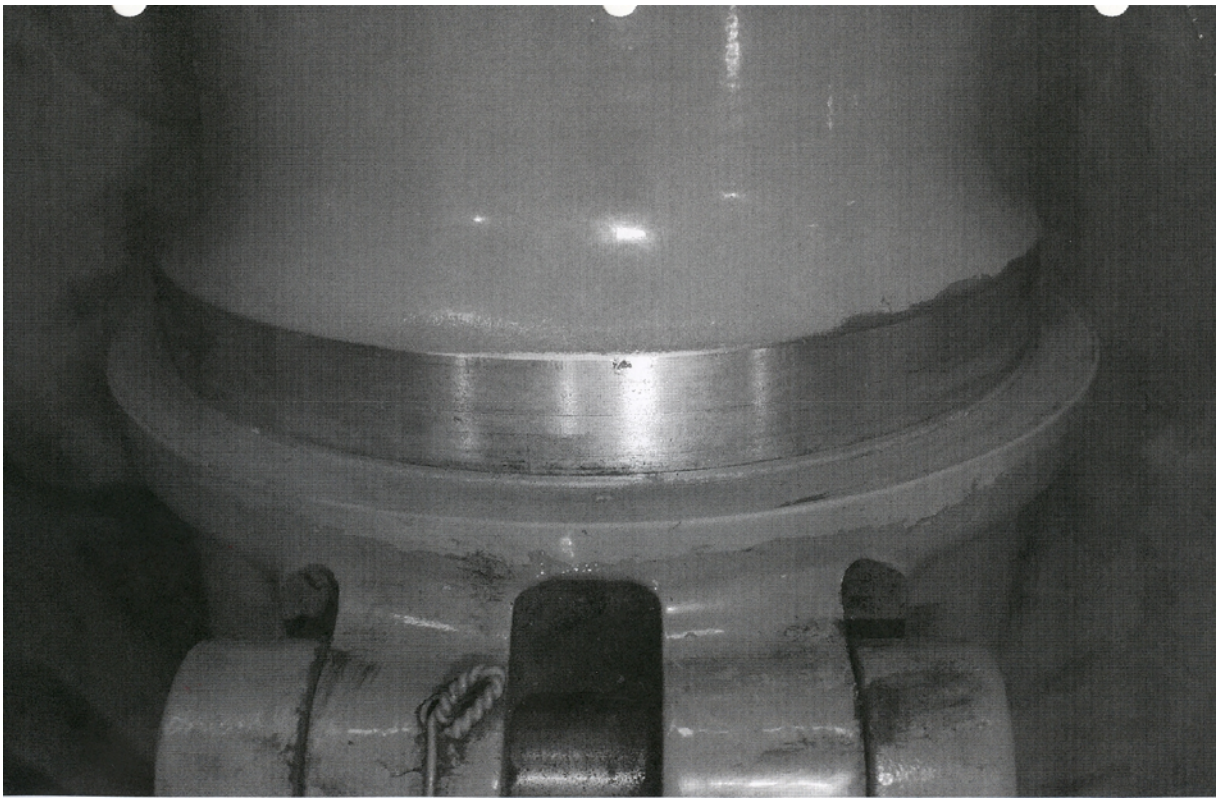
Part Total Time: 5,567.2 (Speculation from aircraft time).

Cessna: 560XL; Nose Gear Trunnion Corrosion; ATA 3221

A repair station technician states, "While working an unscheduled nose gear vibration (popping) discrepancy, we found bearing P/N MS27642-68G to be rough when turned. Upon further inspection we found corrosion and pitting between the steel bearings and the aluminum nose landing gear trunnion assembly. *(This)* trunnion *(P/N 6642611-9)* should be treated to prevent dissimilar metal corrosion."







Part Total Time: 6,122.0 hours.

DIAMOND

Diamond: DA20 C1; Failed Auxiliary Fuel Pump; ATA 2822

An unidentified submitter writes, "A problem has been found from trying to start this aircraft—the auxiliary fuel pump *(P/N 5367001)* doesn't supply enough fuel PSI to open the manifold for engine priming and starting. This two speed auxiliary/emergency fuel pump will not provide the engine with sufficient fuel flow or fuel pressure to run the engine if the engine driven fuel pump becomes inoperative in an emergency condition. The airplane engine *(Continental IO240B)* will not continue to operate in flight. The *(engine's)* manufacturer's representative says this is correct and *(ultimately)* is the airframe manufacturer's problem. *(In turn the manufacturer...)* says the aircraft is certified—they don't seem able to answer very many questions. *(My)* problem: how did this aircraft become certified if it is in an unsafe condition?"

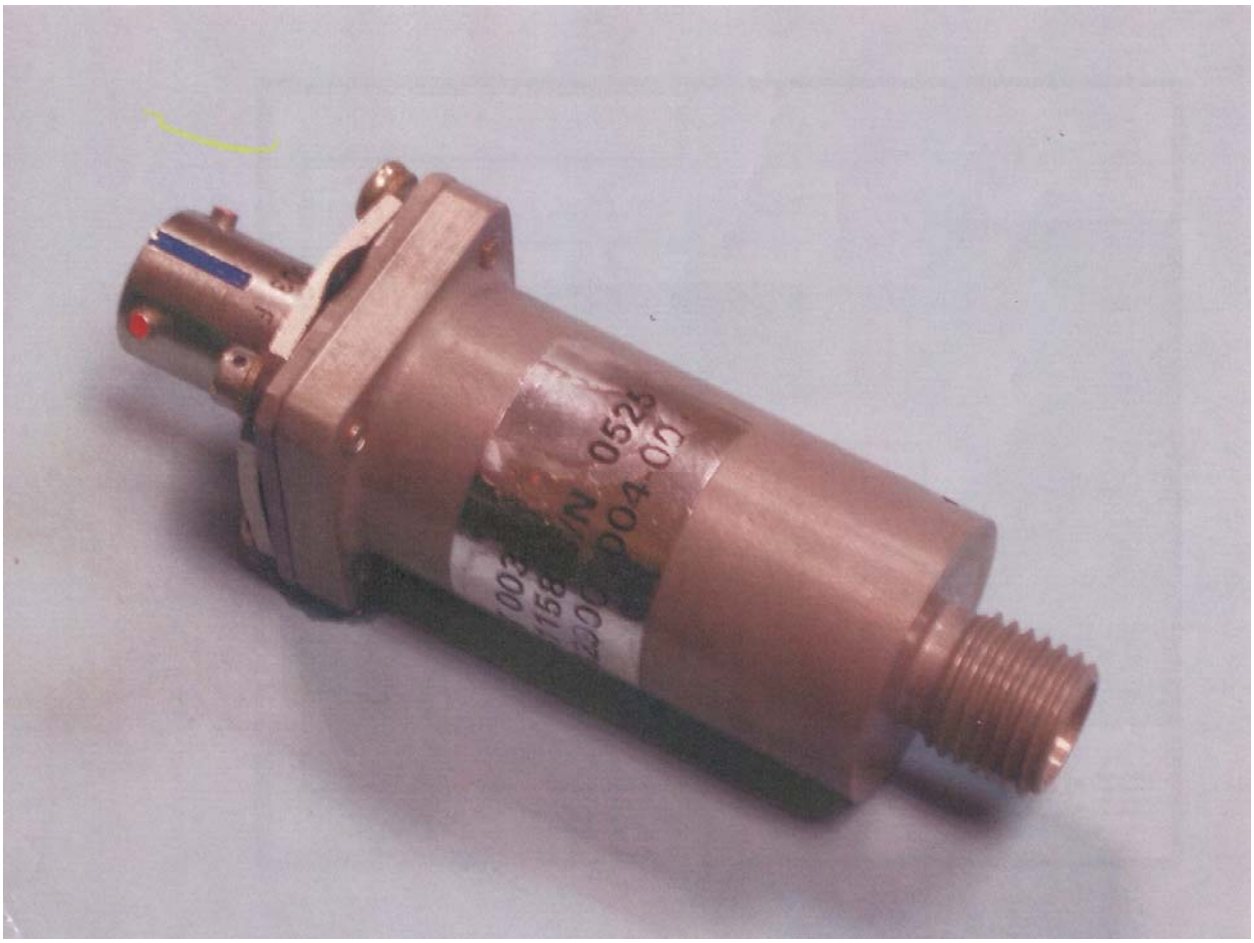
(Engine time: 1,046.0 hours. Airframe time: 4,392.0 hours. You pose a good question—one which cuts deeper than you may know—and you're stuck in the middle! Most of us airplane types have "...been there, done that" too. Reduced to fundamentals the conflict goes, "Mechanics can fix anything, but they are not to evaluate design." Of course, this is oxymoronic, since the process of fixing anything often provides the best position and experience for that very same evaluation! [See another example in this issue: Piper Gear Switch Failure.] On the other hand, while I chuckle and laugh and build my experimental plane to my mechanic's standards, I'm secretly sweating the weight and balance bill due at the end of all that creative free will, notwithstanding whether or not the beast will even break free of the ground. As you so aptly point out, communication feedback is the root of the problem. Send me your name and e-mail: I'll get you an answer--Ed.)

Part Total Time: (unknown).

LEARJET

Learjet: 45; Failed Hydraulic Pressure Switch; ATA 2915

"The left hydraulic pressure switch (S9) failed in flight," says an anonymous mechanic, "resulting in loss of hydraulic fluid and failure of both left and right hydraulic pumps. This necessitated a flight diversion to an alternate airport with an emergency declaration." *(Pressure Switch P/N: 7629001004-001.)*



Part Total Time: 2,127.4 hours.

PIPER

Piper: PA22-150; Incorrect Carburetor Heat Cable Clamp; ATA 7160

(A mechanic provides detailed analysis of two defects and their solutions. These reports should be two separate submissions for data entry purposes; ergo, the second problem is not included in the heading...only one ATA code can be assigned, etc. Nonetheless, both are excellent descriptions.)

"The aircraft's engine did not respond when power was applied on a low fly-by...causing the plane to land next to the runway in the snow, damaging the aircraft. The following two problems were found on post incident inspection of the engine. Either can contribute to or cause engine loss, *(...even more so if both were to occur).*

"The first problem found was a loose carburetor heat cable clamp on the cable housing. This *(condition)* would allow the housing to slip in the clamp *(and at some point prevent...)* full cable travel from stop to stop. *(It was determined...)* the wrong clamp was installed on the carburetor heat cable housing at the rear of the air box. The installed clamp was P/N MS21919-DG3 (3/16 inch) diameter Adel clamp. This clamp has a chloroprene rubber

cushion having a maximum temperature of 212 degrees Fahrenheit. The outside cable housing measures 0.188 (3/16 inch) and the MIL-C-8603 specification states the inside diameter of the MS21919-DG3 Adel clamp is 0.188—only a few thousandths more and it won't hold very well. The only way to have sufficient grip is for the tolerance to be near the plus 0.015 limit. If the rubber gets oily, or deteriorates due to heat, fluid, or vibrations, the clamp can slip.

"The Piper part (P/N 80032-34) that is suppose to be used is a 0.030 inch thick steel clamp with an inside diameter of 0.188 (3/16 inch) with two 0.125 (1/8 inch) long notches that are 0.280 inches apart, penetrating 0.188 inches into the 0.188 inch diameter clamp 0.025 inches. These 'notches' engage with the spiral wrapping of the cable housing with a + 0.025 and -- 0.0 tolerance, ensuring a positive engagement that will not deteriorate or slip.

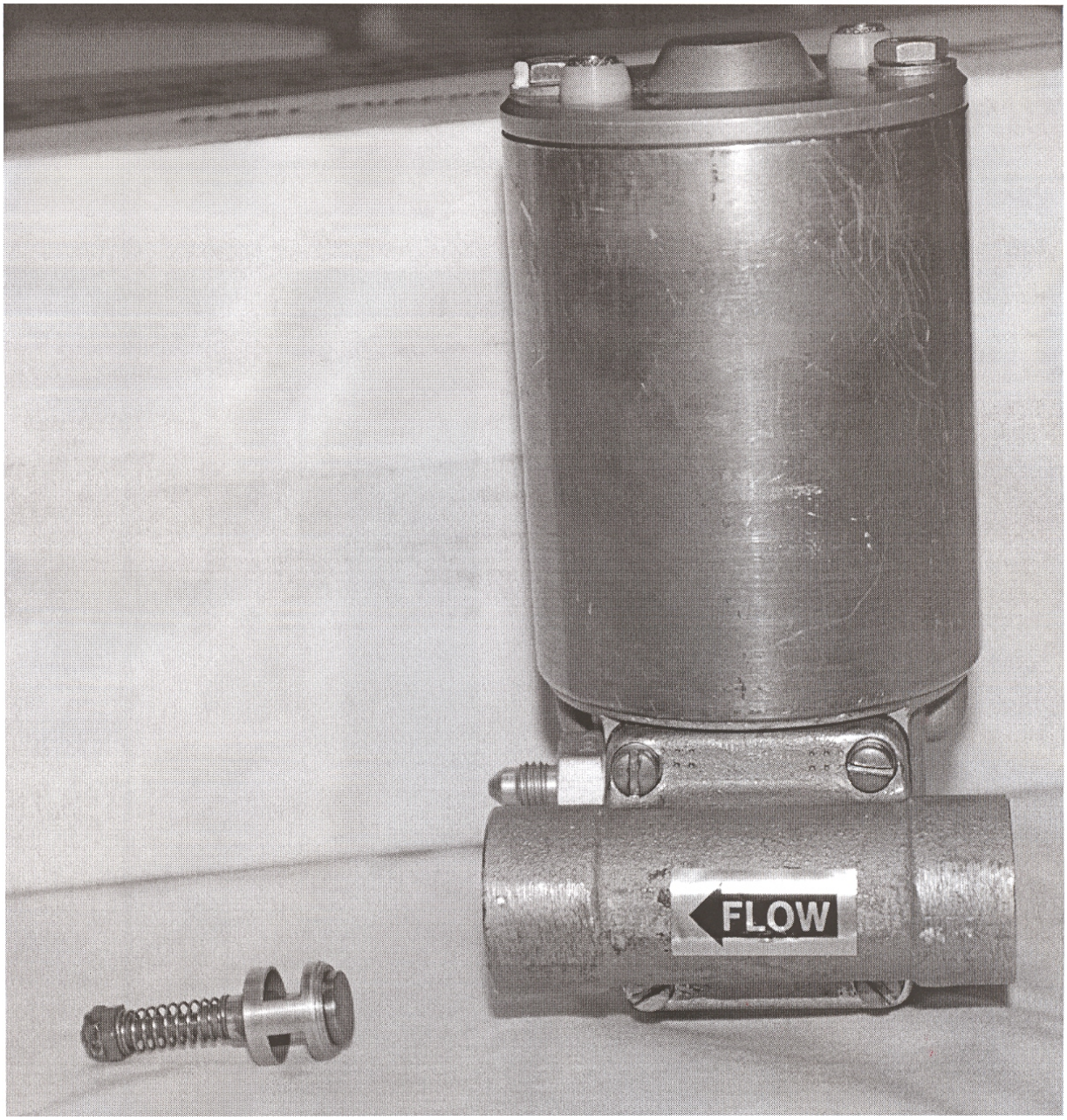
"The second problem found was with the muffler end—the carburetor heat shroud *(was receiving)* a substantial exhaust leak. The inside of the carburetor heat shroud, the scat hose, and the air box were very sooty from exhaust gasses.

"The exhaust muffler end (P/N 10308-03) that the exhaust pipe (P/N12043-23) slides into had a loose clamp (P/N14235-00)." "This allowed a substantial amount of very hot Carbon Monoxide gasses to enter the induction system and reduce the oxygen rich induction air mixture. This will cause a power loss do to the hot induction air, reducing the induction air density and further reducing it with gasses, moisture of combustion, and other pollutants. The previous mixture will all cause an engine to stall at idle or very low power settings, and prevent its restarting due to carburetor icing, poor oxygen fuel ratio, and wet spark plugs. Note: This *(situation)* will make carburetor ice conditions every day." *(Air box assembly P/N 14253-04; Lycoming engine: O-320)*

Part Total Time: (unknown).

Piper: PA31-350; Failed Electrical Fuel Pump; ATA 2822

An unidentified mechanic relates the following description. "*(The aircraft was departing the field...)* when he reported he lost substantial power to the left engine just after take off, and that the left low pressure fuel boost pump light on the aircraft annunciator panel illuminated. He *(effected a safe landing at an airport)* and called for aircraft maintenance. The aircraft technician on location could not find any problems with the engine during run-up other than the electric, low pressure fuel boost pump not supplying rated pressure. (Note: the electric, in-line low pressure boost pump is intended for flight above 15,000 feet MSL and can be deferred, as per our Part 91 MEL *(minimum equipment list)*. The aircraft *(initiated its take-off roll for departure...)* when the left engine again lost power at (approximately) 40 knots airspeed. *(Subsequent)* trouble shooting of the engine fuel pump and fuel nozzles revealed no problems. The in-line low pressure fuel pump was removed *(revealing)* the bypass valve assembly in the pump had dislodged from the pump body and acted as a fuel *(flow)* restriction to the emergency electric fuel pump. We have been operating the Piper Navajo Chieftain aircraft for 20 years and have never seen this happen until now."



(Parker Hannifin Pump, P/N 2B6-64. Time since overhaul: 2,098.4 hours. The FAA Service Difficulty Reporting System (SDRS) reflects 11 entries for this part number.)

Part Total Time: (unknown).

Piper: PA32R-301T; Failing Main Gear Down-Lock Switch; ATA 3297

(The following combines five reports on four PA32 aircraft—all from the same mechanic.)

This aircraft's "...main gear down lock switch wires pull tight on the strut during retraction, pulling wire strands apart to the breaking point. The silicone type wire coating tends to hold the wire ends together, creating intermittent contact. *(This assembly)* needs better wire and routing."

(Oops! There's that "design discussion" again from the Diamond report, this issue. Wire P/N: 153-615. Switch P/N not provided.)

Part Total Time: 399.8 hours (average).

POWERPLANTS

CONTINENTAL

Continental: IO-470-VO; Broken Piston Skirt; ATA 8530

A mechanic writes, "The left engine *(on this Cessna 310)* was exhibiting low oil pressure. The oil filter was pulled, cut open, and inspected. A significant amount of metal was found. The engine was then torn down for further inspection. Chunks of piston skirting was found in the oil pan, the number 2 piston had come apart at the skirting around the bottom ring-land below the piston pin, and the number 1 piston was found to be cracked in the same area where piston 2 was broken. (The latter was taken by the FAA for metallurgical testing.) A possible contributing factor may have been the start of the engine at a temperature near zero degrees Fahrenheit."

(Piston P/N: AEC648029. There are 5 entries for this pump in the FAA Service Difficulty Reporting System (SDRS) database.)

Part Total Time: 933.4 hours.

AIR NOTES

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

The Federal Aviation Administration (FAA) Internet Service Difficulty Reporting (iSDR) web site is the front-end for the Service Difficulty Reporting System (SDRS) database that is maintained by the Aviation Data Systems Branch, AFS-620, in Oklahoma City, Oklahoma. The iSDR web site supports the Flight Standards Service (AFS), Service Difficulty Program by providing the aviation community with a voluntary and electronic means to conveniently submit in-service reports of failures, malfunctions, or defects on aeronautical products. The objective of the Service Difficulty Program is to achieve prompt correction of conditions adversely affecting continued airworthiness of aeronautical products. To accomplish this, Malfunction or Defect Reports (M or Ds) or Service Difficulty Reports (SDRs) as they are commonly called, are collected, converted into a common SDR format, stored, and made available to the appropriate segments of the FAA, the aviation community, and the general public for review and analysis. SDR data is accessible through the “Query SDR data” feature on the iSDR web site at: http://av-info.faa.gov/sdrx/Query.aspx.

In the past, the last two pages of the Alerts contained a paper copy of FAA Form 8010-4, Malfunction or Defect Report. To meet the requirements of *Section 508, this form will no longer be published in the Alerts; however, the form is available on the Internet at: http://forms.faa.gov/forms/faa8010-4.pdf. You can still download and complete the form as you have in the past.

*Section 508 was enacted to eliminate barriers in information technology, to make available new opportunities for people with disabilities, and to encourage development of technologies that will help achieve these goals.

A report should be filed whenever a system, component, or part of an aircraft, powerplant, propeller, or appliance fails to function in a normal or usual manner. In addition, if a system, component, or part of an aircraft, powerplant, propeller, or appliance has a flaw or imperfection, which impairs or may impair its future function, it is considered defective and should be reported under the Service Difficulty Program.

The collection, collation, analysis of data, and the rapid dissemination of mechanical discrepancies, alerts, and trend information to the appropriate segments of the FAA and the aviation community provides an effective and economical method of ensuring future aviation safety.

The FAA analyzes SDR data for safety implications and reviews the data to identify possible trends that may not be apparent regionally or to individual operators. As a result, the FAA may disseminate safety information to a particular section of the aviation community. The FAA also may adopt new regulations or issue airworthiness directives (ADs) to address a specific problem.

The iSDR web site provides an electronic means for the general aviation community to voluntarily submit reports, and may serve as an alternative means for operators and air agencies to comply with the reporting requirements of 14 Title of the Code of Federal Regulations (CFR) Section 121.703, 125.409, 135.415, and 145.221, if accepted by their certificate-holding district office. FAA Aviation Safety Inspectors may also report service difficulty information when they conduct routine aircraft maintenance surveillance as well as accident and incident investigations.

The SDRS database contains records dating back to 1974. At the current time, we are receiving approximately 40,000 records per year. Reports may be submitted to the iSDR web site on active data entry form or submitted hardcopy to the address below.

The SDRS and iSDR web site point of contact is:

Pennie Thompson
Service Difficulty Reporting System, Program Manager
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125
Telephone: (405) 954-5313
SDRS Program Manager e-mail address: 9-AMC-SDR-ProgMgr@faa.gov

IF YOU WANT TO CONTACT US

We welcome your comments, suggestions, and questions. You may use any of the following means of communication to submit reports concerning aviation-related occurrences.

Editor: Daniel Roller (405) 954-3646
FAX: (405) 954-4570 or (405) 954-4655

E-mail address: Daniel.Roller@faa.gov

Mailing address: FAA, **ATTN: AFS-620 ALERTS**, P.O. Box 25082, Oklahoma City, OK 73125-5029

You can access current and back issues of this publication from the internet at:
http://av-info.faa.gov/. Select the General Aviation Airworthiness Alerts heading.

AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports processed for the previous month, which have been entered into the FAA Service Difficulty Reporting (SDR) System database. This is not an all-inclusive listing of Service Difficulty Reports. For more information, contact the FAA, Regulatory Support Division, Aviation Data Systems Branch, AFS-620, located in Oklahoma City, Oklahoma. The mailing address is:

FAA
Aviation Data Systems Branch, AFS-620
PO Box 25082
Oklahoma City, OK 73125

To retrieve the complete report, click on the Control Number located in each report. These reports contain raw data that has not been edited. Also, because these reports contain raw data, the pages containing the raw data are not numbered.

If you require further detail please contact AFS-620 at the address above.

Federal Aviation Administration

Service Difficulty Report Data

Sorted by aircraft make and model then engine make and model. This report derives from unverified information submitted by the aviation community without FAA review for accuracy.

Control Number / Difficulty Date	Aircraft Make / Aircraft Model	Engine Make / Engine Model	Component Make / Component Model	Part Name / Part Number	Part Condition / Part Location
CA081212007				STOP PIN	WORN
10/27/2008				4372	MAGNETO
(CAN) EXCESSIVE WEAR WAS NOTED ON IMPULSE COUPLING STOP PIN.					
2009FA0000050				ROTOR	BROKEN
12/29/2008				M3458	MAGNETO
THE PILOT REPORTED THAT ON CHECKING THE RT MAGNETO THERE WAS AN EXCESSIVE RPM DROP BUT THAT THE ENGINE STILL OPERATED SMOOTHLY ON THAT MAGNETO. UPON DISASSEMBLY OF THE MAG IT WAS FOUND THAT ONE LEG OF THE CAM SLOT ON THE ROTOR SHAFT WAS COMPLETELY BROKEN OFF AT THE BOTTOM OF THE SLOT. (K)					
CA090109010			BENDIX	COIL	CRACKED
1/9/2009				10391088	MAGNETO
(CAN) WHEN INSPECTING 3 MAGS FOR OVERHAUL OVER THE PAST FEW MONTHS SEMI-CIRCULAR CRACKS HAVE BEEN NOTICED IN THE COIL INSULATION MATERIAL. THE CRACK IS FROM .6250 INCH TO .8750 INCH LONG ON THE END OF THE COIL NEAR THE STEEL CORE LAMINATIONS. THIS HAS ONLY BEEN NOTICED ON COILS WITH A BLUE PLASTIC COVERING AND WITH WHITE PRINTED "BATCH CODES". ALL MAGS WERE RECEIVED IN TIME EXPIRED CONDITION. P/N: BL-349290-1 S/N: F02KA067R COIL BATCH CODE: 4800229 P/N: 10-349350-4 S/N: F04HA183 COIL BATCH CODE: 4800432 P/N: S/N :DATA PLATE MISSING COIL BATCH CODE: 4800543 MFG STATES NO CRACKS ARE ALLOWED IN THE COIL INSULATION MATERIAL. MFG IS BEING CONTACTED ABOUT SERVICEABILITY ISSUES.					
CA081212008				STOP PIN	WORN
12/12/2008				4372	MAGNETO
(CAN) EXCESSIVE WEAR WAS NOTED ON IMPULSE COUPLING STOP PIN.					
CA081212015				ELT	MALFUNCTIONED
11/17/2008				97A256000000	CABIN
(CAN) A NR OF INSTANCES OF UNCOMMANDED TRANSMISSIONS HAVE OCCURRED ON 406MHZ ELTS INSTALLED ON OUR ACFT.					
CA081212009				STOP PIN	WORN
7/16/2008			4372		IMPULSE COUPING
(CAN) EXCESSIVE WEAR NOTED ON IMPULSE COUPLING STOP PIN.					
CA081214002			BFGOODRICH	WIRE HARNESS	FRAYED
12/13/2008			4720023	472013	NLG
(CAN) NLG ELECTRICAL HARNESS - OUTER FABRIC SHIELD - FRAYED. HARNESS REPLACED.					
CA090109004		GARRTT		STATOR	FAILED
1/5/2009		TPE3311			ENGINE
(CAN) THIS ENGINE CAME INTO THE SHOP FOR A ROUTINE OVERHAUL. UPON INSPECTING THE NR 3 STATOR IT					

WAS FOUND TO HAVE THE METAL SPRAY FROM WHEN IT WAS OVERHAULED COMING OFF IN PIECES. REF PICTURES ON ATTACHMENTS. THIS PART ONLY HAS 3499.1 HRS SINCE OVERHAULED. THE PART HAS FAILED THE INSPECTION AND WILL BE FORWARDED BACK TO THE OVERHAUL FACILITY. THERE IS NO LIFE LIMIT ON THE STATOR.

CA090105011	GARRTT	SUPPORT BRACKET	CRACKED
1/5/2009	TPE33110UA	8687671	FCU

(CAN) WHEN THE ENGINE WAS BEING TORN DOWN TO GET READY FOR OVERHAUL IT WAS NOTED THAT THE REAR FCU SUPPORT BRACKET WAS CRACKED ALL THE WAY THROUGH. THESE BRACKET HAVE BEEN NOTED TO BE CRACKED WHEN DOING THE ROUTINE ENGINE INSPECTIONS ALSO.

CA090106004	PWA	HOOK	DAMAGED
1/4/2009	PT642A	1014300291	PAX DOOR

(CAN) AIRCRAFT UNABLE REACH CABIN MAX DIFF PRESSURE IN FLIGHT. AIRPLANE WAS PRESSURIZED ON THE GROUND. MAINTENANCE FOUND AIR LEAKING THROUGH UPPER OF CABIN DOOR DURING VISUAL INSPECTION OF CABIN DOOR. BOTH UPPER HOOKS WERE TURNED SIDEWAYS PREVENTING THEM FROM LATCHING IN PLACE. THERE ARE NO DOOR WARNING SWITCHES FOR THESE HOOKS AND DO NOT HAVE A METHOD OF INSPECTION AFTER DOOR IS CLOSED. THE MAINTENANCE PROGRAM REPLACES THESE HOOKS EVERY 10000 CYC AND WERE LAST COMPLIED WITH ON THIS AIRCRAFT ON 20 OF SEPT, 2001. (TC NR 20090106004)

CA090105010	PWA	ENGINE	FAILED
1/5/2009	PT6A27		

(CAN) EIR PT6A 2008-105 INTERNAL ENGINE FAILURE.

CA090113002	PWA	FILTER	MISMARKED
1/13/2009	PT6A28	P1011	ENGINE OIL

(CAN) THE ENGINE OIL FILTER WAS REMOVED FOR CLEANING AND INSPECTION. WHILE THE ENGINEER WAS INSPECTING HE NOTICED THAT THE FILTER WAS LABELED INCORRECTLY. IT HAD "THIS END OUT" ON BOTH ENDS OF THE FILTER. THE FILTER HAD BEEN INSTALLED CORRECTLY HOWEVER WITH THAT LABELING SOMEONE WHO DID NOT REALIZE COULD INSTALL THE FILTER BACKWARDS. (TC NR 20090113002)

CA090112001	PWA	BLADES	DAMAGED
1/9/2009	PT6A65B	312111101	TURBINE SECTION

(CAN) EIR PT6A 2009-002 CT BLADE DAMAGE.

CA090115010	PWA	STARTER GEN	SEIZED
1/14/2009	PT6A67D	23078019	RIGHT

(CAN) RT GENERATOR OFF LINE ANNUNCIATOR CAME ON IN FLIGHT. MX FOUND THE RT GENERATOR SEIZED. THE GENERATOR DRIVE SPLINE FROM THE GEAR BOX APPEARED SERVICEABLE. THE RT GENERATOR WAS REPLACED AND THE GENERATOR DRIVE SPLINE INSPECTION WAS COMPLETED AS PER THE MM WITH NO FURTHER FAULTS FOUND. AS RECOMMENDED IN THE MM AN OIL PATCH ANALYSIS TASK HAS BEEN IMPLEMENTED EVERY 100HRS FOR THE NEXT 700 FLIGHT HOURS.

CA081223001	PWA	BEARING	FAILED
12/19/2008	PW118	311194301	NR 3

(CAN) NR 3 BEARING FAILURE FOUND AT DISASSEMBLY.

CA081223002	PWA	BEARING	SEIZED
12/17/2008	PW123	MS945226	ENGINE

(CAN) ENGINE BEARING SEIZED.

CA090105014	PWA	AUTOFEATHER SYS	MALFUNCTIONED
12/17/2008	PW124B		

(CAN) DURING CLIMB THE ENGINE TORQUE DROPPED TO 22 PERCENT AND THEN ZERO. THE ENGINE WAS SECURED AND THE A/C RETURNED TO THE POINT OF DEPARTURE, WHERE A SINGLE ENGINE LANDING WAS PERFORMED. POST FLIGHT TROUBLESHOOTING LED TO THE REPLACEMENT OF THE AUTO FEATHER UNIT BEFORE THE ACFT WAS RETURNED TO SERVICE. WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA081231002	PWA	BOSCH	DRIVE GEAR	WORN
12/31/2008	R985AN14B		GE5298	MAGNETO

(CAN) ON INSPECTION MAGNETO WAS FOUND TO HAVE ERATIC TIMING ON DRIVE GEAR PART NUMBER GE5298, LOOSE ON SHAFT AND EXCESSIVE WEAR ON KY11-14 - KEY WOODRUFF FOR DRIVE GEAR.

CA081212013	ROTAX	ROTAX	SPLINE	CHIPPED
10/6/2008	ROTAX912F3			PROP SHAFT

(CAN) METAL CHIP FOUND ON MAGNETIC PLUG DURING SERVICING. TRACED TO GEARBOX. GEARBOX REMOVED AND CHIP WAS FOUND TO BE FROM TOP SPLINE OF THE PROPSHAFT JUST ABOVE THE RING HALF. POSSIBLE CAUSE, COULD BE FROM A "STEP" WORN IN FROM RING HALF. IF RING HALF WAS INSTALLED WITH THIS STEP RESTING ON THE RING SURFACE IT COULD CAUSE A STRESS POINT. THERE IS A SLIGHT CORRESPONDING WEAR MARK 180 DEGREES FORM THE CHIP THAT INDICATES THE CHIP IS RELATED TO THE PREV RING HALF LOCATION. PROPSHAFT HAD PASSED NDT 44.5 HRS PRIOR (OVERHAUL). AREA COULD HAVE BEEN UNDER HIGH LOAD DUE TO STEP WORN INTO SPLINE. PROPSHAFT REPLACED. INCLUDE INSPECTION FOR THIS TYPE OF WEAR IN FUTURE WORK.

CA081217013	AEROSP	PWA	OIL SYSTEM	LOW PRESSURE
12/8/2008	ATR72	PW127		ENGINE

(CAN) SHORTLY AFTER TAKEOFF, THE PILOT NOTICED A LOW OIL PRESSURE INDICATION. THE ENGINE WAS SHUTDOWN AND THE FLIGHT RETURNED TO ORIGIN FOR AN UNEVENTFUL SINGLE ENGINE LANDING. GROUND INSPECTION REVEALED A POSSIBLE FRACTURED TOWERSHAFT. WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA090116010	AEROSP	PWA	OIL SYSTEM	LOW PRESSURE
1/7/2009	ATR72	PW127		ENGINE

(CAN) DURING CLIMB, THE CREW REPORTED ENGINE LOW OIL PRESSURE AND FLUCTUATION FOLLOWED BY A LOUD NOISE AND LOSS OF POWER. THE ENGINE WAS SHUT DOWN AND SECURED AND THE ACFT RETURNED TO THE DEPARTURE AIRPORT. GROUND INSPECTION REVEALED INTERNAL ENGINE DAMAGE. IT WILL BE REPLACED AND FORWARDED FOR INVESTIGATION.

CA090116007	AEROSP	PWA	ENGINE	POWER LOSS
12/22/2008	ATR72	PW127		

(CAN) DURING CRUISE, THE ENGINE TORQUE AND TEMPERATURE INCREASED UNCOMMANDED. CREW REDUCED POWER BUT THE ENGINE DID NOT RESPOND AND WAS SHUT DOWN AND SECURED. A SINGLE ENGINE LANDING WAS ACCOMPLISHED AT THE POINT OF ORIGIN. THE ENGINE WILL BE REMOVED AND INVESTIGATED.

CA090116005	AEROSP	PWC	ENGINE	MALFUNCTIONED
12/26/2008	ATR72	PW127F		

(CAN) AT FL50, THE PILOT REPORTED A LOUD NOISE, VIBRATION AND TEMPERATURE EXCEEDANCE. THE ENGINE WAS SHUTDOWN AND ACFT RETURNED TO DEPARTURE AIRPORT FOR SINGLE ENGINE LANDING. POST FLIGHT INSPECTION FOUND THE PROPELLER UNABLE TO ROTATE. THE ENGINE WILL BE REMOVED AND FORWARDED FOR INVESTIGATION AND REPAIR. P&WC WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA081219004	AIRBUS	GE	ENGINE	MAKING METAL
12/18/2008	A310	CF680C2*	CF680C2A8	NR 1

(CAN) DURING FLIGHT, NR 1 ENGINE FILTER CLOG LIGHT + ECAM WARNING. THE CREW C/O THE QRH PROCEDURE & STATUS OF WARNING DID NOT CHANGE. NR 1 ENG. IN-FLIGHT S/DOWN WAS C/O THE ACFT

RETURNED TO YUL FOR FURTHER INVESTIGATION. FOUND ENGINE FILTER CONTAMINATED WITH METAL. ENGINE REPLACED AND ROUTED TO SHOP FOR INVESTIGATION.

CA090112009	AIRBUS	GE	WIRE	ARCED
1/9/2009	A310304	CF680C2*		FUSLEAGE

(CAN) MECHANIC NOTICED FLASH OF LIGHT FROM LEFT WHEEL WELL. FOUND POWER SUPPLY WIRE BUNDLE UNDER SUPPORT CLAMP ON AFT WALL OF LEFT WHEEL WELL. SYSTEM WAS DEACTIVATED AND PUT ON MEL 29-2. HARNESS WILL BE REPLACED AT THE NEXT AVAILABLE DOWNTIME AND HARNESS WILL BE ROUTED TO ENGINEERING FOR EVALUATION. (TC NR 20090112009)

CA090108002	AIRBUS	GE	UPLOCK	FAILED
12/29/2008	A310304	CF680C2*	A254210012	NLG

(CAN) IN DESCENT TO LGW, FLIGHT CREW REPORTED, L/G NOSE WHEEL UNSAFE INDICATION. PERFORMED L/G GRAVITY EXTENT ION. NLG UPLOCK ASSY WAS REPLACED AND OPERATIONAL CHECK WAS CARRIED OUT SERVICEABLE. AS SAFETY PRECAUTION, BOTH NOSE LANDING GEAR DOOR SEQUENCE VALVE WERE REPLACED.

CA090113003	AIRBUS		FIRE BOTTLE	LEAKING
1/7/2009	A330243		346000281	NR 1 NACELLE

(CAN) IN CRUISE FLIGHT, NR 1 ENGINE AGENT 1 DISCHARGE LIGHT ON. ON GROUND THE BOTTLE WAS INSPECTED AND FOUND EMPTY WITH THE SQUIB STILL INTACT. BOTTLE REPLACED AND A/C RETURNED TO SERVICE, S/N 21295F1 (TC NR 20090113003).

CA090105003	AIRTRC	PWA	STRUCTURE	DELAMINATED
1/5/2009	AT802A	PT6A6A		FLOAT

(CAN) CRACKS AND DELAMINATION OF SPRING MATERIAL RADIATING FOR UPPER ATTACH POINT HOLES, AT LEAST 4 PLACES.

2009FA0000066	AMD		TERMINAL	ARCED
1/10/2009	FALCON		GAU10272	FEEDER CABLE

IMPROPER OEM TORQUE OF THE NR2 GENERATOR FEEDER CABLE AT THE FRAME 46 BULKHEAD TERMINAL RESULTED IN ARCING AND DAMAGE TO THE FEEDER CABLE.

2009FA0000097	AMD		POWER SUPPLY	DEFECTIVE
2/18/2009	FALCON		394431	CABIN

WRONG PARTS INSIDE STROBE POWER SUPPLY PN 39-44-31: C3, C6, C9 (CAPACITORS), Q5 (TRANSISTOR) AND WIRE COLOR. NO SN ON UNIT; SN ON CUSTOMER PAPERWORK IS 1024088873.

CA081222007	AMD	GARRTT	AUDIO PANEL	MALFUNCTIONED
12/19/2008	FALCON10	TFE7312	164ZS01Y	COCKPIT

(CAN) DURING THE BASIC INSPECTION WITH AIRCRAFT POWER ON, FUMES AND LIGHT SMOKE WHERE NOTICED IN THE COCKPIT. AFTER INSPECTION THE AUDIO WARNING PANEL BOX WAS FOUND TO BE THE CAUSE. THE AUDIO WARNING PANEL BOX WAS REPLACED WITH A REPAIRED SERVICEABLE UNIT FROM DASSAULT AND TESTED SERVICEABLE P/N 164ZS01Y S/N 202. REMOVED AND S/N 175, INSTALLED.

CA090106007	AMRGEN	LYC	WIRE	BURNED
1/6/2009	AA5B	O360A4K	5LF2AND5LF3	BEACON

(CAN) DURING ANNUAL INSPECTION FLASHING BEACON WAS FOUND TO BE NOT WORKING. UPON TRACING THE WIRING A BURNED WIRE WAS DISCOVERED AT JUNCTION JP-1-2 BELOW INSTRUMENT PANEL AFT OF CENTER CONSOLE. THIS WAS THE SECOND TIME THAT BURNED WIRES WERE FOUND AT THIS LOCATION ON THIS TYPE OF ACFT AND THE THIRD TIME THAT BURNED WIRES WERE FOUND AT A CONNECTOR IN THE FLASHING BEACON CIRCUIT.

2009FA0000047	AYRES	PWA	ENGINE	MAKING METAL

2/2/2009	S2R600	R1340AN1		

DURING CERTIFICATION TEST FLIGHT, ENGINE OIL PRESSURE BEGAN TO DROP WITH AN INCREASE IN TEMPERATURE. AN UNEVENTFUL PRECAUTIONARY LANDING AT A LOCAL AGRICULTURAL AIRSTRIP WAS MADE. POST FLIGHT REMOVAL OF THE ENGINE OIL SCREEN REVEALED THE PRESENCE OF WHAT APPEARED TO BE BEARING MATERIAL. ENGINE WILL BE REPLACED ON SITE.

CA090108003	BBAVIA		DOOR FRAME	CORRODED
12/26/2008	7AC			FUSELAGE

(CAN) DOOR TUBE RUSTED THROUGH LOWER END, REPLACED.

2009FA0000059	BBAVIA	LYC	BLADE	CRACKED
1/23/2009	8GCBC	O360C1G	MTV15B20358	PROPELLER

PROP BLADE CRACKED FROM TIP INWARD. CRACK IS APPROX .5 INCHES FROM L/E. CRACK IS APPROX .7 INCHES LONG ON FWD. FACE AND APROX 1.2 INCHES LONG ON AFT FACE. ALSO, AFT FACE IS BLISTERING IN SEVERAL LOCATIONS. DEFECT WAS FOUND DURING PRE-FLIGHT. ACFT TT IS SAME AS PROPELLER. ACFT HAS NOT HAD A PROP STRIKE, AND THERE IS NO IMPACT TYPE DAMAGE TO THE PROPELLER. (K)

CA090112002	BBAVIA	LYC	CRANKSHAFT	CORRODED
1/8/2009	8GCBC	O360C2E	13B2712185	ENGINE

(CAN) UPON REMOVAL OF THE EXPANSION PLUG TO FACILITATE SLUG REMOVAL IT WAS DISCOVERED THAT THERE WAS BUBBLING IN THE PID. BASED UPON PREVIOUS EXPERIENCE WITH THIS PROBLEM ON OTHER AIRCRAFT, THE PID COATING WAS REMOVED AND PITTING SIMILAR TO THAT FOUND IN SERVICE BULLETIN NR 505B WAS FOUND. (TC NR 20090112002)

CA090105012	BEECH	PWA	ENGINE	COKED
12/10/2008	100BEECH	PT6A28		

(CAN) DURING FLIGHT, THE CREW OBSERVED A RAPID RISE IN ENGINE TEMPERATURE AND TORQUE WITH FLAMES COMING OUT THE RIGHT ENGINE EXHAUST STACKS. THE ENGINE THEN FLAMED OUT, THE FLIGHT WAS DIVERTED WHERE A SINGLE ENGINE LANDING WAS ACCOMPLISHED. DISASSEMBLY OF THE ENGINE BY THE OPERATOR REVEALED A LARGE PIECE OF CARBON COMPLETELY BLOCKING ONE OF THE CT GUIDE VANE, CT BLADES HEAVILY ERODED AND HEAVY CARBON DEPOSITS ON THE COMBUSTION LINER. WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA081217007	BEECH	PWA	LIMIT SWITCH	FAILED
12/6/2008	100BEECH	PT6A28	MS250261	TE FLAPS

(CAN) DURING CLIMB, JUST BEFORE 10000 FT, CREW NOTICED ODOR OF ELECTRICAL SMOKE IN COCKPIT. AS ACFT LEVELED OFF AT 10000 FT, CABIN CREW INFORMED FLT CREW OF AN ODOR OF SMOKE CABIN. DONNED O2 MASKS, NOTIFIED ATC & INFORMED THEM OF SMOKE IN COCKPIT & RECEIVED A CLEARANCE TO PROCEED TO THE NEAREST AIRPORT. WHILE DOING THE BEFORE LANDING CHECKLIST THE FLAPS WOULDN`T EXTEND, A FLAPLESS LANDING COMPLETED WITHOUT FURTHER INCIDENT. POST FLT INSP FOUND FLAP CIRCUIT BREAKER POPPED & FLAPS RETRACTED HARD AGAINST THEIR STOPS. IT IS SUSPECTED THE UP LIMIT SWITCH FAILED ALLOWING SYSTEM TO THINK THAT THE FLAPS WERE NOT ALL THE WAY UP. MOTOR OVERHEATED BEFORE TRIPPING THE CIRCUIT BREAKER, CAUSING THE ELECTRICAL SMOKE ODOR. FLAP CIRCUIT BREAKER, RELAY, UP LIMIT SWITCH, DOWN LIMIT SWITCH, FLAP GEAR BOX, FLAP MOTOR AND THE DRIVE CABLES REPLACED. SYSTEM RIGGED & ACFT RETURNED TO SERVICE.

CA090105002	BEECH	PWA	WINDOW	FAILED
12/24/2008	100BEECH	PT6A34	50420066103	COCKPIT

(CAN) AT 16000 FT LEVEL CRUISE, WINDOW FAILURE OCCURRED, COMPLETE WINDOW FAILED LEAVING ONLY APPROX 2 INCHES OF WINDOW ATTACHED TO AIRFRAME WINDOW SEAL STAYED ATTACHED TO AIRFRAME. CRAZING, PITS AND SCRATCHES REMOVED FROM WINDOW FEB 10, 2000, WINDOW MEASURED AFTER REPAIR. .304-.321, COMPLETED BY AVGLASS USA.

CA081210011	BEECH	PWA	ENGINE	SHUTDOWN

12/10/2008	1900C	PT6A65B		NR 1

(CAN) NR 1 ENGINE SHUTDOWN CARRIED OUT AFTER TAKEOFF. HERE IS THE DEFECT ENTERED BY THE FLIGHT CREW "LT PROP RPM ONLY GOES TO 1500 RPM ON TAKEOFF AS POWER REDUCED RPM DROPS". THE INCIDENT IS UNDER INVESTIGATION.

CA081215006	BEECH	PWA	LINE	CORRODED
12/9/2008	1900C	PT6A65B	1145802891	BRAKES

(CAN) WHILE PERFORMING A WING SPAR INSPECTION, THE TECHNICIAN NOTICED A POOL OF HYDRAULIC OIL UNDER CENTER FLOORBOARDS. FURTHER INVESTIGATION REVEALED THAT THE LT BRAKE LINE UNDER THE MID CABIN FLOOR WAS CHAFED (FRETTING CORROSION) THROUGH IN SEVERAL SPOTS WHERE IT WAS SECURED WITH SADDLE BLOCKS. BRAKE LINE 114-580291-1 WAS AFFECTED AS WELL. THE AIRCRAFT BRAKE RESERVOIR WAS JUST ABOUT EMPTY AT THE TIME OF DISCOVERY. DAMAGED SECTION OF BRAKE LINE WAS REPLACED. (TC NR 20081215006)

CA090121004	BEECH	PWA	OIL SYSTEM	LOW
1/15/2009	1900D	PT6A67D		ENGINE

(CAN) IN FLIGHT SHUT DUE TO ENGINE OIL LOSS.

CA081212010	BEECH		WARNING LIGHT	UNKNOWN
12/9/2008	200BEECH			MLG

(CAN) ON DEC 9TH, RETURNING FROM KGEG TO CYYC - ON TAKEOFF, WHEN THE GEAR WAS RETRACTED, THE FLIGHT CREW NOTICED THE "RED" GEAR LIGHTS WERE INDICATING THAT THE GEAR WAS NOT FULLY RETRACTED. FLIGHT CREW CYCLED THE GEAR ONCE MORE AND ON THAT ATTEMPT WERE ABLE TO CONFIRM THAT THE GEAR WAS LOCKING DOWN, BUT ONCE BROUGHT UP THE RED LIGHTS DID NOT GO OUT. THE FLIGHT CREW DID A VISUAL INSPECTION OF EACH MAIN GEAR WHEEL AND CONFIRMED THAT THE MAIN WHEELS WERE INDEED UP. AT ALTITUDE, THE FLIGHT CREW CYCLED THE GEAR ONCE MORE AND THE LIGHTS WENT OUT INTERMITTENTLY, BUT SHORTLY AFTER STARTED TO COME ON AGAIN. THE FLIGHT CREW MAINTAINED THE GEAR EXTENSION SPEED OF 181KTS FOR THE REMAINDER OF THE FLIGHT. OTHER THAN HAVING TO MAINTAIN AN AIRSPEED UNDER OUR GEAR EXTENSION SPEED, THE FLIGHT WAS UNEVENTFUL.

CA081216003	BEECH	PWA	ENGINE	MAKING METAL
12/11/2008	200BEECH	PT6A41		

(CAN) PILOTS HEARD A GRINDING SOUND FROM THE EXHAUST STACK WHEN PUTTING ON THE PROP TIE`S AFTER A FLIGHT. MAINTENANCE CONFIRMED THE SOUND AND UPON REMOVING A EXHAUST STACK TO INVESTIGATE THEY VISUALLY CONFIRMED THAT THERE APPEARED TO BE A PIECE OF METAL CONTACTING THE NR 2 POWER TURBINE. POWER SECTION WAS REMOVED AND REPLACED AND IS IN AT STANDARD AERO WINNIPEG FOR FURTHER INVESTIGATION AND REPAIR. TSO 3823.0, CSO 2033 (TTSN AND TCSN UNAVAILABLE AS LOG BOOKS ARE AT OVERHAUL FACILITY).

CA081231003	BEECH	PWA	WINDSHIELD	CRACKED
12/21/2008	200BEECH	PT6A41	10138402524	COCKPIT

(CAN) WINDSHIELD CRACKED AS AIRCRAFT CLIMBED OUT OF YYC. AIRCRAFT RETURNED TO YYC. MAINTENANCE REPLACED WINDSHIELD AND RETURNED AIRCRAFT TO SERVICE.

CA081231004	BEECH	PWA	WINDSHIELD	CRACKED
12/21/2008	200BEECH	PT6A41	10138402523	COCKPIT

(CAN) AFTER START PILOT NOTED THAT THE WINDSHEILD WAS CRACKED. ENGINES WERE SHUT DOWN AND MAINTENANCE REPLACED THE WINDSHEILD AND RETURNED THE AIRCRAFT TO SERVICE.

CA090102004	BEECH	PWA	DOOR FRAME	CRACKED
12/31/2008	300BEECH	PT6A60A	97430000149	BS 201

(CAN) WHILE CARRYING OUT SPECIAL INSPECTION, INSPECT ESCAPE HATCHES AND ASSOCIATED CLOSURE AREA. FOUND THE RT AFT EMERGENCY EXIT CROSS TIE CRACKED THROUGH AT FS 201.775, AFT RT ESCAPE HATCH FRAME. THERE WERE TWO RIVETS SHEARED OFF IN THE SAME AREA AND THE .125 INCH THICK PIECE

HAD BUCKLED. NO ADDITIONAL DAMAGE WAS NOTED IN THE FUSELAGE. THIS WAS THE FIRST 1000 LANDING REPETITIVE INSPECTION AFTER THE INITIAL 5000 LANDING INSPECTION. PART WILL BE REPLACED WITH FACTORY NEW PART.

CA081222010	BEECH	PWA	WINDSHIELD	CRACKED
12/21/2008	300BEECH	PT6A60A	10138402523	COCKPIT

(CAN) WINDSHIELD CRACKED AFTER TAKEOFF, CRACKS EMANATED VERTICALLY FROM THE BOTTOM INBOARD EDGE. UNIT TTSN 4500 HOURS.

CA081210006	BEECH	PWA	SKIN	CRACKED
12/8/2008	300BEECH	PT6A60A	115430100661A	EMERGENCY EXIT

(CAN) WHEN COMPLYING WITH SPECIAL INSPECTION "ESCAPE HATCHES AND ASSOCIATED AREAS", A CRACK WAS FOUND AT THE LOWER FORWARD CORNER OF THE BONDED RT EMERGENCY EXIT DOOR SKIN, EXACTLY AS PICTURED IN THE MAINTENANCE MANUAL. REPLACED SKIN ASSEMBLY WITH NEW. CRACKS ARE DIFFICULT TO DETECT DUE TO FILLER USED BY THE MANUFACTURER TO BLEND THE RADIUS AFTER FITTING THE SKIN. OUR INSPECTION TSK IS AMENDED TO INDICATE THE INTERIOR PANEL IS TO BE REMOVED AND INSPECTED FROM THE INSIDE. HIGH TIME/HIGH CYCLE B300 OF OUR FLEET OF FIVE AIRCRAFT.

CA090116012	BEECH	PWA	BOLT	BROKEN
1/5/2009	300BEECH	PT6A60A	MS2125005022	MLG WHEEL

(CAN) DURING POST FLIGHT WALK AROUND, FLIGHT CREW NOTICED A BOLT WAS MISSING FROM THE NR 4 MAIN WHEEL. MAIN WHEEL ASSEMBLY WAS REPLACED.

2009FA0000116	BEECH		ATTACH BRACKET	CRACKED
2/25/2009	400A		45A21085003	HORIZ STAB

DURING SCHEDULED INSP FOUND HORIZONTAL STABILIZER LT AND RT INBD FWD RIB'S ROLLER ATTACH BRACKETS CRACKED. PROBLEM PREVIOUSLY ADDRESSED BY MFG COMMUNIQUÉS 70 AND 83. AREA HAS BEEN INCLUDED INTO MFG INSPECTION GUIDE, BUT TECHS AND INSPECTORS SHOULD PAY CLOSE ATTENTION TO THIS AREA DURING INSPECTIONS, AS IT IS NOT EASILY VISIBLE. MFG BELIEVES PROBLEM CAUSED BY FATIGUE AND PROPER HORIZONTAL STABILIZER ROLLER TO VERTICAL STABILIZER CLEARANCES NOT BEING MAINTAINED WITHIN SPECIFICATIONS. REPLACED ROLLER ATTACH BRACKETS AND RIBS WITH IMPROVED P/N ASSEMBLIES IAW MFG COMMUNIQUÉ 83.

2009FA0000041	BEECH		VENT LINE	LEAKING
1/16/2009	58		6017001079	FUEL SYSTEM

FOUND RT FUEL VENT LEAKING FUEL. REMOVED ACCESS PANEL FROM RT EXTENDED RANGE FUEL TANK (THIS IS A WET WING SYS NOT A BLADDER) TO GAIN ACCESS TO FUEL TANK TO CHECK VENT FLOAT. FLOAT WAS NOT AN ISSUE BECAUSE FUEL LEVEL WAS DOWN BELOW LEVEL NEEDED TO CLOSE FLOAT. BLEW AIR INTO VENT SYS AND OBSERVED BUBBLES AT CONNECTION TUBE WHERE IT ENTERS BULKHEAD WHERE WING TIP TANK ATTACHES WING. IAW MM CHAPTER 28-10-00, PG 5 FOR INSTRUCTIONS TO CUT AN ACCESS HOLE IN THE TANK FOR THE INACCESSIBLE AREA OF THE FUEL TANK WHERE THE LEAK INTO THE VENT BUSHING AS INSTRUCTED PROVIDED BY MFG ASSY DRAWING. THE SEALANT USED WAS THE SAME AS MFG USES. CONCERN IS THE INACCESSIBILITY OF THIS AREA OF THE FUEL TANK WHEN THIS IS NOT AN UNCOMMON OCCURRENCE.

CA081209004	BEECH	PWA	MOUNT	WORN
12/1/2008	99	PT6A27	5038913315	ENGINE

(CAN) WHILE COMPLETING A 100 HOUR INSPECTION THE UPPER LORD MOUNT WAS FOUND TO BE U/S. BOTH RUBBER HALVES HAD DETERIORATED TO THE POINT THAT RUBBER PIECES WERE CRUMBLING AND FALLING OFF. THERE WERE SMALL PILES OF CRUMBLED RUBBER ON THE TOP OF THE ENGINE. THE ENGINE WAS ABLE TO BE HAND ROCKED WITH NO VISIBLE OR APPARENT SUPPORT FROM THE MOUNT. THE OTHER 2 WERE INSPECTED WITH NO VISIBLE FLAWS.

CA090126005	BEECH	PWA	WIRE	BROKEN
11/24/2008	B200	PT642A	1015551531	RESET SWITCH

(CAN) AIR CONDITIONING RESET SWITCH LOCATED IN THE WHEEL WELL FOUND BROKEN. UPON EXAMINATION OF SWITCH IT WAS NOTED FACTORY INSTALLED HEAT SHRINK TUBING WAS NOT PROPERLY INSTALLED THEREBY ALLOWING IT TO MIGRATE AWAY FROM THE SWITCH CONNECTOR. THIS IN TURN CAUSED EXPOSED ELECTRICAL WIRING WHICH GIVEN THE RIGHT CONDITIONS COULD CAUSE ELECTRICAL ARCING AND POSSIBLY SMOKE AND/OR FIRE. THIS DEFECT WAS DISCOVERED AS A RESULT OF NORMAL INSPECTION HOWEVER REVIEW OF PREVIOUS DISCREPANCIES SHOWED THIS WAS NOT THE FIRST OCCURRENCE OF FAILURE FOR THIS SWITCH INSTALLATION. STORES INVENTORY WAS CHECKED AND FOUND SPARES HAD THE SAME FLAW. BEFORE INSTALLING NEW SWITCH, ADDITIONAL HEAT SHRINK TUBING WAS INSTALLED ILLUMINATING THE POSSIBILITY OF FURTHER OCCURRENCE. (TC NR 20090126005)

CA090113006	BEECH	PWA	ARM	BROKEN
1/9/2009	B99	PT6A20	5052432622	RUDDER PEDAL

(CAN) PILOT NOTICED THAT THE PEDAL WAS LOOSE IN FLIGHT, SO HE LOOKED DOWN AND COULD SEE IT NOT ATTACHED TO THE TOP OF RT PEDAL. (TC NR 20090113006)

2009FA0000062	BEECH		RELAY	INTERMITTENT
1/29/2009	F33A		SM50D7	LANDING GEAR

PILOT REPORTED AFTER PUTTING THE GEAR SELECTOR IN THE DOWN POSITION THE GEAR WOULDN`T EXTEND, AFTER CYCLING GEAR SELECTOR GEAR WENT DOWN, ACFT RETURNED TO BASE. ON TROUBLESHOOTING THE MECHANIC CYCLED GEAR SEVERAL TIMES AND WAS UNABLE TO FAIL, THIS WAS A REPEAT WRITE UP, REPLACED RELAY. PROBABLE CAUSE AT THIS TIME UNKNOWN. INSTALLED NEW AND IMPROVED RELAY IAW DATE CODE. (K)

2009FA0000094	BEECH	CONT	FUEL CONTROL	FAULTY
2/8/2009	F33A	IO520BB		ENGINE

PILOT REPORTED ENGINE QUIT WHEN EXITING RUNWAY. UPON TROUBLESHOOTING, MECHANIC FOUND FCU HAD A ROUGH SPOT WHEN MOVING FUEL CONTROL ARM. FCU WAS REPLACED AND RUN-UP WAS PERFORMED AND OPS CHECK GOOD. NO RECOMMENDATIONS AT THIS TIME. (K)

CA081208003	BELL	HNYWL	CAP	WORN
12/6/2008	204B	T5313BHNYWL	204030291015	LANDING GEAR

(CAN) PART FOUND TO HAVE UNAPPROVED MODIFICATION EMBODIED AFTER PART REMOVAL FROM THE AIRCRAFT WHEN COMPARED TO OEM PART. SUBSEQUENT INVESTIGATION BY QAM MANAGER OF ARCHIVED FILES REVEALED THAT 4 CAP ASSEMBLIES HAD UNDERGONE A PREVIOUS MODIFICATION BY A PROCESS NOT APPROVED BY THE MANUFACTURER OR ANY OTHER FORM OF APPROVED DATA FOR THE MODIFICATION, CONFIRMED BY THE VENDOR PACKING SLIP. THE QAM HAS RETAINED THE PACKING SLIP FROM THE SOURCE DATED 3/12/2007 THAT INDICATED 4 REPAIRS HAD BEEN PERFORMED TO REWORK SCALLOPING, THE LANDING GEAR RUBBERS HAD ALSO BEEN REPLACED WHEN COMPARED TO OEM PART (FIT, FORM AND FUNCTION). THE OTHER THREE LANDING GEAR CAP ASSEMBLIES WERE LOCATED IN Q/STRCRES AND HAD BEEN REPLACED EARLIER IN THE YEAR WITH OEM PARTS. THE 4TH CAP WAS REPLACED WITH OEM PARTS. BELL HELICOPTER DOES NOT AUTHORIZE THE REPAIR OR REWORK TO INCLUDE CUSHION REPLACEMENT, RE-BOND IF THE CUSHION BECOMES DETACHED OR MACHINING TO REMOVE SCALLOPING, REPAIRS ARE NOT PERMITTED BY THE OEM. THERE ARE NO APPROVED VENDORS THAT REPAIR LANDING GEAR CAPS FOR THE 204B MODEL HELICOPTERS. SEE PAGE 2 FOR ADDITIONAL DETAILS. (TC NR 20081208003)

CA081201010	BELL		HOSE	CHAFED
9/1/2008	206B			HYD SYSTEM

(CAN) UPON ENGINE SHUTDOWN WALK-AROUND, PILOT REPORTED A TRANSMISSION OIL LEAK ON MACHINE. LEAK INSPECTED AND FOUND TO BE FROM THE MAIN HYDRAULIC PUMP HOSE. HOSE HAD CHAFED THROUGH ON A MS21919WDG CLAMP HOLDING IT DOWN TO THE TOP DECK OF A/C. WDG CLAMP SERIES IS NOT DESIGNED FOR USE AROUND OILS AND THIS IS BELIEVED TO HAVE CAUSE THE RUBBER CUSHION ON THE CLAMP TO DETERIORATE AGAINST THE STAINLESS STEEL BRAIDED HOSE AND CAUSE A METAL ON METAL CONTACT THAT WENT UNDISCOVERED UNTIL HOSE FAILURE. WDG CLAMP AND HOSE ASSY WERE SUBSEQUENTLY REPLACED.

CA081201011	BELL	ALLSN	BELL	SPINDLE	WORN
10/1/2008	206B	250C20		206031554003	TRANSMISSION

(CAN) TRANSMISSION MOUNTS REMOVED DUE TO BEARING WEAR. UPON FURTHER INSP, SPINDLE ALSO FOUND DAMAGED IN LOCATION OF WASHER P/N 206-030-507-001. HARD WASHER MOVEMENT DUE TO BEARING WEAR HAD WORN INTO THE RADII OF THE SPINDLE MOUNTING AREA. SPINDLE SCRAPED. SPINDLE HARDNESS NOT TESTED.

CA081229003	BELL	ALLSN	GOVERNOR	FAILED
12/24/2008	206L3	250C30P	23070101	ENGINE

(CAN) PILOT ENCOUNTERED HIGH SIDE GOVERNOR FAILURE. TORQUE INCREASED FROM 85 TO 100 PERCENT DURING CLIMB WITH NO COLLECTIVE INPUT. NR/N2 INCREASED TO 110 PERCENT AND THROTTLE WAS ROLLED TO IDLE WITH NO INITIAL EFFECT. NR/N2 THEN DROPPED TO 90 PERCENT. A DESCENT AND SHORT RUN-ON LANDING WAS MADE USING MANUAL THROTTLE MOVEMENTS. NO DAMAGE OCCURRED. REPLACEMENT OF GOVERNOR CURED PROBLEM AFTER TROUBLESHOOTING IN ACCORDANCE WITH ROLLS ROYCE 250 C30P MM. REMOVED GOVERNOR WILL BE SENT TO REPAIR STATION FOR INSPECTION.

CA081216001	BELL	ALLSN	FRAME	CRACKED
11/10/2008	206L3	250C30P	206033107117	FUSELAGE

(CAN) UPON REMOVAL OF AFT CABIN HAT RACK ASSY RT FRAME ASSY WAS FOUND CRACKED. FRAME ASSY WAS REMOVED AND REPLACED NEW.

CA081216002	BELL	ALLSN	FRAME	CRACKED
11/10/2008	206L3	250C30P	206033302031	FUSELAGE

(CAN) UPON REMOVAL OF BELL INSTALLED HEATER ASSY. A VISUAL INSPECTION WAS COMPLETED OF THE AREA`S SURROUNDING STRUCTURE. THE LT AFT FRAME ASSY WAS FOUND CRACKED BEYOND LIMITS. THE CRACK WAS NOTED TO PROTRUDE FROM A RIVET HOLE ACROSS THE FACE OF THE FRAME. FRAME ASSY WAS REMOVED AND REPLACED NEW.

2009FA0000078	BELL	ALLSN	COLLAR	CRACKED
2/11/2009	206L4	250C30P	206011005105	MAIN ROTOR

ON SHUTDOWN AT AN OFFSHORE PLATFORM THE PILOT HEARD A POP. ON INSP, HE DISCOVERED THE COLLAR SET LOOSE ON THE MAST ASSY.

CA081222008	BELL	LYC	SERVO	UNKNOWN
12/8/2008	222U	LTS101750C1	222382001101	

(CAN) SOLID RESISTANCE FELT WITH AFT CYCLIC MOVEMENT DURING OPERATIONS WITH FORCE TRIM ON & UTILIZING CYCLIC TRIM RELEASE SWITCH. ON FIRST OCCURRENCE RESISTANCE RELEASED WITH A FIRM BUMP & FAULTY LT CYCLIC TRIM RELEASE SWITCH SUSPECTED HOWEVER WITH SECOND OCCURRENCE SWITCHING FORCE TRIM OFF HAD NO EFFECT & RESISTANCE ONCE AGAIN RELEASED WITH A FIRM BUMP AFTER SEVERAL SECONDS. ALL THE MAIN ROTOR CONTROLS WERE INSPECTED FOR FREEDOM OF MOVEMENT & TRAVEL, NO DEFECTS NOTED. A GPU FOR HYD SYSTEM ATTACHED & SYSTEM 1 & 2 CHECKED. NO DEFECTS. WHEN CYCLIC MOVED FOR & AFT WHEN POWERED BY ONLY 1 HYD SYSTEM NOTICED THAT CYCLIC STICK SEEMED TO BE MOTORED (DRIVEN) FOR & AFT BY SERVO ACTUATOR. SERVO HAD 23.8 HOURS SINCE LAST REPAIR.

CA081217008	BELL		TAIL BOOM	DAMAGED
12/1/2008	407		206020113215A	

(CAN) CORE ASSEMBLY 206-020-113-215A BONDED IN VERTICAL FINS ASSEMBLIES 206-020-113-233 FOUND WITH VOIDS IN THE ADHESIVE AT THE LOWER PORTION OF THE FIN NEAR THE TAILROTOR SKID ATTACHMENT POINT.

CA081217015	BELL	PWA	HOUSING	CRACKED
12/10/2008	412EP	PT6T3		M/R GEARBOX

(CAN) DURING CRUISE, OIL PRESSURE WAS LOST ON THE COMBINING GEARBOX AND THE PILOT PERFORMED AN UNSCHEDULED LANDING OFF BASE. THE HELO HAD TO BE TRANSPORTED BACK ON A TRUCK. INSPECTION OF THE ENGINE REVEALED A CRACK IN THE GEARBOX HOUSING FROM WHICH THE OIL ESCAPED. THE GEARBOX WILL BE REMOVED AND FORWARDED TO P&WC FOR INVESTIGATION. UPDATES WILL BE PROVIDED IN DUE COURSE.

2009FA0000074	BELL	BELL	YOKE	WRONG PART
2/10/2009	47G3B2		47120171	MAIN ROTOR

PART WAS INSTALLED. ON REVIEW OF AIRCRAFT RECORDS PRIOR TO PLACING IT ON A 135 CERTIFICATE IT WAS NOTED THAT EITHER THERE WAS A TYPO OR SUP PART INSTALLED ON THE AIRCRAFT. THE FSDO CONFIRMED THE SERIAL NUMBER ON SEPTEMBER 2, 2008 AFTER THE MAIN ROTOR WAS REMOVED REVEALING THE SERIAL NUMBER. MANUFACTURER CONFRMED THE SERIAL NUMBER WAS NOT A MANUFACTURER SERIAL NUMBER.

2009FA0000075	BELL		YOKE	WRONG PART
2/10/2009	47G3B2		471201771	MAIN ROTOR

PART WAS TO REPLACE ANOTHER PART NOW IDENTIFIED AS A SUSPECTED UNAPPROVED PART (SUP). SERIAL NUMBER CT-207 DOES NOT MEET THE REQUIREMENTS OF AN APPROVED PART: INCOMPLETE PAPERWORK, IDENTIFICATION MARKINGS, AND QUESTIONABLE INDICATION OF MANUFACTURE HISTORY. THE FSDO CONTACTED THE MANUFACTURER SUSPECTED UNAPPROVED PARTS DIVISION AND COULD NOT ESTABLISH THAT CT-207 IS A PART MANUFACTURED BY THEM.

CA081222003	BOEING	PWA	HOSE	FAILED
12/19/2008	727225	JT8D15	AE2460010H0360	HYD SYSTEM

(CAN) ON DEPARTURE FROM YVR, WHEN GEAR SELECTED UP, HYDRAULIC `A` SYSTEM FAILED. HYDRAULIC QUANTITY INDICATION 0, HYDRAULIC PRESSURE INDICATION 0. CREW EXTENDED GEAR IN ACCORDANCE WITH FLIGHT MANUAL PROCEDURES. THE AIRCRAFT RETURNED TO YVR, STOPPED ON THE RUNWAY AND WAS TOWED OFF THE RUNWAY DUE TO NO STEERING DUE TO HYDRAULIC LOSS. MAINTENANCE INSPECTED THE AIRCRAFT AND FOUND THE LT MAIN GEAR ACTUATOR "UP" LINE HAD FAILED. THE LINE WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. (TC NR 20081222003).

CA090116003	BOEING	PWA	SWITCH	WORN
1/15/2009	727225	JT8D15	32305LH	ELECTRICAL SYS

(CAN) ESSENTIAL POWER WAS LOST AT ROTATION DURING TAKE-OFF. SECOND OFFICER WAS UNABLE TO ESTABLISH ESSENTIAL POWER WHEN CYCLED FROM GENERATOR 3, TO GEN 1, TO GEN 2. STANDBY POWER WAS SELECTED. FLIGHT CREW DECLARED AN EMERGENCY AND RETURNED TO THE AIRPORT OF DEPARTURE. ON THE DOWNWIND APPROACH, ESSENTIAL POWER WAS ESTABLISHED ON GENERATOR 1. UPON ARRIVAL MX PERSONNEL PERFORMED TROUBLESHOOTING AND FOUND THE ESSENTIAL POWER SELECT SWITCH DETENTE WORN (DETENTE DID NOT HAVE POSITIVE ENGAGEMENT). THE AC METER/ESSENTIAL POWER MODULE WAS REPLACED AND OPS CHECKED SERVICEABLE. THE ACFT WAS RELEASED FOR SERVICE. NOTE: CARGOJET Q/A AWAITING STRIP REPORT FROM VENDOR FOR UNSERVICEABLE ESSENTIAL POWER MODULE.

CA090109009	BOEING	PWA	BLADES	DAMAGED
1/1/2009	727227	JT8D9A		COMPRESSOR

(CAN) ON TAKEOFF, A JUMP IN EPR AND WAS OBSERVED AS WELL AS A MOMENTARY ILLUMINATION OF THE LOW OIL PRESSURE LIGHT ON THE NR 3 ENGINE. THE ENGINE WAS SHUTDOWN AFTER THE TOWER REPORTED SEEING SPARKS. ON EXAMINATION DAMAGE WAS FOUND TO THE C1 AND C2 BLADES AND STATORS. THE ENGINE WAS REPLACED AND ACFT RETURNED TO SERVICE.

CA090113005	BOEING	PWA	CABIN PRESSURE	UNKNOWN
1/11/2009	727233	JT8D15		

(CAN) ENROUTE YOW FROM YVO, THE CREW OBSERVED THE CABIN ALTITUDE CLIMBING BEYOND THE PRESET VALUE. THE AIRCRAFT CONTINUED TO DESTINATION AND LANDED WITHOUT FURTHER PROBLEM. (TC NR 20090113005)

CA081217001	BOEING	PWA	COMPRESSOR	FOD
12/13/2008	737201	JT8D17		NR 2 ENGINE

(CAN) AIRCRAFT WAS ON TAKEOFF ROLL WHEN THE PILOTS HEARD A LOUD BANG FROM ENGINE NR 2 & EXPERIENCED A YAW TO THE RIGHT AS THEY APPROACHED 110 KNOTS. THE PILOTS THROTTLED BACK, ABORTED THE TAKEOFF, TAXIED BACK TO THE RAMP AND SHUTDOWN THE ENGINES. PASSENGERS OBSERVED FLAMES EXPEL FROM NR 2 ENGINE INLET AND EXHAUST WHEN THE BANG OCCURRED. CONDUCTED AN INITIAL

VISUAL INSPECTION AND FOUND PART OF A RUBBER SEAL MISSING AND DETACHED FROM THE C2 INLET GUIDE VANE. THERE IS NO DAMAGE TO THE C1, C2 OR T4. REQUESTED AN EXTERNAL A BORESCOPE INSPECTION TO DETERMINE IF THERE IS DAMAGE TO THE INTERNAL PART OF ENGINE. NO EVIDENCE OF FOD INGESTION.

CA090106006	BOEING	PWA	HYDRAULIC SYSTEM	MALFUNCTIONED
1/2/2009	737275	JT8D17		

(CAN) WHILE ON THE TAXI FROM MX HANGAR TO THE TERMINAL, THE TAXI CREW APPLIED THE BRAKES WITH NO EFFECT. THE ACFT WAS SHUT DOWN. THE AMM WAS CONSULTED, AND REMOVED A HYDRAULIC CASE DRAIN FILTER, AND FOUND THE FILTER TO BE COMPLETED BLOCKED WITH ICE. IT IS PRESUMED THAT ALL FILTERS ON THE ACFT WERE IN THE SAME CONDITION. ALL `A` AND `B` AND STBY HYDRAULIC FILTERS REPLACED. HYDRAULIC SYSTEM FLUSHED WITH CLEAN FLUID. ACFT WAS SERVICED, AND THE ACFT RETURNED TO SERVICE. IT IS NOTED THAT THIS ACFT HAD NOT FLOWN MUCH OVER THE LAST FEW WEEKS. THE TEMPERATURE WAS A CONSISTENT -20 DURING THE DAY DURING MOST OF THE NO-FLY PERIOD, WITH A GROUND HEAT CART APPLIED TO THE ACFT. CANADIAN NORTH HAS INITIATED A SPECIAL REPEAT INSPECTION OF THE ACFT UNTIL A DETERMINATION CAN POSSIBLY BE FOUND.

CA081223004	BOEING	COMPUTER	MALFUNCTIONED
12/21/2008	737800*	4082499902	FLIGHT CONTROL

(CAN) CREW REPORT STABILIZER LIGHT CAME ON. ATC INFORMED AND CREW BROKE OFF APPROACH AND DETERMINED THAT THERE WAS NO STABILIZER TRIM. AIRCRAFT RETURNED TO AIRPORT AND CONDUCTED A SAFE LANDING. MAINTENANCE TROUBLESHOT REPORTED SNAG AND FOUND FAULT APPEARED TO LIE WITH THE FLIGHT CONTROL COMPUTER. UNIT REPLACED AND SYSTEM CHECKED SERVICEABLE. AIRCRAFT RETURNED TO SERVICE.

2009F00014	BOEING	CFMINT	UNKNOWN	MALFUNCTIONED
2/16/2009	737800*	CFM567B22		

REGISTERED NR B18608, WAS ABOUT TO TAKE OFF. WHEN T/O ADVANCE THRUST (N1: 50 PERCENT, SPEED: 21 KNOTS), MASTER CAUTION LIGHT BLINK. EEC BECAME TO ALTERNATE MODE OPERATION. AFTER RTO CHECK NML. EEC BITE NO FAULT. DFDR REVEALED THAT THE BOTH EEC'S OPERATED UNDER ALTERNATE MODE 10 SECONDS. DFDR WILL BE SENT TO MFG FOR FURTHER ANALYSIS.

CA081222002	BOEING	TORQUE TUBE	SEVERED
12/18/2008	7378BK	256A37107	TE FLAPS

(CAN) PH-HZK DURING APPROACH, THE FLIGHT CREW OBSERVED TRAILING EDGE FLAPS ASYMMETRY CONDITION WITH LT SIDE INDICATING 0 DEGREES AND RT SIDE INDICATING 0.5 DEGREES. AFTER TOUCHDOWN PSEU LIGHT ILLUMINATED. MAINTENANCE FOUND LT TORQUE TUBE (CONNECTING PDU WITH NR 4 TRANSMISSION) PHYSICALLY BROKEN (SEVERED). LT TRAILING EDGE (T/E) FLAPS FOUND LOCKED-OUT AND INDICATING PINS (4) POPPED. NEW TORQUE TUBE INSTALLED, IAW AMM TASK 27-51-56-400-803. T/E FLAPS EXTENDED, VISUALLY INSPECTED FOR FAULTS, NIL FINDING. NR 4 FLAP TRANSMISSION OIL DRAINED FOR EXAMINATION AND RE-FILLED IAW AMM TASK 12-22-51-610-804, NIL FAULTS. TORQUE INDICATORS (4) RESET. FLAPS OPERATED ON PRIMARY AND FAULT SYSTEMS, NIL FAULTS. FSEU AND PSEU BITE CHECK PERFORMED, NIL FAULTS IAW 27-57-00-800 (TC NR 20081222002).

CA081212001	BOEING	RROYCE	SWITCH	MALFUNCTIONED
12/10/2008	757236	RB211535E437	007E55131	CARGO DOOR

(CAN) COCKPIT MAIN CARGO DOOR WARNING LIGHT ILLUMINATED AT FL340 AND THE AMBER CAUTION LIGHT ON THE CARGO DOOR CONTROL PANEL ALSO ILLUMINATED. AIRCRAFT BEGAN TO RETURN TO BASE AND WHILE DESCENDING THROUGH 13,000 FEET THE LIGHTS EXTINGUISHED. THE AIRCRAFT RETURNED TO BASE WITHOUT FURTHER INCIDENT. MAINTENANCE CARRIED OUT TROUBLESHOOTING AND NO FAULTS WERE FOUND. THE MANUFACTURER OF THE CARGO DOOR CONVERSION (PRECISION CARGO CONVERSIONS) WAS CONTACTED TO PROVIDE GUIDANCE ON THE DEFECT. PRECISION CONVERSIONS ISSUED AN ENGINEERING AUTHORIZATION TO ADDRESS THE FALSE INDICATION. THE ENGINEERING AUTHORIZATION WAS CARRIED OUT FOR INCREASING THE SWITCH ADJUSTMENT TRAVEL LIMITATION. UPON COMPLETION OF THE EA, GROUND RUN AND PRESSURIZATION OF THE AIRCRAFT WAS CARRIED OUT WITH NO FURTHER FAULTS. THE AIRCRAFT WAS RELEASED FOR SERVICE.

(TC NR 20081212001)

CA090115001	BOEING	GE	WIRE HARNESS	WORN
12/16/2008	777*	GE90110B1	351700402	NR 2 ENGINE

(CAN) ON NR 2 ENGINE FOUND HARNESS W729 DAMAGED BEHIND FAN COWL AT 6 O`CLOCK POSITION. THE DAMAGE WAS CAUSED BY THE HARNESS RUBBING ON EACH OTHER. THE HARNESS WAS CHANGED AND REPOSITIONED (TC NR 20090115001).

CA090115002	BOEING	GE	WIRE HARNESS	WORN
1/9/2009	777*	GE90110B1	351701607	NR 1 ENGINE

(CAN) ON NR1 ENGINE FOUND HARNESS W721 DAMAGED BEHIND FAN COWL AT 8 O`CLOCK POSITION. THE HARNESS DAMAGE WAS CAUSED BY THE RUB BETWEEN 2 ELECTRICAL HARNESSES W721 HARNESS REPLACED AND REPOSITIONED IAW B-777 AMM TASK 70-00-01-400-806-H-01. (TC NR 20090115002)

2009FA0000057	BOEING	GE	GE	DISC	CRACKED
1/16/2009	777*	GE90115B		1865M13G03	ENGINE

DURING DETAIL INSP OF THE HPT ROTOR STAGE 1 DISC, MULTIPLE CRACK INDICATIONS HAVE BEEN NOTED ON AND BETWEEN THE ID BAYONET TAB FEATURES AT 4 OFF LOCATIONS. THE FPI INDICATIONS HAVE BEEN MEASURED UP TO 0.050 INCH IN LENGTH. THIS HAS BEEN CAUSED BY THE MATING HPT BORE INTERSTAGE SEAL ROTATING BEYOND ITS LOCKING MECHANISM. ROOT CAUSE IS CURRENTLY BEING INVESTIGATED. (K)

2009FA0000056	BOEING	GE	SEAL	UNSERVICEABLE
1/15/2009	777*	GE9090B	R047M53P02	ENGINE

DURING DISSASSEMBLY OF THE HPT ROTOR, IT WAS NOTED THAT THE INTERSTAGE SEAL HAD ROTATED BEYOND ITS LOCKING MECHANISM RESULTING IN DAMAGE TO IST ID BAYONET FEATURES AND BORE. THE FEATURES EXHIBIT DISPLACED AND DAMAGED MATERIAL WITH F.P.I. INDICATIONS MEASURING UP TO 0.125 INCHES IN LENGTH. IN ADDITION, THE SEAL ID HAS DISTORTED LOCALLY TOT HE 4 LOCK KEY POSITIONS. CAUSE CURRENTLY O/K. (K)

CA090119011	BOMBDR	HNYWL	GENERATOR	FAULTED
12/28/2008	BD1001A10	AS90711A	A3579101	

(CAN) ACFT ARRIVED WITH RT GEN FAULT. RT COWL OPEN, FOUND GEN DAMAGED AND DISLODGED OUT FROM IT`S EXHAUST HOUSING. SHAFT DIDN`T SHEARED. THE BACK MATING PLATE AT THE GEARBOX ASSY SLIGHTLY CHAFED DUE TO IN CONTACT WITH GEN SHAFT. LMM AS907-1-1A CHAP 72-61-01, FIG 801,PG 802, ITEM 170)

CA090119012	BOMBDR	HNYWL	GENERATOR	LOOSE
1/14/2009	BD1001A10	AS90711A	A3579101	

(CAN) PILOT REPORTS THE L GEN FAIL AMBER CAS POSTED. MX FOUND LT GENERATOR SEPARATED FROM GEAR BOX. REPLACED GEN AND MOUNTING ADAPTER.

CA090119008	BOMBDR	HNYWL	GENERATOR	DESTROYED
1/17/2009	BD1001A10	AS90711A	A3579101	RIGHT

(CAN) PILOT REPORTS IN DESCENT WITH POWER PULLED BACK, THEY COULD FEEL A SHUDDER/VIBRATION FROM THE RIGHT SIDE OF THE PLANE AND THEN THE R GEN FAIL AMBER CAS POSTED. THE PILOT FOUND THE RIGHT LOWER COWLING HAD BLACK SOOT STREAMED ON THE BELLY OF THE ENGINE. MX OPENED THE COWLING AND FOUND THE RT GEN HAD COME APART, COPPER, ETC, HANGING FROM IT. FURTHER INVESTIGATION FOUND THE GEN TO GEARBOX ADAPTOR WAS INDEED CRACKED. REMOVED AND REPLACED RIGHT GEN AND ADAPTOR. OPS GOOD. ACFT RTS GENERATOR SN OFF: 1390 GENERATOR SN ON: 1544 (TC NR 20090119008)

CA081210004	BOMBDR	HNYWL	GENERATOR	FIRE
12/9/2008	BD1001A10	AS90711A	A3579101	APU

(CAN) AFTER APU START AT FL100 JUST BEFORE APU GEN ON LINE APU FIRE CAS MESSAGE POSTED. PILOTS ARM APU BOTTLE MESSAGE DISAPPEARED. PILOTS SHUTDOWN APU AND LAND A/C SAFELY. IN AFT EQUIPMENT

BAY PILOTS NOTED AN ODOR OF BURNED WIRE. AFTER INSPECTION OF APU GENERATOR FOUND GENERATOR ON FIRE. FIRE WENT OUT VIA COOLING DUCT TO EDUCATOR SENSING ELEMENT OF APU FIRE DETECTION SYSTEM. APU DOOR SHOWING SIGNS OF FIRE.

2009FA0000040	BOMBDR	RROYCE	BRAKE	FAILED
1/2/2009	BD7001A10	BR700710A110	GT41555003	RT SLAT

ALL (4) ASYMMETRY BRAKES WERE REMOVED FROM THE ACFT IN OCT 2008, MODIFIED AND REINSTALLED. SINCE THAT TIME THE LT FLAP BRAKE FAILED AFTER 6 WEEKS IN SERVICE. THE SECOND BRAKE FAILED WITH 3 MONTHS IN SERVICE. (K)

2009FA0000039	BOMBDR	RROYCE	BRAKE	FAILED
1/2/2009	BD7001A10	BR700710A110	GT41555003	LT FLAP

ALL (4) ASSYMETRY BRAKES WERE REMOVED FROM THE ACFT IN OCT 2008, MODIFIED AND REINSTALLED. SINCE THAT TIME THE LT FLAP BRAKE FAILED AFTER 6 WEEKS IN SERVICE. THE 2ND BRAKE FAILED WITH 3 MONTHS IN SERVICE. (K)

CA081219001	BOMBDR	RROYCE	CONTROLLER	MALFUNCTIONED
12/9/2008	BD7001A10	BR700710A220		CABIN PRESSURE

(CAN) AIRCRAFT SUFFERED A RAPID DEPRESSURIZATION AT 47 000 FT AND COULD NOT CONTROL THE CABIN PRESSURE IN EITHER MANUAL OR AUTO MODES. OXYGEN MASKS DEPLOYED AND EMERGENCY DESCENT WAS PERFORMED. A/C LANDED SAFELY AT SAO PAULO, BRAZIL. NO CAIMS MESSAGE WERE REPORTED. "AT FL 470 AT 18:40 UTC AFTER 9 HOURS FLIGHT THEY EXPERIENCED AN A/P DISCONNECT. THEY WERE ABLE TO RECONNECT AND AT THAT MOMENT CABIN START TO RISING. CREW SELECTED MANUAL MODE BUT OUTFLOWS TRAVELED FROM FULL OPEN TO FULL CLOSE AND WAS NOT POSSIBLE TO CONTROL CABIN THRU MANUAL MODE. CREW DESCENT ACFT AND CABIN STABILIZE AT FL 150 IN AUTOMATIC MODE. (TC NR 20081219001).

CA090109008	BOMBDR	GE	HANDLE	BROKEN
1/2/2009	CL6002D15	CF348C5	601R317047	PAX DOOR

(CAN) ON ARRIVAL AT DESTINATION AIRPORT, THE MAIN CABIN DOOR HANDLE SNAPPED OFF WHEN GROUND CREW ATTEMPTED TO OPEN DOOR. MAIN OUTER DOOR HANDLE REPLACED AND ACFT RETURNED TO SERVICE.

CA090109003	BOMBDR	PWC	SEQUENCE VALVE	MALFUNCTIONED
1/8/2009	DHC8400	PW150A	483025	NLG

(CAN) UPON GEAR DOWN SELECTION, BOTH MAIN GEAR INDICATED DOWN AND LOCKED. NO MOVEMENT NOTED BY THE CREW FOR THE NOSE GEAR. ALTERNATE RELEASE USED TO LOWER THE NOSE GEAR. UNEVENTFUL LANDING PERFORMED. MAINTENANCE REMOVED AND REPLACED THE NOSE GEAR SOLENOID SEQUENCE VALVE (SSV). AIRCRAFT RETURNED TO SERVICE.

CA090115005	BOMBDR	PWC	ACTUATOR	MALFUNCTIONED
1/12/2009	DHC8400	PW150A	3994001013	PITCH TRIM

(CAN) AFTER TAKEOFF, GEAR WAS RETRACTED AND PILOT NOTICED MORE THAN NORMAL BACK TRIM WAS REQUIRED AND THE ELEVATOR FELT SLOPPY. AT APPROX 300` THE ELEVATOR ASYMMETRY CAUTION LIGHT ILLUMINATED. ACFT RETURNED TO DEPARTURE AIRPORT AND LANDED UNEVENTFULLY. AFTER LANDING IT WAS NOTED THAT THE ELEVATOR TRIM WAS IN FULL AFT POSITION. MX INVESTIGATION IDENTIFIED THAT THE RT ELEVATOR PITCH TRIM ACTUATOR WAS ABNORMALLY EXTENDED AND OUT OF SYNCH WITH THE LT ACTUATOR. RT ACTUATOR REPLACED AND OPS TESTED SATISFACTORY. ACFT RELEASED BACK TO SERVICE.

CA081214001	BOMBDR	PWC	CHECK VALVE	FAILED
12/13/2008	DHC8400	PW150A	8SC0764	FUEL SYSTEM

(CAN) DURING THE UNSCHEDULED REMOVAL OF THE NR 2 ENGINE FUEL FLOW TRANSMITTER, RESIDUAL AIRFRAME FUEL WOULD NOT STOP FLOWING. FURTHER INVESTIGATION REVEALED THE RIGHT WING FUEL TANK "MOTIVE FLOW CHECK VALVE" STUCK OPEN. MOTIVE FLOW CHECK VALVE REMOVED AND REPLACED AS PER AMM 28-11-11.

CA090108001	BOMBDR	PWC	INDICATOR	MALFUNCTIONED

1/7/2009	DHC8400	PW150A		AIRSPEED

(CAN) AT FLT LEVEL 230, A/S 250K, FLAPS 0, CRUSE. EXPERIENCED MOD TURB OVERSPEED HORN WENT OFF MOMENTARILY UNDETERMINED AMOUNT OF TIME. CREW DECLARED A MEDICAL EMERGENCY. MAINTENANCE ACTION, INSPECTION AFTER OPERATING AT MORE THAN MAXIMUM OPERATING SPEED VMO PLUS 6 KNOTS CONDITION 3 CARRIED OUT IAW AMM 05-50-28-210-801. AIRCRAFT CHECK AND NO FAULT FOUND.

CA090105007	BOMBDR	PWC	PCU	MALFUNCTIONED
12/20/2008	DHC8400	PW150A	699018002	NO 1 ENGINE

(CAN) POWERPLANT INDICATION ON ED NR 1 TRU AND AC GEN ZERO INDICATION WHILE TAXIING. ACTION TAKEN AT MNL, RETRIEVE FAULT CODE 388 AND 1504 AND CLEARED POWERPLANT MESSAGE. PEC REPLACED. PERFORMED FAULT CODE ISOLATION AND OPERATIONAL CHECK OF RADIO ALTIMETER AND FAULT ISOLATION ON POWERPLANT ELECTRONIC UNIT (PEC). PERFORMED ENGINE RUN-UP FOUND SATISFACTORY IN ACCORDANCE WITH Q400 TASK 77-31-00-810-805, 61-20-07-810-815, 32-61-00-710-801.

CA090113004	BOMBDR	PWC	WINDSHIELD	CRACKED
1/12/2009	DHC8400	PW150A	80260007	COCKPIT

(CAN) DURING TAKEOFF, PILOT`S MAIN WINDSHIELD CRACKED. UNDER INVESTIGATION. (TC NR 20090113004)

2009FA0000095	BRAERO	GARRTT	AXLE	WORN
12/12/2008	HS125700A	TFE731*	25UN561	NLG

CONTINUOUS NOSE GEAR VIBRATIONS UPON LANDING. TEARDOWN AND INSP OF NOSE GEAR AXLE BARREL ASSY REVEALED THE NOSE AXLE TO BE WORN BEYOND LIMITATIONS. TWO .005 INCH GROOVES WORN INTO AXLE. ONE ON EACH SIDE WHERE THE AXLE BARREL COVER PLATE SEALS ARE LOCATED. NO WEAR IS PERMITTED IAW THE OVERHAUL MANUAL. (K)

CA081215001	BRAERO	RROYCE	DOOR	OBSTRUCTED
12/11/2008	HS7482A	DART5342		PAX DOOR

(CAN) AFTER DEPARTURE, THE CREW OBSERVED A PRESSURE LOCK NOT ENGAGED INDICATION FOR THE MAIN PAX DOOR. THE ACFT RETURNED TO POINT OF DEPARTURE AND LANDED WITHOUT INCIDENT. MX FOUND ICE IN THE DESICCANT CARTRIDGE. THE ICE WAS REMOVED AND HEAT APPLIED AFTER WHICH THE SYSTEM WAS CHECKED SERVICEABLE AND THE ACFT RETURNED TO SERVICE.

CA081212011	CESSNA	CONT	SWITCH	UNSERVICEABLE
12/4/2008	150M	O200A	C2925010105	STARTER

(CAN) HAD STARTER FAILURES WHERE THEY SEIZED AND OVERHEATED. INVESTIGATION REVEALED THAT IF PILOT AGGRESSIVELY ROTATED KEY IN CLOCKWISE DIRECTION THAT KEY WOULD JAM AND LEAVE SWITCH IN THE START POSITION. THIS WOULD CAUSE THE STARTER TO REMAIN ENGAGED UNTIL IT SMOKED. REPLACED SWITCH WITH NEW, ALL CORRECT.

CA090105008	CESSNA	LYC	ATTACH BRACKET	BROKEN
12/24/2008	172L	O320E2D		RUDDER WEIGHT

(CAN) RUDDER BALANCE WEIGHT EXCEEDED MAY ALLOWABLE WEIGHT OF 4.38 LBS PLUS .25 LBS BY 1.5 LBS WEIGHT WAS ADDED TO BALANCE WEIGHT FOLLOWING PAINTING OF RUDDER. EXCESSIVE WEIGHT CAUSED ATTACH POINTS TO FAIL ALLOWING THE BALANCE WEIGHT TO BE ABLE TO SHIFT IN SUCH A MANNER THAT COULD CAUSE FLIGHT CONTROL BLOCKAGE.

CA090105001	CESSNA	LYC	STRUCTURE	WORN
12/8/2008	172M	O360A4M		MLG

(CAN) WORN ATTACH HOLE, CAUSING FORE AND AFT MOVEMENT OF THE WHEEL.

CA081215003	CESSNA	LYC	SPINNER	CRACKED
12/9/2008	172P	O320D2J	05503214	PROPELLER

(CAN) CRACKS PERPENDICULAR TO TOP OF PROP BOLT HOLES BARELY VISIBLE TO THE NAKED EYE, CONFIRMED

WITH LPI.

CA090106009	CESSNA	LYC	SPINNER	CRACKED
1/6/2009	172P	O320D2J	05503214	PROPELLER

(CAN) FOUND DURING 100 HOUR INSPECTION, CRACK IS QUITE VISABLE TO THE NAKED EYE.

CA081215004	CESSNA	LYC	BULKHEAD	CRACKED
12/9/2008	172P	O320D2J	05503214	PROP SPINNER

(CAN) CRACKS PERPENDICULAR TO PROP BOLT HOLES READILY VISIBLE TO THE NAKED EYE.

2009FA0000058	CESSNA		ACTUATOR	CRACKED
2/3/2009	172RG		12810013	RT MLG

DURING FLIGHT, THE R/H MAIN LANDING GEAR FAILED TO EXTEND; HOWEVER, THE L/H LANDING EXTENDED NORMALLY. AFTER SEVERAL ATTEMPTS TO CYCLE THE GEAR, A LANDING WAS MADE WITH THE GEAR IN THE UP POSITION. POST ACCIDENT INVESTIGATION DETERMINED THAT THE (P/N 1281001-3) ACTUATOR BODY HAD CRACKED LOCKING THE L/H GEAR IN THE RETRACTED POSITION. SPECIAL AIRWORTHINESS INFORMATION BULLETIN NO. CE-02-10 AND NTSB SAFETY RECOMMENDATION A-99-37 AND -38 FURTHER ADDRESS THIS SERVICE DIFFICULTY.

2009FA0000102	CESSNA	LYC	SETSCREW	OUT OF POSITION
2/12/2009	172RG	O360F1A6	AN565B1032H5	PROP GOVERNOR

ON DISASSEMBLY OF ENGINE FOR OVERHAUL, A SETSCREW FROM THE PROPELLER IDLER GEAR SHAFT WAS DISCOVERED SLIGHTLY EMBEDDED INTO THE INSIDE OF THE REAR-LT SIDE OF THE CRANKCASE. SETSCREW WAS PROBABLY IMPROPERLY PEENED FOR RETENTION IAW OVERHAUL MANUAL SEC 7-74, AT THE PREVIOUS OVERHAUL AND MIGRATED THROUGH THE ENGINE TO ITS FINAL RESTING PLACE. (K)

2009FA0000090	CESSNA	LYC	LINE	CRACKED
1/20/2009	177B	O360A1F6		OIL SYSTEM

LINE CRACKED AT FWD FLARE AT STEEL NUT PN AN818-6, CAUSING LOSS OF ENGINE OIL. PREVIOUS MAINTENANCE FOR REPORTED OIL LEAK. REPLACED CRANKCASE SEAL. ENGINE RUN UP PERFORM, NO OIL LEAKS NOTED. ACFT RETURNED TO SERVICE. (K)

2009FA0000096	CESSNA	CONT	ROLL PIN	BROKEN
1/23/2009	182E	O470*		SHIMMY DAMPER

PILOT REPORT: ON LANDING SEVERE NOSE WHEEL SHIMMY. FOUND ROLL PIN THAT SECURES PISTON TO DAMPER ROD BROKEN AT PISTON THE DAMPER ROD. REPLACED ROLL PIN AND ALL O-RINGS. OPS NORMAL ON NEXT LANDING. (K)

2009FA0000073	CESSNA		CONNECTOR	BURNED
2/10/2009	182P			LIGHT SWITCH

PILOT REPORTED SMOKE IN COCKPIT AFTER TAKEOFF AND RETURNED TO THE AIRPORT MAKING AN UNEVENTFUL LANDING. MX INSPECTED THE ACFT AND FOUND A LOOSE CONNECTION AT THE LANDING LIGHT SWITCH WITH BURNED WIRING INSULATION. INSTALLED NEW WIRING AND CONNECTOR AS NEEDED AND OPS CHECKED GOOD. PUSH-ON TYPE OF WIRING CONNECTORS NEED TO BE CHECKED CLOSELY FOR SECURITY DURING SCHEDULED MX.

CA081222005	CESSNA	PWA	WIRE	BURNED
12/15/2008	208	PT6A114A		PROP DEICE

(CAN) DURING INSPECTION IT WAS FOUND THAT THE ELECTRICAL CONNECTER AND APPROX 3 INCH OF WIRE FORWARD OF THE VANISTER. IN THE PROP DE-ICE CCT WAS BURNED AND THE WIRE HAD BECOME SEPARATED FROM THE VANISTON LEAVING THE PROP DE-ICE SYSTEM IN-ACTIVE. FLIGHT CREW WAS UNAWARE OF ANY INOPERATIVE SYSTEMS. WIRING WAS REPAIRED AND CONNECTOR REPLACED, SYSTEM FUNCTION TESTED NORMAL. SUBMITTER SUSPECTS/CONNECTOR WIRE HAD WORKED LOOSE OVER TIME CAUSING ARCING/BURNING WITH WIRE FINALLY FELL OFF. (TC NR 20081222005)

CA081222006	CESSNA	PWA	FILTER ELEMENT	FLAKING
12/15/2008	208	PT6A114A	P1011	ENGINE OIL

(CAN) DURING INSPECTION OF OIL PRESSURE POWER ELEMENT, IT WAS NOTED THAT SMALL FLAKES APPEARED IN THE OIL SAMPLE FROM THE FILTER CASING AND THAT THE PLATINA APPEARED TO BE ABLE TO FLAKE OFF THE ELEMENT WITH FINGER NAIL PRESSURE. ELEMENT WAS REPLACED WITH NEW OF THE SAME TYPE. WILL CHECK NEW FILTER FOR SAME CONDITION AT 1ST 100 HRS IN SERVICE. FILTER REPLACEMENT CYCLE PER A/C STATUS SHEET IS 1000HRS. THIS FILTER IS A FAA-PMAID DIRECT REPLACEMENT FOR PRATT FILTER. (TC NR 20081222006)

2009FA0000060	CESSNA	PWA	WIRE	CHAFED
1/23/2009	208B	PT6A114	LF14	TAIL BEACON

THE PILOT REPORTED HIS TAIL BEACON INOPERATIVE. MX TECHS TROUBLESHOT THE WIRING AND FOUND THAT THE WIRING BUNDLE THAT CONTAINS THE POWER WIRE FOR THE TAIL BEACON WHERE IT ROUTES OVER THE GLOVE BOX HAD CHAFED ON THE GLOVE BOX. THE CHAFING CAUSED THE WIRE TO BURN THROUGH THE GLOVE BOX. (K)

2009FA0000043	CESSNA	PWA	SHROUD	GOUGED
1/12/2009	208B	PT6A114	3053094CL9	ENGINE

ENG PERFORMANCE RUNS INDICATED ITT WAS EXCEEDING TARGET TEMP +20 DEGREES C. THE ENGINE WAS SPLIT AT THE C-FLANGE AND THE ENG SEPARATED TO INSPECT THE HOT SECTION. IT WAS FOUND THAT THE CT BLADE SEGMENTS HAD SHIFTED AND ALSO THERE WAS SEGMENT TIP CURL AT SEVERAL LOCATIONS. THE GAP BETWEEN THE CT BLADE TIPS AND THE SEGMENTS HAD DECREASED AT THESE POINTS BELOW MINIMUMS (.004 INCH, .OO7 INCH, AND .009 INCH). AT THE 12 O`CLOCK POSITION THE BLADES HAD GOUGED INTO THE SEGMENTS WEARING THE SQUEELER TIPS AWAY REQUIRING REPLACEMENT OF ALL BLADES. OTHER DAMAGE FOUND AT THIS TIME WAS THE CT VANE HAD HEAT DISTRESS, CAUSING THE MATERIAL ON THE T/E OF ONE OF THE VANES TO BUBBLE UP, REQUIRING REPLACEMENT. THE LED LIP HAD (3) SECTIONS WHERE THE MATERIAL HAD CORRODED AWAY. THE SED HAD MATERIAL CORRED AND CRACKED AT ALL THE COOLING HOLES REQUIRING REPLACEMENT AND THE PT VANE HAD CRACKED THE LWNGTH OF THE BODY AND OPENED UP TO 0.35 INCH REQUIRING REPLACEMENT. THIS ENGINE HAD 1869.0 SINCE THE LAST BLADE STRETCH INSP AND WAS IN MFG SB 1628 CONFIGURATION. IT HAD PASSED MFG SB 1631, 400 HOURS EARLIER. (K)

CA081208008	CESSNA	PWA	STARTER GEN	FAILED
12/8/2008	208B	PT6A114A	200SGL119Q2	

(CAN) GENERATOR FAILED IN FLIGHT 12 MILES FROM YWG ENROUTE TO YQT. AIRCRAFT RETURNED TO YWG (TC NR 20081208008).

CA090120002	CESSNA	PWA	RING	CRACKED
1/18/2009	208B	PT6A114A	265102218	ENGINE MOUNT

(CAN) DURING ROUTINE PHASE 5 INSPECTION A CRACK WAS FOUND ON THE RING ASSY, ENGINE MOUNT. THE CRACK IS LOCATED ON THE LOWER FWD RT THROUGH BOLT HOLE WELD. THE MOUNT RING ASSY WILL BE SENT FOR REPAIR. IF FOUND TO BE NOT REPAIRABLE, THE RING ASSY WILL BE REPLACED WITH NEW.

2009FA0000032	CESSNA		TRUNNION	FAILED
1/27/2009	335		5141001206212222	ZONE 700

DURING APPROACH, RUNWAY 31, SELECTED GEAR DOWN AND OBSERVED 3 GREEN DOWN AND LOCKED GEAR INDICATIONS. THIS WAS ALSO CONFIRMED BY PASSENGER. ACCOMPLISHED NORMAL LANDING WITH NO ABNORMAL INDICATIONS OR SOUNDS. AT APPROX 15 TO 20 KNOTS, THE RT MAIN GEAR COLLAPSED AND ACFT SKIDDED TO THE RT AND CAME TO REST IN THE GRASS FACING THE OPPOSITE DIRECTION. POST INCIDENT INVESTIGATION FOUND THE UPPER OTBD ATTACHMENT LUG WHERE THE DOWNLOCK LINK ATTACHES TO THE UPPER MAIN GEAR TRUNNION HAD BROKEN ALLOWING THE DOWNLOCK LINKS TO BREAK OVER, RESULTING IN RT MAIN GEAR COLLAPSE.

2009FA0000126	CESSNA		TORQUE TUBE	CORRODED
2/25/2009	425		58330119	RUDDER

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THE SUPPLEMENTAL INSP DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RUDDER TORQUE TUBE RUSTED DURING INSP OF SUPPLEMENTAL INSP 27-20-04. REPLACED TORQUE TUBE PN 5833011-9.

2009FA0000108	CESSNA	ATTACH FITTING	CORRODED
2/25/2009	425	081135010	LT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY SUPPLEMENTAL INSP DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE LT WING LOWER FWD ATTACH FITTING PN 0811350-10 FAILED NDT INSPECTION. REPLACED WING FITTING.

2009FA0000110	CESSNA	ATTACH FITTING	CORRODED
2/25/2009	425	50110232	LT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSP DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE LT WING UPPER FWD ATTACH FITTING PN 5011023-2 FAILED NDT INSPECTION. REPLACED WING FITTING.

2009FA0000111	CESSNA	ATTACH FITTING	CORRODED
2/25/2009	425	081135010	RT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE RT WING LWR FWD ATTACH FITTING PN 0811350-10 FAILED NDT INSPECTION. REPLACED WING FITTING.

2009FA0000112	CESSNA	ATTACH FITTING	CORRODED
2/25/2009	425	50110242	RT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE RT WING LWR AFT ATTACH FITTING PN 5011024-2 FAILED NDT INSPECTION. REPLACED WING FITTING.

2009FA0000109	CESSNA	ATTACH FITTING	CORRODED
2/25/2009	425		LT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE LT WING LWR AFT ATTACH FITTING PN 5011024-2 FAILED NDT INSPECTION. REPLACED WING FITTING.

2009FA0000106	CESSNA	FITTING	DAMAGED
8/4/2008	425	50110242	RT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE LOWER RT WING AFT ATTACH FITTING PN 5011024-2 INBD BOLT HOLE ELONGATED AND MARRED. REPLACED WING FITTING.

2009FA0000107	CESSNA	FITTING	CORRODED
2/12/2009	425	081135010	LT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE LT WING LWR FWD ATTACH FITTING PN 0811350-10 FAILED NDT INSPECTION. REPLACED WING FITTING.

2009FA0000129	CESSNA	TORQUE TUBE	CORRODED
2/25/2009	425	58330119	RUDDER

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THE SUPPLEMENTAL INSP DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RUDDER TORQUE TUBE RUSTED DURING INSP OF SUPPLEMENTAL INSP 27-20-04. REPLACED TORQUE TUBE PN 5833011-9.

2009FA0000122	CESSNA	TORQUE TUBE	CORRODED

9/2/2008	425	58330119	RUDDER

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THE SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RUDDER TORQUE TUBE RUSTED DURING INSPECTION OF SUPPLEMENTAL INSPECTION 27-20-04. REPLACED TORQUE TUBE PN 5833011-9.

2009FA0000123	CESSNA	TORQUE TUBE	CORRODED
12/17/2008	425	58330119	RUDDER

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THE SUPPLEMENTAL INSP DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RUDDER TORQUE TUBE RUSTED DURING INSP OF SUPPLEMENTAL INSPECTION 27-20-04. REPLACED TORQUE TUBE PN 5833011-9.

2009FA0000124	CESSNA	TORQUE TUBE	CORRODED
2/12/2009	425	58330119	RUDDER

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THE SUPPLEMENTAL INSP DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RUDDER TORQUE TUBE RUSTED DURING INSPECTION OF SUPPLEMENTAL INSP 27-20-04. REPLACED TORQUE TUBE PN 5833011-9.

2009FA0000105	CESSNA	ATTACH FITTING	CORRODED
9/2/2008	425	50110242	RT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE LWR RT WING AFT ATTACH FITTING PN 5011024-2 FAILED NDT INSPECTION. REPLACED WING FITTING.

2009FA0000113	CESSNA	ATTACH FITTING	CRACKED
2/25/2009	425	50110242	LT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE LT WING LWR AFT ATTACH FITTING PN 5011024-2 FAILED NDT INSPECTION. REPLACED WING FITTING.

2009FA0000114	CESSNA	ATTACH FITTING	CORRODED
2/25/2009	425	081135010	RT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE RT WING LWR FWD ATTACH FITTING PN 0811350-10 FAILED NDT INSPECTION. REPLACED WING FITTING.

2009FA0000115	CESSNA	ATTACH FITTING	CORRODED
2/25/2009	425	50110242	RT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE RT WING LWR AFT ATTACH FITTING PN 5011024-2 FAILED NDT INSPECTION. REPLACED WING FITTING.

2009FA0000133	CESSNA	STRUT	CRACKED
9/2/2008	425	5842000230	NLG

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR FORK FAILED NDT IAW SUPPLEMENTAL INSPECTION 32-20-02. REPLACED NOSE STRUT ASSEMBLY PN 5842000-230.

2009FA0000127	CESSNA	TORQUE TUBE	CORRODED
2/25/2009	425	58330119	RUDDER

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THE SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RUDDER TORQUE TUBE RUSTED DURING INSPECTION OF SUPPLEMENTAL INSPECTION 27-20-04. REPLACED TORQUE TUBE PN 5833011-9.

2009FA0000130	CESSNA		TORQUE TUBE	CORRODED
2/25/2009	425		58330119	RUDDER

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THE SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RUDDER TORQUE TUBE RUSTED DURING INSPECTION OF SUPPLEMENTAL INSPECTION 27-20-04. REPLACED TORQUE TUBE PN 5833011-9.

2009FA0000131	CESSNA		TORQUE TUBE	CORRODED
2/25/2009	425		58330119	RUDDER

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THE SUPPLEMENTAL INSP DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RUDDER TORQUE TUBE RUSTED DURING INSPECTION OF SUPPLEMENTAL INSPECTION 27-20-04. REPLACED TORQUE TUBE PN 5833011-9.

2009FA0000117	CESSNA		ATTACH FITTING	MISREPAIRED
2/25/2009	425		082255050	RT WING

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE RT WING LWR FWD ATTACH FITTING PN 0822550-50 HAD UNAPPROVED STEEL BUSHING INSTALLED UNABLE TO PERFORM NDT INSPECTION. REPLACED WING FITTING.

2009FA0000125	CESSNA	PWA	TORQUE TUBE	CORRODED
2/25/2009	425	PT6*		RUDDER

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THE SUPPLEMENTAL INSP DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RUDDER TORQUE TUBE RUSTED DURING INSPECTION OF SUPPLEMENTAL INSPECTION 27-20-04. REPLACED TORQUE TUBE PN 5833011-9.

2009FA0000061	CESSNA		HYDRAULIC LINE	CHAFED
1/26/2009	441		5717022	HYDRAULIC SYS

MLG HYDR LINE HAD BEEN CHAFING ON A FUSELAGE STRINGER. THE LINE HAD BEEN ORIGINALLY POSITIONED AGAINST THE EDGE OF THE STRINGER. THE STRINGER HAD WORN THROUGH THE SPIRAL WRAP AND INTO THE WALL OF THE TUBING. AFTER REMOVING THE HYDR LINE, IT WAS CHAFED BEYOND ALLOWABLE LIMITS. THIS IS THE SECOND ACFT IN THE PRECEDING 6 MONTHS THAT WE HAVE FOUND WITH PARTICULAR DAMAGE. INCORRECT ROUTING OF HYD LINE WITH MISSING, DAMAGED OR OUT OF PLACE SPIRAL WRAP. (K)

CA081212004	CESSNA	GARRTT	TIRE	DEFECTIVE
12/9/2008	441	TPE33110N	301401311	MLG

(CAN) DEFECT IN SIDEWALL CAUSED SIGNIFCANT LOSS OF PRESSURE.

2009FA0000072	CESSNA		GEARBOX	SHEARED
2/10/2009	550		556517538	TE FLAP

DURING A SCHEDULED INSP, AN OPS CHECK OF THE FLAP SYS FOUND ONE FLAP GEARBOX INOPERATIVE. UPON INSP, FOUND THE LT FLAP GEARBOX HAD SHEARED AT THE OUTPUT SPROCKET. THIS 3000 HOUR TBO ITEM ONLY HAD 568.3 HOURS/646 LANDINGS SINCE OVERHAUL.

CA081215002	CESSNA	PWA	BRAKE CABLE	BROKEN
12/1/2008	550	JT15D4	61702935	PARKING BRAKE

(CAN) PARKING BRAKE WOULD NOT RELEASE AFTER ACFT RETURNED FROM FLIGHT. FOUND PARKING BRAKE CABLE SWAGED END PULLED OUT FROM CABLE. CABLE REPLACED AND ACFT RETURNED TO SERVICE.

CA090114003	CESSNA	PWA	FRAME	CRACKED
1/14/2009	550	JT15D4	65111312	FUSELAGE

(CAN) BOTH FRAME HAD CRACKED FLANGES WHERE THE RIVETS COMMON TO THE WING TO FUSELAGE CLOSURE ANGLES ARE ATTACHED, ANGLE P/N`S 6511001-49 AND -50. DUE TO RESTRICTIONS OF USE FOR FORMED FLANGE REPAIRS IN THE SRM, A COMPANY GENERATED ENGINEERING ORDER WAS USED TO REPAIR

THE AREAS USING DOUBLERS. CESCOM SERVICE CONDITION REPORT NR 192168 REFERS. (TC NR 20090114003)

CA090114004	CESSNA	PWA	FRAME	CRACKED
1/14/2009	550	JT15D4	65111312	FUSELAGE

(CAN) BOTH FRAMES CRACKED WHERE THE FLANGE ATTACH RIVETS THAT ARE COMMON TO THE WING TO FUSELAGE CLOSING ANGLES P/N 6511001-49 AND -50 ATTACH. THIS IS THE SECOND A/C WE HAVE FOUND THIS CONDITION ON. A COMPANY GENERATED REPAIR ENGINEERING ORDER WAS USED TO INSTALL REPAIR DOUBLERS. CESCOM SERVICE CONDITION REPORT NR 192167 REFERS. (TC NR 20090114004)

CA081215005	CESSNA	PWA	RIB	BENT
11/20/2008	550	JT15D4		WS 244

(CAN) DURING MAINTENANCE WALK AROUND ON AIRCRAFT, IT WAS FOUND THAT THE LT WING AT WS 244.45 HAS A SLIGHT BEND IN THE UPWARD DIRECTION APPROXIMATELY 1 INCH AS MEASURED FROM WS 244.45 TO WING TIP. FURTHER INVESTIGATION CARRIED OUT. AIRCRAFT DE-FUELED AND LT WING FOUR OUTER MOST FUEL PANELS REMOVED TO INVESTIGATE INTERNAL OUTBOARD WING STRUCTURE. FOUND FUEL VENT BOX LINES CHAFING ON WS 244.45 RIB LIGHTNING HOLE AND WS 244.45 RIB BUCKLED SLIGHTLY. NON DESTRUCTIVE TESTING CARRIED OUT ON WS 244.45 ATTACH POINT. X-RAYS AND EDDY CURRENT PROCEDURES CARRIED OUT NO DEFECTS NOTED. AIRCRAFT SYMMETRY CHECK PROCEDURE CARRIED OUT, NO DEFECTS NOTED. FERRY PERMIT ISSUED BY TRANSPORT CANADA FOR THE PURPOSE OF FLIGHT TO CESSNA SERVICE CENTER FOR REPAIRS. (TC NR 20081215005)

CA081217006	CESSNA	PWA	CONTROL CABLE	FAILED
12/15/2008	550	JT15D4	61702935	PARKING BREAK

(CAN) THE CRIMP THAT RETAINS THE CABLE SHEATH TO THE CABLE ATTACH POINT FAILED ALLOWING THE SHEATH TO MOVE CAUSING THE PARK BRAKE TO NOT RELEASE. THIS CABLE IS POST SB 550-32-50.

2009FA0000132	CESSNA		BLOWER MOTOR	FAILED
2/26/2009	560CESSNA		99123232	CABIN HEAT

THE BLOWER MOTOR FAILED INTERNALLY SENDING SMOKE INTO THE CABIN DURING CRUISE FLIGHT AT ALTITUDE. SMOKE CAME OUT THE VENTILATION SYS GASPERS. ACFT DESCENDED TO A LOWER ALTITUDE AND WAS ABLE TO DEACTIVATE THE SYS AND CLEAR THE SMOKE.

CA090116004	CESSNA	PWC	MOTOR	FAILED
12/29/2008	560CESSNA	PW545B		HBV TORQUE

(CAN) THE CREW REPORTED VIBRATION ON RT ENGINE AND THE EEC REVERTED TO MANUAL MODE. THEY OBSERVED A SUDDEN RISE IN ENGINE TEMPERATURE AND ELECTED TO SHUT IT DOWN BEFORE MAKING A SINGLE ENGINE LANDING. REPLACED THE BLEED-OFF VALVE AND TORQUE MOTOR BEFORE THE ACFT WAS RETURNED TO SERVICE.

2009FA0000104	CESSNA	CONT	CABLE	KINKED
12/5/2008	A185F	IO520*		PARK BRAKE

INSP ACFT PARKING BRAKE SYS, FOUND THE RT BRAKE CABLE TO HAVE A KINK IN THE CABLE AND THE BALL ON CABLE TO BE ON THE OUTSIDE OF THE CLEVES WHICH MADE THE CABLE SHORTER. REINSTALLED RT CABLE INTO CLEVES. WHEN FULL LT RUDDER WAS APPLIED THE PARKING BRAKE CABLE ENGAGED THE LT BRAKE AS IF YOU PULLED THE BRAKE HANDLE, THIS WILL ONLY HAPPEN WHEN IN THIS CONFIGURATION. TO PREVENT RECURRENCE, REMOVE PARKING BRAKE SYS FROM ACFT. NOTE: IF PARKING BRAKE SYS TO STAY IN ACFT, CABLE NEEDS INSPECTED AND MAKE SURE THAT IT IS NOT TOO SHORT. THERE WERE NO LOG ENTRY AS TO PARKING BRAKE SYS HAVING CABLE REPLACED OR REPAIRED.

2009FA0000091	CESSNA	ALLSN	HONEYWELL	BEARING	FAILED
12/15/2008	STC206C	250C30		2544198	PT GOVERNOR

SPOOL BEARING ASSY (PN 2544198) FAILED INTERNALLY. BEARING ASSY NO LONGER ROTATES. DRIVE SHAFT SHEARED AND GUIDE POST HAS BROKEN OFF. FLYWEIGHTS AND GOVERNOR LEVER WERE ALSO DAMAGED. (K)

CA090112004	CESSNA	CONT	SELECTOR	LEAKING

12/14/2008	U206D	IO520F	C2915030101	FUEL SYSTEM

(CAN) FUEL SELECTOR CLOSED DUE TO FLEX HOSES IN ENGINE COMPARTMENT BEING REPLACED. AFTER HOSES INSTALLATION FUEL SELECTOR OPEN TO CHECK FOR LEAKS, FUEL LEAK FOUND ON BELLY. FUEL SELECTOR WAS LEAKING ON THE TOP, SOURCE OF LEAK SHAFT ON THE TOP. SELECTOR WAS ORIGINAL INSTALLATION (1969). UNIT REPLACED WITH NEW UNIT FROM CESSNA. NO FURTHER LEAKS. (TC NR 20090112004)

CA090109011	CESSNA	CONT	VALVE	SHEARED
1/9/2009	U206E	IO520F	301117530	MLG TIRE

(CAN) VALVE STEM SHEARED OFF AND TIRE WENT FLAT - REPLACED WHEEL ASSY.

CA081219003	CESSNA	CONT	BULKHEAD	CRACKED
12/18/2008	U206G	IO520F	121213613	BS 209

(CAN) DURING A ROUTINE 100 HOUR INSPECTION A CRACK WAS DISCOVERED IN THE STN 209 BULKHEAD AT THE UPPER RIVET HOLE OF THE RIGHT STABILIZER ATTACHMENT DOUBLER. FURTHER INVESTIGATION REVILED THE BULKHEAD CRACKED AT THE SAME LOCATION ON THE LEFT SIDE. AFTER REMOVAL OF THE BULKHEAD AND THE STABILIZER ATTACHMENT DOUBLERS, AN ADDITIONAL CRACK WAS DETECTED THROUGH THE SECOND RIVET HOLE FOR RIGHT STABILIZER ATTACHMENT DOUBLER AS WELL BUT HAD NOT PROGRESSED PAST THE EDGE OF THE DOUBLER. A ADDITIONAL CRACK WAS DETECTED IN THE UPPER RIGHT FORWARD CORNER RADIUS OF THE BULKHEAD. CESSNA SERVICE BULLETIN SEB88-3 PROVIDES FOR MODIFICATION THAT INCORPORATES ADDITIONAL STRUCTURAL MEMBERS ON THE HORIZONTAL STABILIZER ATTACH BULKHEAD (STN 209) THIS MODIFICATION WAS COMPLIED WITH ON THIS AIRCRAFT. CESSNA, CONTINUED AIRWORTHINESS INSPECTION PROGRAM INSPECTION NR 53-40-04 "FUSELAGE VERTICAL FIN ATTACHMENTS" RECOMMEND VISUAL AND DYE PENETRANT INSPECTION OF THIS BULKHEAD AT 12000 HOURS AND REPETITIVE INSPECTIONS EACH 2000 HOURS THEREAFTER. THE INSPECTIONS RECOMMENDED IN THE C.A.P MANUAL ARE NOT PART OF THE OPERATORS MAINTENANCE SCHEDULE APPROVAL. ON CESSNA`S REQUEST THE BULKHEAD IS BEING SENT TO CESSNA AIRCRAFT FOR FURTHER INSPECTION. (TC NR 20081219003)

2009FA0000034	CIRRUS	CONT	MAGNETO	FAILED
1/26/2009	SR20	IO360ES	105005563	ZONE 400

RT MAGNETO FAILED TO SUSTAIN ENG OPS DURING GROUND RUN-UP CHECK. UPON INTERNAL VISUAL INSP, FOUND BROKEN MAGNETO SHAFT BELOW DRIVE GEAR. ALUMINUM CASTING SPLIT AT STEEL SHAFT MATING JOINT. ROTATION OF STEEL SHAFT IN ALUMINUM CASTING YIELDED EXCESSIVELY RETARDED TIMING. MAGNETO WAS "FACTORY NEW" WITH 286.7 HOURS TOTAL TIME AND HAS NOT BEEN OPENED PRIOR TO THIS EVENT. A REPLACEMENT "FACTORY NEW" MAGNETO OF THE SAME TYPE WAS INSTALLED TO RESOLVE THE PROBLEM.

2009FA0000036	CIRRUS	CONT	MAGNETO	FAILED
10/13/2008	SR20	IO360ES	105005563	ENGINE

FLIGHT CREW REPORTED ENGINE SPUTTERED DURING INITIAL CLIMB. UPON INTERNAL VISUAL INSP OF LT MAGNETO, FOUND BROKEN MAGNETO SHAFT BELOW DRIVE GEAR. ALUMINUM MAGNET CASTING FAILED AT STEEL SHAFT MATING JOINT. ROTATION OF STEEL SHAFT IN ALUMINUM CASTING YIELDED EXCESSIVELY RETARDED TIMING. MAGNETO WAS "FACTORY NEW" WITH 235.4 HOURS TT AND HAS NOT BEEN OPENED PRIOR TO THIS EVENT. A REPLACEMENT "FACTORY NEW" MAGNETO OF THE SAME TYPE WAS INSTALLED TO RESOLVE THE PROBLEM. PREVIOUSLY ON 9/9/2008 AT 1112.0 HOURS AIRCRAFT TOTAL TIME, THE RIGHT MAGNETO WAS FOUND TO HAVE FAILED DURING RUN-UP CHECKS WITH THE SAME FAILURE MODE.

2009FA0000037	CIRRUS	CONT	MAGNETO	FAILED
12/18/2008	SR20	IO360ES	105005563	ENGINE

LT MAGNETO FAILED TO SUSTAIN ENG OPS DURING GROUND RUN-UP CHECK. UPON INTERNAL VISUAL INSP, FOUND BROKEN MAGNETO SHAFT BELOW DRIVE GEAR. ALUMINUM MAGNET CASTING FAILED AT STEEL SHAFT MATING JOINT. ROTATION OF STEEL SHAFT IN ALUMINUM CASTING YIELDED EXCESSIVELY RETARDED TIMING. MAGNETO WAS "FACTORY NEW" WITH 350.9 HOURS TT AND HAS NOT BEEN OPENED PRIOR TO THIS EVENT. A REPLACEMENT "FACTORY NEW" MAGNETO OF THE SAME TYPE WAS INSTALLED TO RESOLVE THE PROBLEM. FOR PRECAUTIONARY REASONS, THE RT MAGNETO WAS OPENED AND FOUND TO HAVE THE SAME CRACK BEGINNING. IT WAS ALSO REPLACED WITH A "FACTORY NEW" MAGNETO OF THE SAME TYPE.

2009FA0000038	CIRRUS	CONT	MAGNETO	FAILED
1/18/2009	SR20	IO360ES	105005563	ENGINE

RT MAGNETO INSPECTED DUE TO FAILURE OF LT MAGNETO. UPON INTERNAL VISUAL INSP, FOUND CRACKED MAGNETO SHAFT BELOW DRIVE GEAR. ALUMINUM MAGNET CASTING FAILED AT STEEL SHAFT MATING JOINT. ROTATION OF STEEL SHAFT IN ALUMINUM CASTING WAS IMMINENT. MAGNETO WAS "FACTORY NEW" WITH 350.9 HOURS TT AND HAS NOT BEEN OPENED PRIOR TO THIS EVENT. A REPLACEMENT "FACTORY NEW" MAGNETO OF THE SAME TYPE WAS INSTALLED TO RESOLVE THE PROBLEM.

2009FA0000046	CIRRUS	CONT	B-NUT	LOOSE
1/22/2009	SR22	IO550N		OIL LINE

WHILE PERFORMING A 100 HR INSP ON AN ENGINE, THE OIL LINES FOR THE TURBO NORMALIZED SYS WERE BEING CHECKED FOR SECURITY. MX TO OIL LINE THAT CONNECT BETWEEN THE MANIFOLD PRESSURE CONTROLLER AND THE MASTER WASTE GATE IN HIS HAND, APPLIED VERY LITTLE PRESSURE TO CHECK FOR SECURITY, THE OIL LINE B-NUT BROKE LOOSE FROM ITS TORQUE WITH VERY LITTLE PRESSURE APPLIED. THE MX INSPECTED B-NUT OF THE OIL LINE AND THE REDUCER FITTING FOR ABNORMALITIES, NONE WERE FOUND. THE MX TORQUED THE FITTING TO APPROPRIATE SPECS IAW OEM INSTRUCTIONS. MX AGAIN APPLIED PRESSURE TO THE LINE, THE B-NUT BROKE LOOSE FROM ITS TORQUE. THESE OIL LINE B-NUTS DO NOT COME WITH MEASURES FOR INSTALLATION OF SAFETY WIRE. THE SAFETY CONCERN IS IF OTHER MAINT WAS BEING PERFORMED IN THE VICINITY OF THERE OIL LINES, MX MIGHT INADVERTENTLY CAUSE ONE OF THESE B-NUTS TO BREAK LOOSE FROM ITS TORQUE. (K)

2009FA0000103	CIRRUS	CONT	THROTTLE BODY	SEIZED
2/19/2009	SR22	IO550N	6533538A1	ENGINE

CUSTOMER COMPLAINED THAT HE WAS UNABLE TO GET ENGINE TO RECOMMENDED IDLE SPEED AND THAT THE THROTTLE WAS VERY HARD TO MOVE. INSPECTED ACFT AND ENGINE, FOUND THOTTLE BODY SEIZED. REMOVED AND REPLACED WITH NEW PART SUPPLIED BY MFG. (K)

CA081209005	CNDAIR		SPAR CAP	CRACKED
12/8/2008	CL2151A10		215003268	WING

(CAN) WHILE PERFORMING AD 92-26R1 NO DEFECTS WERE FOUND DURING ULTRASONIC INSPECTION OF REQUIRED INSPECTION AREA. DUE TO PREVIOUS CONCERNS (3) WITH FINDING CRACKS OUTSIDE OF INSPECTION AREA FURTHER INVESTIGATION WAS PERFORMED. CRACKS WERE FOUND IN LOWER SPAR CAP, LOWER WING SKIN AND BOTH REINFORCING STRAPS.

CA081218007	CNDAIR		BULKHEAD	CRACKED
11/27/2008	CL2156B11215		215T31501215	FUSELAGE

(CAN) A CRACK WAS DISCOVERED ON THE BULKHEAD AT FS 368.3 PART NR 215T31501-215 THE LIGHTENING HOLE FLANGE IS NOT PROPERLY FORMED AND THEREFORE FALLS INTO A CHEMICAL MILLING LINE WHICH CRACKS UNDER THE DEFORMATION.

CA081211005	CNDAIR		SKIN	CRACKED
12/4/2008	CL2156B11215		21530023	FUSELAGE

(CAN) DURING A MX INSPECTION, AN EMPLOYEE FOUND A CRACK ON THE TOP SKIN FS 388 RSTR 9. DWG 215-30023-175 AOM 53-30-00-103 REV A.

CA090112010	CNDAIR	PWA	GARKENYON	ACTUATOR	CRACKED
1/12/2009	CL2156B11215	PW123		215T922756	RUDDER LOCK OUT

(CAN) DURING A C CHECK , A TECHNICIAN FOUND A SPOT OF SURFACE (BUBBLE) CORROSION ON THAT PART, HE CLEANED AND FOUND A CRACK (TC NR 20090112010)

CA081223005	CNDAIR	PWA	RIB	CRACKED
12/8/2008	CL2156B11215	PW123	215221182	VERTICAL STAB

(CAN) CRACK 35 MM LONG ON RIB OF VERTICAL STAB AT WL 396.

CA081229004	CNDAIR	GE	HANDLE	BROKEN
12/26/2008	CL600*	CF348C5	601R317047	PAX DOOR

(CAN) WHEN GROUND CREW ATTEMPTED TO OPEN AIRCRAFT FOR MORNING DEPARTURE, OUTER DOOR HANDLE SNAPPED OFF IN HIS HAND. MAINTENANCE INSPECTED AND REPLACED MAIN CABIN DOOR HANDLE ASSEMBLY AND FUNCTION CHECKED AS PER MANUFACTURERS MAINTENANCE MANUAL. AIRCRAFT RETURNED TO SERVICE.

CA081208010	CNDAIR	GE	THRUST REVERSER	MALFUNCTIONED
12/6/2008	CL600*	CF348C5		RT ENGINE

(CAN) BOTH THRUST REVERSERS FAILED TO STOW AFTER LANDING. RT T/R FOUND DEPLOYED APPROX 1/2 WAY. LT T/R FOUND DEPLOYED JUST A CRACK FROM STOWED POSITION. ONCE NOSE OLEO SERVICED, RESET T/R STOW USING OPERATIONAL CHECK OF T/R REF:AMM 78-30-00 P 201 TASK 78-30-00-866-801-A01. T/R`S STOWED THEN OPS CHECKED FOR DEPLOY AND STOW FUNCTION. NO FAULTS FOUND. ENGINE RUNS CARRIED OUT DEPLOYING AND STOWING T/R`S WITH NO FAULTS FOUND. MDC FAULTS AS BELOW. LEFT INDICATED RIGHT EXACTLY SAME. L T/R ACT2 DEP SW ID NR =B1-008157 REVERSE BAULK SOLENOID IS NOT ENERGIZED, PILOT IS UNABLE TO COMMAND FULL REVERSE THRUST. DEPLOYED SWITCH INDICATES NOT DEPLOYED WHEN LVDT`S AGREE THAT SYSTEM IS DEPLOYED. NOTE: CHANGED TERM I-46 WITH BIT LOW BECAUSE POSSIBILITY OF MISSING DCU DISCRETE WORD COULD SET OFF EQUATION. L TR COWL LK ID NR = B1-008160 UNLOCKED SIGNAL WHEN SYSTEM PRESSURIZED BUT DEPLOY NOT COMMANDED (PRESSURE TERM INCLUDED TO ISOLATE COWL LOCK FAILURE FROM DCV FAILURE) UNABLE TO COMMAND FORWARD THRUST ONCE REVERSER CYCLE HAS BEEN COMPLETED. NOTE: OVERWRITE LEVEL=1 OF EQUATION 8B (L TR DCV FAILED IN DEPLOY POSITION) THIS EQUATION WILL OVERWRITE IN HISTORY 8B. RT TR COWL LK. IDENTICAL SYSTEM RESET AND OPERATES NORMAL (TC NR 20081208010)

CA090105006	CNDAIR	GE	DRIVE UNIT	FAILED
12/31/2008	CL6002B19	CF343A1	865D1007	TE FLAPS

(CAN) THIS AIRCRAFT WAS UNDER A FERRY PERMIT TO YYC FOR A BROKEN OUTER DOOR HANDLE. THE FLAPS WHERE AT 8 DEGREES BEFORE DEPARTURE. AFTER TAKEOFF THE FLAP FAIL MESSAGE WAS POSTED WITH FLAPS STILL AT 8 DEGREES. THE PILOT RETURNED TO YZF DUE TO INSUFFICIENT FUEL TO REACH YYC WITH FLAPS AT 8 DEGREES. THE AIRCRAFT IS GOING TO FERRY TO YYC WITH FLAPS SET AT 8 DEGREES. FLAP POWER DRIVE UNIT REPLACED AND FLAP SYSTEM CHECKED SERVICEABLE. A/C RETURNED TO SERVICE (RESOLVED ON W/O: 174456 TASKCARD: NR-00002) DEFECT NR 819812.

CA090105009	CNDAIR	GE	ACTUATOR	MALFUNCTIONED
12/29/2008	CL6002B19	CF343A1	852D10019	TE FLAPS

(CAN) FIRST FLIGHT OF THE DAY. PILOTS WERE TAXIING AND SELECTED FLAPS TO 20 DEGREES AND THE FLAPS STAYED AT 0. OAT -33 DEGREES C. ACFT FERRIED FOR REPAIR. ALL FLAP ACTUATORS REPLACED WITH POST SB ACTUATORS, FLAP DRIVE LUBE TASK COMPLETED, RIGGING AND FUNCTION CHECKS COMPLETED, AND A/C SUCCESSFULLY TEST FLOWN AND RETURNED TO SERVICE.

CA081216005	CNDAIR	GE	FCU	MALFUNCTIONED
12/12/2008	CL6002B19	CF343A1		TE FLAPS

(CAN) FLAPS FAILED AT 3 DEGREES ON APPROACH. NORMAL LANDING FOLLOWED. CREW ABLE TO RESET SYSTEM ON THE GROUND AND FLIGHT CONTINUED UNDER MEL. SECOND FLAP FAILURE ON AIRCRAFT 107 IN AS MANY FLIGHTS. FLAPS FAILED AT 23 DEGREES INBOUND. NORMAL LANDING OCCURRED. MX RECTIFICATION TO FOLLOW ALL ACTUATORS REPLACED, RT BPSU REPLACED, LT NR 3 FLAP FLEX DRIVE REPLACED, RT NR 1AND NR 4 FLAP FLEX DRIVES REPLACED. A/C THEN HAD TEST FLIGHT AND HAD ANOTHER FAILURE AT 38 DEGREES EXTENSION. FLAP ELECTRONIC CONTROL UNIT AND FLAP PDU REPLACED AND A/C TEST FLIGHT WAS SUCCESSFUL. A/C RETURNED TO SERVICE DEC 18,2008.

CA090109006	CNDAIR	GE	SHUTOFF VALVE	MALFUNCTIONED
1/3/2009	CL6002B19	CF343A1	32144424	ANTI ICE SYSTEM

(CAN) RT WING NOT SHEDDING ICE, UP TO 75 PERCENT IN ON L/E, NOTED DURING WALKAROUND. NO MESSAGES. RECTIFICATION, RT MODULATING SHUTOFF VALVE REPLACED. TROUBLESHOOTING NOTES, HAD CREW RUN

ENGINES, OPERATED WING A/ICE WITH NR1 ENG BLEED, LT WING GOT HOT TO TOUCH, RT WING WARM AT ROOT AND COLD AT TIP. WITH RT BLEED BOTH WINGS BARELY WARM TO TOUCH. WITH THE BLEEDS ON FOR THEIR RESPECTIVE WINGS, LT HOT TO TOUCH, RT COOL. NEVER DID GET ANY EICAS MESSAGES. BUT RT FLOW BARS WOULD GO YELLOW WITH PWR BACK TO IDLE THE ACFT WAS RETURNED TO SERVICE. THE ACFT IS CURRENTLY AT THE PAINT FACILITY. A SECOND TRAX DEFECT (821158) HAS BEEN CREATED TO HAVE THE ENTIRE RT WING PICCOLO TUBES INSPECTED FOR CONDITION. RESULTS OF DEFECT 821158, INSP WILL BE ADDED ONCE CARRIED-OUT.

CA081204007	CNDAIR	GE	SHAFT	WORN
12/2/2008	CL6002B19	CF343A1		MLG HANDLE

(CAN) DURING MX OPERATION OF THE LANDING GEAR MANUAL RELEASE HANDLE IT STUCK IN THE RELEASE POSITION. MX TROUBLESHOOTING FOUND THE RELEASE HANDLE SHAFT BINDING DUE TO INTERNAL WEAR AND SLIGHTLY BENT. RELEASE HANDLE ASSY WAS REPLACED IAW AMM 32-34-01. ACF TT 14745 HOURS, 123110 CYCLES.

CA090106001	CNDAIR	GE	POSITION SENSOR	MALFUNCTIONED
1/4/2009	CL6002B19	CF343A1	855D1009	BRAKE POSITION

(CAN) DURING DESCENT THE FLIGHT CREW RECEIVED A "FLAP FAIL" CAUTION MSG. THE MULTIFUNCTION DISPLAY (MFD) WAS INDICATING FLAP AT ZERO DEGREE, THERE WAS NO FLAP SELECTION DONE BY THE CREW. THE EMERGENCY RESPONSE SERVICES WERE REQUESTED AND THE ACFT LANDED WITHOUT FURTHER INCIDENT. THE FLAP ELECTRONIC CONTROL UNIT (FECU) FAULT CODES WERE RETRIEVED AND ANALYZED. THE FLAP SYSTEM WAS INSPECTED IAW FAULT ISOLATION MANUAL (FIM) 27-50-00 PAGE 135 PARAGRAPH 19. THE LT BRAKE AND POSITION CONTROL UNIT (BPSU) WAS REPLACED, ADJUSTED AND THE SYSTEM CHECKED SERVICEABLE.

CA090106003	CNDAIR	GE	BPSU	MALFUNCTIONED
1/3/2009	CL6002B19	CF343A1	855D1009	LT WING TE FLAP

(CAN) FLAP FAIL C/M DISPLAYED ON INITIAL SELECTION. ACFT UNDER MEL FOR FLAP HALF SPEED SINCE DEC 31/08. LT BPSU DETERMINED AS FAULT OF FAILURE. PDU REPLACED TO CORRECT FLAP HALF SPEED. TEST FLIGHT SUCCESSFUL AND ACFT RETURNED TO SERVICE.

CA090116015	CNDAIR	GE	CONTROL SYSTEM	MALFUNCTIONED
1/16/2009	CL6002B19	CF343B		RT ENGINE

(CAN) RT ENGINE WAS SHUTDOWN IN PREPARATION FOR WINDMILL RELIGHT. DURING THE DESCENT AT 320 KTS TO DETERMINE UNLOCKING OF THE ENGINE N2 REACHED 13.6% BY APPROX 24000 FEET. N2 WAS 12.6% AT 21000 FT. SUBSEQUENT ATTEMPT TO ATS RELIGHT THE ENGINE WAS NOT SUCCESSFUL. N2 REACHED 30 % WITH IGNITION A & B SELECTED. NO LIGHTOFF. CREW DECLARED EMERGENCY WITH ATC AND LANDED SAFELY IN MONTREAL TRUDEAU AIRPORT.

CA090118002	CNDAIR	GE	CLAMP	LOOSE
1/13/2009	CL6002B19	CF343B1	NM1024200200	RH WING DEICE

(CAN) DURING DESCENT, THE ACFT ENCOUNTERED ICING CONDITIONS AT APPROXIMATELY 11,000FT. BETWEEN 8,000 AND 6,000 FT, THE FLT CREW REPORTED AN ICE INDICATION ON EICAS AND TURNED ON THE WING ANTI-ICE. THE ANTI-ICE DUCT (W) MSG WAS THEN POSTED. THE QRH WAS FOLLOWED AND APPROACH INSTRUCTED TO CLIMB OUT OF THE ICING. DUE TO WEATHER CONDITIONS, IT WAS DECIDED TO DIVERT WHERE THE ACFT LANDED WITHOUT FURTHER INCIDENT. MTCE REPORTED A LOOSE V BAND CLAMP ON THE RT WING INBD PICCOLO TUBE CAUSING A LEAK. THE CLAMP WAS RE-INSTALLED AND THE ANTI-ICE SYSTEM OPS CHECKED SERVICEABLE. 15727/12738 (AIRFRAME TIMES)

CA090118003	CNDAIR	GE	WINDOW	CRACKED
1/13/2009	CL6002B19	CF343B1	NP1393226	COCKPIT

(CAN) "FO SIDE WINDOW CRACKED". R&R TSO: 16511.46/CSO: 14269

CA090118006	CNDAIR	GE	SELECTOR VALVE	INOPERATIVE
1/8/2009	CL6002B19	CF343B1	7500060000	NLG

(CAN) FLT CREW REPORTED THAT THE NLG WOULD NOT EXTEND DURING APPROACH. QRH FOLLOWED, ALTERNATE EXTENSION CARRIED OUT AND THE ACFT LANDED WITHOUT FURTHER INCIDENT. THE ACFT WAS FERRIED TO GEAR DOWN FOR FURTHER TROUBLESHOOTING. MX FOUND THE NLG SELECTOR VALVE TO BE INOP. NLG SELECTOR VALVE R&R AND OPS CHECKED SERVICEABLE. ACFT RETURNED TO SERVICE. 7779/6223 (VALVE TIMES)

CA090118007	CNDAIR	GE	WINDSHIELD	CRACKED
1/8/2009	CL6002B19	CF343B1	NP1393219	COCKPIT

(CAN) IN CRUISE, FLIGHT, LT WINDSHIELD CRACKED. FLIGHT DIVERTED. R&R LT WINDSHIELD. 17041.57/14039.

CA090107002	CNDAIR	GE	SENSOR	MALFUNCTIONED
1/4/2009	CL6002B19	CF343B1	855D1009	BRAKE POSITION

(CAN) FLAP FAIL ON DESCENT WHEN FLAPS SEL TO 45 DEG. OAT WAS 3 DEG. CREW INDICATED THAT FLAPS FAILED APPEARED AFTER FLAPS HAD REACHED 45 DEG IN BOTH EVENT. ACTION PLAN 156-JAN-4-09-PLAN 2 C/OUT, LT BPSU REPLACED IAW ACFT MM 27-51-10-830-801, LT BPSU WIRING CHECKED NO FAULT FOUND.

CA090107005	CNDAIR	GE	WINDSHIELD	CRACKED
1/5/2009	CL6002B19	CF343B1	NP13932110	

(CAN) IN CRUISE, FLT, RT WINDSHIELD CRACKED. CREW DIVERTED ANCE. ACFT TO BE FERRIED TO REPLACE PART.

CA090107006	CNDAIR	GE	WINDOW	FAILED
12/29/2008	CL6002B19	CF343B1		COCKPIT

(CAN) CAPTAINS SIDE WINDOW SHATTERED IN FLIGHT. FOLLOWED QRH, DIVERTED TO NEAREST AIRPORT AND LANDED WITHOUT FURTHER INCIDENT. R&R CAPTAINS SIDE WINDSHIELD IAW AMM 56-11-01 AND CARRIED OUT LEAK CHECKS. ACFT RETURNED TO SERVICE.

CA090107008	CNDAIR	GE	ADC	MALFUNCTIONED
12/26/2008	CL6002B19	CF343B1	8220372445	NR 1

(CAN) JUST AFTER TAKEOFF, THE CREW RECEIVED RED FLAGS FOR THE CAPTAINS AIRSPEED, ALTIMETER AND VSI MOMENTARILY. INDICATIONS RETURNED TO NORMAL SHORTLY AFTER. THE FLIGHT RETURNED TO THE DEPARTURE AIRFIELD AND LANDED WITHOUT FURTHER INCIDENT. MX R&R THE NR 1 ADC AND OPS CHECKED SERVICEABLE. ACFT RETURNED TO SERVICE.

CA090107009	CNDAIR	GE	FLAP SYSTEM	MALFUNCTIONED
12/22/2008	CL6002B19	CF343B1		TE FLAPS

(CAN) FLT CREW REPORTED FLAP FAIL MSG WHILE ON APPROACH WHEN FLAPS SELECTED OUT OF 0 DEG. QRH FOLLOWED AND LANDED WITH FLAPS AT 0 DEG WITH NORMAL BRAKING.

CA090107011	CNDAIR	GE	BPSU	FAILED
12/19/2008	CL6002B19	CF343B1	855D1009	TE FLAPS

(CAN) EXPERIENCED FLAP FAILURE. REPLACED BPSU.

CA090107003	CNDAIR	GE	ACTUATOR	MALFUNCTIONED
1/5/2009	CL6002B19	CF343B1	854D10023	TE FLAP

(CAN) ON FINAL APPROACH, CREW SELECTED FLAPS TO 45 DEGREES. FLAPS FAILED AT 38 DEGREE. FORECAST OAT AT ALTITUDE WAS -60C. OAT AT LANDING WAS - 2 DEGREE. NO EMERGENCY WAS DECLARED AND FLIGHT LANDED SAFELY. ACFT HAD BEEN IN FLT FOR ABOUT 2 HOURS. AFTER LANDING CREW POSITIONED FLAP LEVER TO 0° BUT THERE WAS NO MOVEMENT OF FLAPS. MX RECEIVED THE FOLLOWING FAULT CODES FROM THE FECU: 1. JAM. 2. LEFT BPSU. 3. WIRING LEFT BPSU. AN ACTION PLAN WAS DEVELOPED FOR LUBRICATION AND FREEZE CHECKS OF THE LT ACTUATORS. NR 3 AND NR 4 LT ACTUATORS FAILED FREEZE CHECK. MAXIMUM BREAKOUT TORQUE IS 15 LB IN, READING FOR LT NR 3 WAS 27 LB IN AND LT NR 4 WAS OFF THE SCALE. PER THESE FINDINGS A SECOND ACTION PLAN HAS BEEN ISSUED TO REPLACE ALL 8 FLAP ACTUATORS. REMOVED ACTUATORS TO BE SENT TO VENDOR AS A SHIP SET FOR FURTHER INVESTIGATION. IT WAS NOTED THAT THIS SET OF ACTUATORS

HAD ONLY RECENTLY BEEN INSTALLED (TSR 98 HOURS) AND ALL WERE THE UPGRADED VERSION OF ACTUATOR. (TC NR 20090107003)

CA081204013	CNDAIR	GE	SCREEN	OBSTRUCTED
11/27/2008	CL6002B19	CF343B1	GE6087T04P0	SCAV PUMP

(CAN) IFSD EN ROUTE FROM PHL - PIT. LOSS OF ENGINE OIL PRESSURE AT FLIGHT FL340. LEFT ENGINE RED OIL PRESSURE CAS MESSAGE ILLUMINATED. OIL PRESSURE READ 23 PSI PRIOR TO ENGINE SHUTDOWN. OIL TEMP WAS NORMAL PRIOR TO ENGINE SHUTDOWN. AIRCRAFT WAS DIVERTED MADE AN UNEVENTFUL LANDING AT PIT. INSPECTION BY MAINTENANCE REVEALED COKING AROUND THE SCREEN. LUBE PUMP WAS REMOVED AND REPLACED IAW TO 70-21-01. AIRCRAFT RETURNED TO SERVICE WITH NORMAL OPERATION. (TC NR 20081204013)

CA081217003	CNDAIR	GE	DUCT	FAILED
12/16/2008	CL6002B19	CF343B1	601R95655	CABIN AIR

(CAN) DURING CRUISE THE PILOT NOTICED THE AIRCRAFT CABIN ALTITUDE WAS CLIMBING SO HE INITIATED AN EMERGENCY DESCENT. HE THEN HEARD A LOUD POP/BANG THAT SOUNDED LIKE IT CAME FROM THE AFT OF THE AIRCRAFT. NOT TO LONG AFTER THAT ALL THE OXYGEN MASKS DEPLOYED IN THE CABIN. THE AIRCRAFT ALSO HAD A MEL FOR THE RIGHT PACK PRIOR TO THE FLIGHT THE CAPITAN DID NOT DECLARE AN EMERGENCY AND THE PLANE LANDED WITHOUT INCIDENT. MX FOUND A SUPPLY DUCT COMING FROM THE LEFT PACK GOING BEHIND THE APU INTO THE AFT PRESSURE BULKHEAD BLOWN. THEY ARE ORDERING PARTS AND WILL REPAIR ACCORDINGLY 17- O2 GENERATORS WERE ACTIVATED.

CA081217004	CNDAIR	GE	PROXIMITY SENSOR	OUT OF ADJUST
12/13/2008	CL6002B19	CF343B1		MLG

(CAN) ON TAKEOFF WHEN THE LANDING GEAR WAS SELECTED UP, THE EICAS DISPLAYED "GEAR DISAGREE" MSG FOLLOWED BY "NOSE GEAR DOOR" MSG. THE QRH WAS FOLLOWED AND THE GEAR WAS LOWERED AND THE MESSAGE CLEARED. THE AIRCRAFT RETURNED AND PERFORMED A LOW PASS SO THE TOWER COULD VERIFY ALL GEAR DOWN. THE AIRCRAFT LANDED WITHOUT FURTHER INCIDENT. THE AIRCRAFT WAS THEN FERRIED WITH GEAR DOWN AND PINNED. MAINTENANCE READJUSTED THE PROX SENSOR TARGET FOR PROX SENSOR PS14GA (NOSE GEAR EXTEND/CENTER PROX SENSOR) AND THE SYSTEM CHECKED NORMAL. AIRCRAFT RETURNED TO SERVICE.

CA081217005	CNDAIR	GE	SCREEN	CONTAMINATED
12/10/2008	CL6002B19	CF343B1		RT ENG OIL

(CAN) FLT CREW REPORTED R ENGINE OIL PRESS (W) MSG AT CRUISE. WARNING PERSISTED AT POWER SETTINGS ABOVE IDLE. COMPLIED WITH QRH AND DIVERTED TO PHL. ENGINE REMAINED AT IDLE DURING THE 40 MIN FLIGHT TO PHL. LOWEST OIL PRESSURE SHOWN WAS 24 PSI. AIRCRAFT LANDED IN PHL WITHOUT FURTHER INCIDENT. MAINTENANCE REMOVED RT LUBE/SCAVENGE PUMP AND FOUND SCREENS COKED UP CAUSING RESTRICTION. CLEANED SCREENS IN ACCORDANCE WITH EO 8/016/479 AND REINSTALLED PUMP IN ACCORDANCE WITH AMM 79-21-01. OPS CHECKS CARRIED OUT AND NO FURTHER DEFECTS NOTED. AIRCRAFT RETURNED TO SERVICE.

CA081215009	CNDAIR	GE	BPSU	FAILED
12/10/2008	CL6002B19	CF343B1	855D10011	TE FLAPS

(CAN) DURING FINAL SEGMENT OF CLIMB, THE FLT CREW RECEIVED A FLAP FAIL MSG ON EICAS. THE FLAPS WERE AT ZERO AND WERE INDICATING ZERO AT THE TIME. THE QRH WAS FOLLOWED AND THE AIRCRAFT LANDED WITHOUT INCIDENT. MAINTENANCE CHECKED FECU FOR FAULT CODES AND FOUND CODES FOR RT BPSU, FECU AND WIRING FOR RT BPSU. THE SYSTEM WAS RESET, THE FLAPS WERE OPS CHECKED AND NO FURTHER DEFECTS NOTED. AIRCRAFT RETURNED TO SERVICE. IN CRUISE FLIGHT, THE FLT CREW RECEIVED A FLAP FAIL MSG. THE FLIGHT CONTROL SYNOPTIC PAGE INDICATED THE FLAPS WERE OUTLINED IN YELLOW SHOWING ZERO DEGREES OF EXTENSION. THE AIRCRAFT LANDED BACK WITHOUT INCIDENT. MAINTENANCE PULLED FECU CODES (SEE ATTACHED) WHICH INDICATED R BPSU OR WIRING. THE RIGHT BPSU WAS REPLACED, THE FLAP SYSTEM WAS OPS CHECKED AND NO FURTHER DEFECTS NOTED. AIRCRAFT RETURNED TO SERVICE.

CA081212003	CNDAIR	GE	PLUG	LOOSE
12/12/2008	CL6002B19	CF343B1	J2009P03	MFC

(CAN) DURING A ROUTINE CHECK, A FUEL LEAK WAS DISCOVERED COMING FROM THE NR 2 ENGINE MFC. UPON FURTHER INVESTIGATION A PLUG WAS FOUND LOOSE. THE PLUG WAS REMOVED, THE O-RING REPLACED AND THE PLUG RE-INSTALLED. A LEAK CHECK WAS CARRIED OUT WITH NO LEAKS NOTED IPC REF IS 73-11-00, FIG. 5-380. A RECORDS CHECK WAS CARRIED OUT AND NO PREVIOUS WORK WAS NOTED IN THIS AREA. THIS PLUG IS NORMALLY NOT TOUCHED IN SERVICE, IT WOULD NORMALLY ONLY BE LOOKED AT DURING OVERHAUL OR BENCH CHECK.

CA090107014	CNDAIR	GE	ANTI-ICE VALVE	FAILED
12/16/2008	CL6002B19	CF343B1	5399001	

(CAN) FLT CREW REPORTED RIGHT COWL ANTI-ICE MESSAGE IN FLIGHT WITH ANTI-ICE SELECTED ON. COMPLETED QRH AND MESSAGE PERSISTED. DIVERTED AND LANDED WITHOUT FURTHER INCIDENT. REMOVED AND REPLACED RIGHT COWL ANTI-ICE VALVE AND OPS CHECKED SERVICEABLE. AIRCRAFT RETURNED TO SERVICE. ANTI-ICE VALVE 5399-00-1 0186A FAILED RIGHT COWL 13148/12356 (VALVE TIMES).

CA090107015	CNDAIR	GE	LINE	CHAFED
12/15/2008	CL6002B19	CF343B1	600970249	APU FUEL SYSTEM

(CAN) WHILE SERVICING APU MAINTENANCE NOTICED A FUEL SMELL. OPENED PANEL AND RAN APU. FOUND APU INLET BELLOWS RETAINING CLIP RIGHT SIDE SLID AFT AND CHAFED HOLE IN METERED FUEL LINE TO NOZZLES. FUEL WAS DRIPPING ON IGNITER BOX. REMOVED AND REPLACED FUEL LINE AND REPOSITIONED RETAINING CLIP AND PLACED SPIRAL WRAP ON FUEL LINE BEHIND CLIP. AIRCRAFT RETURNED TO SERVICE. FUEL LINE 600-97024-9 N/A CHAFED APU COMPARTMENT 20830/19855.

CA090107016	CNDAIR	GE	APU	SMOKE
10/22/2008	CL6002B19	CF343B1	38004883	

(CAN) FLT CREW REPORTED SMOKE IN FLIGHT DECK AFTER LANDING. SMOKE DISSIPATED AFTER PACKS SELECTED OFF, APU 3800488-3 P-601 19506/20144 (APU TIMES).

CA081218005	CNDAIR	GE	ACTUATOR	FAILED
12/17/2008	CL6002B19	CF343B1		TE FLAPS

(CAN) FLAP FAIL ON APPROACH. WHEN FLAPS SELECTED THE FLAPS DID NOT MOVE FROM ZERO DEGREES. FLAPLESS APPROACH AND LANDING CARRIED OUT WITHOUT FURTHER INCIDENT. ACFT FERRIED FOR FLAP REPAIR. ALL FLAP ACTUATORS REPLACED, RT NR 1 FLAP DRIVE ASSY REPLACED DUE TO DAMAGED CORE, RT NR 2 AND NR 3 DRIVE CABLES FOUND WITH MOISTURE CONTAMINATION-CORE AND CASINGS CLEANED AND RELUBED. LT NR 1 FLAP DRIVE FOUND WITH MOISTURE CONTAMINATION-CLEANED AND RELUBED. LT NR 5 FLAP DRIVE DEFORMED BEYOND LIMITS. REPLACED FLAP POWER DRIVE UNIT. ACFT TEST FLOWN SUCCESSFULLY AND RETURNED TO SERVICE.

CA081229001	CNDAIR	GE	WINDSHIELD	CRACKED
12/25/2008	CL6002B19	CF343B1	04093H1031	COCKPIT

(CAN) DURING CLIMB, THE RT WINDSHIELD CRACKED LIMITING THE FIRST OFFICER VIEW. AN EMERGENCY WAS DECLARED, THE AIRCRAFT RETURNED AND LANDED WITHOUT FURTHER INCIDENT. AT THIS TIME, NO IMPACT WERE REPORTED BY THE FLIGHT CREW. VISUAL INSPECTION OF THE WINDSHIELD INDICATES THAT THE EXTERNAL AND INTERNAL LAYERS ARE CRACKED.

CA081212014	CNDAIR	GE	ACTUATOR	MALFUNCTIONED
12/11/2008	CL6002B19	CF343B1		TE FLAPS

(CAN) AIRCRAFT FLAPS FAIL. DURING EVENING MAINTENANCE RUN 10:14 UTC FLAP SELECTED AND FAILED TO MOVE, OAT -31 RESET FLAP FAULT AND SET FLAPS TO 8 DEGREES AS RJ-SL-27-077 FOR FERRY FOR ACTUATOR REPLACEMENT FURTHER MTC ACTIONS TO FOLLOW TRAX DEFECT NR 815755-RT NR 1, NR 2, NR 3, AND NR 4 FLAP ACTUATORS REPLACED AND MECHANICALLY RIGGED IAW AMM 27-53-01 AND 27-53-05. LT NR 1, NR 2, NR 3, AND NR 4 FLAP ACTUATORS REPLACED AND MECHANICALLY RIGGED IAW AMM27-53-01 AND 27-53-05. NR-002 RT OUTBOARD (NR 5) FLAP FLEX DRIVE ASSY REPLACED. DUE TO DAMAGED DRIVE END. RESOLVED ON W/O: 172321 TASKCARD: NR-00001) REMAINDER OF FLAP SYSTEM RE-ASSEMBLED AS PER AMM. BPSUS RIGGED IAW AMM 27-51-10. FLAPS FUNCTION CHECKED, FOUND SERVICEABLE. (TC NR 20081212014)

CA081215007	CNDAIR	GE	SELECTOR VALVE	INOPERATIVE
12/15/2008	CL6002B19	CF343B1	750005000	COCKPIT

(CAN) GEAR DISAGREE WARNING MSG AT LDG SELECTION. ALTERNATE GEAR EXTENSION PERFORMED OK. ACFT LANDED. R&R LDG SELECTOR VALVE: TEST OK.

CA081215008	CNDAIR	GE	ACTUATOR	MALFUNCTIONED
12/14/2008	CL6002B19	CF343B1		MLG

(CAN) WHILE ON APPROACH, THREE CREW ONBOARD WITH NO PAX, FLT CREW REPORTED THAT THE LEFT MAIN GEAR WOULD NOT EXTEND, RIGHT GEAR AND NOSE GEAR EXTENDED NORMALLY. QRH WAS FOLLOWED AND LEFT MAIN GEAR REMAINED UP AND LOCKED. AIRCRAFT LANDED WITH LEFT GEAR RETRACTED AND SUSTAINED DAMAGE TO THE AIRCRAFT. THE AIRCRAFT WAS REMOVED FROM THE RUNWAY USING SLINGS AND AIR BAGS AND SUSTAINED FURTHER MINOR DAMAGE IN DOING SO. AS OF 15 DEC 08 AT APPROX 11:30 AM, NTSB HAVE STILL NOT RELEASED THE AIRCRAFT INVESTIGATION ON GOING. BOTH RIGHT AND LEFT MLG UPLOCK ACTUATORS WERE REPLACED THE PREVIOUS EVENTING FOR SCHEDULED MAINTENANCE AND THE AIRCRAFT WAS ON A REPOSITIONING FLIGHT TO PHILADELPHIA WHEN THE EVENT OCCURRED. THIS WAS THE FIRST FLIGHT SINCE REPLACEMENT OF THE UPLOCK ACTUATORS AND A ALTERNATE RELEASE OPS CHECK WAS PERFORMED PRIOR TO THE RELEASE OF THIS AIRCRAFT TO SERVICE FOLLOWING UPLOCK ACTUATOR REPLACEMENT. REPORT NOT COMPLETED, WAITING FEEDBACK FROM FSR (15-DEC-08) (TC NR 20081215008).

CA090118004	CNDAIR	GE	WINDSHIELD	CRACKED
1/12/2009	CL6002B19	CF343B1	601R3303311	COCKPIT

(CAN) CAPT SIDE WINDOW CRACKED. ACFT TO FERRY. CAPTAINS WINDSHIELD WAS R&R. TSO: 15908.0/CSO: 13835

CA081206001	CNDAIR	GE	BPSU	FAILED
12/1/2008	CL6002B19	CF343B1	855D1009	TE FLAP

(CAN) FLAP FAIL MSG POSTED WITH FLAPS AT 0 DEG WHILE ON APPROACH. PERFORMED ZERO FLAP LANDING. BRAKE TEMPS 3,2,1,2. R&R RT BPSU, RIGGED AND OPS CHECKED SERVICEABLE. ACFT RETURNED TO SERVICE.

CA081129004	CNDAIR	GE	FLAP	FAILED
11/22/2008	CL6002B19	CF343B1		WING

(CAN) FLT CREW REPORTED FLAP FAIL MSG POSTED AND FLAPS FAILED AT 0 DEG WHILE ON APPROACH. FLT CREW FOLLOWED THE QRH AND DIVERTED. BRAKE TEMP 4, 2, 1, 3. COMPLIED WITH RESET PROCEDURES IAW AWAC SUPPLEMENT 98-018B, STEP 1.3 AND 1.4. FLAPS SYSTEM RESET AND OPS CHECKED SERVICEABLE. ACFT WILL BE MONITORED FOR REPEAT EVENT.

CA081122007	CNDAIR		ATTACH FITTING	LOOSE
11/9/2008	CL6002C10			HORIZONTAL STAB

(CAN) DURING A SCHEDULED INSPECTION OF THE HSTA IN ACCORDANCE WITH THE MAINTENANCE PROGRAM, PSA MAINTENANCE REPORTED LOOSE FASTENERS (ITEM 35, 36, 24, 25) THAT SECURE THE HSTA UPPER ATTACHMENT FITTING (ITEM 33) TO THE HSTAB (SEE ATTACHED ILLUSTRATION) UPON FURTHER INVESTIGATION, IT WAS NOTED THAT THE HOLES THROUGH WHICH THE BOLTS PASS WERE SLIGHTLY DAMAGED AND NEEDED TO BE REWORKED. DETAILS OF THE DAMAGE TO THE FITTING WAS PROVIDED TO BOMBARDIER CRC ALONG WITH A REQUEST TO REWORK THE FITTING (DUE TO NO REPLACEMENT PARTS AVAILABLE). THE FITTING WAS REWORKED IN ACCORDANCE WITH REO 670-55-11-132 WITH A 1000 FH LIMIT AND REPEAT INSPECTION EVERY 150 FH. PSA WILL SCHEDULE THIS AIRCRAFT IN FOR A REPLACEMENT OF THE UPPER ATTACHMENT FITTING ONCE THE REPLACEMENT PART BECOMES AVAILABLE. (TC NR 20081122007)

CA081204012	CNDAIR		WINDSHIELD	BROKEN
12/2/2008	CL6002C10		NP139321003	COCKPIT

(CAN) DURING CRUISE, RT (F/O) WINDSHIELD SHATTERED, WITH NO LOSS OF PRESSURIZATION. CAPTAIN DESCENDED AND DECLARED AN EMERGENCY LANDING RT WINDSHIELD (P/N OFF: NP139321-003) CHANGED IAW AMM 56-11-01.

CA081217002	CNDAIR	GE	LANDING GEAR	INOPERATIVE
12/16/2008	CL6002C10	CF348C5		LEFT

(CAN) LANDED WITHOUT LT MLG NOT FULLY EXTENDED. THE FLT CREW ATTEMPTED TO EXTEND GEAR, BUT NEVER GOT A LT MLG GREEN DOWN AND LOCKED INDICATION. THEY CYCLED THE GEAR 3 TIMES, BUT STILL WERE UNABLE TO GET GOOD INDICATION. THEY PERFORMED A MANUAL EXTENSION AND AGAIN DID NOT GET THE GEAR TO EXTEND. AC LANDED ON RT MLG ON TOUCH DOWN AND COMPLETED ITS LANDING W/THE LT WING HITTING THE RUNWAY.

CA090118005	CNDAIR	GE	DUCT	DAMAGED
1/9/2009	CL6002C10	CF348C5	GG670803011	

(CAN) CLIMBING THROUGH FL 300 "COWL A/ICE DUCT L" WARNING ON ED1 FOLLOWED CHECKLIST PROCEDURE WARNING MESSAGE REMAINED ENGINE SHUTDOWN AND SINGLE ENGINE OPERATIONS CHECK LIST APPLIED DIVERTED TO SDF AFTER ENGINE WAS SHUT DOWN WARNING MESSAGE CAME ON AND CLEARED SEVERAL TIMES. FOUND BLEED AIR CROSSOVER DUCT SIDE BLOWN OUT RAR DUCT IAW CRJ AMM 36-19-09, OPS CHECKED GOOD LEAK CHECKED GOOD IAW CRJ 700 36-10-00, 12029:18/8795 (TC NR 20090118005).

CA090118001	CNDAIR	GE	SELECTOR VALVE	MALFUNCTIONED
1/14/2009	CL6002C10	CF348C5B1	533407	MLG

(CAN) BEGIN QUOTE, CALLED AND NOTIFIED THAT AIRCRAFT WAS RETURNING DUE TO AN LDG DISAGREE WARNING MESSAGE. REMOVED AND REPLACED LANDING GEAR SELECTOR VALVE IAW AMM 32-32-10 LEAK CHECK GOOD. CW LANDING GEAR EXTENSION AND RETRACTION IAW AMM 32-30-00, OPS CHECK GOOD END QUOTE: INFORMATION TAKEN FROM AIRCRAFT MAINTENANCE LOG BEGIN QUOTE: DISC: AFTER TAKEOFF AND UPON GEAR RETRACTION, RECEIVED "GEAR DISAGREE." IT APPEARED THAT THE NOSE GEAR DID NOT RETRACT, PERFORMED AOM CK-LIST, NORMAL GEAR INDICATION RETURNED TO YUL NORMAL LANDING. REMOVED AND REPLACED LANDING GEAR SELECTOR VALVE IAW AMM 32-32-10 LEAK CHECK GOOD PERFORMED OP CHECK OF LANDING GEAR EXTENSION AND RETRACTION IAW AMM 32-30-00. OPS CHECK GOOD END QUOTE, (TC NR 20090118001).

CA090118009	CNDAIR	GE	CONTROL VALVE	DEFECTIVE
1/1/2009	CL6002D24	CF348C5A1	GG670950035	LEFT PACK

(CAN) SCHEDULED FLT DIVERTED BECAUSE OF A BLEED CAUTION MESSAGE. LEFT PACK STAYED WHITE, NO FURTHER MESSAGE. MAINTENANCE CHECKED PACK ON GROUND WITH APU, PACK STAYED WHITE, PACK DISCHARGE TEMP WAS SLOWLY RISING TO 70 DEG. FOUND FLOW CONTROL VALVE NOT COMPLETELY CLOSED, DOES NOT CLOSE COMPLETE BY ITSELF. PACK FLOW SENSOR SHOWED 1.9 PSID WITH VALVE FULLY CLOSED. NO AIR LEAK FOUND AT SENSORS AND TUBING. FLOW CONTROL VALVE CHANGED. TEST IAW AMM PERFORMED. RUN UP SHOWS ALSO NO ABNORMAL. LEAK CHECK OK. AIRCRAFT RETURNED TO SERVICE (TC NR 20090118009)

CA081205005	CNDAIR	GE	CONTROLLER	BURNED
12/3/2008	CL6002D24	CF348C5A1	300144001	OVEN

(CAN) WHILE THE ACFT WAS APPROACHING, CABIN CREW REPORTED SMOKE COMING FROM BEHIND THE FWD GALLEY OVEN NR 2. THE PORTABLE FIRE EXTINGUISHER (HALON) WAS USED BY THE CABIN CREW. THE AIRCRAFT LANDED SAFELY. T/S REVEALED THAT THE NR 2 OVEN CONTROLLER FTA P/N 300-1440-01 (REF CMM 25-30-19, FIG 1002, ITEM 28), INSIDE THE OVEN CONTROL BOX ASSEMBLY, HAD OVER HEATED DUE TO THE OVEN COOLING DUCT COVER BEING FOULED WITH DUST, MAKING ANY AIR CIRCULATING DIFFICULT, IF AT ALL. NOTE FOR SDR OWNER: REFER TO CMM 25-30-19 (TIA PRODUCTS) AND ADD THE NAME OF THE COMPANY IN THE DATABASE, PLEASE. (TC NR 20081205005)

CA090102002	CNDAIR	GE	FLAP SYSTEM	MALFUNCTIONED
12/24/2008	CL604	CF343B		TE FLAPS

(CAN) ON APPROACH THE FLAP FAILED TO EXTEND AND THE AIRCRAFT DIVERTED WHERE THEY LANDED WITH THE FLAPS UP. UPON INSPECTION FOUND THE FLAPS WOULD NOT MOVE AND WERE IN ASYMMETRIC CONDITION. BOTH THE LT AND RT BDU WERE REPLACED AND THE FLAP SYSTEM TESTED SERVICEABLE.

CA081218003	CNDAIR	GE	DISPLAY	MALFUNCTIONED

12/16/2008	CL604	CF343B	8221917202	COCKPIT

(CAN) IN CRUISE FL 380, 3.5 HOURS IN FLIGHT, THE MFD NR 2 LOWER WINDOW STARTED TO CYCLE BETWEEN THE DIFFERENT FORMATS (PPOS, PLAN, TCAS ECT) AT FEW SECONDS INTERVAL WITH UNDEFINED SYMBOLS/TEXT LINE (HIEROGLYPH). AT THAT TIME THE PFDS 1 AND 2, MFD 1 SHOWED NORMAL INFORMATION. THEN, THE COMS AND NAVS ACTUAL AND PRE SELECTED FREQUENCIES, WOULD HAVE DIGITS CHANGING ON THEIR OWN, SOMETIMES THE FREQUENCIES WOULD BE GREEN OR AMBER ON BOTH CDUS TUNING PAGE AND MFDS RADIO MENUS. THE NAVS TUNING MODE WOULD BE CHANGING BY THEMSELVES BETWEEN AUTO/MAN. SUBSEQUENTLY, THE COMMUNICATION WITH BOTH VHF COMS WAS NO LONGER POSSIBLE WITH AIR TRAFFIC CONTROL. ONBOARD SATELLITE AIRPHONE WAS USE. THE FLIGHT WAS REDIRECTED TO A CLOSER AIRPORT AND THE AIRCRAFT LANDED UNEVENTFULLY. FOLLOWING A RESET OF THE AIRCRAFT POWER THE ALL ABOVE CONDITIONS WERE NO LONGER PRESENT. THE MFD NR 2 WAS REPLACED AS PRECAUTIONARY MEASURE AS IT WAS THE FIRST SYSTEM THAT STARTED TO SHOW A FAILURE.

CA090106002	CVAC	ALLSN	DOWNLOCK SWITCH	OUT OF ADJUST
12/23/2008	340CVAC	501D13D		MLG

(CAN) ON APPROACH, CREW EXPERIENCED A LT GEAR UNSAFE LIGHT. AFTER DETERMINING THE GEAR TO BE DOWN, ACFT LANDED UNEVENTFULLY. MAINTENANCE ADJUSTED THE DOWN LOCK SWITCH AND ACFT WAS RETURNED TO SERVICE

CA081222001	DHAV	PWA	CIRCUIT BREAKER	UNSERVICEABLE
12/18/2008	DHC6300	PT6A34	7271835	COCKPIT

(CAN) THE FLIGHT CREW REPORTED THE 35 AMP HYDRAULIC PUMP CIRCUIT BREAKER POPPED. THEY ELECTED TO RETURN TO BASE AND USED HYDRAULIC HAND PUMP FOR BRAKE OPS. MX TROUBLESHOT THE SYSTEM, REPLACED 35 AMP CIRCUIT BREAKER, GROUND TESTED THE SYSTEM, AND RETURNED THE ACFT TO SERVICE.

CA081222004	DHAV	PWA	CONTROL CABLE	CORRODED
12/6/2008	DHC7102	PT6A50	72700561001	ELEVATORS

(CAN) DURING A PREFLIGHT, THE LEFT ELEVATOR DID NOT MOVE WITH THE CONTROL COLUMN INPUT. MAINTENANCE INVESTIGATED AND FOUND ONE OF THE CABLES SNAPPED UNDER THE LAVATORY. SUSPECT THAT A PREVIOUSLY REPAIRED LEAK FROM THE LAVATORY HAD LEAKED ON THE CABLES, AND THE LIQUID (WATER, TOILET CHEMICALS AND HUMAN WASTE) HAD WASHED AWAY THE LUBRICATION FROM THE CABLES, EXPOSING IT TO THE ELEMENTS ALLOWING IT TO CORRODED AND EVENTUALLY BREAK. SIMILAR CORROSION WAS ALSO FOUND ON THE OTHER CABLE FOR THIS ELEVATOR AND ON ONE OF THE RUDDER CABLES, IN THIS SAME AREA UNDER THE LAVATORY. THE CABLES WERE REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. (TC NR 20081222004)

CA081219005	DHAV	PWA	LATCH	OUT OF POSITION
12/17/2008	DHC8102	PW120A		SPOILER SENSOR

(CAN) ROLL SPOILERS INBD AND OTBD UNSERVICEABLE IN FLIGHT. TROUBLESHOOTING FOUND ROLL SPOILER DISCONNECT SENSOR LATCHED. ROLL SPOILERS DISCONNECT SENSOR ASSEMBLY UNLATCHED. OPS TEST OF THE ROLL SPOILER CONTROL SYSTEM SERVICEABLE IAW AMM 27-14-00 PG. 204-205.

CA090112012	DHAV	PWA	CONTROL SYSTEM	MALFUNCTIONED
1/9/2009	DHC8102	PW120A		AILERONS

(CAN) AIRCRAFT AILERONS BINDING, MUST OVER CORRECT TO MOVE AILERONS, TO MUCH FORCE NEEDED. AILERON CONTROL SYSTEM ADJUSTMENT/TEST DONE IAW AMM 27-12-00. FUSELAGE AND WING CABLE TENSIONS FOUND TO BE HIGH, ADJUSTED AS PER FIG 201 SHEETS 344. 2. REPLACED RT AILERON ASSEMBLY IAW AMM 27-12-11. REPLACED BUSHINGS OUTBOARD HINGE BEARING FITTING IAW AMM 20-19-02 PAGE 2. (TC NR 20090112012)

CA090112013	DHAV	PWA	PITOT HEAD	INACCURATE
1/7/2009	DHC8102	PW120A		NR 1

(CAN) AIRSPEED ON CAPTAIN SIDE 10KTS SLOWER THAN CO-PILOTS SIDE. RECTIFICATION, NR 1 PITOT HEAD REPLACED IAW AMM 34-11-00 AND NR 2 AIRSPEED INDICATOR REPLACED IAW AMM 34-11-31 PAGE 201. (TC 20090112013)

CA090116002	DHAV	PWA	WINDSCREEN	CRACKED
1/15/2009	DHC8102	PW120A	NP15790111	COCKPIT

(CAN) DURING FLIGHT ENROUTE TO YBC WHILE OVERHEAD YQB, THE CREW OBSERVED A CRACKED WINDSHIELD ABOUT 1/2 `` ON THE CAPTAIN SIDE. THE FLIGHT DIVERTED TO YQB FOR MX. MX REPLACED THE PILOT WINDSCREEN.

CA090116008	DHAV	PWA	ENGINE	MAKING METAL
12/29/2008	DHC8102	PW120A		

(CAN) DURING CLIMB, THE CREW NOTED A RAPID INCREASE IN FUEL FLOW, FOLLOWED BY A RAPID RISE IN TEMPERATURE AND TORQUE ON THE LT ENGINE. THE ENGINE DID NOT RESPOND TO POWER LEVER MOVEMENTS AND AN UNCOMMANDED IFSD OCCURRED. A SINGLE ENGINE LANDING WAS MADE AT THE POINT OF DEPARTURE. GROUND INSPECTION FOUND METAL PARTICLES IN THE OIL TANK. THE ENGINE WILL BE REMOVED. WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA081209001	DHAV	PWA	CABLE	BROKEN
12/8/2008	DHC8102	PW120A	85210180001	PAX DOOR

(CAN) ON RAMP DURING CLOSURE OF THE MAIN CABIN DOOR (MCD), THE FLIGHT ATTENDANT HEARD AN ABNORMAL NOISE INSIDE THE FORWARD CABIN WARDROBE AND THE DOOR FELL HEAVILY OPEN AND SUSTAINED SOME DAMAGES. DURING TROUBLESHOOTING BY LINE MAINTENANCE CREW, THE MCD BALANCE MECHANISM WAS ACCESSED VIA THE WARDROBE. THE SPRING CABLES WERE FOUND LOOSE. ONE CABLE WAS MOVED AND TOUCHED ELECTRICAL CONTACTORS LOCATED JUST BELOW CAUSING SPARKS AND FLAMES. THE SPARKS AND FLAMES WERE QUICKLY SUPPRESSED BY THE ENGINEER. REF IPC 52-10-00-50-190. (TC NR 20081209001)

CA090109005	DHAV	PWA	LINE	BROKEN
1/7/2009	DHC8102	PW120A	3035381	P3

(CAN) AIRCRAFT TOOK OFF WITH NORMAL POWER. SHORTLY AFTER TAKEOFF NR 1 ENG TORQUE ROLLED BACK TO 45-50 PERCENT, ECU MANUAL ON OR OFF NO CHANGE. AIRCRAFT CONTINUED TO DESTINATION FOR NORMAL LANDING. MAINTENANCE INSPECTION FOUND `P3` LINE FAILED/BROKEN AT END OF SLEEVE BY `B` NUT. LINE REPLACED. AIRCRAFT GROUND RUN SERVICEABLE. AIRCRAFT RETURNED TO SERVICE.

CA090112003	DHAV	PWA	DUCT	CONTAMINATED
1/8/2009	DHC8102	PW120A		CABIN AIR

(CAN) OIL ODOR AND SMOKE IN COCKPIT AND CABIN. RECTIFICATION TAKEN, ALL AIR CONDITIONING EQUIPMENT AND DUCTING REMOVED FROM AFT EQUIPMENT BAY. ALL EQUIPMENT AND DUCTING CLEANED OF ANY EXISTING OIL CONTAMINATION. EQUIPMENT AND DUCTING RE-INSTALLED AND FUNCTION CHECKED GOOD IAW AMM 21-50-16, 21-50-21 AND 21-50-11. (TC NR 20090112003)

CA090112005	DHAV	PWA	CONTROL CABLE	OUT OF RIG
1/3/2009	DHC8102	PW120A		AILERONS

(CAN) AILERON CONTROLS VERY STIFF (ARE LOCKING IN THE WINGS LEVEL POSITION). RECTIFICATION, AILERON CONTROL SYSTEM CABLES RIGGED IAW AMM 27-12-00-02. (TC NR 20090112005)

CA090112007	DHAV	PWA	LANDING GEAR	MALFUNCTIONED
1/2/2009	DHC8102	PW120A		

(CAN) ON DEPARTURE WHEN GEAR WAS SELECTED UP, THE LEFT GEAR DOOR OPEN LIGHT REMAINED ILLUMINATED. GEAR WAS SELECTED DOWN AND LEFT MAIN GEAR DID NOT LOCK DOWN. GEAR WAS CYCLED AGAIN AND IT DID NOT LOCK. GEAR WAS CYCLED UP AND ALL DOORS CLOSED. GEAR WAS SELECTED AND ALL GEAR LOCKED DOWN. RECTIFICATION CARRIED OUT, MAIN LANDING GEAR SWUNG 6 TIMES UPLOCKS LUBRICATED, NO FAULTS FOUND IAW AMM 32-30-00 STEPS B I TO 31. (TC NR 20090112007)

CA081231001	DHAV	PWA	ENGINE	OVERTORQUED
12/29/2008	DHC8102	PW120A		NR 1

(CAN) DURING CLIMB THE CREW OBSERVED AN OVERTORQUE ON THE NR 1 ENGINE, THE POWER LEVER WAS REDUCED AND THE ENGINE STABILIZED AROUND 93 PERCENT OF TORQUE BEFORE RAISING AGAIN. DECISION WAS MADE TO PERFORM AN INFLIGHT SHUTDOWN. THE CREW DECLARED AN EMERGENCY, RETURNED TO THE AIRPORT AND LANDED WITHOUT FURTHER INCIDENT. IT IS UNKNOWN AT THIS TIME WHAT HAS CAUSED THE ENGINE OVERTORQUE. THE ENGINE IS BEING REPLACED AND WILL BE SHIPPED TO AN OVERHAUL FACILITY.

CA081222009	DHAV	PWA	GENERATOR	MALFUNCTIONED
12/18/2008	DHC8102	PW120A	31708001A	NR 1 AC

(CAN) SHORTLY AFTER TAKE OFF, THE FLIGHT CREW RECEIVED "NR 1 AC GEN" AND "NR 2 AC GEN" CAUTION LIGHTS. SYSTEMS WERE RESET AND NR 2 AC GENERATOR RETURNED ON LINE. DECISION WAS MADE TO RETURN AND THE AIRCRAFT LANDED WITHOUT FURTHER INCIDENT. THE NR 1 AC GENERATOR WAS REPLACED AND THE PHASE A AND C WIRES LOCATED UNDER THE RT FLAP BETWEEN THE NACELLE AND THE FUSELAGE WERE REPAIRED. BOTH WIRES WERE SHORTED DUE TO CHAFING.

CA081211004	DHAV	PWA	BRACKET	CRACKED
12/3/2008	DHC8102	PW120A	85312397101	WINDOW

(CAN) DURING THE ACCOMPLISHMENT OF TASK 5310/06C, WINDSHIELD AND SIDE WINDOW LOWER SILL JOINT TO SIDE POST, THE BRACKET CONNECTED TO UNDERSIDE OF THE LOWER SILL TO THE SIDE POST (RIGHT SIDE) WAS FOUND TO HAVE A 2 1/2 INCH CRACK IN IT.

CA090113001	DHAV		ACM	SEIZED
1/5/2009	DHC8301		78279018	

(CAN) A STRONG ELECTRICAL ODOR WAS EVIDENT THROUGH THE AIR CONDITIONING SYSTEM. NON ESSENTIAL ELECTRICAL EQUIPMENT WAS TURNED OFF, ODOR SUBSEQUENTLY DISSIPATED. FAULT ISOLATION WAS CARRIED OUT, ACM FOUND SEIZED, ACM REPLACED WITH SERVICEABLE UNIT. OPERATIONAL CHECKS OF THE COOLING SYSTEM CARRIED OUT WITH APU AND ENGINE RUNS. NO FURTHER EVIDENCE OF ODOR. AIRCRAFT RETURNED TO SERVICE. (TC NR 20090113001)

CA081212006	DHAV	PWA	PWC	WASHER	CRACKED
12/9/2008	DHC8301	PW123		310838801	NR 9 BEARING

(CAN) NR 2 ENGINE RGB METAL CHIP FOUND ON CHIP DETECTOR. DETERMINED TO BE NON-ALLOWABLE CATEGORY 1 DEBRIS, IDENTIFIABLE FRAGMENT. ALSO WASHER WAS CRACKED ENGINE S/N 123037 RGB S/N 123124 DEBRIS IDENTIFIED AS NR 9 BEARING KEY TAB WASHER TAB. IN CONSULTATION WITH MANUFACTURER THE COMPONENT WAS GIVEN A 10 HOUR REINSPECT, .10 HOUR, REINSPECT COMPLETED WITH NO FURTHER ANOMALIES.

CA081217011	DHAV	PWA	WINDSHIELD	CRACKED
12/15/2008	DHC8301	PW123	NP15790113	COCKPIT

(CAN) DURING CLIMB LT WINDSHIELD CRACKED. AIRCRAFT RETURNED TO DESTINATION AIRPORT. UNEVENTFUL LANDING. MAINTENANCE REPLACED THE DAMAGED WINDSHIELD AND THE AIRCRAFT RETURNED TO SERVICE.

CA081208009	DHAV	PWA	BRACKET	CRACKED
12/1/2008	DHC8301	PW123		AILERONS

(CAN) DURING MAINTENANCE INSPECTION BOTH THE LT AND RT AILERON QUADRANT SUPPORT BRACKETS WERE FOUND CRACKED. PART NUMBERS INCLUDED, LT END PIECE P/N 85711570-101, RT END PIECE P/N 85711570-102, LT BOTTOM PLATE P/N 85711572-101, RT BOTTOM PLATE 85711572-102, OF NOTE WHEN THE RT END PIECE WAS REMOVED THERE APPEARED TO BE EVIDENCE OF AN APPARENT PREVIOUS WELD REPAIR OF UNKNOWN ORIGIN. A CHECK OF THE AIRCRAFT MAINTENANCE HISTORY COULD NOT FIND A RECORD OF SUCH A REPAIR. ALL CRACKED BRACKETS WERE REPLACED. (TC NR 20081208009)

CA090109002	DHAV	PWA	PRESSURE SWITCH	MALFUNCTIONED
12/14/2008	DHC8301	PW123	8D1437	

(CAN) NR 1 ENG OIL PRESS WARNING LIGHT ILLUMINATION IN FLIGHT, ENGINE SHUTDOWN IN ACCORDANCE WITH QRH/AFM, AIRCRAFT RETURNED TO DEPARTURE AIRPORT AND LANDED SAFELY. MAINTENANCE DETERMINED NR

1 OIL PRESSURE SWITCH FAILED. SWITCH REMOVED AND REPLACED. ENGINE RUNS CARRIED OUT, OPERATION SATISFACTORY. AIRCRAFT RETURNED TO SERVICE. SWITCH MANUFACTURER (CUSTOM CONTROL SENSORS) NOT IN THE DROP DOWN LIST.

CA090116006	DHAV	PWA	TURBINE BLADES	FRACTURED
12/24/2008	DHC8301	PW123D		ENGINE

(CAN) DURING CLIMB, AT FL68, THE ENGINE LOST POWER. IT WAS SHUT DOWN AND SECURED AND THE ACFT RETURNED TO THE POINT OF DEPARTURE WHERE A SINGLE ENGINE LANDING WAS ACCOMPLISHED. GROUND INSPECTION FOUND THAT THE PROPELLER WOULD NOT ROTATE AND POWER TURBINE BLADES WERE FRACTURED. P&WC WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA081126004	DHAV	PWA	SUPPORT BRACKET	CRACKED
11/25/2008	DHC8311	PW123		RT AILERON

(CAN) SUPPORT BRACKET FOR RT AILERON INPUT QUADRANT FOUND CRACKED AND CONFIRMED BY NDT RT WING ACCESS PANELS 625AT, 632ET AND 625BB REMOVED. RT AILERON WING CABLES LOOSE. RT WING AILERON INPUT QUADRANT REMOVED FOR SHEET METAL REPAIR. REMOVED AND REPLACED NEW SUPPORT BRACKET FOR RT AILERON INPUT QUADRANT IAW SRM 51 GENERAL 806916. RT AILERON INPUT QUADRANT RE-INSTALLED SAFETIED AND RT WING AILERON CABLE CIRCUIT TENSIONED. RT AILERON RIGGING CHECKED AS PER 27-12-00 BR 720848. VISUAL INSPECTION COMPLETED FOR SAFETY AND CORRECT OPERATION M7128 (TC NR 20081126004)

CA081218001	DIAMON	ROTAX	SKIN	CRACKED
12/8/2008	DA20A1	ROTAX912F3		HORIZONTAL STAB

(CAN) DURING ROUTINE MAINTENANCE, A 1 1/2 INCH LONG CRACK WAS NOTICED IN THE LEADING EDGE OF THE HORIZONTAL STABILIZER. TAP TESTING INDICATED POSSIBLE DELAMINATION, SO THE STABILIZER WAS REMOVED FROM AIRCRAFT AND SENT TO COMPOSITE REPAIR SHOP (XU AVIATION) FOR FURTHER EVALUATION AND REPAIR.

CA081223007	DIAMON	CONT	HOSE	LEAKING
11/23/2008	DA20C1	IO240B	AE7010101H0114	OIL COOLER

(CAN) AIRCRAFT WAS ON A REGULAR TRAINING FLIGHT WHEN THE CREW NOTICED THAT THE OIL PRESSURE INDICATION HAD FALLEN OUT OF THE GREEN ARC AND REMAINED LOW UNTIL THE AIRCRAFT WAS ABLE TO RETURN TO BASE. ONCE THE AIRCRAFT HAD RETURNED AND WAS INSPECTED MY MAINTENANCE, IT WAS DETERMINED THAT THERE WAS A SIGNIFICANT OIL LEAK. FURTHER INVESTIGATION REVEALED THAT THE OIL COOLER HOSE HAD A PUNCTURE AND THAT WAS THE LIKELY CAUSE OF THE FAILURE. THE ENGINE WAS REMOVED AND SENT OUT FOR BULK INSPECTION. A REPLACEMENT ENGINE WAS INSTALLED ALONG WITH NEW OIL COOLER HOSES. THE FAULTY HOSE WAS INSPECTED, TESTED AND RETURNED TO THE MANUFACTURER FOR ANALYSIS.

C2XA09IA033	EMB		WIRE	CHAFED
1/28/2009	EMB145LR		W407001220	RT NACELLE

IAH - FLIGHT 2749, THE CREW REPORTED THE NR 2 ENGINE FIRE DETECTION SYSTEM FAILED IN FLIGHT. THE ACFT RETURNED TO IAH WHERE IT LANDED WITHOUT INCIDENT. MX INSPECTED THE ACFT, AND REPAIRED WIRES W407-0011-20 & W407-0012-20 NEAR CONNECTOR P0914, OPS CHECKED WITH NO DEFECTS, AND THE ACFT WAS APPROVED FOR RETURN TO SERVICE.

CA090119003	EMB	GE	ACTUATOR	MALFUNCTIONED
1/14/2009	ERJ170200SU	CF348E5A1	17070950409	LT MLG

(CAN) ON DEPARTURE, LT MLG WOULD NOT RETRACT.

CA090119007	EMB	GE	AILERON	STUCK
1/16/2009	ERJ170200SU	CF348E5A1		

(CAN) AS THE FLIGHT CREW COMPLETED THEIR FLIGHT CONTROL CHECK, DURING TAXI OUT FROM THE GATE,

THE CREW DETERMINED THAT THE AILERONS WERE JAMMED. THE ACFT TAXIED BACK TO THE GATE FOR MX ACTION.

CA090121001	EMB	GE	LOCKWASHER	BROKEN
1/19/2009	ERJ170200SU	CF348E5A1	NAS5135	NLG DOOR

(CAN) WARNING MSG IN F/DCK "LANDING GEAR NOSE DOOR OPEN DURING CLIMB" CREW PERFORMED FIM PROCEDURE, NO FURTHER FAULTS FOUND AND A/C OK FOR FURTHER FLIGHT. MAINTENANCE FOUND RT AFT NLG DOOR ACTUATING ROD EYE END LOCK TAB WASHER TAB BROKEN AND ROD ADJUSTER BACKED OFF AND OUT OF SAFETY. UPON INSP THE LOCK DEVICE LOOKS SERVICEABLE BUT ATTEMPTS TO TURN THE ROD ASSY ALLOWS MOVEMENT WHEN THE TAB IS BROKEN. DUE THE ROD ADJUSTER BACKED OFF THE DOOR DROOPED BY 1 INCH BELOW FAIRED POSITION. (TC NR 20090121001)

CA090115003	EMB	GE	BRAKE	DAMAGED
1/14/2009	ERJ190100IGW	CF3410E5A1	90002340PR	MLG

(CAN) ACFT BRAKE ROTATING DISCS HAVE DAMAGED AND MISSING ROTOR LUGS. WHEN REMOVING NR 1 MAIN WHEEL PARTS OF THE ROTATING DISCS FELL TO THE FLOOR. UPON FURTHER INVESTIGATION ADDITIONAL DAMAGED LUGS WERE NOTED. SB 90002340-32-02 RELATES TO THE INSPECTION OF THESE BRAKES. THE BRAKE ASSY INSPECTION WAS CALLED TO THE ACFT AS A MANDATORY UNIT EXCHANGE, DUE TX.

CA081217014	FOKKER	PWA	ENGINE	MAKING METAL
12/8/2008	F27MK500	PW125B		

(CAN) DURING T/O CLIMB, THE ENGINE OUT LIGHT CAME ON AND THE CREW ELECTED TO SHUT THE ENGINE DOWN AND RETURN TO THE POINT OF DEPARTURE FOR AN UNEVENTFUL SINGLE LANDING. GROUND INSPECTION SHOWED OIL FILTER BYPASS INDICATORS ACTIVATED AND METAL WAS FOUND ON THE CHIP DETECTORS. A RECOMMENDATION TO REMOVE THE ENGINE HAS BEEN MADE.

CA090116009	FOKKER	PWA	OIL SYSTEM	LOW PRESSURE
1/8/2009	F27MK500	PW125B		ENGINE

(CAN) DURING CRUISE, THE OIL PRESSURE DROPPED BELOW GREEN BAND AND THE CREW ELECTED TO SHUT THE ENGINE DOWN BEFORE THE FLIGHT WAS DIVERTED. A SINGLE ENGINE LANDING FOLLOWED. POST EVENT INSPECTION FOUND A VERY LOW OIL LEVEL AND A RE-START ATTEMPT WAS UNSUCCESSFUL. OIL WAS NOTED IN THE EXHAUST PIPE FOLLOWING THE RE-START ATTEMPT. THE ENGINE WILL BE REMOVED. WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA090123007	GRUMAN	WRIGHT	PANEL	DAMAGED
1/23/2009	TS2ACALFORST	982C9HE2	GRUMMAN	RT ELEVATOR

(CAN) DURING ANNUAL INSPECTION RT ELEVATOR PANEL REMOVED. INSIDE FOUND A SMALL CIRCULAR PANEL 1 1/2" IN DIAMETER. THE PANEL BECAME ADRIFT FROM APPROX 37" OTBD FROM ROOT AND MIGRATED APPROX 15" INBD TO BECOME JAMMED IN ELEVATOR HINGE POINT. PANEL WAS DESTROYED CAUSING MINIMAL DAMAGE TO ELEVATOR.

CA081210012	ISRAEL	GARRTT	BRACKET	CRACKED
12/8/2008	1124	TFE73131G	313108	VERTICAL STAB

(CAN) FOUND CRACK IN BRACKET LOCATED ON THE FORWARD SIDE OF THE VERTICAL STAB ATTACH FITTING AT FS 521.75. THREE CRACKS EXTEND FROM THE RIGHT OUTBOARD ATTACHMENT BOLT HOLE. THE ATTACHING BOLTS RUNS HORIZONTALLY FWD AND AFT THROUGH THE RUDDER STOP BRACKET, VERTICAL STAB ATTACH FITTING, AND THROUGH THE BRACKET (P/N: 313108) WHICH IS CRACKED. REFERENCE IPC: 53-40-00 FIG 1 (SHEET 2) PAGE 1, PART SHOWN DIRECTLY BELOW ITEM 32.

CA081205010	LEAR		CONTROLLER	FAULTY
11/30/2008	45LEAR		66361085003	CABIN PRESSURE

(CAN) AT FLIGHT LEVEL 450 RT AND LT EMERGENCY PRESSURIZATION CAME ON. SYSTEM TROUBLESHOT AND FOUND ECS CONTROLLER FOR THE EMERGENCY CONTROL VALVES FAULTY.

CA081201003	LEAR	GARRTT	CONNECTOR	MISINSTALLED

10/9/2008	45LEAR	TFE731*	P108	O2 SYSTEM

(CAN) PASSENGER O2 MASK WOULD NOT DEPLOY WHEN TESTED. SYSTEM TROUBLESHOT AND FOUND CONNECTOR P108 WAS NOT INSTALLED CORRECTLY. CONNECTOR REMOVED, INSPECTED AND REINSTALLED .O2 MASK FUNCTION CHECKED SERVICEABLE IAW AMM 35.

CA090112014	LKHEED	ALLSN	SEAL	LEAKING
1/9/2009	382G	501D22A	54H60117	PROP BLADE

(CAN) SHORTLY AFTER DEPARTING YELLOWKNIFE, AT APPROXIMATELY 55 NAUTICAL NORTH THE CREW OBSERVED A NR 2 PROP LOW OIL INDICATION ILLUMINATED. THE CREW SHUT DOWN NR 2 ENGINE AND RETURNED TO POINT OF DEPARTURE AND LANDED WITHOUT FURTHER PROBLEM. MAINTENANCE REPLACED THE NR 2 PROPELLER ASSEMBLY. (TC NR 20090112014)

OMKR2009-0001	MOONEY	LYC	CLAMP	CRACKED
2/17/2009	M20M	TIO540AF1A	NH10093991040D23	TURBOCHARGER

TURBOCHARGER V BAND CLAMP PN NH1009399-10/40D23255-340M FOUND CRACKED .7500 THRU OUTER STRAP. AD2004-23-17, EFF. DATE 12/1/2004 CALLS FOR REPLACEMENT OF THIS CLAMP. THIS IS THE NEW STYLE CLAMP THAT WAS FOUND CRACKED. CLAMP OUTER STRAP CRACK IS WITHIN .1250 INCH OF FAILURE. RECORDS INDICATE NO RECORD OF REMOVAL/REINSTALLATION SINCE INSTALLED 368.3 HRS AGO. IT SHOULD BE NOTED ACFT RAN OFF RUNWAY ONTO BELLY, AND DID SUFFER SOME TAILPIPE DAMAGE, BUT 10X VISUAL OF CRACK SUGGESTS CLAMP WAS CRACKED BEFORE INCIDENT, WITH RUST AND EXHAUST STAINS ON FACES OF FRACTURE. IT SHOULD ALSO BE NOTED THE CLAMP BOLT SHEARED WHEN NUT WAS TURNED TO REMOVE, BUT THIS WAS PROBABLY DUE TO NO PENETRANT OIL USED PRIOR TO REMOVAL, AND RUST IN THREADS. DEFECTIVE CLAMP WILL BE RETAINED AT THIS FACILITY SHOULD FURTHER TESTING OF PART BE REQUESTED.

2009FA0000054	MTSBSI	PWA	RADOME	DAMAGED
1/14/2009	MU300	JT15D4		FUSLEAGE

WHILE PARKED, FBO PERSONNEL BACKED EQUIPMENT INTO NOSE OF AIRCRAFT FWD OF PRESSURE BULKHEAD. DAMAGE TO RADOME, PITOT TUBE, AND SKIN. AIRCRAFT WAS AUTHORIZED FOR SPECIAL FLIGHT PERMIT AND FERRIED TO THE REPAIR STATION. ADDITIONAL INFORMATION AS REPAIRS PROGRESS. (K)

CA081217012	PILATS	PWA	BEARING	WORN
12/17/2008	PC1245	PT6A67B	4321012188	MLG STRUT

(CAN) RIGHT MAIN LANDING GEAR SHOCK ABSORBER STRUT LOWER BEARING WORN AND LOOSE INTERNALLY. REPLACED WITH NEW.

CA081208007	PILATS	PWA	STARTER GEN	MALFUNCTIONED
12/1/2008	PC1245	PT6A67B	23085024	NR 1

(CAN) PILOT REPORTED WAS NR 1 GENERATOR WENT OFF LINE PRIOR TO TAKEOFF. WAS UNABLE TO RESET RETURNED TO BLOCKS. NR 1 GENERATOR REPLACED AND GROUND RUN PERFORMED, ALL FOUND SATISFACTORY. (TC NR 20081208007)

2009FA0000052	PIPER	LYC	LINE	FRACTURED
1/27/2009	PA28R200	IO360C1C		ENGINE OIL

OIL LINE FRACTURED (1) INCH FROM FITTING IN FRONT OF CRANKCASE CAUSING LOSS OF OIL AND OIL PRESSURE. AS A RESULT OF MALFUNCTION, GOVERNOR HAD TO BE OVERHAULED, PROP FLUSHED AND RESEALED; ENGINE HAD TO BE REMOVED FROM SERVICE. (K)

CA090112008	PIPER	CONT	BENDIX	GASKET	LEAKING
10/31/2008	PA28R201T	TSIO360FB			MAGNETO

(CAN) ENGINE INSPECTED FOR OIL LEAK AT REAR ACCESSORY SECTION, FOUND OIL COMING FROM RIGHT MAGNETO ATTACH GASKET. MAGNETO REMOVED, GASKET AND ENGINE MATING SURFACE INSPECTED OK. MOUNTING FLANGE ON MAGNETO INSPECTED AND FOUND CRACKED IN AREA WHERE BOTH HOLD DOWN CLAMPS MAKE CONTACT, FLANGE WAS ON THE VERGE OF BREAKING OFF COMPLETELY WHICH WOULD RESULT IN MAGNETO FAILURE AND POSSIBLE COMPLETE ENGINE OIL LOSS. LEFT MAGNETO REMOVED FOR INSPECTION,

FOUND SATISFACTORY. AIRCRAFT OWNER REPORTED THAT LEFT MAGNETO WAS REPLACED FOR SAME REASON ABOUT 50 HOURS EARLIER. SUSPECT CAUSE OF CRACKING FLANGES IS FROM OVERTORQUING HOLD DOWN CLAMP NUTS. (TC NR 20090112008)

CA090107004	PIPER	LYC	RIB	CRACKED
12/23/2008	PA31	TIO540A2C	4042306	LT WING

(CAN) DURING MX, RIB P/N 40423-06, WHICH RUNS THROUGH THE LT WW, WAS FOUND CRACKED THROUGH AT THE NARROWEST PART OF THE RIB AT THE TOP CENTER OF THE WW. THE WING SKIN IMMEDIATELY ABOVE AND ATTACHED TO THE RIB ALSO HAD A SMALL CRACK WHICH COINCIDED WITH THE RIB CRACK.

CA081218004	PIPER	LYC	TUBE	FAILED
12/1/2008	PA31350	LTIO540J2BD		TIRE

(CAN) WHEN THE AIRCRAFT LANDED IT WAS DISCOVERED THAT THE NOSEWHEEL WAS FLAT. INSPECTION DID NOT REVEAL A DIRECT CAUSE FOR THE TUBE TO FAIL. THERE WERE SEVERAL SEVERE WEATHER CHECK CRACKS IN THE TUBE WHEN THE TIRE WAS DISASSEMBLED. THE COMPANY IS INSTALLING A PROCEDURE FOR INSPECTING NEW TUBES BEFORE INSTALL AS WELL AS PROPER WHEEL BUILD UP PROCEDURES. THE COMPANY IS ALSO IMPLEMENTING A 12 MONTH INSPECTION AND REPLACEMENT SCHEDULE FOR THE NOSEWHEELS ON THE NAVAJO AIRCRAFT.

CA081209003	PIPER	LYC	TUBE	TORN
12/4/2008	PA31350	LTIO540J2BD	40140	NLG TIRE

(CAN) A VIBRATION WAS FELT IN THE NOSE AREA AT TOUCHDOWN. AFTER STOPPING ACFT ON THE RUNWAY IT WAS DISCOVERED THAT THE NOSEWHEEL WAS FLAT. INSPECTION OF THE NOSEWHEEL TUBE SHOWED A 2 INCH TEAR IN THE SIDE OF THE TUBE. THE TUBE HAD 1690 HOURS ON IT SINCE NEW AND 2 YEARS OLD.

2009FA0000053	PIPER	CONT	CONT	POINTS	LOOSE
1/26/2009	PA34220T	LTSIO360KB	S6RSC25	10382584	MAGNETO

POINTS WERE FOUND NOT MAKING CONTACT, UPON FURTHER EXAMINATION, FOUND THE STATIONARY CONTACT LOOSE IN MAG. IT SEEMED TO HAVE COME OFF THE END, THE CONTACT DISK SEPARATED FROM THE BASE. (K)

2009FA0000033	RAYTHN	WILINT	FCU	MALFUNCTIONED
1/27/2009	390	FJ442A	3903814010013	TE FLAPS

PILOT REPORTED FLAPS WOULD NOT RETRACT AFTER LANDING. TROUBLESHOT SYS IAW THE MM 27-50-00-101 AND HBC TECH SUPPORT RECOMMENDATIONS. RECEIVED NUMEROUS FAULT CODES NOT FOUND IN TROUBLESHOOTING MATRIX. REPLACED FLAP CONTROL UNIT WITH REPAIRED FLAP CONTROL UNIT IAW THE MM 27-50-08-401. FLAP CONTROL SYS OPS NORMAL. RECOMMEND AIRFRAME AND FLAP CONTROL UNIT MFG INVESTIGATE RAC/HBC 390 FLEET FLAP CONTROL UNIT SYS FAILURES FOR EXCESSIVE FAILURE RATE AND INVESTIGATE FURTHER IF WARRANTED.

2009FA0000049	RAYTHN	CONT	EXHAUST VALVE	BROKEN
2/2/2009	G58RAYTHEON	IO550C	655771	NR 2 ENGINE

IN FLIGHT HEARD A LOUD NOISE FROM THE NR 2 ENGINE. ENGINE CONTINUED TO OPERATE BUT AT A REDUCED POWER OUTPUT. UPON INSPECTION FOUND ONE HALF OF THE EXHAUST VALVE FACE BROKEN OFF REQUIRING REPLACEMENT OF THE PISTON AND CYLINDER ASSEMBLY.

CA081223008	ROBSIN	LYC	BEARING	LACK OF LUBE
12/23/2008	R44RAVENII	IO540AE1A5	22021081806	MAGNETO

(CAN) MAG RECEIVED FOR 500 HR INSPECTION, ROTATING MAGNET SHAFT SPUN BEFORE DISASSEMBLY TO INSPECT BEARING CONDITION & PRELOAD. NO END PLAY OR ROUGHNESS FELT, WHEN MAG WAS DISASSEMBLED, DISCOVERED THAT AT O/H IN SEPT 2007. NO GREASE HAD BEEN PACKED INTO BEARINGS. BEARINGS WERE LUBRICATED BY OIL THAT EACH BEARING IS PACKAGED WITH WHEN NEW. ONLY OTHER SOURCE OF LUBRICATION WAS A SMALL AMOUNT OF OIL THAT HAD LEAKED INTO MAG PAST OIL SEAL. LACK OF LUBRICATION COULD CAUSE MAGNETO & ENGINE FAILURE, EVEN THOUGH BEARINGS DID NOT APPEAR

DAMAGED THEY WERE REPLACED, MAG WAS RETURNED TO SERVICE.

CA081212005	SAAB	GE	BLADE	CRACKED
12/12/2008	SF340A	CT75A2	6607122666	NR 2

(CAN) THE PROP IN QUESTION WAS REMOVED FOR DISASSEMBLY TO BE SENT FOR DELAMINATION BEYOND LIMITS TO THE MANUFACTURER. WHEN THE PROP ASSEMBLY WAS DISASSEMBLED, A RADIAL CRACK WAS DISCOVERED IN NR 2 BLADE MEASURING IN EXCESS OF 6 INCHES IN THE HUB OF THE BLADE S/N: SF340-132/234. IT WAS DISCOVERED VISUALLY AND HAS SUBSEQUENTLY BEEN SENT FOR REPAIR TO THE MANUFACTURER.

2009FA0000042	SKRSKY	PWA	NUT	CRACKED
1/8/2009	CH54B	JFTD12A5A	LH6422T126	M/R HEAD

DURING THE DISASSEMBLY OF THE MRH, 1 NUT WAS FOUND CRACKED. THE NUT IS CRACKED THROUGH ON ONE SIDE AND RUNS THE LENGTH OF THE NUT. THE UNT IS ONE OF (2) THAT SECURES THE DAMPER BRACKET TO THE MRH LOWER PLATE. THE CAUSE OF THE CRACK IS BEING INVESTIGATED. (K)

2009FA0000048	SNIAS		SKIN	CRACKED
2/2/2009	AS350B2		1305200303	HORIZ STAB

DURING A SCHEDULED INSPECTION, THE HORIZONTAL STABILIZER WAS FOUND TO HAVE TWO CRACKS .5 INCH LONG EMANATING FROM A HOLE CUTOUT. THE HOLE CUTOUT IS ON THE UNDERSIDE SKIN AND IS NOT READILY VIEWED WITHOUT REMOVAL OF THE STABILIZER. THESE CRACKS WERE FOUND UPON REMOVAL OF THE STABILIZER AS PART OF THE 500 HOUR INSPECTION REQUIREMENT. THE HOLE CUTOUT IS FOR THE NAV LIGHT WIRE PASS-THROUGH AND DOES NOT HAVE A FACTORY SUPPORT DOUBLER. CONTACTING THE MANUFACTURER AS OF THE TIME OF THIS WRITING TO DETERMINE A REPAIR SCHEME.

CA090116011	SNIAS	LYC	PIPE	DISLODGED
1/15/2009	AS350B2	LTS101*	350A72100509	BLEED AIR SYS

(CAN) PILOT REPORT NO CABIN BLEED AIR. FOUND ENGINE BLEED AIR PIPE TO CABIN CONTROL VALVE DISLODGE FROM IS CONNECTION TO THE VALVE ELBOW. NEW PIPE INSTALLED, NO FURTHER DAMAGE.

CA081202004	SNIAS	TMECA	CONTROL TUBE	FAILED
11/13/2008	AS350B2	ARRIEL1D1	350A27035106	COLLECTIVE

(CAN) EVERY 12 YEARS THE HELICOPTER GOES INTO THE SHOP FOR A MAJOR INSPECTION AS PART OF THE INSP, IS A HARDNESS TEST ON THE COLLECTIVE CONTROL TUBE. THE TUBE IS TESTED AND IT FAILED THE HARDNESS TEST. THE HARDNESS TEST REQUIRED IS 230 HV-5 KG LOAD. THE AVERAGE LOAD FOR THIS COLLECTIVE TUBE WAS 168.1 HV, (FAILED THE HARDNESS TEST).

CA090106008	SNIAS	TMECA	NOZZLE	UNSERVICEABLE
1/5/2009	AS350B2	ARRIEL1D1	350A72072102	AIR DISTRIBUTION

(CAN) WINDSHIELD ICED UP IN FLIGHT CAUSING REDUCTION IN PILOTS VISIBILITY DURING FLIGHT AND SUBSEQUENT LANDING. VENTILATION TUBE WAS PINCHED AT A 90 DEGREE ANGLE AND THIS ALLOWED PRESSURE AND HEAT TO BURST SIDE WALL OF VENT TUBE. DEFROST AIR WAS UNABLE TO FLOW OVER WINDSHIELD.

CA090107012	SNIAS	TMECA	NOZZLE	UNSERVICEABLE
1/7/2009	AS350B2	ARRIEL1D1	350A72072102	AIR DISTRIBUTION

(CAN) WHILE IS CRUISE FLIGHT A LOUD BANG WAS HEARD AND A LARGE AMOUNT OF INSULATION BLEW OUT OF THE DEFROST SYSTEM. RESIDUAL AIRFLOW WAS SUFFICIENT TO KEEP A PORTION OF THE WINDSHIELD CLEAR AND THE FLIGHT CONTINUED.

CA081212012	SNIAS	TMECA	MAGNETIC SEAL	LEAKING
12/1/2008	AS350B3	ARRIEL2B1	770441	T/R GEARBOX

(CAN) MAG SEAL LEAK AT INPUT SEAL OF TGB.

CA090120004	SWRNGN		WINDSHIELD	DELAMINATED

1/16/2009	SA226TC		2719442003	COCKPIT

(CAN) DURING CRUISE FLIGHT THE LT HEATED WINDSHIELD WAS OBSERVED DELAMINATING. THE CREW COULD WATCH THE DELAMINATION PROGRESS AS THE FLIGHT CONTINUED. UPON ARRIVAL TO BASE MX INSPECTED THE WINDSHIELD AND DETERMINED THE DELAMINATION EXCEEDED THE AMM LIMITS. R&R WINDSHIELD.

CA090106005	SWRNGN	GARRTT	SOLENOID VALVE	MISMANUFACTURED
1/3/2009	SA226TC	TPE33110UA	32025041	

(CAN) MX REPLACED THE BLEED AIR VALVE SOLENOID FOR A FLIGHT SNAG. THE PN 320250-4-1 SOLENOID IS LOCATED IN THE RT WW OF THE ACFT. AFTER REPLACEMENT OF THE VALVE THE AME DID NOT NOTICE THAT THE ELECTRICAL CONNECTION FOR THE CANNON CONNECTOR ON THE VALVE WAS ORIENTED DIFFERENTLY THAN THE PREVIOUS VALVE WHICH WAS REMOVED. THE WIRE HARNESS AND CONNECTOR WAS ABLE TO BE HOOKED UP IN THIS DIFFERENT CONFIGURATION. NORMALLY WITH THE VALVE INSTALLED, LOOKING FORWARD THE CONNECTOR IN AT A 2 OCLOCK POSITION. THIS REPLACEMENT VALVE HAS THE CONNECTOR LOCATED AT APPROXIMATELY THE 6 OCLOCK POSITION. THE ACFT WAS DISPATCHED AND AFTER TAKEOFF THE CREW RETRACTED THE GEAR AND NOTICED THE RT MLG REMAINED IN TRANSIT RATHER THAN LOCKING IN THE UP POSITION. THE GEAR WAS RECYCLED WITH NO SUCCESS. THE CREW ELECTED TO RETURN TO THE AIRPORT AND LANDED WITHOUT FURTHER PROBLEMS. MX IMMEDIATELY NOTICED THAT THE NR 3 TIRE HAD MARKINGS ON IT FROM CONTACTING THE BLEED AIR SOLENOID CONNECTOR WHEN IT WAS ATTEMPTED TO BE RETRACTED. THIS DAMAGED THE VALVE BRACKET AND THE CONNECTOR, THE VALVE WAS NOT DAMAGED. MX REALIGNED THE CANNON CONNECTOR AND REINSTALLED THE VALVE WITH A NEW BRACKET, PERFORMED A GEAR SWING AND RELEASED THE ACFT.

CA081205004	SWRNGN	GARRTT	CONTROL CABLE	BROKEN
11/26/2008	SA226TC	TPE33110UA	C8102415	POWER LEVER

(CAN) DURING TAXI, CREW SELECTED SPEEDS HIGH & APPLIED POWER. AS POSITIVE TORQUES WERE CALLED TROUGH ABOUT 1200FT/LBS, A SNAP WAS HEARD & THE LT POWER LEVER ADVANCED FORWARD WITH NO FURTHER ENGINE POWER INCREASE. TAKEOFF ABORTED & CREW SLOWLY REDUCED POWER TO FLIGHT IDLE. LT ENGINE DID NOT RESPOND TO FURTHER POSITIVE POWER LEVER INPUTS BUT WOULD RESPOND WHEN REDUCED TO FLT IDLE. ACFT TAXIED BACK TO APRON & SHUTDOWN. MX DETERMINED LT ENGINE POWER LEVER CABLE SECTION FROM POWER LEVER QUADRANT TO WING ROOT HAD BROKEN. NO DEFINITIVE CAUSE FOR BREAK DETERMINED BUT IT WAS AT THE POINT WHERE PROPER ROUTING OF CABLE REQUIRES A SIGNIFICANT BEND IN CABLE ASSY. CABLE REPLACED & ACFT RETURNED TO SERVICE.

CA081216004	SWRNGN	GARRTT	WINDSHIELD	CRACKED
12/14/2008	SA226TC	TPE33110UA	2719442004	COCKPIT

(CAN) DURING TAXI AS THE CREW TURNED INTO A 35 KNOT HEADWIND THE FIRST OFFICER WINDSHIELD SHATTERED. THE WINDSHEILD HEAT WAS SELECTED TO LOW AND THE OUTSIDE AIR TEMPERATURE WAS -36 DEGREES CELCIUS. MAINTENANCE REPLACED THE WINDSHIELD IN ACCORDANCE WITH THE AMM AND WAS RELEASED TO SERVICE.

CA081218006	SWRNGN	GARRTT	BYPASS VALVE	LEAKING
12/17/2008	SA226TC	TPE33110UA	8974072	OIL FILTER

(CAN) THE CREW REPORTED THAT ONE TIRE HAD BLOWN DUE TO FROZEN BRAKES. AN AME WAS SENT TO CHANGE THE WHEEL AND FLY BACK TO THE BASE WITH THE AIRCRAFT. UPON RETURN TO BASE, A LARGE OIL LEAK WAS NOTED COMING FROM THE NR 2 ENGINE. IT WAS EVENTUALLY DETERMINED BY MAINTENANCE STAFF TO BE THE OIL FILTER BYPASS PIN. THE PIN POPS OUT IF THE OIL SYSTEM BECOMES CONTAMINATED. THE PIN WAS NOT EXTENDED, HOWEVER, IT WAS LEAKING OIL. THE OIL LEAK WAS INITIALLY THOUGHT TO BE AN STARTER GENERATOR OIL SEAL, DUE TO THE VOLUME OF OIL LEAKED THROUGHOUT THE ENGINE COMPARTMENT. A SECOND GROUND RUN DISCOVERED THE LEAK FROM THE BYPASS PIN AREA. PRELIMINARY REPORT, THE DEFECT IS BEING REPAIRED NOW. UNKNOWN TSO ON THE PART, HOWEVER, THE ENGINE IS APPROX 3700 HOURS SINCE CAM INSPECTION.

CA081217016	SWRNGN	GARRTT	BFGOODRICH	BEARING	FAILED
12/12/2008	SA226TC	TPE33110UA		M2040AC2	STARTER GEN

(CAN) STARTER GENERATOR FAILED IN FLIGHT CAUSING THE RT GEN FAIL LIGHT TO ILLUMINATE. UPON LANDING

AND INSPECTION BY MAINTENANCE THE GENERATOR WAS FOUND TO HAVE DAMAGE RELATED TO COMPONENT FAILURE. THE GENERATOR WAS REPLACED AND SENT TO PERIMETER`S OVERHAUL FACILITY. THE TEARDOWN REPORT INDICATES FAILURE OF BOTH GENERATOR BEARINGS (PN M2040AC-2). GENERATOR WAS LAST INSPECTED AT 487.6 HOURS IN ACCORDANCE WITH THE MANUFACTURERS CMM SINCE LAST OVERHAUL AND PASSED THE INSPECTION AND WAS RETURNED TO SERVICE. AT 822.4 THE BEARINGS FAILED CAUSING THE GENERATOR SYSTEM FAILURE. BOTH THE STATOR AND ARMATURE ASSY WERE DAMAGED BEYOND REPAIR. NO DEFINITIVE CAUSE CAN BE DETERMINED.

CA090119001	ZLIN	LYC	SPRING	BROKEN
1/14/2009	Z242L	AEIO360A1B6	Z4242170001	NLG STEERING

(CAN) THE PILOT DISCOVERED THE STEERING SPRING BROKEN AFTER ENCOUNTERING ABNORMAL STEERING FUNCTION DURING TAXI.