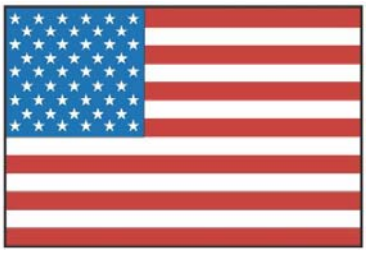
U.S. Department of Transportation
Federal Aviation Administration

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



ALERT NUMBER 328

NOVEMBER 2005

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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

AYRES

Ayres: S2R-T34; Cracked Wing Rib; ATA 5712

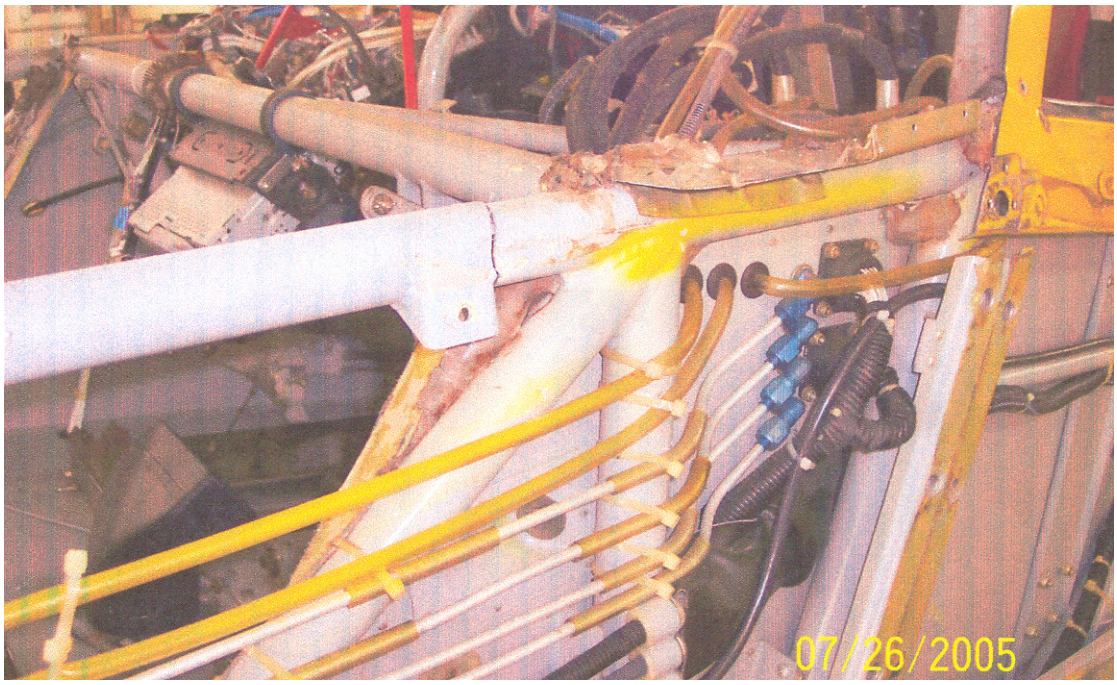
"The wing mid-chord rib *(P/N 00241T004)* just forward of the outboard aileron hinge was found cracked where it is riveted to the rear spar," states a mechanic. *(This defect was found on both the left and right wings.)* "This *(crack)* is not easy to see due to the position of the existing inspection holes, but it can be seen if you are looking for it. Service Bulletins SB-AG-22 and –30 address problems with the aileron hinge brackets and rear spar cracking in this same location — and due to the same stress. The probable cause is rear spar twisting due to aileron loads. A vertical stiffener at this location would reduce this load to the spar and rib." Wing station is noted as 221 inches. *(The Service Difficulty Reporting System (SDRS) data base reflects a 1993 report of a similar aircraft having 13 cracked ribs on the left wing, 14 on the right! Airframe time was 1,766.0 hours.)*

Part Total Time: 6,922.0 hours.

Ayres: S2R-T34; Cracked Longerons; ATA 5313

A mechanic's inspection of this agricultural airplane found significant structural failure. "Both upper longerons were cracked approximately 54 inches aft of the datum. The area is difficult to inspect as it is three-fourths covered by the hopper *(tank)*. Pictures were taken after the hopper was removed *(see below)*. This is a very unusual area to find such a defect. The aircraft has no damage history and has not been abused." *(Of six submitted scan photos, three are shown. They have been slightly cropped and rotated.)*

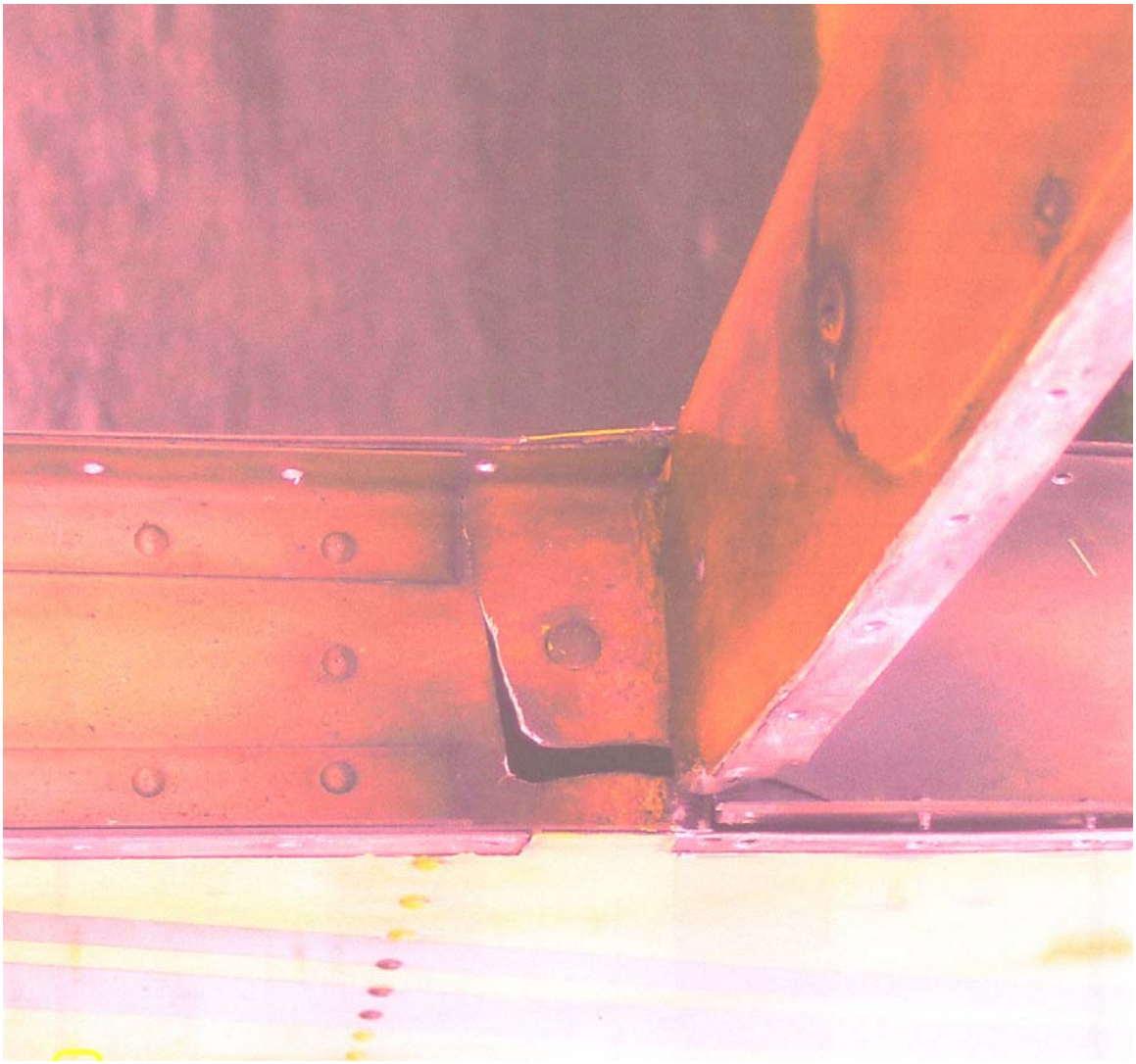

07/26/2005

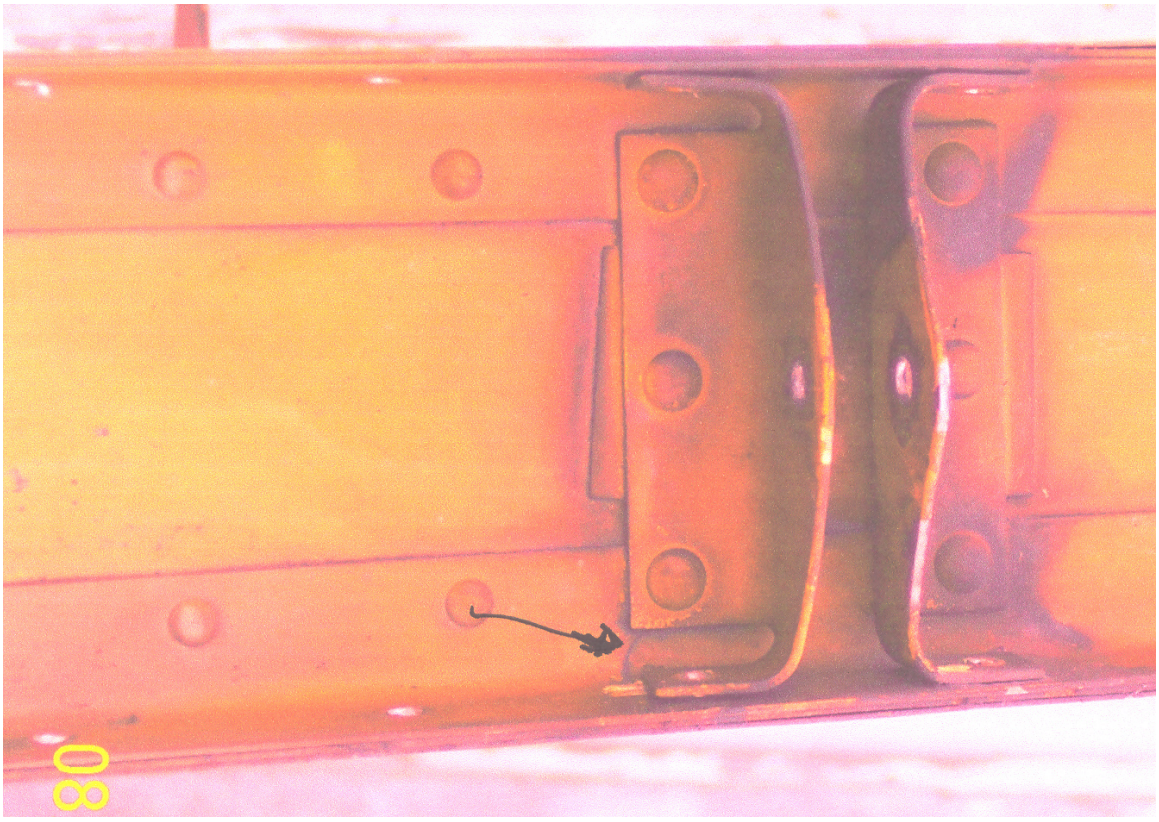

07/26/2005

Part Total Time: 4,368 hours.

Ayres: SR-T660; Cracked Rudder Spar; ATA 5541

The submitter for the preceding report finds another crack. He states, “The upper rudder spar *(was found)* broken 12.5 inches above the upper hinge. In addition, the spar was cracked under the upper hinge fitting. This caused the rudder counter-balance to be loose, resulting in rudder flutter. Further flight could have resulted in loss of rudder control. The spar web is made of .040 inch aluminum channel with very little in the way of stiffeners. The spar needs to be beefed-up. Photos are included.” *(Part numbers were not provided. Four of nine submitted photographs are shown below. They have been cropped from their original size.)* (A 1996 SDRS entry for a similar aircraft described multiple cracks found in this rudder spar and its connecting ribs. Submitter believed designed reinforcement was required for this rudder structure.)




08


Top Rib

Part Total Time: 2,891.0 hours.

BEECH

Beech: 58; Landing Light Switch Burned; ATA 3340

A mechanic describes the sequential steps in the failure of this aircraft's landing light switch, P/N 35-380132-43.

"Internally, *(to the switch, proper)* the upper braided conductor on the line side failed and separated from its contact or weld. The spring mechanism for the switch *(now)* becomes the conductor. This spring is not heavy enough to handle the current of the landing light circuit and it overheats. Overheating of the spring caused the nylon toggle assembly to fail. The toggle assembly is rendered useless and the switch loses all mechanical function. The switch continues to complete the circuit and *(increasing)* heat melts the switch housing. As this housing and other internal components fail, the switch looses its circuit protection feature, and smoke is emitted into the cockpit. This process will only discontinue when all power is removed from the ship. Once power is removed, the switch will cool, allowing the upper contact to open — which opens the circuit.

"The circumstance in which this failure occurred: normal operation. Recommendations: all Polter & Brumfield circuit breaker switches of this design, and any other circuit breaker switches of this design be removed from service. The switch should be redesigned to insulate the spring mechanism from all conductors. Any switch of this type of design is a possible hazard. There have been similar, confirmed failures *(...in other aircraft: three switches total)*. These aircraft are utilized in a night freight operation, and the landing light switches have a very high utilization. All failures were Polter & Brumfield switches, P/N W31-X1005-10 *(manufacturer's part number)*." *(SDRS records at least three other occurrences of this type of switch hanging/burning, etc. Prudence might encourage this item to be changed frequently, depending on cycles.)*

Part Total Time: unknown.

CESSNA

Cessna: 150M; Cracked Engine Mount; ATA 7120

A mechanic reports finding the R/H lower engine mount tube cracked. "The crack is located within 1 inch of the nose wheel strut support. This crack is ¾ inch in length, moving around the circumference of the tube." The mount was replaced: P/N 0451120-1.

Part Total Time: 5,002.1 hours.

Cessna: 172 Series; Cracked Rear Wing Spar; ATA 5711

(The following is published as received from the associate Aircraft Certification Office Manager in Wichita, Kansas. Contact information follows article.)

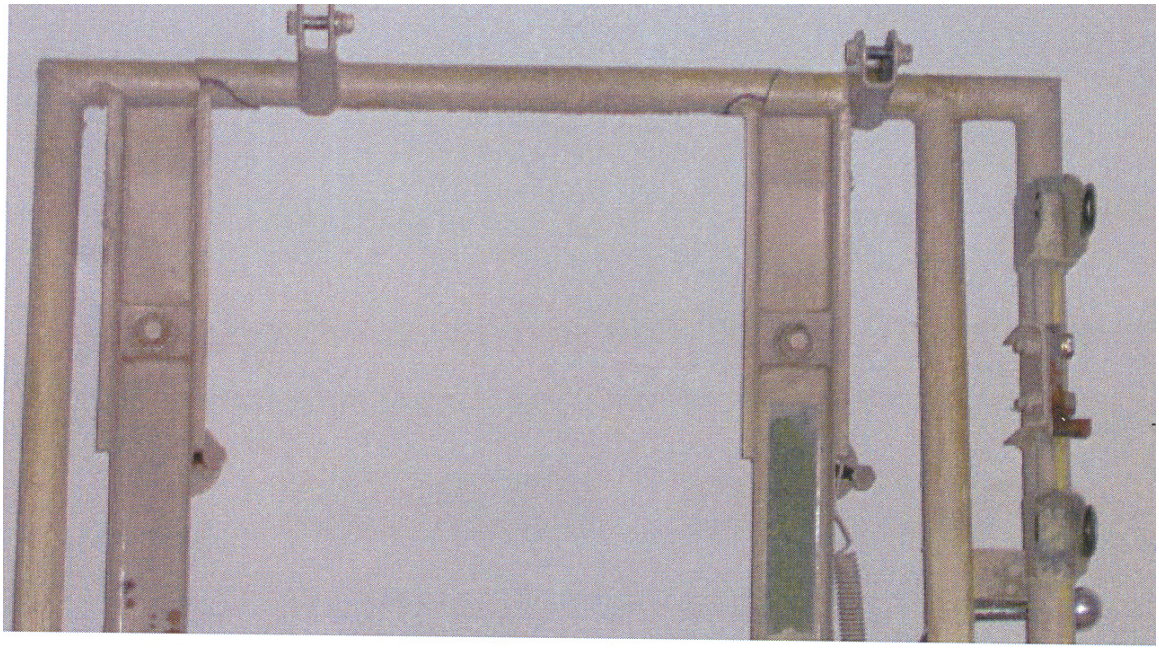
"During replacement of an inboard flap track a crack was found in the rear wing spar as reported in *Cessna Pilot Association* magazine on page 7962, dated August 2005. A search of the SDRS database found three airplanes where cracked spars were detected. These cracks were reported at and between December 15, 2004 and February 1, 2005. The total time in service (TIS) for these three airplanes ranged between 12,000 and 16,000 hours of operation. The cracks are difficult to detect as they are hidden between the lower skin and the flap track support rib. Use of a magnifying glass and a bright light or Borescope will assist the inspection. If the cracks found were allowed to grow, they could ultimately lead to loss of a wing.

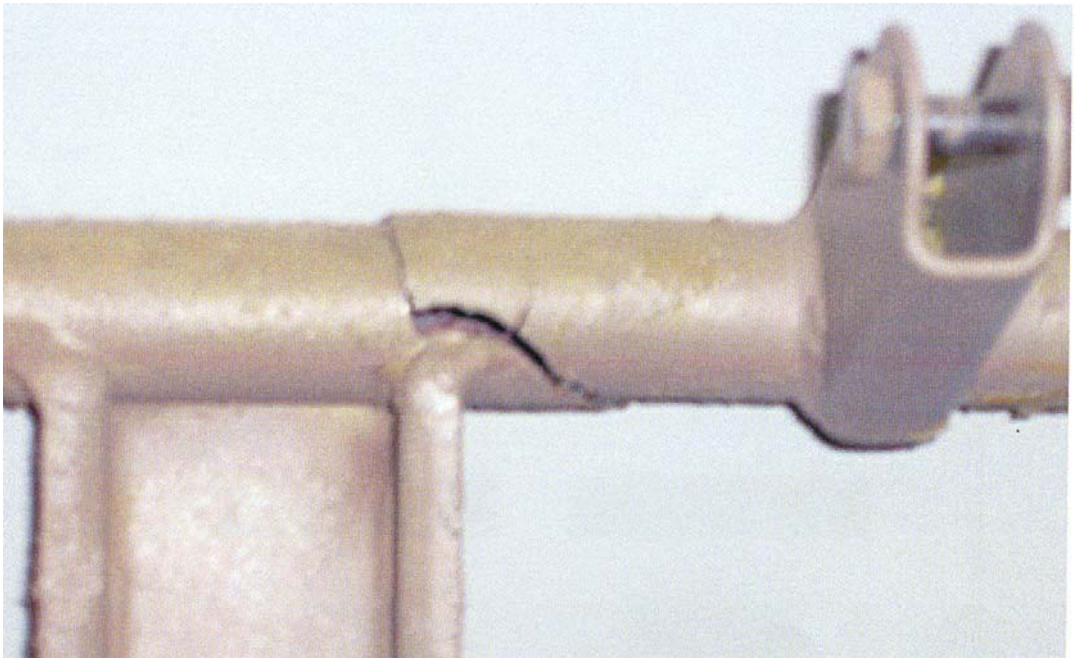
"It is recommended the rear wing spar be thoroughly inspected at the next regularly scheduled inspection on airplanes that have 12,000 hours or more time in service."

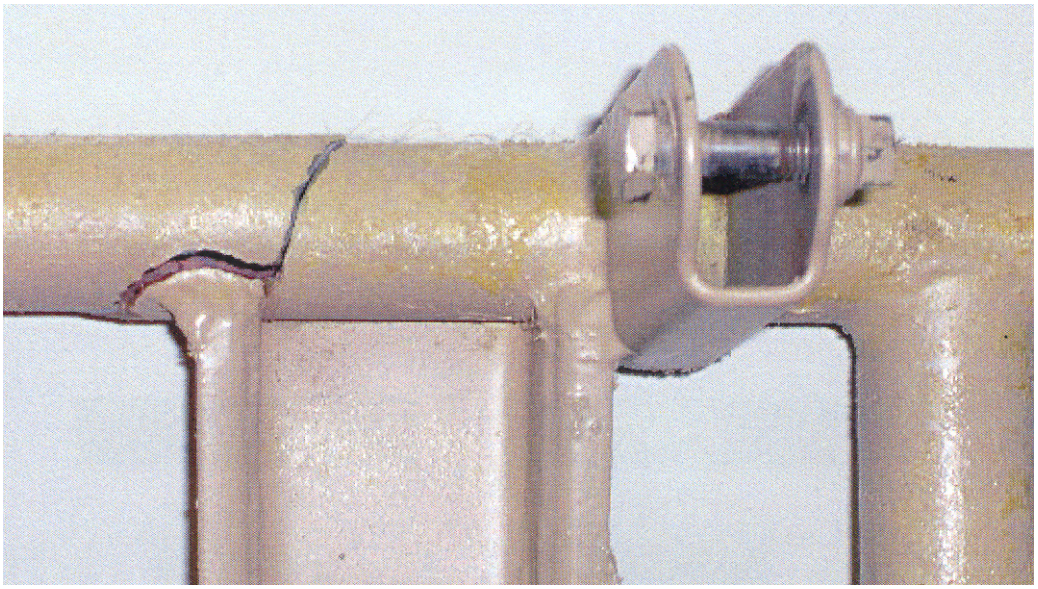
(Further inquiry may be directed to: FAA, Aircraft Certification Office (ACE-118W), Gary Park, Aerospace Engineer, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas. 316-946-4123.)

Cessna: 550; Cracked Seat Frames; ATA 2510

A repair station technician finds this aircraft's seat structure broken (P/N 5519009-22). "The upper chair base assembly is cracked at the chair back attach points." He speculates stress and metal fatigue are the probable cause of this discrepancy. "The chair was repaired in accordance with Aviation Fabricators STC ST01042WI Structural Seat Repair." *(See also last July and September's Alerts for similar defects. SDRS search yields nine entries. Factoring in repaired frames never reported, it would be wise to inspect these items frequently.) (Pictures have been slightly cropped.)*







Part Total Time: unknown.

Cessna: C-550; Defective Autopilot Servo Drive; ATA 2215

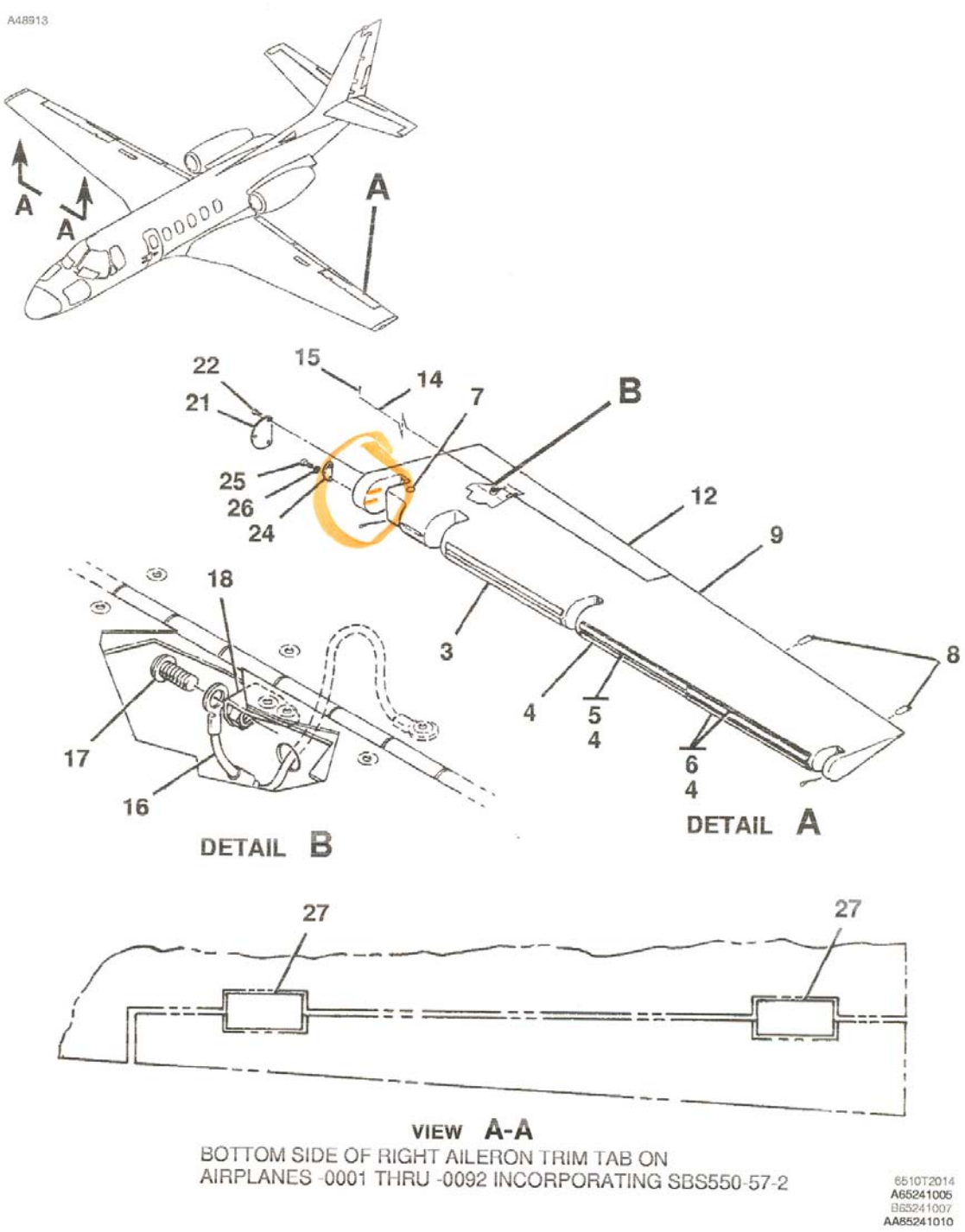
A pilot reports "...that the controls were stiff in the roll axis. *(While in flight...)* the autopilot was turned off and the circuit breaker cycled with no change in the condition. After landing at Spokane without incident, technicians arrived and trouble-shot the autopilot system. They discovered the aileron autopilot servo drive clutch *(P/N 4006719-906)* was not fully disengaging, causing the excessive force required to roll the aircraft. The aileron autopilot servo drive was removed and replaced. Both ground and in flight operational checks were performed and no defects noted." *(Time since overhaul given as 147.3 hours.)*

Part Total Time: unknown.

Cessna: S550; Loose Aileron Balance Weights; ATA 5751

A technician notes what appears to be "...cock-eyed" bolt heads on the aileron balance weights during a phase 2 inspection (P/N 6524004-12). Further investigation revealed the weight stack had developed significant corrosion, which enlarged the retaining bolt holes. This also allowed the stack to be loose. New parts were installed to fix the discrepancy. "Detailed inspection of this area is not on any inspection form. I suggest operators of this model aircraft remove the ailerons and *(perform)* a complete and detailed inspection of these weights."

(The submitter cropped the specific page reference. Other included references may indicate this page as being from the Cessna Illustrated Parts Catalog: 57-60-00; figure 1.)



Part Total Time: 6,281.0 hours.

RAYTHEON

Raytheon: 400A; Arcing Windshield Heat Wire; ATA 3040

A flight crew for this aircraft "...squawked electrical fumes and a foul odor in the cockpit. The odor seemed to let up after the battery *(...and both generators)* were placed in emergency."

The submitting technician states, "Maintenance found the right windshield heat current sense relay (L102S)--and approximately two inches of wire insulation--would over heat and melt when the right windshield heat was 'on' and the windshield *(itself)* subjected to cold temperatures. *(Further scrutiny)* ...found the wire Amp end secured to the relay terminal stud with a flat nut and flat washer. No lock washer was installed. The lack of a lock washer under the nut enabled this terminal nut to become loose and arc under current load. They replaced the defective wire and relay...and utilized lock washers at the replacement relay terminal studs. Cockpit systems checked normal. *(I)* recommend Raytheon cause replacement relays to be supplied with metal lock-nuts *(...in addition to the normally supplied lock washers)*."

Part Total Time: unknown.

HELICOPTERS

BELL

Bell: 206L-1; Main Rotor Blade Bird Strike; ATA 6210

The submitter states, "After increasing the collective for take-off, a seagull struck the leading edge of the main rotor blade. The pilot shut the aircraft down and notified maintenance. The mechanic inspected the main rotor blades in accordance with the maintenance manual's instructions and the aircraft was returned to service." *(Aircraft total time was given as 18, 756.7 hours, but no time or part numbers provided for the main rotor blades.)*

Part Total Time: unknown.

Bell: 407; Malfunctioning Torque Meter; ATA 7712

The technician states, "In cruise flight, four minutes from landing, the torque meter went blank. *(One minute)* later the pilot could smell plastic burning in the cockpit. The pilot landed and notified maintenance. The mechanic removed and replaced the torque gauge, and the aircraft was returned to service upon completion of the operational check." Torque indicator part number is 407-375-003-107. *(This submission does not include speculation as to cause for this malfunction.)*

Part Total Time: unknown.

POWERPLANTS

CONTINENTAL

Continental: IO-520C; Cracked Cylinder Heads; ATA 8530

An operator describes the cylinder heads he found cracked by compression testing during a 100-hour inspection. "We are using a soap solution to detect cracks in the exhaust side of the cylinder while doing the compression checks. We are performing compression checks every 50 hours. Three cracked cylinders were found on the same

engine *(left)* at this inspection." *(Cylinder assembly part number noted as: TISN71.2ACA. Head cracks near the exhaust valves for cylinders 2, 4, and 6 were listed in this report. A second report on this aircraft's R/H engine's number 3 cylinder was also found cracked, having 1851.0 hours. This operator describes cracking cylinders as an on-going problem for his fleet of aircraft. See also the next two reports on different aircraft, but from this same operator.)*

Part Total Time: 400.0 hours.

Continental: TSIO-520E; Cracked Cylinder Head; ATA 8530

"We found a cracked cylinder head *(P/N TISN71.2BCA)* while doing a 50 hour inspection," writes this operator. "Due to the number of cylinder head failures *(...our fleet is experiencing)*, we are doing compression checks at each scheduled inspection: 50 hours." *(This was number 5 cylinder on the left engine for a Cessna 402B. The following item is also related to this operator.)*

Part Total Time: 870.0 hours.

Continental: TSIO-520E; Cracked Cylinder Head; ATA 8530

"This cylinder *(P/N TISN71.2BCA)* was installed as a serviceable cylinder 135.5 hours ago," says this operator. The crack was found during a 100-hour inspection compression test." *(This discrepancy was found on the R/H engine's number two cylinder of another Cessna 402B. The previous two entries were submitted by this same operator, but on different aircraft in his fleet.)*

Part Total Time: (unknown)

Continental: TSIO 520E; Cracked Cylinder Head; ATA 8530

Another company describes their difficulties with engine cylinders. "This crack runs from the spark plug base to the exhaust valve. To date from the first of this year for this company we have had 10 cracked cylinders in 1800 hours of flying. This company operates Cessna 400 series aircraft. It is recommended any aircraft owner operating with ECI cylinders installed on their engines perform a compression check each 50 hours. It is further recommended during the compression check a soap solution be applied to the outer portion of the cylinder in the fin area to check for cracks. It has been the experience of this shop to find a cylinder with good compression and still have a crack in the cylinder fin area." *(This submission dates back to the first of May — how many more cylinder failures have they suffered since? This cylinder's provided part number: AEC520-TI.)*

Part Total Time: 1,063.0 hours.

Continental: TSIO 520NB; Cylinder Head Separation; ATA 8530

"The number six cylinder left the engine," writes this submitter. The aircraft was running fine...all of a sudden a vibration was felt. On investigation the head was found separated from the cylinder. The head was being held on by the intake pipe and exhaust. The engine and this cylinder had 72.4 hours TSMOH *(time since major overhaul)*." "This is a new Ram engine with ECI nickel cylinders (P/N TISN 71-2BCA-221)."

Part Total Time: unknown.

Continental: TSIO-520-R; Cracked Cylinder Head; ATA 8530

"During cruise flight, a loud bang from the engine compartment was followed by a loss of power and significant engine vibration," states the submitter. "The pilot made an emergency landing on a dirt road with no damage to the aircraft. The number one cylinder head had fractured completely through, just above the cylinder barrel heads, leaving a one-half inch gap between head fins numbers 6 and 7. The cylinder had been repaired 212 hours prior to failure and had been bored to .010 oversize. A serviceable tag had been provided by the repair station that performed the work."

Part Total Time: unknown.

LYCOMING

Lycoming: IO-360-C1C6; Failed Cylinder Stud; ATA 8520

A mechanic describes the following engine discrepancy: "One number 4 cylinder base stud failed in tension *(upper left stud)*. Both the nut and 30 percent *(of the remaining)* stud length were found between cylinders 2 and 4 on the inner cylinder baffle. Number 4 cylinder was removed, and the remaining partial stud removed with a stud extractor." A new stud was installed, P/N 50-15, then the original cylinder. Studs were torqued to the recommended value of 600 inch pounds as per the Lycoming "direct drive manual."

"*(I believe...)* the probable cause is metal fatigue due to the age of engine crankcase studs and the number of cylinder removals and replacements during the engine's lifetime. This aircraft has spent most of its life as a training aircraft.

"Prevention: thorough inspection of and/or replacement of cylinder base studs during engine overhaul, with mandatory replacement time periods or cycles."

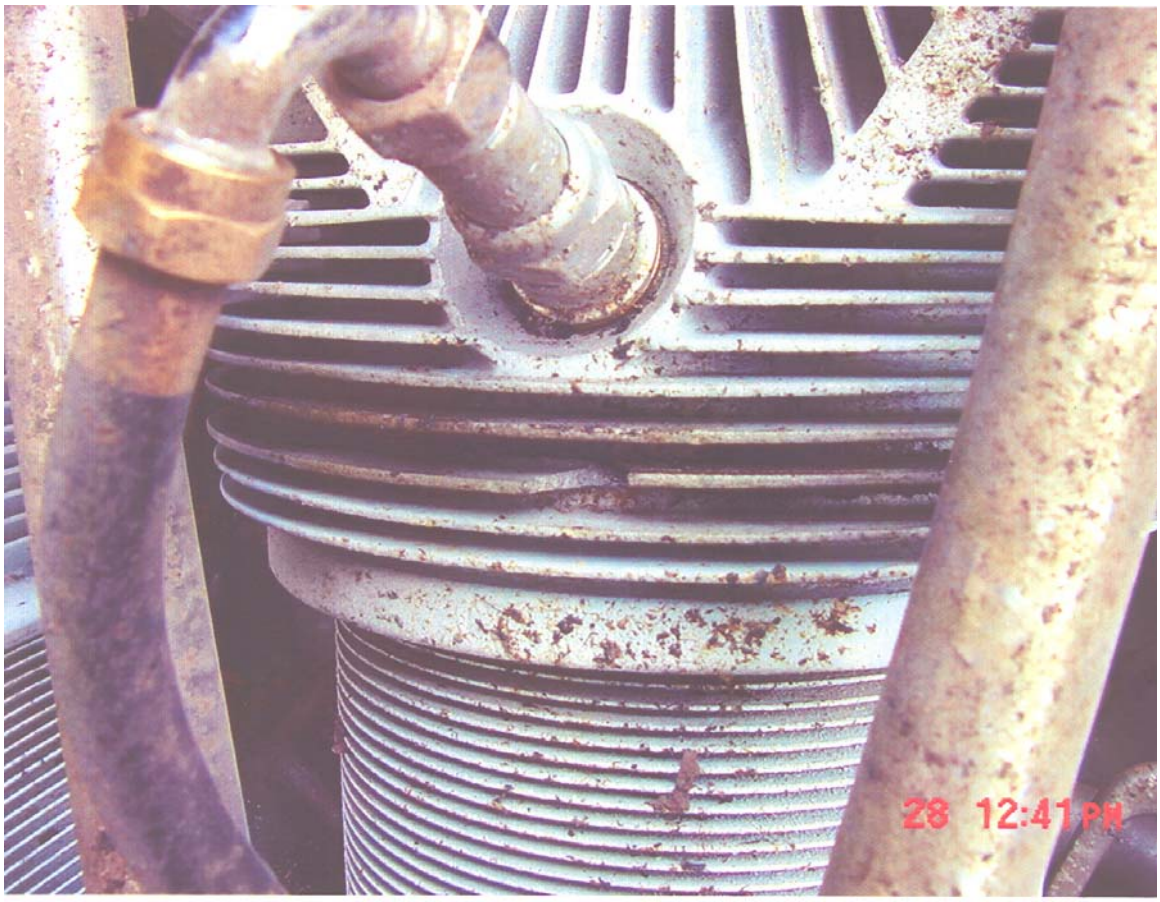
Part Total Time: unknown.

PRATT & WHITNEY

Pratt & Whitney: R985-AN14B; Cylinder Separation; ATA 8530

"During spraying operations," the submitter says, "the aircraft was climbing into a right-hand turn. The pilot heard a loud 'bang', then the engine began to run very rough. The aircraft made a forced landing.

"Inspection of the engine found the number two cylinder head *(P/N 399354)* separated from the sleeve at the number three, larger cooling fin from the bottom. Airworthiness Directive 78-08-07 was complied with during the last overhaul, 43 hours earlier." *(This aircraft is a Weatherly 620B.) (Pictures have been slightly cropped.)*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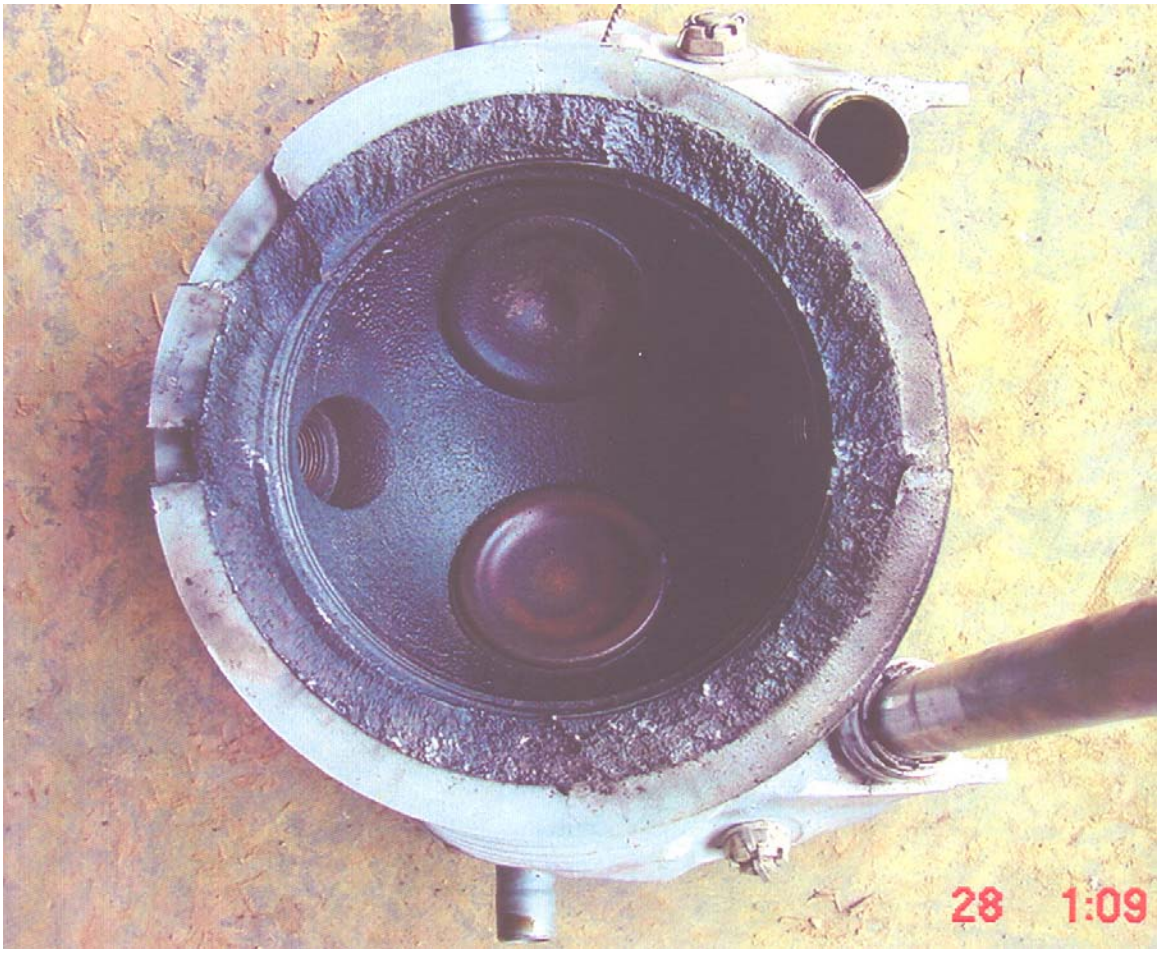
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Part Total Time: 7,070.0 hours.

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) data base 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 data base 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 data base. 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
CA050926004			LUCAS	BRUSHES	DEFECTIVE
9/22/2005				M230881320	STARTER GEN
BRUSHES FROM LOT MC20987 BATCH 072905 APPEAR TO HAVE A HIGHER THAN NORMAL RESISTANCE. THE NOTICEABLE SYMPTOMS ARE SURFACE BLUING OF THE ARMATURE COMMENTATOR, EXCESSIVE CURRENT DRAW AND INCREASED FIELD FRAME TEMPERATURE DURING BRUSH RUN IN ON THE STARTER GENERATOR. THESE BRUSHES HAVE BEEN RETURNED TO MIRAJ CORPORATION FOR EVALUATION OF THE CARBON GRADE PROPERTIES. A FINDINGS REPORT HAS BEEN REQUESTED.					
2005FA0001348			CONT	DISTRIBUTOR BLK	CRACKED
10/4/2005				ES10357426	MAGNETO
THREE MAGNETOS IN SHOP FOR 500HR INSPECTION. FOUND ALL THREE BLOCKS CRACKED AT FELT WASHER BORE, EXTENDING IN 2 CASES UP INTO TOWER. THESE THREE BLOCKS ARE AFTERMARKET MANUFACTURE					
2005FA0001353			CONT	DISTRIBUTOR BLK	CRACKED
10/4/2005				ES10357426	MAGNETO
THREE MAGNETOS IN SHOP FOR 500HR INSPECTION. FOUND ALL THREE BLOCKS CRACKED AT FELT WASHER BORE, EXTENDING IN 2 CASES UP INTO TOWER. THESE THREE BLOCKS ARE AFTERMARKET MANUFACTURE.					
2005FA0001413				STARTER	INOPERATIVE
9/12/2005				6462751	ENGINE
STARTER, CUSTOMER REPORTS AFTER 7.7 HOURS OF OPERATION STARTER SEEPING WAX FROM REAR OF STARTER. (K)					
2005FA0001432		CFMINT		LINER	BURNED
9/20/2005		CFM565A3		1968M63G11	COMBUSTION CHAM
THE CORE MAJOR MODULE 02X31733 FOR COMBUSTOR DISTRESS. THIS WAS CONFIRMED ON EXPOSURE, WHERE SIDNIFICANT BURNING AND BURN-THROUGH ON THE OUTER LINER WAS SEEN IN LINE WITH FUEL NOZZLE NR 15. THE COMBUSTION CHAMBER WAS PREVIOUSLY REPAIRED AND IS WITH MFG FOR INVESTIGATION. (K)					
CA050824014		PWA		TURBINE BLADES	DAMAGED
8/11/2005		PT6A68			POWER SECTION
(CAN) THE ENGINE EMITTED A LOUD NOISE ACCOMPANIED BY SPARKS FROM THE EXHAUST. THE ENGINE WAS SECURED IN FLIGHT AND A DEAD-STICK LANDING CARRIED OUT. SUBSEQUENT INSPECTION REVEALED FRACTURED POWER TURBINE BLADES AND SEIZURE OF THE POWER SECTION. P&WC WILL INVESTIGATE THIS EVENT AND ADVISE OF ROOT CAUSE ONCE DETERMINED.					

CA050824001		PWA	ENGINE	FLAMED OUT
7/31/2005		PW123		

(CAN) ON CLIMB FOLLOWING A WATER DROP, THE ENGINE FLAMED OUT AND THE PROPELLER AUTO-FEATHERED. THE MECHANICAL FUEL CONTROL UNIT AND FUEL PUMP WERE SUBSEQUENTLY REPLACED. PWC WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA050906003		RROYCE	BOLT	FAILED
8/4/2005		TAYMK6118	AS21910	TURBINE CASE

(CAN) ENG TAY 16916 AFTER TEST, HAD ABNORMAL NOISE DURING ROTATION OF LP SYS. ENG WAS REJECTED AT DISPATCH AND MODULE 5 (LP TURBINE ASSY) WAS DISMANTLED FOR INVESTIGATION. DURING DISASSEMBLY IT WAS FOUND THAT 1 OFF BOLT AS21910 HAD FAILED IN 3 PIECES CAUSING SECONDARY DAMAGE TO HP AND LP SYS. FAILED BOLT, 1 OFF, FULL ENG SET ARE 20), RETAIN ASSY OF LP TURBINESTAGE 1 AIR STATIC SEAL. LAB ANALYSIS OF FAILED BOLT REVEALED CAUSE OF FAILURE WAS DUE TO CADMIUM PLATING APPLICATION. CADMIUM PLATING PENETRATE BY DIFFUSION AT HIGH TEMP AND LEADS TO CRACKING OF PARTS. AS21910 FOR THAT ENGINE LOCATION DOES NOT REQUIRES CADMIUM PLATING AND AN INVESTIGATION IS TAKING PLACE BY RRC TO FIND SOURCE OF CADMIUM APPLICATION. FAILED BOLT WAS ORIGINAL FROM THE ENGINE.

2005FA0001458	AEROSP		EXHAUST STACK	CRACKED
4/28/2005	ATR42*		M10DE0104	ENGINE

CRACKING IN EXHAUST DUCT BASE METAL, ENGINE VIBRATION. (K)

2005FA0001459	AEROSP		EXHAUST PIPE	CRACKED
4/30/2005	ATR42*		7811200000200	ENGINE

CRACKS IN BASE METAL NEAR FLANGE. ENGINE VIBRATION. (K)

CA050824003	AEROSP	PWA	TUBE	FRACTURED
7/29/2005	ATR72	PW127		OIL SCAVENGE

(CAN) IN CRUISE, THE ENGINE EXHIBITED VERY LOW ITT AND OIL PRESSURE. THIS WAS FOLLOWED BY A FIRE WARNING ANNUNCIATION AND THE CREW SHUT THE ENGINE DOWN IN FLIGHT AND DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED A FRACTURED 6&7 BEARING OIL SCAVENGE TUBE, FRACTURED POWER TURBINE BLADES, EXTERNAL OIL LEAKAGE AND EVIDENCE OF AN EXTERNAL FIRE. P&WC WILL INVESTIGATE THE EVENT AND ADVISE O F ROOT CAUSE ONCE DEFINED.

CA050830008	AGUSTA	ALLSN	SKID	CORRODED
8/30/2005	A109A2	250C20B	1090372231	TAIL

(CAN) TAIL SKID BROKEN DUE TO CORROSION.

CA050824006	AGUSTA	PWA	FITTING	LOOSE
8/3/2005	A119	PT6*		PNEUMATIC SYS

(CAN) ON APPROACH, THE CREW NOTED A VIBRATION/SHUDDER WITH A CORRESPONDING DECREASE IN ENGINE AND MAIN ROTOR SPEEDS AND A LOW ROTOR WARNING ANNUNCIATION. THIS CALUMNIATED IN A HARD LANDING. SUBSEQUENT INSPECTION REVEALED LOOSE PNEUMATIC FITTINGS ON THE ENGINE FUEL GOVERNING SYSTEM. THE ENGINE AND CONTROLS WERE REMOVED FOR FURTHER INVESTIGATION. PWC WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE DETERMINED.

PAZR200550249	AMD		CIRCUIT BOARD	BURNED
10/17/2005	FALCON50MYST			CABIN LIGHTS

PASSENGER NOTICED A SPARK AND SMOKE IN THE UPPER FWD AREA OF THE CABIN HEADLINER. PILOT WAS NOTIFIED AND PILOT DISENGAGED CIRCUIT BREAKER FOR THE LIGHTS. AIRCRAFT

LANDED WITHOUT INCIDENT. UPON REMOVAL OF HEADLINER AND LIGHT STRIPS, VISUALLY INSPECTED AND FOUND LIGHT STRIP CIRCUIT BOARD WAS BURNED AND CHARRED DUE TO EXCESSIVE HEAT, LIGHT TRACK WAS DEFORMED, THERMAL PLASTIC AT ENDS OF LIGHTS WERE MELTED, AND ONE OF THE 28VDC POWER LEAD WIRES WAS PULLED OUT OF THE CIRCUIT BOARD.

2005FA0001332	AMTR	CONT	OIL FILTER	FAILED
7/24/2005	LANCAIR	TSIO550E	CH481091	ENGINE

CHANGED OIL AND OIL FILTER PRIOR TO FLIGHT. WHILE IN CRUISE FLIGHT, OIL PRESSURE BEGAN DECLINING TO < 10PSI. NO RISE IN OIL TEMPERATURE. DECLARED EMERGENCY, LANDED UNEVENTFULLY. EXTENSIVE TROUBLESHOOTING REVEALED NEW OIL FILTER TO BE CAUSE OF DECLINING PRESSURE PROBLEM (

CA050919008	BAG	GARRTT	ENGINE	UNKNOWN
9/14/2005	JETSTM3212	TPE33110UG		

(CAN) ENGINE REMOVED AND SENT REPAIR STATION. RESULTS TO FOLLOW.

2005FA0001356	BBAVIA	LYC	SPAR	CRACKED
9/22/2005	7GCBC	O320*		WING

CRACKED SPAR PLATE AT WING STRUT ATTACHMENT LT WING. APPEARS THAT SOME ONE HAS ATTEMPTED TO ADD GLUE TO PLATE FROM A HOLE CUT INTO FABRIC ON TOP WING. IN OTHER WORDS, THIS CRACK HAS BEEN THERE FOR SOME TIME. COULD NOT DETERMINE IF MAIN SPAR CRACKED OR SPLIT. TALKED WITH LAST INSPECTOR AND SAID WING WAS INSPECTED BY PROBE WITH CAMERA ATTACHMENT AND WAS DETERMINED AIRWORTHY AT THAT TIME. (K)

CA050902001	BEECH	PWA	BARBERCOL	DIODE	BURNED
8/31/2005	200BEECH	PT6A41		IN4005	TEMP CONTROL BOX

(CAN) FLIGHT FROM WAS DIVERTED DUE TO SMOKE IN THE CABIN. MAINTENANCE WAS DISPATCHED AND FOUND THE CABIN TEMP CONTROL BOX WAS BURNT FROM AND OVER HEATED DIODE. THE SYSTEM DEFERRED UNDER MEL AND AIRCRAFT RETURNED. THE TEMP CONTROL SYSTEM WAS TESTED, THE CONTROLLER REPLACED AND THE SYSTEM CHECK SERVICEABLE

CA050902002	BEECH	PWA	BARBERCOL	DIODE	BURNED
9/1/2005	200BEECH	PT6A41		IN4005	TEMP CONTROL BOX

(CAN) AIRCRAFT DEPARTED, 30 KM OUT, REPORTED SMOKE IN THE CABIN. THE SMOKE DISSIPATED AND THE FLIGHT LANDED. MAINTENANCE FOUND THE CABIN TEMP CONTROL HAD A BURND DIODE IN IT. THE CONTROLLER WAS REMOVED AND THE SYSTEM WAS DEFERRED IAW THE MEL. AIRCRAFT THEN CONTINUED OPERATING UNDER THE MEL AND RETURNED TO BASE THAT EVENING. OPEN DIODES IN THE CONNECTOR TO THE LT HEAT EXCHANGER BYPASS VALVE WERE REPLACED AS THE SUSPECT CAUSE OF THE DIODES OVERHEATING IN THE CABIN TEMP CONTROLLER. AIRCRAFT WAS RETURNED TO SERVICE AFTER CLEARING THE DMI.

1005FAA001	BEECH		STROBE	DAMAGED
10/18/2005	58		202331	WING TIP

WING TIP STROBE UNIT FLASH TUBE. SOLDER JOINT BETWEEN PIN COMING OUT OF FLASH TUBE AND END CAP IS FAILING DUE TO SOLDER BEAD BEING GROUND FLAT AFTER ATTACHMENT DURING MANUFACTURE. MULTIPLE FAILURES - CONDITION EXISTS ON NEW UNITS.

2005FA0001435	BEECH	CONT	BELLCRANK	FRACTURED
10/14/2005	58	IO550*	0024100397	STEERING

THE CO-PILOTS RUDDER/STEERING BELLCRANK FRACTURED AT THE CENTER CONNECTING POINT CAUSING A LACK OF NOSE WHEEL STEERING ON THE CO-PILOTS SIDE.

2005FA0001364	BEECH	CONT	SPAR CAP	CORRODED
9/28/2005	95B55	IO470L	00011001316	WINGS

DURING AN ANNUAL INSPECTION, SOME CORROSION WAS FOUND IN THE AREA OF THE RT WING TIE DOWN ASSY, UPON FURTHER INVESTIGATION AN AREA OF APPROXIMATELY 8 INCHES IN LENGTH WITH SEVERE INTERGRANULAR CORROSION WAS DISCOVERED ON THE LOWER SPAR CAP POSSIBLY CAUSED BY DISSIMILAR METAL OF THE TIE DOWN ASSY AND THE LOWER SPAR CAP. THIS AC HAD SUFFERED THE SAME TYPE OF CORROSION ON THE LT WING AT EXACTLY THE SAME LOCATION. (K)

2005FA0001335	BEECH	GARRTT	STARTER GEN	FAILED
9/21/2005	B50	TFE73131C	80603201	NR 1 ENGINE

UNIT SUSTAINED A MAIN BEARING ARMATURE DRIVE SHAFT FAILURE DURING FLIGHT. THE NR1 MAIN GENERATOR WARNING LIGHT ENUNCIATOR ILLUMINATED THE ARMATURE, DRIVE BALL DRIVESHAFT, AND BEARING FLANGE ARE NON-SERVICEABLE. THE ORIGINAL OVERHAUL PERIOD (TBO), FOR THIS UNIT IS 900 FLIGHT HOURS. THE AIR OPERATOR HAS NOW ELECTED TO REDUCE THE TBO OF THE UNIT TO 600 HRS.

2005FA0001349	BEECH	PWA	SPAR CAP	CRACKED
10/4/2005	E90	PT6A60A		RT WING

DURING COMPLIANCE WITH AD 89-25-10, 1,000 HOUR INTERVAL EDDY CURRENT INSPECTION, THE SPAR CAP WAS FOUND TO BE CRACKED 3 INCHES OB OF BATHTUB AT RT WING LOWER FORWARD SPAR ATTACH POINT.

CA050924001	BELL	LYC	BLADE	FAILED
9/21/2005	205A1	T5313B	110036106	COMPRESSOR

(CAN) AS THE A/C WAS APPROACHING STAGING WITH A SLING LOAD, THE PILOT HEARD A LOUD BANG FOLLOWED BY A LOUD SCREECHING NOISE FROM THE ENGINE. THE A/C LANDED IMMEDIATELY WITH POWER AND THE ENGINE SHUT DOWN. UPON FURTHER INVESTIGATION, ONE OF THE COMPRESSOR FIRST STAGE ROTOR BLADES WAS FOUND BROKEN AT THE ROOT AND MISSING.

CA050826007	BELL	ALLSN	FUEL CONTROL	MALFUNCTIONED
7/28/2005	206B	250C20	23061824	ENGINE

(CAN) DURING A GROUND RUN UP, AIRCRAFT STARTED HOT AND FUEL WAS LEAKING FROM A HOLE WITH IN THE FCU BODY. THE FCU WAS REMOVED AND AIRCRAFT STARTED NORMALLY AND NO FURTHER ISSUES APPEARED.

CA050826008	BELL	ALLSN	GOVERNOR	LEAKING
8/18/2005	206B	250C20	2549170	POWER TURBINE

(CAN) DURING POST INSPECTION GROUND RUNS, THE AIRCRAFT GOVERNOR WOULD NOT RECOVER FROM DROOPING OFF. THE GOVENOR WAS REPLACED AND AIRCRAFT WAS RETURNED TO THE FLIGHTLINE.

CA050906002	BELL	ALLSN	PRESSURE SWITCH	FAILED
8/29/2005	206B	250C20	42D208	FUEL SYSTEM

(CAN) FUEL FILTER LIGHT ON. REPLACED PRESSURE SWITCH P/N 42D208.

CA050901002	BELL	ALLSN	BELL	BEARING	CORRODED
8/18/2005	206L	250C20R		206040206001	FREEWHEEL UNINT

(CAN) DURING A 1500 HR FREEWHEEL INSP, THE AFT BEARING IN THE OUTER SHAFT WAS FOUND CORRODED ON THE INSIDE OF THE OUTER RACE. BEARING WAS REMOVED AND RUST WAS

PRESENT ON THE OUTER RACE. BEARING HAD PREVIOUSLY OVERHAULED BY BII IN 1999BEARING WAS REMOVED FROM SERVICE.

CA050901003	BELL	ALLSN	SHROUD	CRACKED
7/4/2005	206L3	250C30P	5233592	FUEL NOZZLE ASSY

(CAN) DURING 100 HR ENGINE INSPECTION, FUEL NOZZLE WAS REMOVED FOR CLEANING. AFTER CLEANING WAS COMPLETED, NOZZLE AIR SHROUD WAS VISUALLY INSPECTED AND FOUND CRACKED ABOUT .250 LONG. CRACK STARTED FROM CENTER HOLE THROUGH TWO OUTWARD HOLES. FUEL NOZZLE WAS REMOVED FROM SERVICE.

CA050826009	BELL	PWA	FUEL CONTROL	MALFUNCTIONED
7/1/2005	212	PT6T3	324472110	ENGINE

(CAN) DURING POST INSPECTION RUN UP, THE NR 2 ENGINE WOULD NOT START. THE AFCU WAS REPLACED AND FURTHER GROUND RUNS CARRIED OUT AND ENGINE STARTED WITH NO FURTHER PROBLEMS. THE AIRCRAFT WAS RETURNED TO THE FLIGHT LINE.

2005FA0001434	BELL		STOP	CRACKED
10/14/2005	407		407010105101	FUSELAGE

DROOP STOP STUDS HAD CRACK INDICATIONS IN RADIUS DURING FLUORESCENT PENETRATE CHECK. NEW STYLE STOPS INSTALLED.

CA050907001	BOEING	PWA	PIN	OUT OF ADJUST
8/23/2005	727223	JT8D15A		MLG

(CAN) ON APPROACH TO YHM NLG DID NOT INDICATE DOWN AND LOCKED. CONFIRMED DOWN BY VISUAL SCOPE, AIRCRAFT LANDED WITHOUT INCIDENT. UPON INVESTIGATION IT WAS DETERMINED A PIN FOR THE LANDING GEAR ACCESSORY UNIT WAS 'PUSHED BACK'. PIN REPAIRED AND INDICATION WORKED NORMAL.

CA050915002	BOEING	CFMINT	DISPLAY	ODOR
9/13/2005	737*	CFM567B22	50401100003	ENTERTAIN SYS

A/C WAS ON THE GROUND TAXIING TO THE GATE, WHEN A BURNING ELECTRICAL SMELL WAS NOTICED AT ROW 10ABC. THE IFE SYSTEM WAS DEACTIVATED. MAINTENANCE REPLACED THE VDU AND THE SYSTEM WAS TESTED SERVICEABLE. THIS COMPONENT WILL BE RETURNED TO THE MANUFACTURER AND A COMPLETE TEAR DOWN REPORT WILL BE REQUESTED.

SROM200500015	BOEING		ACTUATOR	BYPASSING
9/26/2005	737205		69355004	LT MLG UPLOCK

AFTER TAKE-OFF FROM ANC, GEAR WAS SELECTED UP, LT MAIN WOULD NOT INDICATE UP AND LOCKED. AIRCRAFT RETURNED FOR AN UNEVENTFUL LANDING. DETERMINED LT UPLOCK ACTUATOR WAS BYPASSING FLUID. REPLACED UPLOCK ACTUATOR. SUBSEQUENT GEAR SWING AND FLIGHT CHECK WERE SATISFACTORY.

CA050922004	BOEING	CFMINT	PANEL	DEPARTED
9/20/2005	737522	CFM563C1	311A106595	NACELLE

(CAN) WHEN DEPARTING, AC HAD A NR1 ENG NACELLE STRUT ACCESS PANEL DEPART FROM AC. AC WAS INSPECTED FOR DAMAGE RESULTING FROM DEPARTURE OF THIS PANEL, AND FOR POSSIBLE CAUSE. REST OF PANELS WERE CHECKED FOR SECURITY. NO ADDITIONAL FAULTS FOUND. AC WAS RELEASED BACK INTO SERVICE UNDER CDL 54-20-1 AND PANEL WAS REPLACED THAT NIGHT. PANEL IS SECURED INTO PLACE USING ZEUS OR CAM-LOCK STYLE FASTENERS. COULD NOT FIND ACTION OR MAINT ACTIVITY THAT WOULD HAVE LED TO DEPARTURE OF THIS PANEL. THIS ONLY INCLUDED PANELS WITH SCREWS AS SCREWS WERE COMING LOOSE AND FALLING OUT. TECH INFO BULLETIN (TIB) TO ALL MAINT STAFF TO PROVIDE A REMINDER OF THE PROCESS FOR SECURING THESE PANELS AND THEIR FASTENERS.

CA050921003	BOEING	CFMINT	MODULE	CRACKED
9/21/2005	737522	CFM563C1	654468117	HYD SYSTEM

(CAN) DURING AN INSPECTION OF THE STANDBY HYDRAULIC SYSTEM, BOEING TASK CARD B27-21-94-2A, FLUID WAS NOTED LEAKING FROM THE STANDBY HYDRAULIC MODULE. ON INVESTIGATION THE UNIT WAS FOUND TO BE CRACKED. THE UNIT WAS REPLACED WITH A SERVICEABLE UNIT.

CA050923008	BOEING	CFMINT	VENT	CRACKED
9/21/2005	737522	CFM563C1	315A1580507	COWL

(CAN) ON A SCHEDULED PHASE INSPECTION THIS VENT, WHICH IS ON THE ENGINE THRUST REVERSER COWL WAS FOUND TO HAVE A 2 INCH CRACK. A SIMILIAR CRACK WAS FOUND ON A PHASE CHECK THE DAY BEFORE ON ANOTHER AIRCRAFT.

CA050923009	BOEING	CFMINT	SEAL	FOD
9/22/2005	737522	CFM563C1	6548244090	RUDDER

(CAN) WHILE THIS A/C WAS IN HANGAR FOR A SCHEDULED PHASE CHECK, IT WAS NOTICED BY A MECHANIC THAT THERE APPEARED TO BE FOREIGN MATERIAL STICKING OUT OF THE RUDDER BALANCE WEIGHT CUT-OUT SEAL. ON CLOSER INSPECT IT WAS FOUND TO BE TWO BAGS OF PNL ATTACHMENT HARDWARE AND A PARTS REMOVAL TAG SITTING ON WEB IN AREA OF BALANCE WEIGHT, MID-WAY UP VERTICAL STAB. INSPECT OF AREA REVEALED NO DAMAGE. THIS FOD WAS LEFT BEHIND DURING THE RECENT VISIT AT A MX FACILITY OUTSIDE OF CANADA. THIS IS SECOND FOD DISCOVERY ON A/C. SINCE THIS TIME WE HAVE INITIATED A FLEET CAMPAIGN TO CHECK BEHIND ALL FLT CONTROL ACCESS PANELS FOR FOD DURING THE NEXT OVERNIGHT VISITS TO OUR MX FACILITY. IN ADDITION, ALL OTHER ACCESS PANELS WILL BE REMOVED AND CHECKED FOR FOD DURING A/C NEXT PHASE CHECKS. THIS CAMPAIGN IS IN EFFECT FOR ALL A/C THAT UNDERWENT MX AT THAT SPECIFIC FACILITY.

CA050909003	BOEING	GE	WIRE HARNESS	FAILED
9/9/2005	767375	CF680C2B6		FUEL SYSTEM

(CAN) FAULT: FLT DEP.YYZ WITH LT FUEL DENSIOMETER UNDER MEL. FLT CREW CONFIRMS LT IND DID BLANK OUT ON OCCASION DURING THE FLT AND HAD BEEN CALCULATING THE FUEL REMAINING THROUGHOUT THE FLT. AT FL370 AND 50NM FROM TOP OF DESCENT, THE LT ENG FLAMED OUT, ENG RELIT USING CROSSFEED FROM RT TANK. LT FUEL TANK IND PLACED ON MEL WITH DRIP REQUIRED. LEFT WING FUEL QTY PROBE HARNESS REPLACED AS PER AMM NIL FIX. LEFT WING DENSIOMETER AND DENSIOMETER EMITTER REPLACED AS PER AMM, NIL FIX. LT WING COMPENSATOR REPLACED TWICE NIL FIX. REPLACED LT WING HI 'Z' HARNESS FOR A FIX.

CA050904001	BOLKMS	LYC	RESERVOIR	LEAKING
8/31/2005	BK117B2	LTS101750B1	LTS101	ENGINE OIL

(CAN) PILOTS NOTICED THE MASTER CAUTION LIGHT FLICKER, FOLLOWED BY A STEADY MASTER CAUTION LIGHT. ENGINE 2 OIL PRESSURE LIGHT ON THE CAUTION PANEL AND FALLING PRESSURE ON THE NR 2 ENGINE PRESSURE GAUGE. AIRCRAFT DIVERTED TO A NEARBY AIRSTRIP FOR A PRECAUTIONARY LANDING. PILOTS SHUT DOWN NR 2 ENGINE. AFTER SHUT DOWN IT WAS DISCOVERED THAT THE NR 2 ENGINE OIL RESERVOIR WAS VIRTUALLY EMPTY.

CA050831003	BOLKMS	ALLSN	CONNECTOR	BROKEN
8/29/2005	BO105S	250C20B	TLF816	ENGINE

(CAN) WHEN THE PILOT WAS CONDUCTING HIS PREFLIGHT CHECK HE NOTICED THAT THE THROTTLE LEVER FOR NR 2 ENGINE WAS ROUGH BETWEEN SHUTOFF AND GROUND IDLE. UPON INVESTIGATION OF THE THROTTLE LINKAGE, IT WAS DISCOVERED THAT ONE OF THE LOCK TANGS ON THE THROTTLE TELEFLEX CABLE QUICK DISCONNECT AT THE ENGINE FIREWALL WAS BROKEN OFF. THE PART WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE.

CA050831006	BOMBDR	PWC	ENGINE	ODOR
8/30/2005	DHC8400	PW150A		NR 1

(CAN) AN OIL SMELL WERE DETECTED IN THE CABIN DURING FLIGHT. BLEED AIR FROM THE NR 1 ENGINE WAS SHUT OFF AND THE SMELL REDUCED. THE AIRCRAFT COMPLETED THE PLANNED FLIGHT. P&WC WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE DETERMINED.

CA050824004	BOMBDR	PWC	STRUT	CRACKED
8/4/2005	DHC8400	PW150A		COMPRESSOR CASE

(CAN) DURING CRUISE, SMOKE IN THE CABIN AIR BECAME EVIDENT. THE FLIGHT WAS DIVERTED AND AN EMERGENCY WAS DECLARED CULMINATING IN THE EVACUATION OF THE AIRCRAFT ON LANDING. SUBSEQUENT INSPECTION REVEALED A CRACKED INTER-COMPRESSOR CASE STRUT AND MATERIAL MISSING FROM THE COMPRESSOR INNER SUPPORT. P&WC WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE CONFIRMED.

CA050824002	BOMBDR	PWC	ENGINE	MAKING METAL
8/1/2005	DHC8400	PW150A		

(CAN) THE ENGINE WAS SHUT DOWN IN FLIGHT FOLLOWING A LOW ENGINE OIL PRESSURE INDICATION. SUBSEQUENT INSPECTION REVEALED METALLIC DEBRIS ON THE REDUCTION GEARBOX CHIP DETECTOR. P&WC WILL INVESTIGATE THE EVENT AND WILL ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA050926001	BOMBDR	PWC	DISPLAY	SMOKE
9/23/2005	DHC8402	PW150A	C19190AB04	COCKPIT

(CAN) DURING WALK-AROUND, DC PWR HAD BEEN APPLIED AND ONLY ENGINE DISPLAY AND NR 2 MFD HAD BEEN TURNED ON. SHORTLY AFTER (AROUND 1MIN) BIG GREEN T FOR THE TESTING MODE FLASHED ON NR 1 MFD (NOTICE THAT THE SWITCH FOR THIS MFD WAS STILL OFF). A BURNED ODOR CAME FROM WAY BACK IN CABIN ACCOMP AGAIN WITH A THICK SMOG. SMOKE CAME FROM FAULTY DISPLAY UNIT & SPREAD INSIDE CABIN THRU INSTRUMENT COOLING DUCTS, WHICH ARE CONNECTED TO CABIN VENT SYS. AFTER A SHORT INVESTIGATION, BREAKER FOR NR 1 MFD FOUND OUT. NR 1 MFD FOUND TO BE INTERNALLY DEFECTIVE CAUSING BREAKER TO COME OUT & SMOKE & BURNED ODOR INSIDE CABIN. TROUBLESHOOTING SWITCH FOR FAULTY DISPLAY UNIT DID NOT HAVE TO BE ON TO CAUSE BREAKER TO COME OUT.

CA050830005	BOMBDR	PWC	COMPRESSOR	DAMAGED
8/30/2005	DHC8402	PW150A		ENGINE

(CAN) THE ENGINE EXPERIENCED AN UNCOMMANDED SHUTDOWN IN FLIGHT. SUBSEQUENT INSPECTION REVEALED DAMAGE TO THE ENGINE INLET AND LOW PRESSURE COMPRESSOR. P&WC WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE DETERMINED.

2005FA0001334	BRAERO	GARRTT	BRAKE ASSY	OVERHEATED
9/27/2005	BAE125800A	TFE731*	AHO89881	LT MLG

PILOT NOTICED LT OB TIRE WAS FLAT. MAINT FLEW TO AIRPORT AND CHANGED BOTH LT MAIN GEAR WHEEL AND TIRE ASSYS. AC WAS THEN FLOWN BACK. UPON INSPECTION OF FLAT TIRE IT WAS FOUND THAT ALL 3 FUSIBLE PLUGS HAD MELTED. INSPECTED THE LT OB BRAKE AND FOUND IT HAD OVERHEATED. DURING DISASSEMBLY OF BRAKE HEAT PACK IT WAS NOTED THAT BACKING PLATE WAS BADLY WARPED AND WEAR PADS WERE FLAKING AWAY. RIVETS HOLDING WEAR PADS IN PLACE HAD TURNED BLUE FROM HEAT. IB WHEEL ON THIS AXLE WAS UNAFFECTED BY HEAT, TIRES HAD NOT BEEN FLAT SPOTTED OR SKIDDED WHICH WOULD INDICATE EXCESSIVE BRAKING WAS NOT USED. APPEARS BRAKE MATERIAL WAS DEFECTIVE. NORMALLY WE SEE SERVICE AND LANDING OF ABOUT 400 HOURS ON EACH HEAT PACK.

2005FA0001355	BRAERO	GARRTT	BALLAST	UNSERVICEABLE
8/16/2005	HS125700A	TFE731*	61213	VALANCE LIGHT

AC WAS DISASSEMBLED FOR INSP. GROUNDING STRAPS ON VALENCE LIGHTS BROKEN. REPAIRED GROUNDING STRAPS. AC WAS REASSEMBLED, PWR WAS APPLIED TO AC FOR CHECKOUT. PWR

WAS ON AC FOR HOURS. INSPECTING OVERHEAD LIGHTING, NOTICED A SPARK. DROPPED VALENCE TO INVESTIGATE, WHILE VALENCE WAS DROPPED, PWR SUPPLY BLEW UP. NOTICED BECAUSE OF OVERLAPPING OF VALENCE LIGHT, THAT SILICONE WAS USED TO KEEP GROUNDING STRAPS FROM RUBBING ON LAMP HOLDERS. LAMP HOLDER WAS RUBBED DOWN, GROUNDING STRAP WAS TOUCHING, CAUSING A SHORT AND PWR SUPPLY TO OVERHEAT AND BLOW UP. RE-ADJUSTED GROUNDING STRAPS TO KEEP THEM AWAY FROM LAMP HOLDERS. PWR SUPPLY WAS SUPPOSED TO SHUT LIGHTS OFF IN CASE OF A SHORT BUT THIS ONE DID NOT.

CA050919006	BRAERO	GARRTT	GEARSHAFT	BROKEN
8/31/2005	HS125700A	TFE7313R	30730427	ENGINE

(CAN) AS A/C WAS TAXIING FOR T/O, CREW LOST LT ENGINE OIL PRESSURE. ENGINE WAS SHUTDOWN AND A/C WENT BACK TO GATE. LT ENGINE OIL PUMP WAS FOUND DAMAGED. PUMP WAS REPLACED BUT ENGINE COULD NOT START AS N1 FAN WAS NOT TURNING. ENGINE WAS OPENED UP AND NR 1 BEARING OF PLANETARY GEARSHAFT ASSY WAS FOUND BROKEN. PLANETARY GEARSHAFT ASSY WAS REPLACED AND ENGINE WAS FOUND SERVICEABLE. AFTER THE INCIDENT, A/C CAME BACK TO MAIN BASE. ENGINE OIL FILTER WAS CHECKED AND METAL PARTICLES WAS FOUND. THE ENGINE OIL FILTER WAS REPLACED AND WHILE DOING ENGINE RUNS AFTER THE FILTER REPLACEMENT AND OIL PRESSURE ADJUSTMENT, THE ENGINE OIL PUMP BROKE AGAIN. THE ENGINE WAS REPLACED WITH A LOANER UNIT.

CA050913003	BRAERO	RROYCE	DOOR	DAMAGED
9/12/2005	HS7482A	DART5342		CARGO BAY

(CAN) DURING INSPECTION, DAMAGE FOUND TO LARGE FREIGHT DOOR FORWARD FORMER RING AND STRAP AT STA 126A BETWEEN STRINGERS 7 AND 8. DAMAGE WAS CAUSED BY INCORRECT FASTENER (SCREW TOO LONG) AT THE MOST FORWARD POSITION OF THE LARGE FREIGHT DOOR UPPER SPIGOT FAIRING. THE SCREW WAS ALLOWED TO FOWL WITH DOOR SURROUND WHEN OPENING AND CLOSING THE DOOR.

CA050906004	CESSNA	LYC	PREAIR	TUBE	MISSING
8/8/2005	152	O235L2C		229164	DISCHARGE

(CAN) ACCELERATOR DISCHARGE TUBE CAME OUT OF THE CARB BOWL (NOT FOUND). SECONDARY PROBLEM FOUND UPON DISASSEMBLY: ONE FLOAT PONTOON PARTIALLY FILLED WITH FUEL. NEW DISCHARGE TUBE INSTALLED AND FLOAT REPLACED. CARB REASSEMBLED AND TESTED.

2005FA0001437	CESSNA	LYC	STUD	COLLAPSED
10/17/2005	172R	IO320*	11420247	ENGINE COWLING

THE STUD SPRINGS ARE COLLAPSING UPON INSTALLATION. SUSPECT POOR HEAT-TREATING OF THE SPRINGS. NOTICED EXCESSIVE CHAFFING (SMOKING) FROM THE ENGINE COWLING SINCE AIRCRAFTS WERE NEW. AT ABOUT 300TT THE RECEPTACLES FOR THE STUDS STARTED TO FAIL. WHEN NEW STUDS AND RECEPTACLES WERE INSTALLED, NOTICED THE SPRINGS COLLAPSED AND DID NOT RETURN TO THEIR BEFORE HEIGHT. THIS CONDITION ALLOWS THE ENGINE COWLING TO FIT LOOSELY AND VIBRATE ENOUGH TO CAUSE THE (SMOKING) AND TO WEAR OUT THE RECEPTACLES.

2005FA0001347	CESSNA	LYC	CYLINDER	BROKEN
9/28/2005	172R	IO360A1A	MM201057	SEAT BACK LOCK

CREW SEAT BACK LOCK CYLINDER FAILED AND MOUNTING BOLT SHEARED DURING FLIGHT TRAINING, SPIN RECOVERY. PIC SEAT BACK WENT TO HORIZONTAL POSITION. FLIGHT INSTRUCTOR GAINED CONTROL OF AIRCRAFT. UNEVENTFUL LANDING. THIS FACILITY HAS REPLACED 12 OF THESE ASSEMBLIES IN PAST 6 MONTHS AFTER INSPECTION IAW MF SB04-25-02.

IGL1520050080	CESSNA	LYC	MUFFLER	DETERIORATED
9/15/2005	175	O360*	15006	EXHAUST

EXHAUST MUFFLER CRACKED AND DETERIORATED AND WAS NOT DETECTED DUE TO LOCATION

UNDER HEAT SHROUD. MUFFLER IS PART OF ENGINE CONVERSION STC NR SA777CE, KIT NR 740.

CA050831005	CESSNA	PWA	BLADES	DAMAGED
7/22/2005	208B	PT6A114A		COMPRESSOR

(CAN) THE ENGINE WAS REPORTED TO LOSE POWER DURING TAKEOFF AND THE AIRCRAFT CRASHED. PRELIMINARY INVESTIGATION EVIDENCED FRACTURED COMPRESSOR AND POWER TURBINE BLADES. P&WC WILL INVESTIGATE THE INCIDENT AND ADVISE OF ROOT CAUSE ONCE DETERMINED.

CA050824007	CESSNA	PWA	ENGINE	MALFUNCTIONED
7/20/2005	208B	PT6A114A		

(CAN) IN CRUISE, THE ENGINE EXHIBITED AN UNCOMMANDED INCREASE IN ITT. ENGINE POWER WAS REDUCED TO IDLE AND THE AIRCRAFT DIVERTED FOR AN UNSCHEDULED LANDING. PWC WILL MONITOR INVESTIGATION OF THE EVENT AND ADVISE OF ROOT CAUSE, ONCE DETERMINED.

CA050906001	CESSNA	CONT	SHAFT	SHEARED
8/31/2005	210R	IO520L		VACUUM PUMP

(CAN) DURING ROUTINE MAINTENANCE, SHAFT LOCATION CUTOUT OF RT PUMP HAD AN ODD LOOK TO IT. TURNING PROPELLOR BY HAND VERIFIED SUSPICION, SHAFT WAS SHEARED. PUMP REPLACED.

CA050729003	CESSNA	CONT	PUMP	FAILED
7/22/2005	305A	O47011	RG9080	FUEL SYSTEM

DURING INSPECTION RUN-UP, THE FUEL PRESSURE DROPPED TO 3 PSI AT IDLE (NORMAL PRESSURE IS 12 PSI). THE ENGINE HAD DIFFICULTY RUNNING. THE PART WAS REMOVED AND RETURNED TO THE OVERHAUL FACILITY FOR WARRANTY WORK.

CA050901004	CESSNA	CONT	CONNECTING ROD	BROKEN
9/1/2005	340CESSNA	TSIO520J		CRANKSHAFT

(CAN) SUSPECT OIL STARVATION TO NR 3 CONNECTING ROD DUE TO MOVEMENT OF NR 2 INTERMEDIATE MAIN BEARING IN CRANKCASE. ENGINE NOT FULLY DISASSEMBLED AT THIS TIME. ENGINE BOTTOM END BEYOND REPAIR.

CA050917001	CESSNA	CONT	CYLINDER HEAD	CRACKED
9/6/2005	402CESSNA	TSIO520E	AEC631397ST712B	ENGINE

(CAN) AT THE 50 HRS INSPECTION OF THE AIRCRAFT, DURING ENGINE CYLINDER COMPRESSION TEST, MADE CONTINENTAL ENGINE SB M91-6, AND THE TEST FAILED FOR CYLINDER NR 2 DUE TO A LEAK FOUND BETWEEN FINS AT CYLINDER HEAD. THE CYLINDER REPLACED AND AIRCRAFT RETURN TO SERVICE AFTER THE INSPECTION.

AMCR200500009	CESSNA	WILINT	FAN	CLOGGED
10/3/2005	525A	FJ44	125021124	AFT CABIN

WHILE THE AIR CONDITIONER WAS RUNNING, THE CREW REPORTED INADEQUATE COOLING AND A FAINT ODOR OF SOMETHING BURNING. MAINTENANCE FOUND THE AFT EVAPORATOR FAN WAS BARELY RUNNING. AFTER REPLACING THE FAN, THE OLD FAN'S COVER WAS REMOVED AND A BIG PILE OF BRUSH DUST POURED OUT.

CA050831008	CESSNA	PWA	HMU	DAMAGED
8/30/2005	550	PW530A		ENGINE

(CAN) DURING A TRAINING FLIGHT, ENGINE POWER WAS COMMANDED TO IDLE RESULTING IN A LOW FUEL PRESSURE WARNING AND AN UNCOMMANDED ENGINE SHUT DOWN. AN IN-FLIGHT RE-LIGHT WAS SUCCESSFULLY ACCOMPLISHED AND THE REMAINDER OF THE FLIGHT CARRIED OUT

WITHOUT FURTHER INCIDENT. SUBSEQUENT TROUBLESHOOTING WAS UNABLE TO REPRODUCE THE PROBLEM AND THE ENGINE CONTROLS RIGGING WAS DETERMINED TO HAVE BEEN WITHIN DEFINED LIMITS. THE HYDROMECHANICAL FUEL CONTROL WAS SUBSEQUENTLY REPLACED. P&WC WILL MONITOR INVESTIGATION OF THE FUEL CONTROL AND ADVISE OF ROOT CAUSE ONCE DETERMINED.

CA050824005	CESSNA	PWA	FUEL CONTROL	MALFUNCTIONED
6/21/2005	560CESSNA	PW535A	8197355	ENGINE

(CAN) IN CRUISE, THE ENGINE EXHIBITED A 2% ROLL-BACK IN N1 SPEED WITH NO RESPONSE TO THROTTLE INPUT. FOLLOWING A DESCENT TO 10,000 FEET, THE ENGINE RECOVERED AND RESPONDED NORMALLY. THE MECHANICAL FUEL CONTROL UNIT WAS SUBSEQUENTLY REPLACED.

CA050907004	CESSNA	CONT	RADIO	ODOR
9/2/2005	P206A	IO550F	VHF251	VHF SYSTEM

(CAN) UPON DEPARTURE FROM THE AIRPORT, THE PILOT SMELLED SMOKE IN THE COCKPIT. RETURNED TO THE AIRFIELD AND HAD MAINTENANCE INSPECT THE AIRCRAFT. RADIO NR 2 HAD A BURNT SMELL TO IT. RADIO WAS REMOVED AND DEFECT DEFERRED. PILOT CONTINUED ON WITHOUT FURTHER INCIDENT. AVIONICS SHOP FOUND A CAPACITOR THAT HAD FAILED.

BG001	CESSNA	LYC	LINE	FAILED
10/6/2005	TR182	O540*	S217840102	HYDRAULIC SYS

DOWN HYDRAULIC PRESSURE LINE FAILED AT ACTUATOR. LINE PULLED OUT OF SWAGED END FITTING.

CA050923004	CESSNA	CONT	CYLINDER HEAD	CRACKED
9/22/2005	U206G	IO520F	AEC65385	ENGINE

(CAN) AIRCRAFT CAME TO DOCK WITH A DISTINCT AIR LEAKAGE SOUND FROM THE ENGINE, FURTHER INVESTIGATION FOUND THE CRACKED CYL HEAD.

CA050909002	CNDAIR	GE	WINDSHIELD	CRACKED
8/10/2005	CL6002B19	CF343B1	NP1393219	COCKPIT

(CAN) PILOT'S WINDSHIELD CRACKED AFTER LANDING.

CA050909001	CNDAIR		WINDOW	CRACKED
9/1/2005	CL6002C10		NP1393226	COCKPIT

(CAN) DURING APPROACH, CO-PILOT SIDE WINDOW CRACKED WHEN PASSING FL 110.

CA050913001	CNDAIR		CONTROL PANEL	SPARKS
9/11/2005	CL6002C10		GG67098001	CABIN PRESSURE

(CAN) THE CABIN PRESS CONTROL PANEL STARTED SMOKING AND SPARKING' WHILE A/C WAS TAKEN AT THE GATE. THE CPCP WAS REPLACED IN ACCORDANCE WITH AMM.

CA050913002	CNDAIR		WINDSHIELD	CRACKED
9/12/2005	CL6002C10		NP1393215	COCKPIT

(CAN) THE LT WINDSHIELD CRACKED WHILE THE A/C WAS IN CLIMB. THE A/C RETURNED TO GROUND FOR THE REPLACEMENT OF THE WINDSHIELD.

CA050920001	CNDAIR	GE	APU	DEFECTIVE
9/16/2005	CL6002C10	CF348C1	WE8007712	

(CAN) FORWARD LAV SMOKE WARNING MESSAGE CAME ON DURING TAKEOFF ROLL. ABORTED TAKEOFF. MAINTENANCE SUSPECTED BLEED AIR SYSTEM CARRIED CONTAMINATED AIR COMING FROM THE APU BLEED. APU OIL CONSUMPTION SUSPECTED, EVIDENCE AT DUPLEX BEARING

GEARBOX DRAIN, EVIDENCE AT HOT SECTION, OIL LEVEL BELOW ADD LINE APU COLD. APU REPLACED, AIRCRAFT RETURNED TO SERVICE.

CA050915005	CNDAIR	GE	FITTING	LOOSE
9/15/2005	CL604	CF34*	15J0408AE	FS 636

(CAN) DURING SERVICING A STRONG ODOR OF JET FUEL WAS NOTICED IN THE AFT EQUIPMENT BAY. AFTER INVESTIGATION, THE TRANSFER FUEL LINE FROM THE TAIL TANK TO THE FUSELAGE AUXILIARY TANK WAS FOUND TO BE LEAKING. THE WIGGINS FITTING ON THE TRANSFER ROTOR BURST FUEL LINE AT FS 636 WAS FOUND LOOSE. WORK IN THE AREA WAS LAST PERFORMED ON MAY 14, 2005 WHEN ANOTHER AMO REPLACED THE TRANSFER ROTOR BURST FUEL LINE IN QUESTION. NEW SEALS WERE INSTALLED, THE WIGGINS FITTING WAS TIGHTENED AND LEAK CHECKED. AIRCRAFT WAS RETURNED TO SERVICE.

CA050830003	CNDAIR	GE	LINK	CHAFED
8/21/2005	CL604	CF34*	601A913703	FLT CONTROLS

(CAN) DURING AIRCRAFT 1ST 12/24 MONTH INSPECTION, DISCOVERED RT AILERON CABLE FOUND INCORRECTLY ROUTED RESULTING IN CHAFING OF AUTOPILOT SYNCRO INPUT LINK. CABLE INSPECTED NFF AND RE-ROUTED. AREA LAST ACCESSED BY BOMBARDIER SERVICE CENTER, FOR AILERON PCU CHANGE.

CA050908002	CONAER	LYC	LINE	OBSTRUCTED
9/2/2005	LA4200	IO360A1B		NLG ACTUATOR

(CAN) NOSE GEAR FAILED TO LOCK DOWN DUE TO A PLUGGED RETURN LINE ORIFACE, ACTUATOR REMOVED/DISASSEMBLED/CLEANED/REASSEMBLED, REINSTALLED, HYDRAULIC SYSTEM FLUSHED, GEAR SWINGS COMPLETED. NO FAULTS FOUND.

CA050916005	DHAV	PWA	ENGINE	FAILED
9/13/2005	DHC2*	R985AN14B		

(CAN) FIVE MINUTES INTO CRUISE FLIGHT AT 1000FT, THE CAPTAIN REPORTED A LOUD BANG, FOLLOWED BY A CONSTANT VIBRATION. TEMPS AND PRESSURES WERE CHECKED NORMAL. THE CAPTAIN ELECTED TO RETURN TO THE POINT OF DEPARTURE AND DECLARED AN EMERGENCY. FOLLOWING AN UNEVENTFUL LANDING, MAINTENANCE INVESTIGATION REVEALED THAT NR 1 CYLINDER PISTON HAD BEEN DRIVEN INTO CONTACT WITH THE CYLINDER HEAD, TWO OTHER CYLINDERS HAD NO COMPRESSION, AND THE OIL SCREEN WAS FULL OF METAL. A TEARDOWN REPORT WILL BE FORWARDED WHEN AVAILABLE.

CA050913005	DHAV	WSK	ISOLATION MOUNT	SEPARATED
8/22/2005	DHC3	ASZ62IRM18	MSZ698010	COWL

(CAN) FLOAT EQUIPPED AIRCRAFT IN CRUISE AT APPROXIMATELY 2,000 AGL, PILOT NOTED AN IRREGULAR SOUND FROM FRONT OF AIRCRAFT. NOISE CEASED AFTER WHICH THE PILOT CONTINUED TO A NEARBY LAKE AND LANDED. 6 OF 12 VIBRATION ISOLATORS HAD PULLED THRU THE BACK OF THE SECURING EYE BOLTS WHICH ATTACH THE RING ASSEMBLY TO THE CYLINDER HEADS. RING RE-SECURED. MINOR DAMAGE TO LEADING EDGE OF TOP COWL AND FACE/TRAILING EDGE OF PROP.

2005FA0001460	DHAV		LANDING GEAR	CRACKED
4/21/2005	DHC6		C6UM11107	MAIN

LANDING GEAR, CRACK IN WELD, CAUSED BY CYCLIC STRESS DUE TO LANDING LOADS. (K)

CA050831007	DHAV	PWA	TURBINE BLADES	DAMAGED
8/26/2005	DHC6	PT6A27		POWER SECTION

(CAN) DURING CRUISE, THE ENGINE WAS REPORTED TO SURGE AND EMIT LOUD NOISES. THE PILOT SHUT THE ENGINE DOWN IN FLIGHT. A SUBSEQUENT RE-LIGHT ATTEMPT WAS UNSUCCESSFUL AND

THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED POWER TURBINE BLADE DAMAGE. P&WC WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE DETERMINED.

CA050912004	DHAV	PWA	MOUNT	BROKEN
9/9/2005	DHC6100	PT6A20	73507217	NR 1 ENGINE

(CAN) AFTER TAKEOFF, PILOT ENCOUNTERED PWR LEVER MISMATCH AS REDUCED TO CLIMB POWER. REPORTED PROBLEM AND LANDED UNEVENTFULLY. INVESTIGATION REVEALED THAT TOP ENGINE MOUNT ON NR 1 ENG HAD BROKEN AT A POINT BETWEEN FLANGE AND BASE. THIS CAUSED ENG TO SAG ENOUGH TO GIVE A PWR LEVER MISMATCH. ALL 3 ENG MOUNT ASSY AND ATTACH BOLTS WERE REPLACED, NACELLE LONGERONS AND ASSOCIATED STRUCTURE WERE INSPECTED FOR DEFORMATION, AND AC RETURNED TO SERVICE. ALTHOUGH THERE IS NO SPECIFIC NDT REQUIRED ON THIS ITEM, A SHIP SET OF MPI INSPECTED MOUNTS HAS BEEN READIED FOR A FLEET CAMPAIGN AS THE AIRCRAFT ARE SCHEDULED THROUGH MAINTENANCE. TIME AND CYCLES ON THE FAILED PART ARE UNKNOWN.

CA050923007	DHAV	PWA	GLIDE SLOPE	MALFUNCTIONED
9/13/2005	DHC6300	PT6A34	160E046X	COCKPIT

GLIDESLOPE DEVIATION ON EHSI INVERTED. GLIDESLOPE INFORMATION INTERFACED ON ARINC 429 DATA BUS. EFIS MANUFACTURER ACKNOWLEDGES PROBLEM IS SOFTWARE IN EHSI, AWAITING SOFTWARE FIX FROM MANUFACTURER. DEFECT IS ALSO PRESENT IN EADI WHEN EADI IS IN FORCED COMPOSITE MODE (IE. EHSI FAILED).

CA050912003	DHAV	PWA	WHEEL HALF	CRACKED
8/30/2005	DHC8102	PW120A	3006191	MLG

(CAN) DURING ROUTINE SERVICE CHECK, THE NR 4 MAIN WHEEL TIRE PRESSURE WAS FOUND TO BE 50 PSI WHEEL ASSY REPLACED AND ROUTED TO YHZ WHEEL AND BRAKE SHOP. DURING INSPECTION PROCESS, NDT INSPECTION REVEALED A CRACK EMANATING FROM THE VALVE STEM SEAT. WHEEL HALF ASSY WAS ON BUILD NR 61. WHEEL HALF SCRAPPED.

CA050901001	DHAV	PWA	FRAME	CRACKED
8/31/2005	DHC8102	PW120A	85310926101	BS 136.80

(CAN) DURING A SCHEDULED DETAILED STRUCTURAL INSPECTION OF AIRCRAFT AT FRAME SPLICES AT STA 136.80 AND STR 15A, 5310/29C. CRACKING WAS FOUND ON FRAME SPLICES AND ADDITIONAL STRAPS AS PER MOD 8/0340, LT AND RT PROCEEDED WITH BOMBARDIERS RD-8-53-3541FOR PERM REPAIR TO FRAME SPLICES AND STRAPS. UPON REMOVAL OF LT FRAME SPLICE AN OTHER CRACK WAS DETECTED APPROXIMATELY ONE HALF INCH IN LENGTH, THUS SUBMITTED ADDITIONAL DAMAGE REPORT TO BOMBARDIER AND WAS ISSUED AN ADDITIONAL, RD 8-53-8673. REPAIRS WERE CARRIED OUT AND NO FURTHER INCIDENTS.

CA050915003	DHAV	PWA	DRIVE SHAFT	SHEARED
9/2/2005	DHC8102	PW120A	570347	HYDRAULIC PUMP

(CAN) ON CLIMB-OUT, THE NUMBER 1 ENGINE DRIVEN HYDRAULIC PUMP FAILED AND AIRCRAFT RETURNED TO DEPARTURE AIRPORT. THE NUMBER 1 HYDRAULIC PUMP AND HYDRAULIC RETURN FILTER WERE REPLACED (SHAFT SHEARED ON PUMP) AND AIRCRAFT WAS RETURNED TO SERVICE. TIME SINCE LAST REPAIR 1380.1 HRS, 1388 CYCLES, SN MX-459161C.

CA050920003	DHAV	PWA	FITTING	CRACKED
9/13/2005	DHC8201	PW123D	AN81510D	HYD SYSTEM

(CAN) AFTER LANDING GEAR HAD RETRACTED, THE PILOTS NOTICED A DROP IN HYDRAULIC QUANTITY AND PRESSURE. AIRCRAFT RETURNED TO BASE. INSPECTION FOUND A CRACKED FITTING ON THE NR 2 HYDRAULIC PRESSURE MANIFOLD. EDP WAS REPLACED AS IT WAS RUN DRY FOR MORE THAN 15 MINUTES SYD 8-29-002 REFERENCED. THIS SYD ALLOWS THE REPLACEMENT

OF THE AN815-10D FITTING FROM ALUMINIUM TO STAINLESS STEEL FITTING.

CA050824009	DHAV	PWA	TURBINE BLADES	DAMAGED
8/10/2005	DHC8301	PW123		POWER TURBINE

(CAN) FOLLOWING TAKEOFF, THE ENGINE DEVELOPED HIGH VIBRATIONS ACCOMPANIED BY AN UNCOMMANDED POWER REDUCTION. THE ENGINE WAS SHUT DOWN IN FLIGHT AND THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED DAMAGED POWER TURBINE BLADES. P&WC WILL INVESTIGATE THE EVENT AND WILL ADVISE OF ROOT CAUSE ONCE DETERMINED.

CA050915001	DIAMON	CONT	INJECTION SYSTEM	OUT OF ADJUST
7/30/2005	DA20C1	IO240B		ENGINE FUEL

AIRCRAFT ENGINE QUIT DURING LANDING AND HAD RESTART DIFFICULT. A/C WAS FINALLY STARTED AND TAXIED BACK TO A MX HANGAR. IT WAS NOTED THAT ENGINE RAN EXTREMELY ROUGH AT IDLE. A SET OF CALIBRATED FUEL SET UP GAUGES WERE ATTACHED AND A FUEL SYSTEM CHECK CARRIED OUT PER TCM SID97-3C. ADJUSTMENTS WERE CARRIED OUT AND A/C RELEASED CONDITIONAL TO SATISFACTORY TEST FLIGHT. TEST FLIGHT WAS SATISFACTORY AND A/C RETURNED TO BASE. DIAMOND AND TCM (TELEDYNE CONTINENTAL MOTORS) ARE AWARE OF THE FUEL SETUP PROBLEMS FUEL SYSTEM DRIFTING OUT OF ADJUSTMENT AND TO MY KNOWLEDGE HAVE BEEN CARRYING OUT FIELD TEST WORKING CLOSELY WITH EMBRY RIDDLE.

CA050927003	DOUG	PWA	CYLINDER	CRACKED
9/23/2005	C54ADC	R20007M2		NR 8

THE NR 8 CYLINDER CRACKED AT THE EXHAUST VALVE CAUSING THE ENGINE TO SHAKE.

CA050826003	DOUG	PWA	CYLINDER	CRACKED
8/25/2005	C54GDC	R20007M2		ENGINE

(CAN) NR 10 CYLINDER CRACKED AT THE EXHAUST VALVE SIDE AND MADE ENGINE RUN A LITTLE ROUGH. ENGINE WAS SHUT DOWN PRECAUTIONARY AND THE CYLINDER WAS REPLACED.

2005FA0001436	DOUG	PWA	EXHAUST VALVE	STICKING
10/15/2005	DC6B	R2800CB16		ENGINE

ENGINE EXHAUST VALVE STICKING (5 TIMES) MOST LIKELY CAUSED BY OIL. THE MFG ADDITIVE IN CONTACT WITH LEAD ON THE VALVE STEM CAUSES EXCESSIVE PHOSPHOR BUILDUP AND THE VALVE TO STICK. MFG IS AWARE OF THIS PROBLEM.

CA050908004	EMB	ALLSN	BEARING	FAILED
8/13/2005	EMB145	AE3007A		NR 4

(CAN) PILOT REPORTED RT ENGINE SHUTDOWN UNCOMMANDED, FLIGHT DIVERTED TO PIT. ITT ROSE TO THE AMBER RANGE, PILOT RETARDED THROTTLE. ITT CONTINUED TO RISE INTO THE RED AND THE E2 OUT MESSAGE APPEARED ON EICAS. ENGINE SHUTDOWN UNCOMMANDED. ENGINE CURRENTLY BEING DISMANTLED FOR INVESTIGATION. EVIDENCE OF NUMBER 4 BEARING FAILURE. STRIP REPORT WILL BE SUBMITTED AT A LATER DATE.

EAHR200500002	ENSTRM	LYC	ADAPTER	BROKEN
9/30/2005	F28F	HIO360F1AD	037360115	TURBOCHARGER

WELD BROKEN AT TURBO-CHARGER FLANGE.

CA050824015	FOKKER	PWA	PACKING	DAMAGED
8/8/2005	F27MK50	PW125B		STARTER

(CAN) DURING CRUISE, A LOW ENGINE OIL PRESSURE WARNING ANNUNCIATED AND THE ENGINE WAS SHUT DOWN IN FLIGHT. SUBSEQUENT INSPECTION REVEALED A DAMAGED STARTER,

GENERATOR SHAFT O-RING SEAL.

CA050920008	FOUND	LYC	CYLINDER BORE	DAMAGED
8/9/2005	FBA2C	IO540D4A5	CLASSCN13	NR 4 CYLINDER

(CAN) PILOT NOTICED INCREASED CHT IN FLIGHT UTILIZING GEM (GRAPHIC ENGINE MONITOR) ON NR 4 CYLINDER AND RICHEN UP MIXTURE TO MAINTAIN COOLER CHT. MAINTENANCE PERSONNEL DISCOVERED 0/80 DURING COMPRESSION TEST AND REMOVED AFFECTED CYLINDER ONLY TO FIND THAT 408.0 AFTER TOP OVERHAUL AT ECI WHERE CYLINDER WAS RE-CHROMED THAT 80% OF THE CHROME HAD SHED OFF THE CYLINDER WALLS AND DEPOSITED ITSELF THROUGHOUT THE ENGINE. THE REMAINING CYLINDERS WERE REMOVED DUE TO SCORING AND REPLACED WITH SERVICEABLE CYLINDER ASSY'S. THE ENGINE WAS DECONTAMINATED AN AFTER DUE DILIGENCE RETURNED TO SERVICE. ENGINE TSO 1524.8

CA050909007	GRUMAN	WRIGHT	CYLINDER	LEAKING
9/9/2005	TS2ACALFORST	982C9HE2	893741	ENGINE

(CAN) AN OIL LEAK WAS OBSERVED AT BASE OF CYLINDER NR 1. SOME SLIGHT MOVEMENT WAS NOTED AT CYLINDER BASE. UPON FURTHER INVESTIGATION, ALL CYLINDER BASE HOLD DOWN BOLTS ON THE AFFECTED CYLINDER WERE FINGER TIGHT. THE LOCK PLATES WERE STILL INSTALLED. CYLINDER WAS REMOVED AND THE CYLINDER BASE O-RING WAS BROKEN AND A MINOR AMOUNT OF WORKING WAS NOTED ON THE CYLINDER FLANGE. THE ADJACENT CYLINDERS WERE INSPECTED AND FOUND BELOW THE REQUIRED TORQUE. THE CYLINDER BASE HOLD DOWN BOLTS WERE RETORQUED. AIRCRAFT HAS BEEN REMOVED FROM SERVICE PENDING A COMPLETE TORQUE CHECK OF ALL CYLINDER BASE HOLD DOWN BOLTS. A RANDOM CHECK OF THE OTHER AIRCRAFT ON BASE WAS COMPLETED AND NO EVIDENCE OF LEAKS WERE NOTED.

CA050830001	GRUMAN	WRIGHT	ENGINE	MAKING METAL
8/26/2005	TS2ACALFORST	982C9HE2		NR 2

(CAN) DURING CRUISE ON FLIGHT, THE AIRCRAFT WAS APPROXIMATELY 90 MILES FROM BASE WHEN THE NR 2 ENGINE BEGAN BACKFIRING AND RUNNING ROUGH. THE ENGINE WAS SHUT DOWN AND THE PROPELLER WAS FEATHERED. THE AIRCRAFT RETURNED TO BASE AND LANDED UNEVENTFULLY. MAINTENANCE CREW FOUND METAL IN THE MAIN OIL SCREEN DURING INVESTIGATION. THE ENGINE WAS REPLACED AND THE AIRCRAFT WAS RETURNED TO SERVICE.

CA050824019	GULSTM	LYC	MAGNETO	FAILED
8/7/2005	500B	IO540E1A5	1016301010R	ENGINE

(CAN) DURING A ROUTINE COMPANY FLIGHT, THE NR 1 ENGINE STARTED RUNNING ROUGH. THE AIRCRAFT LANDED AND CALLED MAINTENANCE. UPON INSPECTION THE LT MAG WAS FOUND SEPARATED IN TWO, THE REAR HALF WAS STILL BOLTED TO THE ENGINE PAD AND THE FRONT HALF WAS HANGING BY THE IGNITION LEADS. THE MAG WAS REPLACED AND TIMED WITH THE AIRCRAFT AND RETURNED TO SERVICE.

CA050831002	HUGHES	ALLSN	BLADE	CRACKED
8/3/2005	369D	250C20C	369D21100517	MAIN ROTOR

(CAN) DURING PILOT'S POST FLIGHT INSPECTION A CRACK WAS DETECTED IN THE LOWER SKIN OF MAIN ROTOR BLADE NR 1. THE CRACK IS LOCATED 11' FROM THE INBOARD END (ROOT FITTING) OF THE BLADE, AND 3' AFT OF THE LEADING EDGE. THE CRACK WAS 3' LONG AND WITHIN 1' OF THE TRAILING EDGE.

CA050908005	HWKSLY	RROYCE	WARNING LIGHT	FALSE INDICATION
9/6/2005	HS125600A	DART5342		PROP FEATHERING

(CAN) BELOW FFPS INDICATOR LIGHT FOR NR 2 PROP INOP SYSTEM GROUND TEST NORMAL FERRY

FLIGHT PERMIT ISSUED TO RETURN TO BASE FOR REPAIR.

CA050826005	LEAR	PWA	HMU	MALFUNCTIONED
8/24/2005	60LEAR	PW305A	189111	ENGINE

(CAN) DURING CLIMB, THE ENGINE EXHIBITED VIBRATION AND LOUD BANGING NOISES ON COMMANDED POWER MODULATION. ENGINE POWER WAS REDUCED TO FLIGHT, IDLE AND THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. THE HYDROMECHANICAL FUEL CONTROL UNIT WAS SUBSEQUENTLY REPLACED.

2005FA0001441	LET	CONTROL CABLE	FRAYED
10/21/2005	L23	A740255N	RUDDER

RT RUDDER CABLE FOUND FRAYED AT FORWARD NR 1 PULLEY.

CA050908003	LKHEED	ALLSN	COUPLING	BROKEN
9/5/2005	188A	501D13	7501113	TE FLAP CONTROL

(CAN) THE A/C HAD FINISHED IT'S THIRD DROP ON A FIRE BOMBING PRACTICE, FLAPS WOULD NOT RETRACT AND THE FLAP ASYMMETRIC LIGHT WAS ON. THE FLAP ASYMMETRY CHECKLIST WAS COMPLETED AND THE A/C RETURNED TO BASE. MAINTENANCE FOUND A BROKEN TORQUE TUBE COUPLING, THE COUPLING WAS REPLACED THE ASYMMETRY SYSTEM WAS RESET. THE FLAPS WERE RUN THROUGH SEVERAL CYCLES AND THE A/C WAS RETURNED TO SERVICE.

CA050824016	PILATS	PWA	ENGINE	LACK OF LUBE
8/20/2005	PC1245	PT6A67B		

(CAN) FOLLOWING TAKEOFF, THE LOW ENGINE OIL PRESSURE WARNING ANNUNCIATED FOLLOWED BY AN UNCOMMANDED REDUCTION IN POWER. FUEL CONTROL MANUAL OVERRIDE WAS ENGAGED AFTER WHICH FLAMES WERE EMITTED FROM THE EXHAUST AND THE ENGINE FLAMED OUT. SUBSEQUENT INSPECTION REVEALED NO OIL REMAINING IN THE ENGINE AND SEIZURE OF THE POWER SECTION. PWC WILL INVESTIGATE THIS EVENT AND WILL ADVISE OF ROOT CAUSE, ONCE ESTABLISHED.

CA050824008	PILATS	PWA	BLADES	DAMAGED
8/6/2005	PC6	PT6A20		COMPRESSOR

(CAN) DURING CLIMB, THE ENGINE EXHIBITED A SQUEALING NOISE ACCOMPANIED BY AN UNCOMMANDED POWER REDUCTION. THE ENGINE WAS SHUTDOWN IN FLIGHT AND THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED COMPRESSOR AND POWER TURBINE BLADE DAMAGE. P&WC WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE DETERMINED.

CA050824017	PILATS	PWA	ENGINE	LACK OF LUBE
8/19/2005	PC6	PT6A27		

(CAN) IN CLIMB, ENGINE TORQUE WAS REPORTED TO FLUCTUATE FOLLOWED BY WHITE SMOKE EMANATING FROM THE EXHAUST. THE ENGINE WAS SHUT DOWN IN FLIGHT. SUBSEQUENT INSPECTION REVEALED LOW ENGINE OIL QUALITY AND TORSION DAMAGE OF THE EXHAUST CASE. THE ENGINE HAD BEEN OVERHAULED 12 HOURS PRIOR TO THE INCIDENT. PWC WILL MONITOR THE INVESTIGATION OF THIS EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA050831001	PIPER	LYC	CAPACITOR	FAILED
8/29/2005	PA12	O320A2B	1051676TCM	MAGNETO

(CAN) PILOT REPORTED IGNITION PROBLEMS WHEN OPERATING ENGINE ON RIGHT HAND MAGNETO. ALL IGNITION COMPONENTS INSPECTED AND TESTED INCLUDING CAPACITOR. CAPACITOR ELECTRICALLY TESTED TO 0.358 MICRO FARADS. THIS VALUE IS ABOVE THE MAINTENANCE VALUE OF A 0.300 MICRO FARAD MINIMUM. IGNITION SYSTEM RE-INSTALLED ON ENGINE. DURING ENGINE RUN UP PROBLEMS PERSISTED. NO EVIDENCE OF A DEFECTIVE

CAPACITOR WERE FOUND ON THE SURFACE CONDITION OF THE BREAKER POINTS. DUE TO EXPERIENCE WITH SIMILAR CIRCUMSTANCES, CAPACITOR REPLACED WITH NEW KELLY AEROSPACE CAPACITOR P/N 10-51676. SUBSEQUENT RUN UP CONFIRMED CAPACITOR TO HAVE BEEN SOURCE OF IGNITION TROUBLES.

2005FA0001317	PIPER	LYC		BLADDER	COLLAPSED
9/20/2005	PA25235	O540*			FUEL TANK

FOUND AC TO HAVE DAMAGE TO L G BUNGEE, LT BOOM OB ATTACH POINT AT AFT WING CLOSEOUT. NO FUEL IN TANK, VERIFIED BY REMOVAL OF FUEL LINE AT FUEL VALVE ON BOTTOM OF TANK. FILLED TANK TO OVERFLOW CONDITION. WAS ONLY ABLE TO GET 23.2 OF 38 GALLONS INTO TANK. FUEL BLAD PARTIALLY COLLAPSED, UNABLE TO BLOW AIR THROUGH FUEL VENT. LINE WAS PARTIALLY BLOCKED WHICH COULD HAVE CAUSED FUEL CONSUMPTION TO COLLAPSE BLAD UNHOOKING UPPER SNAPS. SB INSTALLS BOLT, WIDE AREA WASHER IN BOTTOM OF TANK DIRECTLY BELOW FUEL GAGE/FLOAT TO HOLD BLADDER IN PLACE. TANK/BLADDER TO BE INSP DURING AC REPAIR TO DETERMINE IF BLOCKED VENT CAUSED UPPER BLADDER SNAPS TO UNHOOK COLLAPSING TANK, PREVENTING FULL USABLE FUEL CAPACITY.

2005FA0001351	PIPER	LYC		BOWL	LOOSE
9/27/2005	PA28161	O320D3G			CARBURETOR

ENGINE WAS REPORTED TO NOT SHUTDOWN USING MIXTURE CONTROL. INSPECTED AND FOUND CARBURETOR BOWL LOOSE ON CARBURETOR. ALL SAFETY CLIPS ON ATTACHING HARDWARE WERE INSTALLED AND INTACT.

2005FA0001352	PIPER	LYC		BOWL	LOOSE
9/27/2005	PA28161	O320D3G			CARBURETOR

ENGINE WAS REPORTED TO NOT SHUTDOWN USING MIXTURE CONTROL. INSPECTED AND FOUND CARBURETOR BOWL LOOSE ON CARBURETOR. ALL SAFETY CLIPS ON ATTACHING HARDWARE WERE INSTALLED AND INTACT.

CA050810005	PIPER	LYC		OIL FILTER	COLLAPSED
8/5/2005	PA31350	TIO540J2BD		CH481031	ENGINE

(CAN) DURING A ROUTINE INSPECTION, THE OIL FILTER WAS CUT OPEN AND EXAMINED FOR METAL CONTAMINATION AS PER MAINTENANCE INSTRUCTIONS. IT WAS FOUND THAT THE FILTRATION MEDIUM HAD COLLAPSED. THE ENGINE WAS EXAMINED FOR POSSIBLE RESTRICTIONS OF OIL FLOW AT THE BYPASS VALVE LOCATED IN THE ADAPTER PLATE. NO SUCH EVIDENCE WAS FOUND. THE VENDOR HAS BEEN CONTACTED WHO IN TURN NOTIFIED THE MANUFACTURER.

2005FA0001295	PIPER	LYC	LYC	VALVE GUIDE	BURNED
9/9/2005	PA60602P	TIO540U2A			CYLINDER

DURING ANNUAL INSPECTION, IT WAS DISCOVERED DURING A DIFFERENTIAL COMPRESSION CHECK THAT NR 1CYLINDER ON THIS ENGINE HAD ALMOST NO COMPRESSION. THE CYLINDER WAS REMOVED AND SENT, IT WAS DISCOVERED THAT THE EXHAUST VALVE GUIDE WAS BAD. THE GUIDE WAS REPLACED ALONG WITH THE INTAKE AND EXHAUST VALVES UNDER WORK ORDER NR 21110. THIS CYLINDER WAS ON AN ENGINE THAT HAD BEEN RECALLED BY THE AD FOR THE CRANKSHAFT AND ALL CYLINDERS WERE REPLACED AT THAT TIME. THE CYLINDER HAD 149 HOURS IN SERVICE SINCE NEW. MFG WAS CONTACTED REGARDING THIS PROBLEM AND WAS NOT EVEN INTERESTED IN DISCUSSING IT.

2005FA0001296	PIPER	LYC	LYC	VALVE GUIDE	BURNED
9/9/2005	PA60602P	TIO540U2A			CYLINDER

DURING ANNUAL INSPECTION, IT WAS DISCOVERED DURING A DIFFERENTIAL COMPRESSION CHECK THAT THE NR 1 CYLINDER ON THIS ENGINE HAD ALMOST NO COMPRESSION. THE CYLINDER WAS REMOVED AND SENT AND WAS DISCOVERED THAT THE EXHAUST VALVE GUIDE WAS BAD. THE GUIDE WAS REPLACED ALONG WITH THE INTAKE AND EXHAUST VALVES UNDER WORK ORDER NR 21110. THIS CYLINDER WAS ON AN ENGINE THAT HAD BEEN RECALLED BY THE AD FOR THE CRANKSHAFT AND ALL CYLINDERS WERE REPLACED AT THAT TIME. THE CYLINDER HAD 149 HOURS

IN SERVICE SINCE NEW. MFG WAS CONTACTED REGARDING THIS PROBLEM AND WAS NOT EVEN INTERESTED IN DISCUSSING IT.

CA050912005	ROBSIN	LYC	AIR FILTER	DAMAGED
9/10/2005	R44	O540F1B5	C328	ENGINE

(CAN) DURING AN 100 HR INSPECTION, THE AIR FILTER WAS BEING REPLACED. THE FILTER WAS FOUND DAMAGED AND REPLACED. INVESTIGATION REVEALED NO APPARENT REASON. THE PILOT WAS ASKED IF A BACKFIRE CONDITION OCCURRED AND NONE WAS EXPERIENCED AT THE TIME. THIS IS THE FIRST THAT'S BEEN SEEN OF THIS AND ONLY ASSUME AT THIS TIME. HAVE SENT PICTURES TO ROBINSON HELICOPTERS TO GET SOME FEED BACK. ASSUME IT WAS DUE TO A CARB FIRE AND THE HEAT DISTORTED THE FILTER.

CA050806001	ROBSIN	LYC	SERVO	UNSERVICEABLE
7/29/2005	R44RAVENII	IO540*	25766303	FUEL SYSTEM

(CAN) DURING TAKEOFF, THE PILOT EXPERIENCED POWER SURGES AND FLUCTUATIONS IN MANIFOLD PRESSURE. THE SERVO COULD NOT BE ADJUSTED EITHER WAY AND BLUE STAINS WERE EVIDENT AT THROAT OF SERVO. ALSO, THE MANIFOLD PRESSURE WAS 2.5 INCHES HIGHER THAN NORMAL AT 100 PERCENT WITH ZERO COLLECTIVE. MANIFOLD PRESSURE SHOULD BE AROUND 13 TO 13.5' OF MANIFOLD PRESSURE. THE SERVO WAS CHANGED AND THE ENGINE NO LONGER SURGED AND MANIFOLD PRESSURE WAS NORMAL.

2005FA0001433	SKRSKY	TMECA	ENGINE	FLAMED OUT
10/9/2005	S76C	ARRIEL1	0292005310	NR 2

WHILE IN CRUISE, WE WERE VMC ON TOP OF A CLOUD DECK, EXPERIENCED A NR 2 ENGINE CHIP LIGHT. IMMEDIATELY, NR 2 ENGINE SHUTDOWN. NR 1 AUTOPILOT ALSO DROPPED OFF LINE. EMERGENCY WAS DECLARED AND SINGLE ENGINE INSTRUMENT ILS APPROACH WAS ACCOMPLISHED. WEATHER AT THE TIME WAS ABOUT 700 FT OVC WITH 5 MILES VISUAL. INSPECTION REVEALED CONTAINED ENGINE FAILURE WITH A SIGNIFICANT AMOUNT OF METAL DEBRIS ON ACCY GB MECHANICAL CHIP PLUG. THIS ENGINE HAD ONLY 79 HOURS ON IT SINCE RETURN FROM MFG FOR REPAIR DUE TO METAL CHIPS. NR 1 ENGINE EXPERIENCED A 30 SEC POWER EXCURSION DURING ENGINE FAILURE, REQUIRING IT'S REMOVAL AS WELL. SPECULATION WOULD INDICATE A FAULTY REPAIR.

CA050831004	SNIAS	TMECA	BATTERY	OVERHEATED
7/15/2005	AS350B2	ARRIEL1D1	16061	MASTER

(CAN) BATTERY OVERHEATED. PILOT HAD AN OVERTEMP INDICATION ON HIS INSTRUMENT PANEL. BATTERY REMOVED AND A NEW ONE INSTALLED.

2005FA0001346	SNIAS	TMECA	LEAF SPRING	BROKEN
10/4/2005	AS350B3	ARRIEL2B	350A41107620	RT SKID

WHEN HELICOPTER TOOK OFF, PILOT NOTICED AN OBJECT ON THE GROUND WHERE HELICOPTER WAS SITTING. HE SET THE AIRCRAFT BACK DOWN AND RETRIEVED THE OBJECT. HE THEN NOTICED THAT A 3 INCH AFT SECTION OF THE RT SKID LEAF SPRING HAD SNAPPED OFF. THE LEAF SPRING WAS JUST INSTALLED ON THE HELICOPTER PRIOR TO THE FLIGHT. THE LEAF SPRING HAD BEEN REPAIRED AND CAME WITH AN 8130-3. INSPECTION OF THE PART REVEALED RUST IN THE AREA OF THE BREAK WHICH WOULD INDICATE THAT THE PART HAD BEEN CRACKED FOR SOME TIME. PART WAS SENT BACK TO REPAIRER FOR WARRANTY.

CA050825005	SNIAS	TMECA	DRIVE ASSY	WORN
8/19/2005	AS350BA	ARRIEL1B		HYD PUMP

(CAN) HYD WARNING HORN AND LIGHT CAME ON IN FLIGHT. PILOT FOLLOWED LOST HYD PROCEDURE AND RETURNED TO BASE AND SHUT DOWN. INVESTIGATION SHOWED THAT THE HYD PUMP DRIVE SPLINES WERE COMPLETLY WORN. PUMP, COUPLING AND BEARING CHANGE.

CA050825006	SNIAS	TMECA	IGNITER	BROKEN

8/19/2005	AS350BA	ARRIEL1B	9550175400	ENGINE

(CAN) DURING INSPECTION, IGNITERS WERE FOUND TO HAVE BROKEN INSULATORS.

CA050830006	SWRNGN	GARRTT	LINE	CRACKED
8/29/2005	SA227*	TPE33111U	2780322044	HYD SYSTEM

(CAN) FLIGHT CREW NOTICED HYD FLUID LEAKING FORM THE LEFT SIDE OF THE NACELLE. MAINTENNACE INSPECTED LEAK AND FOUND UP GEAR HYD LINE FROM POWER PACK TO GEAR ACTUATORS LEAKING. CRACKED IN 90 DEGREE BEND RADIUS. LINE REPLACED,GEAR SWINGS CARRIED OUT AND AIRCRAFT RETURNED TO SERVICE.

CA050909006	SWRNGN	GARRTT	LINE	CRACKED
9/2/2005	SA227*	TPE33111U	2781032491	HYD SYSTEM

(CAN) AIRCRAFT LANDED AND FLIGHT CREW NOTICED HYD LEAK. MAINTENANCE WAS CONTACTED. FOUND A CRACKED FLAP UP LINE IN THE BELLY OF THE AIRCAFT. TUBE WAS REPLACED AND AIRCRAFT RETURNED TO SERVICE.

CA050909005	SWRNGN	GARRTT	DOOR	DAMAGED
9/8/2005	SA227AC	TPE33111U		NLG

(CAN) DAMAGE FOUND ON THE LT NOSE GEAR DOOR 6 INCH AFT OF THE FORWARD HINGE. GEAR SWINGS CARRIED OUT AND MAINT FOUND DOOR TO JAM IN THERE TRACKED POSITION. GEAR DOOR ADJUSTED AS PER THE AMM AND GEAR SWINGS CHECKED SERVICIBLE. AIRCRAFT RELEASED TO SERVICE.

END OF REPORTS