



U.S. Department
of Transportation

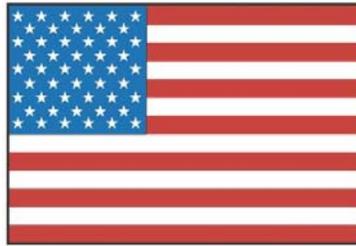
**Federal Aviation
Administration**

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



**ALERT
NUMBER
380**



**MARCH
2010**

CONTENTS

AIRPLANES

CESSNA	1
GULFSTREAM	2
LET KUNOVICE	4

POWERPLANTS

CONTINENTAL	5
LYCOMING	8
PRATT & WHITNEY	10

ACCESSORIES

KELLY FUEL PUMP	11
BENDIX MAGNETO	12

AIR NOTES

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE.....	14
IF YOU WANT TO CONTACT US	16
AVIATION SERVICE DIFFICULTY REPORTS	16

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

AVIATION MAINTENANCE ALERTS

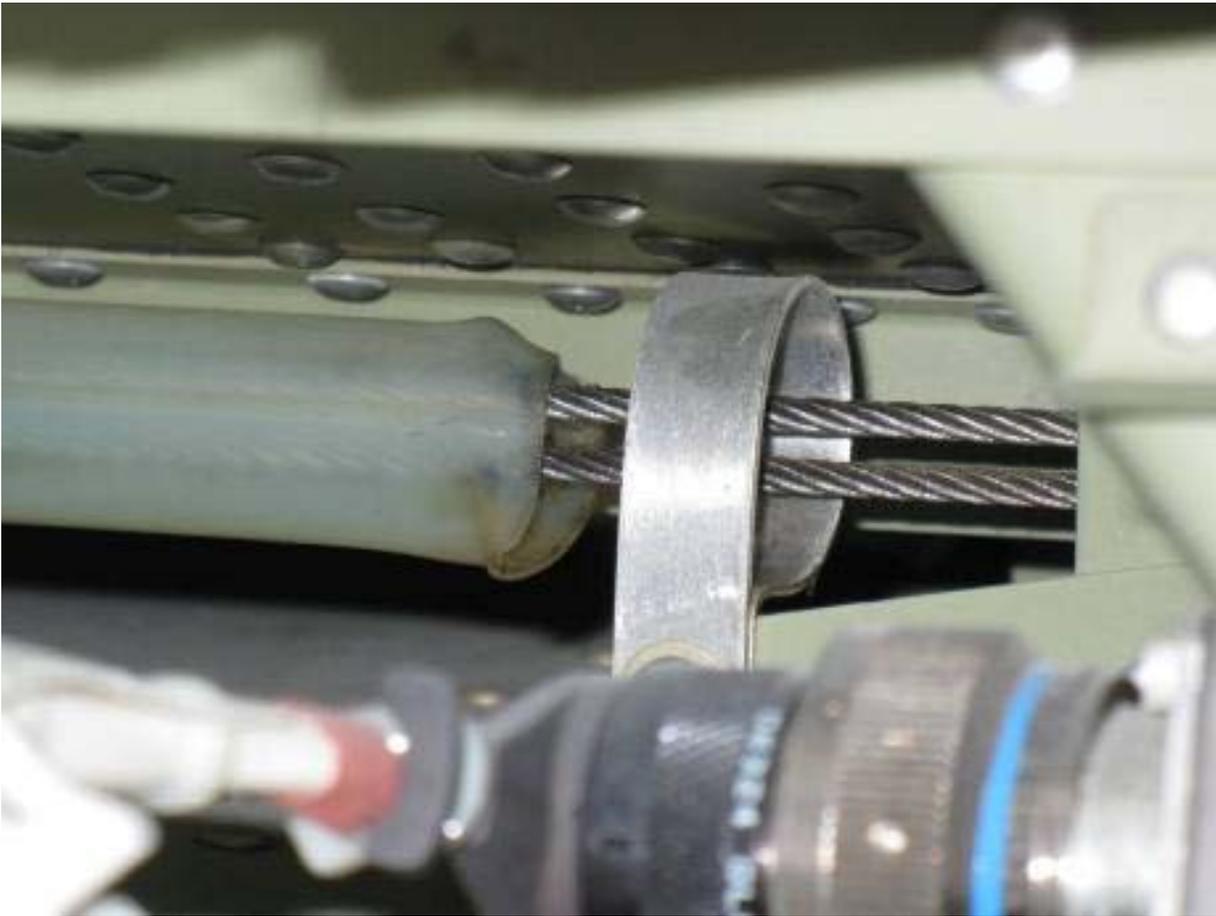
The Aviation Maintenance Alerts provides the aviation community with an economical means to exchange service experiences and to assist the FAA in improving aeronautical product durability, reliability, and safety. We prepare this publication from information operators and maintenance personnel who maintain civil aeronautical products pertaining to significant events or items of interest. At the time we prepared this document, we have not fully evaluated the material. As we identify additional facts such as cause and corrective action, we may publish additional data in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported to the FAA Service Difficulty Reporting System (SDRS). We welcome your participation, comments, and suggestions for improvement. 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: 560XL; Rudder Cable Guide Tube—Too Short: ATA 5320

A general aviation submitter writes, "The rudder control cables pass through a plastic guide tube between the wing and fuselage. This guide tube is not supported at *(the)* aft end. It is too short to pass through the supplied support clamp. Service Bulletin (SB) 560XL-27-20 addresses this condition, but *(it)* is not applicable to this serial number aircraft—*(as)* the intent of the service bulletin was incorporated during production. Replacement of the guide tube with a longer tube would correct the problem, but due to access difficulty, replacement is not really feasible. The manufacturer supplied drawings to correct the situation on this aircraft." *(No part number accompanied this report, but a great photo makes up the difference--Ed.)*



Part Total Time: 1,184.0 hours (aircraft)

Gulfstream: GV; Leaking Pitot Probe; ATA 3411

The Chief Inspector for this corporate aircraft states, "The pilot wrote up an altimeter split, with MADC (*Micro Air Data Computer*) number two showing 240 feet difference from MADC numbers one and three. Maintenance performed a pitot/static leak check which (*indicated*) a static leak beyond limits for MADC number two. (*We*) troubleshot the system and found the lower left pitot/static probe to be leaking. Upon examination of the probe, tooling marks were found from the manufacturer at the aft part of the tube—resulting in small holes and (*allowing*) static air pressure to leak out." (*Pitot probe P/N: 0856TK1.*)





(Okay—staring at the bubbles allows for a moment's reminder to me to keep it simple when trouble shooting. I would probably have half the system torn apart before believing such a finely sculpted piece of metal flawed with tiny holes! Thanks for taking the time and trouble to demonstrate "the lesson"—Ed.)

Part Total Time: 410.0 hours

Let Kunovice: L-23 Super Blanik; Cracked Elevator Hinge Brackets; ATA 5520

(Seven similar reports on seven different L-23 sailplanes are on file by this unidentified submitter. Wikipedia shows a nice picture of this bird at http://en.wikipedia.org/wiki/LET_L-23.)

"During a 100 hour inspection on *(the first aircraft)*, it was discovered that the inboard elevator hinge bracket (P/N A730258N) exhibited several cracks. Additional cracks were found on the noted aircraft after a fleet wide, one time inspection was completed." *(Information from the seven aircraft compiles the following tally:*

<i>1 plane</i>	<i>3 hinges</i>	<i>3 cracks</i>
<i>1 plane</i>	<i>1 hinge</i>	<i>2 cracks</i>
<i>2 planes</i>	<i>4 hinges [2 each]</i>	<i>4 cracks</i>
<i>3 planes</i>	<i>3 hinges</i>	<i>3 cracks</i>

Aircraft times vary from a low of 2,507.7 hours to the group high of 2,740.3 hours. The difference is a mere range of 232.6 hours with 2,671.4 the average of seven records. This is a very tight shot group. Everything is cracking right on schedule—you could plan a vacation period around these numbers. It may be time to scream at the manufacturer for heavier/stronger parts, or time change limitations—anything but cracked hinges.

Very much missed in your report is a detailed physical description of these cracks and hinges--and/or a couple of photos showing the relative crack size and location on the hinge. Other relevant and useful information might include the different part numbers for each hinge—or an indication all are the same; the manufacturer's recommendations and/or maintenance discussion—if any, and please consider providing your observations and opinions. Do the parts seem too light for their loads? Is lubrication a factor? Maybe you think it is just a poor design, and have a suggestion for its improvement? Never mind my squawking—your seven reports should motivate any owner/operator of these aircraft to give even more careful inspection to these flight control hinge parts than what is surely required by every basic preflight--Ed.)

Part Total Time: 2,671.4 (average)

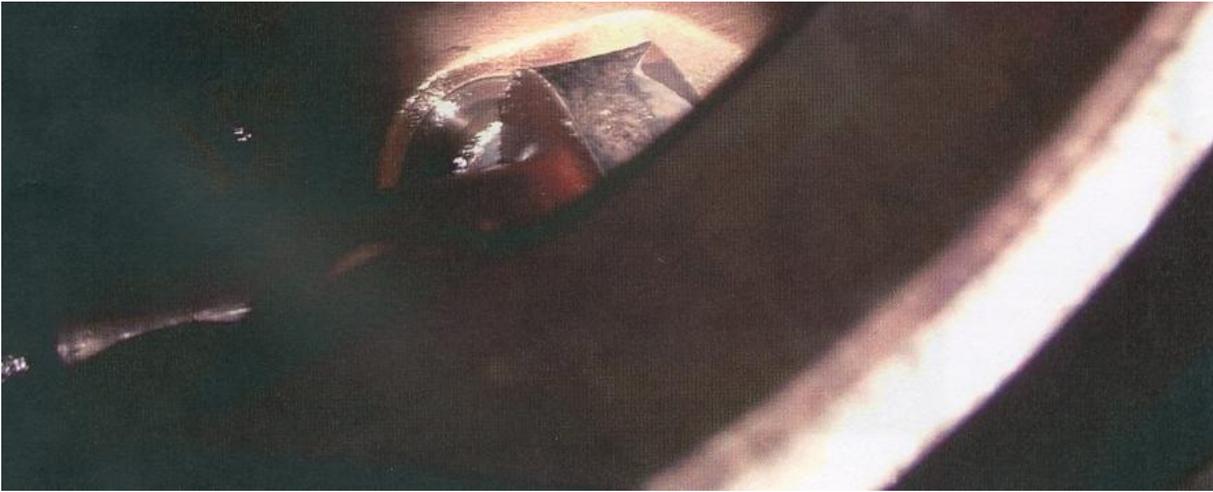
POWERPLANTS

Continental: IO-550C; Lifter Spalling, ATA 8530

An A&P repair station mechanic says, "(I) removed the number six cylinder for repair...." (*Not provided is the discrepancy for initiating this cylinder removal.*) "While inspecting the associated components I found spalling on the face of the number five exhaust lifter (P/N 653888)—and on the numbers five and six intake lifters, causing damage to the camshaft lobes."







(Document fitting needs reduced photo one vertically. Photos three and four originate from their parent pictures. Note the trick lighting in this last picture—LED flashlight?)

The third edition of Dale Crane's Dictionary of Aeronautical Terms provides an excellent, short description of the mechanical processes involved in the process of spallation, page 477. "Spalling: A type of damage in which chips are broken from the surface of a case-hardened material such as a bearing race. Spalling takes place when a bearing race is put under a load great enough to distort the softer inner part of the metal and cause the hard, brittle surface to crack. Once a crack forms in the surface, chips break out." See also Webster's and other sources for an interesting nuclear application of this term—Ed.)

Part Total Time: 1,250.0 hours

Continental: IO550-N37B; Cracked Cylinder, ATA 8530

The chief inspector for a repair states, "During an Annual Inspection (I) found a crack (*running*) from the fuel injection nozzle port toward the spark plug port on the number five cylinder (P/N 655932). It has 368.9 hours since new. The engine was manufactured in October of 2006 and installed in the aircraft in November...."



(This photo was cut from its larger original—Ed.)

Part Total Time: 368.9 hours

Lycoming: O-360A4M; Cracked Crankcase (2 each); ATA 8520

(The following combines two identical, single line defect reports on the same model—but different serial numbered engines. Each engine connects to its own Piper PA28-181 airplane.)

"(I) found the left front crankcase (P/N 11B200611SH) cracked during routine maintenance," says an unidentified repair station technician.

("Left front crankcase" is a bull's eye description if your crack is six inches long and gaping 0.050 inches wide. This is not very helpful if your crack mimics the physical characteristics of the previous, Continental cylinder entry. But you also did not provide a description of the crack itself, or any speculation as to cause, or what processes led to the discovery—was oil pouring from the engine or was it a suspicious "seep"? Logbook "total time" and "time since overhaul" do provide useful help:

Case 1:	TT:	4,622.1 hours	TSO:	872.3 hours
Case 2:	TT:	6,916.1 hours	TSO:	789.5 hours

Part Total Time(s): 5,769.1 hours (average)

Lycoming: TIO-540-AE2A; Broken Turbo Mount Brackets; ATA 8120

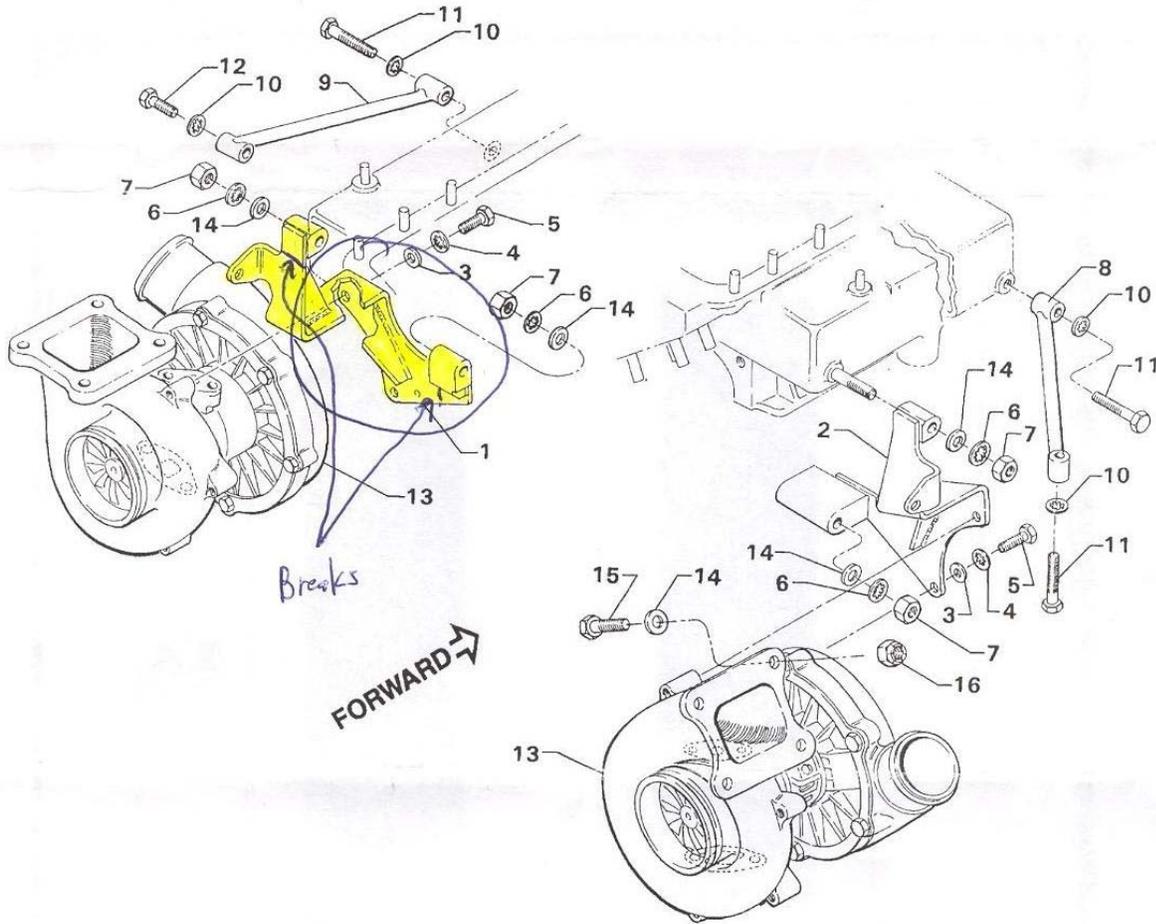
(A Piper PA46-350P connects to this engine package.)

"During an Annual inspection," says a repair station technician, "the left turbocharger mounting bracket (P/N 07A19870) was found broken in 2 places. The cause was probably a combination of heat and vibration."



Williamsport Plant

TIO-540-AE2A PARTS CATALOG
WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINE



3186

Figure 28. TURBOCHARGERS, SUPPORTS AND ATTACHING PARTS

7-4

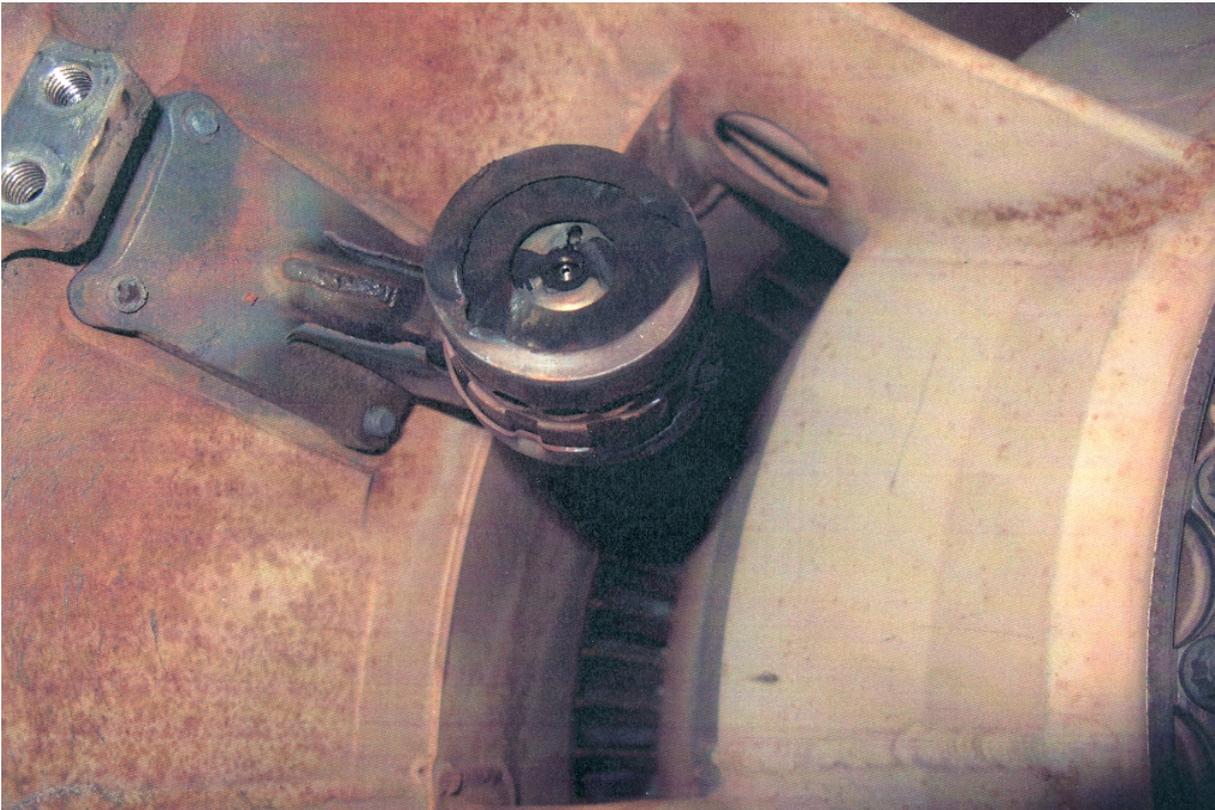
(*"White space" elimination from the top and bottom of the above drawing helped with form and fit. SDRS finds four, similar reports.*)

Part Total Time: 1,683.8 hours

Pratt & Whitney: JT8D-15A; Burned Fuel Nozzle; ATA 7313

A technician for a New Zealand repair station writes, "As a result of burned T2 (*turbine*) vanes the combustion module was disassembled. The number eight fuel nozzle retaining nut was found loose—with its lock tab intact. Several areas of the fuel nozzle body, combustion can swirl vanes, internal louvers and the number one liner were burned away. The diffuser case buckled from heat around the number eight fuel nozzle mount pad, and heat soak was evident on both the primary and secondary fuel manifolds. Breakout of T2 vane (*material*) due to heat has resulted in extensive FOD to the LPT (*low pressure turbine*) module and the trailing edge of T1 vanes.

"The number eight fuel nozzle (*P/N 809884-001*) was removed from service and forwarded to the overhaul vendor for disassembly and a detailed findings report. Other unserviceable parts will be repaired/replaced as required."





(Thanks for the "clean" photo shots. I can smell burned metal and fuel residue from just staring at the second picture—Ed.)

Part Total Time : 1,275.01 hours (since overhaul)

ACCESSORIES

Kelly Fuel Pump: 200F-5003; Sheared Pump Shafts (3ea.); ATA 7314

(The following combines three reports from the same mechanic working the same aircraft, a Piper PA31-310 with Lycoming engines; models TIO-540-J2B. Our reporting repair station technician makes clear he cannot positively identify the first fuel pump as being manufactured by Kelly as no documents accompanied the Lycoming specifying the pump. The remaining two reports do confirm the pump identities.)

Report 1: *"(This aircraft's L/H...) engine driven fuel pump failed with 39.7 hours (from a sheared drive shaft). The engine came from Lycoming with the fuel pump (installed). A blanket logbook entry only shows engine replacement manufacturer's number and serial number. (There were) no specifics on the original pump that came with the engine." "(I was) verbally told it was a Kelly pump, but (there are) no documents to prove or disprove (the manufacturing source).*

Part Total Time: 39.7 hours

Report 2: "The (R/H) engine driven fuel pump failed with 106.7 hours (*from a sheared drive shaft*). This original pump came with a factory Lycoming engine (*P/N 200F-5003; Lycoming. number 62E23188*).

Part Total Time: 106.7 hours

Report 3: "The (R/H) engine driven fuel pump failed with 77.7 hours (*from a sheared drive shaft*).

Part Total Time: 77.7 hours

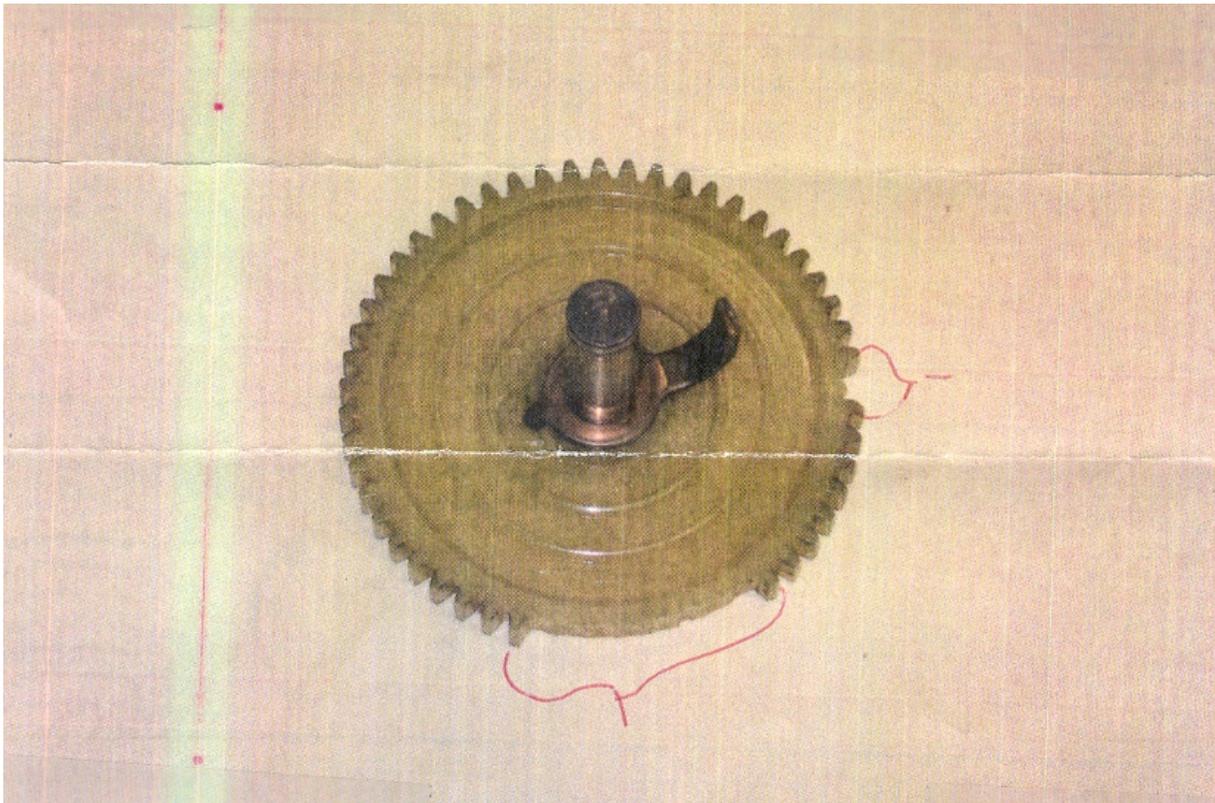
(Thank-you for your effort to be honest on identification difficulties—more accurately, citation credibility. That jewel of a detail is overlooked everywhere in today's media. Next time throw in symptoms, descriptions of troubleshooting efforts, when and how the failures occurred—remembering some of us are stuck behind computer screens, complete with soft, surgeon-type hands. SDRS reflects at least four similar reports in the database.)

Part Total Time: 77.7 hours (average of three)

Bendix Magneto; 10-500556-1 Broken Gear Teeth; ATA 7414

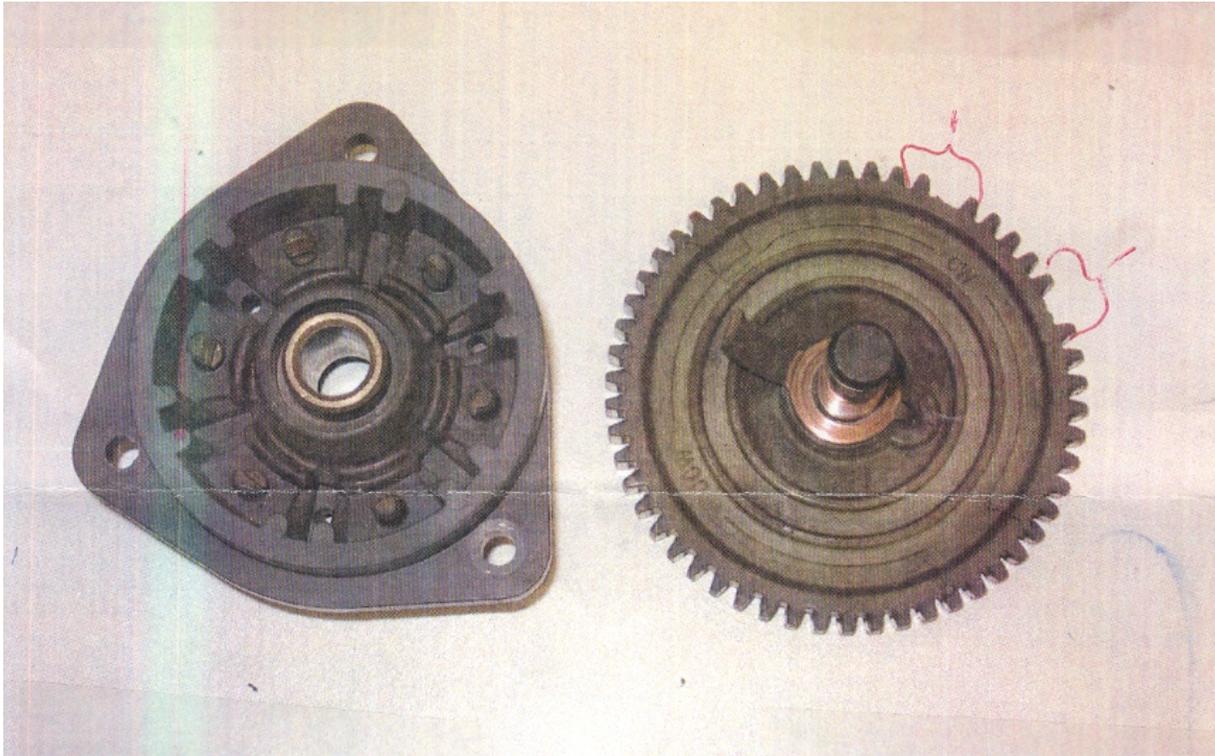
(The following combines two reports from the same submitting mechanic on two different Cirrus SR22 aircraft. These two magneto reports originate from two different Continental IO-550-N27 engines.)

Report 1: "During pre-takeoff engine run-up, it was noted there was some engine roughness. The magneto check indicated the L/H magneto was not firing properly (the engine was quitting). The magneto was removed and opened for inspection. (*Subsequently,*) the distributor gear was found to be missing approximately ten teeth in succession and another (*tooth*) missing about an inch away. This caused the magneto to become untimed to itself—and not fire properly. The logbook inspection revealed the 500-hour magneto inspections had been complied with at the correct intervals. There is no indication what caused the teeth to fail." (*Distributor gear P/N: 10-357586.*)



Part Total Time: 1,593.4 hours

Report 2: "The magneto was removed from the aircraft for routine, 500-hour magneto inspection. During this inspection, the distributor gear was found to be missing a few teeth. The electrode was loose in the distributor gear and had worn the distributor block electrode posts. Both parts were replaced. There is no indication of what caused the teeth to be broken off or the electrode to become loose—(*neither*) was there an indication during pre-inspection run-up that there was a problem with the magneto internal components."



(SDRS reflects 32 reports concerning this distributor gear.)

Part Total Time: 1,738.0 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	Aircraft Make	Engine Make	Component Make	Part Name	Part Condition
Difficulty Date	Aircraft Model	Engine Model	Component Model	Part Number	Part Location
2010FA0000011				CONDENSER	FAILED
12/19/2009				1051676	MAGNETO
CONDENSER SERIES CIRCUIT OPENED UP INTERNALLY SHORTLY AFTER INSTALLATION OF CONDENSER. (APPROX 10 HRS TIS ON PART) CONDENSER FAILURE CAUSED POINTS TO BURN, MELTING OF CAM FOLLOWER, AND NO SPARK OUTPUT FROM THIS MAG. HAVE SEEN NUMEROUS CASES OF SAME PROBLEM RECENTLY, CONDENSERS PN 10-51676. THIS FAILURE IS VERY DANGEROUS SINCE IT WILL RESULT IN NO MAGNETO SPARK OUTPUT. MFG HAS BEEN NOTIFIED OF THIS DEVELOPING TREND.					
CA091209002				SENDING UNIT	FAILED
12/8/2009				S38522	FUEL QTY
(CAN) UPON DOING OPERATION 7 (FUEL CALIBRATION TEST) THE SENDING UNIT FAILED THE FULL FUEL TEST/CALIBRATION GAUGE SHOWED EMPTY THEN FULL WITH THE ANNUNCIATOR LIGHT ON. THE SENDING UNIT WAS NEW AND FAILED RIGHT OUT OF THE BOX. HAVE FOUND THAT THEY HAVE A VERY SHORT LIFE WITH SOME NOT LASTING ONE YEAR OR 600 HOURS. PROBLEM ALWAYS SEEMS TO BE IN THE FULL POSITION, FEEL THAT IF THE TANKS ARE NOT FUELED FULL ALL THE TIME THE SENDERS MIGHT LAST LONGER.					
CA091209007				VALVE	FAILED
10/2/2009					LIFE RAFT
(CAN) OPERATING HEAD VALVE HAS FAILED THE MECHANICAL ACTIVATION TEST DURING ROUTINE INSP.					
CA091204001				TRANSISTOR	DAMAGED
12/4/2009					CIRCUIT CARD
(CAN) PART RECEIVED FROM THE CUSTOMER WITH THE FOLLOWING COMPLAINT: "SMOKE CAME OUT OF TOP OF UNIT WHILE IN THE ACFT POWERED DOWN THE UNIT, TRIED TO POWER UP THE UNIT, WOULD NOT POWER UP. UNIT IS INOP. BRING SYS BACK TO BASELINE. MARK TAG AS REPAIRED. UNIT WAS REMOVED. ACFT REGISTRATION NOT PROVIDED. L11 INDUCTOR WITH A-TYPICAL BEHAVIOR MAY POTENTIALLY CAUSE DAMAGE TO THE POWER TRANSISTOR Q16 IN THE 1.25VDC POWER CIRCUIT OF THE CPU BOARD. IF THIS OCCURS, IT MAY EMIT SMOKE AND A BURNING ODOR. CMC ELECTRONICS SB CMA-1100-46-23 ADDRESSES THIS MATTER.					
CA091214004				BLADE	CORRODED
12/7/2009					PROPELLER
(CAN) PROPELLER SENT IN FOR VISABLE BLADE CORROSION REMOVAL. CORROSION REMOVED AND PROP RETURNED TO SERVICE. WO 91-0294.					
CA091216002				AMU	MALFUNCTIONED
12/9/2009				AMU50001	AUDIO SYSTEM
(CAN) RECEIVED CUSTOMER COMPLAINTS OF UNCOMMANDED AUDIO LEVEL CHANGES ON DACS LASTING UP TO 1 SECOND. THE AUDIO LEVEL CHANGES ARE TYPICALLY ONLY EXPERIENCED BY ONE USER IN AN ACFT. OCCURRENCES ARE INTERMITTENT & INFREQUENT, & AUDIO RETURNS TO NORMAL LEVELS FOLLOWING INTERRUPTION. RECEIVED A REPORT OF ONE INCIDENT THAT OCCURRED ON 9 DECEMBER 2009 IN WHICH AUDIO DESCRIBED AS LOUD & DISTRACTING. DURATION OF FLT WAS 22 MINUTES, & INCIDENT OCCURRED APPROXIMATELY 20 MINUTES INTO FLT. IN THIS INCIDENT PAX HEARD A LOUD LEVEL INCREASE OF ICS AUDIO					

WHICH LASTED FOR HALF TO ONE SECOND. PAX REPORTED THAT IT HAD DISTRACTED HIM. NEITHER PILOT NOR CO-PILOT AFFECTED. EQUIPMENT DESIGN THE DACS COMPRISES AN AUDIO MANAGEMENT UNIT (AMU50), A REMOTE MEMORY UNIT (RM01) & UP TO SIX AUDIO CONTROL PANELS (ACP5X). INVESTIGATION OF PROBABLE CAUSE FOR AUDIO LEVEL CHANGE IS CORRUPTION OR LOSS OF TIMING ON THE DATA BUSS CONNECTION BETWEEN THE AMU50 AND ONE ACP5X. WHEN THIS OCCURS THE AMU50 USES DEFAULT DATA TO SET THE AUDIO LEVELS. DEFAULT LEVELS ARE ADJUSTED ON INSTALLATION OF THE EQUIPMENT USING A PC. IF THE DEFAULT AUDIO LEVELS DIFFER FROM THE LEVELS SET BY THE USER USING ACP5X CONTROLS, THEN WHEN THE COMMUNICATION BETWEEN THE AMU50 AND ACP5X IS LOST THE AUDIO LEVELS WILL CHANGE (UP OR DOWN). INVESTIGATING A SOFTWARE REVISION TO IMPROVE THE ROBUSTNESS OF THE DATA BUSS LINK BETWEEN THE AMU50 & ACP5X.

CA091211003	ALLSN	TURBINE WHEEL	BROKEN
12/11/2009	250C20B	23065833	ENGINE

(CAN) TURBINE CUSTOMER WORKSCOPE WAS "REPAIR FOR VIBRATION - .9 IPS AT 32,000RPM. AND CRACKED EXHAUST CLAMP & STACKS". AFTER DISMANTLE, IT WAS DISCOVERED THAT NR 3 WHEEL HAS A PIECE OF METAL BROKEN OFF ON T/E SIDE OF OUTER SHROUD BETWEEN WHEEL BLADES THAT COVERS APPROX .600" AREA RADIALLY & .360" AREA AXIALLY (FIGURES 1 AND 2). NORMALLY SLOTS IN TURBINE WHEEL OUTER SHROUDS ARE CUT CENTRALLY IN GAPS BETWEEN TURBINE BLADES BUT IN THIS CASE ONE SLOT WAS CUT OFFSET FROM GAP CTR (FIG 3 - NORMAL SLOT, FIG 4 - OFFSET SLOT). MATERIAL BREAKOUT ON WHEEL IS ON OTHER SIDE OF WHEEL AS SHOWN IN FIG 4. A REP FROM OEM HAS REVIEWED TURBINE WHEEL. PERMISSION IS REQUESTED TO PROVIDE TURBINE WHEEL TO MFG FOR FURTHER ANALYSIS.

2010FA0000059	ALLSN	TURBINE WHEEL	SEPARATED
1/14/2010	250C20B	6853279	ENGINE

DURING A TURBINE TEST (SLAVE ENGINE) THERE WAS AN UNCONTAINED FAILURE OF THE PT ROTOR ASSY (4TH STAGE WHEEL). THE WHEEL EXITED THE ENGINE AND CAUSED SUBSTANTIAL DAMAGE TO THE TEST FACILITY. 2 TEST MECHANICS RECEIVED MINOR INJURIES.

2010FA0000016	ALLSN	CARBON SEAL	WORN
1/8/2010	AE3007C	23073567	COMPRESSOR

OIL FOUND AT 6:00 POS INSIDE FAN CASE. NR O CARBON SEAL WAS REPLACED. REPLACED IAW MM 72-25-25.

AG2R2010002	CONT	CYLINDER HEAD	CRACKED
10/27/2009	IO470*		ENGINE

BOTTOM SPARK PLUG CRACK, EXHAUST SEAT CRACK, FUEL INJECTOR BOSS CRACK, AND INTAKE PORT CRACK. TOO SEVERE FOR REPAIR.

AG2R2010001	CONT	CYLINDER	CRACKED
11/12/2009	O470*		ENGINE

EXHAUST PORT WALL CRACKED BEYOND REPAIR.

2010FA0000097	GARRTT	HOUSING	DELAMINATED
1/14/2010	TPE3312UA	8681551	COMPRESSOR

ENGINE WAS ASSEMBLED AND TESTED. AFTER TEST METAL SPRAY WAS NOTED IN THE TAIL PIPE. ENGINE WAS DISASSEMBLED AND DELAMINATION OF THE METAL SPRAY ON THE COMPRESSOR HSG WAS NOTED. THERE IS NO PROBABLE CAUSE OR RECOMMENDATIONS AT THIS TIME.

CA091216003	GE	FUEL CONTROL	MALFUNCTIONED
11/9/2009	CF343A		ENGINE

(CAN) THE ENGINE WAS IN FLIGHT AT 9000 FT WHEN A REQUEST WAS MADE TO AIR TRAFFIC TO INCREASE TO NEXT ALTITUDE. AFTER THE REQUEST WAS GRANTED, THE PILOT ADVANCED THE THROTTLE TO ACHIEVE SPEED AND ALTITUDE. AT THIS TIME, AN ENGINE FLAMEOUT OCCURED. THE PILOT WAS ABLE TO RESTART THE ENGINE IN FLIGHT AND SAFELY LAND THE AIRCRAFT. A FIELD SERVICE TECHNICIAN FOLLOWED THE TROUBLESHOOTING PROCEDURES SPECIFIED IN THE ENGINE MANUAL BUT NO FAULT WAS FOUND. THE FUEL CONTROL WAS SENT

TO MANUFACTURER TWICE. THE FIRST TIME IT WAS TESTED SERVICEABLE. THE FUEL CONTROL WAS RETURNED A SECOND TIME REQUESTING ADDITIONAL INVESTIGATION. NO FAULT WAS FOUND.

CA091208004	PWA	BEARING	WORN
12/8/2009	JT15D4	310164801	ENGINE

(CAN) DISASSEMBLY OF THE ENG REVEALED THAT THE NR 3.5 BEARING WAS FOUND HEAVILY WORN AND IMMANENTLY CLOSE TO FAILURE. REPORT WAS WRITTEN TO DOCUMENT INVESTIGATION INTO UNUSUAL DAMAGE FOUND. BRG SHOWED NO SIGNS OF DISCOLORATION OR ROUGH WEAR TO SUGGEST THAT IT WAS SUFFERING FROM A LACK OF LUBRICATION. THE OIL TRANSFER TUBE THAT SUPPLIES OIL TO THE NR 3.5 BRG DID NOT APPEAR TO BE BLOCKED OR EVEN RESTRICTED. HOWEVER, THE CAUSE OF THE DAMAGE/HEAVY WEAR COULD NOT BE DETERMINED. THE SCORING ON THE BACK OF THE IMPELLER AND ON THE HP COMPRESSOR SHAFT WAS NOT BELIEVED TO BE RELATED TO THIS INCIDENT. IT WAS MOST LIKELY A RESULT OF THE FOD INCIDENT IN 2001 NOTED IN THE MX HISTORY. ENGINE IS SCHEDULED TO BE RESTORED TO SERVICE UNDER AN O/H WORKSCOPE AT THIS SHOP VISIT. NO FURTHER WORKSCOPE INSTRUCTIONS WERE WARRANTED.

CA091222005	PWA	FUEL CONTROL	MALFUNCTIONED
12/15/2009	PT6A27		ENGINE

(CAN) THE ENGINE POWER COULD NOT BE REDUCED BELOW CRUISE SETTINGS. TROUBLE SHOOTING IS FOCUSING ON A FAULTY FUEL CONTROL UNIT WHICH WILL BE REPLACED. MANUFACTURER RECOMMENDS THE SDR BE CLOSED ON THE BASIS OF THE FOLLOWING INFORMATION (TC NR 20091222005)

CA091222009	PWA	TURBINE BLADES	CORRODED
12/22/2009	PT6A34	312075101	ENGINE

(CAN) ENGINE WAS RECEIVED FOR INVESTIGATION / REPAIR DUE TO EXCESSIVE SULPHIDATION CORROSION ON CT BLADES. THE CT BLADES ARE OF POST SB 1520R2 CONFIGURATION. THE SB 1520R2 WAS INTRODUCED BY MANUFACTURER TO PROVIDE NEW CT BLADES WITH IMPROVED SULPHIDATION PROTECTION. THIS IS A NEW ENGINE WITH TSN 2817.8-HOURS AND THE CT BLADES WERE NOTED WITH SEVERE SULPHIDATION CORROSION. BLADES BEING SENT TO SAL FOR ANALYSIS (TC NR 20091222009)

CA091222001	PWA	BELLOWS	FAULTY
11/26/2009	PT6A34		FUEL CONTROL

(CAN) THE ENGINE POWER COULD NOT BE REDUCED TO FLIGHT IDLE. THE PROBLEM WAS ISOLATED TO THE FUEL CONTROL UNIT ON WHICH THE ACCELERATION BELLOWS WAS FOUND FAULTY. HARDWARE BE RETURNED FOR INVESTIGATION. MANUFACTURER WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC NR 20091222001)

CA091222004	PWA	ENGINE	SMOKE
12/15/2009	PT6A34AG		

(CAN) A NOISE FROM THE ENGINE FOLLOWED BY WHITE SMOKE FROM THE EXHAUST. MANUFACTURER WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC NR 20091222004)

CA091222003	PWA	LINE	DETACHED
11/23/2009	PT6T3		FCU

(CAN) WHILE PERFORMING A MAX NG CHECK, THE NR 1 POWER SECTION FLAMED OUT. THE FLAMEOUT WAS CAUSED BY FUEL STARVATION RESULTING FROM A FUEL LINE COMING LOOSE FROM THE AUTOMATIC FUEL CONTROL UNIT. MANUFACTURER WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC NR 20091222003)

CA091204009	PWA	BLADE	FRACTURED
12/3/2009	PW120	312098301E	TURBINE SECTION

(CAN) DETAILS OF ENGINE MODEL, AND MEANS OF DISCOVERY UNKNOWN AT THIS TIME. ENGINE 125072 WAS REMOVED FROM SERVICE DUE TO A LOCKUP OF THE POWER TURBINE. PRELIMINARY INVESTIGATION OF THE POWER TURBINE REVEALED SEVERE DAMAGE AT THE POWER TURBINE ASSY (PT PACK). INVESTIGATION

SHOWED 1 PT 1 BLADE FRACTURED. PRELIMINARY SEM ANALYSIS OF THE FRACTURE SURFACE INDICATES CASTING POROSITY IS LIKELY ORIGIN OF THE FAILURE.

CA091221001	PWA	ENGINE	ODOR
12/9/2009	PW123		

(CAN) CREW NOTED OIL ODOR IN CABIN. MANUFACTURER WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC NR 20091221001)

CA091221002	PWA	ENGINE	DAMAGED
12/11/2009	PW123		

(CAN) THE PROP WAS HARD TO TURN AND THE NL TURNED WITH THE PROP. WHEN THE NH ROTOR WAS ROTATED THE NL ALSO TURNED. THE ENGINE WILL BE REMOVED FOR REPAIR. MANUFACTURER WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC NR 20091221002)

CA091215009	PWA	OIL SYSTEM	LOW PRESSURE
11/24/2009	PW127		ENGINE

(CAN) ENGINE WAS SHUTDOWN DUE TO LOW OIL PRESSURE WARNING. MANUFACTURER WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC NR 20091215009)

CA091215008	PWA	ENGINE	SMOKE
11/24/2009	PW305A		

(CAN) DURING FLIGHT, THE CUSTOMER REPORTED SMOKE IN THE CABIN. PRELIMINARY INSPECTION FOUND OIL RESIDUES BEHIND THE FAN, ENGINE IS LIKELY TO BE REMOVED AND MANUFACTURER WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC NR 20091215008)

CA091221003	PWC	ENGINE	UNKNOWN
12/11/2009	PW308C		

(CAN) CREW HEARD SURGE NOISE WITH MESSAGE ON CAS. EDU DOWNLOAD DID NOT REVEAL ANY FAULTS. MANUFACTURER WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC NR 20091221003)

CA091222002	PWC	BELLOWS	FAULTED
12/3/2009	PW545B		FUEL CONTROL

(CAN) WHILE SETTING T/O POWER, ONLY 80 PERCENT N1 SPEED COULD BE OBTAINED FOR A TARGET OF 87 PERCENT. THE CREW ELECTED TO PERFORM A REDUCED POWER T/O, CONSIDERING THE A/C WAS LIGHT AND A LONG RUNWAY WAS AVAILABLE. THE PROBLEM IS BEING ISOLATED TO A FAULTY FUEL CONTROL UNIT WHICH WILL BE REPLACED. P&WC RECOMMENDS THE SDR BE CLOSED. (TC NR 20091222002)

2010FA0000058	RROYCE	O-RING	PINCHED
1/16/2010	BR700710A220	SU326	NR 2 BEARING

WHILE ACCOMPLISHING DISASSEMBLY FOR NR 2 BEARING HOUSING REPAIR (SB72-900500), A DEFECTIVE O-RING WAS FOUND ON THE FRONT PANEL ASSY. O-RING PN WAS AN SU-326. THE PACKING APPEARED PINCHED FROM ASSY OF THE NR1 BRG HSG ONTO THE FRONT PANEL ASSY.

CA100106009	AEROSP	TMECA	BEARING	WORN
12/8/2009	AS355*	ARRIEL2B1	117775P	BALL JOINT

(CAN) MAIN ROTOR HEAD BEARING WORN- NOT EXPECTED TO LAST NEXT INSP INTERVAL.

CA091218002	AEROSP	PWA	BEARING CAGE	BROKEN
12/15/2009	ATR42300	PW120	782307	PROP BEARING

(CAN) DURING A REMOVAL OF THE PITCH ACTUATOR ON THE NR 1 PROPELLER, MAINTENANCE FOUND THE BALL SEPARATOR WAS BROKEN AND A BALL WAS MISSING. THE BALL WAS LOCATED BUT IT WAS BADLY OUT OF ROUND SO A FURTHER INSPECTION WAS CARRIED OUT AND THE BEARING RACE FOR THE NR 4 BLADE WAS FOUND PITTED AND SCORED OUT OF LIMITS IAW THE CMM. THE PROPELLER HUB PART NUMBER IS 782701-5, SERIAL NUMBER 1829. (TC NR 20091218002)

CA091208003	AIRBUS	CFMINT	SLAT SYSTEM	FAILED
12/5/2009	A320211	CFM565A1		

(CAN) DURING APPROACH FLIGHT, ACFT EXPERIENCED A FAILURE OF THE SLATS TO EXTEND AFTER FLAP SELECTION . FLIGHT CREW DISCONTINUED THE APPROACH, COMPLETED THE QRH PROCEDURE AND DISCUSSED THE PROBLEM WITH MOC. PRIOR TO COMPLETING A SECOND UNEVENTFUL APPROACH, FLIGHT CREW DID NOT DECLARE AN EMERGENCY.

CA091210004	AIRBUS	CFMINT	SLAT SYSTEM	FAILED
12/5/2009	A320211	CFM565A1		

(CAN) SLATS FAILED AFTER SELECTION OF THE FLAPS ON APPROACH. GO AROUND AND QRH CARRIED OUT NIL FURTHER. OPERATIONAL TEST CARRIED OUT, OK SYSTEM RESET.

CA091216008	AIRBUS	BFGOODRICH	STATOR	DISINTEGRATED
12/14/2009	A330243	215571		BRAKE ASSY

(CAN) WHEN REPLACING BRAKE ASSY, 3 STATOR PADS WERE FOUND DISINTEGRATED. BRAKE HAS BEEN REPLACED AND HAS BEEN SENT TO THE MANUFACTURER. (TC NR 20091216008)

CA091207002	AIRTRC	PWA	FRAME	CRACKED
11/24/2009	AT802A	PT6A65AG		LT WING

(CAN) A REPAIR INVOLVING WELDING A CRACK APPROX 1 INCH LONG LOCATED JUST ABOVE THE LT REAR FLOAT ATTACHMENT PLATE, WITHIN THE CIRCLE OF C. FIG 2 OF SL NR 71 WAS CARRIED OUT. THE FOLLOWING DAY, NOTICED A CRACK APPROX 3/4 TO 1 INCH LONG IN THE WELD THAT RUNS AROUND THE REAR WING SPAR ATTACHMENT POINT.

CA091207004	AIRTRC	PWA	FILTER	SEPARATED
12/2/2009	AT802A	PT6A67	EK905210	ENGINE OIL SYS

(CAN) FILTER SEPARATED INSIDE FILTER HSG. PROB UP PRESSURE SIDE OF SYS. SECOND PROBLEM FOUND IN A YEAR.

CA091207003	AIRTRC	PWA	SWITCH	SHORTED
12/4/2009	AT802A	PT6A67A	135L135R	STICK GRIP

(CAN) THERE IS A POSSIBILITY OF A SHORT CIRCUIT OF WIRING IN THE STICK GRIP ASSY. IF THE AIP DISC SWITCH IS INSTALLED AT A CERTAIN ANGLE AND THE TERMINALS ARE LEFT TOO LONG, IT CAN CONTACT THE PTT SWITCH AND CAUSE THE GRIP TO GET QUITE HOT. THIS HAPPENED AND DID NOT CAUSE ANY VISIBLE ARCING OR TRIP ANY CIRCUIT BREAKERS.

2010FA0000093	AYRES	WRIGHT	SPAR	CRACKED
1/14/2010	S2R	R182071	40261T023	RUDDER

TOP RUDDER ATTACH BRACKET CRACKED OUT OF REAR SPAR ON THE VERTICAL FIN. NOTICED CRACK AT ANNUAL INSP. THE RUDDER BEARINGS ARE ALL FREE AND OK. POSSIBLY INSTALL A HEAVIER REAR SPAR.

CA100113001	BEECH	PWA	ALTIMETER	INTERMITTENT
1/12/2010	100BEECH	PT6A28	51922702031	COCKPIT

(CAN) AIRCRAFT DEPARTED CYXD. AFTER ROTATION THE CAPTAIN NOTED HIS ALTIMETER FLAGGED OFF. HE THEN RETURNED TO CYXD. UPON LANDING THE ALTIMETER BEGAN TO FUNCTION AGAIN. SHIPS WIRING CHECKED, NO FAULTS FOUND. ALTIMETER WAS REMOVED AND SENT TO A LOCAL AVIONICS SHOP. IT WAS CONFIRMED THAT THE ALTIMETER WAS INTERMITTENT, AND SOME PROBLEMS WERE FOUND WITH THE

INTERNAL CIRCUIT BOARD. A DIFFERENT ALTIMETER IS CURRENTLY ON ORDER. (TC NR 20100113001)

2010F00018	BEECH	BEECH	HINGE	CORRODED
12/18/2009	1900C		10164001415	VERTICAL STAB

FOUND INTERGRANULAR CORROSION ON HINGE.

2010FA0000083	BEECH	BEECH	HINGE	CORRODED
12/18/2009	1900C		10164001417	VERTICAL STAB

FOUND INTERGRANULAR CORROSION ON HINGE.

CA091215004	BEECH	PWA	DRIVE SHAFT	SHEARED
12/10/2009	1900C	PT6A65B	1013800006	TE FLAPS

(CAN) RT OB FLAP WOULD NOT MOVE WHEN SELECTED. MAINTENANCE DISCOVERED THE RT OB FLEXIBLE FLAP DRIVE SHAFT SEVERLY CORRODED AND SHEARED OF. THIS IS THE SECOND INSTANCE OF FLAP FLEXIBLE DRIVE SHAFTS SEVERLY CORRODED CAUSING FAILURE.

CA091217006	BEECH	PWA	FIREWALL	DAMAGED
12/8/2009	1900C	PT6A65B	11498002587	RT NACELLE

(CAN) FIREWALL WEB P/N 114-980025-87 WORN THROUGH AT THREE LOCATIONS, PRESUMABLY FROM ENGINE HOSES WEARING ON IT. (TC NR 20091217006)

2010F00024	BEECH	PWA	TAB	MISMANUFACTURED
2/2/2010	1900D	PT6A67D	118130022607	AILERON

RECEIVED NEW AILERON TRIM TAB FROM VENDOR. TAB WAS A NEW PART FROM THE MFG. INCOMING INSP NOTED THE RIVETS THAT SHOULD HAVE BEEN INSTALLED TO SECURE THE ACTUATOR HORN TO THE TAB WERE MISSING. THERE IS ALSO A ROW OF RIVETS, ALONG THE HINGE LINE, THAT WERE MISSING. THESE RIVETS ARE THE SUBJECT OF A SB. THIS IS THE SECOND TAB REJECTED FOR THIS PROBLEM.

CA091216005	BEECH	PWA	FIRE LOOP	CRACKED
12/13/2009	1900D	PT6A67D	24412886	RT NACELLE

(CAN) PIREP- "IN CRUISE AT 10,000 FEET WE HAD A FIRE WARNING ON THE RT T-HANDLE + MASTER WARNING FLAG. (NO OTHER PARAMETERS OBSERVED OUT OF NORM) EXECUTED ENGINE SHUT DOWN WITH DISCHARGE OF THE FIRE BOTTLE." SUBSEQUENT EMERGENCY CALLED AND LANDED IN YVR. NO EVIDENCE OF FIRE WAS FOUND. FWD FIRE LOOP FOUND BROKEN NEAR JUNCTION, UNDERNEATH THE FUEL NOZZLE AREA. REPLACEMENT OF THE FIRE LOOP CONFIRMED DISCREPANCY. HAWKER BEECHCRAFT CONSULTED AS IT SEEMED ODD A FIRE WARNING COULD COME OUT OF THE BROKEN LOOP. THEY CONFIRMED THE POSSIBILITY IF THE INNER CORE AND OUTER SHEATH WERE TO BE PINCHED TOGETHER. SEE ATTACHED LETTER AND PICTURE. PREVIOUS NIGHT THE FUEL NOZZLES WERE REPLACED. DUE TO THE CLOSE PROXIMITY IT IS A POSSIBILITY THAT THE LOOP COULD RECEIVE A BUMP OR HIT WHILE DOING THIS MX ACTION AND IT NOT BE NOTICED. LATER TO FAIL IN FLIGHT WITH ENGINE VIBRATIONS. SMS REPORT SUBMITTED BY PILOT, MAINTENANCE IS DECIDING BEST COURSE OF ACTION TO HELP LIMIT RE-OCCURRENCE. CLOSED (TC NR 20091216005)

CA100108002	BEECH	PWA	RELAY	FAILED
1/4/2010	1900D	PT6A67D	MS24171D1	MLG

(CAN) ON APPROACH WHEN CREW SELECTED DOWN GEAR THE CONTROL CB POPPED AND CREW HAD TO MANUALLY EXTEND THE GEAR. UPON ARRIVAL WHEN OUTSIDE THE AIRCRAFT WITH POWER ON THE CREW HEARD THE HYDRAULIC PUMP RUNNING SO THEY TURNED OFF POWER, CONTACTED MAINTENANCE AND WERE INSTRUCTED TO OPEN THE 60 AMP CB FOR POWER SOURCE TO THE MAIN RELAY FOR THE HYDRAULIC PUMP. AIRCRAFT FERRIED GEAR DOWN BACK TO MAINTENANCE WHERE THE MAIN RELAY FOR THE HYDRAULIC PUMP HAD FAILED CLOSED. THIS CAUSED THE CONTROL CB TO FAIL, YET REMAIN THE PUMP RUNNING IN BYPASS. MAINTENANCE REPLACED THE RELAY AND ALL FUNCTION TESTS CARRIED OUT SATISFACTORY. (TC NR 20100108002)

CA091204002	BEECH	PWA	BULKHEAD	DETACHED
-----------------------------	-------	-----	----------	----------

11/23/2009	200BEECH	PT642A	RA9802	1019800202	NACELLE
(CAN) UPPER FLANGE OF BULKHEAD PN 101-980020-2 DETACHED DUE TO CRACK ALONG BEND RADIUS.					
CA091204003	BEECH	PWA		SUPPORT	CRACKED
11/23/2009	200BEECH	PT642A		1014301781	PAX DOOR
(CAN) DOOR CABLE POST LOWER SUPPORT PN 101-430178-1 CRACKED AT CLEVIS FASTENERS.					
CA091204004	BEECH	PWA		BULKHEAD	CRACKED
11/23/2009	200BEECH	PT642A		1014401091	FUSELAGE
(CAN) BULKHEAD CTR PORTION OF UPPER FLANGE CRACKED. THIS PART IS UNDER NON REMOVABLE FLOOR PANEL. FLOOR PANEL ALSO CRACKED AT END OF MUTIPLE STIFFENING BUMPS.					
CA091204005	BEECH	PWA		FLOOR PANEL	CRACKED
11/23/2009	200BEECH	PT642A		50440012553	FUSELAGE
(CAN) FLOOR PANEL PN 50-440012-553 EXTENSIVE CRACKING LOWER SKIN AT END OF STIFFENING BUMPS.					
CA091204006	BEECH	PWA		SKIN	CRACKED
11/17/2009	200BEECH	PT642A		1019100491112	NACELLE
(CAN) SKIN PN 101-910049-11 AND 101-910049-12 CRACKED AT FOD SCREEN ATTACH AREA LT AND RT SIDE ADDITIONALLY BRACKED PN 101-910049-140 WAS FOUND CRACKED.					
CA091204007	BEECH	PWA		BRACKET	CRACKED
11/17/2009	200BEECH	PT642A		101910049140	NACELLE
(CAN) BRACKET PN 101-910049-140 FOUND CRACKED.					
CA091208001	BEECH	PWA		UPLOCK SWITCH	DIRTY
12/7/2009	200BEECH	PT642A			MLG
(CAN) AFTER TAKEOFF, INTRANSIENT LIGHTS REMAINED LIT. LOWERED GEAR AND GOT GREEN (3). CANCELLED IFR AND RETURNED TO DEPARTURE. OAT -31 GEAR UPLOCK SWITCHES CLEANED, GEAR SWINGS COMPLETED SERVICABLE. NO FAULTS FOUND.					
CA091208007	BEECH	PWA		FCU	INOPERATIVE
12/1/2009	200BEECH	PT6A41		3244755222119	LT ENGINE
(CAN) ENROUTE, LT ENGINE SHOWED FUEL FLOW AND TORQUE FLUCTUATION, DROPPING LOW ENOUGH TO COMMAND THE AUTO-IGNITION. ON DESCENT ENGINE FLAMED OUT. CREW SECURED THE ENGINE AND LANDED WITHOUT ANY INCIDENT. MX INSPECTED THE FUEL SYS AND ENGINE. FOUND PROBLEM WITH THE FCU AND REPLACED WITH A SEVICEABLE UNIT. GROUND CHECK AND TEST FLIGHT CHECKED SATISFACTORY.					
CA091229005	BEECH	PWA		LEVER	WORN
12/28/2009	200BEECH	PT6A41			PROP GOVERNOR
(CAN) ON TAKEOFF FULL RPM WAS ACHIEVED, ABOUT 2000 RPM, ON BOTH ENGINES, BUT AT ABOUT 400 FEET ALTITUDE WHEN PROP LEVERS WERE MOVED TO REDUCE RPM THE RT ENGINE MOVED TO 1900 RPM BUT THAT THERE WAS A DIFFERENCE IN STAGGER BETWEEN THE TWO PROP CONTROLS. WHEN FULL RPM WAS SELECTED AGAIN TO CHECK THIS OUT, RPM REMAINED AT 1900. THE PILOT DECIDED TO RETURN TO BASE, AND LANDED SAFELY. WHEN THE A/C WAS BROUGHT INTO THE HANGAR AND INSPECTED, IT WAS NOTICED THAT THE SPLINED SHAFT ON THE PROP GOVERNOR, THAT THE SPEED SELECTOR LEVER IS ATTACHED TO WAS WORN, AND THAT WHEN THE PROP LEVER WAS SELECTED BACK TO REDUCE RPM IT MOVED THE SPEED SELECT LEVER ON THE SHAFT, NOT THE ACTUAL PROP CONTROL SHAFT, THERE BY CHANGING THE RIGGING OF THE PROP CONTROL, SO THAT WHEN THE FULL RPM WAS SELECTED AGAIN THAT SETTING WAS NOT ACHIEVED. THE PROP GOVERNOR WAS REPLACED WITH A SERVICEABLE UNIT, DUELED ,AND FULL POWER RUN-UP WAS COMPLETED TO CONFIRM FULL POWER ENGINE PARAMETERS WERE MET. (TC NR 20091229005)					
2010FA0000017	BEECH			ROTOR	BROKEN

10/27/2009 400A ALH2238S1 ALTERNATOR
ENGINE GEAR DRIVEN ALTERNATOR FAILED AFTER 14 HOURS TIME-IN SERVICE. ROTOR SHAFT BROKE AT STOP COLLAR GROOVE. NO PHYSICAL DAMAGE FOUND INSIDE ALTERNATOR AND BEARINGS TURN FREELY. SUSPECT MATERIAL FLAW OR IMPROPPER MATERIAL IN ROTOR SHAFT, COMBINED WITH SHARP EDGES OF MACHINED GROOVE, RESULTED IN SHAFT BREAKING. SUGGEST CHOSEN MATERIAL OF ROTOR SHAFT BE REVIEWED FOR SUITABILITY AND/OR CONFORMANCE TO SPECIFICATION.

[E81RJW3022016](#) BEECH LATCH FAILED
1/8/2010 76 3903850150002 CARGO DOOR
INVESTIGATED PILOT REPORT OF AFT LT BAGGAGE COMPARTMENT DOOR LATCH OPENING IN FLIGHT. FOUND LOWER FWD ROTARY-TYPE LATCH (POST SB 52-3864) WORN. REPLACED LATCH WITH NEW LATCH ASSY, OPS CHECKS OK. RECOMMEND MFG TRACK TO SEE IF A FLEET PROBLEM WITH NEW STYLE LATCHES OR IF AN ISOLATED INCIDENT.

[CA100111006](#) BEECH PWA WHEEL CRACKED
1/8/2010 A100 PT6A28 16218000 MLG
(CAN) AFTER STRIPPING, A VISUAL INSPECTION OF BOTH HALF WHEELS WAS PERFORMED BEFORE SENDING TO NDT. BOTH HALF WHEELS TIE BOLTS HOLES FOUND CORRODED BEYOND LIMIT AND MANY SHOWED SIGNS OF CRACKS. (TC NR 20100111006)

[CA091223007](#) BEECH PWA ROD BINDING
12/8/2009 A100 PT6A28 3010458 POWER LEVER
(CAN) LEFT HAND ENGINE TORQUE DOES NOT DECREASE WHEN POWER LEVER IS RETARDED. LEFT ENGINE INSPECTED FOUND AFT FUEL CONTROL INTERCONNECT ROD END BINDING AND HOLDING PCU ARM AT A HIGH POWER SETTING. AFT ROD END REALIGNED, CLEANED, AND LUBRICATED. AIRCRAFT GROUND RUN, SERVICEABLE (TC NR 20091223007)

[CA091223008](#) BEECH PWA LANDING GEAR INOPERATIVE
12/6/2009 A100 PT6A28
(CAN) LANDING GEAR WOULD NOT COME DOWN IN YSF. RED GEAR HANDLE LIGHT WENT ON AND REMAINED ON. PROCESSED TO YPA, PERFORMED EMERGENCY GEAR EXTENSION PROCEDURE. LANDED UNEVENTFULLY. LANDING GEAR SYSTEM BLED AND SERVICED IAW AVIA DESIGN MAINTENANCE MANUAL M-8101. EMERGENCY NITROGEN BLOW DOWN BOTTLE SERVICED. 16 GEAR RETRACTIONS COMPLETED AS PART OF PROCEDURE TO PREVENT SYSTEM TO NORMAL CONFIGURATION. LANDING GEAR MOTOR, MOTOR RELAY, AND PRESSURE SWITCH REPLACED 10 ADDITIONAL FAULT FREE RETRACTIONS COMPLETED. ACCUMULATOR RECHARGED. AIRCRAFT RETURNED TO SERVICE. (TC NR 20091223008)

[2010FA0000063](#) BEECH LYC MOTOR SEIZED
1/21/2010 A60 TIO541E1C4 96380022 MLG
LANDING GEAR FAILED TO EXTEND. ACFT LANDED GEAR UP. FOUND ELECTRIC MOTOR SEIZED. COULD NOT EXTEND LANDING GEAR MANUALLY.

[2010F00019](#) BEECH TERMINAL LOOSE
1/20/2010 B200 TE FLAPS
CREW LANDED; UPON TAXING TO RAMP, DISCOVERED THAT THE FLAPS WOULD NOT MOVE OUT OF TAKEOFF/APPROACH. CREW CHECKED ALL CIRCUIT BREAKERS, NO DEFECTS NOTED. AFTER PARKING, PERFORMED WALK AROUND AND INSPECTED FLAP SYS, AGAIN NO DEFECTS NOTED. NOTIFIED MX. MX WAS UNABLE TO DUPLICATE DISCREPANCY, FLAP SYS OPERATED NORMAL. DURING TROUBLESHOOTING, FOUND NR 3 BUSS HAD 2 LOOSE TERMINALS; TIGHTENED AS REQUIRED. PERFORMED OPS CHECK OF FLAP SYS, NO DEFECTS NOTED.

[CA091221007](#) BEECH PWA SELECTOR INACCURATE
12/17/2009 B200 PT642A 8221107103 AUTOPILOT
(CAN) COMMENCING GPS OVERLAY FOR 09 IN YXE, CLEARED TO 3200 FT AND VECTORED THROUGH THE LOC,

UPON REINTERCEPTION THE ALERTER CHIMED 1000 FT ABOVE ACKNOWLEDGED CHIME BY PUSHING IT IN, BUT WHEN PUSHED, IT RESET ITSELF TO 2000 FT, SO AT THAT POINT THE ACFT DID A DESCENDING LT TURN AND TRIED TO CAPTURE 2000 FT. DISCONNECTED AUTOPILOT AND RECAPTURED LOC AND 3200 FT. TRIED TO RESET ALT SELECTOR TO 3200 FT BUT COULD ONLY GET IT TO SET AT 2000 FT OR 4000 FT. THE REMAINDER OF FIGHT WAS UNEVENTFUL. (TC NR 20091221007)

CA100107006	BEECH	PWA	BEECH	SKIN	CRACKED
12/29/2009	B200	PT642A	1019101891	10191004911	COWL

(CAN) SKINS, P/N 101-910049-11 AND 12 CRACKED AT FOD SCREEN BRACKETS. THIS OCCURRED ON THE LEFT AND RIGHT AFT LOWER ENGINE COWL. THE LEFT AND RIGHT COWLS ARE THE SAME PART NUMBER. THESE SKINS FORM THE LOWER PORTION OF THE ENGINE INTAKE DUCT. (TC NR 20100107006)

CA100107007	BEECH	PWA		BULKHEAD	CRACKED
12/9/2009	B200	PT642A		1014302853	BS 246.75

(CAN) BULKHEAD AT FS 246.75 CRACKED UNDER FLOOR, WATERLINE 85.0, BUTTOCK LINE 25.0 LEFT. (TC NR 20100107007)

CA100107008	BEECH	PWA		DOOR FRAME	DAMAGED
12/9/2009	B200	PT642A			BS 278.5

(CAN) FORWARD DOOR FRAME (AIRFRAME) SHEARED FASTENERS AT ATTACH POINT WITH FUSELAGE BULKHEAD. LOCATION IS FS 278.5, WATERLINE 83.0.0, LBL 25.0. (TC NR 20100107008)

CA100108001	BEECH	PWA		INTAKE DUCT	CRACKED
12/22/2009	C90A	PT6A21			COWL

(CAN) INTAKE DUCT SKIN CRACKED AT TWO LOCATIONS, LOCATIONS ARE, LEADING EDGE FASTENER ROW, FASTENER HOLES AT 3:00 AND 9:00 O'CLOCK. (TC NR 20100108001)

CA091214003	BEECH	PWA		CONTROL SYSTEM	FAILED
12/11/2009	C90A	PT6A21		723747	OIL COOLER

(CAN) ACFT REACHED CRUISING ALTITUDE OF FL270, PILOT NOTICED RT ENGINE OIL TEMP INDICATION REACHING RED LINE, AND OIL PRESSURE STARTING TO DECREASE. PILOT REDUCED POWER ON RT ENG AND FEATHERED AFFECTED ENG, HE THEN RETURNED TO BASE AND HAD AN UNEVENTFUL LANDING. SYS TROUBLESHOT AND FOUND THE RT OIL COOLER TEMP CONTROL PN 723747 AT FAULT. THIS PART WAS REPLACED WITH NEW. TEST FLIGHT WAS CARRIED OUT AND THE RT OIL TEMP REMAINED IN THE NORMAL RANGE FOR THE DURATION OF THE FLIGHT.

2010FA0000077	BEECH			CIRCUIT BREAKER	FAILED
1/27/2010	F33A			35380132103	LANDING LIGHT

WHEN PILOT SELECTED LANDING LIGHT, LIGHT DID NOT WORK. TECH TROUBLESHOT AND FOUND FAULT TO BE WITH LANDING LIGHT CIRCUIT BREAKER, INTERNAL FAILURE OF CIRCUIT BREAKER.

2010FA0000066	BEECH			SWITCH	SHORTED
1/18/2010	F33A			35380132103	TAXI LIGHT

PILOT REPORTED TAXI LIGHT INOPERATIVE, INVESTIGATION BY TECH, FOUND TAXI LIGHT CIRCUIT BREAKER SWITCH WAS AT FAULT. REPLACED CIRCUIT BREAKER SWITCH SYS OPS CHECKED NORMAL. THIS CIRCUIT BREAKER SWITCH WAS REPLACED 888 HOURS FLIGHT TIME PRIOR TO FAILURE IAW AD 2008-13-17. RECOMMEND MFG INVESTIGATE QUALITY PROCESS AND IMPROVE TO PREVENT PREMATURE FAILURES OF CIRCUIT BREAKERS. PREVIOUS CIRCUIT BREAKER SWITCHES WERE MORE RELIABLE SWITCHES.

2010FA0000024	BEECH			CIRCUIT BREAKER	UNSERVICEABLE
12/2/2009	F33A			35380132103	TAXI LIGHT

AFTER TURNING ON TAXI LIGHT, A STRONG ELECTRICAL BURNING ODOR WAS NOTICED, WITH THE CIRCUIT BREAKER HOT TO THE TOUCH. FURTHER INSPECTION REVEALED A BURN MARK ON THE SIDE OF TAXI LIGHT CIRCUIT BREAKER. AD 2008-13-17 HAD BEEN COMPLETED 691 FLIGHT HOURS PREVIOUSLY. INTERNAL FAILURE IS

BELIEVED TO BE THE CAUSE. NO RECOMMENDATIONS AT THIS TIME.

2010FA0000027	BEECH		CIRCUIT BREAKER	FAILED
12/3/2009	F33A		35380132101	FAILED

DURING USE OF NAV LIGHTS, NAVIGATION LIGHT CIRCUIT BREAKER SWITCH WAS PLACED IN ON POSITION AND NAVIGATION LIGHTS DID NOT COME ON. PROBABLE CAUSE TO FAILURE WAS DUE TO INTERNAL FAILURE OF CIRCUIT BREAKER SWITCH. SEPARATE THE SWITCH FOR AN INDEPENDENT TOGGLE SWITCH WITH A SEPARATE CIRCUIT BREAKER FOR PROTECTION OR A BETTER DESIGN ON THE INTERNAL CIRCUITING OF THE CIRCUIT BREAKER SWITCH.

2010FA0000025	BEECH		CIRCUIT BREAKER	FAILED
11/30/2009	F33A		35380132103	LANDING LIGHT

DURING POST FLIGHT INSP OF LIGHTS, LANDING LIGHT CIRCUIT BREAKER WAS PLACED IN THE ON POSITION AND LANDING LIGHTS DID NOT COME ON. PROBABLE CAUSE TO THE FAILURE WAS DUE TO INTERNAL FAILURE OF THE CIRCUIT BREAKER. RECOMENDATION WOULD BE TO SEPARATE THE SWITCH FOR AN INDEPENDENT TOGGLE SWITCH WITH A SEPARATE CIRCUIT BREAKER FOR PROTECTION.

2010FA0000064	BEECH		SWITCH	SHORTED
1/21/2010	F33A		35380132101	NAVIGATION LIGHT

DURING THE USE OF THE NAVIGATION LIGHTS, THE NAVIGATION LIGHT CIRCUIT BREAKER SWITCH WOULD POP AND NOT RESET. TROUBLESHOT SYS AND FOUND FAULT TO BE WITH CIRCUIT BREAKER SWITCH. REMOVED AND REPLACED SWITCH WITH SAME PN 35-380132-101. THESE SWITCHES ARE SUPPOSE TO BE NEW AND IMPROVED WHICH WAS INSTALLED UNDER AD 2008-13-17 DATED 6 AUG 2008 TO PREVENT FAILURE OF THE CIRCUIT BREAKER TOGGLE SWITCH. THESE CIRCUIT BREAKER SWITCHES ARE STILL CONTINUING TO FAIL INTERNALLY. RECOMMEND THAT MFG INVESTIGATE QUALITY PROCESS AND IMPROVE OR TO SEPARATE THE SWITCH FOR AN INDEPENDENT TOGGLE SWITCH WITH A SEPARATE CIRCUIT BREAKER FOR PROTECTION.

2010FA0000081	BEECH	CONT	RELAY	INTERMITTENT
2/2/2010	F33A	IO520BB	SM50D7	MLG

LANDING GEAR WILL NOT RETRACK .

2010FA0000082	BEECH	CONT	RELAY	FAILED
2/2/2010	F33A	IO520BB	SM50D7	MLG

LANDING GEAR WILL NOT RETRACK OR EXTEND. DYNAMIC RELAY FAILED.

2010FA0000079	BEECH	LYC	CONTROL ARM	BINDING
1/28/2010	F33C	IO540AE1A5		MIXTURE CONTROL

AFTER LANDING ACFT, WAS TAXIING BACK TO PARKING AND ENGINE QUIT. TECH TROUBLESHOT SYS AND FOUND FUEL CONTROL UNIT MIXTURE CONTROL ARM WAS BINDING INTERNALLY ON THE THROTTLE SIDE OF UNIT.

CA091203007	BELL	ALLSN	PLATE	UNSERVICEABLE
12/2/2009	206B	250C20	206032419001	TAIL BOOM

(CAN) DURING INSTALLATION OF THE TAIL ROTOR GEARBOX, PLATES WHICH SUPPORT THE TAIL ROTOR PITCH CHANGE MECHANISM BELLCRANK, PN 206-001-756-009 WERE LOOSE AND APPEARED TO HAVE "WORKING RIVETS". WHEN FORCE IS APPLIED BOTH UPPER AND LOWER PLATES MOVE FORE AND AFT. IT IS BELIEVED THAT THE PLATES ARE ORIGINAL INSTALLATION, AS NO RECORD HAS BEEN LOCATED TO INDICATE TSN/TSO.

CA100111003	BELL	ALLSN	TUBE	CHAFED
12/21/2009	206B	250C20B	206070445001	ENGINE OIL

(CAN) DURING A PREFLIGHT CHECK, IT WAS NOTED BY THE PILOT THAT AN ABNORMAL SOUND WAS OCCURRING IN THE VERTICAL TUNNEL AREA DURING T/R PEDAL MOVEMENT. UPON INSPECTION OF THE AREA, IT WAS NOTED THAT THE T/R PEDAL PUSH-PULL TUBE (P/N 206-001-020-029) UPPER ATTACHMENT HARDWARE WAS CONTACTING THE ENGINE OIL PRESSURE INDICATOR TUBE ASSY (P/N 206-070-445-001), AS WELL AS THE ENGINE TORQUE METER PRESSURE INDICATOR TUBE ASSY (P/N 206-070-449-001). THIS CONTACT WOULD ONLY OCCUR, WHEN

THE T/R PEDALS WERE MOVED TO THEIR EXTREME POSITIONS, WHICH NORMALLY ONLY OCCURS DURING PREFLIGHT/POST FLIGHT, FLIGHT CONTROL CHECKS. THE CONTACT WOULD NOT TAKE PLACE DURING NORMAL FLIGHT POSITIONS. THE CONTACT ON THE OIL PRESSURE TUBES WAS MINOR, BUT IF LEFT UNATTENDED, COULD EVENTUALLY CAUSE OIL LEAKING IF THE TUBES WORE THROUGH. THE OIL PRESSURE TUBES CAN BE, AND WERE, REPOSITIONED TO ALLOW FOR PROPER CLEARANCE IN ALL POSITIONS OF T/R PEDAL MOVEMENT. THE OIL PRESSURE TUBE ASSY'S WILL BE REPLACED WITH NEW ASSY'S. (TC NR 20100111003)

CA091211005	BELL	ALLSN	BELL	ATTACH FITTING	CRACKED
12/9/2009	206L3	250C30P		206031403005P	TAILBOOM

(CAN) TAILBOOM-SIDE LOWER LT ATTACHMENT FITTING FOUND CRACKED DURING ANNUAL INSP. FITTING CRACKED THROUGH 2 RIVET HOLES TO EDGE. PHOTO ATTACHED. RECENT AD CF-2009-41 AND RELATED ASB IDENTIFY FUSELAGE-SIDE UPPER LT TAILBOOM ATTACHMENT FITTING AS PROBLEM AREA.

CA091211006	BELL	PWA		SUPPORT	CRACKED
12/11/2009	212	PT6T3		205032817019	TAILBOOM

(CAN) DURING A 300 HRS SCHEDULE INSP, 4 CRACKS WERE FOUND AROUND SCREW HOLES OF SUPPORT 205-032-817-019 IN THE TOOLBOOM LOWER AREA.

CA091211007	BELL	PWA		SUPPORT	CRACKED
12/11/2009	212	PT6T3		212030124037	TAILBOOM

(CAN) DURING 300 HRS SCHEDULE INSP, A CRACK WAS FOUND IN THE LOWER SECTION OF THE TAILBOOM. AFTER REMOVAL OF THE DEFECTIVE PART THE FORMER LOWER 212-030-124-017 AND THE SUPPORT 212-030-124-037 WERE CRACKED.

CA091210002	BELL	ALLSN		SPRING	FRACTURED
12/9/2009	407	250C47B		407310104105	FRAHM ASSY

(CAN) FOUND AS CLOSER INSP WAS DONE ON FRAHM UNIT AFTER BROKEN SPRING FINDINGS ON OTHER COMPANY ACFT.

CA091210001	BELL	ALLSN	BELL	SPRING	FRACTURED
12/9/2009	407	250C47B		407310104105	FRAHM ASSY

(CAN) FOUND DURING S CHECK (ONE SPRING FRACTURE SEEN THROUGH FRAHM SIDE HOLES, SECOND FOUND AFTER SPRING REMOVAL FROM FRAHM).

CA091207006	BELL	ALLSN		LATCH	WORN
12/3/2009	407	250C47B		90015032235	COWL DOOR

(CAN) INTAKE COWL LT INSP DOOR LATCH PN 90-015-032-235 HEAVILY WORN AT STRIKER WITH FWD FIREWALL. FWD FIREWALL PN UNK ALSO EXHIBITS WEAR.

VLIA127A	BNORM			BEAM	CRACKED
12/1/2009	BN2AMK32			NB45AZ298T	LT RUDDER PEDAL

WHILE PERFORMING FLUORESCENT DYE PENETRANT INSP IAW AD202-25-03 OF CAPTAIN RUDDER PEDALS BEAMS, FOUND CRACKED (LT) OUTER SIDE FWD BEAM.

2010FA0000078	BOEING			SPAR	CORRODED
1/27/2010	727212				RT WING

THE ACFT INPUT FOR 6C CHK ON DEC 10, 2009. DURING VISUAL INSP BY INSPECTOR, THE LEVEL 2 CORROSION WAS FOUND ON RT WING FRONT SPAR LOWER CHORD AT WS 727.5. THE CHORD THICKNESS OF ORIGINAL IS 0.103". THE CHORD THICKNESS OF CORROSION REMOVED IS 0.040". PHOTO WILL BE SENT BY E-MAIL. AFTER (OWNER) VERIFY AS A MAJOR REPAIR ON JAN 29, 2010, THE SPAR LOWER CHORD HAS BEEN REPAIRED IAW FAA DER APPROVED DATA AND FORM 337 WILL BE SUBMITTED TO FAA FOR FINAL RESULT OF CORRECTIVE ACTION DETAIL.

2010FA0000067	BOEING			SKIN	BULGED
-------------------------------	--------	--	--	------	--------

1/23/2010	727227		BS 1148 S24-27R
FUSELAGE SKIN, EXTERNAL, HAS A BULGE AND PULLING FASTENERS AT STA 1148, BETWEEN STRINGER 24R AND 27R.			
2010FA0000068	BOEING	SKIN	CORRODED
1/23/2010	727227		LT WING
CORROSION FOUND AROUND FASTENERS ON RT WING, L/E AT WING STA 320.			
2010FA0000070	BOEING	SKIN	CORRODED
1/23/2010	727227		BS 540 S27R
CORROSION ON FUSELAGE SKIN AFT OF BS 540, INBD OF STRINGER 27R			
ABXR201002010001	BOEING	SKIN	TORN
2/1/2010	727227		LT WING
WHILE ACCOMPLISHING ROUTINE SCHEDULED MX, THE LT WING-TIP WAS FOUND TO HAVE A TEAR OUT IN THE AREA OF THE AFT LOWER MOUNTING FASTENER HOLE. CUT DAMAGED AREA OUT AND PERFORMED HFEC TO ENSURE DAMAGE WAS REMOVED IAW NDT MANUAL PART 6 51-00-00 FIG. 23. REPAIR INSTALLED IAW SRM 57-20-5 AUTHORIZED BY AMES REA B257-60111MR. ITEM RETURNED TO SERVICE.			
2010FA0000053	BOEING	STRINGER CLIP	CORRODED
1/16/2010	727227		BS 950A
STRINGER CLIP CORRODED AT STRINGER 30, BS 950A.			
2010FA0000048	BOEING	SKIN	CORRODED
1/16/2010	727227		BS 720A-720B
CORROSION ON SKIN UNDER STRINGER 27R FROM 720A TO 720B+10".			
2010FA0000054	BOEING	SKIN	CORRODED
1/16/2010	727227		CENTER WING
LOWER CTR WING SKIN CORRODED AT STRINGER 6C, LBL 30 INSIDE LT RAM AIR DUCT.			
2010FA0000055	BOEING	SKIN	CORRODED
1/16/2010	727227		CENTER WING
CTR WING SKIN CORRODED AT STRINGER 3C, LBL 17 INSIDE LT RAM AIR DUCT.			
2010FA0000056	BOEING	SKIN	CANNING
1/16/2010	727227		BS 660-680
FUSELAGE SKIN OIL CANNING STA 660-680 BETWEEN STRINGER 21R AND 22R.			
2010FA0000057	BOEING	STRUCTURE	DAMAGED
1/16/2010	727227		R1 DOOR
R1 DOOR CREASED BS 385-410 BETWEEN STR 14R AND 16R.			
2010FA0000049	BOEING	SKIN	CORRODED
1/16/2010	727227		BS 720C S27R
CORROSION ON SKIN OTBD OF STRINGER 27R FWD OF BS 720C.			
2010FA0000050	BOEING	FRAME	CRACKED
1/16/2010	727227		BS 1090 S27R
FUSELAGE FRAME CRACKED 1.5", BEYOND REPAIR, CUTOUT ABOVE STRINGER 27R AT BS1090.			

2010FA0000051	BOEING		STRINGER	DAMAGED
1/16/2010	727227			BS 430 S24L

STRINGER 24L DAMAGED AT STA 430.

2010FA0000052	BOEING		STRINGER SPLICE	CORRODED
1/16/2010	727227			BS 660-680

STRINGER 25R SPLICE CORRODED BETWEEN BS 660 AND 680.

CA091224001	BOEING	PWA	WINDOW	CRACKED
12/24/2009	727247	JT8D15		COCKPIT

(CAN) DISCREPANCY: AT FL 37.0 VERY LOUD CRACKING NOISE FROM VICINITY OF F/O NR 3 WINDOW DESCENT TO 10,000 AND DEPRESSURIZED AIRCRAFT. MX NOTE: AS PER CREW COMMENTS AIRCRAFT DID NOT LOOSE CABIN PRESSURE DUE TO THIS INCIDENT AND AS A PRECAUTIONARY MEASURE AIRCRAFT WAS DESCENDED TO 10,000 FEET AND DEPRESSURIZED. RECTIFICATION: THE R2, 3, 4 AND 5 WINDOWS INSPECTED - NO DEFECTS NOTED THE FUSELAGE STRUCTURE INSPECTED. NO DEFECTS NOTED NOSE WHEEL STRUCTURE INSPECTED. NO DEFECTS NOTED R2 WINDOW OPERATION CHECKED. NO DEFECTS NOTED, R3 WINDOW BOLTS RE-TORQUED - 1/4 TURN REQUIRED TO RE-TIGHTENED SOME BOLTS NOSE WHEEL WELL PANEL BOLTS RETORQUED. ALL BOLTS FOUND TIGHT. AIRCRAFT IS SERVICEABLE. (TC NR 20091224001)

CA091210011	BOEING	CFMINT	CONTROL VALVE	FAILED
12/8/2009	737*	CFM567B22	1296662	PRECOOLER

(CAN) ON DESCENT, THE PILOTS REPORTED A DUAL BLEED TRIP. BOTH BLEED TRIPS WERE SUCCESSFULLY RESET IN FLIGHT BY THE CREW. MX CARRIED OUT A CHECK OF BLEED SYS AND REPLACED NR1 PRECOOLER CONTROL VALVE, NR 1 PRECOOLER CONTROL VALVE SENSOR AND NR2 PRECOOLER CONTROL VALVE SENSOR. OTHER PART INFORMATION: ENG 1 PRE COOLER CONTROL VALVE SENSOR PN 129666-2, TSI 8823, CSI 7117, SN 11445 ENG 2 PRE COOLER CONTROL VALVE SENSOR PN 129666-2, TSI 10833, CSI 8656, SN 11066.

CA100104006	BOEING	CFMINT	TIRE	FAILED
12/31/2009	737*	CFM567B27		MLG

(CAN) MAIN TIRE FAILED ON T/O. SN B7914/B7914 HAS BEEN FLAGGED FOR MFG INVESTIGATION & REPORTING. ON ARRIVAL, FOUND NR 2 MLG WHEEL TIRE TREAD SEPARATED & NR 2 MLG WHEEL DEFLATED. TIRE TREAD LOSS/TIRE BURST INSP 05-51-54-210-801 CARRIED OUT. NR 2 MLG WHEEL ASSY & NR 1 MAIN WHEEL ASSY (MATE TO FLAT) REPLACED IAW AMM 32-45-11. SIGNIFICANT DAMAGE WAS FOUND ON LT FLAP SYS AS A RESULT OF TIRE FAILURE. DAILY CHECK ON 807 WAS COMPLETED PRIOR TO DEPARTURE, SUBJECT TIRE WAS AN R3 THAT HAD NO PREVIOUS REMOVALS FOR PRESSURE LOSS, WHEEL ASSY B7914/B7914 ALSO HAS NO LEAKAGE HISTORY. CREW ADVISED BY ATC IN VICINITY TO CONTACT AIRPORT FOR INFO ON POSSIBLE FAILED TIRE. AIRPORT CONFIRMED THAT A TIRE HAD FAILED ON TAKE OFF. CREW UNAWARE OF FAILED TIRE PRIOR TO THIS AS THERE WERE NO INDICATIONS. FOLLOWING CONSULTATION WITH COMPANY, CREW DECIDED TO RETURN TO DEPARTURE. AN EMERGENCY WAS DECLARED AND CFR WAS REQUESTED.

CA100104002	BOEING	GE	WINDOW	CRACKED
12/30/2009	737*	CFM567B24	5893543140	COCKPIT

(CAN) NR1 R OUTER PANE CRACKED - THROUGH APPROX 25,000` LOUD BANG, FRONT WINDOW R CRACKED ACCOMPANIED BY CABIN VSI CLIMB AT LEAST 1000 FPM. CABIN PRESSURE STABILIZED & HELD 27,000` IN CRUISE - NO FURTHER PRESSURE PROBLEMS OBSERVED. RESOLUTION: NR 1 WINDOW, FO`S SIDE, REPLACED IAW MM 56-11-11. OEM REPORT: DESCRIPTION: ON 30 DECEMBER 2009, ENROUTE, FLIGHT CREW REPORTED FOLLOWING ITEM: NBR 1R OUTER PANE CRACKED THROUGH APPROX 25,000 FT. LOUD BANG, FRONT WINDOW R CRACKED ACCOMPANIED BY CABIN VSI CLIMB AT LEAST 1000 FT. CABIN PRESSURE STABILIZED AND HELD 27,000 FT IN CRUISE. NO FURTHER PRESSURE PROBLEMS OBSERVED. FLIGHT CONTINUED AND MADE AN UNEVENTFUL LANDING. REPLACEMENT OF THE REF/B/WINDOW ASSY. VISUAL INSP OF REF/B/ASSY INDICATES NO DAMAGE TO THE INNER STRUCTURAL PANE. UNABLE TO CONFIRM CREW REPORT OF CABIN PRESSURE ANOMALY BASED ON VISUAL INSP OF THE WINDOW ASSEMBLY. NOTE: OPERATOR HAS RECENTLY ADDED AN ADDITIONAL TASK CARD INSP OF NR1 WINDOWS TO IMPROVE WINDOW RELIABILITY. NO FURTHER ACTION REQUIRED.

CA100104005	BOEING	PWA	SPINDLE	CRACKED
-----------------------------	--------	-----	---------	---------

12/28/2009	737275	JT8D17	654648195	NR 2 FLAP SYS
(CAN) SPINDLE BROKE IN AREA OF AD 2003-24-08 PRIOR TO THE INSP THRESHOLD OF 3000C. UNIT HAD BEEN O/H, FAILED PART IS CURRENTLY WITH QA AND WILL BE SHIPPED TO MFG UNLESS OTHERWISE INSTRUCTED. FLAP SPINDLE CRACK OCCURRED AT CRITICAL "A" AREA SPECIFIED IN ASB 737-57A1277, PAGE 52.				
CA091231004	BOEING	GE	UNKNOWN	MALFUNCTIONED
12/30/2009	7377*	CFM567B24		NAVIGATION SYS
(CAN) CREW ADVISED ON STABILIZED APPROACH JUST PRIOR TO 100` AGL GPWS CALLOUT, AUTOTHROTTLE RETARDED TO IDLE THRUST/FLARE. CREW HAD TO MANUALLY INTERVENE TO ADD THRUST TO MAINTAIN GLIDE SLOPE TO RWY THRESHOLD. AIRSPEED WAS PROPER, AND NO RADAR ALTIMETER FLAGS NOTED, BUT RADAR ALTIMETER READOUT NOT OBSERVED TO SEE IF CORRECT OR NOT. FIM TASK 34-33-TASK 801 CARRIED OUT WITH NO ACTIVE OR RECENT FAULTS. AS SUCH, PREVIOUS SIMILAR FLEET EVENTS TRANSPORT CANADA REQUIRED THE BALANCE OF THIS MAINTENANCE TIP BE CARRIED OUT IN ITS ENTIRETY (IE REPLACE ANTENNA'S, RT, DO TDR ON COAX`S, ETC.). NO HISTORY, BUT DO NOT CLEAR WITHOUT CARRYING OUT 737MT 34-036R1. PERFORMED FAULT HISTORY BITE CHECKS ON DFCS, FMCS, ADIRS AND CDS. DFCS CH. A SHOWS PITCH MODE REV FAULT ON LEG 06, 05:15Z DEC.30/09, ALT. 802 FT. A/S 130 KTS. FMC DATA INV. MNTC. MSG. 22-11822. DFCS CH. B SHOWS SAME FAULT AND TIME. ALT 754FT. A/S 129 KTS, NO CURRENT FAULTS. NR 1 AND NR 2 RAD ALT ANTENNAS REPLACED IAW MM 34-33-11. NR 1 AND NR 2 RAD ALT TRANSCEIVERS REPLACED (TC NR 20091231004).				
CA091217002	BOEING		CABLE	BROKEN
12/13/2009	73781Q		580250403	GROUND SPOILER
(CAN) WHILE CARRYING OUT A "BEFORE TAKEOFF" CHECKLIST, THE PSEU LIGHT ILLUMINATED ON RECALL. THE AIRCRAFT RETURNED TO THE GATE. ON INSPECTION THE GROUND SPOILER INTERLOCK VALVE CABLE WAS FOUND TO BE BROKEN. (TC NR 20091217002)				
2010FA0000019	BOEING	GE	VALVE	LEAKING
12/18/2009	74747UF	CF680C2B1F		FUEL JETTISON
DURING FUELING NOTED FUEL COMING FROM RT WING JETTISON TUBE. JETTISON VALVE LEAKING. FUELING STOPPED AND JETTISON NOZZLE CYCLED IAW MM TASK 28-31-00-715-068. LEAK STOPPED				
CA091229003	BOEING	RROYCE	PRESSURE SWITCH	DEFECTIVE
12/27/2009	75728A	RB211535E4	211C223327	HYD PUMP
(CAN) IN CRUISE, EICAS MESSAGE ANNUNCIATION "LT ENG HYD PUMP". IN-FLIGHT TURNBACK INITIATED TO YYZ FOR COMPANY CONVENIENCE. THE LEFT ENGINE HYDRAULIC PUMP PRESSURE SWITCH WAS FOUND DEFECTIVE. (TC NR 20091229003)				
2010F00022	BOEING		SPACER	CHAFED
1/20/2010	767332		NAS42DD452FC	ZONE 100
OCCURRENCE REPORT O248-10. CABLE (ABOVE), WRONG SIDE OF KEEPER/GUIDE, CABLE LGB 4A, BODY STATION 456R, FWD CARGO CEILING, SECOND FROM OTBD. CABLE FOUND IN THIS POSITION DURING INSP, NO RECORDED MAINT CARRIED OUT IN THIS AREA PREVIOUSLY.				
CA091215003	BOEING	GE	HOUSING	DAMAGED
12/15/2009	777333ER	GE90115B	18350	ENG FUEL FILTER
(CAN) DURING ROUTINE MAINTENANCE, IT WAS FOUND THAT BOTH LT AND RT ENGINE LP FUEL FILTER BOWLS HAD ARCHING DAMAGE. A REPLACEMENT HOUSING WAS ROBBED FROM A SERVICEABLE SPARE POWERPLANT BUT WAS FOUND WITH EVEN MORE SEVERE DAMAGE. ALL DAMAGED HOUSING REPLACED WITH NEW. (TC NR 20091215003)				
2010FA0000147	BOEING	JACOBS	BOLT	FAILED
2/10/2010	A75N1	R7557	NAS148	ENGINE MOUNT
DURING INSPECTION OF THE ENGINE INSTALLATION OF THIS AIRCRAFT IT WAS DETERMINED THAT ONE OF THE FOUR HIGH STRENGTH NAS-148 BOLTS THAT HOLT THE ENGINE MOUNT TO THE FUSELAGE WAS FRACTURED				

COMPLETELY THROUGH UNDER THE HEAD OF THE BOLT. THIS BOLT HAS 100HRS TOTAL TIME IN SERVICE. AFTER INFORMING THE STC HOLDER OF THE FAILURE WE WERE INFORMED THAT WE SHOULD HAVE RE-TORQUED THESE BOLTS AFTER 25HRS OF OPERATION. THIS INFORMATION WAS NOT INCLUDED IN THE STC. ACCORDING TO THE STC HOLDER IT APPARENTLY WAS REFERENCED TO IN THE ORIGINAL AIRCRAFT MAINTENANCE MANUAL WHERE IT STATES THAT THE ORIGINAL ENGINE MOUNT "STUDS" SHOULD BE RETORQUED TO 450 TO 500 INCH POUNDS AFTER THE FIRST 25HRS. THESE ORIGINAL ENGINE MOUNT STUDS ARE NOT INSTALLED IN THE STC AIRCRAFT AS THEY HAVE BEEN REMOVED AND THE ENTIRE ASSEMBLY REPLACED WITH A DIFFERENT MOUNT AND HARDWARE ASSEMBLY. THE REPLACEMENT BOLTS ARE NAS 148, INTERNAL WRENCHING AND ARE OVERSIZE FROM THE ORIGINAL STUDS. THE ORIGINAL MANUAL TORQUE VALUES WOULD NOT BE SUFFICIENT AND NO FURTHER INSTRUCTIONS GIVEN. THESE BOLTS ARE HIDDEN AND IT WOULD REQUIRE THE REMOVAL OF THE ENGINE TO RETORQUE THEM. WE BELIEVE THAT A CRITICAL SAFETY ISSUE EXISTS AS THE FAILURE OF THESE BOLTS WILL RESULT IN CATASTROPHE. SEE ACCIDENT REPORT CA18/2/3/8321 WHERE THE FAILURE OF AN IDENTICAL BOLT IN A SIMILAR STC CAUSED THE SEPARATION OF THE ENGINE AND A FATALITY ACCIDENT. THE STC IS INADEQUATE IN ITS DESCRIPTION FOR MAINTENANCE TO INSURE CONTINUED AIRWORTHINESS.

2010F00011	BOLKMS		MAST	CORRODED
1/20/2010	BK117B1		4639205016	MAIN ROTOR

AFTER MAIN ROTOR HEAD WAS REMOVED FOR OTHER MX, THE MAST WAS FOUND TO HAVE CORROSION ON THE MATING SURFACE AND AROUND MOUNTING BORES.

2010F00012	BOLKMS		FLOOR SKIN	CRACKED
1/20/2010	BK117B1			ZONE 400

AFTER REMOVAL OF NR 1 ENGINE, FOUND THE FIRE EXTINGUISHER TUBE HAD CHAFED THROUGH THE ENGINE DECK SKIN 130MM LONG 5MM WIDE AND A 34MM CRACK IN THE MIDDLE.

CA100106001	BOMBDR	PWC	WIRE HARNESS	DAMAGED
12/21/2009	DHC8400	PW150A	82440203405	

(CAN) DURING EN-ROUTE CLIMB ABOVE 6000 FT, CREW HAD THE L AC BUS/R AC BUS/L TRU/R TRU/NR1 AC GEN/NR2 AC GEN/NR1 STALL SYS FAIL/NR2 STALL SYS FAIL/PUSHER SYS FAIL/ICE DETECT FAIL/PITOT HEAT STANDBY/PITOT HEAT 1 AND 2/ENG ADAPTER HEAT 1 AND 2 ILLUMINATE. THESE CAME ON FAIRLY SIMULTANEOUSLY BUT POSSIBLY BEGAN WITH THE LT AND RT AC BUSS CAUTIONS. CONTINUED CLIMB TOWARD FL120 BUT ASKED FOR DESCENT BECAUSE OF ICING PROBLEMS. NR 1 AC GEN REMOVED AND FOUND TO HAVE SHEARED SPLINE. LT AND RT AC CONTROL BOXES INSPECTED FOR LOOSE CONNECTIONS AND LOOSE ARTICLES. NOTHING APPARENT. INSPECTED THE CABLES ALONG THE T/E AND FOUND A CABLE LOOM CONSISTING OF 22 CABLES SHOWING EVIDENCE OF DAMAGE. WIRING REPAIRS IN PROGRESS.

CA091209009	BOMBDR	PWC	SELECTOR VALVE	MALFUNCTIONED
11/29/2009	DHC8400	PW150A	483003	MLG

(CAN) LANDING GEAR WOULD NOT EXTEND , USED ALT EXTENSION, ALL GREEN INDICATIONS AND ACFT LANDED SAFELY. ACFT FERRIED TO BASE. R & R GEAR SELECTOR VALVE, OPS CHECK GOOD.

CA091209010	BOMBDR	PWC	SHAFT	SHEARED
11/30/2009	DHC8400	PW150A	6617303	HYD PUMP

(CAN) DURING CRUISE NR 1 ENG HYD PUMP CAUTION LIGHT ILLUMINATED AND PRESSURE DROPPED TO ZERO. STANDBY HYD PUMP SELECTED ON AND PRESSURE RETURNED, CONTINUED TO DESTINATION. NR 1 ENG HYD PUMP REPLACED DUE TO SHEARED SHAFT.

CA100104001	BOMBDR	PWC	CONTACTOR	DAMAGED
1/1/2010	DHC8400	PW150A	10962242	ELECTRICAL RELAY

(CAN) AIRCRAFT POWER WOULD NOT TURN OFF WITH BATTERY MASTER SWITCH SELECTED OFF. A/C POWER DOWN BY DISCONNECTING THE STANDBY BATTERY. FOUND FAULT CODE 21 IN EPCU. REPLACED CONTACTOR K24 IAW AMM 24-31-41 (TC NR 20100104001)

CA100104004	BRAERO	GARRTT	TERMINAL	BURNED
12/7/2009	BAE125800A	TFE7315R		WINDSHIELD C/B

(CAN) PILOTS REPORTED SMOKE IN THE COCKPIT. FIRST REPORTS THAT SMOKE CAME FROM THE INSTRUMENT PANEL. UPON INSP, FOUND LT WINDSHEILD C/B PN 6TC14-10. TERMNIAL A1 WAS BURNED AND DAMAGE TO THE WIRE.

CA091223006	CESSNA		CHANNEL	CRACKED
12/11/2009	150M		041253330412	SERVICE DOOR

(CAN) DURING 200 HRS INSPECTED CRACK FOUND ON BOTH REAR DOOR POST CHANNEL LT P/N 0412533-3 2 CRACK AND RT P/N 0412533-4 1 CRACK, REST OF THE AREA INSPECTED NO OTHER DAMAGE FOUND. (TC NR 20091223006)

CA091209005	CESSNA	LYC	BRACKET	CRACKED
11/30/2009	152	O235L2C	04310093	HORIZONTAL STAB

(CAN) BRACKET CRACKED IN OTBD RADIUS.

CA091214005	CESSNA	LYC	VALVE	LEAKING
12/11/2009	172N	O320D2J	201314213	PITOT STATIC SYS

(CAN) ALTERNATE STATIC VALVE LEAKING.

CA100104003	CESSNA	LYC	COUPLING	FAILED
12/28/2009	172N	O320D2J		VACUUM PUMP

(CAN) VACUUM PUMP COUPLING FAILED.

2010FA0000090	CESSNA		ALTERNATOR	MALFUNCTIONED
10/6/2009	172R		991059111	

OPERATOR REPORTS LOW CHARGE VOLTAGE AT LOW ENGINE RPM. RAN AIRCRAFT AND VERIFIED LOW VOLTAGE. REMOVED COWL AND DISCOVERED ALTERNATOR CASE TIE BOLTS LOOSE ALLOWING THE CASE HALVES TO SHIFT. UPON REMOVAL OF THE ALTERNATOR WE DISCOVERED THAT THE LOCK TABS INSTALLED ON THE TIE BOLTS WERE ALSO LOOSE. THIS IS THE SECOND SUCH INCIDENT WHERE THESE BOLTS AND LOCK TABS WERE LOOSE.

CA091217007	CESSNA	LYC	BLADE	CORRODED
12/8/2009	172R	IO360L2A		PROPELLER

(CAN) PROPELLER RECEIVED FOR CORROSION INSPECTION, PAINT REMOVED FROM PROP, FOUND CORROSION ON BLADE THRUST FACE OF PROP BLADES. EXTRA WORK REQUIRED TO REMOVE CORROSION WITHIN SPEC'S. PROPELLER RETURNED IN SERVICE (TC NR 20091217007)

2010FA0000085	CESSNA		TUBE	FLAT
2/3/2010	172S		G156006	TIRE

DURING TOUCH-AND-GO LANDINGS, PILOTS REPORTED TO HEAR A STRANGE NOISE IN THE LANDING GEAR AT ROTATION AFTER SECOND LANDING. REMAINDER OF FLIGHT WAS NONEVENTFUL. AFTER NORMAL LANDING TOUCHDOWN AND ACFT DECELERATION, ACFT STARTED VEERING TO THE LT OF CTR. LT MAIN TIRE WAS OBSERVED TO BE FLAT. ACFT WAS TAXIED TO FIRST AVAILABLE TURNOFF AND ENGINE WAS STOPPED AFTER ACFT WAS CLEAR OF ACTIVE RUNWAY. WHEEL AND TIRE ASSY WAS REPLACED WITH SPARE AND ACFT OPERATION CONTINUED. DEFECTIVE WHEEL DISASSEMBLED AND INNER TUBE SHOWED SIGNS OF CHAFING AGAINST THE INNER WALL OF THE TIRE TO A POINT THAT THE TUBE BECAME SO THIN THAT A RESULTING BOLE IN THE TUBER ALLOWED DEPRESSURIZATION OF THE TIRE. INSTALLED TUBE SEEMED TO BE TOO SMALL OF A DIAMETER WHEN DEFLATED INSIDE THE TIRE. OLDER TUBES WERE BIGGER AND FILLED MORE OF THE TIRE WHEN DEFLATED. THE TUBES AVAILABLE NOW DO NOT SEEM TO FILL ENOUGH OF THE AREA WITHIN THE TIRE CAVITY PRIOR TO INFLATION. MFG LITERATURE CLAIMS THAT THIS TUBE IS FOR BOTH 6.00-6 AND 15X6.00-6 TIRES, BUT THE TUBES FIT DIFFERENTLY IN BOTH. THE TUBES SEEM TO BE TOO SMALL FOR A STANDARD 6.00-6 TIRE.

2010FA0000034	CESSNA	LYC	CONTROL CABLE	GROOVED
1/8/2010	172S	IO360L2A	0510105364	FLT CONTROLS

CABIN OVERHEAD CTR PANEL WAS REMOVED FOR PROGRESSIVE INSP. DURING FLAP & AILERON CABLE INSP FLAT SPOTS WERE NOTICED ON 3 AILERON CONTROL CABLES. ROLLED CABLES FOR BETTER VIEW OF CONTACT POINT WITH PULLEYS AND WAS ABLE TO CATCH FRAYED WIRES WITH A RAG AND COULD SEE A SUBSTANTIAL GROOVE IN THE CARRY-THRU CABLE. CABLE TENSIONS WERE WITHIN PROPER SPECS AND AREA WAS CLEAN & FREE OF ANY DIRT/DEBRIS. ALSO PLASTIC PULLEYS WERE INSPECTED, THEY WERE CLEAN AND FREE TO ROLL. THIS PROBLEM SEEMS TO BE HAPPENING DURING NORMAL FLIGHT TRAINING SCHOOL USE AND HAS BEEN NOTICED TO BE HAPPENING WITH OUR OTHER ACFT WITH THE SAME TIMES. CAUSE IS PROBABLY FROM PULLEYS THEMSELVES. THEY ARE MADE FROM A HARD WHITE PLASTIC MATERIAL. THE BRAIDED STEEL CABLES ARE RUBBING AGAINST THE PULLEYS INSTEAD OF ROLLING ON THEM. THAT IS CAUSING THEM TO FLAT SPOT AT FIRST AND THEN GROOVE ONCE WORN INTO THE CABLE DEEP ENOUGH. THERE IS ALSO NO NOTICIBLE CABLE DEFLECTION WHERE THE CABLES CONTACT THE PULLEYS, SEEMS LIKE THE PULLEY DIAMETER IS TOO SMALL. REPLACE THE PULLEYS WITH A NORMAL BROWN PHENOLIC TYPE PULLEY USED IN ALL OTHER AREAS OF THE ACFT OR TO ENLARGE THE PULLEY DIAMETER TO INCREASE THE CABLE TO PULLEY CONTACT.

2010FA0000035	CESSNA	LYC	CONTROL CABLE	FRAYED
1/8/2010	172S	IO360L2A	0510105360	FLT CONTROLS

DURING FLAP & AILERON CABLE INSP FLAT SPOTS WERE NOTICED ON 3 AILERON CONTROL CABLES. ROLLED CABLES FOR BETTER VIEW OF CONTACT POINT WITH PULLEYS & WAS ABLE TO CATCH FRAYED WIRES WITH A RAG & COULD SEE A SUBSTANTIAL GROOVE IN CARRY-THRU CABLE. CABLE TENSIONS WITHIN SPECS & AREA CLEAN & FREE OF DIRT & DEBRIS. PLASTIC PULLEYS INSPECTED, CLEAN & FREE TO ROLL. PROBLEM SEEMS TO BE HAPPENING DURING NORMAL FLT TRAINING SCHOOL USE & HAS BEEN NOTICED TO BE HAPPENING WITH OUR OTHER ACFT WITH SAME TIMES. CAUSE IS PROBABLY FROM PULLEYS THEMSELVES. THEY ARE MADE FROM A HARD WHITE PLASTIC MATERIAL. THE BRAIDED STEEL CABLES ARE RUBBING AGAINST THE PULLEYS INSTEAD OF ROLLING ON THEM. THAT IS CAUSING THEM TO FLAT SPOT AT FIRST AND THEN GROOVE ONCE WORN INTO THE CABLE DEEP ENOUGH. THERE IS ALSO NO NOTICIBLE CABLE DEFLECTION WHERE THE CABLES CONTACT THE PULLEYS, SEEMS LIKE THE PULLEY DIAMETER IS TOO SMALL. REPLACE THE PULLEYS WITH A NORMAL BROWN PHENOLIC TYPE PULLEY USED IN ALL OTHER AREAS OF THE ACFT OR TO ENLARGE THE PULLEY DIAMETER TO INCREASE THE CABLE TO PULLEY CONTACT.

2010FA0000098	CESSNA		NUT	BROKEN
1/28/2010	182P			VERTICAL STAB

ONE OF THE 4 BOLTS HOLDING THE REAR ATTACHMENT BRACKET ON VERTICAL STABILIZER, HAD A BROKEN/ SPLIT NUT. PROBABLE CAUSE COULD HAVE BEEN FROM CORROSION FOUND BETWEEN THE NUT AND WASHER CAUSING STRUCTURAL LOSS OF THE NUT. INSPECTED NUTS FOR CORROSION AND REPALCED AS NECESSARY WITH A SOLID TYPE SELF-LOCKING NUT.

2010FA0000149	CESSNA		SUPPORT BRACKET	CRACKED
2/11/2010	182S		07120591	BATTERY SHELF

DURING ANNUAL INSPECTION BOTH AIRCRAFT BATTERY SHELF/TRAY LEFT & RIGHT SUPPORT BRACKETS P/N 0712059-1 FOUND CRACKED IN FWD & AFT ENDS (TOTAL OF 4 CRACKS). EACH CRACK STARTED AT ENDS OF SUPPORTS IN 90 DEGREE BEND RADIUS AND PROPAGATED TOWARD THE CENTER OF EACH SUPPORT. CRACKS .25 TO .75 INCHS LONG. THIS IS THE FOURTH 182S/T MODEL WE HAVE FOUND TO BE CRACKED IN THIS MANNER AND HAD TO INSTALL REPLACEMENT SUPPORTS. ONE AIRCRAFT PREVIOUSLY REPAIRED HAS ALREADY CRACKED THE REPLACEMENT PARTS AND REQUIRED YET ANOTHER SET TO BE INSTALLED. THESE SUPPORT BRACKETS ARE NOT OF A THICK ENOUGH GAUGE SHEETMETAL TO WITHSTAND BOTH THE WEIGHT OF THE 24V BATTERY IT SUPPORTS AND NORMAL AIRFRAME VIBRATION. RECOMMEND CLOSE INSPECTION AT EVERY ANNUAL/100HR WITH SMALL MIRROR AS AREA IN QUESTION IS NOT READILY VISIABLE. RECOMMEND MANUFACTURER IMPROVE DESIGN WITH THICKER/HEAVIER SUPPORTS & OFFER IMPROVED DESIGN REPLACEMENT PARTS.

DYCR020099	CESSNA		PITOT LINE	MELTED
1/20/2010	182T			ZONE 500

PILOT REPORTED LOW AIRSPEED INDICATION DURING TAKEOFF, CONTINUED FLIGHT TO ALTITUDE AND NOTICED THAT A/S INDICATION WAS SLOWLY DROPPING. KNOWING THAT THE PROBLEM WAS INDICATION ONLY, THE PILOT LANDED WITHOUT INCIDENT. MX INVESTIGATED THE CAUSE OF THE PROBLEM AND DISCOVERED THAT

THE PLASTIC PITOT LINE NEAR THE PITOT TUBE HAD MELTED AND RESTRICTED AIRFLOW.

2010FA0000023	CESSNA	LYC	DUCT	COLLAPSED
1/6/2010	206H	IO540*	S1053K25T39	INDUCTION INTAKE

DURING ANNUAL INSP, FOUND DUCT JUST AFT OF INDUCTION FILTER TO BE PARTIALLY COLLAPSED. AFTER REMOVING DUCT, FOUND THE INTERNAL WIRE FORMERS TO BE DISCONNECTED AND UNRAVELED CAUSING THE DUCT TO COLLAPSE.

CA100112003	CESSNA	PWA	OIL FILTER	FAILED
1/7/2010	208	PT6A114A	3059258	ENGINE

(CAN) INNER CONE (SCREEN) SEAMS ARE BECOMING UNGLUED. (TC NR 20100112003)

CA091211011	CESSNA	PWA	ATTACH FITTING	CORRODED
12/10/2009	208	PT6A114A 8000	8A02700003	MLG FLOAT

(CAN) THE FLOATS ARE FITTED TO A ACFT. THE FWD FLYING WIRE ATTACH BRACKET WAS FOUND CORRODED. PART REPLACED WITH NEW UNIT.

2010FA0000099	CESSNA		TRUNNION	CHAFED
1/7/2010	208B		264101214	RT MLG

RT MLG TRUNNION WAS FOUND CHAFED AND WORN BEYOND LIMIT BY CONTACT WITH MLG FAIRING PN 2641018-28. WEAR LIMIT IS ESTABLISHED IN CAB05-17 WHICH ADDRESSES THIS CONDITION IN EARLIER SN AIRPLANES BUT DOES NOT COVER THIS AIRPLANE MFG 6/5/08. CONDITION WAS NOT DETECTED UNTIL MLG WAS REMOVED FOR SCHEDULED CORROSION INSP ALTHOUGH THE AREA IS EASILY INSPECTED WITH THE FAIRING REMOVED. AIRPLANE CAME FROM FACTORY WITH NO RUB STRIP ON THE TRUNNION OR RUBBER MOLDING ON THE LOWER EDGE OF THE FAIRING AS CALLED FOR IN CAB05-17. THIS AREA SHOULD BE INSPECTED ANY TIME THE FAIRING IS REMOVED ON EITHER SIDE.

2010FA0000020	CESSNA	PWA	TUBE	CORRODED
1/5/2010	208B	PT6A114	3013446	OIL/FUEL HEATER

THE RIGID STEEL TUBE THAT FEEDS INTO THE OIL/FUEL HEATER HAS DEVELOPED LITTLE PIN HOLES UNDERNEATH THE FIRE LOOP BRACKET THAT ATTACHES THERE. WHEN YOU TAKE THE LINE OFF, IT JUST LOOKS LIKE LITTLE DOTS OF CORROSION BUT WHEN YOU PRESSURIZE IT WITH AIR, IT LEAKS AT AN EXTREME RATE. POSSIBLE CAUSE COULD BE ADEL CLAMP CHAFING OR CORROSION.

CA091207005	CESSNA	PWA	SUPPORT BRACKET	BUCKLED
12/4/2009	208B	PT6A114	26111441	TE FLAPS

(CAN) UNCOMMANDED RETRACTION OF FLAPS FROM 20 DEG TO 10 DEG ON APPROACH, RESULTING IN A DROP OF 50 FT. FLAP MOTOR CIRCUIT BREAKER POPPED. INSP FOUND THAT THE FLAP TRANSMISSION SUPPORT BRACKET PN 2611144-1 HAD BUCKLED & TWISTED PULLING THE FLAP TRANSMISSION OUT OF POSITION. REFER TO ATTACHED CAB05-4 FOR MORE DETAILS. THIS CAB WAS ACCOMPLISHED ON THIS ACFT ON AUGUST 28, 2005 AT 6959.0 HOURS. SK208-158 REPAIR KIT IS BEING INSTALLED TO RECTIFIED THIS DAMAGE.

CA091206006	CESSNA	PWA	FLOW DIVIDER	FAULTY
12/4/2009	208B	PT6A114A		FUEL SYSTEM

(CAN) THE CREW REPORTED LARGE AMOUNTS OF WHITE SMOKE COMING OUT OF THE ENGINE COWLING AFTER SHUTDOWN. THERE WAS A POSSIBLE CHANCE THAT A FIRE MAY OCCUR, SO THE FIRE DEPT WAS NOTIFIED. THE FUEL FLOW DIVIDER WAS SUSPECTED TO BE THE FAULT, THE FLOW DIVIDER WAS LEAKING FUEL AND IT WAS REPLACED. A TOTAL OF 5 GROUND RUNS WERE COMPLETED. NO ABNORMALITIES WERE NOTED. ACFT RETURNED TO SERVICE. THERE WAS 1663 HR'S ON THIS FLOW DIVIDER.

CA100112004	CESSNA	PWA	OIL FILTER	FAILED
1/7/2010	208B	PT6A114A	305925801	ENGINE

(CAN) INNER CONE (SCREEN) SEAMS ARE BECOMING UNGLUED. (TC NR 20100112004)

CA091215010	CESSNA	PWA	ENGINE	UNKNOWN
12/3/2009	208B	PT6A114A		

(CAN) PILOT REPORTED HEARING A GRINDING NOISE AND SHORTLY AFTERWARD NG WENT TO ZERO. ENGINE WILL BE TRANSPORTED TO MANUFACTURER FOR INVESTIGATION. MANUFACTURER WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC NR 20091215010)

2010FA0000096	CESSNA		TORQUE TUBE	CRACKED
1/11/2010	210M		12604568	RUDDER

UPON LANDING, PILOT LT RUDDER TORQUE TUBE CRACKED AT PEDDLE ATTACH POINT BELOW WELD. NO EVIDENCE OF FATIGUE OR STRESS CRACKS. NOTED CLEAN FRESH BREAK.

2010FA0000045	CESSNA	CONT	TRACK	BROKEN
1/15/2010	337G	IO360*	15130551	MLG

PN 1513055-1 CAM TRACK ASSY BROKE UPON GEAR RETRACTION. NOSE GEAR THEN WOULD NOT RETRACT PROPERLY OR EXTEND AND LOCK PROPERLY. PUMP MOTOR C/B CONTINUED TO TRIP DURING THE FLIGHT. ACFT WAS LANDED WITHOUT INCIDENT. IT WAS NOTICED THAT THE NOSE GEAR WAS COCKED TO THE RIGHT AND COULD NOT BE TURNED PAST CENTER.

CA091203004	CESSNA	CONT	HUB	UNSERVICEABLE
11/18/2009	402B	TSIO520E		BLADE SOCKETS

(CAN) UPON VISUAL INSP OF HUB PARTS THE HUB WAS FOUND TO BE UNSERVICABLE DUE TO EXPANSION PLUG HOLES WERE DRILLED IN THE CRITICAL AREA. THE HUB WAS RETURNED TO THE CUSTOMER AND NO OTHER ACTION WAS TAKEN.

2010FA0000041	CESSNA	PWC	UPLOCK SWITCH	FAILED
12/14/2009	510	PW615FA		MLG

AFTER SELECTING GEAR SELECT HANDLE TO THE GEAR DOWN POSITION, THE PILOT NOTED THE ACFT RECEIVED ALL 3 GREEN "DOWN AND LOCK" LIGHTS AND THE RED IN-TRANSIT "UNSAFE" LIGHT. OPERATOR DECLARED AN EMERGENCY LANDING AND LANDED WITHOUT INCIDENT. A POST FLIGHT INSP FOUND THE LT MAIN LANDING UP-LOCK SWITCH BAD BY TAPPING ON SWITCH WITH GEAR DOWN, COULD CAUSE THE RED UNSAFE LIGHT TO GO OUT. REPLACED LT MLG UP-LOCK SWITCH AND OPS CHECKED GOOD WHILE CYCLING GEAR SEVERAL TIMES.

CA091209004	CESSNA	WILINT	LINE	CRACKED
11/26/2009	525	FJ44	63170161	HYDRAULIC SYS

(CAN) PILOT REPORTED NO TAIL DE-ICE BOOT INDICATION BETWEEN 72 TO 82 N2. RAN AIC ON GROUND TAIL DE-ICE BOOT WOULD INFLATE, BUT NO INDICATION. INDICATION WOULD WORK UP TO 72 AND PAST 82N2, HOWEVER IN BETWEEN WAS VERY ERRATIC. TUBE FOUND SEPARATED FROM B NUT, FRAME HAD CRACKED OFF. TUBE AVAILABLE FOR INSP IF REQUIRED.

S30R1000022	CESSNA	WILINT	PRECOOLER	RUPTURED
12/31/2009	525A	FJ442A	99144024	ZONE 400

THE RT ENGINE BLEED AIR TO BYPASS AIR PRE COOLER RUPTURED IN FLIGHT CAUSING THE UPPER AND LOWER PYLON SKINS AS WELL AS THE ACFT SKIN TO BE COME EXPOSED TO HOT EXHAUST GASES WHICH SUBSEQUENTLY RESULTED IN WARPAGE OF THESE SKINS. PILOT REPORTED, HEARD A NOISE AND NOTICED THE RT ENGINE ITT STARTING TO RISE AND THE N1 AND N2 SPEEDS DROPPING. RT ENGINE WAS BROUGHT TO IDLE AND THE ACFT LANDED. GROUND INSP FOUND THAT RT BLEED AIR PRECOOLER HAD RUPTURED. EXPOSURE TO THE ESCAPING HIGH TEMP AND HIGH PRESSURE GASES CAUSED PORTIONS OF THE PYLON STRUCTURE AND ONE OF THE FUSELAGE, UNPRESSURIZED SKINS TO BECOME DAMAGED. NDT TESTING FOUND THE HARDNESS OF THE AFFECTED STRUCTURE TO HAVE CHANGED AND WAS OUT OF LIMITS REQUIRING ALL AFFECTED STRUCTURES TO BE REPLACED.

CA091211001	CESSNA	PWA	BRACKET	CRACKED
-----------------------------	--------	-----	---------	---------

12/9/2009	550	JT15D4		TORQUE TUBE
(CAN) DURING A ROUTINE INSP OF NOSE WHEEL, A SUSPECTED CRACK WAS VISUALLY OBSERVED ON 1 OF THE 4 WELDS SECURING 2ND NUT PLATE BRACKETS TO THE TORQUE TUBE ASSY. TORQUE TUBE WAS REMOVED AND NDT VERIFIED THE CRACK AND FOUND 2 MORE CRACKS.				
CA091211002	CESSNA	PWA	CESSNA	BRACKET CRACKED
12/9/2009	550	JT15D4		TORQUE TUBE
(CAN) DURING AN INSP OF THE NOSE WHEEL WELL, A CRACK WAS VISUALLY OBSERVED ON ONE OF THE WELDS SECURING THE 2 NUT PLATE BRACKETS TO THE TORQUE TUBE ASSY. TORQUE TUBE WAS REMOVED AND FPI WAS CARRIED OUT TO VERIFY THE CRACK.				
CA091231001	CESSNA	PWA		TORQUE TUBE CRACKED
12/22/2009	550	JT15D4	55421028	NLG
(CAN) SMALL CRACKS STARTING FROM WELDS WHERE TUBE ENDS ARE WELDED TO MOUNTING PLATE ENDS. CAMPAIGN NOTICE 851-32-30-051 CESSNA 550 (TC NR 20091231001)				
CA091216006	CESSNA	LYC		FUEL NOZZLE OBSTRUCTED
12/12/2009	T206H	TIO540AJ1A		ENGINE
(CAN) ON APPROACH FOR LANDING PILOT REPORTED "ROUGHNESS" FROM THE ENGINE AT THE LOWER POWER SETTINGS. GROUND RUNNING CONFIRMED ROUGHNESS WITH BLACK SMOKE COMING FROM TAILPIPE. ONE OF THE FUEL NOZZLE ASSEMBLIES WAS FOUND TO HAVE FUEL DYE RESIDUE, "GUMMY DIRT" PARTIALLY IMPEDING THE UPPER DECK PRESSURE AT THE NOZZLE. ALL SIX NOZZLE ASSEMBLIES INSPECTED, CLEANED , REINSTALLED. GROUND RUNS SATISFACTORY. (TC NR 20091216006)				
CA091216004	CESSNA	LYC		ALTERNATOR LOW
12/15/2009	T206H	TIO540AJ1A		AC
(CAN) DURING INITIAL CLIMB-OUT "LOW VOLTAGE" ANNUNCIATOR ILLUMINATED, PILOT NOTED A DISCHARGE INDICATION ON THE AMMETER. UNEVENTFUL RETURN TO AIRPORT FOR LANDING. ALTERNATOR FOUND AT FAULT. (TC NR 20091216004)				
CA091221005	CESSNA	LYC		CASE BROKEN
12/21/2009	T206H	TIO540AJ1A	14924PM	STARTER GEN
(CAN) ON FIRST START OF THE DAY, STARTER WOULD ENGAGE BUT UNABLE TO CRANK ENGINE, GEAR GRINDING SOUND HEARD. VISUAL INSPECTION REVEALED SIGNIFICANT STARTER CASING RUPTURE (TC NR 20091221005)				
CA100114004	CESSNA	CONT		ALTERNATOR FAILED
1/13/2010	TU206G	IO550F	DOFF10300BR	DC SYSTEM
(CAN) ALTERNATOR FAILED DURING FLIGHT. ELECTRICAL POWER LOSS INDICATED TO CREW. CREW RETURNED FOR LANDING AT CYTZ. (TC NR 20100114004)				
CA091203006	CESSNA	CONT		SPAR DAMAGED
11/24/2009	U206F	IO520F	12221093	WING
(CAN) UPON PULLING THE WINGS FOR A PAINT JOB, IT WAS NOTICED AT SOME POINT SOMEONE WHO WAS DRILLING A SCREW FROM THE WING ROOT FAIRING, DRILLED THROUGH THE WING ATTACH POINT FROM THE SPAR INTO THE WING BOLT.				
2010FA0000065	CESSNA	CONT		RELEASE CABLE BROKEN
1/21/2010	U206G	IO520*	SK210174A	PILOT SEAT
PILOT REPORTED DIFFICULTY RELEASING THE PILOT SEAT ADJUSTMENT. SEAT WAS LOCKED IN FWD POSITION. THIS ACFT HAD PREVIOUSLY BEEN MODIFIED IAW SEB 07-5R1 BY THE INSTALLATION OF THE SERVICE KIT SK210-174A, WHICH CONSISTS OF AN INERTIA REEL SYS INSTALLED TO PREVENT SEAT FROM MOVING REARWARD IN THE EVENT OF A SEAT LATCHING MECHANISM FAILURE. RELEASE CABLE WAS BROKEN AT THE END THAT ATTACHES TO SEAT ADJUSTMENT HANDLE. THIS IS THIRD CABLE IN FLEET ACFT FOUND DAMAGED IN THAT AREA				

(SECOND ONE IN 2 DAYS). PROBLEM APPEARS TO COME FROM MISALIGNMENT OF CABLE CLAMP DURING INSTALLATION. THESE SERVICE KITS ARE BEING INSTALLED BY MFG SERVICE CTR ON ACFT WITH SEAT LATCHING MECHANISMS AFFECTED BY MFG SL SE83-6 AND (AD) 87-20-03 REVISION 2 OR SUBSEQUENT REVISION. FAIL SAFE FOR THIS CABLE RELEASE WILL ALLOW THE SEAT TO MOVE TOWARDS THE FRONT OF ITS TRAVEL, BUT STOPS MOVEMENT TO REAR, AND COULD SERIOUSLY RESTRICT THE PILOT'S ABILITY TO EXIT THE ACFT.

CA091215001	CNDAIR	PISTON	CRACKED
12/14/2009	CL2151A10	33130131	DOOR UPLOCK

(CAN) 6 YEAR "C" CHECK REQUIREMENT IS TO REMOVE THE BOMB DOOR UPLOCK ACTUATOR FOR INSPECTION AND TEST. WE HAVE EXPERIENCED A SIGNIFICANT FAILURE RATE(10 FINDINGS IN THE LAST 5 YEARS) OF THE UPLOCK ACTUATOR PISTON P/N 3313013-1 DURING NDT OF THESE UNITS. FROM THESE FINDINGS, WE HAVE PRO-ACTIVELY INTRODUCED A PROCEDURE TO DISASSEMBLE AND NDT (LPI AND EDDY CURRENT) THE PISTON ANNUALLY AT THE "B" CHECK. WE ALSO REVIEWED OUR RIGGING PROCEDURES TO ENSURE IT WAS BEING COMPLETED PROPERLY. OTHER CL-215 OPERATORS HAD BEEN NOTIFIED IN PASSING CONVERSATIONS/QUERIES BUT NO SDRS HAD BEEN SUBMITTED. THIS WAS IDENTIFIED DURING OUR INTERNAL AUDIT REVIEWS. IF THIS PISTON WAS TO FAIL, AN UNCOMMANDED BOMB DOOR OPENING WOULD BE THE RESULT. DURING NORMAL FLIGHT, IT WOULD BE OF NO SIGNIFICANCE BUT DURING LANDINGS OR WATER SCOOPING TO RELOAD THE BOMB TANK, IT WOULD JEOPARDIZE THE AIRCRAFT'S SAFETY AND SIGNIFICANT DAMAGE/LOSS OF AIRCRAFT COULD RESULT. WE RECOMMEND THAT THE MANUFACTURE INVESTIGATE OTHER FINDINGS. OUR CONTRACTED NDT COMPANY PERFORMS NDT ON TWO OTHER COMPANIES AIRCRAFT AND HAS FOUND AN APPROXIMATELY 50 [PERCENT FAIL RATE. IF OTHER OPERATORS ARE HAVING THE SAME ISSUES WE ARE WITH FAILURE, THEN ,DUE TO POTENTIAL CONSEQUENCES, WE FEEL A SERVICE BULLETIN IS WARRANTED FOR THIS INSPECTION TO OCCUR BEFORE THE 6 YEAR CHECK COMES DUE. (TC NR 20091215001)

CA091215007	CNDAIR	SKIN	CRACKED
10/9/2009	CL2151A10	21530027116	FS 388

(CAN) FUSELAGE SKIN CRACKED APPROXIMATELY 2" LONG AT FS 388.0, LBL51.0 AND WL217.0 LEFT SIDE. THIS IS THE SECOND AIRCRAFT IN OUR FLEET FOUND CRACKED. A REQUEST FOR AN REO HAS BEEN SUBMITTED TO MANUFACTURER. (TC NR 20091215007)

CA091215005	CNDAIR	BFGOODRICH	HOUSING	CRACKED
12/11/2009	CL2151A10	2158750224	2604141	BRAKE ASSY

(CAN) NDT OF BRAKE HOUSING FINDS CRACKS IN BOTTOM OF PISTON HOUSING. 32-48-24 PAGE 512 OF THE BF GOODRICH AEROSPACE COMPONENT MAINTENANCE MANUAL STATES THAT EVERY BRAKE LINING CHANGE REQUIRES A PENETRATE INSPECTION OF THE BRAKE HOUSING. THIS IS APPROXIMATELY OUR 5TH FINDING OF CRACKS IN THIS AREA IN THE LAST 10 YEARS (TC NR 20091215005)

CA091214008	CNDAIR	ACTUATOR	MISREPAIRED
11/25/2009	CL6002B19		RUDDER

(CAN) DURING DISASSEMBLY OF 27427-3 ACTUATOR ASSEMBLY (ITEM 2-1) IAW CMM 27-23-01 REV 5, DATED AUG 21/07, IT WAS NOTED THAT THE TWO (2) DYNAMIC SEALS USED TO PREVENT EXTERNAL FLUID LEAKAGE TO ATMOSPHERE ON BOTH ENDS OF THE PISTON ROD WERE INSTALLED IN THE WRONG GROOVE LOCATION OF THE 27425-1 HOUSING GLAND (ITEM 2-40) AND 27424-1 TAIL STOCK S/A (ITEM 2-100). THE INNER DYNAMIC SEALS WERE INSTALLED ON THE OUTER GROOVE AND THE OUTER DYNAMIC SEALS WERE INSTALLED ON THE INNER GROOVE OF THE TAILSTOCK AND GLAND HOUSING. ALSO IT WAS NOTED THAT APART FROM ITEM 60 AND 120 BEING INSTALLED IN THE WRONG GROOVE, THEY WERE INSTALLED BACKWARD. 'O' RING (REF. ITEM 2-65 OR 2-65A USED WITH ITEM 2-60 AND ITEM 2-130 OR 2-130A USED WITH ITEM 2-120) WERE INSTALLED ON THE OUTSIDE TOWARD THE ATMOSPHERE INSTEAD OF TOWARD THE INTERNAL PRESSURE OF THE ACTUATOR. SEE ATTACHMENTS FOR PERTAINING DOCUMENTS, PHOTO'S AND PART BREAKDOWN OF UNIT AT DISCREPANT ASSEMBLY LEVEL IN QUESTION. NOTE: TIME SINCE OVERHAUL UNKNOWN. UNIT REPAIRED BY ANOTHER REPAIR STATION. NAME UNKNOWN. (TC NR 20091214008)

CA091209001	CNDAIR	ACTUATOR	MISINSTALLED
11/25/2009	CL6002B19	274273	RUDDER

(CAN) DURING DISASSEMBLY OF 27427-3 ACTUATOR ASSY (ITEM 2-1) IAW CMM 27-23-01 REV 5, DATED AUG 21/07, IT WAS NOTED THAT THE (2) DYNAMIC SEALS USED TO PREVENT EXTERNAL FLUID LEAKAGE TO ATMOSPHERE

ON BOTH ENDS OF THE PISTON ROD WERE INSTALLED IN WRONG GROOVE LOCATION OF THE 27425-1 HSG GLAND (ITEM 2-40) AND 27424-1 TAILSTOCK S/A (ITEM 2-100). INNER DYNAMIC SEALS WERE INSTALLED ON THE OUTER GROOVE AND THE OUTER DYNAMIC SEALS WERE INSTALLED ON THE INNER GROOVE OF THE TAILSTOCK AND GLAND HSG. ALSO IT WAS NOTED THAT APART FROM ITEM 60 AND 120 BEING INSTALLED IN THE WRONG GROOVE, THEY WERE INSTALLED BACKWARD. O-RING (REF. ITEM 2-65 OR 2-65A USED WITH ITEM 2-60 AND ITEM 2-130 OR 2-130A USED WITH ITEM 2-120) WERE INSTALLED ON THE OUTSIDE TOWARD THE ATMOSPHERE INSTEAD OF TOWARD THE INTERNAL PRESSURE OF THE ACTUATOR.

CA091206001	CNDAIR		ACTUATOR	JAMMED
11/1/2009	CL6002B19		854D10024	TE FLAPS

(CAN) ONE FLAP ACTUATOR WAS JAMMED DURING APPROACH, ACFT WAS LANDED SAFELY. ACTUATOR REPLACED IAW AMM.

CA091206003	CNDAIR		WINDSHIELD	CRACKED
11/30/2009	CL6002B19		NP13932110	COCKPIT

(CAN) ON APPROACH THE F/O WINDSHIELD STARTED TO SPARK AND THEN WINDSHIELD CRACKED, INNER PANE FAILED. REMOVED AND REPLACED THE F/O WINDSHIELD IAW AMM 56-11-01.

CA091214006	CNDAIR	GE	ACTUATOR	MALFUNCTIONED
12/10/2009	CL6002B19	CF343A1	85210023	TE FLAPS

(CAN) ON APPROACH TO MSP, THE FLAP FAIL CAUTION MESSAGE WAS DISPLAYED ON EICAS WHEN THE FLAPS WERE SELECTED FROM ZERO TO 8 DEGREES. THE FLAPS FAILED AT ZERO DEGREES AND AN UNEVENTFUL FLAP ZERO LANDING WAS CARRIED OUT. THE LT AND RT FLAP FLEX DRIVES WERE CLEANED AND LUBRICATED AND ALL 8 FLAP ACTUATORS WERE REPLACED. 5 OF THE 8 FLAP ACTUATORS FAILED THE FREEZE TESTING THAT WAS CARRIED OUT AFTER REMOVAL.

CA091208002	CNDAIR	GE	BRACKET	CRACKED
12/7/2009	CL6002B19	CF343B1	601R3872317	SERVICE DOOR

(CAN) DEFECT-885812, SERVICE DOOR HANDLE PROX/STOP BRACKET CRACKED. BRACKET REPLACED.

CA091208005	CNDAIR	GE	BRACKET	CRACKED
12/7/2009	CL6002B19	CF343B1	601R3872317	SERVICE DOOR

(CAN) SERVICE DOOR HANDLE PROX/STOP BRACKET CRACKED. REPLACED. DEFECT-885812.

CA100114003	CNDAIR	GE	WINDOW	CRACKED
1/13/2010	CL6002B19	CF343B1	601R3303312	COCKPIT

(CAN) DURING DESCENT THE RT COCKPIT SIDE WINDOW INNER PLY CRACKED. THE A/C LANDED SAFELY AND THE WINDOW WAS REPLACED BEFORE FURTHER FLIGHT. WINDOW P/N 601R33033-12, S/N 99116H6100. WINDOW HOURS AND CYCLES, TSN 21815, CSN 16578. (TC NR 20100114003).

CA091218001	CNDAIR	GE	SOCKET	SHORTED
12/18/2009	CL6002B19	CF343B1	BC10065003	CABIN LIGHTS

(CAN) PASSENGER IN 4F, REPORTED SEEING SPARKS COMING FROM THE OVERHEAD PANEL AND A PUFF OF SMOKE THAT LASTED JUST A MINUTE. FLIGHT CREW COULD SMELL THE SMOKE JUST AS FLIGHT ATTENDANT WAS ADVISING THEM OF THE SITUATION. SMOKE AND SMELL DISSIPATED VERY QUICKLY. FLIGHT WAS CLIMBING THROUGH 17,000 FEET. CREW ELECTED TO RETURN TO YVR AND DECLARED AN EMERGENCY WITH ATC. A PASSENGER ANNOUNCEMENT WAS MADE BUT NOT OF THE EMERGENCY DECLARATION. PASSENGER REACTION WAS CALM. FLIGHT LANDED SAFELY AND STOPPED SHORTLY AFTER CLEARING THE RUNWAY TO CHECK WITH FLIGHT ATTENDANT FOR ANY MORE ABNORMALITIES. FLIGHT ATTENDANT REPORTED ALL WAS GOOD. EMERGENCY VEHICLES DID FOLLOW THE AIRCRAFT TO THE GATE. REF: DEFECT-887926. LIGHT FIXTURE SHORTED FROM POSSIBLE CONDENSATION. PART REPLACED. (TC NR 20091218001)

CA091206002	CNDAIR	GE	ACTUATOR	FAILED
11/24/2009	CL6002C10	CF348C1	766385C	SLATS

(CAN) FLT CREW REPORTED A SLAT FAIL CAUTION MSG IN FLIGHT. CREW DECLARED AN EMERGENCY AND LANDED WITHOUT FURTHER INCIDENT. MX REPORTED THAT 2 TORQUE INDICATORS WERE TRIPPED ON THE RT WING AND ONE ON THE LT WING. RT WING, OTBD SLAT, INBD ACTUATOR REPLACED AND ACFT RETURNED TO SERVICE.

CA091218003	CNDAIR	GE	POWER LEVER	STIFF
12/17/2009	CL604	CF343B		NR 1

(CAN) CAPTAIN REPORTED THE NR 1 THRUST LEVER WAS STIFF TO OPERATE AND GETTING WORSE AS FLIGHT CONTINUED. A RETURN TO THE FIELD OF DEPARTURE WAS CARRIED OUT. (TC NR 20091218003)

2010FA0000084	COLUMB		BOLT	MISINSTALLED
2/2/2010	LC41550FG400			RT WING

PROBLEM WITH ELECTRICAL CONDUCTIVITY OF RT TOP WING SKIN WAS TRACED TO IMPROPERLY TORQUED WING TO FUSELAGE JUNCTION. 20 OUT OF 28 WING ASSY BOLTS WERE UNDER OR IMPROPERLY TORQUED; OF THESE 12 OUT OF 14 WERE ON THE RT SIDE CAUSING THE CONDUCTIVITY PROBLEM. 8 OF THE NUTS WERE FOUND TO BE BOTTOMED OUT ON THE THREADS OF THE BOLTS AND NOT BEARING ON THE PARTS.

CA091204011	DHAV	PWA	ATTACH FITTING	CORRODED
12/3/2009	DHC2MK3	PT6A27	CT2TF10291	VERTICAL STAB

(CAN) DURING A SCHEDULE INSP, FOUND PAINT BLISTERING ON FORWARD ATTACH FITTING AT SAFETY WIRE HOLE, LOCKWIRE REMOVED FOR FURTHER INSP, FOUND FITTING EXFOLIATED FROM LOCKWIRE HOLE TO ATTACH BOLT HOLE. VERTICAL STAB REMOVED FOR DETAILED INSPECTED, CORROSION FOUND TO BE LEVEL 2, AND FITTING REPLACED, STAB REINSTALLED.

CA100108007	DHAV	PWA	RIB	CRACKED
1/5/2010	DHC2MKI	R985AN14B	C2W753	WING

(CAN) DURING INSPECTION (CF 66-03) THE BOTTOM FLANGE OF WING RIB PN NR C2W753 WAS FOUND CRACKED FROM THE STRINGER CUT OUT TOWARDS THE REAR SPAR APPROX 2 INCHES SEE ATTACHED PHOTO (TC NR 20100108007)

CA100108008	DHAV	PWA	ATTACH FITTING	CORRODED
1/5/2010	DHC2MKI	R985AN14B	C2FS5471A	WING

(CAN) LT WING REMOVED FOR REPAIR OF CRACKED RIB INTERNAL FLANGE OF REAR FORK ON THE LT REAR SPAR FUSELAGE ATTACH FITTING WAS FOUND CORRODED (SEE ATTACHED PICTURE). THIS DEFECT WAS NOT NOTICEABLE WITH THE WING INSTALLED ON THE FUSELAGE AND ONLY BECAME APPARENT WHEN THE WING WAS REMOVED FROM THE AIRCRAFT. CORROSION TO THE FITTING WILL DICTATE REPLACEMENT. NOTE: OPERATORS SHOULD PAY PARTICULAR ATTENTION TO THIS AREA DURING INSPECTION, DEPENDING ON THE AIRCRAFT FIT AND FINISH THIS AREA MAY NOT BE ABLE TO BE INSPECTED PROPERLY WITH THE WING INSTALLED, IN THIS CASE THE ONLY WAY THAT THIS AREA CAN BE ADEQUATELY INSPECTED IS TO REMOVE THE WING. (TC NR 20100108008)

CA091229004	DHAV	PWA	BRACKET	CORRODED
12/22/2009	DHC2MKI	R985AN14B	C2W143	WING SPAR

(CAN) DURING INSPECTION, EXTREME EXFOLIATION CORROSION WAS DISCOVERED ON THE LT CENTER FLAP BRACKET AT IT'S ATTACHMENT TO THE REAR WING SPAR. THIS IS VERY DIFFICULT TO DETECT WITHOUT REMOVAL OF THE GAP SEALS AND THE FLAPS. (TC NR 20091229004)

CA091223002	DHAV	PWA	SCREEN	DETACHED
12/21/2009	DHC3	PT6A135	305925801	OIL FILTER

(CAN) INNER CONE (SCREEN) SCANS ARE BECOMING UNGLUED. (TC NR 20091223002)

CA091223001	DHAV	PWA	SKIN	CRACKED
12/15/2009	DHC3	PT6A34		WING

(CAN) BOTH WINGS, CORRUGATED INNER SKIN CRACK AT MANY PLACES BETWEEN STATION 47.50 THRU 122.50

AND RIBS DAMAGE AT RIVETS JOINT. MANY RIVETS POPPED AT RIBS AND CORRUGATED INNER SKIN JUNCTION. TCCA COMMENTS: AAIR FROM JUL 15/09 SHOWS THAT AIRCRAFT HAS 29411 HOURS ON AIRFRAME. THERE ARE A NUMBER OF STCS INSTALLED ON THIS AIRCRAFT (INCREASE IN GROSS WEIGHT AND STOL KIT, FLOATS, ETC) (TC NR 20091223001)

CA100113004	DHAV		DUCT	MISMANUFACTURED
1/8/2010	DHC6		C6VE10233	BLEED AIR

(CAN) DISCOVERED THAT 32 OF THESE DUCTS WERE MANUFACTURED WITH INCORRECT OUTER INSULATING COVER INSTALLED. THE BATCHES INVOLVED ARE: WO-58717/1, WO-59849/1, WO-65452/1, WO-65452/1.1, WO-66588/1, WO-67938/1, WO-74046/1, WO-77354/1. VIKING HAS PULLED EXISTING STOCK ON HAND TO BE REWORKED TO THE CORRECT CONFIGURATION. WORKING ON A SB TO HAVE THE INCORRECT ITEMS REMOVED FROM SERVICE ONCE REPLACEMENTS BECOME AVAILABLE. (TC NR 20100113004)

CA091208008	DHAV		SKIN	MISSING
12/3/2009	DHC6300		C6W100737	SHROUD

(CAN) AFTER RETURNING FROM A FLIGHT, THE OPERATOR NOTICED A PIECE APROX 4-6 INCHES WIDE OF THE SHROUD SKIN PN C6W1007-37 WAS MISSING, JUST OTBD OF STN 135. THIS SHROUD SKIN IS SECONDARY STRUCTURE. OPERATOR WAS INSTRUCTED TO DO A VISUAL INSP FOR CRACKING OF THE UPPER AND LOWER SHROUD SKINS ON BOTH WINGS. OPERATOR WAS INSTRUCTED TO EITHER REPLACE THE DAMAGED SKIN WITH A NEW SKIN OR COULD OFFER A REPAIR DESIGN TO SPLICE IN A SKIN SECTION. OPERATOR ASKED FOR MORE DETAILS OF THE POTENTIAL CAUSE OF THE FAILURE AND THE OPERATING ENVIROMENT OF THE ACFT.

CA100105005	DHAV	PWA	MOUNT	CRACKED
12/22/2009	DHC6300	PT6A34		FUEL HEATER

(CAN) DURING AN INDEPENDENT CONTROL CHECK OF THE RT ENGINE, IT WAS NOTED THAT THE OIL TO FUEL HEATER SEEMED LOOSE ON ITS MOUNT. FUEL HEATER WAS REMOVED FROM THE ENGINE AND INSPECTED. BOTH MOUNTING FLANGES OF FUEL HEATER WERE CRACKED. IT IS NOT KNOWN HOW THIS DAMAGE OCCURRED. IT IS POSSIBLE, HOWEVER, TO APPLY A LARGE AMOUNT OF TORQUE ON THE FUEL HEATER MOUNTING FLANGE WHILE INSTALLING FLEXIBLE FUEL LINE ONTO THE FUEL HEATER. THIS FUEL LINE IS REMOVED AND INSTALLED OFTEN TO ALLOW FOR ROUTINE STARTER GENERATOR MIX. IT IS RECOMMENDED THAT FUEL LINE FITTING ON FUEL HEATER BE SUPPORTED BY ANOTHER WRENCH WHEN INSTALLING FLEXIBLE FUEL LINE. SHOULD THE FUEL HEATER BECOME TOTALLY DETACHED FROM THE ENGINE CASE, LOSS OF ENGINE OIL WOULD OCCUR DUE TO THE DISLODGING OF A SMALL PIPE THAT IS SEALED AT BOTH ENDS BY O-RINGS.

CA091223004	DHAV	PWC	FADEC	MALFUNCTIONED
12/17/2009	DHC8*	PW150A	8193007009	RT ENGINE

(CAN) ENROUTE A POWERPLANT MESSAGE APPEARED ON TH ED. OPERATOR PROCEDURE IS TO RETURN TO BASE IN CASE THIS HAPPENS. ON THE RETURN PORTION OF THE TRIP THE FADEC CAUTION LIGHT ILLUMINATED AND THE RT ENGINE WAS SHUT DOWN. FADEC WAS REPLACED. (TC NR 20091223004)

CA091221006	DHAV	PWA	WIRE	BURNED
12/16/2009	DHC8102	PW120A		RT WING

(CAN) ENROUTE FLIGHT 7729, BOTH AC GENERATOR KICKED OFF LINE. AT THE SAME TIME, LT AND RT TRUS, LT AND RT ELEVATOR HORN HEAT, AND STALL WARNING CAUTION LIGHTS ILLUMINATED. FLIGHT CREW PERFORMED AN AC GEN RESET AND EVERYTHING CAME BACK ON LINE. FOLLOWING AN UNEVENTFUL LANDING, AIRCRAFT REMOVED FROM SERVICE FOR A CLOSER INSPECTION. FOUR WIRES ON THE RT WING REAR SPAR BETWEEN THE FUSELAGE AND NACELLE WERE FOUND BURNED. WIRES NR 2421-20002F12B-1, 2421-10003G12C-1, 2442-10004A12-1 AND 2442-10005A12B-1 REPLACED. AIRCRAFT RUNS CARRIED OUT. THE NR 1 AC GEN CAME ON-LINE, HOWEVER THE NR 2 AC GEN WOULD ONLY COME ON LINE IF THE NR 1 AC GEN WAS ALREADY UP AND RUNNING. AIRCRAFT SHUT DOWN AND THE NR 2 AC GENERATOR CONTROL UNIT (GCU) REPLACED. AIRCRAFT RUNS CARRIED OUT AGAIN AND THIS TIME MAINTENANCE WAS ABLE TO HARD FAULT THE NR 2 AC GEN. NR2 AC GEN REPLACED. ON THE SUBSEQUENT RUN UP , ALL SYSTEMS WAS CHECKED "SERVICEABLE". AIRCRAFT RETURNED TO SERVICE. (TC NR 20091221006)

CA091231002	DHAV	PWA	WIRE	BURNED
-----------------------------	------	-----	------	--------

12/29/2009 DHC8102 PW120A M2275934129 RT WING

(CAN) CREW RECEIVED NR 1 AC GEN AND NR 2 AC GEN SIMULTANEOUSLY IN CRUISE, THE LOSS OF POWER WAS CONFIRMED BY THE AC SYSTEM POWER MONITOR AND THE QUICK REFERENCE HANDBOOK PROCEDURE WAS INITIATED. BOTH GENERATORS RETURNED ON-LINE AFTER RESET BUT SOON KICKED OFFLINE. DECISION WAS MADE TO DIVERT AND THE AIRCRAFT LANDED WITHOUT FURTHER INCIDENT. DURING TROUBLESHOOTING, BURNT WIRES WERE OBSERVED ON THE RT WING AFT SPAR BETWEEN THE FUSELAGE AND THE NACELLE. A TOTAL OF FOUR WIRES, IDENTIFIED AS 2442-1006A12C-1, 2421-10001G12A-1, 2421-10003F12C-1 AND 2421-20003F12C-1, WERE FOUND WITH BURN MARKS NEAR THE FAIRLEAD LOCATED AT WING STATION ~YW 80.0. THE WIRES ARE BEING REPLACED. (TC NR 20091231002)

[CA091204010](#) DHAV PWA FITTING WORN

12/2/2009 DHC8102 PW120A 85545002005 RUDDER

(CAN) BUSHING HOLE ELONGATED IN BOTH UPPER AND LOWER FLANGE (0.420 AND 0.416 RESPECTIVELY). BUSHINGS WERE INSTALLED INCORRECTLY IAW IPC 55-40-00, FIG 5, ITEM 120 AND 125. BUSHINGS WERE INSTALLED FROM TOP, INSTEAD OF BOTTOM AS PICTURED IN IPC.

[CA100113002](#) DHAV PWA ACTUATOR FRACTURED

12/30/2009 DHC8102 PW120A A44700009 SPOILER

(CAN) THE ACFT ARRIVED WITH A HYDRAULIC LEAK ON THE OUTBOARD SIDE OF THE LEFT NACELLE. INVESTIGATION REVEALED THAT THE LEAK WAS COMING FROM THE LT OUTBOARD ROLL SPOILER ACTUATOR, P/N A44700-009, S/N 0377. THIS PART HAS A TSR OF 8451 HRS AND CSR OF 8462 CYCLES. TSO/TSN IS 52553 HRS AND CSN/CSO IS 58223 CYCLES. THE ACTUATOR HOUSING AT THE PISTON END CAP WAS FOUND FRACTURED AND DISLOCATED FROM THE ACTUATOR. IT WAS HELD ATTACHED TO THE ACTUATOR ONLY BY LOCKWIRE. THE LT OUTBOARD ROLL SPOILER ACTUATOR WAS REPLACED AND THE SYSTEM CHECKED SERVICEABLE. IT SHOULD BE NOTED THAT THE OUTBOARD ROLL SPOILERS ARE DISABLED ABOVE 140 KTS AND THE HYDRAULIC PRESSURE SUPPLY IS REMOVED. THERE IS HOLD DOWN PRESSURE SUPPLIED TO THE ACTUATOR AT ALL TIMES. (TC NR 20100113002)

[CA091223010](#) DHAV PWA ACTUATOR LOOSE

12/6/2009 DHC8102 PW120A MLG DOOR

(CAN) LT MAIN GEAR DOOR FAILED TO CLOSE ON RETRACTION. REF DEFECT 885533. ACTUAL FAULT WAS RESULT OF HINGE ARM TO ACTUATOR ROD BOLT P/N: NAS6204-13H COMING LOOSE FROM THE THREADED BUSHING P/N: 83231046-001 REF AIPC 32-10-00-45 ITEM 290 AND 330. BOLT WAS MISSING WITH ONLY BROKEN LOCKWIRE FOR BOLT HEAD REMAINING. BUSHING HAD COME OUT OF HINGE ARM AND WAS HANGING BY LOCKWIRE. BOLT AND BUSHING ARE SAFETY WITH LOCKWIRE ON INSTALLATION. REPLACED MISSING BOLT AND FUNCTIONAL GEAR RETRACTION CHECK CARRIED OUT (TC# 20091223010)

[CA091223011](#) DHAV PWA DOOR DISCONNECTED

12/17/2009 DHC8102 PW120A MLG

(CAN) FLIGHT CREW REPORTED "RT FORWARD GEAR DOOR ARM IS DETACHED. PIN IS GONE". REF J/L 502223 DEFECT 887954. A/C FERRIED TO YYC GEAR DOWN WITH R FWD MLG DOOR REMOVED. INSTALLED RH FWD GEAR DOOR WITH NEW HARDWARE, GEAR SWINGS CARRIED OUT. ACTUAL FAULT WAS RESULT OF HINGE ARM TO ACTUATOR ROD BOLT P/N: NAS6204-13H COMING LOOSE FROM THE THREADED BUSHING P/N: 83231046-001 REF AIPC 32-10-00-45 ITEM 290 AND 330. BOLT AND BUSHING WERE MISSING WITH ONLY BROKEN LOCKWIRE FOR BOLT HEAD REMAINING. BOLT AND BUSHING ARE SAFETY WITH LOCKWIRE ON INSTALL. REINSTALLED RT FORWARD GEAR DOOR WITH NEW HARDWARE AND SWUNG THE LANDING GEAR-GROUND CHECKS SERVICEABLE. (TC NR 20091223011)

[CA100111005](#) DHAV PWA WIRE SHORTED

1/11/2010 DHC8202 PW123D NR 2 EFIS

(CAN) WHILE PERFORMING A VISUAL INSPECTION OF AIRCRAFT ZONE 200 INTERIOR, THE TECHNICIAN FOUND TWO SHIELDED WIRES FOR NR 2 EFIS SYSTEM SHORTED ON THE EDGE OF THE RETAINER AT LEFT FUSELAGE STA X302.400 BETWEEN STRINGERS 7 AND 8. THE RETAINER HAS MINOR DAMAGE FROM ELECTRICAL ARCING. PROBLEM APPEARS CAUSED BY INSUFFICIENT PROTECTION OF THE WIRING HARNESS AS THE BRAIDED WRAPPING DOES NOT EXTEND OVER THE DAMAGED WIRING. (TC NR 20100111005)

CA091204008	DHAV	PWA	CONNECTOR	BURNED
11/24/2009	DHC8311	PW123	7700301	CABIN LIGHT
(CAN) DURING C-CHECK INSP LT OVERHEAD BIN LIGHT CONNECTOR 3320-P40 AND RECEPTACLE 3320-J35 FOUND SEVERLY BURNED.				
CA091223014	DHAV	PWA	LINE	UNSERVICEABLE
12/18/2009	DHC8311	PW123	82970010477	HYD SYSTEM
(CAN) IN CRUISE FLIGHT, THE NR 2 HYDRAULIC PRESSURE LINE IN THE RT NACELLE FAILED, CAUSING LOSS OF NR 2 SYSTEM HYDRAULIC PRESSURE. THE FLARE WAS FOUND TO HAVE CRACKED AND SEPARATED FROM THE TUBE ASSY. (TC NR 20091223014)				
CA100107005	DHAV	PWA	GUARD	MISSING
1/7/2010	DHC8315	PW123	NAS427K9	PULLEY
(CAN) COCKPIT COMPONENTS REMOVED FOR ACCESS. ROLL DISCONNECT HANDLE REMOVED. UPPER MOST CABLE PULLEY FOR ROLL DISCONNECT WAS FOUND MISSING QUANTITY X2 PULLEY GUARD PINS. INSPECTION OF TWO OTHER DASH-8'S, S/N'S 668 AND 669 DID NOT FIND SAME CONDITION. REFERENCE IPC 27-16-00 FIGURE 5. (TC NR 20100107005)				
CA100107002	DHAV	PWA	STRUT	DAMAGED
10/29/2009	DHC8315	PW123	8800137	NLG
(CAN) CASTOR LOCK ENGAGED FOR JACKING/LEVELING OF AIRCRAFT. AIRCRAFT LOWERED, TOW BAR INSTALLED IN PREPARATION FOR TOWING. TECHNICIAN NOTICED THE LOCK PIN WAS STILL INSTALLED. LOCK PIN REMOVED. AS THE TOW BAR WAS HOOKED TO A TRACTOR, THE LOCK PIN (SPRING LOADED) WAS UNDER A SIDE LOAD AND WAS HELD IN THE LOCKED OR ENGAGED POSITION. TOWING WAS STARTED AND A LOUD BANG WAS HEARD. SHOCK STRUT DAMAGED AT LOCK PIN RECEPTACLE. (TC NR 20100107002)				
CA100114001	DIAMON	CONT	BEARING	DAMAGED
1/12/2010	DA20C1	IO240B	60042RSDIN625	WHEEL
(CAN) ALL BALL BEARINGS MISSING FROM THE SEALED BEARING (TC NR 20100114001).				
CA100111004	DIAMON	LYC	ROD	WORN
1/11/2010	DA40	IO360M1A	D4132232033B	DAMPER
(CAN) THE DAMPER ASSEMBLY D41-3223-20-00G WAS DISASSEMBLED TO REPLACE WORN RUBBER ELEMENTS. IT WAS DISCOVERED THAT THE LOWER END OF THE DAMPER ROD THAT HOLDS THE ASSEMBLY TOGETHER HAD BEEN SEVERELY WORN AND WAS BEYOND LIMITS. IT APPEARS THAT THE LOWER DAMPER PLATE (DAMPER PLATE III AND DAMPER PLATE I) HAVE BEEN SLIDING AGAINST THE DAMPER ROD CAUSING THE DETERIORATION. (TC NR 20100111004)				
JO0M2008102800001	EMB	ALLSN	TUBE	FAILED
1/14/2010	EMB135LR	AE3007A	23056413	OIL PRESSURE
TUBE ASSY, PRESSURE OIL TO COOLER, PN 23056413 RUBBING STARTER AIR VALVE CLAMP BURST AT CHAFE RESULTING IN LOSS OF APPROX ONE QUART OF OIL.				
V0XR20100126003	EMB		SEAT TRACK	CORRODED
1/26/2010	EMB145EP		14530659011	FUSELAGE
FORWARD SEAT TRACK ON LT YL 479.0 BEAM CORRODED BEYOND LIMITS. REMOVED AND REPLACED FWD SEAT TRACK.				
V0XR20100125001	EMB		GUSSET	CORRODED
1/25/2010	EMB145EP		14522226003	FUSELAGE
GUSSET AT LT Y-439 FROM FRAME 59-61 IS CORRODED BEYOND LIMITS. REMOVED AND REPLACED GUSSET.				
V0XR20100123003	EMB		DOUBLER	CORRODED

1/23/2010	EMB145EP	14525991004	FUSELAGE
RT LOWER DOUBLER AT FRAME 61 IS CORRODED BEYOND LIMITS. REMOVED AND REPLACED DOUBLER.			
V0XR20100123002	EMB	DOUBLER	CORRODED
1/23/2010	EMB145EP	14522461011	FUSELAGE
BOTH DOUBLERS ON RT BEAM Y-479.0 AT FRAME 20-22 IS CORRODED BEYOND LIMITS. REMOVED AND REPLACED DOUBLERS.			
V0XR20100123001	EMB	DOUBLER	CORRODED
1/23/2010	EMB145EP	14525991003	FUSELAGE
LT LOWER DOUBLER AT FRAME 61 IS CORRODED BEYOND LIMITS. REMOVED AND REPLACED DOUBLER.			
V0XR20100190002	EMB	FLOORBEAM	CORRODED
1/19/2010	EMB145ER	1452915000	ZONE 100
ANGLE AT FRM 23 OVER TOP OF FLOORBEAMS FROM Y0.0 TO YR 780.00 IS CORRODED BEYOND LIMITS. REMOVED AND REPLACED ANGLE.			
V0XR20100119	EMB	GUSSET	CORRODED
1/19/2010	EMB145ER	1452226003	ZONE 100
GUSSET AT Y.0 FRM 59 - 61 CORRODED BEYOND LIMITS. R & R GUSSET.			
2010FA0000138	EMB	GUSSET	CORRODED
12/11/2009	EMB145LR	14525437061	FUSELAGE
SUPPORT BEAM AROUND SOME NUT PLATES HAS CORROSION. REMOVED AND REPLACED GUSSET IAW SRM.			
2010FA0000136	EMB	PROFILE	CORRODED
12/11/2009	EMB145LR	14525954003	FUSELAGE
FRAME TOP PROFILE AT FRAME 62 RY .479-644 HAS CORROSION. REMOVED AND REPLACED PROFILE IAW SRM 51-00-000.			
2010FA0000137	EMB	PROFILE	CORRODED
12/11/2009	EMB145LR	14525994003	FUSELAGE
FRAME TOP PROFILE AT FRAME 62LY .478-844 HAS CORROSION. REMOVED AND REPLACED PROFILE IAW SRM.			
2010FA0000141	EMB	SEAT TRACK	CORRODED
12/11/2009	EMB145LR	14521595003	BS 5412-5423
OTBD SIDE OF SEAT RAIL AT LY 479 FROM STA X 5412-5423 HAS CORROSION. R & R DIGITAL IAW SRM 51-10-02, 51-40-02.			
2010FA0000102	EMB	GUSSET	CORRODED
12/11/2009	EMB145LR	14530633001	FUSELAGE
AISLE FLOORBOARD PROFILES AT Y.O AND LY 479 HAVE PITTING/ CORROSION FROM STA X7131-X14513. R & R GUSSET IAW SRM 51-20-01, 51-10-02, 51-40-02.			
2010FA0000104	EMB	FRAME	CORRODED
12/11/2009	EMB145LR	14522460013	FUSELAGE
TOP PROFILE OF FRAME AT STA X6415-X6538 HAS CORROSION. R & R PROFILE IAW SRM 51-20-01, 51-10-02, 51-40-02, CRM 51-21-04, 51-21-08.			
2010FA0000109	EMB	BEAM	CORRODED
1/12/2010	EMB145LR	14523171003	FUSELAGE

RT HAT SECTION BEAM UNDER GUSSET FR 58 - 62 IS CORRODED OUT OF LIMITS. RT HAT SECTION BEAM R & R IAW SRM.

2010FA0000111	EMB	SILL	CORRODED
1/12/2010	EMB145LR	14520809001	FUSELAGE

LT SILL FROM FR 24-29 IS CORRODED OUT OF LIMITS. LT SILL R & R IAW SRM 51-40-02.

2010FA0000116	EMB	GUSSET	CORRODED
1/9/2010	EMB145LR	14525437001	FUSELAGE

RT GUSSET FROM FRAME 59-61 HAS CORROSION. R & R GUSSET IAW SRM.

2010FA0000127	EMB	PROFILE	CORRODED
1/12/2010	EMB145LR		FUSELAGE

PROFILE AND BEAM AT FR 17, YL 610 & 690 IS CORRODED OUT OF LIMITS. PROFILE AND BEAM R & R IAW SRM.

2010FA0000128	EMB	FLOOR SUPPORT	CORRODED
1/14/2010	EMB145LR	14521721009	FUSELAGE

DIGITAL PLATE FROM FR 15, YL 70 IS CORRODED AROUND NUTPLATE. R & R CORRODED CTR SECTION OF DIGITAL IAW SRM.

2010FA0000129	EMB	GUSSET	CORRODED
1/14/2010	EMB145LR	14522450015	FUSELAGE

GUSSET FROM FR17-18 Y0.0-YL830 IS CORRODED. R & R CORRODED GUSSET IAW SRM.

2010FA0000113	EMB	SILL	CORRODED
1/12/2010	EMB145LR	14529495003	FUSELAGE

LT SILL FROM FR 59-61 IS CORRODED OUT OF LIMITS. LT SILL REMOVED AND REPLACED IAW SRM.

2010FA0000114	EMB	GUSSET	CORRODED
1/7/2010	EMB145LR	14522225003	FUSELAGE

LT GUSSET FROM FR 59-61 IS CORRODED BEYOND LIMITS. R & R GUSSET IAW SRM.

2010FA0000115	EMB	GUSSET	CORRODED
1/12/2010	EMB145LR	14522226003	FUSELAGE

CTR GUSSET FROM FR 59-61 IS CORRODED OUT OF LIMITS. CTR GUSSET R & R IAW SRM.

2010FA0000121	EMB	ANGLE	CORRODED
1/13/2010	EMB145LR	14522465007	FUSELAGE

CORROSION AND FRETTING ON ANGLE FROM FR 19, RY 400-Y0.0 OUT OF LIMITS. R & R ANGLE IAW SRM.

2010FA0000125	EMB	SILL	CORRODED
1/14/2010	EMB145LR	14821725015	FUSELAGE

SILL AFT OF SERVICE DOOR FROM FRAME 22-23 RY 730 CORRODED BEYOND LIMITS. R & R SILL IAW SRM.

2010FA0000103	EMB	SILL	CORRODED
12/10/2009	EMB145LR	14521725616	FUSELAGE

FLOOR PANEL PROFILE AT FRAME X5523 OTBD OF RY 479 HAS CORROSION AROUND NUTPLATES. REMOVED DAMAGED SILL AND LOCATED DRILLED, COUNTERSUNK AND INSTALLED NEW SILL IAW SRM 51-40-02, SRM 51-20-01, CPM 51-20-64, CPM 51-20-05, SRM 53-21-10, WO 80102/ WORK CARD 1059.

2010FA0000107	EMB	PROFILE	CORRODED
-------------------------------	-----	---------	----------

1/12/2010	EMB145LR	14524994003	FUSELAGE
FROFILE AT FR 51 RT SIDE CORRODED OUT OF LIMITS. R & R IAW SRM.			
2010FA0000123	EMB	GUSSET	CORRODED
1/14/2010	EMB145LR	14522460013	FUSELAGE
CORROSION FOUND ON GUSSET FR 20-23, ACFT CENTERLINE BEYOND LIMITS. R & R CORRODED GUSSET IAW SRM.			
2010FA0000126	EMB	SILL	CORRODED
1/14/2010	EMB145LR		FUSELAGE
CORROSION FOUND ON SILL FWD OF SERVICE DOOR FRM 18-20 RY 730 BEYOND LIMITS. R & R CORRODED SILL IAW SRM.			
2010FA0000106	EMB	DOUBLER	CORRODED
1/12/2010	EMB145LR	14525931004	FUSELAGE
RT LOWER DOUBLER FWD PARTITION AT FR 61 CORRODED OUT OF LIMITS. DOUBLER R & R IAW SRM.			
2010FA0000112	EMB	SILL	CORRODED
1/12/2010	EMB145LR	14520609007	FUSELAGE
RT SILL FRM FR 29-36 IS CORRODED OUT OF LIMITS. RT SILL R & R IAW SRM 51-40-02.			
2010FA0000117	EMB	SILL	CORRODED
1/12/2010	EMB145LR	14525422403	FUSELAGE
RT SILL FRM FR 60.5 - 65 IS CORRODED OUT OF LIMITS. RT SILL R & R IAW SRM.			
2010FA0000119	EMB	SILL	CORRODED
1/12/2010	EMB145LR	14521725001	FUSELAGE
SILL FROM FR 19-20 IS CORRODED OUT OF LIMITS. SILL R & R IAW SRM 51-40-02.			
2010FA0000120	EMB	PROFILE	CORRODED
1/12/2010	EMB145LR	14521718007	FUSELAGE
PROFILE FWD OF FR 20, LY 455 IS CORRODED OUT OF LIMITS. PROFILE R & R SRM,			
2010FA0000130	EMB	DOUBLER	CORRODED
12/11/2009	EMB145LR	14522461011	FUSELAGE
DOUBLER AT RT .479 FRAME 20R HAS CORROSION. R & R DOUBLER IAW SRM.			
2010FA0000105	EMB	FLOORBOARD	CORRODED
12/11/2009	EMB145LR	14530633005	CABIN
OTBD FLOORBOARD PROFILE AT LY 479 HAS LIGHT PITTING/ CORROSION FROM STA X 9364-X14823. R & R OTBD FLOORBOARD PROFILE IAW SRM.			
2010FA0000108	EMB	SILL	CORRODED
1/12/2010	EMB145LR	14528422001	FUSELAGE
LT SILL FROM FR 60-66 IS CORRODED OUT OF LIMITS. LT SILL R & R IAW SRM.			
2010FA0000122	EMB	BEAM	CORRODED
1/14/2010	EMB145LR	14521713005	FUSELAGE
BEAM CORRODED BEYOND LIMITS. R & R BEAM IAW SRM.			
2010FA0000124	EMB	DOUBLER	CORRODED

1/9/2010	EMB145LR		14522461011	FUSELAGE
DOUBLER AT FRAME 20, RY 479 HAS CORROSION. R & R DOUBLER IAW SRM.				
2010FA0000131	EMB		DOUBLER	CORRODED
12/11/2009	EMB145LR		14522461011	FUSELAGE
DOUBLER RT .478 FRAME 22 HAS CORROSION. R & R DOUBLER IAW 145 SRM.				
2010FA0000110	EMB		GUSSET	CORRODED
1/14/2010	EMB145LR		14530633003	FUSELAGE
CORROSION FOUND ON FLOOR GUSSET UNDER CTR SEAT RAIL FR 25-28 BEYOND LIMITS, R & R CORRODED FLOOR GUSSET IAW SRM.				
2010FA0000118	EMB		SUPPORT	CORRODED
1/14/2010	EMB145LR		14522469003	FUSELAGE
CORROSION FOUND ON SUPPORT FWD OF FRM 20 BEYOND LIMITS. R & R CORRODED SUPPORT IAW SRM.				
CA091210005	EMB	GE	SLAT SYSTEM	FAILED
12/6/2009	ERJ170200SU	CF348E5A1		
(CAN) SLATS FAILED ON APPROACH, EMERGENCY EQUIPMENT REQUESTED. MX RT OTBD SLAT SKEW SENSOR 2-3 FAILED AND REPLACED.				
CA091210003	EMB	GE	SLAT SYSTEM	FAILED
12/4/2009	ERJ170200SU	CF348E5A1		
(CAN) SLATS FAILED ON APPROACH, FLIGHT CREW REQUESTED EMERGENCY EQUIPMENT, COMPLETED GO AROUND AND QRH. LANDED WITHOUT FURTHER INCIDENT. MX SF-ACE 1 & 2 CB`S RESET, CMC CLEARED NIL FURTHER.				
CA091214002	EMB	GE	LINK	BROKEN
11/5/2009	ERJ170200SU	CF348E5A1	17070760903	NLG DOOR
(CAN) ACFT EN ROUTE, HAD A RT NOSE GEAR AFT DOOR OPEN MESSAGE. UPON ARRIVAL, MX INSP REVEALED THAT THE ATTACHING DOOR ROD`S TAB WASHER WAS BROKEN. THIS LEAD TO THE BREAKING OF SAFETY WIRE AND ALLOWING THE ROD TO TURN FREELY.				
CA091210006	EMB	GE	SLAT SYSTEM	FAILED
12/8/2009	ERJ190100IGW	CF3410E5A1		
(CAN) ON APPROACH, FLAP AND SLAT FAIL, PAN PAN DECLARED, GO AROUND AND QRH COMPLETED. LANDED WITHOUT FURTHER INCIDENT. REPLACED SLAT 2-3 SKEW SENSOR HARNESS.				
CA100111001	EMB	GE	DOOR	FROZEN
12/14/2009	ERJ190100IGW	CF3410E5A1		MAIN PAX
(CAN) THE AIRCRAFT CAME IN WITH ALL CABIN DOORS FROZEN IN THE ARMED POSITION. A FEW MINUTES AFTER ARRIVAL, THE FLIGHT ATTENDANT WAS ABLE TO DISARM L1 AND OPEN THE DOOR, BUT IT WAS VERY HARD. L2, R2 & R1 WERE STILL FROZEN. ONCE ALL PAX DEPLANED, THE CAPTAIN WENT BACK TO THE R2 DOOR AND HE WAS ABLE TO DISARM, BUT THE DOOR WOULD NOT OPEN. 30 MINS LATER, THE NEW CAPTAIN WAS ABLE TO DISARMED R1, AND HE WAS ALSO ABLE TO OPEN IT. (TC NR 20100111001)				
CA091223013	EMB	GE	BAFFLE	LOOSE
12/16/2009	ERJ190100IGW	CF3410E5A1	17009961403	REFUEL NOZZLE
(CAN) INTERNAL VANE OF REFUEL NOZZLE BREAKING UP, RELEASING METAL FRAGMENTS INTO WING FUEL TANKS (TC NR 20091223013)				
2010FA0000028	GROB	LYC	THROTTLE CABLE	BROKEN

12/3/2009	G120A	AEIO540D4D5	120A6120	
PILOT REPORTED DURING LANDING, THROTTLE WAS NOT GOING FULLY TO IDLE THEN SUDDENLY SOMETHING BROKE AND ENGINE WENT TO FULL POWER. AFTER FURTHER INVESTIGATION FOUND THROTTLE CABLE BROKEN WHERE IT COMES THRU THE FIREWALL. PROBABLE CAUSE UNKNOWN, NO RECOMMENDATIONS AT THIS TIME.				
CA091207001	GROB	LYC	NOZZLE	LEAKING
12/4/2009	G120A	AEIO540D4D5		FUEL INJECTOR
(CAN) AFTER ROLLING UPRIGHT FROM INVERTED FLIGHT ON A TRAINING MISSION, THE ACFT BACKFIRED FOLLOWED BY A STRONG FUEL SMELL IN THE COCKPIT. EMERGENCY CHECKS WERE COMPLETED AND WHILE ACFT WAS INBOUND TO DEPARTURE AIRPORT THERE WAS A SECOND OCCURENCE OF STRONG FUEL ODORS ON DOWNWIND. ACFT LANDED WITHOUT FURTHER INCIDENT. MX ALSO NOTED THE SMELL OF FUEL IN THE COCKPIT AND FOUND A LOOSE FUEL VENT INTERCONNECT CONNECTION. FURTHER TROUBLESHOOTING WAS CARRIED OUT ON THE ENGINE FUEL SYS REGARDING THE BACKFIRE IN FLIGHT. FUEL INJECTOR UNIT SHOWED EVIDENCE OF LEAKAGE (ONLY 25.6 HRS TIS) AND WAS SUBSEQUENTLY REPLACED. MX GROUND RUNS WERE CARRIED OUT AND THE ACFT WAS RELEASED TO SERVICE FOLLOWING A SUCCESSFUL TEST FLIGHT.				
CA091215006	GULSTM		AEROCD	PISTON
12/15/2009	690C		EA937	ED10145
(CAN) NDT OUR LANDING GEAR AND RETRACT COMPONENTS EVERY 5 YEARS. COMPLETE AN NDT INSPECTION AT THIS TIME. DURING THIS INSPECTION, A CRACK WAS DISCOVERED. THIS IS THE SECOND OCCURRENCE OF A PISTON FOUND CRACKED IN OUR FLEET OF 4 TWIN COMMANDERS (TC NR 20091215006)				
CA091206005	HUGHES	LYC	BEARING	CRACKED
12/6/2009	269C1	HIO360G1A	269A505071	M/R HUB
(CAN) INNER RACE OF FLAPPING HINGE BEARING FOUND CRACKED HALF WAY THROUGH DURING ANNUAL INSP.				
CA091206004	HUGHES	LYC	BEARING	CRACKED
11/23/2009	269C1	HO360C1A	269A505071	M/R HUB
(CAN) INNER RACE OF FLAPPING HINGE BRG FOUND CRACKED HALF WAY THROUGH ON ANNUAL INSP.				
2010FA0000026	ISRAEL	GARRTT	VANE	BROKEN
12/9/2009	1124A	TFE73131G	193058518	RT TE FLAP
ACFT WAS ARRIVING OR DEPARTING WHEN RT FLAP VANE BROKE OFF. THE AREA SUSPECTED WAS THE RT HINGE OF THE FLAP VANE THAT ATTACHES TO L/E OF THE FLAP AT THE ATTACHING HARDWARE.				
2010F00014	LEAR	GARRTT	FIRE WARNING	FALSE ACTIVATION
1/12/2010	36LEAR	TFE73122B		RT ENGINE
RT ENG FIRE WARNING LIGHT ILLUMINATED SHORTLY AFTER TAKEOFF. THROTTLE RETARDED AND FIRE WARNING LIGHT WENT OUT. THIS IS THE SECOND IN-FLIGHT FALSE FIRE WARNING LIGHT ILLUMINATION ON THIS RENTAL ENGINE. INVESTIGATION IN PROGRESS.				
2010FA0000062	LEAR	GARRTT	CONTROL BOX	UNKNOWN
1/21/2010	36LEAR	TFE73122B	37702810	OVERHEAT
REPLACED THE OVERHEAT CONTROL BOX AND THE EXHAUST PIPE FIRE ELEMENT. NO FURTHER PROBLEMS NOTED.				
CA091214010	LKHEED	ALLSN	HOUSING	MALFUNCTIONED
12/13/2009	382G	501D22A	582855	PROP VALVE
(CAN) CREW REPORTED THAT WHILE IN CRUISE FLIGHT, IT SEEMED LIKE THE NR 3 ENGINE OVERSPEEDED, THEN DE-COUPLED AND RE-COUPLED AGAIN. PROPELLER RPM READ 107 - 110 PERCENT. MAINTENANCE REPLACED THE NR 3 PROPELLER VALVE HOUSING, ACCOMPLISHED GROUND RUNS, AND THEN RETURNED THE AIRCRAFT TO SERVICE. (TC NR 20091214010)				

2010FA0000076	MOONEY	CONT	ROD	FAILED
1/27/2010	M20K	TSIO360*		NLG STEERING

STEERING LINKAGE ROD BROKE AT THE NLG TRUSS ASSY.

CA100112001	MTSBSI	GARRTT	WHEEL	CRACKED
1/6/2010	MU2B60	TPE33110		MLG

(CAN) AIRCRAFT LANDED WITH LOW TIRE PRESSURE WHEEL ASSY REPLACED AFTER WHEEL ASSY REPAIRED IT WAS FOUND THAT THE TUBE HAD 3 SMALL CRACKS ON THE SIDE WALL. NOTE OUTSIDE AIR TEMP WAS -30 DEGREES. TUBE AND TIRE REPLACED AND WHEEL ASSY RETURNED TO SERVICE (TC NR 20100112001)

CA091216007	PILATS	PWA	PILATS	STRIP	CRACKED
12/12/2009	PC1245	PT6A67B		5554012038	RUDDER TRIM

(CAN) A 1.5 INCH CRACK WAS FOUND AT THE BOTTOM OF THE STALL STRIP WHICH IS RIVETED TO THE AFT EDGE OF THE RUDDER TRIM TAB. RUDDER ASSEMBLY REPLACED WITH SPARE. (TC NR 20091216007)

2010FA0000180	PILATS		DRIVE ASSY	CRACKED
2/24/2010	PC1247		5275212153	TE FLAPS

FLAP CAS CAUTION ON ROLLOUT AFTER LANDING - FLAPS STOPPED AROUND 13 DEGREES WHILE RETRACTING. CHECKED FLAP ERROR CODES, FOUND SEVERAL E211 CODES. INSPECTED LT INNER RESOLVER INSTALLATION. FOUND RESOLVER DRIVE PIN PULLED FROM SOCKET. FURTHER INSPECTION FOUND INBD LT FLAP DRIVE ARM ASSY, PN 527.52.12.153, CRACKED IN SEVERAL PLACES. PROBABLE CAUSE: UNKNOWN - NO RECORDED OVERSPEED ON ACFT'S CAS SYSTEM, NO SIGNS OF IMPACT DAMAGE OR SIDE LOADS, RIGGING OF FLAPS CHECKED OK, NO OTHER DAMAGE FOUND.

CA091209008	PILATS	PWA	DOOR	OUT OF RIG
12/8/2009	PC1247	PT6A67		MLG

(CAN) CREW REPORTED AN INTERMITTENT GEAR IN TRANSIT INDICATION ON THE LT MAIN DISPLAY ALONG WITH AN AURAL GEAR EXTENSION SPEED WARNING. THIS CONDITION WAS NOTED WHILE IN DESCENT WITH THE INCREASED INDICATED AIRSPEED. TROUBLESHOOTING REVEALED THE LT GEAR DOOR WAS NOT ALL THE WAY UP WITH THE GEAR RETRACTED. PROXIMITY SWITCH GAP WAS FOUND TO BE 0.030" GREATER THAN THE 0.079" REQUIRED. LT GEAR DOOR WAS RERIGGED AND SWITCH ADJUSTED. IT IS BELIEVED THAT THE EXCESSIVE GAP IN THE GEAR DOOR FITMENT, PROXIMITY SWITCH AND WITH THE INCREASED AIRSPEED COULD ACTUALLY CAUSE THE SWITCH TO LOSE IT'S GEAR UP SIGNAL. RT GEAR DOOR AND SWITCH ALSO REQUIRED A MINOR ADJUSTMENT.

5APR577Y29	PILATS	PWA	BRAKE DISC	CRACKED
1/21/2010	PC1247	PT6A67B	244755	MLG

DURING A LINE CHECK, DISCOVERED LT BRAKE OTBD BRAKE DISC CRACKED. R & R BRAKE ASSY IAW MFG MX INSTRUCTIONS.

5APR577Y28	PILATS	PWA	INDICATOR	ODIFEROUS
1/19/2010	PC1247	PT6A67B	066031252500	COCKPIT

SHORTLY AFTER TAKEOFF FLIGHT, CREW REPORTED NR 1 EHSI (ELECTRONIC HORIZONTAL SITUATION INDICATOR) WENT BLACK, AND FLIGHT DIRECTOR AND AUTOPILOT DISENGAGED. FLIGHT CREW ALSO REPORTED AN ELECTRICAL BURNING ODOR. AFTER SEVERAL MINUTES, THE NR1 EHSI RETURNED TO NORMAL. FLIGHT WAS ABORTED AND THE ACFT RETURNED WITHOUT INCIDENT. R & R THE NR1 EHSI (WHICH DID HAVE AN ELECTRICAL BURNING ODOR) ALONG WITH THE NR 1 SYMBOL GENERATOR AND THE AUTO PILOT MODE CONTROLLER. ALL MX WAS PERFORMED IAW MFG INSTRUCTIONS AND A TEST FLIGHT WAS SUCCESSFUL.

5APR577Y26	PILATS	PWA	BRAKE DISC	BROKEN
1/19/2010	PC1247	PT6A67B	244755	ZONE 700

DURING A LINE CHECK DISCOVERED THE RT BRAKE OTBD BRAKE DISC WAS BROKEN INTO 2 PIECES. REMOVED AND REPLACED BRAKE ASSY IAW MM INSTRUCTIONS.

5APR577Y27	PILATS	PWA	BRAKE DISC	CRACKED
1/15/2010	PC1247	PT6A67B	244755	ZONE 700
DURING A LINE CHECK THE LT BRAKE OTBD BRAKE DISC WAS FOUND TO BE CRACKED. R & R BRAKE ASSEMBLY IAW MM INSTRUCTIONS.				
2010FA0000072	PIPER	LYC	LINE	LOOSE
1/26/2010	PA23250	TIO540C1A	PT30GA	LEFT ENGINE FUEL
ON APPROACH, TOWER NOTIFIED ACFT THAT SMOKE WAS COMING OUT OF THE LT ENGINE. ON LANDING, LT ENGINE WAS SHUTDOWN AND ACFT TAXIED OFF THE ACTIVE RUNWAY. ACFT WAS MET BY THE FIRE DEPARTMENT AND THE LT ENGINE FIRE WAS EXTINGUISHED. ACFT WAS TOWED AND NOT WORKED ON UNTIL INVESTIGATED BY THE FAA. FOLLOW UP INSP REVEALED THE B NUT ON THE PRESSURE FUEL LINE FROM THE MANIFOLD TO THE PRESSURE TRANSDUCER, LOOSE. THIS INSTALLATION WAS INSTALLED 02-25-1997 UNDER STC SA00068SE. LEAKING FUEL LINE IS POSITIONED JUST ABOVE THE TURBOCHARGER. THE ACFT WAS ANNUALED 02/27/2009.				
2010FA0000101	PIPER		TUBE	CUT
1/14/2010	PA28161		5005	TIRE
TIRE WENT FLAT ON THE RAMP. ACFT WAS PARKED. SMALL CUT (PINHOLE) IN OUTER SIDEWALL. TIRE APPEARS TO BE FINE.				
2010FA0000100	PIPER	LYC	TUBE	DAMAGED
1/4/2010	PA28161	O320D3G	5005	MLG TIRE
TIRE WENT FLAT WHEN THE ACFT WAS JACKED. TIRE APPEARS FINE. SMALL PINHOLE IN SIDEWALL OF THE TUBE.				
2010FA0000009	PIPER		TUBE	CRACKED
12/2/2009	PA28R201		63547000	RUDDER HORN
INNER PORTION OF RUDDER HORN TUBE CRACKED AT WELD ASSY (PN 63546-000) ON UNDERSIDE OF WELD BEAD. AREA IN QUESTION EXHIBITED SIGNS OF EXCESSIVE WELD PENETRATION ALONG WITH PROJECTING GLOBULES. PROBABLE CAUSE OF CRACK OCCURRED DUE TO WEAKING OF METAL FROM IMPROPER WELDING TECHNIQUES. TO PREVENT REOCCURRANCE, THE MFG SHOULD RE-EXAMINE THE HEAT RANGE REQUIREMENT IN ORDER TO GAIN PROPER DEPTH OF WELD PENETRATION REQUIRED TO INSURE FISSION OF BASE METAL AND FILLER ROD.				
2010FA0000021	PIPER	LYC	CONTROL UNIT	WORN
1/4/2010	PA28R201	IO360C1C6	ATF27A	PROP GOVERNOR
DURING ANNUAL INSP OF ENG, FOUND PROP GOVERNOR CONTROL UNIT CONTROL ARM HIGH RPM ADJUSTABLE STOP SCREW AND STOP PIN EXCESSIVELY WORN. CONTROL ARM STOP PIN HAS A GROOVE IN WHICH CONTROL ARM RETURN SPRING IS HOOKED IN. THE WEAR BETWEEN THE ADJUSTABLE HIGH RPM STOP SCREW AND CONTROL ARM PIN IS DIRECTED ON RETURN SPRING GROOVE. OVER TIME HIGH RPM STOP SCREW AND/OR STOP PIN WILL WEAR ENOUGH TO INCREASE ENGINE SPEED WHICH WILL EVENTUALLY CAUSE AN OVERSPEED CONDITION OR COMPROMISE INTEGRITY OF CONTROL ARM RETURN SPRING ATTACHMENT. IT IS RECOMMENDED TO DESIGN STOP PIN WITHOUT RETURN SPRING GROOVE TO COME IN CONTACT WITH ADJUSTABLE HIGH RPM STOP SCREW OR CHANGE STOP SCREW AND PIN CONTACT SURFACES TO A MORE WEAR RESISTANT MATERIAL.				
CA091223012	PIPER	LYC	KEY	BROKEN
12/21/2009	PA31	TIO540A2B	1213HBG310	PUMP SHAFT
(CAN) GROUND TEST AFTER FLY, LANDING GEAR HANDLE DIDN'T RETURN TO NEUTRAL AFTER TEST. MAINTENANCE ACTION, HYDRAULIC LEVEL CHECK OK, HYDRAULIC PUMP REMOVED AND FOUND DRIVING SHAFT KEY BROKEN. PUMP REPLACED AND CHECK OK (TC NR 20091223012)				
CA091228001	PIPER	LYC	GASKET	TORN
12/11/2009	PA31	TIO540A2C	LW12795	OIL FILTER ADAPT

(CAN) AFTER TAKEOFF, THE CREW REPORTED LOW OIL PRESSURE AND HIGH OIL TEMPERATURE ON THE LEFT ENGINE. A CIRCUIT AND LANDING WERE CARRIED OUT. THE OIL WAS DRAINED AND THE SUCTION SCREEN AND SPIN ON FILTER INSPECTED FOR CONTAMINATION. THERE WERE SEVERAL VERY SMALL PIECES OF PAPER GASKET MATERIAL FOUND IN THE OIL SUCTION SCREEN. FURTHER INVESTIGATION REVEALED A LARGER PIECE OF GASKET MATERIAL (1 CM SQUARE) LODGED IN THE OIL PRESSURE BYPASS VALVE WHICH CAUSED THE VALVE TO STAY OPEN, RESULTING IN LOW OIL PRESSURE. FURTHER DISASSEMBLY REVEALED THAT THE OIL FILTER ADAPTOR GASKET P/N LW-12795 WAS THE SOURCE OF THE GASKET MATERIAL. THIS GASKET HAD BEEN INSTALLED UPSIDE DOWN WHICH RESULTED IN THE HOLES NOT LINING UP AND RESTRICTED OIL PASSAGE TO THE FILTER. OVER TIME THE FLOW OF OIL CAUSED THE GASKET TO FALL APART. THE LABEL "TOP OF ENGINE" ON THE GASKET WAS PRINTED UPSIDE DOWN WHICH MAY HAVE CONTRIBUTED TO THE GASKET BEING INSTALLED UPSIDE DOWN. IT IS UNKNOWN HOW LONG THE GASKET HAD BEEN INSTALLED. THE AIRCRAFT WAS PURCHASED AND IMPORTED BY THE CURRENT OWNER 490 HOURS AGO AND THE GASKET WAS INSTALLED SOMETIME PRIOR TO THE PURCHASE. THE GASKET WAS REPLACED AND OIL AND FILTER CHANGED. ENGINE RUNUP AND TEST FLIGHT WERE CARRIED OUT WITH NO OTHER RELATED DEFECTS NOTED. (TC NR 20091228001)

CA091210010	PIPER	LYC	HOUSING	SPLIT
12/9/2009	PA31350	LTIO540J2BD		HYD FILTER

(CAN) DURING FINAL APPROACH, PILOT COULD NOT EXTEND LANDING GEAR WITH LG LEVER SELECTION. MANUAL EMERGENCY HAND PUMP USED TO EXTEND THE LG. LANDING WAS NORMAL. MX FOUND LOSS OF HYD FLUID DUE TO A LEAKING RT HYD SYS FILTER HSG. FOUND FILTER HSG SPLIT/CRACKED OPEN APPROX. 180 DEG. CIRCUMFERENCE OF THE LOWER FILTER HSG ATTACHMENT THREADS. FILTER HSG REPLACED, HYD FILTERS INSP FOR CONTAMINATION, HYD SYS SERVICED & BLED, SEVERAL LG SWINGS CARRIED OUT & HYD SYS LEAK & OPERATION CHECKED SERVICEABLE. ACFT RETURNED TO SERVICE.

CA091214011	PIPER	LYC	BENDIX	COIL	ARCED
12/14/2009	PA31350	LTIO540J2BD		103825881	MAGNETO

(CAN) MAG WAS RECEIVED DUE TO THE ENGINE QUITTING DURING RIGHT MAG DROP CHECK. THE MAG WAS DISASSEMBLED AND A BURNT ELECTRICAL ODOR WAS NOTICED. BOTH LT AND RT COILS WERE TESTED WITH AN OHMMETER AND PASSED TCM'S TEST CRITERIA, BUT WHEN PERFORMING A VISUAL INSPECTION USING A FLASHLIGHT A BLACK MATERIAL WAS NOTICED UNDER THE LAMINATED COIL CORE AND IN THE BOTTOM OF THE HOUSING. THE COIL WAS REMOVED AND WAS FOUND TO HAVE BEEN ARCING TO THE GROUND OF THE HOUSING. THE COIL WAS REPLACED AND, A 500 HOUR INSPECTION WAS PERFORMED AND THE MAG WAS RETURNED TO SERVICE. THE MAG WAS O/H'D BY US (PRO AERO ENGINES) IN JULY 2007. (TC NR 20091214011)

CA100101004	PIPER	LYC	TURBOCHARGER	DAMAGED
12/30/2009	PA31350	LTIO540J2BD	4091709001	LT ENGINE

(CAN) ENGINE SHUT DOWN DURING CRUISE DUE LT ENGINE POWER (MANIFOLD PRESSURE) LOSS. AIRCRAFT LANDING NORMAL ON ONE ENGINE. MAINTENANCE FOUND THE LT TURBOCHARGER COMPRESSOR BLADES WITH EVIDENCE OF FOD ON ALL BLADES AND COMPRESSOR PARTIALLY SEIZED, TWO BLADES HAVE MATERIAL MISSING, ONE BLADE HAS APPROX 1/4 INCH OF O/B BLADE LEADING EDGE SEPARATED AND SECOND BLADE WITH APPROX 1/2 IN BY 1/4 IN PIECE OF O/B LE MISSING. ALSO FOUND COMPRESSOR HOUSING INDICATING BLADE LE CONTACT AROUND 360 DEG OF HOUSING. COMPRESSOR SHAFT ALSO HAS EXCESSIVE RADIAL PLAY. ENGINE INDUCTION PATH, ALL CYLINDERS BOROSCOPIED AND ALL CYLINDER COMPRESSIONS CHECKED WITHIN LIMITS AND NO EVIDENCE OF METAL CONTAMINATION FOUND. MAIN OIL FILTER INSPECTION, TURBOCHARGER REPLACEMENT AND ENGINE OPERATION CHECKS STILL TO BE COMPLETED PRIOR TO AIRCRAFT RELEASE FOR SERVICE. (TC NR 20100101004)

CA100101005	PIPER	LYC	SHAFT	SEIZED
12/30/2009	PA31350	LTIO540J2BD		TURBOCHARGER

(CAN) ENGINE SHUT DOWN DURING FLIGHT DUE ENGINE POWER (MANIFOLD PRESSURE) LOSS. REF: WSDR NR 20100101004 FOUND ALL TURBO COMPRESSOR BLADES DAMAGED CONSISTENT WITH FOD AND TWO BLADES WITH MISSING LE MATERIAL. COMPRESSOR SHAFT FOUND PARTIALLY SIEZED (VERY DIFFICULT TO ROTATE). ONE BLADE HAS APPROX 1/4 IN BY 1/4 IN OF O/B LE MATERIAL MISSING AND SECOND BLADE 1/2 IN BY 1/4 IN O/B LE MATERIAL MISSING. COMPRESSOR HOUSING SCROLL ALSO INDICATES BLADE LE CONTACT FOR APPROX 360 DEG OF HOUSING CIRCUMFERENCE AND COMPRESSOR SHAFT HAS EXCESSIVE RADIAL PLAY. THIS TURBOCHARGER IS A KELLY AEROSPACE OVERHAULED UNIT - 714 HRS. TSO. (TC NR 20100101005)

CA091217008	PIPER	LYC	BRAKE ASSY	DAMAGED
12/16/2009	PA31350	LTIO540J2BD		MLG

(CAN) FOUND 4 SHEARED BOLTS ON LT MLG WHEEL HUB WHEEL ASSY P/N 40-130. FURTHER INSPECTION REVEALED THE LT MLG FORK DEEPLY GOUGED IN LINE WITH BRAKE DISC AND AFTER WHEEL REMOVAL FOUND BRAKE TORQUE PLATE P/N 075-11100 BRAKE CALIPER MOUNTING HOLES DAMAGED AND ELONGATED. SUSPECT THIS DAMAGE DUE TO INCORRECT TORQUE AND WHEEL INSTALLATION. ALSO FOUND LT BRAKE CALIPER P/N 30-95A PRESSURE LINE LEAKING AT BRAKE CALIPER. LT WHEEL DISASSEMBLED, INSPECTED AND BOLTS REPLACED AND TORQUED. LT MLG FORK AND TORQUE PLATE AND BRAKE HOSES REPLACED. BRAKES BLED, LG SWING CARRIED OUT AND AIRCRAFT RELEASED FOR SERVICE. (TC NR 20091217008)

CA091210009	PIPER	LYC	DRUM	MISRIGGED
11/27/2009	PA31P	TIGO541E1A		ELEVATOR

(CAN) ACFT DEPARTED FOR A POSITIONING FLIGHT, AFTER A MX EVENT. DURING TAKEOFF, PILOT NOTED EXCESSIVE FORCE REQUIRED TO OPERATE ELEVATOR TRIM SYS, AND POOR RESPONSE TO PILOT INPUT. PILOT WAS PAST REJECT POINT AND TOOK OFF, DECLARED AN EMERGENCY AND LANDED WITHOUT INCIDENT. ACFT WAS GROUNDED PENDING INVESTIGATION OF THE FAULT. INVESTIGATION REVEALED THAT THE ELEVATOR TRIM SYS WAS OPERATING IN REVERSE SENSE. THE MX EVENT PRIOR TO THIS FLIGHT INCLUDED AN ELEVATOR TRIM CABLE CHANGE. UPON DISSASSEMBLY, IT WAS NOTED THAT THE REAR TRIM DRUM WAS WOUND IN THE WRONG DIRECTION. THIS DID NOT CAUSE THE REVERSE OPERATION, DUE TO DESIGN OF THE SYS, ONLY IMPACT OF THE INCORRECT WINDING WAS EXCESSIVE SYS FRICTION. THIS DRUM WAS NOT RE-WOUND AT THIS MX EVENT, FURTHER INVESTIGATION REVEALED THAT THE TRIM CABLE WAS INCORRECTLY ROUTED AT THIS INSTALLATION, RESULTING IN THE SYS OPERATING IN WRONG SENSE. THE SYS UNDERWENT AN INDEPENDANT INSPECTION BY AN ON TYPE ACA HOLDER THAT FAILED TO IDENTIFY THE DEFECT IN THE SYS DUE TO MISCOMMUNICATION BY THE 2 ENGINEERS UNDERTAKING THE INDEPENDENT INSP. ELEVATOR TRIM CABLE WAS RE-ROUTED CORRECTLY, THE ELEVATOR TRIM SERVO WAS SENT OUT FOR INSP TO ENSURE THAT IT WAS NOT DAMAGED IN THIS EVENT.

CA091211004	PIPER	PWA	BOWL	CRACKED
12/9/2009	PA31T2	PT6A135		HYD FILTER

(CAN) ON FINAL, LANDING GEAR WAS SELECTED DOWN BUT NOTHING HAPPENED - GEAR WOULD NOT EXTEND. GEAR HANDLE WAS CYCLED UP & DOWN WITH NO SUCCESS. HAND PUMP WAS USED TO SUCCESSFULLY EXTEND THE GEAR. LANDING WAS UNEVENTFUL. MX CREW FOUND THE LT ENG HYD FILTER BOWL CRACKED. THE BOWL WAS REPLACED, THE SYS WAS SERVICED AND THE ACFT WAS RETURNED TO SERVICE.

CA091203005	PIPER	CONT	ALTERNATOR	FAILED
11/24/2009	PA34200T	LTSIO360EB	ALX9525B	RIGHT

(CAN) RT ALTERNATOR QUIT FUNCTIONING DURING FLIGHT.

2010FA0000046	PIPER		THROTTLE CABLE	FROZEN
1/13/2010	PA44180		554528	RT ENGINE

ON CLIMBOUT, PILOT TRIED TO BRING THROTTLES BACK BUT FOUND THE RT THROTTLE STUCK AT FULL POWER. ENG WAS SHUTDOWN AND ACFT LANDED WITH OUT INCIDENT. UPON INSP BY MX RT THROTTLE CABLE WAS FOUND TO BE CORRODED ON SHAFT WHERE IT EXITS THE PROTECTIVE OUTER HSG AT THE ENG END. THIS IS THE 2ND OCCURRENCE ON THIS ACFT IN LESS THAN 100 HRS OF OPERATION.

CA091211009	PIPER	LYC	JANITROL	REGULATOR VALVE LEAKING	
12/11/2009	PA44180	LO360A1H6	3500	23D04	HEATER

(CAN) DURING SCHEDULED MX, REPETITIVE AD 2004-25-16R1 CALLS FOR INSP OF THIS VALVE. LAST INSP WAS 94 HOURS AGO AND THE INSP IS DUE EACH 100 HRS. VALVE FOUND TO HAVE A LEAK AT THIS INSP. LEAK WAS NOT PRESENT AT THE LAST INSP. DATE CODE ON VALVE IS 06/01 AND THE DATE MARKED ON THE VALVE IAW THE AD WAS 9/08. UNIT REPLACED WITH SERVICIBLE PART WITH DATE CODE 03/03 AND INSPECTED IAW AD.

ECPR466D	PIPER	LYC	PIPER	SPAR	CORRODED
10/1/2007	PA44180	O360A1H6		86152000	LT WING

AT APPROX LT WING STA 56.0, THE UPPER OTBD QUADRANT OF AN ELECTRICAL WIRE PASS THROUGH HOLE IN

THE WING SPAR WEB WAS FOUND TO HAVE EXFOLIATION CORROSION. THE PASS THROUGH HOLE, WHICH IS IN THE LANDING GEAR WHEEL WELL AREA, HAD A CATERPILLAR GROMMET INSTALLED TO PREVENT THE WIRES FROM CHAFING. THE GROMMET PARTIALLY HID THE CORROSION UNTIL THE METAL SWELLED UP ENOUGH TO REVEAL THE CORROSION. AFTER REMOVING THE CORROSION, THE SERVICES OF A DESIGNATED ENGINEERING REPRESENTATIVE WAS REQUIRED TO PROVIDE A REPAIR PROCEDURE IN ORDER TO RETURN THE ACFT TO SERVICE. IT WAS PERCEIVED THAT THE CORROSION SEEMED TO HAVE STARTED AT THE EDGE OF THE HOLE AND PROGRESSED INSIDE THE METAL.

E81RJW3022513	RAYTHN	FMC	MALFUNCTIONED
1/16/2010	390	8220883701	

INVESTIGATED REPORT OF FLIGHT MANAGEMENT SYS LOSING LAST SAVED POSITION, THEN GOING TO NORTH ZERO DEGREES AND EAST ZERO DEGREES. REPLACED NR 1 FMC-3000 FLIGHT MANAGEMENT COMPUTER CARD WITH AN O/H REPLACEMENT CARD AND RELOADED DATABASE. FMS OPS NORMAL. RECOMMEND MFG SERVICE FACILITY INVESTIGATE AT TEAR-DOWN TO DETERMINE IF CAUSED BY FAILED INTERNAL COMPONENT OR IF CAUSED BY WATER CONTAMINATION.

E81RJW302230	RAYTHN	SWITCH	OUT OF ADJUST
1/14/2010	390	12SX1T	SPOILER

INVESTIGATED, VERIFIED REPORTED INOPERATIVE IN FLIGHT OPERATION OF SPEED BRAKE SYS. FOUND LT POWER LEVER 80 PERCENT SPOILER SYS SWITCH S1 OUT OF ADJUSTMENT. ADJUSTED S1 SWITCH AS REQUIRED, SPOILER/SPEED BRAKE SYS OPS NORMAL. TRANSIENT ACFT, MX HISTORY NOT AVAILABLE.

E81RJW302212	RAYTHN	RELAY	CLOSED
1/13/2010	390	M8353610028L	IGNITION

INVESTIGATED REPORT OF LT ENG IGNITION SYS NOT SHUTTING OFF AFTER ENG START SEQUENCE. FOUND LT IGNITION SYS STANDBY POWER RELAY 80K7 NOT FUNCTIONING. REPLACED 80K7 RELAY WITH NEW RELAY, IGNITION SYS OPS NORMAL. HAVE REPLACED NUMEROUS PN M83536/10-028L IGNITION POWER AND STANDBY POWER RELAYS ON 390 SERIES ACFT FOR IGNITION SYS FAULTS. RECOMMEND ACFT MFG INVESTIGATE WHETHER A RELAY VENDOR QUALITY CONTROL ISSUE OR IF SYS DESIGN IS CAUSING PREMATURE FAILURES. ONCE FAILURE MODE DETERMINED, RECOMMEND A KIT OR RECOMMENDED SB BE ISSUED. IGNITION SYS RELAY FAILURES HAVE CAUSED NUMEROUS ACFT DISPATCH DELAYS AND TRIP CANCELLATIONS FOR ENGINE IGNITION SYS FAILURES OVER PAST SEVERAL YEARS.

E81RJW302211	RAYTHN	ANTI-ICE VALVE	MALFUNCTIONED
1/13/2010	390	5188001	RT ENGINE

INVESTIGATED REPORT OF VIBRATION FELT THROUGH ACFT AFTER REPLACEMENT OF RT ENGINE NACELLE INLET ANTI-ICE SHUT-OFF VALVE ASSY. WITH AN O/H VALVE ASSY. SUSPECT VIBRATION CAUSED BY RAPID MODULATION OF ANTI-ICE SHUTOFF VALVE. VALVE O/H 12/21/2009 ON WO R82102. RECOMMEND INVESTIGATE IF A VALVE O/H PROCEDURES QA ISSUE OR IF COMPONENT OVERHAUL LIMITS NEED TO BE REVISED.

E81RJW3022512	RAYTHN	ADC	MALFUNCTIONED
1/16/2010	390	8221109016	NR 2

INVESTIGATED REPORT OF RT (COPILOT'S) SIDE PITCH TRIM FAIL INDICATION. ALSO SHOWING RED "X" INDICATIONS FOR AIRSPEED, ALTITUDE, AND VERTICAL SPEED. ALTITUDE PRESELECT TURNS RED, THEN BLUE. REPLACED NR 2 AIR DATA COMPUTER WITH AN O/H UNIT, DISPLAY INDICATIONS NORMAL. RECOMMEND MFG SERVICE FACILITY INVESTIGATE AT TEAR-DOWN TO DETERMINE IF INTERNAL COMPONENT FAILURE OR WATER CONTAMINATION. SB 34-3972, MODIFICATION OF NR 2 AIR DATA COMPUTER PLUMBING, WAS PREVIOUSLY COMPLIED WITH.

E81RJW302228	RAYTHN	WILINT	FUEL CONTROL	MALFUNCTIONED
1/13/2010	390	FJ442A	8063735	LEFT ENGINE

INVESTIGATED REPORTED LT ENG SURGING AND "POPPING" AFTER START. REPLACED FUEL CONTROL ASSY. (HMU) WITH REPAIRED EXCHANGE UNIT, ENGINE OPERATIONS NORMAL. RECOMMEND ACCY MFG INVESTIGATE AT TEARDOWN FOR FAULTS TO DETERMINE IF ONE-TIME PROBLEM, OR FURTHER INVESTIGATION REQUIRED.

[E81RJT227501](#) RAYTHN WILINT SHUTOFF VALVE MALFUNCTIONED
2/8/2010 390 FJ442A 5188001 ANTI-ICE SYS

TROUBLESHOT INOPERATIVE RT ENG NACELLE INLET HEAT INDICATION AT IDLE. FOUND RT NACELLE INLET HEAT PRESSURE REGULATING/SHUTOFF VALVE FAILED. VALVE WAS INSTALLED 1/19/2010, AFTER O/H, REPLACED VALVE ASSY WITH ANOTHER O/H VALVE ASSY AND FUNCTIONAL CHECKS ON ENG GROUND RUN OPERATIONS WERE NORMAL. HAVE REPLACED NUMEROUS "0" TIME SINCE O/H PN 5188-00-1 ENGINE ANTI-ICE VALVES THIS FALL/WINTER SEASON FROM SAME FACILITY THAT HAVE FAILED AT INSTALLATION OR SHORTLY THEREAFTER. RECOMMEND MFG SERVICE FACILITY INVESTIGATE WHETHER THIS IS A QUALITY CONTROL ISSUE OR IF COMPONENT O/H SPECS NEED TO BE REVISED.

[CA100108005](#) RAYTHN PWA INVERTER FAILED
1/7/2010 B300RAYTHEON PT6A60A SPS1307 AC SYSTEM

(CAN) THIS AIRCRAFT WAS PREVIOUSLY HAD SMOKE IN THE CABIN AND NO CONCRETE SOURCE OF THE SMOKE WAS FOUND. REFER TO CADOR 2009P1941. DURING AN OVERNIGHT INSPECTION ON 1/7/10, THE MEDICAL EQUIPMENT POWER WAS TURNED ON AND THE AFT LIFEPORT MEDICAL PLUS UNIT (BASE FOR THE STRETCHER) INVERTER WAS FOUND TO BE UNSERVICEABLE. THE COOLING FAN HAD FAILED AND THE UNIT WAS EMITTING A BURNING SMELL AND WAS VERY HOT. NO DEFECTS WERE REPORTED IN THE 7 DAY PERIOD BETWEEN THE OCCURRENCE AND THE DISCOVER OF THE INVERTER. IT'S POSSIBLE THAT THIS UNIT MAY NOT HAVE BEEN USED IN THE INTERVENING PERIOD AND MAY HAVE CONTRIBUTED TO THE SMOKE AND ELECTRICAL SMELL AS DISCOVERED IN FLIGHT. THE LIFEPORT IS INSTALLED BY STC SA00273WI NOTE: UNABLE TO LOCATE LIFEPORT OR KGS ELECTRONICS ON THE DROP DOWN MENU. MANUFACTURER IS NOTED AS BEECH WHICH IS INCORRECT (TC NR 20100108005)

[UVVR2010021200003](#) RAYTHN STRIP CHAFED
2/11/2010 HAWKER800XP 259W002372 ZONE 600

RT WING L/E ASSY INBD RIB (1A) IS CHAFING AGAINST THE FWD WING/FUSELAGE FAIRING SUPPORT STRIP. THE SUPPORT STRIP IS FLUSH RIVETED TO THE OTBD WEB OF THE WING/FUSELAGE FAIRING AND SANDWICHES A SEAL. THE SUPPORT STRIP AND SEAL WERE INSTALLED OVER THE TOP OF MS20470AD UNIVERSAL HEAD RIVETS CREATING A BULGE IN THE SUPPORT STRIP WHICH IS CAUSING THE SUPPORT STRIP TO CONTACT THE LEADING EDGE RIB. REPLACEMENT OF THE ABOVE MENTIONED MS20470AD RIVETS WITH FLUSH RIVETS WOULD ALLEVIATE THIS PROBLEM.

[UVVR2010021200002](#) RAYTHN STRIP CHAFED
2/11/2010 HAWKER800XP 259W002371 ZONE 500

LT WING L/E ASSY INBD RIB (1A) IS CHAFING AGAINST THE FWD WING/FUSELAGE FAIRING SUPPORT STRIP. THE SUPPORT STRIP IS FLUSH RIVETED TO THE OTBD WEB OF THE WING/FUSELAGE FAIRING AND SANDWICHES A SEAL. THE SUPPORT STRIP AND SEAL WERE INSTALLED OVER THE TOP OF MS20470AD UNIVERSAL HEAD RIVETS CREATING A BULGE IN THE SUPPORT STRIP WHICH IS CAUSING THE SUPPORT STRIP TO CONTACT THE L/E RIB. REPLACEMENT OF THE ABOVE MENTIONED MS20470AD RIVETS WITH FLUSH RIVETS WOULD ALLEVIATE THIS PROBLEM.

[CA100106005](#) RAYTHN GARRTT STEERING SYS FAILED
1/3/2010 HAWKER900XP TFE7315R AIR45396 NLG

(CAN) NOSE WHEEL STEERING UNSERVICEABLE AFTER LANDING NOSE WHEEL STEERING SYS INSPECTED AND LUBRICATED AND FUNCTION TESTED IAW MM 32-50-00. SYS OPS CHECK OK. FAULT DID NOT DUPLICATE.

[UVVR2010021500005](#) RKWELL SKIN CRACKED
2/12/2010 NA26565 30631201621 ZONE 200

FUSELAGE SKIN CRACKED AT LOWER AFT CORNER OF LEFT OVERWING ESCAPE HATCH OPENING.

[UVVR2010021500004](#) RKWELL SKIN CRACKED
2/12/2010 NA26565 30631201622 ZONE 200

FUSELAGE SKIN CRACKED AT LOWER FWD CORNER OF RT OVERWING ESCAPE HATCH OPENING.

UVVR2010021100001	RKWELL			FRAME	CRACKED
2/10/2010	NA26565			265312254031	ZONE 100
3 INCH CRACK IN LEFT FUSELAGE SIDE FRAME AT FUSELAGE STATION 257.65 APPROXIMATELY 2 INCHES ABOVE CABIN FLOOR.					
DGCA10501	RKWELL			PUMP	FAILED
1/28/2010	NA26565			PF24390615BCES62	HYD SYS
HYDRAULIC PUMP FAILURE.					
CA091209011	ROBSIN	LYC		PUMP	NOISY
11/24/2009	R44RAVENII	IO540AE1A5		D8187B	FUEL BOOST
(CAN) FUEL PUMP WAS MAKING UNUSUAL NOISE, REPLACED WITH A SERVICABLE PUMP.					
2010FA0000075	ROBSIN	LYC		MOTOR	BURNED OUT
1/27/2010	R44RAVENII	IO540AE1A5		C8187B	HYD PUMP
AUX PUMP LIGHT ILLUMINATED AFTER PICK UP. PUMP MOTOR DEFECTIVE, WILL NOT TURN WHEN POWER APPLIED.					
CA091214009	ROBSIN	LYC		BEARING	WORN
12/14/2009	R44RAVENII	IO540AE1A5		22021081806	MAGNETO
(CAN) MAG WAS RECEIVED DUE TO HIGH MAG DROP AT RUN UP. WHEN MAG WAS REMOVED FROM ENGINE CUSTOMER NOTICED THAT THE BEARINGS FELT ROUGH. MAG WAS DISASSEMBLED AND THE INNER RACE OF THE LARGE BEARING WAS FOUND TO BE EXTREMELY WORN AND THE MAG HAD SOME OIL IN IT. UPON FURTHER DISASSEMBLY TO INSPECT MANUFACTURER OF BEARINGS THE OUTER RACE OF THE SMALL BEARING WAS EASILY REMOVED FROM THE DISTRIBUTOR HOUSING, WITH EVIDENCE OF THE BEARING SPINNING IN THE ALUMINUM. THE BORE WAS MEASURED AT 1.1035 INCH (MAX. 1.1015" ALLOWED). THE BEARINGS APPEAR TO BE MANUFACTURED BY TEMPEST, AS ALL OTHER REPLACED PARTS IN THIS OVERHAUL WERE TEMPEST PARTS AND THE BEARINGS DONT HAVE THE SAME MARKINGS AS THE ORIGINAL TCM PARTS. THE MAG WAS OVERHAULLED BY QUALITY AIRCRAFT ACCESSORIES INC. IN TULSA OK. AN EXCHANGE MAG WAS QUOTED TO THE CUSTOMER. (TC# 20091214009)					
2010F00020	SAAB	GE	ROTOL	GEARBOX	FAILED
1/14/2010	340B	CT75A2		6044T35P01	PROPELLER
WHILE IN CRUISE AT FLT LVL 210, PIC NOTICED THAT RT PROPELLER GEARBOX OIL PRESSURE WAS LOW FOLLOWED IMMEDIATELY BY THE MASTER WARNING LIGHT. THE PILOT IMMEDIATELY SHUTDOWN AND SECURED ENGINE AND CONTINUED TO DESTINATION AND LANDED UNEVENTFULLY. UPON LANDING IT WAS DISCOVERED THAT THE RT PROPELLER GEARBOX HAD FAILED.					
CA091214007	SKRSKY			HOUSING	FLAKING
12/10/2009	S76			7635109002055	M/R GEARBOX
(CAN) FOLLOWING WASH OF ENTIRE UPPER HOUSING, WATER WASH OF OIL PASSAGES AND ADHESION TEST, IT WAS NOTED THAT THE PROTECTIVE COATING WAS FLAKING IN ONE AREA OF INTERNAL SURFACE EXPOSING MAGNESIUM SURFACE. RETURN TO VENDOR. DIRECTOR OF QUALITY FOR HSI CONTACTED AND INFORMED OF THE FACT THAT THIS IS THE FOURTH UPPER CASE WITH THE SAME TYPE OF NON CONFORMANCE. POSSIBLY CASTING MAY NOT HAVE BEEN ENTIRELY CLEAN PRIOR TO COATING APPLICATION BY OEM. (TC NR 20091214007)					
CA091215002	SNIAS	TMECA		WINDOW	DEPARTED
12/8/2009	AS350B2	ARRIEL1D		704A41512003	FWD DOOR
(CAN) AIRCRAFT ON DESCENT FROM 9000 FT ASL A VIBRATION ON THE LT FWD DOOR WINDOW SLIDER WAS NOTED BY THE PASSENGER WHO TRIED TO HOLD THE SLIDER FROM VIBERATING. WHILE THE PILOT STARTED TO SLOW THE AIRCRAFT THE SLIDING WINDOW AND BONDED RAILS DEPARTED THE AIRCRAFT AND THE PILOT WAS ABLE TO YAW TO TRY AND KEEP WINDOW FROM HITTING TAIL ROTOR. THE AIRCRAT LANDED AT BASE WITHOUT INCIDENT AND AFTER INSPECTION NO OTHER DAMAGE WAS FOUND. (TC NR 20091215002)					

CA091210008	SWRNGN	GARRTT	SWITCH	FAILED
12/8/2009	SA226TC	TPE33110UA	MS243314	MLG

(CAN) AFTER TAKE-OFF, GEAR WAS SELECTED UP AND 3 GREEN LIGHTS REMAINED, THERE WAS NO APPARENT MOVEMENT OF GEAR. GEAR WAS THEN CYCLED SEVERAL TIMES, AND LANDING GEAR CB PULLED AND RESET. NO IN TRANSIT LIGHTS WERE ILLUMINATED AT ANY POINT AND HYD PRESSURE WAS NORMAL. LANDING GEAR CONTROL WAS THEN TRANSFERRED TO THE RT SIDE AND THE GEAR STILL REMAINED DOWN UPON SELECTION UP. CREW CYCLED A FEW MORE TIMES WITH NOTHING BUT 3 GEAR DOWN AND LOCKED INDICATING. THEY CONTACTED CTR AND REQUESTED A RETURN TO DEPARTURE AND LANDED UNEVENTFULLY. MX CONFIRMED THAT THE LT MLG AIR/GROUND SAFETY SQUAT SWITCH WAS FAILED AND CAUSED THE ELECTRICAL CIRCUIT FOR THE LANDING GEAR CONTROL SYS TO REMAIN DEENERGIZED. THE SQUAT SWITCH WAS REPLACED AND THE GEAR SWUNG IAW THE MFG INSTRUCTIONS. NO FURTHER RECURRENCE HAS BEEN REPORTED. IAW AWM 521 THIS SDR SHOULD NOT BE SUBMITTED AS THIS COMPANY HAS SUBMITTED PREVIOUS SDR'S ON THESE SWITCHES. THE COMPANY FEELS THIS IS A SAFETY CONCERN AS THE FAILURE OF THESE SWITCHES AFFECTS FUNCTION AND CONTROL OF LANDING GEAR CONTROL CIRCUITS.

CA091209003	SWRNGN	GARRTT	BEARING RACE	FAILED
11/17/2009	SA226TC	TPE33110UA	31035851	ENGINE

(CAN) THE ACFT CAME IN FOR A CHIP LIGHT SNAG AND WHEN THE MX DEPARTMENT INSPECTED CHIP DETECTOR IT WAS NOTED TO HAVE QUITE A BIT OF METAL ON THE DETECTOR. ENG SHOP WAS NOTIFIED AND IT WAS DETERMINED THAT A REPAIR WAS NECESSARY AT THAT TIME. GEARBOX WAS REMOVED TO FIND THE SOURCE OF THE METAL. PROBLEM WAS FOUND TO BE A BRG FROM THE ACCY GEAR ASSY THAT IS ATTACHED TO THE TORQUE SENSOR HAD FAILED CAUSING THE METAL PROBLEM. ENGINE WAS FLUSHED, CLEANED, AND INSPECTED TO DETERMINE IF THERE WERE ANY OTHER PROBLEMS. BRG WAS REPLACED AND THE ENGINE PUT BACK TOGETHER. THERE WAS A GROUND RUN AND OIL SAMPLE DONE PRIOR TO A TEST FLIGHT. THE ACFT WAS TEST FLOWN AND PUT BACK INTO SERVICE. THE OIL SAMPLE HAS BEEN RECEIVED BACK SINCE WITH NO OTHER ISSUES.

CA091211008	SWRNGN		REGULATOR	MALFUNCTIONED
12/3/2009	SA227AC		38E852B	CABIN PRESSURE

(CAN) ON CLIMB AIRCRAFT FAILED TO PRESSURIZE. AIRCRAFT RETURNED TO BASE AND MAINTENANCE FOUND NOTHING CONCRETE FOR DEFECT. LINES DRAINED OF ANY MOISTURE AND REPLACED REGULATOR FOR SAFETY REASONS. GROUND RUNS CARRIED OUT AND AIRCRAFT RETURNED TO SERVICE (TC NR 20091211008)

CA091216010	SWRNGN		WINDSHIELD	CRACKED
12/15/2009	SA227AC		2719442002	COCKPIT

(CAN) RT WINDSHIELD CRACKED THROUGHOUT. FLIGHT CREW HEARD A LOUD "BANG" AND THEN NOTICED THAT THE WINDSHIELD WAS CRACKED. AIRCRAFT RETURNED TO BASE AND MAINTENANCE REPLACED WINDSHIELD. AIRCRAFT RETURNED TO BASE (TC NR 20091216010)

CA091216009	SWRNGN	GARRTT	ACCUMULATOR	LOW
12/14/2009	SA227AC	TPE33111U		HYD SYSTEM

(CAN) AIRCRAFT RETURNED TO BASE AS THE LANDING GEAR WOULD NOT REMAIN UP AND LOCKED. MAINTENANCE INSPECTED AIRCRAFT AND ACCOMPLISHED GEAR SWINGS AND THE GEAR OPERATED NORMALLY. HYDRAULIC ACCUMULATOR WAS FOUND TO BE LOW AND THE PRESSURE WAS ADJUSTED TO MANUFACTURERS SPECIFICATIONS. GEAR CLEANED AND GREASES - ADDITIONAL GEAR SWINGS CARRIED AND FOUND TO BE WITHIN MANUFACTURERS SPECIFICATION. THE GEAR PROBLEM WAS POSSIBLE THE LOW ACCUMULATOR ON THE OUTSIDE AIR TEMPERATURE OF -40C (TC NR 20091216009)

CA100105001	SWRNGN	GARRTT	CIRCUIT BREAKER	OVERHEATED
12/18/2009	SA227AC	TPE33111U	8781K11	LT CONSOLE

(CAN) ENGINE INSTRUMENTS FLICKERING ON/OFF WITH AN ARCING SOUND FROM LT ESSENTIAL BUSS TIE SWITCH UPON INSP FOUND THE PLASTIC BASE CRACKED AND ALSO EVIDENCE OF OVERHEATING WAS NOTED.

CA100105002	ZLIN	LYC	IMPULSE COUPLING	BROKEN
-----------------------------	------	-----	------------------	--------

1/5/2010	Z242L	AEIO360A1B6	M3100	MAGNETO
----------	-------	-------------	-------	---------

(CAN) THE MECHANIC CONDUCTING A SCHEDULED 50 HOUR INSP NOTICED THAT THE IMPULSE COUPLING DID NOT HAVE THE USUAL "SNAP" WHILE ROTATING THE PROP. A PAWL SPRING WAS FOUND BROKEN AND THE REMAINING SPRING FELT VERY WEAK.

CA091210007	ZLIN	LYC	CABLE	FRAYED
12/10/2009	Z242L	AEIO360A1B6	E24242370000	STEERING

(CAN) THE RT STEERING CABLE WAS OBSERVED TO BE FRAYED DURING 500 HOUR INSP.
