



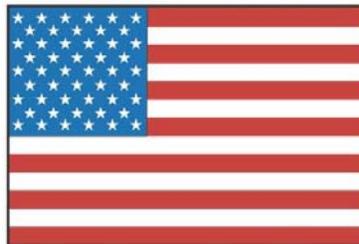
U.S. Department
of Transportation
**Federal Aviation
Administration**

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



**ALERT
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324**

**JULY
2005**

CONTENTS

AIRPLANES

CESSNA	1
DASSAULT.....	3
LEAR.....	5
PIPER.....	5
RAYTHEON (BEECH).....	6

HELICOPTERS

ERICKSON.....	6
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POWERPLANTS

CONTINENTAL	7
HONEYWELL	7
LYCOMING.....	8

ACCESSORIES

UNAPPROVED PARTS NOTIFICATION.....	8
SLICK MAGNETO.....	9

AIR NOTES

ELECTRONIC VERSION OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT	9
PAPER COPY OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT.....	10
INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE.....	10
IF YOU WANT TO CONTACT US	11
AVIATION SERVICE DIFFICULTY REPORTS	11

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

AVIATION MAINTENANCE ALERTS

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

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

AIRPLANES

CESSNA

Cessna; A185F; "Freezing Brakes"; ATA 3243

Subfreezing temperatures greet this small Alaskan airplane at touchdown, immediately followed by erratic, "hanging" brakes. This behavior prompted a stop at a repair shop. Inspection of the system by the attending mechanic revealed dirt and water contaminating the brake fluid in both left and right master cylinders (P/N 0541139-22). The aircraft logs verified periodic cylinder seal replacement, but no records of the cylinders ever having been removed and cleaned "...in the 27 years, 11 months of service." The mechanic concludes: "...if cylinder seals are replaced, the entire body should be removed and cleaned. The entire system should be removed and thoroughly cleaned every 2000 hours or 10 years as an ageing aircraft inspection item."

Part Total Time: 5,034.0 hours.

Cessna; 401A; Cracked Main Gear Housings; ATA 3210

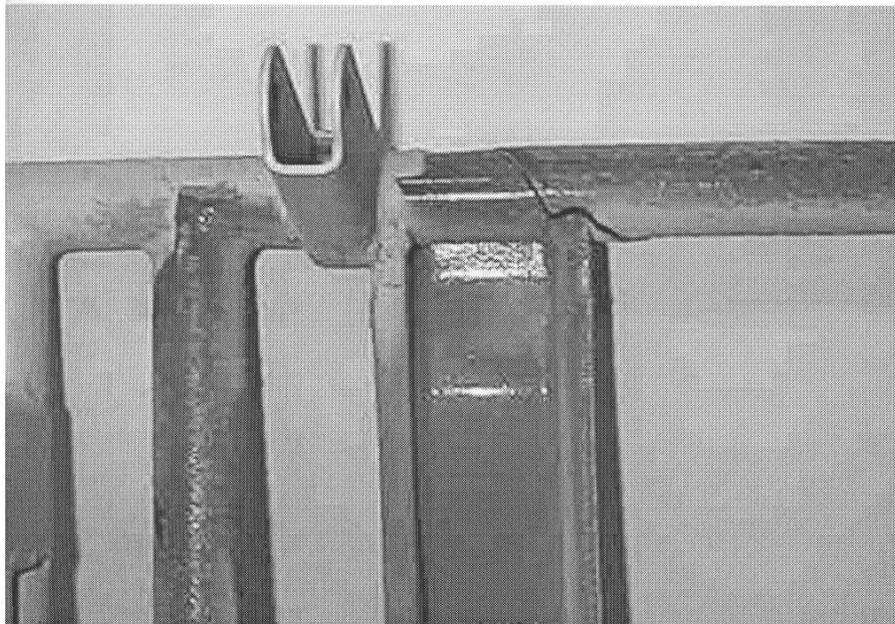
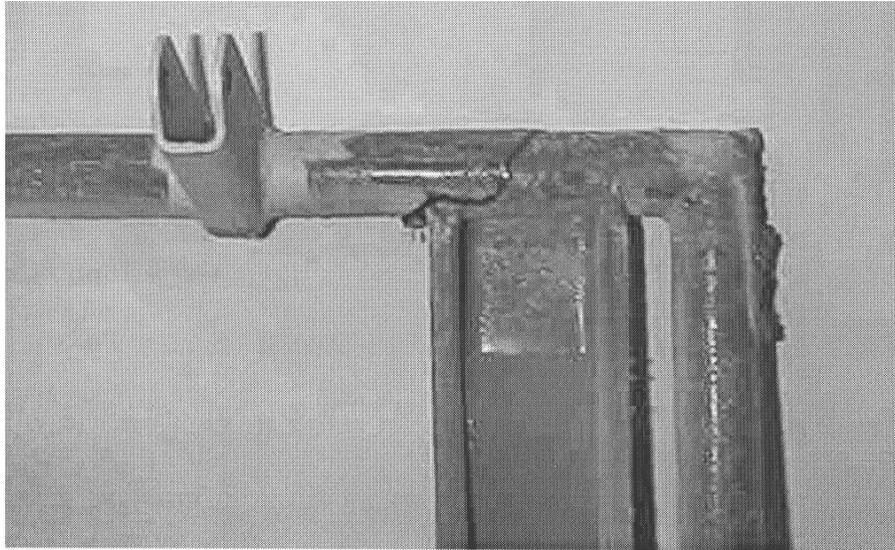
The mechanic describes finding cracks on both the left and right main landing gear strut housings (P/N 509410) at the boss points for the torque link connections. These cracks were described as being approximately ¼-inch long and located at the junction points between the boss and the strut housing. No further description or cause of this problem was offered.

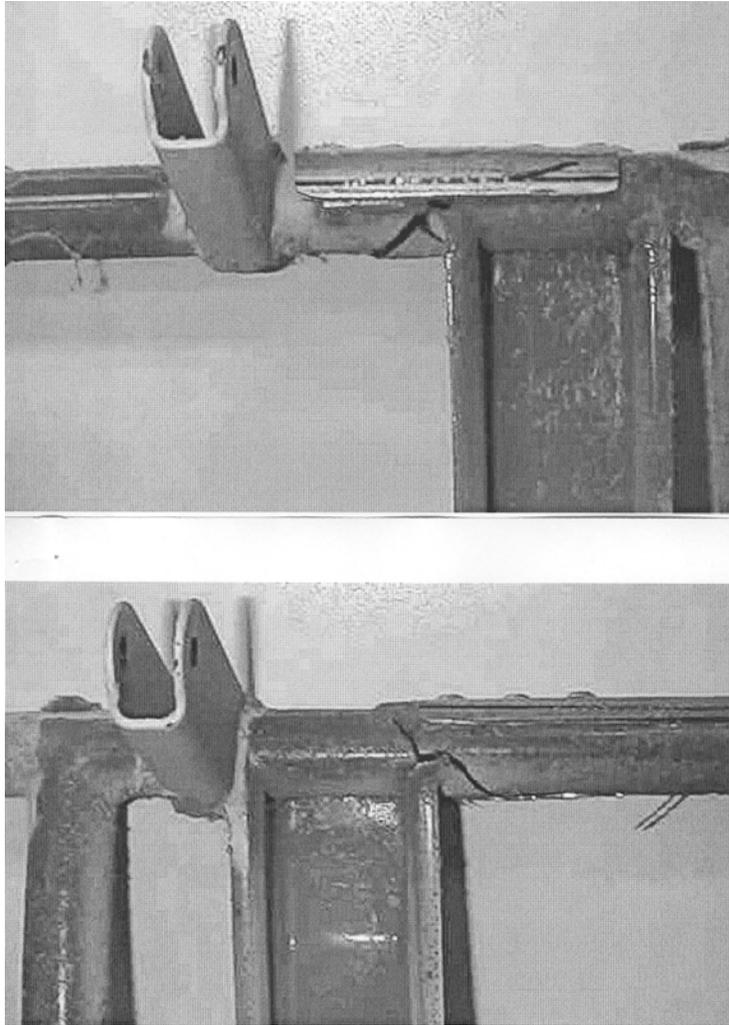
Part Total Time: 8,875.0 hours.

Cessna; 550; Cracked Seat Frames; ATA 2500

(The following description is a composite of three defect submissions on the same aircraft having identical cracks in the same locations on three different seat frames. Four of eight enclosed photos are shown below.)

The repair station technician states, the "...upper chair base assembly cracked at chair back attach points." (*Seat frame P/N 55-19009-21, 55-19009-22, 55-19009-32.*) These chairs were repaired in accordance with "...Aviation Fabricators STC STO1042WI Structural Seat Repair." He notes pictures 3 and 4 (below) show the remnants of a previous, inappropriate repair.





Part Total Time: unknown.

DASSAULT

Dassault; DA50; Burned Cabin Lighting Power Supply; ATA 3320

The writer states the "...crew had power on the aircraft and noticed an electrical burning smell from the cabin. After investigating, they found the cabin indirect lighting circuitry breaker popped. The maintenance facility troubleshot the problem to a power supply (P/N 18-941-1) that burned up." This report recommends further inquiry into this particular power supply to determine suitability for its continued use. "Dassault Aviation issued a 'RECOMMENDED' Service Bulletin F50-335 for replacing the power supplies with an improved power supply that incorporates a protection circuit. These lighting systems were installed under Dassault Aviation Modifications F50 M2065 + M2674. This aircraft will have S.B. -335 installed as soon as parts can be procured." *(The following two photographs, slightly cropped, show the power supplies to be located behind the L/H sidewall panel.)*



Part Total Time: unknown.

Dassault; 900B; Disassembled Turbine Anti-ice Valve; ATA 2150

“Higher than normal” gasper air temperatures led technicians to discover the turbofan, turbine anti-ice valve (P/N 784723-2) uncoupled from its associated parts. “We found (*this valve*) disassembled between the valve and the motor. No damage can be seen on the valve. The two threaded parts were found unthreaded. The dysfunctional part was removed and replaced with a new valve, P/N 784723-3.” (*Valve location is given as above the fuselage belly panel, number 190BB.*)

Part Total Time: 1,181.3 hours.

LEAR**Lear; 24D; Engine Fuel Pump Contamination; ATA 7314**

The mechanic describes the internal coating in the gear section of this fuel pump (P/N 9234-A8) “...as flaking off and (*it*) got into the high pressure fuel line that goes to the jet pumps in the R/H wing. The material clogged up the orifices in the jet pumps, not allowing fuel to be transferred from the tip tank to the wing.” Pump time is approximated at 4,400 hours since its last overhaul.

Part Total Time: unknown.

PIPER**Piper; PA31T; Non-functioning Heater Solenoid Valve; ATA 2140**

A mechanic provides the following description of his new aircraft heater and its *out-of-the-box* problem. “(*I*) installed a new C&D aircraft heater (P/N CD12022) as a replacement to the old Janitrol unit. The new heater would run approximately five minutes, and then produce no heat. Troubleshooting showed that fuel was reaching the nozzle solenoid valve (P/N CD21701), but not past (*it*). Voltage was present, as well as a click (*sound*) from the solenoid. (*I*) replaced the solenoid valve with the same part number, and had the same issue. Further troubleshooting, using shop air on the valve and a bench power supply, showed...(after five minutes of sustaining electrical power this valve would suddenly fail to allow air to pass). The manufacturer was advised of these findings, and they tested a replacement valve of the same part number, but of a different batch number, and found it to be satisfactory. This (*third*) solenoid valve was installed and the heater is now operational.”

Part Total Time: 0 hours.

Piper; PA44-180; Leaking Gasket on Heater Fuel Regulator; ATA 2140

“(The) pilot reported smelling fuel when the combustion heater (*Janitrol B3500/90D38-2EL*) was running,” states this submitter. “Maintenance found fuel spraying from a gasket joint on the regulator side of the heater fuel shutoff and regulator valve (P/N 23D04-7.5).” This was valve number two, previously installed in compliance with AD 2001-17-13 -- for the same problem. It was operationally checked for leaks during its last annual inspection, 93.7 hours before its gasket failure. (*No recommendations accompanied this report.*)

Part Total Time: 127.3 hours (heater operation).

Piper; PA60; Cracked Main Gear Trunnion; ATA 3213

The submitter states finding this aircraft's left main landing gear (P/N 400054-001) "...trunnion... cracked at top where the tube goes into the mounting boss." *(No further description or recommendation was provided.)*

Part Total Time: 7,533.6 hours.

RAYTHEON (BEECH)**Raytheon (Beech); F90; Broken Cabin Formers; ATA 5320**

The technician states, "During a 6000 cycle airframe inspection the left and right cabin formers were found fractured in two pieces at station 177.00 *(and)* at water line 90-91 (approximate). Cause of this failure is unknown--suspect hard landing." Both formers (P/Ns 50-420028-57 and 50-420028-58) were repaired with the Designated Engineering Representative (DER) and Raytheon technical support.

Part Total Time: 6,743.3 hours.

Raytheon (Beech); 1900D; Spar Cap Corrosion; ATA 5511

"During an 'I' check inspection, the upper and lower horizontal spar caps were found with corrosion in the area of the elevator hinges," states the technician. "This area was not treated or primed by the factory during aircraft manufacture and thus was conducive to corrosion. This is considered to be a factory defect requiring inspection, corrosion control, and repairs IAW with Raytheon Field Repair Details. *(I)* recommend that Beechcraft (Raytheon) add details of damage allowance to the structural repair manual. *(I)* recommend all areas to be treated to prevent further corrosion."

Part Total Time: 10,903.0 hours.

HELICOPTERS**ERICKSON****Erickson; S-64E; Cracked Spar -- Main Rotor Blade; ATA 6210**

Submitter describes finding a crack on this Air-Crane's main rotor blade (P/N 6415-20201-050). The spar is cracked *(located)* on the bottom side of the blade between pocket locations numbers 5 and 6." This crack runs parallel to the chord, beginning .650 inch from the back wall and terminating at .950 inches: an approximate .300 inch length. The technician also stated this blade had a BIM *(built in maintenance)* indication and was removed from the aircraft. No speculation as to the defect's cause or its prevention was offered. *(An inert gas pressurizing a part -- like the above spar -- can be designed to trip an indicator upon leakage, indicating a defect.)*

Part Total Time: 5,538.9.

Erickson; S-64E; Cracked Axle -- Main Landing Gear; ATA 3213

A technician found a crack approximately 1-inch long in the key groove of this gear axle during nondestructive testing (P/N 6425-50120-101). "This is the first known defect of this type for this part. The cause is unknown and (*I have*) no recommendations to prevent recurrence at this time."

Part Total Time: 10,610.4 hours.

Erickson; S-64F; Cracked Inner Bearing Race -- Main Rotor Head; ATA 6220

An oil leak was noted on the main rotor head *Sleeve and Spindle Assembly* during a routine inspection. The mechanic states, "Upon removable and replacement with a serviceable assembly, a crack was found on the inner race (65952-11522-102). Visual inspection (*found*) wear and corrosion typical for this part that has been in service." "The crack is approximately 3 inches in length and runs in an axial direction. This is a first time occurrence." No speculation as to this defect's cause or its prevention was offered.

Part Total Time: 2,717.3 hours.

POWERPLANTS

CONTINENTAL

Continental; O-200; Stuck Exhaust Valve; ATA 8530

A mechanic describes finding the exhaust valve in cylinder number three stuck. After cylinder removal the valve head was found "mushroomed" and associated damage to the rocker arm was also noted. "This caused concern due to the fact that the cylinder only had 174.1 total hours since it was purchased new.... Was this an isolated incident, or do we have some bad components on the market?"

Part Total Time: 174.1 hours.

Continental; IO 550G; Cracked Oil Cooler; ATA 7921

During a routine oil change, a crack was found in the mounting flange of this engine's oil cooler (P/N 654585). The mechanic states, "This is the fourth instance of an oil cooler crack found by this station within the last year. All previous cracked coolers had at least 500 hours time in service. Close examination of this area is recommended at each oil change or cowling removal."

Part Total Time: 602.8 hours.

HONEYWELL

Honeywell; TPE 331; Failed Turbine Bearing; ATA 7250

The respondent states this destroyed engine's turbine bearing (P/N 3101092-1) has identification markings from the vendor who reworked and overhauled this part in 1995. "Rework and overhaul of this bearing is no longer approved by the manufacturer's current TBO program (SB 72-0180, R31) and requirements now call for replacement of this part number bearing at each hot section inspection. Evidence leads to the belief that the bearing rollers turned in their cage, thus allowing the rotating group to move off center and contact the turbine housing -- resulting in catastrophic failure." (*Time since overhaul given as 1821.5 hours.*)

Part Total Time: unknown..

LYCOMING**Lycoming; IO 320; Broken Camshaft; ATA 8520**

This pilot/owner describes climbing past 4,000 feet when the right engine on this Piper Comanche "...shuttered and began vibrating excessively." A safe return to the airport was followed by a relevant inspection. The camshaft (P/N AEL18840) was found broken into two pieces. The engine's total time since overhaul: 100 hours. No speculation for this camshaft failure was provided. *(The submitter included a copy of the FAA Form 8130-3, Authorized Release Certificate showing the camshaft to be new at time of installation.)*

Part Total Time: 100 hours.

ACCESSORIES**UNAPPROVED PARTS NOTIFICATION****Propellers; (Various Makes/Models); Unapproved Parts/Maintenance Notice**

(The following submission is published as received from the Flight Standards District Office in Dallas, Texas. See the last paragraph of this article for details.)

**UNAPPROVED PARTS
NOTIFICATION**

Department of
Transportation
Federal Aviation
Administration

SUSPECTED UNAPPROVED PARTS PROGRAM OFFICE, AVS-20
13873 PARK CENTER ROAD, SUITE 165
HERNDON, VA 20171

UPNs are posted on the Internet at <http://www.faa.gov/avr/sups/upn.cfm>

No. 2004-00041
June 15, 2005

Mailed by: FAA, AIR-140, P.O. Box 26460, Oklahoma City, OK 73125

AFFECTED PARTS

Aircraft propellers.

PURPOSE

The purpose of this notification is to advise all aircraft owners, operators, maintenance organizations, manufacturers, and parts distributors regarding improper maintenance performed on aircraft propellers.

BACKGROUND

Information received during a Federal Aviation Administration (FAA) suspected unapproved parts investigation revealed that Millennium Propeller Systems, Inc. (Millennium), located at 780 Ferris Road, Hangar 105, Lancaster, TX 75146, improperly maintained and approved for return to service propellers applicable to various types of aircraft. Millennium previously held Air Agency Certificate No. NWOR140K with these ratings: Propeller Class 1 and Class 2, Limited Nondestructive Inspection, Testing and Processing, and Limited Specialized Service. Discrepancies noted in Millennium's practices included, but are not limited to, the following: Approving for return to service propellers described as being in compliance with Airworthiness Directive (AD) 2002-09-08 when, in fact, they had not been reworked in accordance with note 2 of the AD. The AD requires that a repair station be Hartzell-approved to perform blade shank, cold-rolling procedures. Millennium is **not** a Hartzell-approved repair facility.

Using parts that were not purchased from an approved source or have no traceability when performing maintenance operations.

Approving for return to service propellers that were not maintained in accordance with the current manufacturer's maintenance manual or methods otherwise acceptable to the Administrator.

Allowing unqualified personnel to perform nondestructive inspection.

RECOMMENDATIONS

Regulations require that type-certificated products conform to their type design. Aircraft owners, operators, maintenance organizations, and parts suppliers and distributors should inspect their aircraft, aircraft records, and/or parts inventories for propellers approved for return to service by Millennium. Suspect products and parts installed on aircraft should be inspected for conformity to type design. If any are found in existing stock, it is recommended that the products or parts be quarantined to prevent installation until a determination can be made regarding each product's or part's eligibility for installation.

FURTHER INFORMATION

Further information concerning this investigation, and guidance regarding the above-referenced propellers, can be obtained from the FAA Flight Standards District Offices (FSDO) given below. The FAA would appreciate any information concerning the discovery of the above-referenced parts from any source, the means used to identify the source, and the actions taken to remove the products and parts from aircraft and/or stock. This notice originated from the FAA Dallas FSDO, 3300 Love Field Drive, Dallas, TX 75235, telephone (214) 902-1800, fax (214) 902-1862; and was published through the FAA Suspected Unapproved Parts Program Office, AVS-20, telephone (703) 668-3720, fax (703) 481-3002.

SLICK MAGNETO

Slick Magneto; 6320; Broken Contact Point Assembly; ATA 7414

A mechanic describes both left and right Slick 6320 magnetos failing within 4 hours of one another on his Continental TSIO 520-NB engine. Both units (L & R; S/Ns 02091734 and ...1744) were found to have broken contact assemblies. He suggests inspection of those magnetos having serial numbers within a numerical range of 100. *(No description of the mechanical "breakage" was provided, or speculation as to cause.)*

Part Total Times: 54.0 (L); 58.0 (R) hours.

AIR NOTES

ELECTRONIC VERSION OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT

One of the recent improvements to the Flight Standards Service Aviation Information Internet web site is the inclusion of FAA Form 8010-4, Malfunction or Defect Report. This web site is still under construction and further changes will be made; however, the site is now active, usable, and contains a great deal of information.

Various electronic versions of this form have been used in the past; however, this new electronic version is more user friendly and replaces all other versions. You can complete the form online and submit the information electronically. The form is used for all aircraft except certificated air carriers who are provided a different electronic form. The Internet address is: <http://av-info.faa.gov/sdrx>

When the page opens, select "M or D Submission Form" and, when complete, use the "Add Service Difficulty Report" button at the top left to send the form. Many of you have inquired about this service. It is now available, and we encourage everyone to use this format when submitting aviation, service-related information.

PAPER COPY OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT

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.

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, Mechanical Reliability Reports (MRRs), 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/>.

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:

John Jackson

Service Difficulty Reporting System, Program Manager

Aviation Data Systems Branch, AFS-620

P.O. Box 25082

Oklahoma City, OK 73125

Telephone: (405) 954-6486

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 submitted 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
FAAAL01002				TURNBUCKLE	CRACKED
5/12/2005					AILERON
<p>FSDO SENT INFO LETTER TO ALL IA`S IN DISTRICT REGARDING TURNBUCKLES CRACKING AT ENDS THUS LOOSING STRUCTURAL INTEGRITY OF TURNBUCKLE ON PRIMARY FLT CONTROLS AS A RESULT OF SURVEILLANCE CONDUCTED IN DISTRICT, DISCOVERING PROBLEM. AS A RESULT OF LETTER MECHANIC GAVE OFFICE AFTER OFFICE SENT OUT LETTER REGARDING TURNBUCKLES AND AFTER AC WAS INSPECTED. TURNBUCKLE WAS INSTALLED ON AN AILERON CONTROL CABLE. THIS TURNBUCKLE HAS NO V NOTCH ALLOWING FOR CLIPS TO BE USED. RECOMMEND AD BE IMPLEMENTED MANDATING REPLACEMENT OF ALL TURNBUCKLES THAT DO NOT HAVE A DATE ON THEM. DOCUMENT RECOMMENDS THE ACTION OF NOT REUSING TURNBUCKLES W/DATE OF 1978 OR PRIOR. MS21251M AND PHOTO OF TURNBUCKLE MFG IN APPROX 1952.(K)</p>					
2005FA0000744				BAFFLE	CRACKED
4/21/2005					APU EXHAUST
<p>INTERNAL LINER MISSING AND BAFFLE PLATES CRACKED. CAUSED BY APU ENGINE VIBRATION. (K)</p>					
2005FA0000747				OIL COOLER	CRACKED
4/12/2005				S5411267000000	UPPER
<p>UPPER OIL COOLER AND DEICER, BASE METAL CRACKED DUE TO VIBRATION. (K)</p>					
2005FA0000756				ROD BOLT	DEFECTIVE
3/14/2005				SA629340	ENGINE
<p>UNABLE TO ACHIEVE PROPER BOLT TORQUE AND ALIGN COTTER PIN HOLES WITH CASTELATED NUT. HOLES IN DRILLED HEAD MISALIGNED. (K)</p>					
2005FA0000757		BENDIX		RETAINER	OUT OF POSITION
3/14/2005					MAGNETO
<p>MAGNETO COIL RETAINING WEDGE HAS FALLEN OUT AND BECAME LODGED BETWEEN THE GEAR TEETH, CAUSING THEM TO BREAK OFF. ALSO, APPEARS THAT THE DISTRIBUTOR BLOCK WAS CRACKED AND FAILED DUE TO THIS OTHER DEFECT. (K)</p>					
2005FA0000775			ELECTROSYS	ARMATURE	UNSERVICEABLE
5/10/2005				M2399	STARTER MOTOR
<p>PILOT REPORTED UNUSUAL NOISE DURING ATTEMPTED START. REMOVED AND DISASSEMBLED STARTER. FOUND THE GEAR SPLINES ON ARMATURE SHAFT CRACKED AND SHEARED. SHOWS THESE SPLINES ARE NOT VERY DURABLE, RECOMMEND REGULAR OVERHAUL INSPECTION. (K)</p>					
2005FA0000798				IMPELLER	BROKEN
4/25/2005				38007021	APU
<p>DURING APU OPERATION, A PIECE OF THE 3822400-5 IMPELLER SEPARATED AT THE RIM. THIS RESULTED IN HIGH VIBRATION LEVELS AND CATASTROPHIC DAMAGE TO THE LOAD COMPRESSOR AND POWER SECTIONS. (K)</p>					
2005FA0000792				ANTENNA	BROKEN

5/26/2005			AK450	ELT
THE ANTENNA BROKE IN THE BASE. (K)				
2005FA0000793			ANTENNA	BROKEN
5/26/2005			AK450	ELT
THE ANTENNA BROKE IN THE BASE. (K)				
CA050524001			EXTINGUISHER	LEAKING
5/18/2005			A81360021	ENGINE BAY
ENGINE FIRE EXTINGUISHER RECEIVED EMPTY FROM CUSTOMER FOR INVESTIGATION AS TO CAUSE OF DEPLETION. INSPECTION OF THE BOTTLE CONFIRMED THAT UNIT EMPTY BUT HAD NOT BEEN ACTIVATED. FOUND EXTINGUISHER LEAKING THROUGH THE TCPS VENT HOLE. EXTINGUISHER MANUFACTURED IN 1985, AND HAD BEEN HYDROSTATICALLY TESTED TWICE SINCE.				
CA050518016			BLADE	CRACKED
5/18/2005			SFA13M1R0AD	PROPELLER
DURING FLUORESCENT PENETRANT INSPECTION, FOUND THE FILLET RADIUS WITH CRACK INDICATIONS RADIALLY IN THREE PLACES ABOUT 1/8 INCH FROM THE OUTSIDE DIAMETER. THE LONGEST IS ABOUT 1/2 INCH LONG. THERE IS ALSO A CRACK INDICATION ON THE OUTSIDE DIAMETER ABOUT 1/8 INCH FROM THE EDGE OF THE FILLET RADIUS, ABOUT 1/2 INCH LONG . THE INDICATIONS WERE CHECKED WITH EDDY CURRENT AND CONFIRMED THAT THEY ARE NOT SURFACE SCRATCHING. THERE ARE NO CRACKS ALLOWED IN BLADE SHANK, INCLUDING THE FILLET AREA.				
CA050502006		NARCO	BATTERY	DISCHARGED
5/2/2005			0010009REVC	ELT
AT THE ANNUAL INSPECTION OF THE ELT FOUND THE BATTERY VOLTAGE AT (ZERO) 0 VDC. BY TAPPING ON THE LOWER PORTION OF THE BATTERY THE VOLTAGE WOULD JUMP UP TO 14.5 VDC. ABLE TO CONCLUDE THAT THERE WAS AN INTERMITTENT CONNECTION INTERNAL TO THE BATTERY. ATTERY WAS HALF WAY THROUGH ITS TIME CYCLE. BATTERY REPLACED WITH NEW.				
CA050422005		FOUND	HINGE PIN	MIGRATED
4/22/2005			P307	HINGE HALF
DURING ANNUAL INSP, OPERATOR REPORTED HINGE PIN (PART NR P307) FOR ALTERNATE AIR INTAKE DOOR MIGRATED ALLOWING HINGE PIN, SPRING AND LOWER DOOR/HINGE HALF TO BECOME DETACHED FROM INTAKE BOX. PARTS RECOVERED AND REASSEMBLED WITH BOTH ENDS CRIMPED TO AVOID ANY MIGRATION. HINGE PIN IS 0.250 SHORTER THAN HINGE HALVES AND CRIMPED DURING MANUFACTURE TO PREVENT MIGRATION. UNCLEAR WHY HINGE PIN ABLE TO MIGRATE. POSSIBLE THAT LOOSE SPRING INGESTED INTO ENGINE OR LOOSE HINGE HALF MAY CREATE AIR INTAKE BLOCKAGE. OPERATORS CONTACTED, APPRISED OF INCIDENT, AND REQUESTED TO INSP AREA BEFORE NEXT FLIGHT. AIRCRAFT CANADA INC ENGINEERING REVIEWING. SB FORTHCOMING FOR FOLLOW UP INSP AND POSSIBLE CORRECTIVE ACTIONS.				
2005FA0000773		CONT	PLATE	SCORED
5/19/2005		IO550B	3E1951	PROPELLER
WHILE PERFORMING HARTZELL PROPELLER SERVICE LETTER HC-SL-61-239, AND RAYTHEON MANDATORY SERVICE BULLETIN 61-3706 PART"B", SCORING WAS FOUND ON ALL PROPELLER SPLIT MOUNTING PLATES, DUE TO NO MOUNTING WASHERS INSTALLED. THE PLATES WERE REPLACED WITH NEW ONES, P/N 3E1951, AND THE PROPER WASHERS WERE INSTALLED, P/N A1381. INSPECTION OF THE PROPELLER HUB AND MOUNT STUDS HAD NEGATIVE DEFECTS.				
2005FA0000758		LYC	LAMAR	DRIVE GEAR
3/22/2005		IO360L2A		STARTER
STARTER BENDIX FAILED, DESTROYING ITSELF AND THE MATING RING GEAR. (K)				
2005FA0000783		LYC	MCAULY	RETAINER
				DAMAGED

4/21/2005		IO540*		D20880	FLYWEIGHT
(22209) FLYWEIGHT RETAINING DISC DAMAGED. (K)					
CA050429006		PWA		ENGINE	SHUTDOWN
4/14/2005		PT6A25			
DURING CRUISE, THE PILOT NOTICED OIL SMELL IN THE CABIN ACCOMPANIED BY DECREASING ENGINE OIL PRESSURE. THE PILOT DECLARED AN EMERGENCY AND COMPLETED AN UNSCHEDULED LANDING. FOLLOWING LANDING POWER COULD NOT BE MODULATED AND THE ENGINE WAS SHUT DOWN. SUBSEQUENT INSPECTION REVEALED DAMAGE TO THE AIR CONDITIONER DRIVE PAD AND OUTPUT GEARSHAFT.					
CA050527015	AEROSP	PWA		TUBE	FRACTURED
5/1/2005	ATR42300	PW120			OIL TRANSFER
DURING CLIMB, THE ENGINE EXHIBITED A TORQUE SPLIT ACCOMPANIED BY A LOW OIL PRESSURE WARNING AND A SUBSEQUENT FIRE WARNING. THE ENGINE WAS SHUT DOWN IN FLIGHT AND THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED A FRACTURED NR 6/7 BEARING OIL TRANSFER TUBE.					
CA050601001	AEROSP	PWA		HYDROMECH UNIT	INOPERATIVE
6/1/2005	ATR72	PW127		32448714	ENGINE
(CAN) DURING TAKE-OFF ROLL, ENGINE TORQUE DROPPED AND THE TAKE-OFF WAS ABORTED. THE HYDROMECHANICAL FUEL CONTROL WAS SUBSEQUENTLY REPLACED.					
CA050527023	AEROSP	PWA		WARNING LIGHT	FALSE INDICATION
5/16/2005	ATR72212A	PW127			ENGINE
DURING CRUISE, THE ENGINE LOW OIL PRESSURE WARNING ANNUNCIATED AND THE PILOT SHUT THE ENGINE DOWN IN FLIGHT. A SUBSEQUENT INSPECTION WAS UNABLE TO IDENTIFY CAUSE AND THE ENGINE WAS REMOVED FOR INVESTIGATION. THE ENGINE HAD EXPERIENCED A SIMILAR LOW OIL PRESSURE INDICATION AND PILOT-COMMANDED IN-FLIGHT SHUT-DOWN TWO WEEKS PRIOR. P&WC WILL MONITOR INVESTIGATION OF THE EVENT AND WILL ADVISE OF ROOT CAUSE ONCE DETERMINED.					
CA050207003	AGUSTA	PWA	AGUSTA	PISTON ROD	CORRODED
12/5/2004	A109E	PW206B		M02801H003101	ACTUATOR
APPARENT CORROSION PITS ON SURFACE OF PISTON ROD LEADING TO SMALL HYDRAULIC LEAKS, DESIGN HAS BEEN CHANGED TO REPLACE ARCOR FINISH OF PISTON ROD BY CHROME. NOTE THAT PART NUMBER OF ACTUATOR IS 109-0900-39-103 AND ORIGINAL MANUFACTURER OF ACTUATOR IS MECAER S.P.A.					
14038052105	AGUSTA	PWA		FLOAT	ACTIVATED
5/21/2005	A119	PT6*		6040102	MLG
DURING MAINT, TECH ATTEMPTED TO INSTALL SAFETY PIN IN RESERVOIR ASSY, FLOATS DEPLOYED. IT WAS LATER DISCOVERED THAT ELEC ACT USED TO DEPLOY FLOATS HAD BEEN PARTIALLY DEPLOYED. CHECK OF SYS REVEALED THAT ACT ONLY ENERGIZES WHILE DEPLOYMENT BUTTON IS DEPRESSED. THIS ALLOWS FOR PARTIAL DEPLOYMENT OF ELEC ACTUATOR WHICH WILL INTERFERE WITH INSTALL OF SAFETY PIN, CAUSING A DANGEROUS SITUATION FOR PERSONNEL IN VICINITY OF FLOATS. SUPPLEMENT DOES NOT STATE THAT PILOT MUST CONTINUE TO DEPRESS DEPLOYMENT BUTTON IN ORDER FOR FLOATS TO DEPLOY, WHICH COULD CAUSE FAILURE TO DEPLOY IN AN EMERG. FMS, ICA'S, AND INSTALLATION INSTRUCTIONS ALL HAVE NOTES TO REMOVE SAFETY PIN BEFORE FLIGHT, NO REQ FOR RE-INSTALLING SAFETY PIN.					
CA050516008	AIRBUS	GE		INVERTER	FAILED
4/26/2005	A310304	CF680C2A5		358401001	AC SYSTEM
(CAN) DURING FLIGHT DECK PREPARATION WITH EXTERNAL POWER OFF AND BATTERIES POWER ON, SMOKE ODOR WAS NOTICED IN FLIGHT DECK. DURING INVESTIGATION FOUND STATIC INVERTER AT FAULT WITH THE SUPPLIED FUSE BLOWN. BOTH UNITS WERE REPLACED. ALSO THIS POWER PROBLEM DISABLED THE FUEL QUANTITY INDICATION COMPUTER AND THE FLIGHT WARNING COMPUTER. BOTH UNITS WERE ALSO REPLACED.					

2005FA0000829	AIRBUS	GE	AIRBUS	PLACARD	SEPARATED
4/22/2005	A319112	CFM56*			WING FUEL TANK

DEBRIS (PLASTIC IDENTIFICATION DECALS) FOUND IN LT AND RT FUEL TANK WING ROOT AREAS DURING C-CHECK. QIT ISSUED BY MFG AND IS APPLICABLE TO MSN1147. (K)

2005FA0000791	AIRBUS			FITTING	CRACKED
4/12/2005	A320211			D5755000220539	RT WING SPAR

RT WING REAR SPAR TO AILERON SUPPORT FITTING AT APPROX WS 13484 AND RIB 25 (OB OF AILERON OB ACTUATOR), IS CRACKED AT UPPER LUG RADIUS. REMOVED AND REPLACED FITTING (DIAPHRAGM) ASSEMBLY IAW SRM. (K)

CA050516002	AIRBUS	RROYCE		TIRE	DEFLATED
5/16/2005	A330342	RB211TRENT77		542K694	MAIN WHEEL TIRE

PREMATURE FAILURE OF NR 5 TIRE OF A/C 934, ON LANDING IN LHR MAY 02,2005 FROM FLIGHT 850 FROM YYC. NR 5 WHEEL WAS FOUND DEFLATED. NR 5 MAIN WHEEL REPLACED ON A/C 934 AS PER AMM 32-45-01.

CA050502002	AIRBUS	RROYCE		WINDSHIELD	FAILED
4/25/2005	A330342	RB211TRENT77		NP1752011	COCKPIT

DURING CRUISE, AT FL 380, CAPTAIN WINDSHIELD CRACKED. QRH PERFORMED AND AIRCRAFT LANDED AT NEXT SUITABLE AIRPORT. WINDSHIELD INSPECTED AS PER AMM AND FOUND OUTER PANE SHATTERED. WINDSHIELD REPLACED.

CA050509004	AIRBUS	CFMINT		LIGHT	BURNED
5/9/2005	A340313	CFM565C4		8ES00469210	R1 DOOR

(CAN) APPRO 15 AFTER TAKEOFF, PURSER REPORTED SMOKE IN R1 GALLEY AREA, SMOKE INCREASED. GALLEY C/B'S PULLED, ELECT SMOKE, CARRIED OUT AND FLIGHT RETURNED TO DEPARTURE. OVERWEIGHT LANDING CARRIED OUT. FOUND R1 DOOR F/A READING LT ASSY BURNED. INSPECTION CARRIED OUT, OK OTHER DR'S CHECKED FOUND L1 DR FWD NR 1 READING LT CONNECTOR ACRING. DEFERRED FOR WIRING REPL POSN L1 5046VE7 AND R1 5046VS4 WIRING REMOVED FROM BLOCK. P/P ISSUED A340-33-19640.

CA050516003	AIRBUS	CFMINT		TIRE	DEFLATED
5/16/2005	A340313	CFM565C4			MAIN WHEEL

PREMATURE FAILURE OF NR 2 TIRE OF A/C 902 ON LANDING IN YVR MAY 01,2005 FROM FLIGHT 850 FROM HKG. NR 2 TIRE WAS FOUND DEFLATED. MAIN WHEEL REPLACED ON A/C 902 IAW 32-41-11-400.

CA050510016	AIRTRC	PWA		LINE	TWISTED
5/9/2005	AT802A	PT6A67		512983	FUEL DISTRI

DURING MAINTENANCE IT WAS DISCOVERED THAT THE FUEL LINE WAS TWISTED, THUS RESTRICTING FLOW. IT WAS ALSO NOTED THAT THE WATER RUDDER RETRACT CABLE PULLEY WAS CHAFING ON THE FUEL LINE. THE LINE WAS INSPECTED AND REPOSITIONED.

2005FA0000779	AMD	GARRTT		ENGINE	LEAKING
4/12/2005	FALCON	ATF36			NR 2

ENGINE EXPERIENCED LOW OIL PRESSURE IN FLIGHT. PRECAUTIONARY SHUTDOWN PERFORMED. 23 PSI LOWEST READING ON OIL PRESSURE INDICATOR. OIL PRESSURE NEVER WENT TO -0- PSI. NO ABNORMAL VIBRATION EXPERIENCED. PRECAUTIONARY SHUTDOWN PERFORMED ON NR 2 ENGINE. EMERGENCY DECLARED. ENGINE ROTATION NORMAL AFTER SHUTDOWN. ENGINE DID NOT LOCK UP. OIL QUANTITY INDICATION AT BOTTOM OF DIPSTICK ON ARRIVAL. EVIDENCE OF OIL LEAKING IN FAN BYPASS AREA OF ENGINE. (K)

CA050518015	AMD	GARRTT		EMBELLISHER	CRACKED
5/6/2005	FALCON10	TFE7312		95443331	RT WHEEL

EMBELLISHER ON RIGHT WHEEL IS CRACKED. RT EMBELLISHER REPLACED WITH NEW UNIT.

CA050427010	AMD	GARRTT	DOOR	MISSING
4/22/2005	FALCON50MYST	TFE73131C	F50B281943200	LAV SERVICE

IN LEVEL FLIGHT, CREW REPORTED HEARING A RUMBLE LASTING 20 SECONDS. UPON LANDING, CREW NOTICED AFT LAVATORY SERVICE DOOR AND FORWARD 1/3 OF SURROUNDING BELLY PANEL MISSING. FURTHER INSP REVEALED SCORING ON SURROUNDING FAIRINGS AND DAMAGED ANTENNAS. ROOT CAUSE DETERMINED TO BE FOD THROWN FROM NOSE WHEEL ON TAKEOFF WHICH DEFORMED PANEL ALLOWING AIR LOADS TO OPEN SERVICE DOOR.

2005FA0000815	AMD	GARRTT	PROBE	DAMAGED
6/9/2005	FALCON900EX	TFE731*	029907004	OIL TANK

DISCOVERED OIL LEVEL PROBE IN ENGINE OIL TANK TO HAVE ONE RIVET MISSING FROM THE DATA TAG AND THE PLASTIC END CAP CRACKED AT ONE RIVET HOLE. THE DATA TAG WAS VERY LOOSE BUT STILL ATTACHED BY THE ONE REMAINING RIVET. IF THE DATA TAG OR END CAP WERE TO COME LOOSE, THEY COULD RESTRICT OR PLUG THE ENGINE OIL SUPPLY STANDPIPE. THE DEFECT WAS FOUND DURING AN ENGINE INSTALLATION. THIS IS AN AIRFRAME SYSTEM COMPONENT.

2005FA0000812	AMTR	CONT	LANDING GEAR	VIBRATES
6/7/2005	LANCAIRES	TSIO360CB		NOSE

SEVERE NOSE GEAR SHIMMY DURING LANDING. NOSE GEAR STRUT SERVICED WITH MIL-H-5606, REQUIRED 30-WT FORK OIL. NEXT FLT A SEVERE SHIMMY AGAIN. INSP REVEALED ENG MOUNT BROKEN 6 PLACES AS A RESULT. ENG MOUNT & NOSE GEAR STRUT REPLACED, ON NEXT FLT, A SEVERE NOSE GEAR SHIMMY ENCOUNTERED. INSP DISCLOSED NOSE GEAR STRUT HOT TO TOUCH & COLOR OF OIL CHANGED. COWLING BURNED NEAR TURBO CHARGER. STANDARD LANCAIR ES COWLING WAS NOT DESIGNED FOR A TURBOCHARGED ENG INSTALLATION. HEAT WITHIN COWL TRANSFERS INTO NOSE GEAR STRUT & HEATS STRUT & OIL TO A TEMP THAT RENDERS INTERNAL SHIMMY DAMPENING SYS INEFFECTIVE & DAMAGES OLEO STRUT. TELEDYNE TSIO-360 SERIES ENGINE IS NOT AN ENGINE INSTALLATION RECOMMENDED BY LANCAIR.

CA050518011	BAC	LYC	DUNLOP	BOLT	BROKEN
2/21/2005	146200A	ALF502R5		LWB9227H24	BRAKE ASSY

BRAKE UNIT ON WING FOUND WORN TO LIMITS, UNIT REMOVED FOR OVERHAUL, THE ASSEMBLY SENT TO THE WHEEL AND BRAKE SHOP FOR TEAR DOWN, INSPECTION TASK 32420-RAI-10000-2 AS PER IN HOUSE FORM SSF030 WAS DONE, THE ENGINEER FOUND THE HEAD OF A BOLT SHEARED OFF OF ONE OF THE BOLTS BETWEEN THE TORQ PLATE AND TORQ TUBE ASSY. THE BOLT HEAD HELD IN PLACE BY THE LOCK WIRE THE SHANK IS A CLOSE TOLORANCE BOLT SO IT WAS STILL IN PLACE. CMM REFERENCE 32-44-44 FIG #1 ITEM 860. ALT PART# DSR4291-1411.

CA050506011	BAG	GARRTT	CASE	CRACKED
4/1/2005	JETSTM3212	TPE33110UG		GAS GENERATOR

(CAN) RT ENGINE FAILED TO MEET TAKEOFF TORQUE SETTING. EX ONLY GOT 90 PERCENT TORQUE ON A +7C, 1900 ASL (TRUE) DAY. SHOULD BE 104.5. ON INSPECTION, IT WAS FOUND THAT THE GAS GENERATOR CASE WAS CRACKED AT THE AIRFRAME SERVICE FLANGE. ENGINE REMOVED AND LOANER ENGINE INSTALLED.

CA050504004	BBAVIA	CONT	INTERPHONE	INTERMITTENT
4/24/2005	7DC	C9012F		COCKPIT

(CAN) RADIO WAS INTERMITTENT. A 2 PLACE PORTABLE INTERCOM WAS BEING USED. PILOTS RT KNEE WAS RESTING AND PULLING ON THE POWER CABLE. THE POWER CABLE IS EQUIPPED WITH A LIGHTER PLUG ADAPTER. THE PULL ON THE CABLE WOULD CAUSE THE LIGHTER PLUG TO COME LOOSE, WHEN THE PILOT MOVED HIS LEG THE INTERCOM, AND THUS THE RADIO, WOULD WORK OR NOT WORK. THE CABLE WAS RE-ROUTED TO AN AREA WHERE THERE WOULD BE NO PULL ON THE CABLE. THE SYSTEM NOW WORKS FINE.

CA050419004	BEECH	PWA	WINDSHIELD	DELAMINATED
4/6/2005	100BEECH	PT6A28	5042006935	COCKPIT

(CAN) DELAMINATION OCCURRING ON UPPER RIGHT HAND CORNER OF WINDSHIELD. HAD NO EFFECT ON PILOT VISION OR STRUCTURE OF WINDSHIELD. REMOVED DUE TO UNKNOWN ADVANCE OF FURTHER DELAMINATION.

WINDSHIELD WAS JUST UNDER 5 YEARS IN SERVICE. BEECHCAFT AND PPG SHOULD DESIGN A MORE RELIABLE WINDSHIELD.

CA050517004	BEECH	PWA	HOSE	CHAFED
5/10/2005	1900C	PT6A65B	115167CXX16070	FUEL SYSTEM

(CAN) DURING A TRAINING FLIGHT, THE CREW NOTICED THE LT ENGINE WAS SLOW TO RESPOND TO POWER INPUTS AND THEY WERE SOMEWHAT TORQUE LIMITED. THE AIRCRAFT RESUMED ONTO THE MAINTENANCE BASE AND LANDED IN NORMAL CONFIGURATION. MAINTENANCE WAS INFORMED AND INSPECTED THE LT ENGINE. THE INSPECTION REVEALED THAT THE STARTER GENERATOR COOLING HOSE P/N: 116167CXX-070 HAD CHAFED THROUGH A FCU FUEL LINE P/N: 3032791 . THE FUEL LINE WAS REPLACED, THE COOLING TUBE WAS ROUTED AWAY FROM THE FUEL TUBE AND THE AIRCRAFT RUN AND PERFORMANCE CHECKED. THE REST OF THE ENGINES THAT COULD BE AFFECTED WERE INSPECTED FOR PROPER ROUTING.

CA050527020	BEECH	PWA	CSD	MALFUNCTIONED
4/16/2005	1900D	PT6A67D	8210410	ENGINE

DURING DESCENT, THE ENGINE EXPERIENCED SURGING AND THE PILOT ELECTED TO SHUT THE ENGINE DOWN IN FLIGHT. THE CONSTANT SPEED UNIT AND FUEL CONTROL UNIT WERE SUBSEQUENTLY REPLACED.

CA050421004	BEECH	PWA	YOKE	CRACKED
4/21/2005	1900D	PT6A67D	1185210245	AILERONS

(CAN) DURING STRUCTURAL INSPECTIONS, THE AILERON YOKE INSPECTION REPEATING AT 3000 HOURS WAS ACCOMPLISHED AND IT WAS FOUND THAT BOTH THE LEFT AND RIGHT AILERON YOKE ASSEMBLIES WERE CRACKED. THE CRACKS EXTEND FROM THE BORE FOR SPIGOT INSERTION THROUGH THE OUTER CASING.

CA050503001	BEECH	PWA	SPAR	CRACKED
4/19/2005	1900D	PT6A67D	130630000607	RUDDER

RUDDER TORQUE TUBE P/N 101-630010-9 LOWER ATTACH BOLTS (3) FOUND LOOSE, HOLES IN TORQUE TUBE ELONGATED. RUDDER CONTROL HORN P/N 101-524059-1 DAMAGED AT CENTER ATTACH HOLE DUE BENT ATTACH BOLT, BEARING P/N MS28913-5C DAMAGED FROM BOLT. ALL ABOVE PARTS REPLACED WITH NEW, BOLT P/N AN175-17A. RUDDER SPAR CRACKED ON RT SIDE AT CENTER HINGE CLEVIS AREA - SPAR REPAIRED PER APPROVED BEECH FIELD REPAIR.BEECH TECH. SUPPORT INDICATED THEY HAD FOUR OTHER 1900D AIRCRAFT THAT WERE REPAIRED WITH THE SAME FIELD REPAIR.

CA050503012	BEECH	PWA	BOLT	SHEARED
4/29/2005	1900D	PT6A67D	NAS336CA17	NLG

AFTER T/O & GEAR UP SELECTED, CREW HEARD A LOUD THUD IN NOSE AREA. GEAR IND SHOWED AN UNSAFE CONDITION, GEAR SELECTED DOWN & 3 GREENS WERE OBTAINED FOR DOWN & LOCKED. DURING FLYBY, OBSERVED NLG TO BE PERPENDICULAR TO STRAIGHT. DECIDED TO FLY TO MAIN BASE. IT APPEARS THAT THE N/G CENTERING BOLT BROKE AT THE HEAD AND CAUSED THE CENTERING ROLLER TO BECOME JAMMED IN THE CENTERING CAM, NOT ALLOWING THE SPRING STRUT TO CENTER THE NOSE GEAR. ALL OF THE DAMAGED PARTS WERE REPLACED, INCLUDING THE CENTERING SPRING STRUT AND GEAR SWINGS ACCOMP TO ENSURE SERVICEABILITY. THE REMAINING 2 A/C IN THE FLEET WERE ALSO CHECKED AND FOUND WITH NO FAULTS. RAYTHEON A/C HAS BEEN CONSULTED ON THE BOLT BREAKAGE ISSUE.

CA050429003	BEECH	PWA	DUCT	CRACKED
4/28/2005	1900D	PT6A67D	1295500631	LT WING

THE CREW HAD A BLEED AIR FAIL INDICATION IN FLIGHT, FOLLOWED PROCEDURES AND SHUT THE LT BLEED AIR VALVE OFF AND CONTINUED FLIGHT. UPON INSPECTION AT A MX BASE ,IT WAS FOUND THAT THE EVA TUBING IN THE AREA OF THE DUCT HAD MELTED. THE EVA TUBING WAS REPLACED AND INVESTIGATION INTO WHY THE EVA TUBING MELTED RESULTED IN FINDING THE CRACKED DUCT ASSEMBLY. THE MOUNTING PAD ON THE DUCT AT THE AREA OF THE CRACK IS FOR THE DUCT OVERTEMPERATURE SENSOR MOUNTING. THE OVERTEMP SENSOR WEIGHS A COUPLE OF OUNCES.

CA050517007	BEECH	PWA	ARM	WORN
4/27/2005	200BEECH	PT6A41	509440763	RT ENGINE

AFTER AN UNEVENTFUL FLT, CREW UNABLE TO GET THE RT ENGINE TO DROP BELOW 78 PERCENT NG AND IT HAD INSUFFICIENT REVERSE. MAINTENANCE INVESTIGATED AND FOUND THAT THE PIVOT ARM (50-944076-3) ON THE CAM CLUSTER HAD WORN ALLOWING IT TO SLIP ON THE CAM, CHANGING THE RELATIONSHIP BETWEEN THE POWER LEVER AND THE FUEL CONTROL UNIT. THIS CAUSED THE LOSS OF THE REVERSE CAPABILITY AND THE 78 PERCENT NG WITH THE POWER LEVER SET AT IDLE. THE BOLT SECURING THE PIVOT ARM WAS TIGHTEN TO STOP THE SLIPPING BUT THE SLOT IN THE PIVOT ARM BOTTOMED OUT BEFORE IT WAS TIGHT ENOUGH TO BE SECURE. THE PIVOT ARM WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. SEE ATTACHED PICTURES.

2005FA0000850	BEECH		CONTROL CABLE	FRAYED
6/21/2005	35BEECH		A402092N	RUDDER

LEFT AND RIGHT RUDDER CABLES FOUND FRAYED AT FRONT AND REAR PULLEY POSITIONS.

2005FA0000786	BEECH	PWA	TUBE	UNSERVICEABLE
5/17/2005	400A	JT15D5	45A40304011	RT ENGINE

DURING INSPECTION FOUND FLEXIBLE BELLOWS EXTENDED DUE TO THE WIRE BRAID FAILURE. INTEGRITY OF THE BLEED AIR SUPPLY TUBE WAS INTACT. INSPECTION OF THE LT ENGINE TUBE FOUND BRAID PARTIALLY FAILED. BOTH BLEED AIR SUPPLY TUBES WERE REPLACED WITH NEW. (K)

S002368	BEECH		STARTER	SEIZED
6/8/2005	58		6762751R	ENGINE

THIS STARTER SIEZED DURING START CAUSING SIEZURE AND SEVERE DAMAGE TO THE ENGINE ACCESSORY GEARBOX STATER ADAPTER.

2005FA0000762	BEECH	CONT	SWITCH	FAULTY
1/8/2005	58	IO550*	3538013243	COCKPIT

INTERNAL UPPER BRAIDED CONDUCTOR ON LINE SIDE FAILED, SEPARATED FROM ITS CONTACT OR WELD. SPRING MECHANISM FOR SWITCH BECOMES CONDUCTOR. SPRING CAN NOT HANDLE THE CURRENT OF LANDING LIGHT CIRCUIT, AND OVERHEATS. OVERHEATING OF SPRING CAUSED NYLON TOGGLE ASSY TO FAIL. TOGGLE ASSY IS RENDERED USELESS, SWITCH LOOSES ALL MECHANICAL FUNCTION. SWITCH CONTINUES TO COMPLETE CIRCUIT, OVERHEAT MELTING THE SWITCH HSG. AS HSG AND OTHER INTERNAL COMPONENTS FAIL, SWITCH LOOSES ITS CIRCUIT PROTECTION FEATURE, SMOKE IS EMITTED INTO COCKPIT. THIS PROCESS WILL ONLY DISCONTINUE WHEN ALL POWER IS REMOVED. ONCE POWER IS REMOVED FROM AC, SWITCH WILL COOL ALLOWING UPPER CONTACT TO OPEN, WHICH OPENS THE CIRCUIT. (K)

2005FA0000735	BEECH	CONT	RAYTHN	GASKET	OUT OF POSITION
5/4/2005	58	IO550*		33199C	FUEL STRAINER

THE MATERIAL THE UPPER AND LOWER GASKETS ARE NOW MADE OF IS MUCH SOFTER THAN THE ORIGINAL DESIGN. THEY TEND TO COMPRESS AND SLIDE OUT FROM UNDER THE STRAINER WALL INTO THE CENTER OF THE FUEL STRAINER BODY AND BEGAN TO LEAK FUEL. THE STRAINER HOUSING IS NOT MACHINED TO HOLD THE SOFTER GASKET. (K)

2005FA0000788	BEECH	CONT	SLICK	DISTRIBUTOR GEAR	BURNED
5/2/2005	58	IO550C		K3056	MAGNETO

DURING DISASSEMBLY OF MAGNETO FOR 500 HR INTERNAL INSPECTION, FOUND DISTRIBUTOR FINGER ON DISTRIBUTOR GEAR SEVERELY BURNED WITH MATERIAL MISSING. FOUND MAGNETO INTERNAL TIMING 2 TEETH OFF FROM SPECIFIED. SUSPECT INCORRECT INTERNAL TIMING CAUSED A LARGE GAP BETWEEN FINGER AND DISTRIBUTOR BLOCK TARGET WHEN FIRING; RESULTING IN EXCESSIVE BURNING AND PITTING OF DISTRIBUTOR FINGER. OTHER FACILITY ALSO FOUND THIS CONDITION ON SEVERAL SIMILAR MODEL MAGNETOS DUE TO INCORRECT INTERNAL TIMING WHEN DISASSEMBLED FOR OVERHAUL. RECORDS INDICATE MAGNETO POINTS AND CAPACITOR REPLACED LAST ANNUAL INSPECTION. (K)

2005FA0000794	BEECH	CONT		DOOR	DELAMINATED
5/23/2005	95B55	IO470*			MLG

IB LANDING GEAR DOORS HAD CORROSION DUE TO DELAMINATION OF FORWARD EDGE OF GEAR DOORS.

CA050512009	BEECH	CONT	CONT	COUPLING	WORN
5/12/2005	95B55	IO470L		631683	EDP

AIRCRAFT IN CRUISE, ENGINE SPUTTERED AND DIED. BOOST PUMP ACTIVATED AND ENGINE RESTARTED. PART IS AN ON-CONDITION ITEM. THE SQUARE DRIVE ROUNDED OFF UNTIL IT WOULD NO LONGER ENGAGE THE DRIVE GEAR P/N 631684. THIS CAUSED THE FUEL PUMP TO STOP ROTATING RESULTING IN ENGINE STOPPAGE. THESE PUMPS ARE DELIVERED WITH OVERHAULED ENGINES. THIS PARTICULAR PUMP WAS REMOVED PRIOR TO OVERHAUL AND RE-INSTALLED ON ANOTHER ENGINE RESULTING IN THE 2600+ HOURS INSTEAD OF BEING OVERHAULED AT ENGINE TBO OF 1700 HOURS.

2005FA0000778	BEECH	CONT	HARTZL	ROD	CRACKED
4/12/2005	95B55A	IO470*		B24913	PITCH CHANGE

(17590) OLD STYLE 2 PIECE PITCH CHANGE ROD CRACKED AND SEPARATED AT MATING JOINT IN FLIGHT CAUSING PROPELLER TO INADVERTENTLY FEATHER. THE PROBABLE CAUSE OF THIS IS DUE TO WEAK CONSTRUCTION. THE MANUFACTURER SHOULD CONSIDER MANDATORY REPLACEMENT OF ALL OLD STYLE 2 PIECE PITCH CHANGE RODS AT THE TIME OF NEXT DISASSEMBLY AND UPGRADING TO A NEW STYLE 1 PIECE PITCH CHANGE ROD TO PREVENT ANY POSSIBLE RECURRENCE. (K)

CA050303005	BEECH	PWA	PARKERHANFIN	HOSE	LEAKING
1/25/2005	A100	PT6A28		20701700	BRAKE ASSY

ON APPROACH, PILOT APPLIED BRAKE AND HAD NONE. TRIED REVERSE, BUT DUE TO TAIL WIND WAS INEFFECTIVE. TRIED TO AVOID FUEL BOWSER BUT WAS UNABLE AND RAN INTO LADDER AND PUMP OFF FUEL BOWSER AS HE PUT PROPS IN FEATHER. AIRCRAFT RT PROP SEVERELY DAMAGED, RT ENGINE POWER SECTION DAMAGED, NOSE GEAR DAMAGED. CAUSE OF LOSS OF BRAKE WAS HOSE TO THE LT INBOARD BRAKE UNIT LEAKING. AFTER CHECKING WITH SEVERAL OPERATORS OF SAME TYPE, HOSE LEAKING IS COMMON PROBLEM.

CA050418002	BEECH	PWA		BULKHEAD	CRACKED
4/9/2005	A100	PT6A28			FUSELAGE

AFT PRESSURE BULKHEAD FOUND CRACKED AT INTERSECTION OF FRAME 50-440014-595. PATCH MADE AND INSTALLED.

2005FA0000738	BEECH	CONT		CYLINDER	CRACKED
3/28/2005	A36	IO520B		FRST712CCA01	ENGINE

THIS CYLINDER CRACKED ALL THE WAY AROUND THE TOP OF THE BARRELL. DATE OF OCCURANCE 04/26/2004. (K)

2005FA0000781	BEECH	CONT		SPARK PLUG	INTERMITTENT
3/7/2005	A36	IO550*		RHB32S	ENGINE

ENGINE PERFORMANCE ROUGH ABOVE 10,000 FT. APPEARS TO BE LIKE MISS LT OR RT MAG. INSPECTED AIR FILTER, CHECKED OK. INSPECTED LT AND RT MUFFLERS FOR BLOCKAGE CHECKED OK, CHECKED ALL IGNITION WIRES WITH HIGH TENSION TEST ON CHECKED OK. CHECKED MAG TIMING CHECKED OK. FLOWED FUEL INJECTION LINES AND CLEANED FUEL NOZZLES AND CLEANED MAIN FUEL SCREEN AND ENGINE FUEL SCREEN. REPLACED ALL 12 SPARK PLUGS AND GASKETS. RAN AND OPS CHECKED GOOD. (K)

2005FA0000847	BEECH	CONT		SPARK PLUG	BROKEN
6/14/2005	A36	IO550*		RHB32S	ENGINE

SPARK PLUG MAIN INSULATOR BROKE-OFF INTO ENGINE DURING OPERATIONS BETWEEN 88 AND 106 HOURS OF USE. A MAJOR PIECE OF CERAMIC MATERIAL WAS INJECTED INTO THE ENGINE.

CA050401014	BEECH			FORK	CRACKED
3/9/2005	B100				NLG

WHILE PERFORMING NDT INSP CALL UP IN AD 2004-23-02, NOSE GEAR FORK FOUND TO BE CRACKED. NOSE GEAR FORK REPLACED WITH NEW STYLE FORK ASSY IN BEECH 101-8030-1S SERVICE KIT.

2005FA0000789	BEECH	PWA	RIVET	MISSING
5/5/2005	B200	PT6*		STRINGER CLIP

DURING VISUAL INSPECTION OF AFT FUSELAGE STRINGERS AT AFT PRESSURE BULKHEAD FOR COMPLIANCE WITH AD, NOTED (1) RIVET MISSING FROM NR7L STINGER CLIP AT ZEE SECTION ATTACHMENT. RIVET MISSING WAS AT FARTHEST FORWARD POSITION, REQUIRED REMOVING INSULATION AND SEALANT FOR GOOD VISUAL ACCESS. NO DAMAGE WAS NOTED AND RIVET WAS INSTALLED IAW SRM. SUSPECT RIVET NOT INSTALLED AT MANUFACTURE DUE TO CLOSE CLEARANCES AND MARGINAL EDGE DISTANCE. TECHNICIANS SHOULD BE AWARE THAT SOME PORTIONS OF THIS AREA THAT IS REQUIRED TO BE INSPECTED MAY REQUIRE SOME EFFORT TO REMOVE INSULATION, SEALANT, ETC. (K)

2005FA0000848	BEECH		CONTROL CABLE	BROKEN
6/7/2005	B300		10142187	PAX OXYGEN SYS

PERFORMING A PHASE 1 INSPECTION, IT IS REQUIRED TO PERFORM A FUNCTIONAL CHECK OF THE PASSENGER OXYGEN SYSTEM. THE TEE HANDLE CONTROL WAS PULLED TO MANUALLY DEPLOY AND FLOW THE PASSENGER OXYGEN MASKS. THE MASKS DID NOT DEPLOY AND THERE WAS NO OXYGEN FLOW. FURTHER INVESTIGATION REVEALED THAT THE CONTROL CABLE WAS CONNECTED TO THE PASSENGER OXYGEN SHUT OFF VALVE AND THE CONTROL CABLE WAS BROKEN SOMEWHERE IN THE MIDDLE. THE CONTROL CABLE WAS REPLACED WITH NEW AND PASSEGER OXYGEN SYSTEM OPERATIONAL CHECKED NORMAL.

2005FA0000823	BEECH	PWA	BEARING	SEIZED
5/26/2005	B300	PT6A60A	03600918	STARTER GEN

PILOT REPORTED RT ENGINE SURGING, SMOKE FROM EXHAUST SIMULTANEOUSLY WITH RT GENERATOR GOING OFF LINE IN CRUISE FLIGHT. FOUND RT STARTER/ GENERATOR ANTI-DRIVE (BRUSH END) BEARING SEIZED, INPUT SHAFT INTACT. REPLACED STARTER/GENERATOR AND EXAMINED OIL FILTER IAW MM FAILED GENERATOR SPECIAL INSPECTION PROCEDURES. NO APPRECIABLE METALLIC PARTICLES NOTED IN OIL FILTER SENT IN FOR ANALYSIS. GENERATOR OPERATINS NORMAL AND ENGINE PERFORMANCE WITHIN MM, SERVICE LIMITS AFTER STARTER/GENERATOR REPLACEMENT.

CA050505005	BEECH	PWA	TUBE	TORN
5/4/2005	B99	PT6A28	302039402	TIRE

(CAN) UPON LANDING CREW NOTICED VIBRATION CONSISTENT WITH FLAT TIRE. CONFIRMED AFTER SHUT-DOWN. MAINT WAS DISPATCHED TO REPLACE FLAT TIRE. WHEN FLAT TIRE WAS DISASSEMBLE, NOTICED THAT INNER TUBE WAS TORN APART. NO SIGNS OF PINCHING OR UNUSUAL WEAR WERE NOTICED. 5TH TIRE OF SAME MFG AND SIZE TO HAVE CAUSED UNSCHEDULED TIRE CHANGES. MAINT HAS BEEN INTERVIEWED TO DETERMINE WHETHER THERE HAS BEEN A CHANGE IN MAINT PRACTICES OR IF ANYONE HAS OBSERVED ANYTHING THAT MIGHT EXPLAIN EXPERIENCING AN INCREASE IN THE FAILURE RATE OF THESE INNER TUBES. NO CAUSES FOUND. OPERATOR HAS BROUGHT ISSUE TO ATTENTION OF SUPPLIER WITH A REQUEST TO NOTIFY MFG OF RETURN OF ALL REMAINING INNER TUBES FOR REPLACEMENT WITH ANOTHER.

CA050506001	BEECH	PWA	WINDSHIELD	BROKEN
5/3/2005	C90A	PT6A21	10138402516	COCKPIT

(CAN) COPILOT INNER WINDOW PANE SHATTERED (LOUD BANG) DURING CRUISE AT 24,000 FT. IAS WAS 175 KNOTS , O.A.T. -32C. WINDSHIELD ANTI-ICE SELECTED OFF. NO LOSS OF PRESSURIZATION, CREW FOLLOWED CHECKLIST PROCEDURES FOR UNEVENTFUL LANDING. WINDOW HAD DELAMINATION OCCURRING BUT WITHIN LIMITS IAW MM 56-10-00 PAGE 205. WINDSHIELD IS BEING REPLACED.

CA050520001	BEECH	PWA	BUSHING	MIGRATED
5/19/2005	C90A	PT6A21	505244761	ELEVATOR TRIM

(CAN) ON A ROUTINE FLT THE PILOTS COULD HEAR A NOISE IN THE CONTROL COLUMN WHEN MOVING IT BACKWARDS AND FORWARDS. WHEN THE AIRCRAFT RETURNED MAINTENANCE FOUND THE LEFT ELEVATOR TAB BINDING AT THE CONTROL ROD TO TAB HORN ATTACHMENT. THE BUSHING HAD MIGRATED SUCH THAT IT WAS BINDING WHEN THE ELEVATOR WAS MOVED CAUSING OIL-CANNING IN THE SKIN. A NEW BUSHING, NUT, BOLT AND COTTER PIN WERE INSTALLED AND RIGGED. THE SYSTEM WAS CHECKED SERVICEABLE AND THE AIRCRAFT RETURNED TO SERVICE.

[CA050527006](#) BEECH PWA COUPLING FRACTURED
4/21/2005 C90A PT6A21 FUEL PUMP
DURING CRUISE, THE ENGINE EXPERIENCED AN UNCOMMANDED TORQUE AND TEMPERATURE INCREASE. THE ENGINE WAS SHUT DOWN IN FLIGHT. SUBSEQUENT INSPECTION REVEALED A FRACTURED FUEL PUMP COUPLING SHAFT.

[CA050418005](#) BEECH PWA INDICATOR MALFUNCTIONED
4/13/2005 C99 PT6A36 6070843004 MLG
TEST FUNCTION OF LIGHT ASSY STUCK IN TEST MODE, CAUSING FALSE COCKPIT GEAR DOWN INDICATION, DURING AN ABNORMAL GEAR EXTENSION FROM A GEAR MOTOR FAILURE.

[CA050418008](#) BELL LYC GLOBE NUT CRACKED
4/8/2005 204B T5311B LINEAR ACTUATOR
UPON INSP NOTICED CRACKED JAN NUT ON LINEAR ACTUATOR.

[CA050418007](#) BELL LYC RELAY DEFECTIVE
4/11/2005 204B T5311B AN30251 RCR
ON SHUTDOWN ENGINE CONTINUED TO MOTOR OVER SLOWLY. CONTACTS STUCK. RCR REPLACED AND PROBLEM SOLVED.

[CA050427008](#) BELL LYC BLADE DAMAGED
4/1/2005 204B T5311B 2040112501 MAIN ROTOR
VOID, CHORDWISE STATION 155 TO 157, HALF INCH WIDE THREE INCHES LONG. BELL HELICOPTER VERDICT THAT BLADE STILL SERVICEABLE. BHT ALLOWS VOID IN THIS AREA. 6 INCHES SPANWISE BY THE FULL CHORDWISE WIDTH OF CORE. BLADE RETURNED TO SERVICE. WILL CONTINUE TO MONITOR.

[CA050503007](#) BELL ALLSN BATTERY FAILED
2/19/2005 206B 250C20 G641 MASTER
(CAN) BATTERY SPECIFIC GRAVITY CHECK AFTER CHARGING AND AFTER REMOVAL FROM AIRCRAFT NOT SERVICEABLE. BATTERY ONLY HAS 9.6 HOURS WILL NOT START AIRCRAFT.

[CA050506010](#) BELL ALLSN GROUND WIRE DISCONNECTED
4/29/2005 206B 250C20B Q2A18N ELECTRICAL
(CAN) DURING INSPECTION OF HELICOPTER FOR COMPLIANCE OF AD CF-2005-10 AND ASB206-05-103. (FUEL DISTRIBUTION SYSTEM INSPECTION) FOUND DISCONNECTED GROUND WIRE Q2A18N, THE WIRE WAS MOST LIKELY LEFT OFF DURING A PREVIOUS SHEET METAL REPAIR TO THE LANDING GEAR SUPPORT AREA. REINSTALLED GROUND WIRE TO GROUND IAW BULLETIN.

[CA050519008](#) BELL ALLSN ENGINE MALFUNCTIONED
5/14/2005 206B 250C20B
(CAN) THE AIRCRAFT WAS IN A HOVER WITH A 125 FOOT LONG LINE. THE PILOT DROPPED OFF A BATTERY AND HAD DESCENDED ABOUT 5 FT, THEN NOTICED A RAPID DESCENT AND THE RPM WAS DELAYED. ENTERED INTO AUTOROTATION AND LANDED. THE PILOT ADJUSTED THE THROTTLE TO IDLE AND SHUT THE ENGINE DOWN THE ENGINE WITH THE FUEL SHUT OFF. SOURCE OF THIS DECELL IS UNKNOWN.

[CA050503004](#) BELL ALLSN BEARING SPALLED
4/23/2005 206B 250C20J 6898607 COMPRESSOR
(CAN) ENGINE CHIP DETECTOR WARNING IN FLIGHT. 2ND WARNING LIGHT IN 6 HOURS. FINE FERROUS METAL ON PLUG. SMALL BRASS PARTICLES IN OIL FILTER. TROUBLE SHOOTING INDICATED NR 1 BEARING. NR 1 BEARING REMOVED, INNER RACE SPALLED 360 DEGREES, BEARING SEPARATOR (BRASS) COMPLETELY DISINTEGRATED IN 9 LARGE PIECES AND SEVERAL SMALL ONES. (CHIP DETECTOR ON 1ST WARNING SHOWED 2 SMALL PARTICLES. CHIP PLUG CLEANED, AIRCRAFT HOVERED 30 MINUTES, NO WARNING LIGHT AND FUZZ FOUND ON CHIP DETECTOR.

CA050511004	BELL	ALLSN	LUCAS	FAN	DAMAGED
4/19/2005	206L	250C20R2		230321301	STARTER GEN

THE COOLING FAN IN THE STARTER GEN DEVELOPED A CRACK IN THE FAN BLADE PART (4 BLADES ARE STAMPED FROM ONE ALUMINUM PIECE, AND SWAGED ON A STEEL HUB) AT THE NOTCH BETWEEN TWO BLADES. UNDER CENTRIFUGAL FORCE AT 12,000 RPM, THE BLADES SPLIT IN TWO AND CAME OFF THE HUB. NO FOD RESULTED. VISUAL PREFLIGHT INSPECTION FOUND THE DEFECT. THIS FAN IS AN OLD DESIGN, AND HAS NOW BEEN REPLACED BY A SUPERSEDING PART THAT IS A ONE-PIECE CAST ALUMINUM FAN.

CA050503003	BELL	ALLSN	BELL	SADDLE	CRACKED
4/23/2005	206L1	250C28B		206052111007	RT SKID TUBE

2 PIECE SADDLE, CRACKED ACROSS BOLT HOLE, .250 TO EDGE AND .750 TO BEND STEP RADIUS. FORWARD SIDE, 3RD BOLT HOLE DOWN FROM TOP. PART REPLACED WITH 1 PIECE SADDLE.

CA050418015	BELL	PWA		BLADE	DAMAGED
4/12/2005	212	PT6T3B		212015501115	MAIN ROTOR

ON DESCENT, HEARD SOUND SIMILAR TO WHISTLE & HEARD SOUNDS DURING RT BANK ON APPR. A/C SHUTDOWN, INSP M/R BLADES & STAB BAR FOR CAUSE OF NOISE. SUSPECT BLADE TAPE ON STAB BAR LOOSE. NO DEFECTS FOUND. NO FURTHER NOISE APPARENT. APPROX 1-2 MINS INTO NEXT FLT, A/C RETURNED, VIBE LEVEL INCREASED WITH FEEDBACK THROUGH CONTROLS & AIRFRAME OF VERT. DIFFERENT NOISE WITH INCREASED VOLUME HEARD DURING APPR. A/C LANDED, SHUTDOWN, REPORTED INCREASE VERT VIBE LEVEL IN A/C WITH VIBE IN CONTROLS DECIDED TO RETURN & SHUTDOWN. INSP REVEALED UPPER SKIN NEAR OUTBOARD TIP HAD LIFTED AFT ABRASION STRIP. AREA AFFECTED APPROX 4 INCHES BY 2 INCHES. ADHESIVE SEPARATED CLEANLY. NO VISIBLE CORROSION OR AUDIBLE DELAMINATION.

CA050426001	BELL			ACTUATOR	FAULTY
4/25/2005	407			206075606210	SERVO

PILOT VALVE WOULD ONLY MOVE IN ONE DIRECTION. LIFTED UP (DUST CAP) BOOT TO LOOK AT PILOT VALVE ROD AND FOUND LOCKING MECHANISM LOOSE AND ABLE TO ROTATE. SERVO PISTON WOULD NOT MOVE IN ANY DIRECTION.

CA050429001	BELL	ALLSN		BOWL	LEAKING
4/28/2005	407	250C47B		23066681	OIL FILTER

THE CEFA OIL FILTER BYPASS INDICATOR POPPED OUT. INVESTIGATION REVEALED THE IMPENDING BYPASS INDICATOR ON THE CEFA OIL FILTER BOWL FELL APART. A RETAINING CLIP BROKE AND PARTS OF IT WERE FOUND IN THE OIL SYSTEM. SPRING, PRESSURE PLATES AND POPPET WERE ALSO RECOVERED.

CA050527030	BELL	PWA		COMPRESSOR	SEIZED
5/11/2005	412EP	PT6T3			ENGINE

DURING CRUISE, ENGINE TURBINE TEMPERATURE STEADILY INCREASED ACCOMPANIED BY A DECREASE IN COMPRESSOR SPEED. THE CREW SHUT THE ENGINE DOWN IN-FLIGHT AND THE AIRCRAFT WAS DIVERTED. SUBSEQUENT INSPECTION EVIDENCED COMPRESSOR SEIZURE. P&WC WILL INVESTIGATE THE INCIDENT AND ADVISE OF ROOT CAUSE, ONCE ESTABLISHED.

CA050527025	BELL	PWC		WARNING LIGHT	ILLUMINATED
5/11/2005	427	PW207D			ENGINE FUEL

DURING CRUISE, THE ENGINE FUEL PRESSURE WARNING ANNUNCIATED FOLLOWED BY AN ENGINE FAIL WARNING ANNUNCIATION. THE FLIGHT CONTINUED ON OEI RATING. PWC WILL INVESTIGATE THE EVENT AND WILL ADVISE OF ROOT CAUSE, ONCE ESTABLISHED.

CA050516004	BELL	PWC		WARNING LIGHT	ILLUMINATED
5/11/2005	427	PW207D			FUEL PRESSURE

(CAN) AT 2500 FEET ASL DURING A 120 KNOTS CRUISE FLIGHT AT APPROXIMATELY 70 PERCENT TOTAL TORQUE, THE ENG FUEL PRESS WARNING LIGHT ILLUMINATED. APPROXIMATELY 10 SECONDS LATER THE ENG FAIL

WARNING LIGHT ILLUMINATED. FLIGHT WAS CONTINUED OEI WITH A RUN ON LANDING AT HELIPORT.

2005FA0000785	BELL	LYC	DRIVE SHAFT	VIBRATION
5/11/2005	UH1H	T53L13B	SKCP2281103	ENG TO TRANSMISS

(2005-5-1) PILOT NOTICED VIBRATION AND RUMBLE COMING FROM THE MAIN TRANSMISSION AREA ON TAKEOFF. MECHANIC DID TROUBLE TROUBLESHOOTING PROCEDURES AND NOTICED ONE OF THE FLEX PLATES ON THE MAIN DRIVE SHAFT HAD SNAPPED CAUSING THE DRIVE SHAFT TO BE IN FAIL SAFE MODE. DRIVE SHAFT WAS REPLACED AND PILOT CONTINUED. (K)

CA050427006	BNORM	LYC	ROD	BROKEN
4/3/2005	BN2A26	O540E4C5	BN45991	RUDDER BAR DRIVE

DURING TAXI NOTICED RUDDER PEDALS SLOPPY, UPON INSP DISCOVERED RUDDER BAR DRIVE ROD BROKEN.

2005FA0000804	BOEING	KIDDE	SEAT	DAMAGED
5/23/2005	727*		M80530044	FIRE BOTTLE

RECEIVED APU FIRE EXTINGUISHER FOR OVERHAUL AFTER FIRING. DURING THE DISASSEMBLY, IT WAS DISCOVERED THAT THE PYROTECHNIC CARTRIDGE MELTED THE STAINLESS STEEL BOTTLE'S SEAT RENDERING THE PRESSURE VESSEL SCRAP. THIS TYPE OF DAMAGE IS CONSISTENT WITH PREVIOUSLY REPORTED DAMAGE CAUSED BY THIS MFG CARTRIDGES. REPAIR STATION IS VERY CONCERNED SINCE AT LEAST (2) OTHER UNRELATED REPAIR STATIONS HAVE REPORTED SIMILAR PROBLEMS WITH THE PYROTECHNIC CARTRIDGES FROM THIS MFG. (K)

CA050506004	BOEING	PWA	DUCT	SEPARATED
4/16/2005	727217	JT8D17	577957	MANIFOLD

(CAN) DUCT ASSEMBLY (13TH STAGE BLEED AIR) SEPARATED FROM FLANGE.

MTF2351	BOEING		MOUNT BRACKET	DETERIORATED
6/16/2005	727223		65445543	STROBE LIGHT

STROBELIGHT MOUNT BRACKET, SHOCK MOUNTS DETERIORED AND UNIT HELD IN PLACE BY ONE SHOCK MOUNT, ALL SHOCK MOUNT ATTACH HOLES IN BRACKET WORN/ELONGATED, SO MOUNTS WERE NOT ABLE TO REMAIN ATTACHED. INSPECTION OF THIS AREA WAS BY REMOVING ACCESS PANEL 9715 PREVIOUS LISTED IN BOEING 727 MPD D6-8766-2 REV H DATED 3/78, PER -D- CHECK 6-55-12. D-CHECK REQUIREMENT. REQUIREMENT REVISED TO C-CHECK LEVEL PER REVISION TO MPD D6-8766-2 REV K DATED 4/80 OF BOEING 727 AND ACCESS PANEL 9715 REQUIREMENT TO REMOVE HAS BEEN DELETED THEREFORE NOT PRESENTING AVAILABILITY TO INSPECT MOUNT/BRACKET ATTACHMENT.

CA050527002	BOEING	PWA	ACTUATOR	LACK OF LUBE
5/19/2005	727225	JT8D15A	652183121	RUDDER TRIM

DURING CRUISE, A/C BEGINNING TO PITCH UP & DOWN SLIGHTLY WITH AUTOPILOT ENGAGED. DISENGAGED AUTOPILOT IN ORDER TO RE-TRIM A/C. DURING PROCEDURE RUDDER TRIM FOUND IMMOBILE. ATTEMPTED SMALL RUDDER DEFLECTION WITH RUDDER PEDALS & FOUND THEM TO BE IMMOBILE. DECLARED AN EMERGENCY AND DIVERTED TO CYWG. DURING DESCENT AT APPROX 9000 FT, RUDDER BEGAN TO FREE ITSELF & FUNCTION CORRECTLY. A/C CONTINUED ITS APPROACH & LANDED AT CYWG W/O FURTHER INCIDENT. MX INVEST WITH ASSISTANCE OF BOEING SERVICE LETTER 727-SL-27-24 INDICATED RUDDER TRIM ACTUATOR TO BE LACKING SUFFICIENT LUBE RESULTING IN HIGHER THAN NORMAL INPUT FORCE. RUDDER TRIM ACTUATOR & RELATED PARTS LUBED IAW SERVICE LETTER & MM. A/C RETURNED TO SERVICE.

CA050517005	BOEING	PWA	VALVE	LEAKING
5/17/2005	727247	JT8D15	1U10851	HYD SYSTEM

(CAN) ON APPROACH, AFTER GEAR EXTENSION (A) SYSTEM HYDRAULIC FLUID WAS FOUND DROPPING. A NORMAL LANDING WAS ACCOMPLISHED BUT THE AIRCRAFT HAD TO BE TOWED OFF THE TAXI WAY DUE TO HYDRAULIC LOSS CAUSING THE STEERING SYSTEM TO BE INOP. AT THE RAMP MAINTENANCE TROUBLE SHOT THE SYSTEM AND FOUND A PIN HOLE IN THE LT MAIN LANDING GEAR LOCK OPERATED SEQUENCE VALVE BODY. AIRCRAFT IS DOWN UNTIL NEW VALVE CAN BE INSTALLED AND GEAR SWING ACCOMPLISHED.

CA050512004	BOEING	PWA	CONTROLLER	FAILED
5/5/2005	727260	JT8D17	106120917	CABIN PRESSURE

DURING DESCENT FROM FL290 TO FL270, THE 'OFF SCHEDULE' DESCENT LIGHT ILLUMINATED. CABIN ALTITUDE WAS QUICKLY INCREASING WITH CABIN DIFFERENTIAL QUICKLY DECREASING. CREW SWITCHED TO STANDBY, MANUAL DC AND MANUAL AC BUT CABIN CONTINUED TO DE-PRESSURIZE. ATC WAS ADVISED AND AN EMERGENCY DESCENT WAS INITIATED. AT APPROX 14,000 FT CABIN DIFFERENTIAL WAS ZERO AND CABIN ALTITUDE WAS AT 14,000 FT. DESCENT WAS SLOWED AT THIS POINT AND CONTINUED TO CLEARED ALTITUDE OF 8,000 FT. DESCENT AND LANDING AT DESTINATION AIRFIELD COMPLETED W/O FURTHER INCIDENT. MX WAS ABLE TO CONFIRM FAULT IN THE CONTROLLER. THE CONTROLLER WAS REPLACED AND TESTED SATISFACTORY AND THE AIRCRAFT WAS RETURNED TO SERVICE.

CA050510006	BOEING	PWA	GCU	SHORTED
5/9/2005	737201	JT8D9A	10612243	NR 1 ENGINE

(CAN) AFTER STARTING THE NR 1 ENGINE, THE CREW TURNED ON POWER FROM THE NR 1 ENGINE. THEY IMMEDIATELY NOTICED SMOKE COMING FROM THE GCU. THEY TURNED THE POWER OFF AND RETURNED TO GATE FOR MAINTENANCE. MAINTENANCE SWAPPED THE NR 1 GCU WITH THE APU GCU AND CARRIED OUT EXTENSIVE TROUBLESHOOTING AND FUNCTION TESTS. THE GCU WAS FOUND TO BE AT FAULT. SUSPECT INTERNAL SHORT CIRCUIT. THE APU GCU WAS PLACED ON MEL 24-2 AND THE AIRCRAFT RETURNED TO SERVICE. THE INOPERATIVE GCU WAS LATER REPLACED. INFORMATION TO FOLLOW AFTER COMPLETION OF THE TEARDOWN INSPECTION AND REPORT FROM SHOP.

CA050502005	BOEING	PWA	CONTROL UNIT	MALFUNCTIONED
4/26/2005	737204	JT8D15	654476117	HYD SYSTEM

A/C 743 WAS IN CRUISE WHEN 'B' SYSTEM LOW QUANTITY LIGHT CAME ON FOLLOWED BY GAUGE GOING TO ZERO. 'B' SYSTEM LOW PRESSURE LIGHTS ILLUMINATED, BOTH 'B' PUMPS SELECTED OFF. OVERHEAT LIGHTS DID NOT ILLUMINATE. A/C WAS EN ROUTE TO YEG, ATC WS ADVISED AND EMERGENCY VEHICLES WERE REQUESTED TO BE ON STAND BY. THE LANDING WAS UNEVENTFUL AND THE A/C TAXIED TO THE GATE. MAINTENANCE CONFIRMED THE SOURCE OF THE LEAK WAS THE 'B' SYSTEM PCU. THE PCU WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE WITH NO FURTHER DEFECTS RELATED TO THE HYDRAULIC SYSTEMS TO DATE.

CA050509001	BOEING	PWA	OVEN	SMOKE
5/6/2005	737248C	JT8D9A		GALLEY

(CAN) DEPARTING, DURING CLIMB, SMOKE/HAZE WAS OBSERVED EMINATING FROM THE AFT CABIN AREA. THE AIRCRAFT DECLARED AN EMERGENCY AND RETURNED TO POINT OF DEPARTURE, LANDING WITH NO FURTHER INCIDENT. THE SOURCE OF THE SMOKE WAS DETERMINED TO BE THE CONTENTS OF A GALLEY OVEN. THE AFT SLIDES WERE DEPLOYED AND ENGINE FIRE BOTTLES WERE DISCHARGED.

CA050504006	BOEING	PWA	CONTROLLER	INOPERATIVE
5/3/2005	737275	JT8D9A	7638101	CABIN PRESSURE

(CAN) ON DEPARTURE, A/C WAS CLIMBING THROUGH FL210 WHEN THE CREW NOTICED THE CABIN DIFFERENTIAL WAS AT MAXIMUM AND THE CABIN RATE OF CLIMB WAS EXCEEDING 3000 FPM (UP). THEY IMMEDIATELY INITIATED A RAPID DESCENT AND STABILIZED THE CABIN ALTITUDE AT AN A/C ALTITUDE OF 17,000 FT. THE A/C RETURNED AND PERFORMED A NORMAL LANDING. MAINTENANCE CARRIED OUT T/S AND REPLACEMENT OF THE PRESSURE CONTROLLER.

20050622A	BOEING		SKIN	DENTED
6/2/2005	737300			FUSELAGE

DENT IN THE LT FUSELAGE SKIN IN AREA OF S20L AT BS 465.

CA050510004	BOEING	CFMINT	WINDOW	CRACKED
5/8/2005	737522	CFM563C1	58935733	COCKPIT

(CAN) NR 4 WINDOW CRACKED AT ALTITUDE. WINDOW REPLACED.

CA050512008	BOEING	CFMINT	DISPLAY	ODOR
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4/29/2005 73776N CFM567B22 50401100003 ENTERTAIN SYS

VDU AT ROW 5D HAD GONE BLACK AND THERE WAS A BURNING SMELL PRESENT. THE PART WILL BE RETURNED TO THE OEM FOR TEARDOWN. THIS UNIT WAS PREVIOUSLY REPORTED ON SDR20050317007. TO MAKE THIS ITEM MORE VISIBLE FOR TRACKING AND TO ADHERE TO COMPANY POLICY A SEPARATE SDR FILE IS BEING SUBMITTED AT THIS TIME.

[CA050512007](#) BOEING CFMINT DISPLAY ODOR
4/20/2005 73776N CFM567B22 50401100003 ENTERTAIN SYS

THE VDU AT ROW 22C WAS REPORTED AS BEING HOT AND HAVING AN ASSOCIATED BURNING SMELL. THIS PART WILL BE RETURNED TO THE OEM FOR TEARDOWN. THIS UNIT WAS PREVIOUSLY REPORTED ON SDR 20050317007. TO MAKE THIS ITEM MORE VISIBLE FOR TRACKING AND TO ADHERE WITH COMPANY POLICY A SEPARATE SDR FILE IS BEING SUBMITTED AT THIS TIME.

[2005FA0000739](#) BOEING AXLE BROKEN
4/18/2005 757* 161N16264 MLG

(REF: PO0043200R011)AXLE WAS FOUND BROKEN NEAR THE CENTER POINT THAT WAS CONCEALED BY THE TRUCK BEAM DEGES OF THE FRACTURE SHOW SEVERE CORROSION AND PEELED CHROME PLATING. (K)

[CA050531003](#) BOEING RROYCE ENGINE MAKING METAL
5/28/2005 75728A RB211535E437

(CAN) DURING ENGINE START, ENGINE FAILED TO ACHIEVE APPROPRIATE RPM. START ABORTED. TROUBLESHOOTING FOUND DEBRIS IN THREE CHIP DETECTORS. ENGINE WILL BE CHANGED AND SHIPPED BACK TO OVERHAUL FACILITY FOR INVESTIGATION.

[CA050517006](#) BOEING RROYCE BOEING BOLT MISSING
5/16/2005 75728A RB211535E437 FW18694 BLT5249 ENGINE MOUNT

(CAN) DURING C CHECK, IT WAS FOUND THAT THE FRONT MOUNT ASSEMBLY HAD A KEEPER BOLT MISSING FROM THE AFT PICKUP BEARING BUSHING. THE BEARING BUSHING HAD SHIFTED TRANSFERING ALL WEIGHT TO ONE LUG OF THE BRACKET. COMPLETE MOUNT WAS REPLACED AS A PRECAUTION. APPROVAL OBTAINED FROM MFG. IT COULD NOT BE CONFIRMED THAT THE BOLT WAS EVER INSTALLED OR THAT IT WAS NOT PROPERLY SAFETIED AND FELL OUT AT A LATER DATE. NO HARDWARE WAS FOUND IN THE COWLING SUGGESTING IT WAS NOT INSTALLED AT BUILDUP. AIRCRAFT FLEW 1298 HOURS AND 361 CYCLES BETWEEN TIME THE ENGINE WAS INSTALLED UNTIL THE BOLT WAS NOTICED MISSING.

[CA050517001](#) BOEING PWA LOCK MELTED
5/17/2005 767333 PW4060 COCKPIT DOOR

(CAN) FAULT: ELECTRICAL BURNING SMELL NOTED AROUND VCR IN FORWARD GALLEY, LAVATORY AND OVERHEAD AREA. RETURNED. ACTION: BURNED ELEC SMELL LOCATED AS COMING FROM COCKPIT DOOR LOCK SOLENOID. SOLENOID AND HARDWARE REMOVED AND PLACED IN PLASTIC BAG IN OPB. AREA DEODORIZED AND A/C CHECKED (S) FOR FLT. COCKPIT DOOR CAN BE LOCKED WITH DEAD BOLT IAW MEL.

[CA050516001](#) BOEING PWA TIRE FAILED
5/16/2005 767333 PW4060 468K292 MAIN GEAR

FOUND NR 1 MAIN WHEEL RECAP, 3/4 THICK, MISSING. TIRE PRESS STILL 220PSI. NR 1 MAIN WHEEL CHANGED AS PER MM32-45-01.

[CA050510008](#) BOEING GE THROTTLE CABLE MISALIGNED
5/10/2005 767375 CF680C2B6 LEFT

(CAN) ON CLIMB OUT THRU FL 130 EICAS (L PRV) QRH COMPLETED - THRU FL 200 LT THROTTLE VERY HARD TO ADVANCE OR MOVE TO IDLE. A/T ARM OFF NO IMPROVEMENT. RETURN TO LHR. NO LT REVERSE ON LANDING. FOR T/S AND INFO ON PRV REFER TO L1425969. LT ENG PUSH PULL CABLE REMOVED, INSPD AND CLEANED, UPPER END OF DOVE TAIL BELOW STRUT FOUND SLIGHTLY MIS-ALIGNED, CABLE RUN RE-ASSBLD AND FUNC CHK SERV IAW 76-11-00-765-100-400, AUTO THROT SYST CHK SERV.

CA050510002	BOEING	GE	WIRE	BURNED
5/10/2005	767375	CF680C2B6F	146T51451	CHILLER

(CAN) FAULT: REF L1523271 AFT CHILLER POPS CB, FOUND UPPER CHILLER WIRING BURNED AND ARCED TO BOTTOM OF FLOORBEAM . FLOORBEAM AT STN 1540 , 26 INCHES RT OF CENTER LINE. HAS HOLE BURNED THROUGH LOWER CHORD APROX .8750 INCHES WIDE , .5 INCH ACROSS LOWER CHORD, .2500 INCH UP FWD FLANGE. ACTION: FLOORBEAM AT STN 1562 REPAIRED IAW PP B767-53-19570. TEMP REPAIR ANGLE TO BE REPLACED WITH NEW REPAIR ANGLE IAW SRM 51-70-12 FI G 1 OR FIG 2 AT NEXTM-CHECK.

CA050517002	BOEING	GE	LIGHT	SMOKE
5/17/2005	767375	CF680C2B6F		FWD GALLEY

(CAN) ON FINAL TO 24R, IN CHARGE F/A REPORTED SMOKE FROM UTILITY LIGHT FWD GALLEY AFTER COMPLETING QRH AND CUTTING UTILITY BUSES SMOKE SUBSIDED. TRANSFORMER REPLACED AND OPS TESTED OK.

2005FA0000760	BOEING	WRIGHT	ENGINE	FAILED
4/26/2005	B17G	R182097	R182097	NR 3

UPON ANNUAL INSPECTION, ENGINE WAS FOUND TO BE SEIZED, CHECKED FOR OIL IN GIL TANK, 25 GAL REMAINING. ENGINE REMOVED FROM AC. UPON REMOVAL OF PROPELLER, PROP SHAFT WAS FULL OF METAL. NOSE CASE FAILURE. (K)

2005FA0000761	BOEING	WRIGHT	ENGINE	FAILED
4/26/2005	B17G	R182097	R182097	NR 3

UPON INSTALLATION OF ENGINE AT NR 3 POSITION, METAL WAS FOUND IN PROPELLER SHAFT. ENGINE HAD RUN IN TIME ONLY AS -0- TSMO. ENGINE REMOVED AND NOT RUN ON AIRCRAFT. (K)

CA050527027	BOMBDR	PWC	ENGINE	LEAKING
5/18/2005	DHC8400	PW150A		

ON APPROACH, SMOKE BECAME EVIDENT IN THE CABIN AND ON THE FLIGHT DECK. THE CREW DECLARED AN EMERGENCY AND OPENED THE FORWARD OUTFLOW AND DUMP VALVE. SUBSEQUENT INSPECTION REVEALED EXTERNAL OIL LEAKAGE AND THE ENGINE WAS REMOVED FOR INVESTIGATION. PWC WILL INVESTIGATE THE EVENT AND WILL ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA050510010	BOMBDR	PWC	BEARING	DETACHED
5/7/2005	DHC8400	PW150A	296852629	MLG WHEEL

(CAN) DURING TAXI OUT FOR TAKE OFF, THE FLIGHT ATTENDANT NOTIFIED THE CREW OF SMOKE OFF OF THE NR 1 WHEEL ASSY. WHEN MAINTENANCE ARRIVED THEY FOUND THE INSIDE BEARING OF THE NR 1 WHEEL ASSY DESTROYED. INVESTIGATING THE EVENT.

CA050502001	BOMBDR	PWC	WIRE HARNESS	SHORTED
4/29/2005	DHC8400	PW150A		

LOW SPEED CUE MESSAGE INDICATION ON TAKEOFF, THE T/O WAS ABORTED. UPON LANDING THE CUE MESSAGE REAPPEARED ALONG WITH FADEC 2/DU MESSAGE. THIS TIME THE REMAINED DISPLAYED. MAINTENANCE REMOVED THE MFDS AND ED AND IT WAS FOUND THAT THE ED WIRING HARNESS AT THE BASE OF CONNECTOR 7740-P2-A1 WAS CHAFED AND SHORED. WIRING REPAIRED PER STANDARD PRACTICE.

CA050530004	BOMBDR	PWC	SHAFT	SHEARED
5/25/2005	DHC8402	PW150A	C1535361	FLAP XMSN

AFTER SELECTION, NOTICED NO MOVEMENT OF FLAPS, CREW RESET FLAP CONTROL CB L7 WITH NO SUCCESS. OVERSHOOT C/OUT, FLAPLESS LANDING C/OUT WITH NO DIFFICULTY. AFTER INSP, RT INBD FLAP, OTBD (RT NR 4) XMISSION SHAFT FOUND SHEARED AT JOINT & CAUSE A FLAP POWER CAUTION LIGHT DURING APPRO. NOTE: ALSO ASYMMETRY MESSAGE IN CDS. SHAFT IN QUESTION IS ORIGINAL TO A/C, NEVER REPLACED SINCE A/C ENTERED IN SERVICE. NO SPECIFIC MX PERFORMED ON PART OTHER THAN GENERAL INSPS & FUNCT CHKS OF SYS. BOMBARDIER ADVISED SAME DAY & DAMAGED PART SHIPPED FOR INVEST. GENERAL VISUAL INSP OF ALL XMISSION SHAFTS (ALL FLAP TRANSMISSION SHAFT AND TORSION BARS REMOVED FOR INSPECTION) FOR

INTEGRITY C/OUT, LUBE ALL FLAP BALL-SCREW ACT C/OUT.

CA050505001	BRAERO	GARRTT	HINGE	CRACKED
5/5/2005	BAE125800A	TFE731*	25WF4402	TE FLAPS

(CAN) DURING A SCHEDULED INSPECTION, A CRACK WAS DETECTED VISUALLY, IN THE AFT, INNER MACHINED RADIUS OF THE RT FLAP OUTER HINGE, P.N: 25WF4402. MPI NDT DETECTED A SECOND CRACK IN THE OPPOSITE, FORWARD RADIUS. BOTH CRACKS RUN APPROXIMATELY 5.5 INCHES IN LENGTH, AND ARE IN EXCESS OF 0.040 INCHES IN DEPTH. PART REPLACED WITH NEW. MANUFACTURER FIELD SERVICE REPRESENTATIVE NOTIFIED.

CA050510007	BRAERO	RROYCE	LINE	LEAKING
5/8/2005	HS7482A	DART5342	200146652	LT BRAKE

(CAN) AFTER LANDING, THE CREW OBSERVED THE NR 1 IB BRAKE UNIT LINE LEAKING. MAINTENANCE WAS DISPATCHED. THE LINE WAS REPLACED AND THE SYSTEM BLED. THE AIRCRAFT GROUND RUN SERVICEABLE BEFORE BEING RETURNED TO SERVICE.

CA050517003	BRAERO	RROYCE	COOLING FAN	OVERHEATED
5/13/2005	HS7482A	DART5342	68C6122	NR 2 RADIO

EN ROUTE, CREW NOTICED AN ELECTRICAL BURNING ODOR & SMOKE IN COCKPIT. FLT TERMINATED & AN UNEVENTFULL LANDING MADE. MX INVESTIGATION REVEALED THE NR 2 RADIO CRATE COOLING FAN SMOKE BLACKENED & DIFFICULT TO TURN BY HAND. FAN REMOVED & BENCH TESTED. DURING BENCH TEST FAN ROTATED VERY SLOWLY & OVERHEATED. NOTED DURING TEST THE CURRENT DRAW BY FAN LESS THAT 15 AMPS, WHICH WOULD EXPLAIN WHY ASSOCIATED ACFT 15 AMP C/B DID NOT TRIP. FAN REPLACED. ASSOCIATED WIRING HARNESSSES & C/BS INSPECTED & TESTED. COOLING FAN INSTALLATION FUNCTION TESTED ON THE AIRCRAFT AND SHOWED NO EVIDENCE OF DEFECTS. THE AIRCRAFT RELEASED TO SERVICE.

CA050509006	CESSNA	LYC	FITTING	CRACKED
5/9/2005	152	O235L2C	04310093	VERTICAL STAB

(CAN) FITTING CRACKED 90 PERCENT THROUGH, IN RADIUS BETWEEN OUTER HORIZONTAL AND VERTICAL SECTIONS.

CA050428002	CESSNA	LYC	BRACKET	CRACKED
4/27/2005	152	O235L2C	04320049	HORIZONTAL STAB

WHILE PERFORMING THE INSPECTION REQUIREMENTS OF SEB 03-06, THE BRACKET WAS FOUND TO BE CRACKED. ALL OTHER PARTS OF INTEREST WHILE PERFORMING THIS SB WERE SERVICEABLE.

2005FA0000751	CESSNA	LYC	DRIVE GEAR	CRACKED
5/1/2005	172M	O320*		STARTER

STARTER BROKE. VISUAL INSPECTION FOUND BENDIX DRIVE GEAR CRACKED AND APPEARS BENT. END BUSHING IS ALSO CRACKED. (K)

CA050509007	CESSNA	LYC	ALTERNATOR	FAILED
5/9/2005	172M	O320E2D	DOFF10300J	ENGINE

(CAN) DURING RUNUP A DISCHARGE WAS NOTICED ON AMMETER. FURTHER INSPECTION BY AN ENGINEER CONCLUDED THAT THE ALTERNATOR HAD FAILED INTERNALLY.

CA050503002	CESSNA	LYC	CYLINDER HEAD	CRACKED
4/20/2005	172M	O320E2D	LW12416	ENGINE

FOUND CRACKED CYLINDER WHERE CYLINDER HEAD AND CYLINDER BARREL MATE TOGETHER, CRACK WAS 4 INCHES LONG, AND LEAKING EXHAUST GAS ON THE NR 1 CYLINDER.

CA050511002	CESSNA	LYC	LIFTER	DESTROYED
4/21/2005	172M	O360A4M	72877	ENGINE

A/C SUFFERED A PWR LOSS IN FLT DUE TO THE COLLAPSE/FRACTURE OF NR 2 CYLINDER EXHAUST VALVE HYD LIFTER BODY P/N 72877. THE PILOT WAS ABLE TO MAINTAIN CONTROL OF THE A/C AND CONTINUE THE FLT TO

THE CLOSEST AIRPORT (SWAN HILLS, ALBERTA 'CEM5'). LANDED W/O FURTHER INCIDENT. INSPECTION REVEALED INTERNAL DAMAGE TO THE ENGINE RESULTING FROM THE BREAK-UP OF THE VALVE LIFTER BODY, AND PIECES OF IT BEING PROJECTED AGAINST THE CRANKCASE, AS A RESULT. THE ENG IS A TOTAL WRITE OFF THE ENGINE WAS CHANGED AND THE A/C WAS RETURNED TO SERVICE. THIS ENGINE OPERATED ON A TRANSPORT CANADA APPROVED 'ON CONDITION' MX PROGRAM. FLIGHT TECH AVIATION AS THE MX ARM OF ALTA FLIGHTS (CHARTERS) INC HAVE DECIDED TO REDUCE THIS ENG MAKE/MODEL BACK TO ITS OFFICIAL TBO OF 2000 HOURS.

CA050418016	CESSNA	LYC		MAGNETO	FAILED
4/17/2005	172N	O320E2D		4371T	ENGINE

(CAN) AIRCRAFT EXPERIENCED A ROUGH RUNNING ENGINE. RT MAGNETO FOUND TO BE UNSERVICABLE.

CA050427009	CESSNA	LYC	BENDIX	POINTS	WORN
4/8/2005	172N	O320H2AD		ES10382585	MAGNETO

ROUTINE INSP REVEALED MAGNETO TO ENGINE TIMING WAS OFF BY ABOUT 4 OR 5 DEGREES. MAGNETO REMOVED TO CHECK POINTS. POINTS JUST BARELY OPENING, NORMAL POINT GAP 0.016'. PLASTIC/NYLON HEEL THAT RIDES ON MAGNETO CAM WORN DOWN.

2005FA0000828	CESSNA			HOSE	CRACKED
6/23/2005	172P			B906	VACUUM SYS

VACUUM SYSTEM HOSES (ORIGINAL EQUIPMENT), RED PLASTIC INNER LINER CRACKING WITH PIECES AND FLAKES BREAKING OFF. COULD CAUSE GYRO OR VACUUM PUMP FAILURE. (K)

2005FA0000741	CESSNA	LYC		PUMP	OVERHEATED
2/2/2005	172P	O320*		ADV211CC	ENGINE

REMOVED VACUUM PUMP DUE TO TOTAL FAILURE AND OVERHEAT CONDITION, MELTED TACH CABLE THAT RUNS ABOUT 1 INCH AWAY, THIS IS THE SECOND FAILURE IN THE FLEET WITH OVERHEAT CONDITION, BOTH PUMPS HAD LESS THAN 300 HOURS SINCE NEW. (K)

2005FA0000742	CESSNA	LYC		PUMP	OVERHEATED
2/2/2005	172P	O320*		ADV211CC	ENGINE

REMOVED VACUUM PUMP DUE TO OVERHEAT CONDITION, BACK OF PUMP WAS DISCOLORED, THE TACH CABLE THAT RUNS ABOUT 1 INCH AWAY FROM THE VACUUM PUMP WAS MELTED ABOUT 4 INCHES. THIS IS THE SECOND PUMP IN THE FLEET WITH THIS TYPE OF FAILURE, BOTH PUPS HAD LESS THAN 300 HOURS SINCE NEW.

2005FA0000796	CESSNA	LYC		DOUBLER	CORRODED
5/25/2005	172P	O320D2J		051310929	FIREWALL

THESE FIREWALL DOUPLBLERS ARE INSTALLED FROM FACTORY WITH SOME STRUCTURAL STEEL RIVETS PASSING THROUGH THESE ALUMINUM DOUBLERS, CAUSING CORROSION TO FORM ON BOTH LT AND RT DOUBLERS VERY NEAR ENGINE DYNAFOCAL MOUNT LOCATIONS, REQUIRING REPLACEMENT OF BOTH DOUBLERS.

2005F00087	CESSNA	LYC		DRIVE ASSY	DESTROYED
5/27/2005	172P	O320D2J		EB75A	STARTER

THE DRIVE GEAR ON THE BENDIX DRIVE SHUTTERED. THIS ALSO CURVED SEVER DAMAGE TO THE TEETH ON THE RING GEAR RENDERING THE RING GEAR UNSEVERICEABLE. WE HAD 2 PREVIOUS PROBLEMS WITH THE BENDIX ON NEW STARTERS THESE. RELATED TO THE DRIVE NOT ENGAUGING OR DISENGAGING PROPERLY. THIS IS A MUCH MORE SEVERE PROBLEM AND IS PROBABLY RELATED TO A MATERIAL DEFECT IN THE PART.

2005FA0000853	CESSNA	LYC	SLICK	DISTRIBUTOR BLK	MISMANUFACTURED
6/10/2005	172R	IO360L2A		K3822	LT MAGNETO

DURING PRELIMINARY RUNUP AT ANNUAL INSP, TECH NOTED ENGINE DIFFICULT TO START, & ROUGH ON LT MAG WHEN COLD. ATTEMPTS TO CHECK TIMING ON LT MAG WITH A MAG SYNCHRONIZER UNSUCCESSFUL. POINTS WERE ERRATIC DURING CLOSING & OPENING. REMOVAL OF CAP DISCLOSED SIGNIFICANT DEBRIS.

DISASSEMBLY OF MAG DISCLOSED ROTOR GEAR HAD CONTACTED THE DISTRIBUTOR BLOCK, GRINDING ROTOR GEAR & DISTRIBUTOR GEAR / BLOCK. ROTOR GEAR HAD ALSO WORN A .0625 DEEP GROOVE IN THE CONDENSER. IT APPEARED THE CONTACT BETWEEN THE ROTOR GEAR & CONDENSER WAS ONLY THING PREVENTING ROTOR GEAR FROM DISENGAGING ROTOR SHAFT, & TOTALLY FAILING MAG. THERE WAS EVIDENCE THE ROTOR GEAR HAD NEVER BEEN FULLY SEATED ON THE ROTOR SHAFT.

2005FA0000771	CESSNA	LYC	LOCK	SLIPPED
4/14/2005	172RG	O320*	MM201088	SEAT BACK

WHEN COPILOT LEANED AGAINST THE SEAT BACK LOCK FAILED AND ALLOWED THE BACK TO FULLY BE IN THE AFT POSITION. (GL17200503735) (K)

2005FA0000787	CESSNA	LYC	LOCK	FAILED
5/18/2005	172RG	O360*	LC6010030C	SEAT BACK

PILOTS SEAT BACK LOCK MECHANISM SLIPPED AS PILOT LEANED BACK TO GET HIS BAG OUT OF THE REAR SEAT. UPON REMOVAL FROM AC MECHANICS WERE ABLE TO CAUSE SEAT BACK LOCK MECHANISM TO FAIL. THIS IS THE SECOND FAILURE TO OCCUR WITH THIS MECHANISM. PART LAST FAILURE OCCURRED APPROX A MONTH AGO ON THE CO-PILOTS SEAT (MDR WAS FILED). WE HAVE NOT YET DONE AN INSPECTION ON THE AC AS YET, DUE TO THE FACT IT IS A LEASE. PROBABLE CAUSE WAS WEAR IN THE SEAT BACK LOCK MECHANISM, CAUSING IT TO SLIP OR NOT FULLY ENGAGED IN THE LOCKED POSITION. (K)

2005FA0000822	CESSNA	LYC	HOSE	LEAKING
6/5/2005	177RG	IO360A1B6	S217840150A	HYD SYSTEM

PILOT SELECTED GEAR DOWN ON FINAL APPROACH AND THE GEAR FAILED TO EXTEND. THE INVESTIGATION FOUND THAT THE NOSE GEAR DOWN LINE WAS LEAKING AT THE BULKHEAD END CAUSING TOTAL LOSS OF HYDRAULIC FLUID. THE AIRCRAFT LANDED GEAR UP WITH NO INJURIES AND MINOR DAMAGE TO THE EXTERIOR OF THE AIRCRAFT. (WP23200509350) (K)

CA050504005	CESSNA	CONT	MOUNT	CRACKED
4/19/2005	180D	O470L	075100125	ENGINE

(CAN) A CRACK, APPROXIMATELY 1 INCH LONG, WAS DISCOVERED AT A CLUSTER WELD LOCATED UNDER THE RT REAR MOUNTING PAD. THE WELD THAT FAILED WAS ON THE LOWER REAR TUBING THAT RUNS LT TO RT ON THE AIRCRAFT, AND JOINS INTO THE MAIN FRAME OF THE MOUNT (WHICH RUNS FORE AND AFT).

2005FA0000740	CESSNA	CONT	ROLL PIN	BROKEN
4/25/2005	180J	O470*	07612053	STAB TRIM WHEEL

FOUND ROLL PIN BROKEN DURING 100 HOUR INSPECTION. APPEARS TO HAVE FAILED UNDER NORMAL OPERATING CONDITIONS. RECOMMEND INSPECTION OF THIS ASSEMBLY WITHIN 25 HOURS AND AT 100 HOUR INSPECTIONS THEREAFTER. (K)

2005FA0000752	CESSNA	LYC	PUMP	OBSTRUCTED
1/4/2005	182T	IO540*	A8160D	FUEL SYSTEM

RECEIVED BOOST PUMP FOR WARRANTY CREDIT WITH A CUSTOMER COMPLAINT OF (BREAKER POPS WHEN FUEL PUMP IS TURNED ON). PRELIMINARY INSPECTION OF THE PUMP REVEALED FOREIGN MATERIAL IN THE INLET PORT. FURTHER INSPECTION OF THE PUMP REVEALED THE FOREIGN MATERIAL TRIED TO PASS THROUGH THE PUMP AND HAD LOCKED THE ROTOR IN THE INSERT. THIS WOULD CAUSE THE PUMP TO DRAW HIGH AMPS. (K)

CA050512003	CESSNA	PWA	BOWL	CRACKED
5/10/2005	208B	PT6A114A	1J1810	FUEL FILTER

DURING DAILY INSPECTION IT WAS NOTICED THAT THE MAIN FUEL FILTER BOWL WAS WEAVING FUEL. MAINTENANCE INSPECTED THE ASSEMBLY AND DETERMINED THAT THE FUEL BOWL FILTER ASSEMBLY CASTING WAS CRACKED. THE AREA IN QUESTION WAS BETWEEN THE HANGER BRACKET AND CASTING. ALL FLIGHTS CANCELLED UNTIL NEW FUEL FILTER BOWL ASSEMBLY REPLACED.

CA050527013	CESSNA	PWA	CAP	LEAKING
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4/1/2005	208B	PT6A114A		OIL TANK
DURING SERVICING, EXTERNAL OIL LEAKAGE WAS FOUND BECAUSE OF A LOSS OF THE OIL TANK CAP RETENTION. THIS WAS DEEMED AS RESULTING FROM A LOSS OF TORQUE OF THE CAP ASSEMBLY NUT.				
CA050527011	CESSNA	PWA	ENGINE	FAILED
4/6/2005	208B	PT6A114A		
DURING TAKEOFF ROLL, THE ENGINE CHIP DETECTOR ANNUNCIATED. THE TAKEOFF WAS ABORTED AND THE ENGINE WAS SHUT DOWN. SUBSEQUENT INSPECTION REVEALED HOT SECTION DAMAGE INCLUDING DISTRESSED COMPRESSOR TURBINE AND POWER TURBINE BLADES				
CA050503008	CESSNA	PWA	CESSNA	SUPPORT BRACKET CRACKED
5/2/2005	208B	PT6A114A		FLAP ACTUATOR
(CAN) ACCOMPLISHMENT INSTRUCTIONS, FOUND FLAP ACTUATOR SUPPORT BRACKET CRACKED. SERVICE KIT SK208-158 ORDERED AOG, WILL BE INSTALLED UPON RECEIPT.				
CA050420002	CESSNA	CONT	SUPPORT	CRACKED
4/20/2005	210	IO470E	12410141	MLG
(CAN) OUTBOARD AFT WEB OF LEFT OUTBOARD LANDING GEAR SUPPORT FOUND CRACKED WHILE REPLACING LANDING GEAR PIVOT ASSEMBLY.				
2005FA0000849	CESSNA		SPAR CAP	CORRODED
6/6/2005	310D		082260041	LT WING
LT WING REAR UPPER SPAR CAP IN NACHELL/EXHAUST AREA AND OUTBOARD WS 80.0-100.0 APPROX. 20 INCHES, WAS FOUND DURING VISUAL INSPECTION, TO HAVE SEVERE EXFOLIATED INTERGRANULAR CORROSION RINDERING THIS SECTION OF SPAR TO BE UNSERVICABLE. ALSO JUST I/B OF BATTERY BOX ON THE FORWARD SPAR IS AN AREA OF HEAVY SURFACE CORROSION CAUSED BY BATTERY ACID/FUMES ON THE LOWER CAP AND WEB. WS 85.0-89.5				
2005FA0000784	CESSNA	CONT	BEARING	FAILED
5/10/2005	414	TSIO520NB		TURBOCHARGER
PILOT EXPERIENCED MANIFOLD FLUCTUATIONS DURING FLIGHT. A PRECAUTIONARY LANDING WAS MADE. AN INSPECTION REVEALED FAILED TURBINE SHAFT BEARINGS. THE TURBOCHARGER WAS REPLACED WITH A NEW IDENTICAL UNIT. (K)				
2005FA0000755	CESSNA	CONT	ROCKER	BROKEN
12/20/2004	421B	GTSIO520*	501868	NR 1 CYLINDER
ENGINE BECAME ROUGH IN FLIGHT ENGINE SHUTDOWN FOUND RT ENGINE NR 1 CYLINDER EXHAUST ROCKER ARM BROKEN. (K)				
2005FA0000750	CESSNA	CONT	STARTER	INOPERATIVE
5/1/2005	421B	GTSIO520H	ES6462751	ENGINE
STARTER INOPERATIVE. (K)				
2005FA0000846	CESSNA		FIRE BOTTLE	DISCHARGED
6/14/2005	441		99103494	CABIN
THIS FIRE BOTTLE HAS 1 YEAR ON IT AND THE PRESSURE HAS DROPE TO 20 PSI. THIS IS THE SECOND FIRE BOTTLE THAT DID NOT MAKE IT TO 5 YEARS. OVERHAULED BY KELLY AEROSPACE. (QUALITY OF WORKMANSHIP AND OR PARTS)? THIS NEVER HAS BEEN A PROBLEM.				
CA050425006	CESSNA	PWA	SWITCH	FAILED
4/6/2005	550	JT15D4	99121202	NLG ACTUATOR
FOLLOWING TAKEOFF AND AFTER SELECTING GEAR UP, GEAR FAILED TO LOCK UP. CREW SELECTED GEAR				

DOWN AND RETURNED TO LAND WITHOUT INCIDENT. AIRCRAFT FERRIED WITH GEAR DOWN. MAINTENANCE DETERMINED NLG ACTUATOR HAD FAILED. A SERVICEABLE ACTUATOR WAS INSTALLED AND AIRCRAFT RETURNED TO SERVICE. THIS IS SECOND FAILURE OF THIS SAME ACTUATOR SINCE AUGUST 2002. THE FIRST FAILURE OCCURRED AT 8375 TCSN, AND 375 TCSO. SECOND FAILURE OCCURRED AT 9060 TCSN AND 685 TCSO. ACTUATOR IS BEING RETURNED FOR INSP.

CA050425005	CESSNA	PWA	SWITCH	FAILED
4/4/2005	550	JT15D4		NLG

DURING APPROACH, CREW SELECTED GEAR DOWN AND NOTED THAT NOSE GEAR DID NOT INDICATE DOWN AND LOCKED. CREW USED EMERGENCY LANDING GEAR EXTENSION SYSTEM AND FLEW BY TOWER FOR GEAR POSITION CONFIRMATION. GPWS SOUNDED A CONTINUOUS WARNING BELOW 1500 FEET UNTIL LANDING. AIRCRAFT LANDED SUCCESSFULLY WITHOUT FURTHER INCIDENT. MAINTENANCE CREWS DETERMINED THAT NOSE GEAR ACTUATOR INTEGRAL MICROSWITCH HAD FAILED AND UNIT WAS REMOVED. A SERVICEABLE NOSE GEAR ACTUATOR WAS INSTALLED AND AIRCRAFT WAS RETURNED TO SERVICE.

B3OR20050614	CESSNA	PWA	PUMP	SEIZED
6/13/2005	550	JT15D4		BRAKES

DURING APPROACH, WHILE LOWERING GEAR, PILOT IN COMMAND NOTICED "ANTI SKID INOP" LIGHT ILLUMINATED. PILOTS FOLLOWED EMERGENCY CHECKLIST PROCEDURES & MADE AN UNEVENTFUL LANDING AT HOME FIED. HOWEVER, EMERGENCY BRAKE SYS HAD TO BE USED TO BRING ACFT TO A STOP. MX STARTED TROUBLESHOOTING PROCEDURES & DISCOVERED POWER BRAKE PUMP SEIZED, CAUSING MOTOR TO TRIP CIRCUIT BREAKER. MOTOR ITSELF TESTED ON A BENCH & FOUND TO BE WORKING IAW MM. AT TIME OF WRITING, POWER BRAKE PUMP AND MOTOR ASSY HAVE BEEN SENT OUT FOR REPAIR/OVERHAUL. SINCE CESSNA DOES NOT HAVE A TBO ON EITHER THE MOTOR OR THE PUMP, IT IS SUGGESTED THAT A TBO OF 500 TO 600 LANDINGS BE APPLIED TO THESE COMPONENTS.

CA050506013	CESSNA	PWA	THRESHOLD	CRACKED
5/4/2005	550	JT15D4	551124914	DOOR FRAME

(CAN) INSP ON AIRFRAME, THRESHOLD INSP REVEALED DAMAGE TO PAINT, FILLER WHERE MN CABIN DOOR SEAL INFLATES AGAINST. ONCE STAIR BRACKETS WERE REMOVED, DEFECT NOTED AS 1 INCH CRACK FROM MAIN FASTENER HOLE ON AFT STAIR BRACKET HOLE. DEFECT WAS CAUSED BY IMPROPER INSTALLATION OF STAIR BRACKETS, AS THEY WERE INSTALLED WITH AFT BRACKET INSTALLED IN FWD POSITION, FWD BRACKET INSTALLED IN AFT POSITION. DUE TO CURVED PORTION OF SKIN WHERE BRACKETS SIT, BRACKETS CONFORM TO THIS CURVATURE. WITH BACKWARDS INSTALLATION, INSTEAD OF LOAD BEING THROUGH A .5 INCH LAND, IT ALL CARRIED THROUGH A SHARP CORNER, WORKING AGAINST SKIN CREATING STRESS RISER. CURRENTLY INNER AND OUTER THRESHOLD ARE BEING REMOVED AND INSPECTED.

CA050527019	CESSNA	PWA	ENGINE	MALFUNCTIONED
5/2/2005	550	PW530A		

DURING GROUND HANDLING OPERATIONS, THE ENGINE EXPERIENCED AN UNCOMMANDED ACCELERATION. THE ENGINE DID NOT RESPOND TO THROTTLE OR SHUTOFF LEVER INPUT. THE CREW SECURED THE ENGINE VIA AIRFRAME FIREWALLSHUT-OFF. PWC WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE, ONCE ESTABLISHED.

CA050527032	CESSNA	PWA	ENGINE	SHUTDOWN
5/25/2005	560CESSNA	JT15D5		

DURING CLIMB, THE ENGINE EXPERIENCED AN UNCOMMANDED SHUT-DOWN COINCIDENT WITH THROTTLE INPUT FOR POWER REDUCTION. THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. PWC WILL MONITOR THE INVESTIGATION OF THE EVENT AND WILL ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA050527008	CESSNA	PWA	HMU	FAILED
5/2/2005	560XL	PW545A	82370002	ENGINE

IN DESCENT, THE ENGINE EXPERIENCED AN UNCOMMANDED SHUTDOWN. A RELIGHT ATTEMPT WAS UNSUCCESSFUL. THE HYDROMECHANICAL FUEL CONTROL UNIT WAS SUBSEQUENTLY REPLACED.

CA050518010	CESSNA	PWA	UPLOCK SWITCH	UNSERVICEABLE
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5/10/2005 560XL PW545A 65430087 RT MLG

PILOT NOTED THAT THE GEAR WOULD NOT RETRACT AFTER TAKEOFF. IT MADE A REPETATIVE CLUNKING SOUND AND THE RED GEAR INDICATION LIGHT FLASHED ON AND OFF. CYCLED THE GEAR BACK DOWN NORMALLY AND LANDED. THE RT MLG UPLOCK SWITCH WAS REPLACED. PERFORMED GEAR EXTENSION AND RETRACTION AND CHECKED OK.

[2005FA0000795](#) CESSNA ALTERNATOR BURNED OUT
5/26/2005 P210N E3FF10300AA ENGINE

OWNER STARTED HEARING RADIO STATIC AND AFTER A FEW MINUTES, LOST ELECTRICAL POWER. ON THE GROUND, MECHANIC CHECKED REGULATOR, CHECKED OK, CHANGED ALTERNATOR OPS CHECKED OK. PART ONLY HAS 68 HOURS ON THE OVERHAUL.

[2005FA0000759](#) CESSNA LYC ACTUATOR OBSTRUCTED
10/6/2004 R182 O540* 221302214 NLG

AC NOSE DAMAGE DUE TO FAILURE OF NOSE GEAR TO EXTEND FOR LANDING. PROP LINKAGE RUNS DOWN OUTSIDE NLG TUNNEL, IS ATTACHED TO IT IN 2 PLACES WITH ADEL CLAMPS, STANDOFFS, AND AN3 BOLTS. AFT ATTACH HOLE IS DIRECTLY IN LINE WITH NOSE DOOR ACT ARM, WHICH IS HOLLOW SINCE ITS A WELD ASSY MADE OF STEEL TUBING. AC HAD AFT AN3 BOLT INSTALLED WITH THREADS AND NUT FACING OR PROTRUDING INTO WHEEL WELL. BOLT END HAS HIT ACT ARM EACH GEAR RETRACTION UNTIL IT BECAME LOOSE ENOUGH TO POP OVER INTO END OF HOLLOW ACT ARM TUBE. THIS NOW LOCKED ACT ARM INTO POSITION, LOCKED GEAR DOORS CLOSED, PREVENTING GEAR EXTENSION. LT TUNNEL SIDE WAS REPLACED W/FACTORY PN, BOLT HOLE COMES PREDRILLED. NO REF TO PROP CABLE ROUTING. (K)

[CA050427013](#) CESSNA LYC SWITCH FAILED
4/26/2005 R182 O540J3C5 S19061 FLAP SYS

SWITCH CONTROLLING FLAP RETRACTION FAILED DURING FLAP RETRACTION AFTER LANDING. FLAPS WERE STUCK AT APPROX 10 DEGREES. FAILURE INSIDE SWITCH AND APPEARS TO INVOLVE BROKEN INTERNAL MECHANISM.

[2005FA0000774](#) CESSNA CONT STARTER FAILED
5/10/2005 T303 LTSIO520AE 65556624 ENGINE

DURING TAKEOFF THE (STARTER ENGAGED) LAMP ILLUMINATED INDICATING HAD SELF ENGAGED. AIRCRAFT LANDED. STARTER NOT BURNED UP BUT INTERNAL ACTION SOUNDS UNUSUAL. NOTE: THIS IS THIRD STARTER FAILURE IN 5 WEEKS. (K)

[CA050531001](#) CESSNA CONT CONT MAIN BEARING FAILED
5/25/2005 T303 TSIO520AE 642720 CRANKSHAFT

(CAN) THE AIRCRAFT CAME IN WITH A REPORT OF LOW OIL PRESSURE. THE OIL FILTER WAS PULLED AND INSPECTED WITH NO FAULTS FOUND, THE OIL PRESSURE RELIEF VALVE WAS REMOVED, CLEANED, AND REINSTALLED. THE AIRCRAFT WAS RUN-UP AND FOUND TO BE OPERATING NORMALLY. AT THE 50 HOUR INSPECTION COMPLETED AT 3767.8 HOURS. THE OIL FILTER WAS AGAIN INSPECTED WITH NO FAULTS FOUND BUT TWO LARGE PIECES OF FERROUS METAL WERE FOUND IN THE OIL DRAIN PLUG. THE ENGINE WAS REMOVED FOR INTERNAL INSPECTION AND THE MAIN BEARING AT THE NR 2 CYLINDER WAS FOUND TO HAVE FAILED. STRIP REPORT AVAILABLE FROM ENGINE SHOP.

[CA050516005](#) CESSNA CONT LINE MISINSTALLED
5/13/2005 T303 TSIO520AE ENGINE FUEL DIST

(CAN) AN ALTERNATOR BELT HAD FAILED ON THE PREVIOUS FLIGHT AND HAD BEEN REPLACED. THIS REQUIRED THE REMOVAL OF THE ENGINE DRIVEN FUEL PUMP PRESSURE RETURN LINE. THE LINE HAD BEEN LEFT OFF OF THE FUEL PUMP WHICH RESULTED IN FUEL LEAKING INTO THE ENGINE COMPARTMENT. THIS RESULTED IN THE SMOKE. THE DESIGN OF THE ENGINE IS SUCH THAT THIS LINE MUST BE REMOVED TO REPLACE THE ALTERNATOR BELT WHICH CREATES AN OPPORTUNITY FOR THIS TYPE OF ERROR.

[2005FA0000770](#) CESSNA CONT ROD BROKEN

5/19/2005	T310R	TSIO520B	632041F	ENGINE
DURING CRUISE FLT, ENG BEGAN TO VIBRATE SEVERELY AND PILOT SHUTDOWN. TEARDOWN AND INVESTIGATION REVEALED THE NR 2 ROD BROKE 1/2 WAY BETWEEN PISTON AND CRANK. IT IS SUSPECTED THIS ENG ENCOUNTERED LIQUID LOCK AT SOME TIME CAUSING A BENT ROD THAT EVENTUALLY FAILED.				
CA050503017	CESSNA	CONT	TORQUE LINK	CRACKED
4/26/2005	U206F	IO520F	04425051A	NLG
(CAN) FOUND CRACKED ON INSPECTION ABOUT 1 INCH FROM THE FRONT OF THE SCISSOR ON THE BOTTOM CURVE. CRACK WAS ABOUT .1250 OF AN INCH LONG.				
CA050503016	CESSNA	CONT	TORQUE LINK	CRACKED
5/28/2005	U206F	IO550F	04425051A	NLG
(CAN) FOUND CRACKED ON INSPECTION, ABOUT 1 INCH FROM THE FRONT OF THE SCISSOR ON THE BOTTOM CURVE ON BOTH SIDES. CRACK WAS ABOUT .1250 OF AN INCH LONG.				
CA050505002	CESSNA	CONT	CESSNA	ATTACH BRACKET CRACKED
4/16/2005	U206G	IO520F	07326015	STABILIZER
(CAN) DURING INSPECTION THE RT FORWARD STABILIZER ATTACH BRACKET WAS FOUND BROKEN JUST BELOW THE ATTACH BOLT. STABILIZER REMOVED FROM AIRCRAFT BOTH FORWARD ATTACH BRACKETS REPLACED WITH NEW PARTS. STABILIZER RE-INSTALLED.				
CA050505007	CESSNA	CONT	CYLINDER HEAD	CRACKED
5/5/2005	U206G	IO520F	AEC631397ST712A	ENGINE
(CAN) ENGINE EQUIPPED WITH NEW STEEL ENGINE COPONENTS IN (ECI)CYLINDER ASSY'S P/N AEC631397ST71.2A, 606.4 HR TOTAL TIME. CYLINDER NR 4 WAS FOUND CRACKED IN THE CYLINDER HEAD JUST BELOW TOP SPARK PLUG HOLE. (SDR WAS ISSUED) AT 706.0 HRS CYLINDER 2 AND 6 WERE ALSO FOUND TO BE CRACKED IN THE SAME LOCATION. ALL CYLINDERS WERE CHECKED AGAINST S/N TO COMFIRM THAT THEY WERE NOT AFFECTED BY ECI SB 04-1 (AD 2004-08-10) AND ALL WERE FOUND TO BE NOT APPLICABLE BY THEIR SERIAL NUMBERS. AS A RESULT OF THE DISCOVERY OF THESE CRACKED CYLINDERS AND THAT ALL CYLINDERS WERE INSTALLED NEW AT ENGINE OVERHAUL. ALL 5 ORIGINAL INSTALLATION CYLINDERS WILL BE REPLACED WITH NEW CYLINDER ASSY.				
2005FA0000777	CIRRUS	CONT	SPRING	FRACTURED
4/13/2005	SR20	IO360*	B65091	PROPELLER DOME
PROPELLER PITCH WENT UNCONTROLLABLE IN STRAIGHT AND LEVEL FLIGHT. SPRING HAD ONE COMPLETE FRACTURE AND AT LEAST 4 INCOMPLETE FRACTURES. (K)				
2005FA0000821	CIRRUS	CONT	O-RING	FLAT
5/31/2005	SR22	TSIO470*	MS24775222	BRAKE ASSY
AC LANDED AND DISCOVERED THEY HAD NO RT BRAKE. AC LOST DIRECTIONAL CONTROL AND IMPACTED A PARKED AIRCRAFT CAUSING SUBSTANTIAL DAMAGE TO THE PARKED AIRCRAFT. INVESTIGATION REVEALED THE RT BRAKE O-RING WAS FLAT AND THE HOUSING AND DATA PLATE SHOWED EXTREME HEAT. REVIEW OF THIS SITUATION FOUND THAT THERE HAVE BEEN MANY OWNER REPORTS IN THE OWNERS NEWSLETTER OF RT BRAKE FAILURES DUE TO THE NEED TO STEER THE AC WHICH HAS A CASTERING NOSE WHEEL.				
CA050422006	CNDAIR		LINE	CRACKED
4/20/2005	CL2151A10		21564087191	FUEL SYSTEM
DURING FUELING, FUEL BEGAN LEAKING ALMOST IMMEDIATELY, APPROX 300 LITRES IN TANK. UPON INVESTIGATION BY MAINTENANCE CREW, 2 INCH CRACK DISCOVERED IN FUEL INTECONNECT AT WELDED SEAM. NO SIGNS OF CORROSION. MAY HAVE BEEN CAUSED BY TRAPPED WATER, HOWEVER NO TRACES OF MOISTURE. MAY HAVE BEEN A WEAK WELD JOINT. OTHER AIRCRAFT INSP BUT NO FURTHER DAMAGE NOTED.				
CA050428004	CNDAIR	PWA	GENERATOR	FIRE
4/28/2005	CL2151A10	CA3	2CM70D6A	DC SYSTEM

MAINTENANCE WAS DOING A GROUND RUN, NR 2 ENGINE WAS STARTED FIRST THEN NR 1, AFTER BOTH ENGINES WERE WARMED UP A SMALL LOAD WAS PUT ON THE GENERATORS. FLAMES WERE NOTICED COMING FROM THE NR 2 ENGINE GENERATOR EXHAUST COOLING VENT. THE ENGINE WAS SHUT DOWN AND THE FIRE BOTTLES WERE SET OFF, THE FIRE WAS OUT. THE ONLY DAMAGE AT THIS TIME IS TO THE DUCT WORK AND THE GENERATOR. THE GENERATOR IS BEING SENT TO AN OVERHAUL SHOP FOR ASSESSMENT.

CA050427002	CNDAIR		WINDOW	CRACKED
4/20/2005	CL6002B19		NP1393226	COCKPIT

COPILOT'S WINDOW FOUND CRACKED. WINDOW REPLACED, AIRCRAFT RETURNED TO SERVICE.

CA050425007	CNDAIR	GE	ACM	LEAKING
4/25/2005	CL6002B19	CF343A1	78279015	RIGHT

WHEN RT PACK SELECTED MANUAL TO INCREASE HT IN CABIN AT FL350 RT PACK TEMP RUN AWAY. DASH LINES DISPLAYED ON PACK 2 ON ECS PAGE. F/A ADVISES CABIN GETTING SMOKE. RT PACK SELECTED TO AUTO FULL COLD. A/C DESCENDED TO FL240. RT PACK RECYCLED. SMOKE DISSIPATED. RT ACM REPLACED PER AMM 21-51-10 OPERATION CHECKED OK.

CA050505006	CNDAIR	GE	VANE	MALFUNCTIONED
5/5/2005	CL6002B19	CF343A1	0861HB	ANGLE OF ATTACK

(CAN) AFTER DEPARTURE THE CREW HAD AN AIRSPEED INDICATOR PROBLEM AND LATER DETERMINED THE AIRSPEED WAS CORRECT, BUT THE BARBER POLE INDICATOR SHOWED AND THE STICK SHAKER BECAME ACTIVE. THE FLIGHT DECLARED AN EMERGENCY AND RETURNED TO LAND. THE EMERGENCY VEHICLES WERE STANDING BY FOR THE ARRIVAL. MDC SPC CH NR 1 LBL 350 BIT 12 AND 13 SPC CH NR 2 LBL 350 BIT 12. LT AND RT AOA VANE CHGD IAW AMM 27-35-05-400-801, LT MACH TX CHGD IAW AMM 27-35-25-400-801. OPERATIONAL TEST OF AOA LT AND RT DONE IAW AMM 27-35-05-710-801, LT MACH TX FUNCT TEST DONE.

CA050510001	CNDAIR	GE	WINDSHIELD	CRACKED
5/2/2005	CL6002B19	CF343A1	NP1393212	COCKPIT

(CAN) THE RT WINDSHIELD HAD THE OUTER LAYER CRACKED WHILE IN APPROACH. THE WINDSHIELD WAS REPLACED IAW AMM.

CA050503014	CNDAIR	GE	AILERON	DIRTY
5/3/2005	CL6002B19	CF343A1		AILERON SYSTEM

(CAN) AFTER T/O, RAIN CONDITIONS, CLIMBING INTO BELOW FREEZING TEMP, AILERONS BECAME STIFF. QRH CHECKS COMPLETED, FLIGHT CONTINUED. REMOVED WING PANELS, INSPECTED CABLE CONDITION FOR DRYNESS, WHITE POWDER. IF FOUND, REMOVED POWDER AND LUBRICATE IN FULL.. INSPECT EXT AILERON PULLIES, ATTENTION AT BOTH BPSU, AILERON PCU POSITIONS. REPLACE PULLIES IF REQUIRED. EXTERIOR PULLIES INSP, NO FAULTS FOUND, PULLIES LUBRICATED. DEBRIS FOUND ON PULLIES IN RT/ LT WHEEL/WELL AREAS. CABLES/PULLIES CLEANED/LUBRICATED. RESISTANCE AND FUNCTIONAL CHECK CARRIED OUT AMM 27-11-00. RESISTANCE RESULTS WITHIN LIMITS BREAKOUT FORCE RT AND LT (4LBS). 60 DEGREE PULL TEST RT 11 LBS- LT 10 LBS 60 DEGREE HOLD TEST RT 7 LBS- LT 7 LBS.

CA050504002	CNDAIR	GE	WINDSHIELD	CRACKED
4/12/2005	CL6002B19	CF343B1	NP13932111	COCKPIT

(CAN) AFTER BECOMING AIRBORNE AT 500 FT, LT WINDOW HEAT MSG APPEARED. THERE WERE SIGNS OF SHORT CIRCUIT AT TOP OF WINDSHIELD. THEN WINDSHIELD CRACKING WITH SPIDERS WEB. AIRCRAFT LANDED WITH OUT INCIDENT.

CA050504001	CNDAIR	GE	WINDSHIELD	CRACKED
4/9/2005	CL6002B19	CF343B1	NP1393219	COCKPIT

(CAN) DURING DESCENT LT WINDSHIELD CRACKED AT 22000 FT. CRACK TYPE IS SPIDER WEB. ELECTRICAL SPARK OCCURRED FROM LT BOTTOM OF THE WINDSHIELD BEFORE CRACK OCCURRED. WINDSHIELD HEAT MSG DID NOT APPEAR. AIRCRAFT LANDED WITHOUT INCIDENT.

CA050427001	CNDAIR	GE	WINDSHIELD	CRACKED
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4/20/2005	CL6002B19	CF343B1	NP1393219	COCKPIT
WHILE IN CRUISE, COPILOT WINDSHIELD CRACKED. WHILE REPLACING WINDSHIELD, NOTICED CAPTAIN WINDSHIELD ALSO CRACKED. REPLACED BOTH WINDSHIELDS. AIRCRAFT RETURNED TO SERVICE. COPILOT WINDSHIELD: P/N NP139321-10, S/N 01046H1005.				
CA050426010	CNDAIR	GE	WINDOW	CRACKED
4/21/2005	CL6002B19	CF343B1	NP1393226	COCKPIT
COPILOT'S SIDE WINDOW CRACKED IN CRUISE. WINDOW REPLACED. AIRCRAFT RETURNED TO SERVICE.				
CA050427004	CNDAIR	GE	SERVO	STICKING
4/20/2005	CL6002B19	CF343B1	8220259001	SERVO MOUNT
AILERON CONTROL FELT JAMMED. AFTER ADDING PRESSURE TO AILERON CONTROL, JAM BROKE FREE AND SEEMED NORMAL, OCCURRED ON CAPT AND F/O SIDE. COULD NOT DUPLICATE BUT AS A PRECAUTION REPLACED AILERON SERVO AND SERVO MOUNT. SERVO MOUNT, P/N 822-0259-001, S/N 404X SERVO, P/N 622-4404-101, S/N 3XGG.				
CA050427003	CNDAIR	GE	SCAVENGE PUMP	FAULTY
4/15/2005	CL6002B19	CF343B1	6087T04P06	RT ENGINE
RT ENGINE OIL PRESSURE WARNING MESSAGE CAME ON AT FL360. PRESSURE NEVER STABILIZED REGARDLESS OF ALTITUDE. OIL PRESSURE FLUCTUATED BETWEEN 28 AND 37 PSI. FLUCTUATION DECREASED WITH ENGINE AT IDLE. CREW SHUTDOWN RT ENGINE INTENTIONALLY. LUBE AND SCAVENGE PUMP ASSY REPLACED, AIRCRAFT RETURNED TO SERVICE.				
CA050420005	CNDAIR	GE	WINDOW	CRACKED
4/15/2005	CL6002B19	CF343B1	NP1393226	COCKPIT
(CAN) ON CO-PILOT'S WINDOW, 2 CRACKS ON THE INNER LAYER FROM LOWER TO UPPER SIDE OF WINDOW, A 3RD CRACK APPEARED LATER. THE WINDOW WAS REMOVED AND REPLACED IN ACCORDANCE WITH THE AMM. THE WINDOW WAS AN OLDER CONFIGURATION.				
CA050512002	CNDAIR	GE	TUBE	CHAFED
5/5/2005	CL6002B19	CF343B1	601R7528637	HYD SYSTEM
CREW REPORTED A HYDRAULIC PROBLEM, 'HYD 1 LO PRESS' LOSS OF QUANTITY - '0'. FLIGHT CONTINUED AND LANDED ON RUNWAY WITH NO FURTHER INCIDENT. MAINTENANCE FOUND THE NR 1 SYSTEM SUCTION TUBE ASSEMBLY CHAFFED AT A POINT 18 FT FROM THE FORWARD END. P/N 601R75286-37, REF IPC 29-11-00 FIG 4 ITEM 120. TUBE HAD CHAFFED ON THE NR 1 HYDRAULIC SYSTEM STAINLESS STEEL PRESSURE LINE. P/N601R75286-61, REF IPC 29-11-00 FIG 4 ITEM 5. SEGMENT OF NEW LINE WAS PERMASWAGED IN POSITION, ENSURING PROPER SEPARATION BETWEEN LINES. PRESSURE LINE WAS INSPECTED SERVICEABLE, AND NR 1 ENGINE DRIVEN PUMP WAS ALSO REPLACED.				
CA050518003	CNDAIR	GE	MONITOR	BURNED
5/15/2005	CL6002B19	CF343B1	EP361	CABIN
THE AIRCRAFT WAS IN THE PROCESS OF RETURNING BACK TO THE AIRPORT DUE TO AN ADG DROP. TURNED AROUND TO FACE THE CUSTOMERS AND SAW SPARKS OUT OF THE CORNER OF MY EYE AND SMOKE BEGAN TO LIGHTLY COME OUT FROM THE AREA OF THE FLIGHT ATTENDANT PANEL/PHONE AND GO TOWARDS THE FLIGHT DECK. PRELIMINARY FINDINGS HAS ATTRIBUTED THE SMOKE WAS CAUSED BY THE EXTERNAL POWER MONITOR (PN EP361) (DESIGNATOR A2XB). CONNECTOR FOUND BURNED.				
CA050518002	CNDAIR	GE	WINDOW	CRACKED
5/2/2005	CL6002B19	CF343B1	NP1393225	COCKPIT
INBOUND THE CAPTAINS SIDE WINDOW CRACKED. REPLACED WINDOW.				
CA050518001	CNDAIR	GE	WINDSHIELD	CRACKED
5/5/2005	CL6002B19	CF343B1	NP1393219	COCKPIT

LEFT WINDSHIELD CRACKED DURING CLIMB AT FL180. DIVERTED FLIGHT BACK TO DEPARTURE AIRPORT. LEFT WINDSHIELD REPLACED AND TESTED ACCORDING TO AMM PROCEDURE.

CA050523001	CNDAIR	GE	HANDLE	BROKEN
5/17/2005	CL6002B19	CF343B1	2603070001	EMER MLG EXTEND

AFTER LIFT OFF 'GEAR DISAGREE' MESSAGE APPEARED. THE NOSE WHEEL WOULD NOT RETRACT AND NOSE DOORS DID NOT CLOSE. AIRCRAFT RETURNED TO POINT OF DEPARTURE. WHEN DOING THE EMERGENCY EXTEND THE HANDLE BROKE OFF.

CA050419010	CNDAIR	GE	GROUND STUD	CORRODED
4/15/2005	CL6002C10	CF348C1		TRU

(CAN) AT 15000 FT, AN ELECTRICAL AND/OR DATA INTERRUPTION OCCURRED WHICH RESULTED IN A SIMULTANEOUS LOSS OF FLAPS & PILOT PFD & MFD TO FLICKER. FLAPLESS LANDING COMPLETED WITHOUT FURTHER INCIDENT. TROUBLESHOOTING REVEALED CORROSION ON GROUND STUD LOCATED IN TRU BAY, ON RADOME BULKHEAD. DURING INVESTIGATION DISCOVERED GROUND STUD BONDING SURFACE & TORQUE VALVE HAS BEEN MODIFIED & TORQUE CHANGES WERE NOT IMPLEMENTED. INADEQUATE BONDING SURFACE & IMPROPER TORQUE VALVE OF GROUND STUDS CONTRIBUTED TO CREATE CORROSION. BONDING SURFACE OF TRU GROUND STUDS MAIN BATTERY GROUND STUD HAS BEEN ENLARGED AND THE TORQUE VALVE OF THE ABOVE MENTIONED GROUND STUDS INCREASED.

CA050426009	CNDAIR	GE	WINDOW	CRACKED
4/22/2005	CL6002C10	CF348C1	601R3303312	COCKPIT

COPILOT'S SIDE WINDOW CRACKED DURING DESCENT. WINDOW REPLACED. AIRCRAFT RETURNED TO SERVICE.

CA050426008	CNDAIR	GE	WINDSHIELD	CRACKED
4/25/2005	CL6002C10	CF348C1	NP139321002	COCKPIT

DURING CRUISE IN ICING CONDITIONS, COPILOT'S WINDSHIELD DEVELOPED SPIDER WEB TYPE CRACK ON OUTER PLY. WINDSHIELD REPLACED, AIRCRAFT RETURNED TO SERVICE.

CA050504003	CNDAIR	GE	CONTROL UNIT	INOPERATIVE
5/2/2005	CL6002C10	CF348C1	C13045BA03	HORIZONTAL STAB

(CAN) DURING DESCENT, STABILIZER TRIM AND MACH TRIM CAUTION MESSAGES GOT POSTED, COULD NOT RE-ENGAGED EITHER HORIZONTAL STABILIZER CHANNELS. LANDING SUCCESSFULLY WITH FLAPS AT 20. AIRCRAFT RELEASED BY REFERRING TO AOM254.

CA050501001	CNDAIR		WIRE HARNESS	SHORTED
4/29/2005	CL604			FUEL TRANSMITTER

FUEL QTY IND FOR RT WING TANK INTERMITTENTLY FLICKERED, CHANGED QTY DISPLAYED & OCCASIONALLY ROLLED DOWN TO ZERO POUNDS OF FUEL INDICATED. NO TRUE CONDITION OF FUEL IMBALANCE APPARENT. INVESTIGATION REVEALED THE RED WIRE FOR NR 1 FUEL QTY TRANSMITTER FOR RT WING TANK HAD FRETTED ON A VENT PIPE. INSULATION ON WIRE WORN THROUGH TO CORE WIRE STRANDS, NONE WERE BROKEN, AT APPROX 16 INCHES FROM TERMINAL ENDS OF WIRE HARNESS AT TRANSMITTER. FUEL SHIFTED IN FLT, WIRE WOULD INTERMITTENTLY MAKE HARD CONTACT WITH PIPE, & QTY SIGNAL WOULD SHORT TO GROUND, RESULTING IN ERRONEOUS INDICATIONS. A/C PERMITTED A TEMPORARY REPAIR UNTIL A REPLACEMENT WIRE HARNESS IS MADE AVAILABLE.

CA050426006	CNDAIR	GE	ACCELEROMETER	FAILED
3/13/2005	CL604	CF34*	600591999	LEFT

DURING CRUISE, STALL FAIL CAS MESSAGE APPEARED MOMENTARILY. TROUBLESHOOTING OF THE SYSTEM LEAD TO LT ACCELEROMETER INTERMITTENTLY FAILING AFTER BEING POWERED FROM 30 MINUTES TO 3.5 HOURS. LT ACCELEROMETER REPLACED.

CA050509003	CNDAIR	GE	LINE	CRACKED
5/9/2005	CL604	CF343B1		TAIL TANK

(CAN) PILOT REPORTED (TAIL TANK AUTO INHIBIT LIGHT ON) BEFORE DEPARTURE. UPON INVESTIGATION, A CRACK ON THE TAIL TANK PRESSURE FUEL LINE WAS FOUND. IPC 28-13-22 ITEM 115.

CA050506007	CVAC	ALLSN	DOOR	OUT OF RIG
4/20/2005	340CVAC	501D13D		EMERGENCY EXIT

(CAN) AFTER IN-FLIGHT FAILURE OF EDC AND SUSEQUENT LOSS OF PRESSURIZATION, THE RT OVER-WING EMERGENCY EXIT DOOR FELL INTO CABIN AREA. AIRCRAFT DESCENDED TO 3000 ASL. AIRCRAFT LANDED WITH NO FURTHER INCIDENT, EDC WAS REPAIRED, EMERGENCY EXIT DOOR WAS INSPECTED AND FOUND OUT OF RIG. THE DOOR WAS RE-RIGGED, FUNCTION CHECKED AND THE AIRCRAFT WAS RETURNED TO SERVICE.

CA050527007	CVAC	ALLSN	SWITCH	INOPERATIVE
5/26/2005	440	501D13D	MS250112	MLG

ON FINAL APPROACH TO MONTREAL, THE RT MAIN LANDING GEAR DOWN ANNUNCIATION LIGHT FAIL TO INDICATE. AFTER INVESTIGATION, THE DOWN MICROSWITCH WAS FOUND INOPERATIVE, UNIT REPLACED AND ADJUSTED IAW MAINTENANCE MANUAL. GEAR SWING C/O SERVICEABLE, AIRCRAFT RETURN TO SERVICE.

CA050526004	DHAV	PWA	CARBURETOR	FAILED
5/25/2005	DHC2*	R985AN14B	NAR9B19	ENGINE

AFTER RETURNING FROM A FLIGHT, THE CREW REPORTED THAT THE ENGINE WOULD NOT IDLE BELOW 1000 RPM, AND WAS ROUGH AT INTERMEDIATE SPEEDS. IDLE MIXTURE ADJUSTMENT HAD NO EFFECT. THE CARBURETOR WAS REPLACED AND THE AIRCRAFT WAS RETURNED TO SERVICE. UNIT WAS OVERHAULED BY L.A. AERO ENGINES.

CA050527016	DHAV	PWA	CRANKSHAFT	CRACKED
5/26/2005	DHC2*	R985AN14B	261280	ENGINE

THE ENGINE WAS RETURNED TO CANADA FROM THE USA FOLLOWING REPAIR AND INSTALLED ON DHC-2 MK 1 AIRCRAFT. WHEN THE ENGINE WAS STARTED EXCESSIVE OIL LEAK WAS OBSERVED FROM THE AREA NEAR THE REAR OF THE PROPELLER HUB AND THE NOSE CASE OF THE ENGINE. THE PROPELLER AND REAR CONE WERE REMOVED AND THE CRANKSHAFT WAS FOUND TO BE CRACKED. THE CRACK WAS VISIBLE TO THE NAKED EYE AND WAS LOCATED ON THE SHAFT WHERE THE REAR CONE SITS. THE CRACK MEASURES APPROX 2.5 INCHES IN LENGTH AROUND THE CIRCUMFERANCE OF THE SHAFT. THE ENGINE WAS REMOVED.

2005FA0000746	DHAV		LANDING GEAR	CRACKED
4/11/2005	DHC6*		C6UM11108	MLG

MAIN GEAR LEG, CRACK IN BASE METAL DUE TO CYCLIC LANDING STRESSES. (K)

CA050524003	DHAV	PWA	CONNECTING ROD	BINDING
5/24/2005	DHC6100	PT6A20		INTAKE DEFLECTOR

DURING OVERHAUL AND FUNCTION TESTING, THE INTAKE DEFLECTOR ACTUATOR WAS FOUND TO BE BINDING DURING OPERATION. THE CONNECTING ROD HAD BEEN ASSEMBLED AND RIGGED IAW THE CMM CH 71-60-01, FIGURE 1, PAGE 5, WITH THE ROD ENDS AT 90 DEGREES TO EACH OTHER. IT WAS FOUND DURING OPERATION THAT THE ROD END WOULD REACH THE LIMIT OF ITS SIDEWAYS TRAVEL BEFORE THE PISTON REACHED FULL TRAVEL, CAUSING IT TO BIND. WHEN THE ROD END WERE RIGGED IN THE SAME PLANE, THE PISTON DID NOT BIND AND THE SYSTEM OPERATED NORMALLY. THE SUBMITTER REPORTS THAT HE HAS DONE THIS TO OTHER CONNECTING RODS IN THE PAST.

CA050527004	DHAV		PIN	MISMANUFACTURED
5/25/2005	DHC6300		TBC6CWM104327	AILERON CONTROL

PDA PART ROD SECURING PIN DEHAVILLAND P/N C6CWM1043-27 INCORRECTLY MANUFACTURED. PIN OUTSIDE DIAMETER TOO LARGE TO FIT INTO 'H' BEAM HOLE. REFERENCE DHC-6-300 IPC CHAPTER 27-10-00 FIGURE 4 ITEM 560. 'H' BEAM ATTACHMENT HOLE EDGE DISTANCE MAY BE TOO SMALL IF HOLE OPENED UP TO ACCEPT OVERSIZED PIN. THIS COULD COMPROMISE AILERON CONTROL ROD STRENGTH.

CA050530006	DHAV		LEVER	FRACTURED
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5/11/2005 DHC6300 711599 NLG STEERING ACT

(CAN) NO RESPONSE TO NWS AFTER LANDING. LEVER ARM FRACTURED AT RADIUS WHERE CONNECTS TO ACTUATOR HOUSING BOSS. SEE MFG AMM FIGURE 201.RDIM'S LETTER NR 1199637 SENT - CAA IN RESPONSE TO HIS LETTER TO TC. REFERENCE ATTACHMENT.

[CA050527022](#) DHAV PWA ENGINE LEAKING

5/11/2005 DHC6300 PT6A27

DURING CRUISE, THE ENGINE LOW OIL PRESSURE WARNING ANNUNCIATED AND THE PILOT SHUT THE ENGINE DOWN IN FLIGHT. THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED OIL LEAKAGE FROM THE NR 3 BEARING SEAL AREA.

[CA050513001](#) DHAV PWA SKIN DEBONDED

5/9/2005 DHC6300 PT6A27 RT WING

DURING INSTALLATION OF A REPAIR DOUBLER INBOARD OF THE RT NACELLE AS PER RD6-57-618 IT WAS FOUND THAT 3 AREAS OF DISBOND HAD OCCURRED BETWEEN THE UPPER WING SKIN AND THE CORRUGATION . AS PER INSTRUCTIONS IN THE REPAIR DEFINITION THE MANUFACTURE WAS CONTACTED AND A REPAIR TO THE DISBOND IS BEING DEVELOPED.

[CA050509005](#) DHAV PWA PLATE TORN

5/6/2005 DHC6300 PT6A27 SKI HARNESS

(CAN) UPON ENTERING CRUISE FLIGHT, THE PILOT HEARD A LOUD BANG AND FELT THE AIRCRAFT SHUTTER. HE NOTICED THAT THE RT SKI HARNESS HAD COME UNATTACHED TO THE UPPER WING ATTACH FITTING, LETTING THE RT SKI ROTATE UPWARD AGAINST THE WING STRUT. THE PILOT TOOK MEASURES TO LAND THE AIRCRAFT AT HIS ORIGINAL DEPARTURE LOCATION. UPON LANDING THE RT SKI DEPARTED FROM THE AIRCRAFT AND DAMAGE WAS SUSTAINED TO THE RT LANDING GEAR AND WING STRUT ASSEMBLY. FURTHER INVESTIGATION IS CONTINUING FOR CAUSE OF SKI HARNESS ASSEMBLY DETACHMENT.

[CA050527010](#) DHAV PWA ENGINE FAILED

3/16/2005 DHC7* PT6A50

THE ENGINE EXPERIENCED AN UNCOMMANDED SHUTDOWN IN FLIGHT. SUBSEQUENT INSPECTION REVEALED GRINDING NOISES FROM THE POWER SECTION. THE ENGINE WAS REMOVED FOR REPAIR.

[CA050527014](#) DHAV PWA FUEL CONTROL FAILED

1/17/2005 DHC7102 PT6A50 3244753191 ENGINE

IN DESCENT, THE ENGINE WAS FOUND NOT TO RESPOND TO THROTTLE INPUT. THE ENGINE WAS SHUT DOWN IN FLIGHT. THE FUEL CONTROL UNIT WAS SUBSEQUENTLY REPLACED.

[CA050527031](#) DHAV PWA ENGINE SHUTDOWN

5/24/2005 DHC8101 PW121

ON TRANSITION BETWEEN CLIMB AND CRUISE, THE ENGINE EXPERIENCED AN UNCOMMANDED SHUT-DOWN. THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. PWC WILL MONITOR THE INVESTIGATION OF THE EVENT AND ADVISE OF ROOT CAUSE, ONCE ESTABLISHED.

[CA050530009](#) DHAV PWA HOSE LEAKING

4/26/2005 DHC8102 PW120A DSC252B40124 HYD SYSTEM

(CAN) DURING PREFLIGHT INSPECTION , FOUND NOSE WHEEL WELL AREA LEAKING HYDRAULIC FLUID. MAINTENANCE INSPECTION FOUND FLEXABLE HYDRAULIC LINE FOR THE DRAG STRUT ACTUATOR FAILED/LEAKING. HOSE REPLACED , GEAR SWINGS CARRIED OUT. AIRCRAFT RETURNED TO SERVICE. THIS PART IS CONSIDERED AN EXPENDABLE AND PART TIMES NOT TRACKED , TIMES PROVIDED ARE TOTAL AIRCRAFT TIMES SINCE NEW. HOSE DATE CODE PT 7-96.

[CA050502004](#) DHAV PWA WINDOW UNSERVICEABLE

5/18/2005 DHC8102 PW120A NP15790213 COCKPIT

ROUTINE WALK AROUND BY MAINTENANCE PERSONAL NOTICED LT SIDE WINDOW HAD DELAMINATION. CLOSER INSPECTION FOUND THAT THE INTERNAL HEATING ELEMENT HAD SHORTED CAUSING THE WINDOW TO DELAMINATE. WINDOW REPLACED WITH SERVICEABLE IAW M/M GROUND RUNS AND PRESSURIZATION CHECKS CARRIED OUT AND FOUND TO BE SERVICEABLE, AIRCRAFT RETURN TO SERVICE.

CA050527001	DHAV	PWA	SWITCH	BURNED
5/25/2005	DHC8301	PW123	682015	RUDDER TRIM

FLIGHT CREW REPORTED DURING THE APPROACH PHASE OF FEELING UNWELL, IT WAS THEN NOTED THE RUDDER TRIM SWITCH WAS HOT AND UNABLE TO FULLY OPERATE. THE C/B FOR RUDDER TRIM ACTUATOR WAS THEN NOTED AS TRIPPED. MAINTENANCE FOUND RUDDER TRIM SWITCH BURNT. THE SWITCH HAD BEEN REPLACED ON THE

CA050512001	DHAV	PWA	SPRING	MISINSTALLED
4/27/2005	DHC8301	PW123	82760113005	ELEVATOR

AS A RESULT OF 'C CHECK' RECTIFICATIONS, THE A/C'S ELEV GUST LOCK SYS REQUIRED RE-RIGGING. DURING THE RE-RIGGING TASK AN UNUSUAL NOISE WAS NOTICED COMING FROM THE ELEV SYSTEM WHEN THE ELEVATORS WERE MOVED THROUGH THEIR OP RANGE. FURTHER INVESTIGATION WAS CARRIED OUT ON THE ELEV CONTROL SYS AND THE ELEV SPRING TAB CONTROL SYSTEM. THE NOISE INVESTIGATION REVEALED TWO INCORRECTLY INSTALLED NON-SECURED BOLTS SECURING THE SPRING SHAFT TO THE ANCHOR. ATTACH BOLTS WERE REMOVED INSPECTED AND INSTALLED CORRECTLY. AS THIS IS THE A/C'S FIRST C CHECK SINCE MANUF IT IS BELIEVED THAT THE INCORRECT INSTALLATION OF THE BOLTS WAS CARRIED OUT AT A/C MANUF. A QUALITY INVESTIGATION IS BEING CARRIED OUT BY BOMBARDIER AEROSPACE.

UIA0506	DHAV	PWA	PACKING	BROKEN
6/14/2005	DHC8311	PW123	ST3367009WE	NR 1 ENGINE

TRANSIT CHECK FOUND FUEL LEAKING FROM NR 1 ENG. DETAILED INSPECTION FOUND FUEL MANIFOLD PACKING BROKEN IAW AMM 71-01-40. REPLACED NEW ONE AND IAW AMM 71-00-00 ENG RUNUP CHECK CONDITION NORMAL, NO FUEL LEAK FIND.

CA050506014	DIAMON	CONT	CALIPER	FAILED
4/6/2005	DA20C1	IO240B	MS28775218	BRAKE

(CAN) LOSS OF BRAKE FLUID DUE TO FAILED BRAKE CALIPER.

CA050419009	DORNER	GARRTT	PULLEY	BINDING
4/18/2005	DO228202	TPE331*	MS202194	POWER LEVER

(CAN) ACFT DEPARTED & RETURNED WITH PRECAUTIONARY ENGINE SHUTDOWN DUE TO JAMMED POWER LEVER. MX ABLE TO DUPLICATE SYMPTOMS. POWER LEVER CIRCUIT INSPECTED & IN RT SIDEWALL AT PULLEY ASSY, A SMALL SCREW NR 4 DIAMETER .375 INCH LONG FOUND IN IMMEDIATE VICINITY. SCREW MOVED TO PULLEY & SYMPTOMS WERE DUPLICATED. INSPECTION OF AREA & CONDITION OF SCREW SHOW THAT SCREW NOT PART OF CURRENT AIRFRAME. AS A PRECAUTION LT POWER CIRCUIT INSPECTED FOR FOREIGN OBJECTS AROUND THE PULLEY CLUSTER NONE WAS FOUND. INDEPENDENT CONTROL CHECK WAS CARRIED OUT, AND THE AIRCRAFT WAS RELEASED FOR TEST FLIGHT WITH NO FURTHER OCCURRENCE. PICTURES OF SCREW AVAILABLE UPON REQUEST.

2005FA0000772	DOUG	ALLSN	FITTING	CRACKED
5/5/2005	600N	250C47B	500N3422	TAILBOOM

UPPER RT TAILBOOM ATTACH FITTING CRACKED. THIS IS THE SAME AREA COVERED IN AD AND SB, 25 HOUR INSPECTION. (K)

20052400A	DOUG		FLOORBEAM	CORRODED
6/3/2005	MD88			CABIN

CABIN FLOOR SUPPORT STRUCTURE FS 256.0 LBL 44 TO RBL 44 HAS CORROSION.

DU4R0506031	DOUG		FLOORBOARD	DAMAGED
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6/3/2005	MD88		CABIN
PAX CABIN FLOORBOARD BETWEEN L/S SEAT TRACK AT FS 389 - 465 HAS A VERY SOFT AND VOIDED AREA.			
DU4R0506032	DOUG	SEAT TRACK	CORRODED
6/3/2005	MD88		FWD CABIN
FWD CABIN 256 LBL 24 SEAT TRACK LOWER LEG IS CORRODED.			
DU4R0506033	DOUG	FLOOR PANEL	DAMAGED
6/3/2005	MD88		CABIN
CABIN FLOOR PANEL AT FS 875 - 864 HAS A SOFT SPOT LT OVER FUEL ACCESS PANEL.			
DU4R0506034	DOUG	FLOORBOARD	DAMAGED
6/3/2005	MD88		CABIN
FLOORBOARD AT R/S SEAT TRACK STA 1193-1250 HAS SOFT SPOTS.			
DU4R0506035	DOUG	FLOOR PANEL	DELAMINATED
6/3/2005	MD88		CABIN
LT FLOOR PANEL FS 866 BL 44.5 TO 24.5 DELAMINATED AND SOFT SPOTS.			
DU4R0506036	DOUG	THRESHOLD	CORRODED
6/3/2005	MD88		AFT CARGO BAY
AFT CARGO DOOR THRESHOLD HAS CORROSION AROUND FASTENER HOLES AT L-28R.			
DU4R0506037	DOUG	FLOOR SUPPORT	CRACKED
6/3/2005	MD88		FUSELAGE
CENTER FLOORBOARD AT FS 807 TO 886 HAS CRACKED SUPPORT ANGLE.			
DU4R0506038	DOUG	SKIN	DENTED
6/3/2005	MD88		FUSELAGE
FUSELAGE SKIN AT FS 224 L-19L 1.2 BY 1.9 IN. DENT 0.043 IN. DEPTH D/X 27.9.			
DU4R0506039	DOUG	SKIN	DENTED
6/3/2005	MD88		FUSELAGE
DENT AT FS 237 LEFT LONGERON 17 AND 18L .021 BY .750 IN D/X 35.7.			
DU4R05060310	DOUG	PANEL	PUNCTURED
6/3/2005	MD88		FUSELAGE
RT CABIN STA 693 PANEL D9 IS PUNCTURED.			
DU4R05060311	DOUG	PANEL	PUNCTURED
6/3/2005	MD88		FUSELAGE
RT CABIN STA 350.5 PANEL D2 IS PUNCTURED.			
DU4R05060312	DOUG	PANEL	PUNCTURED
6/3/2005	MD88		FUSELAGE
R/H CABIN STA. 335 PANEL B2 IS PUNCTURED.			
DU4R05060313	DOUG	PANEL	PUNCTURED
6/3/2005	MD88		FUSELAGE
RT CABIN STA. 655 AND 674 PANEL B8 HAS PUNCTURES.			

2005FA0000816	DOUG	PWC	DOUG	HUB	CRACKED
6/8/2005	MD900	PW207E		900R2101006107	MAIN ROTOR
DURING ACCOMPLISHMENT OF AD 2002-10-05- MAIN ROTOR UPPER HUB INSP FOUND (2) BOLT HOLES CRACKED AS DEPICTED IN MD HELICOPTERS SERVICE BULLETIN 900-072. CRACKS WERE FOUND USING MAGNIFIED VISUAL METHOD. HUB WAS SUBSEQUENTLY INSPECTED BY EDDY CURRENT METHOD TO VERIFY CRACKS. EDDY CURRENT INSPECTION USING A BOLT HOLE SCAN FOUND A THIRD HOLE CRACKED. THIS CRACK WAS NOT VISIBLE AT THE FLANGE SURFACE USING THE MAGNIFIED VISUAL METHOD. TO DATE HUB IS ON ORDER PENDING REPLACEMENT.					
CA050418013	EMB	PWA		ANGLE	CRACKED
4/15/2005	EMB110P1	PT6A34		110321001	LT ELEVATOR
INSP REVEALED CRACK ON LT ELEVATOR TRIM TAB ACTUATOR SUPPORT BRACKET ATTACH POINT REINFORCING ANGLE. CRACK FOUND AT UPPER LT SUPPORT BRACKET BOLT HOLE AND PROPAGATED TO RIVETS DIRECTLY ADJACENT TO HOLE ON BOTH LT AND RT SIDES. UPON FURTHER INVESTIGATION SMALL CRACK FOUND ON ELEVATOR FRONT SPAR AT SAME BRACKET ATTACH BOLT HOLE. NEW ANGLE INSTALLED AND SPAR REPAIRED IAW APPLICABLE SRM. NOTE: EMBRAER ISSUED S.B. 110-055-0026 WHICH INTRODUCES THICKER REINFORCING ANGLES IN THIS AREA TO PREVENT THESE CRACKS FROM OCCURRING. THESE THICKER ANGLES WERE PREVIOUSLY INSTALLED BUT CRACKED REGARDLESS.					
CA050420003	EMB	PWA		HINGE BRACKET	CRACKED
4/18/2005	EMB110P1	PT6A34		4A3441	RUDDER
(CAN) DURING A ROUTINE MAINTENANCE INSPECTION, A CRACK WAS FOUND ON THE RUDDER UPPER HINGE BRACKET. THIS BRACKET IS ATTACHED TO THE RUDDER FRONT SPAR AND ATTACHED TO THIS ARE TWO FLANGES FOR THE RUDDER UPPER HINGE BOLT. THE CRACK ON THE BRACKET EXTENDS FROM A DRAIN HOLE ON THE UPPER LEFT SIDE OF THE BRACKET THROUGH TWO RIVET HOLES, RIVETS WHICH RETAIN THE UPPER HINGE FLANGE, TOWARDS A DRAIN HOLE ON THE RIGHT SIDE OF THE BRACKET. A NEW BRACKET WILL BE INSTALLED. ATTACHED ARE PICTURES WHERE THE CRACKS CAN BE SEEN.					
CA050527021	EMB	PWA		SHAFT	FRACTURED
5/3/2005	EMB120	PW118			AGB
THE ENGINE EXPERIENCED AN UNCOMMANDED SHUT-DOWN IN FLIGHT. SUBSEQUENT INSPECTION REVEALED A FRACTURED ACCESSORY GEARBOX TOWERSHAFT.					
CA050527017	EMB	PWA		LOCKWASHER	FRACTURED
4/28/2005	EMB120	PW118A			GEARBOX DRIVE
DURING CRUISE, THE ENGINE LOW OIL PRESSURE WARNING ANNUNCIATED AND THE ENGINE WAS SHUT DOWN IN FLIGHT. SUBSEQUENT INVESTIGATION REVEALED THE THE ACCESSORY GEARBOX TOWERSHAFT LOCKWASHER TO BE FRACTURED AND THE TOWERSHAFT RETAINING NUT DISLODGED.					
CA050429008	EMB	PWA		WARNING LIGHT	ILLUMINATED
4/28/2005	EMB120	PW118A			ENGINE OIL
DURING CRUISE, THE ENGINE LOW OIL PRESSURE WARNING ANNUNCIATED ACCOMPANIED BY A ROLL BACK IN ALL ENGINE PARAMETERS. THE PILOT SECURED THE ENGINE AND THE FLIGHT DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED EXTERNAL OIL LEAKAGE AND A TURBOMACHINE CHIP DETECTOR INDICATION. P&WC WILL MONITOR THE INVESTIGATION OF THE EVENT AND WILL ADVISE OF ROOT CAUSE, ONCE DETERMINED.					
CA050429007	FOKKER	PWA		ENGINE	SHUTDOWN
4/28/2005	F27MK50	PW125B			
DURING CRUISE, THE ENGINE OIL PRESSURE DECREASED AND THE PILOT SHUT THE ENGINE DOWN IN FLIGHT. THE FLIGHT DIVERTED TO POINT OF ORIGIN. SUBSEQUENT INSPECTION REVEALED DEBRIS IN THE ENGINE OIL FILTER AND MAIN CHIP DETECTOR. P&WC WILL INVESTIGATE THE EVENT AND WILL ADVISE OF ROOT CAUSE, ONCE DETERMINED.					

CA050527018	FOKKER	PWA	PUMP	UNSERVICEABLE
4/27/2005	F27MK50	PW125B	5009982D	FUEL SYS

THE ENGINE EXPERIENCED AN UNCOMMANDED IN-FLIGHT SHUT-DOWN SHORTLY AFTER TAKEOFF. THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. THE ENGINE FUEL CONTROL UNIT AND FUEL PUMP WERE SUBSEQUENTLY REPLACED.

2005FA0000799	GROB	GROB	PLATE	DEBONDED
5/13/2005	G120A			RUDDER SPAR

DURING ROUTINE INSPECTION OF AIRCRAFT, TECH FOUND EXCESSIVE MOVEMENT BETWEEN RUDDER AND RUDDER LEVER ASSY. FURTHER INSPECTION SHOWED DISBONDING BETWEEN THE RUDDER SPAR AND THE RUDDER LEVER ASSY SPACER PLATE. PROBABLE CAUSE APPEARS TO BE EXCESSIVE FLEXING OF THE SPAR OR IMPROPER BONDING. (SPAR AND SPACER ARE COMPOSITE MATERIAL) THE SPAR MAY NOT BE RIGID ENOUGH IN THIS AREA. RECOMMENDATION AT THIS TIME IS TO INCREASE STRENGTH/RIGIDITY OF THE SPAR AND IMPROVED BONDING METHOD. (K)

2005FA0000800	GROB	GROB	PLATE	DEBONDED
5/13/2005	G120A		120A3115	RUDDER SPAR

DURING FLEET - WIDE INSPECTION OF AIRCRAFT, TECH FOUND EXCESSIVE MOVEMENT BETWEEN RUDDER AND RUDDER LEVER ASSY. FURTHER INSPECTION SHOWED DISBONDING BETWEEN THE RUDDER SPAR AND THE RUDDER LEVER ASSY SPACER PLATE. PROBABLE CAUSE APPEARS TO BE EXCESSIVE FLEXING OF THE SPAR OR IMPROPER BONDING. (SPAR AND SPACER ARE COMPOSITE MATERIAL) THE SPAR MAY NOT BE RIGID ENOUGH IN THIS AREA. RECOMMENDATION AT THIS TIME IS TO INCREASE STRENGTH/RIGIDITY OF THE SPAR AND IMPROVED BONDING METHOD.

2005FA0000801	GROB	LYC	GROB	PLATE	DEBONDED
5/13/2005	G120A	AEIO540*			RUDDER SPAR

DURING FLEET-WIDE INSPECTION OF AIRCRAFT, TECH FOUND EXCESSIVE MOVEMENT BETWEEN RUDDER AND RUDDER LEVER ASSY. FURTHER INSPECTION SHOWED DISBONDING BETWEEN THE RUDDER SPAR AND THE RUDDER LEVER ASSY SPACER PLATE. PROBABLE CAUSE APPEARS TO BE EXCESSIVE FLEXING OF THE SPAR OR IMPROPER BONDING. (SPAR AND SPACER ARE COMPOSITE MATERIAL) THE SPAR MAY NOT BE RIGID ENOUGH IN THIS AREA. RECOMMENDATION AT THIS TIME IS TO INCREASE STRENGTH/RIGIDITY OF THE SPAR AND IMPROVED BONDING METHOD. (K)

CA050425004	GRUMAV	PWA	LINK ROD	BROKEN
1/5/2005	G21A	R985AN14B		CYLINDER

AIRCRAFT ABORTED TAKEOFF DUE TO ENGINE POWER LOSS. ENGINE SENT FOR REPAIR AND LINK ROD FOR NR 1 CYLINDER DISCOVERED BROKEN AT LINK PIN END. DAMAGE ALSO OBSERVED AT CYLINDER SKIRT. STRIP REPORT SUGGESTS LOSE BUSHING STARTING TO FAIL IN LINK ROD WAS CONTRIBUTING FACTOR.

CA050419012	GULSTM	GARRTT	SPAR	CRACKED
4/19/2005	690	TPE3315251K	250000167166	AILERONS

(CAN) WHILE DOING S.B. 238 CRACKS WERE FOUND AROUND THE ANCHOR NUTS, ON THE SPAR CENTER HINGE ATTACH. BOTH LEFT AND RIGHT HAND AILERONS, TWIN COMMANDER KITS SB238-503 AND -504 WERE INSTALLED.

CA050419011	GULSTM	GARRTT	SPAR	CRACKED
4/19/2005	690	TPE3315251K	250000167166	AILERONS

(CAN) WHILE DOING SB-238 CRACKS WERE FOUND AROUND THE ANCHOR NUTS, ON THE SPAR CENTER HINGE ATTACH. BOTH LEFT AND RIGHT HAND AILERONS, TWIN COMMANDER KITS SB238-503 AND -504 WERE INSTALLED.

CA050414012	GULSTM	GARRTT	FRAME	CRACKED
4/14/2005	690	TPE3315251K	310025	VERTICAL STAB

SMALL CRACKS AND LOOSE RIVETS FOUND IN FRAME AS PER SB 218 TWIN COMMANDER KIT CK175-1

INSTALLED.

CA050421002	GULSTM	GARRTT		SELECTOR VALVE	MALFUNCTIONED
4/20/2005	690A	TPE3315251K		790231509	MLG

(CAN) DURING ACCOMPLISHMENT OF THE FLIGHT IDLE CHARACTERISTIC CHECK ON THE AIRCRAFT, THE CREW WAS UNABLE TO MOVE THE LANDING GEAR SELECTOR TO THE DOWN POSITION. AFTER SEVERAL UNSUCCESSFUL ATTEMPTS TO MOVE THE SELECTOR THE SIDE PEDESTAL COVER WAS REMOVED TO ACCESS THE GEAR SELECTOR VALVE. WITH PRESSURE DOWN ON THE GEAR SELECTOR AND THE VALVE ARM TOGETHER, THE VALVE MOVED FROM GEAR UP TO GEAR DOWN POSITION AND THE LANDING GEAR EXTENDED. THE LANDING GEAR WAS LEFT IN THE DOWN POSITION AND THE AIRCRAFT RETURNED TO THE AIRPORT AND LANDED. THE VALVE HAD BEEN REPLACED DURING THE ANNUAL INSPECTION AND A GEAR SWING WAS COMPLETED AND THE LANDING GEAR FUNCTION CHECKED NORMALLY. WITH SYSTEM HYDRAULIC PRESSURE ON THE VALVE WAS EXTREMELY HARD TO MOVE AS NOTED. THE SELECTOR VALVE WAS REPLACED AND A GEAR SWING WAS ACCOMPLISHED. GEAR OPERATION WAS NORMAL. CONAIR HAS REQUESTED A REPORT FROM THE OVERHAUL AGENCY DETAILING THE FAULT AS SOON AS POSSIBLE.

CA050427012	GULSTM	GARRTT	ALCO	BOLT	BENT
4/10/2005	690D	TPE3315		AN174C21A	UNLOCK CYLINDER

LT MLG FAILED TO UNLOCK. AIRCRAFT RECEIVED DAMAGE TO LT PROP AND UNDERSIDE OF FUSELAGE.

AMCR200500005	GULSTM			JACKSCREW	SHEARED
5/26/2005	GIV			1159SCC21216	TE FLAPS

AFTER TAKEOFF, CREW RECEIVED A FLAP ASYMMETRY MESSAGE DURING FLAP RETRACTION FROM 10 DEG TO 0 DEG. MAINTENANCE FOUND THE RIGHT-OUTBOARD FLAP ACTUATOR TO HAVE THE SMALL SHAFT THAT DRIVES THE ASYMMETRY SWITCH SHEARED. NO INDICATION WHY SHAFT SHEARED, SINCE ROTARY SWITCH SEEMS TO OPERATE OK. ACTUATOR AND SWITCH WAS REPLACED.

2005FA0000807	GULSTM			CONVERTER	FAILED
5/22/2005	GIV			WH120	LAV TOILET

PILOTS DISCOVERED AUX DC CONV CIRCUIT BREAKER POPPED AFTER LAV WOULD NOT FLUSH. BREAKER WAS RESET, IT IMMEDIATELY POPPED AGAIN WITH SMALL AMOUNT OF SMOKE EMANATING FROM CABIN CONVERTER, ID 106A1. BREAKER SECURED. FLIGHT COMPLETED SANS FLUSH TOILETS AND CABIN READING LIGHTS. NEW UNIT INSTALLED. OPERATIONAL CHECK SATISFACTORY. NOTE: THE FAILED UNIT SERIAL NUMBER WAS WELL ABOVE THE RANGE AFFECTED TO UPDATE TO MOD 5 STATUS PER GAC AND KGS.

2005FA0000824	HILLER	ALLSN		MAST	CRACKED
6/6/2005	UH12E	250C20B		23600	MAIN ROTOR

HELICOPTER EXPERIENCED A PROGRESSIVE LATERAL VIBRATION. SUBSEQUENT INSPECTION FOUND 2 CRACKS FROM THE PITCH PIN SLOT AREA OF THE MAST. ONE CRACK FROM THE TOP OF ONE SLOT AND ANOTHER CRACK FROM THE BOTTOM OF THE SAME SLOT PROGRESSING THE OPPOSITE DIRECTION. THE TOP CRACK IS APPROX 1.6 INCHES AROUND THE DIAMETER OF THE MAST AND THE BOTTOM CRACK IS APPROX 1.3 INCHES.

CA050414003	HUGHES		DOUG	GEAR	BROKEN
4/1/2005	369D			369D2512311	M/R GEARBOX

MAIN ROTOR TRANSMISSION SENT IN FOR REPAIR DUE TO REPORTED CHIPS ON DETECTOR. TRANSMISSION OPENED AND APPROX 2/3 OF TOOTH (CENTER PORTION) FOUND MISSING FROM INPUT GEAR. PIECE LOCATED INSIDE TRANSMISSION CASE. NO FURTHER DAMAGE NOTED.

CA050414002	HUGHES		DOUG	GEAR	BROKEN
4/1/2005	369D			369D2512311	M/R GEARBOX

MAIN ROTOR TRANSMISSION SENT IN FOR REPAIR DUE TO REPORTED CHIPS ON DETECTOR. TRANSMISSION OPENED AND APPROXIMATELY 2/3 OF TOOTH (CENTER PORTION) FOUND MISSING FROM INPUT GEAR. PIECE LOCATED INSIDE TRANSMISSION CASE. NO FURTHER DAMAGE NOTED.

CA050503015	HUGHES	ALLSN		BLADE	CRACKED
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5/2/2005 369D 250C20B 369D21100523 MAIN ROTOR
(CAN) CRACK FOUND DURING M/R BLADE TORQUE EVENT INSP. CRACK IS APPROX. 11 INCHES OUT FROM BLADE GRIP ON LOWER SURFACE OF BLADE. CRACK RUNS CORDWISE AND IS APPROX. 3.5 INCHES LONG.

[2005FA0000805](#) ISRAEL CONTROL UNIT OUT OF TOLERANCE
5/3/2005 ASTRASPX 1075D1003 ZONE 900

THE FSECU HAS A RELIABILITY PROBLEM. HERE IS THE FAULT HISTORY BELOW; SERVICE TIME ON S/N 131 IS 6.1 HOURS. SERVICE TIME ON S/N 149 IS 0.8 HOURS. SERVICE TIME ON S/N 140 IS 328.2 HOURS. SERVICE TIME ON S/N 107 IS 605.4 HOURS. SERVICE TIME ON S/N 317 IS 38.9 HOURS. VERY LOW TIME ON THESE UNITS THAT FAILED. THE FLIGHT CONTROL SYSTEM IMPROVEMENTS HISTORY AS NOTED HEREIN AFTER; CHANGE THE P/N OF SLAT FLEXIBLE SHAFT NR 1 FROM V25W513320-001 OR V25W513330-001 TO V25W513330-201. CHANGE THE P/N OF SLAT PDU FROM V25W513310-001 OR V25W513310-003 TO V25W513310-003 MOD AB.

[2005FA0000806](#) ISRAEL CONTROL UNIT OUT OF TOLERANCE
5/3/2005 ASTRASPX 1075D1003 ZONE 900

THE FSECU HAS A RELIABILITY PROBLEM. HERE IS THE FAULT HISTORY BELOW; SERVICE TIME ON S/N 131 IS 6.1 HOURS. SERVICE TIME ON S/N 149 IS 0.8 HOURS. SERVICE TIME ON S/N 140 IS 328.2 HOURS. SERVICE TIME ON S/N 107 IS 605.4 HOURS. SERVICE TIME ON S/N 317 IS 38.9 HOURS. VERY LOW TIME ON THESE UNITS THAT FAILED. THE FLIGHT CONTROL SYSTEM IMPROVEMENTS HISTORY AS NOTED HEREIN AFTER; CHANGE THE P/N OF SLAT FLEXIBLE SHAFT NR 1 FROM V25W513320-001 OR V25W513330-001 TO V25W513330-201. CHANGE THE P/N OF SLAT PDU FROM V25W513310-001 OR V25W513310-003 TO V25W513310-003 MOD AB.

[2005FA0000830](#) LEAR GARRTT ADC DEFECTIVE
5/25/2005 35A TFE731* 702490030303 E/E BAY

THE PILOTS ALTIMETER AND ALTITUDE ALERTER WERE FLAGGED. THE ADC WAS FOUND TO BE DEFECTIVE AND REPLACED. THE SYSTEM WAS TESTED AND INSPECTED AND FOUND TO COMPLY WITH FAR 91.411 PART 43 AND TO REMAIN RVSM COMPLIANT. THERE HAVE BEEN NO PRIOR REPORTS OF PROBLEMS WITH THIS SYSTEM. (K)

[2005FA0000832](#) LEAR GARRTT ADC DEFECTIVE
5/27/2005 35A TFE731* 702490030303 LT E/E BAY

PILOTS ALTIMETER AND ALTITUDE ALERTER WERE FLAGGED. THE ADC WAS FOUND TO BE DEFECTIVE AND REPLACED. THE SYSTEM WAS TESTED AND INSPECTED AND FOUND TO COMPLY AND TO REMAIN RVSM COMPLIANT. THERE HAVE BEEN NO PRIOR REPORTS OF PROBLEMS WITH THIS SYSTEM. (K)

[2005FA0000833](#) LEAR GARRTT ADC DEFECTIVE
5/6/2005 35A TFE731* 702490030303 LT E/E BAY

ON TAKEOFF ROLL OUT, THE PILOTS ALTIMETER, IVSI AND ALTITUDE ALERTER FLAGGED. THE TAKEOFF WAS ABORTED. THE ADC WAS FOUND TO BE DEFECTIVE AND REPLACED. THE SYSTEM WAS TESTED AND INSPECTED AND FOUND TO COMPLY WITH FAR AND REMAIN RVSM COMPLIANT. THERE HAVE BEEN NO PRIOR REPORTS OF PROBLEMS WITH THIS SYSTEM. (K)

[CA050422004](#) LEAR GARRTT SKIN CRACKED
4/20/2005 35A TFE7312 2411001 FUSELAGE

(CAN) THE LOWER FORWARD SKIN SRM REF 53-28-00, FIG 4, ITEM 2, WAS FOUND WITH A 3 INCH LONG CRACK UNDER A FACTORY INSTALLED ADF ANTENNA THAT WAS REMOVED DURING AN AVIONICS UPGRADE. THERE IS NO SCHEDULED REQUIREMENT TO INSPECT UNDER THE ANTENNA, ALTHOUGH LEARJET IS APPARENTLY PLANNING TO AMEND THE INSPECTION SCHEDULE TO REQUIRE STRUCTURAL INSPECTION UNDER SUCH ANTENNA. THE DAMAGE WAS REMOVED AND REPAIRED WITH AN EXTERNAL DOUBLER IAW THE LEARJET STRUCTURAL REPAIR MANUAL (SRM) AND SPECIFIC GUIDANCE INSTRUCTIONS FROM LEARJET ENGINEERING. THE ANTENNA HAD AT SOME TIME PREVIOUSLY BEEN INCORRECTLY SHIMMED TO THE FUSELAGE PROFILE. A SECOND ADF ANTENNA FURTHER AFT ON THE BELLY WAS REMOVED AND THE SKIN INSPECTED WITH NO DAMAGE FOUND, ALTHOUGH THAT ANTENNA ALSO WAS RE-SHIMMED.

[2005FA0000831](#) LEAR GARRTT ADC INOPERATIVE

4/27/2005	35LEAR	TFE731*	702490030303	E/E BAY	
CAPTAIN (LT SIDE) ALTIMETER, VERTICAL SPEED AND ALTITUDE ALERTER INOPERATIVE. FOUND THE PRIMARY ADC INOPERATIVE. REPLACED THE ADC, TESTED THE PRIMARY ALTIMETERY SYSTEMS, FOUND TO COMPLY WITH FAR AND TOBE RVSM COMPLIANT. THERE HAVE BEEN NO PREVIOUS PROBLEMS WITH THIS SYSTEM. (GL07200508784)					
CA050426005	LEAR	GARRTT	ACTUATOR	DEFECTIVE	
4/6/2005	45LEAR	TFE731*	6627401000007	HORIZ STAB TRIM	
PRIMARY TRIM FAIL CAS MESSAGE APPEARS WHEN SECONDARY TRIM ACTUATED DURING PREFLIGHT CHECK. REPLACED HORIZ STAB ACTUATOR WITH REPAIRED UNIT.					
CA050426004	LEAR	GARRTT	CONTROL PANEL	FAULTY	
3/26/2005	45LEAR	TFE731*	665GC02Y07	RT AFT POWER DIS	
RT GENERATOR WOULD NOT GO ON-LINE AFTER START-UP. RT AFT POWER DISTRIBUTION PANEL REPLACED WITH REPAIRED UNIT.					
CA050430001	LEAR	GARRTT	FAIRLEAD	ARCED	
4/28/2005	45LEAR	TFE731*	762720200301	RUDDER	
DURING PREFLIGHT, FOUND EVIDENCE OF MELTED FAIRLEAD. FURTHER INVESTIGATION FOUND BOTH UPPER AFT RUDDER CABLES (P/N 7627202003-001 AND 7627202004-001) CHAFING IN TO WIRE NR SAH0001-2AT FS 575 CAUSING ARCING BETWEEN WIRE AND CABLES WHICH IN TURN MELTED FAIRLEAD AT FS 581. WIRE NR SAH0001-2 GOES FROM T3 ON LT AFT POWER DISTRIBUTION PANEL TO LT ESSENTIAL BUSES. TEMPORARY REPAIR OF WIRE INSULATION IAW MANUFACTURER ENGINEERING DISPOSITION WAS ACCOMPLISHED. DAMAGE TO RUDDER CABLES FOUND TO BE FUNCTIONALLY AND STRUCTURALLY ACCEPTABLE FOR THE FERRY FLIGHT BY MANUFACTURER ENGINEERING DISPOSITION. AIRCRAFT WILL BE FERRIED TO MANUFACTURER REPAIR FACILITY.					
CA050503006	LEAR	GARRTT	LINE	LEAKING	
5/2/2005	45LEAR	TFE7312	244224151	LT WHEEL WELL	
(CAN) DURING PREFLIGHT CHECK, NOTICED FUEL SEEPING FROM LT FLEXIBLE FUEL TRANSFER HOSE LOCATED IN LT WHEEL WELL AREA. SEEPAGE APPEARS TO BE FROM HOSE MATERIAL AND NOT THE FITTING. HOSE ASSY WILL BE SENT TO MFG FOR INSPECTION. NEW HOSE WAS INSTALLED AND LEAK CHECK OK.					
CA050506009	LEAR	GARRTT	SUNDSTRANDAI	RELIEF VALVE	LEAKING
4/14/2005	45LEAR	TFE7312	5909242	FUEL PUMP	
(CAN) DURING GROUND RUN WITH THE LOWER ENGINE COWLING REMOVED, THE ABOVE MENTIONED RELIEF VALVE WAS FOUND LEAKING FUEL. THIS WAS NOT NOTICEABLE WHEN THE COWLING WAS INSTALLED. THIS RELIEF VALVE HAD BEEN INSPECTED FOR S/B 73-5125 AT 1084.7 HOURS WHICH SPECIFIED REPLACEMENT IF IT HAD LESS THAN 1000 HOURS BUT WAS NOT REPLACED. INSTALLED NEW VALVE P/N 5912983 IAW THE ABOVE S/B 73-5125.					
CA050506012	LEAR	GARRTT	VALVE	BROKEN	
5/5/2005	45LEAR	TFE7312	516201	APU FIRE EXTING	
(CAN) DURING TROUBLESHOOTING AN APU FAULT , IT WAS DISCOVERED THAT THE APU FIRE BOTTLE HAD DISCHARGED . WHEN THE BOTTLE DISCHARGED THE OUTLET VALVE'S FLANGE NUT BROKE INTO 3 PIECES AND THE FIRE BOTTLE SUPPORT BRACKET WAS BENT, WHICH CAUSED THE FIRE BOTTLE TO SEPARATE FROM THE OUTLET VALVE. THE FIRE BOTTLE ASSY WAS REMOVED AND NEW ASSY INSTALLED.					
CA050506002	LEAR	GARRTT	FIRE BOTTLE	DISCHARGED	
5/4/2005	45LEAR	TFE7312	516002	APU	
(CAN) UPON AIRCRAFT ARRIVAL, THE APU FIRE EXTINGUISHER BOTTLE WAS FOUND READING (0) PSI. NEW BOTTLE ORDERED. UPON INVESTIGATION INTO WHY THE BOTTLE DISCHARGED, CALLED MFG AND WAS INFORMED THAT THIS IS A KNOWN ISSUE WITH THIS MODEL. THE APU FIRE BOTTLE HAS BEEN KNOWN TO DISCHARGE IF THE FIRE WARNING TEST BUTTON IS DOUBLE TAPPED OR HELD TO LONG. UPON REMOVAL OF					

THE APU BOTTLE IT WAS DISCOVERED THAT THE BOTTLE HAD BECOME SEPARATED FROM DISCHARGE NOZZLE. MFG WAS INFORMED AND PICTURES SENT.

[2005FA0000803](#) LEAR SUPPORT BRACKET CRACKED

5/21/2005 60LEAR 5412481026 RUDDER

UPON REINSTALLATION OF RUDDER ASSY, FOUND RUDDER SUPPORT BRACKET AND STIFFENER ANGLE CRACKED UNDER RUDDER PRIMARY TRAVEL STOP AT FRAME STA 48. PROBABLE CAUSE: RUDDER OVER TRAVELING AGAINST PRIMARY STOP, WHEN GUST LOCK NOT INSTALLED AND WHEN PARKED OUTSIDE IN WINDY CONDITIONS. REC: ENSURE FLIGHT CONTROL GUST LOCKS ARE INSTALLED WHEN PARKED OUTSIDE. (EA09200505204) (K)

[2005FA0000780](#) LEAR ACTUATOR FAILED

4/5/2005 60LEAR 66000264001 MLG

WHILE PERFORMING A FUNCTIONAL TEST OF THE MAIN LANDING GEAR SIDE BRACE ACTUATOR, THE TEST BENCH IN OVERHAUL SHOP, FROZE UP. FURTHER INVESTIGATION REVEALED THAT AN ORIFICE LOCATED INSIDE THE ACTUATOR HAD DISLODGED FROM ITS ORIGINAL DESIGNED LOCATION WITHIN THE ACTUATOR. THE DISCREPANT ACTUATORS ARE PART OF A SB FOR IMPROVED BRAKING. (K)

[2005FA0000802](#) LEAR PWA RUDDER DAMAGED

5/23/2005 60LEAR PW305 5433000020 TAIL

UPON REMOVAL AND REPLACEMENT OF RUDDER CABLES, FOUND RUDDER SUPPORT STIFFENER ANGLE CRACKED UNDER RUDDER PRIMARY TRAVEL STOP AT FRAME STA 48, ALSO FOUND RUDDER LEADING EDGE PANELS 331,332, AND 333 TO BE CRACKED AND RUDDER FORWARD SPAR TO BE DAMAGED AT RUDDER CENTER AND UPPER HINGE POINTS WL 92.34 AND WL 122.83. PROBABLE CAUSE: RUDDER OVER TRAVELING WHEN GUST LOCK NOT INSTALLED AND WHEN PARKED OUTSIDE IN WINDY CONDITIONS. REC: ENSURE FLIGHT CONTROL GUST LOCKS ARE INSTALLED WHEN PARKED OUTSIDE. (EA09200505203) (K)

[CA050527026](#) LEAR PWA ENGINE FLAMED OUT

5/18/2005 60LEAR PW305A

DURING DESCENT, THE ENGINE EMITTED TWO LOUD BANGS AND SUBSEQUENTLY FLAMED OUT. AN AIR-RESTART WAS SUCCESSFULLY ACCOMPLISHED BUT THE ENGINE AGAIN EMITTED A LOUD BANG AND FLAMED OUT IN RESPONSE TO THROTTLE INPUT. THE AIRCRAFT DIVERTED FOR AN UNSCHEDULED LANDING. P&WC WILL INVESTIGATE THIS EVENT AND WILL ADVISE OF ROOT CAUSE, ONCE ESTABLISHED.

[CA050527029](#) LEAR PWA ENGINE SHUTDOWN

5/23/2005 60LEAR PW305A

ON DESCENT, THE ENGINE EXPERIENCED AN UNCOMMANDED SHUT-DOWN. AN IN-FLIGHT RELIGHT WAS SUBSEQUENTLY ACCOMPLISHED. P&WC WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE, ONCE DETERMINED.

[CA050527028](#) LEAR PWA ENGINE SHUTDOWN

5/17/2005 60LEAR PW305A

DURING CLIMB, THE ENGINE EXPERIENCED AN UNCOMMANDED SHUT-DOWN. AN IN-FLIGHT RELIGHT WAS SUCCESSFULLY ACCOMPLISHED. THE ENGINE WAS SUBSEQUENTLY REMOVED FOR INVESTIGATION. P&WC WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE, ONCE ESTABLISHED.

[CA050429004](#) LEAR PWA EEC LOOSE

4/15/2005 60LEAR PW305A ENGINE

DURING CLIMB, AN EEC AMBER WARNING LIGHT ANNUNCIATED ACCOMPANIED BY A POPPING NOISE AND AN UNCOMMANDED ENGINE SHUTDOWN. THE CREW SUCCESSFULLY RE-STARTED THE ENGINE IN FLIGHT AND PROCEEDED TO DESTINATION. SUBSEQUENT INSPECTION REVEALED A LOOSE ELECTRONIC ENGINE CONTROL (EEC) HARNESS CONNECTOR.

[2005FA0000851](#) LET CONTROL CABLE FRAYED

6/21/2005 L13ACBLANIK A402092N RUDDER

LEFT AND RIGHT RUDDER CABLES FOUND FRAYED AT FRONT AND REAR PULLLEY POSITIONS.

[2005FA0000854](#) LET CONTROL CABLE FRAYED

6/21/2005 L13ACBLANIK A402092AN RUDDER

LEFT AND RIGHT RUDDER CABLES FOUND FRAYED AT FRONT AND REAR PULLLEY POSITIONS.

[2005FA0000855](#) LET CONTROL CABLE FRAYED

6/21/2005 L13ACBLANIK A402092AN RUDDER

LEFT AND RIGHT RUDDER CABLES FOUND FRAYED AT FRONT AND REAR PULLEYS.

[2005FA0000857](#) LET CONTROL CABLE FRAYED

6/21/2005 L23 A740255N RUDDER

RIGHT RUDDER CABLE FOUND FRAYED AT FORWARD AND AFT PULLEYS.

[2005FA0000865](#) LET CONTROL CABLE FRAYED

6/21/2005 L23 A740254N RUDDER

LEFT CABLE FOUND FRAYED AT AFT PULLEY. RIGHT CABLE FOUND FRAYED AT FORWARD AND AFT PULLEYS.

[2005FA0000858](#) LET CONTROL CABLE FRAYED

6/21/2005 L23 A740255N RUDDER

RIGHT RUDDER CABLE FOUND FRAYED AT FORWARD AND AFT PULLEYS.

[CA050530007](#) LKHEED ALLSN MOUNT FAILED

5/27/2005 188C 501D13 NR 1 ENGINE

(CAN) ON LANDING ROLL OUT THE NR 1 ENGINE FIREBELL WENT OFF, THE CREW HANDLED THE ENGINE AND THE FIRE BELL WENT OUT. MAINTENANCE FOUND THE AFT SECTION OF THE REAR BEARING SUPPORT AND SWIRL STRAIGHTENER IN THE EXHAUST BELL HOUSING PIPE. THERE WAS SOME COWL DAMAGE. THE A/C DID A 3 ENGINE FERRY, WHERE THE ENGINE WAS REPLACED AND THE A/C RETURNED TO SERVICE.

[2005FA0000736](#) PILATS PWA CONNECTOR DAMAGED

5/13/2005 PC1245 PT6A60A LT WINDSHIELD

LT WINDSHIELD HEAT FOUND BURNED/OVERHEATED WIRING CONNECTOR AT CENTER ELEMENT POSITIVE WIRE ATTACH TOP OB CORNER OF WINDSHIELD. NO DAMAGE TO WIRING NOTED. SYSTEM WAS PREVIOUSLY INSPECTED IAW SB. ALL ITEMS CHECKED SATISFACTORY. (NO COMPONENT FAILED, ONLY THE CONNECTOR WAS DAMAGED) (K)

[CA050513004](#) PILATS PWA CONTROLLER FAILED

5/4/2005 PC1245 PT6A67B 9728132202 WINDSHIELD HEAT

TROUBLESHOOTING RT WINDSHIELD HEAT PROBLEM ON LIGHT SETTING. RT HEAT CONTROLLER SWITCHED WITH LT CONTROLLER. DID NOT NOT ICE AT THAT TIME. WIRES TO CIRCUIT BREAKERS FOR RT HEAT CONTROLLER DAMAGED. WHEN 2 CONTROLLERS WERE SWITCHED & SYS TESTED, WIRE & SPLICE TO WIRE ON PIN -A- SMOKED. SYS TURNED OFF & WIRE & SPLICE REPAIRED. SYS TESTED & WORKED NORMALLY. RT HEAT ON LIGHT SETTING FAILED. INSP OF WIRES SHOWED HEAT CONTROLLER MOVED TO THE LT POSITION DAMAGED WIRES. WIRES REPAIRED & HEAT CONTROLLER MOVED TO RT POSITION REINSTALLED IN LT POSITION. NOTICED TERMINAL ENDS OF CIRCUIT BREAKERS LOOSE. REPLACED WITH NEW AS WELL AS CIRCUIT BREAKERS. A NEW HEAT CONTROLLER INSTALLED ON RT. SYS TESTED & OPS NORMAL.

[CA050510015](#) PILATS PWA PRESSURE SWITCH FAILED

3/28/2005 PC1245 PT6A67B 9738114304 HYD SYSTEM

THE HYDRAULIC LOW PRESSURE SWITCHED ON THERE PC12/45 FLEET LEAKING EXTERNALLY. HYDRAULIC FLUID SEAMS TO BE LEAKING OUT OF THE WELDED SEAM. THIS HAS BEEN PRESENTING ITSELF AS, HYDRAULIC LIGHT

COMING ON AFTER LANDING, OR A SLUGGISH HYDRAULIC SYSTEM. THE LEAK IS NOT ENOUGH TO CAUSE A HYDRAULIC FAILURE. THE PROBLEM SEEMS TO BE TIED TO BELLOW -30 DEGREES C.

CA050510014	PILATS	PWA	HINGE	WORN
2/23/2005	PC1245	PT6A67B	5521012100	PAX DOOR

THE DOOR SEAL WAS MAKING NOISE IN FLT AND THE DOOR WAS DIFFICULT TO CLOSE. INSPECTION NOTED THE HINGE WORN. THE FIRST NOTE OF A DOOR HINGE PROBLEM WOULD BE THE PAINT IS WEARING OFF BETWEEN THE HALVES. CLOSING THE DOOR 3/4 OF THE WAY AND MOVING THE DOOR FOR AND AFT WILL ALLOW YOU TO SEE THE PLAY. IF YOU DO NOT ADDRESS THE WORN HINGE YOU MAY MISS FORM YOUR DOOR SEAL, OR IF THE DOOR IS STIFF THE PILOTS ME BRAKE THE INSIDE HANDLE. NAC HAS NOW REPLACE 4 OUT OF 5 OF THERE PC12/45DOOR HALVES OF THE HINGE. THE AIRFRAME HALF DOES NOT SEEM TO BE WEARING. ALL OF THESE HINGES HAVE BEEN REPLACED IN AND AROUND THE 11,000 HOUR AND 13,000 CYCLE AREA.

CA050510013	PILATS	PWA	BUSHING	WORN
2/18/2005	PC1245	PT6A67B		RUDDER

PLAY WAS NOTED IN THE RUDDER UPPER ATTACHMENT EVEN WITH PILATUS ECE-TM-02-327 INCORPORATED. THE BUSHING AND BEARING BONDING MATERIAL WAS STILL HOLDING. THE BOLT P/N NAS1161-3-17, BEARING P/N 940.83.28.506 AND BUSHING P/N 941.20.31.550 ALL HAD TO BE REPLACED DUE TO WEAR.

CA050510012	PILATS	PWA	BRACKET	CRACKED
3/24/2005	PC1245	PT6A67B	524111255	PITOT HEAD

(CAN) CRACKS NOTED DURING INSPECTIONS AT LEADING AND TRAILING EDGES OF PITOT HEAD MOUNTING BRACKETS. MANUFACTURER SHOULD BEGIN CURVING THE MOUNTING PLATE TO MATCH THE UNDER SIDE OF WING. FEEL THIS WOULD STOP THE STRESS CRACKING.

CA050510011	PILATS	PWA	PAN	CRACKED
3/21/2005	PC1245	PT6A67B	541010501	SEAT

(CAN) TIME ON THIS PART IS NOT TRACKED. CRACKED HAVE BEEN NOTICED ON CREW SEAT PANS IN A LOCATION THAT HAS NOT BEEN NOTED IN THE PAST.

CA050422002	PILATS	PWA	POWER SUPPLY	FAILED
4/21/2005	PC1245	PT6A67B	501171202	EMERGENCY SYS

(CAN) PRIOR TO FLIGHT, THE PILOT IN COMMAND PLACED THE EMERGENCY PWR SUPPLY SWITCH IN THE TEST POSITION AND NOTED NO TEST. AFTER TROUBLE SHOOTING THE EMERGENCY SUPPLY COULD NOT BE CHARGED TO CONDUCT THE FLIGHT. THE PC 12 USES THIS TO POWER THE NR 1 NAV COMM AND A STANDBY HORIZON IN THE EVENT OF AN ELECTRICAL FAILURE. THERE IS AN ANNUAL CAPACITANCE TEST IN PLACE AND THIS FUNCTION WAS CONDUCTED ON AUG 9 04. THE PWR SUPPLY WAS REPLACED WITH A CHECKED UNIT AND TESTED SERVICABLE. CLOSE MONITORING IN FUTURE MAY PREVENT A LIKE FAILURE. THESE BATTERIES ARE SEALED LEAD ACID AND POSSIBLY SHOULD HAVE A CYCLE AND CALENDAR LIFE

CA050527024	PILATS	PWA	ENGINE	MALFUNCTIONED
5/14/2005	PC7	PT6A25A		

DURING DESCENT, THE ENGINE EXPERIENCED AN UNCOMMANDED DECREASE IN TORQUE, ACCOMPANIED BY AN INCREASE IN TURBINE TEMPERATURE. THE ENGINE DID NOT RESPOND TO THROTTLE INPUT AND THE PILOT SHUT THE ENGINE DOWN IN FLIGHT. THE ENGINE WAS SUBSEQUENTLY RELIT IN FLIGHT BUT REMAINED UNRESPONSIVE TO THROTTLE INPUT. THE ENGINE WAS AGAIN SHUT DOWN AND AN EMERGENCY (WHEELS-UP) LANDING CARRIED OUT. P&WC WILL MONITOR THE INVESTIGATION OF THIS EVENT AND WILL ADVISE OF ROOT CAUSE, ONCE DETERMINED. TWO SEATER, SINGLE ENGINE, FULLY AEROBATIC, TURBO-TRAINER AIRCRAFT.

2005FA0000797	PIPER	LYC	MASTER CYLINDER	LEAKING
4/29/2005	PA18A150	O320A2B		BRAKE ASSY

NORTH RIVER BRAKE BOOSTERS INSTALLED WITH STC SA2318NM. BRAKE PLUNGER HAS EXCESSIVE PLAY WHICH CAUSED FLUID TO BYPASS INTERNALLY. PILOT LOST DIRECTIONAL CONTROL OF THE AIRCRAFT ON LANDING CAUSING SUBSTANTIAL DAMAGE TO THE AIRCRAFT. THREE PREVIOUS LANDINGS THAT DAY THE BRAKE FUNCTIONED NORMALLY. SITUATION COULD BE DUPLICATED BY ALLOWING THE PLUNGER TO FALL TO

THE RT SIDE AND THEN BE DEPRESSED WITH NO BRAKE ACTUATION AND NO EXTERNAL FLUID LOSS.

SO11200516386	PIPER	LYC	ARM	BROKEN
4/28/2005	PA20	O290*	485 615	TAIL STEERING

UPON LANDING, PILOT REPORTED NO CONTROL OF TAIL WHEEL STEERING AND SUBSEQUENT LOSS OF CONTROL. VISUAL INSPECTION REVEALED RUDDER TO TAIL WHEEL STEERING ARM HAD BROKEN JUST OB OF A PREVIOUS WELD/BRAZE REPAIR.

CA050506005	PIPER	LYC	PUSH-PULL CABLE	BROKEN
4/22/2005	PA24250	O540A1D5		MLG

(CAN) AFTER EMERGENCY GEAR EXTENSION IN FLIGHT AND UNEVENTFUL LANDINGS. UNDER CARRIAGE COLLAPSED ON SUBSEQUENT TAXI. GEAR WAS EXTENDED, PUT ON JACKS LT MAIN UNDER CARRIAGE WAS INOPERATIVE. UPON INVESTIGATION GEAR PUSH PULL CABLE WAS FOUND BROKEN.

2005FA0000754	PIPER	LYC	GASCOLATOR	CONTAMINATED
5/11/2005	PA25235	O540*	2230600	FUEL SYSTEM

DURING AN ACCIDENT INVESTIGATION FUEL GASCOLATOR WAS FOUND WITH LARGE AMOUNTS OF WATER AND SOLID CONTAMINANTS. IT WAS NOTED THAT THE PART COULD NOT BE ROTATED TO ENSURE DRAINAGE OF CONTAMINANTS WHEN AC IS ON THE GROUND DUE TO COWL SUPPORT STRUTS INTERFERENCE. GASCOLATOR COULD BE RELOCATED 2 INCHES IB TO ENSURE CLEARANCE OF THE COWL SUPPORT STRUTS. THE CONTAMINANTS COULD NOT BE DRAINED OUT EFFECTIVELY. (SW09200512483) (K)

2005FA0000748	PIPER	LYC	DRIVE GEAR	CORRODED
5/1/2005	PA28150	IO360A1A		STARTER

STARTER BENDIX DRIVE HAS EVIDENCE OF RUST AND CORROSION ON AT LEAST 1 GEAR TOOTH. THE BENDIX DRIVE GEAR TOOTH BROKE. SHEERING THE REMAINING BENDIX TEETH AS THEY MESHED WITH THE MATING RING GEAR. (K)

2005FA0000825	PIPER	LYC	ALTERNATOR	FROZEN
6/3/2005	PA28161	O320*	4111810R	ENGINE

ALTERNATOR FROZE UP UPON ENGINE SHUTDOWN. OVERHAULED.

2005FA0000826	PIPER	LYC	ALTERNATOR	MALFUNCTIONED
6/3/2005	PA28161	O320*	4111810R	ENGINE

ALTERNATOR CREATES WHINE OVER RADIOS AND HAS NO OUTPUT AT IDLE RPM, (VOLTAGE IS BATTERY VOLTAGE) OVERHAULED. (K)

2005FA0000749	PIPER	LYC	CARBURETOR	LEAKING
5/1/2005	PA28161	O320D3G	105217	ENGINE

CARBURETOR LEAKS FROM THROTTLE SHAFT AND FROM ACCELERATOR PUMP. (K)

2005FA0000737	PIPER	LYC	STUD	FAILED
5/6/2005	PA28R201	IO360C1C6	5015	NR 4 CYLINDER

NR 4 CYLINDER BASE STUD FAILED IN TENSION. NUT AND 30 PERCENT OF STUD LENGTH FOUND BETWEEN NR2 AND NR4 CYLINDERS ON THE INNER CYLINDER BAFFLE. NR 4 CYLINDER REMOVED AND REMAINING PARTIAL STUD REMOVED WITH STUD EXTRACTOR. INSTALLED NEW STUD, PN 50-15 AND REPLACED REMOVED CYLINDER. TORQUED TO RECOMMENDED TORQUE (600 IN LBS) IAW MFG MM. PROBABLE CAUSE: METAL FATIGUE DUE TO AGE OF ENG CRANKCASE STUDS AND NR OF CYLINDER REMOVAL AND REPLACEMENTS DURING THE ENG LIFETIME. AC, MOST OF LIFE AS TRAINING AC. THROUGH INSP OF AND OR REPLACEMENT OF CYL BASE STUDS DURING ENG O/H WITH MANDATORY REPLACEMENT TIME PERIODS OR CYCLES. (GL11200510739) (K)

CA050503009	PIPER	LYC	NOZZLE	FAILED
3/22/2005	PA30	IO320B1A	R5A5AD1	FUEL INJECTOR

(CAN) ON CLIMB OUT AFTER TAKEOFF, A HIGH FUEL PRESSURE READING ON THE LT ENGINE WAS NOTICED

(NEEDLE TO THE REDLINE). REDUCED POWER/CALLED ATC/RETURNED FOR LANDING. (SUSPECT CLOGGED FUEL INJECTOR NOZZLE.)

CA050516006	PIPER	LYC	LYC	SEAL	LEAKING
5/15/2005	PA31	TIO540A1B			TURBOCHARGER

(CAN) DURING ENGINE RUN-UP AND SUBSEQUENT CHECK FOR FUEL AND OIL LEAKS, AFTER A ROUTINE ENGINE CHANGE, AN OIL LEAK WAS FOUND IN THE VICINITY OF THE TURBOCHARGER. FURTHER INVESTIGATION REVEALED THAT THE OIL WAS COMING THRU ONE OF THE SEALS ON THE EXHAUST SIDE OF THE TURBOCHARGER. THE LEAKING TURBO WAS EXCHANGED AND IS BEING SENT BACK FOR WARRANTY CONSIDERATIONS AND REPAIR/OVERHAUL. NO REASON FOR THE LEAKING SEAL COULD BE FOUND IN THE FIELD. THIS TURBO CAME WITH 0.0 HRS TSO WITH THE NEWLY OVERHAULED ENGINE. FAILURE OF THE TURBOCHARGER COULD LEAD TO LOSS OF POWER AND THIS IS WHY A DECISION WAS MADE TO FILE THIS SDR.

CA050512006	PIPER	LYC		PUMP	FAILED
4/19/2005	PA31	TIO540A2C		R99080J4A	FUEL SYS

FUEL PUMP ERRATIC, LOSING PRESSURE.

CA050429002	PIPER	LYC		CYLINDER	SEPARATED
4/13/2005	PA31	TIO540A2C			NR 3

LOSS OF RIGHT ENGINE POWER IN-FLIGHT. UNSCHEDULED LANDING, NR 3 CYLINDER SEPARATED. THE 58 STUDS BROKE. ENGINE REPLACED BY LYCOMING TIO540A2B, S/N R11946-61, DUAL INSPECTION OF CONTROLS DONE.

CA050531002	PIPER	LYC		TURBOCHARGER	LEAKING
4/6/2005	PA31325	TIO540F2BD		4066109020	ENGINE

(CAN) ENGINE WAS SEEN TO BE SMOKING AT STARTUP AND LOW POWER. AN INSPECTION OF THE TURBO CHARGER REVEALED THAT OIL WAS GETTING BY THE SEALS INTO THE TURBINE SECTION. THE TURBO CHARGER WAS REPLACED AND THE AIRCRAFT WAS RETURNED TO SERVICE. THIS ENGINE IS ON CONDITION IAW THE MSA W1281.

CA050506008	PIPER	LYC		MAIN BEARING	DELAMINATED
5/3/2005	PA31350	TIO540J2BD		SL13885	ENGINE

(CAN) METAL FLAKES FOUND IN OIL SCREEN AND FILTER. AT ENGINE TEARDOWN, FOUND SL13885 FRONT MAIN BEARING DELAMINATED APPROX. 1 SQUARE INCH OF SURFACE.

2005FA0000753	PIPER			HYDRAULIC LINE	RUPTURED
5/3/2005	PA31T			4613800	HYDRAULIC SYS

POST ACCIDENT INSP REVEALED HYD SYSTEM DRAIN/FILL LINE HAD RUPTURED/BURST CAUSING RAPID LOSS OF HYD RESERVOIR CONTENTS. SELECTED GEAR DOWN, GEAR DID NOT EXTEND. ATTEMPTED EMER MANUAL GEAR EXTEN, (FELT GEAR COMING DOWN) LOST HYD PRESSURE. UNABLE TO SECURE GEAR IN DOWN AND LOCKED. AC SUSTAINED DAMAGE DURING EMER LANDING. FAILURE OF HYD DRAIN LINE CAUSED RAPID LOSS OF HYD FLUID RESERVOIR CONTENTS. FAILURE PREVENTED HYD SYS PRESSURE TO BUILD TO ALLOW NORMAL OR EMERGENCY EXTENSION OF THE LANDING GEAR. LINE FAILED PARALLEL TO GRAIN STRUCTURE RUPTURE APPROX 0.5625 IN LENGTH. WATER CONTAMINATION IN LINE FROZE, EXPANDED, CAUSING RUPTURE. SUGGEST REGULAR PURGE/DRAIN OF LINE CONTENTS DURING PLANNED MAINT. (K)

2005FA0000776	PIPER	PWA		FLANGE	CRACKED
5/3/2005	PA31T1	PT6*			RUDDER

PILOT REPORTED AIRCRAFT YAW IN FLIGHT. CABLE TENSION HAD PREVIOUSLY BEEN ADJUSTED BUT WAS LOOSE AGAIN. FOUND FLANGE CRACKED AT AFT BOLT ON PILOT SIDE RUDDER TORQUE TUBE BEARING. CAUSE UNKNOWN BUT POSSIBLE EXCESS RUDDER PEDAL FORCE WITH AIRCRAFT ON GROUND AND NOT MOVING. (K)

CA050505003	PIPER	CONT		WHEEL	CRACKED
4/25/2005	PA34200T	TSIO360EB		16193B	MLG

(CAN) ON LANDING PILOT REPORTED A NOISE FROM THE LT MAIN LANDING GEAR. INSPECTION FOUND THE

INNER WHEEL HALF CRACKED AT THE BASE OF THE WHEEL FLANGE FOR APPROX 4 INCHES AND THE WHEEL FLANGE BOWED OUTWARD AND INTERFERING WITH THE BRAKE CALIPER. THE WHEEL ASSY WAS REMOVED AND REPLACED WITH NEW WHEEL ASSY P/N 40-120C, THE TIRE WAS ALSO DAMAGED IN THE SIDEWALL AND WAS REPLACED WITH A NEW TIRE. THE OTHER MAIN WHEEL ASSY AND NOSE WHEEL ASSY WERE REMOVED DISSASSEMBLED AND INSPECTED, NO DEFECTS WERE NOTED AND THE WHEEL ASSY'S WERE REASSEMBLED AND REINSTALLED.

2005FA0000743	PIPER	LYC	CRANKSHAFT	FRACTURED
5/5/2005	PA44180	IO360E1A	LW17226	RT ENGINE

RT ENGINE STARTED RUNNING ROUGH, THEN STOPPED AND WENT INTO FEATHER. AC LANDED WITHOUT INCIDENT. UPON INVESTIGATION IT WAS FOUND THAT WHEN THE PROPELLER WAS ROTATED THE AFT CYLINDERS (NR 3, NR 4) PISTONS WOULD NOT MOVE NOR DID ANY ACCESSORIES ON THE BACK OF THE ENGINE MOVE. SUSPECT A CLEAN CRANKSHAFT FAILURE (FRACTURE). NO EXTERNAL CRANKCASE DAMAGE NOTED. (K)

2005FA0000852	PIPER		CLAMP	MISSING
6/6/2005	PA46350P			NLG

DURING A 100 HOUR INSPECTION IT WAS NOTICED THAT THE CLAMPS THAT SECURE THE PRESSURIZATION BELLOWS TO THE NOSE GEAR STEERING TUBES WERE NOT INSTALLED.

2005FA0000835	RAYTHN		BOLT	CHAFED
6/2/2005	390		NAS620518D	NR 3 FLAP ROLLER

UPON REMOVAL OF FLAP ACTUATORS FOUND NR 3 LT AND RT FLAP ACTUATORS WERE DEEPLY GOUGED, DUE TO FLAP TRACK BOLTS INSTALLED BACKWARDS. PN OF BOLT NAS6205-18D. REMOVED BOLT AND INSPECTED AND REINSTALLED IN THE CORRECT DIRECTION. (K)

CAR110	RKWELL		MIXING VALVE	NOT BONDED
6/4/2005	NA26560		310112	E/E BAY

HOT AIR MIXING VALVE WAS OVERHAULED BY ROCKER, 1-25-05, REF WO 56559. INSTALLED IN AIRCRAFT FROM STOCK ON 6-4-05. DURING FUNCTIONAL TEST FLIGHT FOR PRESSURIZATION PROBLEM, THE UP STREAM FLANGE SEPARATED FROM VALVE HOUSING. RELEASING BLEED AIR INTO AFT EQUIPMENT BAY. AFT FUSELAGE HOT LIGHTS ILLUMINATED. FLIGHT ABORTED. RED RUBBERIZED INSULATION MELTED/BURNED AWAY NEAR LEAK. POST FLIGHT EVALUATION REVEALED FLANGE NOT WELDED/BRAZED TO HOUSING.

CA050527009	ROBSIN	LYC	VENTURI	CONTAMINATED
5/18/2005	R44	O540F1B5		CARBURETTOR

REPLACEMENT OF VENTURI, A GRANULAR (CRYSTALIZED) TYPE MATERIAL WAS FOUND IN THE VENTURI INLET AND IN THE REGULATOR AREA ACCESSED VIA THE BRASS HEX PLUG. WHEN THIS AREA WAS ACCESSED, THIS GRANULAR (POWDER LIKE) MATERIAL WAS THOUGHT TO BE CORROSION (RESULT OF). INJECTION SERVO REMOVED, SENT TO REPAIR AGENCY (LEAVENS AVIATION), AND THEY DETERMINED THAT THIS MATERIAL WAS NOT CORROSION RELATED. INJECTION SERVO CLEANED, FLUSHED, TESTED, AND RE-INSTALLED ON AIRCRAFT. GRANULAR/POWDER LIKE MATERIAL TO BE SENT TO LAB FOR ANALYSIS.

CA050501002	ROBSIN		SPRAG CLUTCH	CRACKED
4/29/2005	R44RAVENII		C1883	MAIN ROTOR

DURING DISASSEMBLY OF CLUTCH ASSY DUE TO LEAKAGE, IT WAS EVIDENT A EAR BROKE OFF 1 OF THE PEANUTS. HUB TO SLEEVE FOUND TO BE FRETTING. PAST HISTORY OF THE SPRAG HAS SHOWN DAMAGE TO THE CAGE AND THE PEANUTS. THE CAGE HAS BEEN UPGRADED AND NO FURTHER DAMAGE HAS BEEN FOUND. WITH THE UPDATED CAGE, THE PEANUTS ARE NOW SHOWING SIGNS OF BEING THE WEAK LINK. PICTURES SHOW THE BROKEN PEANUT. SUBMITTED A REPORT TO ROBINSON HELICOPTERS. THE CLUTCH ASSY HAS BEEN REPAIRED, NEW PARTS INSTALLED AND RETURNED BACK TO SERVICE. THE COMPONENT SHOPMANAGER HAS IDENTIFIED SMALL PITTING IN THE NON CONTACT POINTS OF THE PEANUT. AS FOR THE REASON OF THE CRACKED PEANUT, FURTHER INVESTIGATION ON BEHALF OF ROBINS ON IS REQUIRED.

2005FA0000827	SKRSKY	GE	BEARING	BRINELLED
6/1/2005	S61A	CT581401	SB25011	TAIL ROTOR

AT OVERHAUL, REMOVED HUB BEARING INNER RACES AND FOUND (1 EACH) CRACKED ABOUT 1.5 INCHES DUE TO SEVERE BRINNELING. PROBABLE CAUSE COULD BE DUE TO GREASE (MINIMAL AMOUNTS). RECOMMEND DAILY PURGING OF HUB BEARING TO PREVENT ANOTHER OCCURENCE. (K)

2005FA0000817	SKRSKY	PWA	THRUST WASHER	WORN
2/14/2005	S64E	JFTD12A5A		M/R GEARBOX

MAIN GEAR BOX, SN A6051 REMOVED FOR BRASS CONTAMINATION. UPON DISASSEMBLY DISCOVERED BRASS MATERIAL WAS FROM SECOND STAGE PLANETARY THRUST WASHERS. 34 OUT OF 36 THRUST WASHERS WORN ON ID BEYOND MAX SERVICEABLE LIMITS. 18 EA BEARINGS HAD SHARP EDGES INNER RACE EDGES. CURRENTLY BE EVALUATED BY BEARING SUPPLIER. NEED TO BREAK SHARP EDGES. (K)

2005FA0000818	SKRSKY	PWA	DUCT	CRACKED
3/2/2005	S64E	JFTD12A5A		TURBINE SECTION

NR 1 ENGINE REMOVED FROM ACFT, DUE TO 5 INCH AXIAL BULGE AT OUTER TURBINE CASE, 2-3 OCLOCK POSITION WITH APPROX .5625 INCH HORIZONTAL CRACK RUNNING THROUGH CENTER MOST PORTION OF THE BULGED AREA. UPON REMOVAL OF ENGINE HOT SECTION, TURBINE OUTLET DUCT FOUND TO HAVE APPROX A 8.5 INCH SECTION OF MATERIAL BROKEN OFF AND PEELED BACK FROM OUTER DUCT AREA AT NR 2 AND NR 3 COMBUSTION CAN POSITIONS. THE P AND D VALVE AND FUEL MANIFOLD ASSEMBLIES WERE INSP AND FOUND TO HAVE NO EVIDENCE OF FAILURE. PROBABLE CAUSE IS UNKNOWN AND NO RECOMMENDATIONS TO PREVENT RECURRENCE AT THIS TIME. (K)

2005FA0000819	SKRSKY	PWA	GEAR	CRACKED
4/14/2005	S64F	JFTD12A4A	6435664071	T/R GEARBOX

TGB AND SERVO ASSY REMOVED FROM ACRFT FOR MAKING METAL. GEARBOX DISASSEMBLED AND DURING VISUAL INSP OF OUTPUT GEAR, ONE TOOTH FOUND CRACKED. FRIVE SIDE OF TOOTH SHOWS THE MAJORITY OF CRACKING, STARTING FROM IB TO ALMOST MIDWAY ON TOOTH EXTENDING ACROSS TIP LAND TO OPPOSITE SIDE, THEN OB. APPEARS TO BE 3 CRACKS EXTENDING THE LENGTH OF GEAR TOOTH AND ENDING UP AT APPROX .2500 INCH AND .3750 INCH FROM THE ROOT. MPI INSP CONFIRMED TOOTH WAS CRACKED. NO OTHER CRACKS FOUND. (K)

2005FA0000820	SKRSKY	PWA	TURBINE BLADES	BROKEN
4/13/2005	S64F	JFTD12A5A	597602	ENGINE

COMPRESSOR ASSY WAS REMOVED FROM AC FOR FAILING VIBRATION ANALYSIS. DURING THE PRELIMINARY INSPECTION IT WAS NOTED THAT A PIECE OF 2ND STAGE TURBINE BLADE OUTER SHROUD KNIFE EDGE WAS MISSING. THE MISSING PIECE WAS APPROXIMATELY .500 INCH LONG AND FROM THE AFT KNIFE EDGE. FURTHER INSPECTION REVEALED NO OTHER DAMAGE. THE BLADE WAS IN OVERHAULED CONDITION WHEN INSTALLED. (K)

2005FA0000745	SNIAS		INTAKE	CRACKED
4/11/2005	AS350*		350A54108004	ENGINE

AIR INTAKE, CRACKED BASE METAL DUE TO VIBRATION. (K)

CA050418009	SNIAS	TMECA	PUMP	INOPERATIVE
4/13/2005	AS350B1	ARRIEL1D	P94B12203	FUEL BOOST

BOOST PUMP INOPERATIVE.

CA050414007	SNIAS	TMECA	MASTER SWITCH	FAULTY
4/13/2005	AS350B3	ARRIEL2B	MS2452423	COCKPIT

SHORTLY AFTER BATTERY MASTER SWITCH SELECTED "ON", ALL POWER TO COCKPIT INSTRUMENTS AND LIGHTING SHUTDOWN COMPLETELY. RESELECTION OF BATTERY MASTER 'OFF' THEN "ON", ALL POWER RETURNED. CYCLING SWITCH SEVERAL TIMES CAUSED NO ADVERSE EFFECTS. ALL FUNCTIONS NORMAL FOR REMAINDER OF FLIGHTS. CONTINUITY TESTING OF BATTERY MASTER SWITCH REVEALED HIGHER THAN NORMAL RESISTANCE. NEW SWITCH INSTALLED.

CA050428003	SNIAS	TMECA	IGNITER	FAILED
3/17/2005	AS350BA	ARRIEL1B	9530175400	ENGINE

ENGINE WOULD NOT START. IGNITORS FOUND UNSERVICEABLE. ORIGINALLY INSTALLED APRIL 4, 2003.

CA050530001	SNIAS	TMECA	GEARBOX	MAKING METAL
5/10/2005	AS350BA	ARRIEL1B	70BMO55020	ENGINE

ENGINE CHIP LIGHT, ENGINE REPLACED MO5 SENT FOR REPAIR, TRIPLEX WAS FOUND TO BE THE CAUSE OF THE METAL CONTAMINATION.

CA050518017	SWRNGN	GARRTT	CARRIER ASSY	CRACKED
5/17/2005	SA226TC	TPE33110UA	8679225	GEARBOX

FLIGHT CREW OBSERVED THE ENGINE OIL PRESSURE TREND TO BE STEADILY DECREASING OVER A SHORT PERIOD OF TIME. AS AN EXPERIENCED OPERATOR OF THIS ENGINE, THIS TREND INDICATED A CRACKING PROBLEM WITH THE PLANETARY GEAR CARRIER IN THE ENGINE GEARBOX. THE ENGINE WAS REMOVED FOR INSPECTION AND AS SUSPECTED THE PLANETARY GEAR CARRIER ASSY HAD MULTIPLE CRACKS AND NEARING COMPLETE FAILURE. TO DATE OUR COMPANY HAS ISSUED SEVERAL SDR'S ON THIS SAME ISSUE.

CA050504007	SWRNGN	GARRTT	DIFFUSER	CRACKED
4/27/2005	SA227AC	TPE33111U	31028471	ENGINE

DURING ENG TEARDOWN, 1ST STAGE DIFFUSER CRACKED & BROKEN AT INTERSTAGE SEAL BORE / WALL. IT APPEARS THE WALL SECTION WAS MACHINED UNDERSIZE IN THIS AREA CAUSING FATIGUE CRACKS TO DEVELOP & A LARGE PORTION OF PART BROKE OFF. BROKEN PIECE FELL INTO REAR FACE OF 1ST STAGE IMPELLER CAUSING A LOUD INTERNAL RUBBING NOISE. ENG REMOVED FOR REPAIR. 1ST STAGE DIFFUSER INSTALLED IN OVERHAULED CONDITION & HAD 3625.6 HOURS TSO AT TIME OF FAILURE. NO OTHER WORK DONE IN COMPRESSOR AREA OF ENGINE SINCE THE TIME OF INSTALLATION. PIECES & SHRAPNEL FROM FAILED PART ENTERED PRIMARY GAS PATH CAUSING IMPACT DAMAGE & RUB DAMAGE TO DOWN STREAM COMPONENTS. MAJOR RUB DAMAGE FOUND ON 1ST STAGE IMPELLER & 2ND STAGE COMPRESSOR HOUSING.

CA050510009	SWRNGN	GARRTT	AIRIGHT	SOLENOID VALVE	FAILED
5/9/2005	SA227AC	TPE33111U		246006	HYD POWERPACK

(CAN) ON APPROACH THE GEAR WOULD NOT EXTEND NORMALLY. MANUAL EMERGENCY EXTENSION WORKED AND AIRCRAFT LANDED WITHOUT INCIDENT. MAINTENANCE INSPECTED SYSTEM AND FOUND GEAR SOLINOID VALVE TO BE NON OPERATIONAL. THIS VALVE ALSO CONTROLS HYD PRESSURE FOR THE NOSE STEERING, WITH THIS VALVE NON OPERATIONAL THE GEAR WILL NOT EXTEND AND THERE IS NO NOSE STEERING. VALVE REPLACED, GEAR SWINGS AND NOSE STEERING CHECKED WITHIN MANUFACTURES SPECIFICATIONS. AIRCRAFT RELEASED TO SERVICE.

2005FA0000834	TCRAFT	CONT	PRECISION	FLOAT	BENT
4/30/2005	F19	O200*		30804	CARBURETOR

ENG QUIT DURING TAKEOFF AT APPROX 300-500 AGL. DURING EXAM OF ENG COMPONENTS, IT WAS NOTED ADVANCE POLYMAR FLOAT WAS BENT AWAY FROM THE FLOAT AT APPROX 45 DEGREE ANGLE. THIS CONDITION WOULD LEAD TO THE FLOW INTO THE CARBURETOR. PRECISION SIL MS-4 REV 1 ADDRESSES NEW ADVANCED POLYMER FLOATS. REF INSTALLATION INSTRUCT E-955. THERE IS NO WARNING OR CAUTION TO ALERT OVERHAULERS TO BE AWARE OF BENT FORK CONDITION IN EITHER OF THESE DOCUMENTS. SPECIFIC CLEAR BETWN FORKED RETRACTOR AND FLOATBODY. SPECIFIC FLOAT DROP REQUIRED TO ALLOW FUEL TO INFLOW TO CARB BOWL. ILLUSTRATIONS CORRECT RETRACTOR FORK/CLIP POSITIONS. REINSTATE SPRING CLIP ON FLOAT VALVE TO ENSURE POSITIVE PULL ON FLOAT VALVE.

2005FA0000782	WTHRLY	PWA		CYLINDER HEAD	SEPARATED
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5/11/2005

620B

R985AN14B

399354

NR 2

DURING SPRAYING OPERATION, THE AIRCRAFT WAS CLIMBING INTO A RT TURN. THE PILOT HEARD A LOUD BANG, AND THE ENGINE BEGAN RUNNING EXTREMELY ROUGH. THE AIRCRAFT MADE A FORCED LANDING. INSPECTION OF THE ENGINE FOUND THE NR 2 CYLINDER HEAD SEPARATED FROM THE SLEEVE AT THE NR 3 LARGER COOLING FIN FROM THE BOTTOM. AD WAS COMPLIED WITH DURING LAST OVERHAUL, 43 HOURS EARLIER. (CE07200513320) (K)

END OF REPORTS