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AVIATION MAINTENANCE ALERTS



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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

AVIAT

Aviat; A-1B; "Short" Potential in Engine Instrumentation Pac; ATA 7740

A mechanic was troubleshooting an engine electronic instrumentation package (P/N VM1000 DPU) when a voltage sense wire (#J4-B) came loose and shorted to ground. The report observes this wire is connected directly to the bus with no circuit protection, which is a potential in-flight fire hazard. He notes later model aircraft do incorporate circuit protection (according to Aviat), and recommends retrofitting earlier model aircraft with the same.

Part total time: 117.2 hours.

BEECH

Beech; 58; Cracked Brake Rotors; ATA 3240

Left and right brake rotors were found to have radial cracks on the inside wear surface. Both were replacement parts (Rapco P/N RA-164-02706). This mechanic also found similar cracks on two other Barons with the same part numbers and equivalent service time, of five out of six inspected brake assemblies. The report notes no indication or evidence of an overheat condition in any of the five cracked assemblies, and speculates there may be a manufacturing defect at play. *(The noted "other three" brake reports will be included in the SDRS data base.)*

Part total time: 370 hours.

Beech (Raytheon); 300; Inner Windshield Failure; ATA 5610

Subject aircraft was at 29,000 feet with an outside temperature of -38 C. The copilot's inner windshield suddenly shattered. Approximately 10 seconds later, the pilot's followed suit. The technician suspects this failure is directly related to improper torque procedures during windshield installation/replacement: kit P/N 101-5043-3, windshield P/N 101-384025-21. (*Reference last month's similar reports.*)

Part total time: 1858.3 hours.

DOUBLE ENGINE FLAMEOUT BE-400

UPDATE: The Rochester Flight Standards District Office, EA-FSDO-23, submitted the following article. The article was published in the October 2004 issue of this AC. (*It was published as received.*) We are publishing it again to give credit to the authors and provide the points of contact for any questions regarding this article.

On July 12, 2004, a Beech (BE-400A) with PWA JT15D engines (without engine fuel heaters), while cruising at 41,000 feet with the outside air temperature of -59°C, was directed by ATC to descend to 33,000 feet. At approximately 39,000 feet, with engine power reduced for the descent, both engines experienced a flameout. After several start attempts, the crew was able to restart the number 2 engine at approximately 14,000 feet. The fuel, from the BE-400, was tested for density, specific gravity, anti-icing additives, freezing point, and flash point. The density, specific gravity, and flash point were normal, however, the content of the anti-icing additives and freezing point were not normal. The test showed a reading of 0.023 parts per million of *Prist* anti-icing additives. The normal percentage by volume should have been 0.10 to 0.15 parts per million.

The AFM states that fuel additives, to lower the freezing point, are required to allow the aircraft to operate at a minimum outside air temperature of -65°C with a -40°C minimum fuel temperature. The operator is responsible for the overall safe operation of an aircraft. When a flight crew lands at an airport and requests a fuel load with *Prist*, they may not always know the quality of product they are getting. The following factors could have a significant affect on the quality of the fuel being delivered:

- If the fuel and *Prist* was pre-mixed, was the fuel tested for concentration of *Prist* in accordance with an industrial standard?
- If the *Prist* in the fuel was dispensed by an external delivery device, was the delivery system calibrated to an industry standard?

In order to prevent a potentially catastrophic accident, due to the possibility of an improper fuel load, operators should establish procedures that would provide for the following:

- A method for auditing and if necessary, approving fuel vendor facilities.
- Checking the fuel vendor's quality control/records system that verifies the fuel test results and calibration of delivery systems.
- Specific procedures for the crew to follow in the event that the aircraft is refueled with improper fuel.
- Detailed procedures to guide the pilot when monitoring fueling operations and reviewing quality control records.

FOR FURTHER INFORMATION CONTACT: Sergio A. Perez, Principal Maintenance Inspector, or Donald G. Mann, Principal Operations Inspector, EA-FSDO-23, 1 Airport Way, Suite 110, Rochester, NY 14624; telephone: (585) 436-3880; fax: (585) 436-2322.

CESSNA

Cessna; 172S; Cracked Spinner Bulkheads; ATA 6113

A 100-hour inspection revealed four (of six) cracked bolt holes in the propeller spinner bulkhead (P/N 0552231-1). The mechanic suspects current propeller bolt torque values induce too much stress for the through-holes as bulkhead metal is formed into the chamfered area of the propeller bolt passages during torque. His suggested correction would be a part redesign and/or heavier material for bulkhead manufacture. *(This month's SDRS submissions include identical defects in four additional 172's. They will be added to the SDRS data base, which then will reflect an approximate 37 records of this model 172 aircraft defect since 1995.)*

Part Total Time: 96.6 hours.

Cessna; 182T; Locked Rudder Trim Wheel; ATA 2721

A transit customer required help as his rudder trim was stuck in the full-right position. The attending mechanics found the trim indicator pin had jumped free of its positioning track and locked the trim wheel. After adjustment, the system was cycled to full extremes several times. The submitter notes they could replicate the "jammed" trim condition with extreme R/H trim. This aircraft was the second 182 observed by these mechanics having this particular problem.

Part total time: 31.9 hours.

Cessna; U206G; Stuck Starter Contactor; ATA 8012

This mechanic describes how some Cessna starter contactors (P/N S2443-2) have failed to "release" after engine start. Although this aircraft is equipped with a "starter engaged" warning light, it was not detectable after initial engine start, possibly related to low engine RPM having little alternator output to the bus. Continuous contactor connection destroys both the contactor and the starter.

"Continental has begun supplying a compact, lightweight starter (P/N 655566F24V by Iskra) on new engines," states the mechanic. "This aircraft had a factory new engine installed 42 hours prior to this event. It would be the first lightweight starter installed on this aircraft. Our investigation indicates the lightweight starters have a higher current draw than the larger starter used previously. We suspect the Cessna contactor cannot handle the load. For the present we will probably replace the starter contactors at each engine change to see if that will help avoid this problem."

(The submitter includes two additional reports describing the same stuck-starter occurrences on the same type aircraft having the same part numbers. These will be included in the SDR data base.)

Part total time: 7616 hours.

Cessna; 337H; Split Crossfeed Fuel Line; ATA 2820

This flight left Bangor, Maine, but quickly returned with the obvious smell of fuel in the cockpit. Investigation found the left fuel crossfeed line (located on the aft bulkhead) to have a "split" type fracture indicative of water expansion. Upon removal water was found in the line. The writer notes there are "...no provisions or procedures to drain this or the right crossfeed lines." The aircraft was subject to temperatures at or below freezing for the night

and day prior to flight. Included is the reference to P/N 1516136-21. (*The SDR data base reveals another, identical expansion fracture for the same aircraft model during 1986. Preventive recommendations included cautioning pilots to verify crossfeed valve operation prior to flight and to fill their tanks after flight.*)

Part total time: 1,006.4 hours.

Cessna; 500; Loose/Dislodged Tire Heat Shield; ATA 3201

This pilot heard an impact sound during a night landing. It was followed with a failed brake antiskid indication. He reports possibly hitting a foreign object on the runway. Inspection of the left gear revealed part of the tire heat shield (P/N 5004549-E) had torn away, cutting the brake antiskid wire harness, bending the gear door rod, and denting the inboard area of the landing light housing. Inspection of the right heat shield found it loose, but both shields (*left and right*) were installed correctly according to the Goodyear Components Maintenance Manual. The submitter states: "The tire heat shield has no 'hard mount' attachment to the wheel assembly. This problem is a common occurrence with Cessna Citations having this wheel/brake set up. Upgrading these aircraft to the newer style wheel/brake assembly is the only viable fix to prevent this from happening in the future."

Part total time: (unknown).

DASSAULT

Dassault; 20D; Engine Shutdown with Throttle Advance; ATA 7300

Throttling up for takeoff, this pilot watched the number 2 CF700-2D spool down and die, providing no power and plenty of motivation for a trip back to the hangar. All subsequent efforts to duplicate the problem (prior to maintenance disturbance) failed. Attending technicians then performed engine runs and performance checks according to the General Electric Manual, SEI-187. Fuel filters were checked, cleaned, and an overspeed bypass check was accomplished. They performed a general inspection of the engine, its fuel systems, and respective control systems. Nothing was found as defective, nor did high-speed taxi tests provide any performance results less than optimum. The ensuing test flight was uneventful. No speculation was provided as to the cause of this problem.

Part total time: (unknown).

GROB

Grob; G120A; Cracks on Nose Gear Swivel Tube; ATA 3222

Inspection procedures for the nose gear upper trunnion revealed cracks around welds on the swivel tube ears. Nearly identical cracks were found on three other G120A aircraft with similar time. Causal factors and recommendations are waiting determination from the manufacturer.

Part total time: 1755.0 hours.

LEARJET

Learjet; 35A; Loss of Landing Gear Hydraulic Pressure; ATA 3230

The flightcrew reported aircraft gear extension took longer than normal, but “down and locked” was achieved. Moments later all hydraulic pressure was gone. A safe landing was made using emergency brake pressure. Gear swings under maintenance scrutiny revealed a pinhole in the L/H spoiler-down line (P/N 26007003-375) located in the top center wing section. Corrosion is suspected as the probable cause.

Part total time: 7993.7 hours.

Learjet; 35A; Sheared Engine Mount Bolt; ATA 7120

The technician states the aft engine mount bolt (P/N 2652002-3) “...sheared at threads during removal.” The bolt appeared to have signs of internal corrosion that may have precipitated failure (*emphasis again on “...during removal...”*).

Part total time: 10723.7 hours.

MITSUBISHI

Mitsubishi; MU2B-40; Loose Bearing Retainer for Starter/Generator; ATA 8011

A 400-hour special engine inspection found the aft bearing loose in the starter/generator (Lucas; P/N 23046-028). The aft bearing retainer screws had partially backed out (Bearing Support P/N 23046-110). The submitter states: “Bearing failure can cause catastrophic failure of the starter/generator.” Four MS35265-43 *with drilled heads* hold the retainer to the frame, but were not safety wired. Apparently, safety wire is not called for and is not described in the available component maintenance manuals for the starter/generator. This writer concludes he tightened and safety-wired the screws, then returned the unit to service. Caution is extended to operators using this starter/generator to periodically remove the unit and cooling fan cover to verify bearing retainer security.

Part total time: 300 hours.

PIETENPOL

Pietenpol; Air Camper; In-Flight Power Loss; ATA 7160

This pilot reports a power loss during flight and was not able to maintain altitude. A safe landing was made on a highway with minor damage to the aircraft. A quick glance “under the hood” reveals the cause of this Continental A-65’s poor performance: the carburetor venturi ingested a wad of steel wool, previously located upstream in the heat mufflers to increase (supposedly) heat transfer.

HELICOPTERS

AUGUSTA

Agusta; A109A2; Vibration Problem With Collins Distance Measuring Equipment (DME); ATA 3451

Mr. Mark Schilling, Manager, Rotorcraft Standards Staff, ASW-110, submitted the following article. (*This article is published as it was received.*)

“A vibration problem has been identified with the Collins Distance Measuring Equipment (DME) Receiver-Transmitter (RT) installed on the Agusta A109A2 rotorcraft. This problem results in intermittent DME

display or loss of power to the DME indicator. This failure occurs after approximately every 400 hours of operation and is the result of vibration between the DME RT unit and the rotorcraft-mounting surface. The DME RT unit is hard-mounted on an avionics shelf located in the tail boom, aft of the rear baggage compartment. Vibration between the aircraft harness plug connector (P/N 621-0608-001) and the DME RT mating connector (P/N 372-2514-110) results in loss of electrical contact between some of the connector pins. This problem can be corrected by mounting the DME RT on vibration isolators. If you have any questions, please contact Mr. Carroll Wright at 817-222-5120.”

Part total time: (n/a).

Agusta; A109E; Cracked Tail Rotor Blade; ATA 6410

A mechanic with an air-taxi operator found a tail rotor blade crack (P/N 109-8132-010111) at station 540.00, extending “...from the doubler back 4 inches chordwise along station 540.” A reference is given to Figure 1 of AD 2002-25-51. This crack was found after rotor modification.

Part total time: 176.2 hours.

EUROCOPTER

Eurocopter; AS 350BN; Cracked Servo Body; ATA 6730

Mechanic submits a statement that a crack was found on the Dunlop Servo Body (P/N AC66375). No other information was provided.

Part total time: (unknown).

Eurocopter; AS 355N; Cracked Starter/Generator Mount Adaptor; ATA 8011

The starter/generator vibration level was checked after the number 1 engine exhaust pipe was found cracked. Vibration was indeed above limits. The starter was removed and its adaptor (P/N 800350) was found to have two mounting flanges broken off and one cracked. The reporter states: “I think that the starter/generator vibration should be checked every 25 hours, even if the new exhaust pipe has the retaining straps as per TU 106.”

Part total time: (unknown).

Eurocopter; AS 355N; Cracked Engine Exhaust Pipe; ATA 7800

A crack found in the number 1 engine pipe was determined to be beyond limits. Subsequent inspection also found vibration in the starter/generator too high. *(This annotates the exhaust crack on the helicopter as above. Additionally, the reporter submitted another two exhaust cracks on two other AS 355 helicopters attributed to the same reasons. These will be included in the SDR data base.)*

Part total time: (unknown).

SIKORSKY

Sikorsky; S76A; Chaffed Oil Supply Line; ATA 7921

A pilot performing a postflight check noticed a large amount of oil on the ground. Inspection discovered a fastener (P/N 9550158060) on the L/H side of the oil cooler ducting panel (P/N 0401272790) "...had come loose and wore a hole on the inboard side of the oil supply line (P/N 0401274100)." This mechanic recommends a daily inspection of the above fastener(s) for security.

Part total time: (unknown).

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/isdr>

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/isdr/>.

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 45,000 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 between December 17, 2004, and January 31, 2005, 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
CEVR200400001			EAAEROMARINE	BATTERY	BURST
11/9/2004			KSE35L8		VEST LIGHT
DURING THE YEARLY INSPECTION OF THE LIFE VEST, THE WATER ACTIVATED BATTERY FOR THE LOCATING LIGHT HAD EXPANDED AND BURST OPEN. THIS MADE THE LIGHT INOPERABLE. ACCORDING TO THE EAM SERVICE INFORMATION SIL-25-104 ,THIS VEST COULD HAVE A INSPECTION INTERVAL OF FIVE YEARS, WHICH MEANT THE LIGHT COULD HAVE BEEN INOPERATIVE FOR FOUR YEARS. REPLACED THIS BATTERY/LIGHT ASSY WITH A DIFFERENT MANUFACTURES BATTERY/LIGHT ASSY.					
CA041119008		GARRTT		FUEL LINE	DAMAGED
11/18/2004		TFE7315BR		30751301	ENGINE
(CAN) DURING A SCHEDULED OIL PUMP REPLACEMENT SEVERE WEAR WAS FOUND ON THE PRIMARY FUEL MANIFOLD FEED LINE NEAR THE FUEL FLOW TRANSMITTER. THE DAMAGE WAS CAUSED BY CONTACT BETWEEN THE FUEL FLOW TRANSMITTER INLET LINE B-NUT AND THE FEED LINE DUE TO LACK OF CLEARANCE. MOST OF THE DAMAGE WAS CAUSED BY THE CUTTING ACTION OF THE BNUT AS IT WAS TIGHTENED DURING INSTALLATION OF THE FUEL FLOW TRANSMITTER WHICH HAD BEEN REMOVED 300 HR. EARLIER FOR ENGINE OVERHAUL. TWO OF THE THREE ENGINES ON THE AIRCRAFT HAD SIMILAR DAMAGE. THE DAMAGED LINES WERE REPLACED ON BOTH ENGINES.					
CA041109001		LYC		CRANKCASE	CRACKED
10/21/2004		O540E4C5			ENGINE
POSSIBLE CRACK FOUND DURING 100 HR INSPECTION. ENGINE REMOVED AND SENT TO AEROTER ENGINES IN HALIFAX. ENGINE SHOP CONFIRMED CRACK BETWEEN NR 2 AND NR 4 CYLINDER ON BOTTOM SIDE. IT ALSO HAD EXCESSIVE FRETTING ON THE CENTER MAINS.					
CA041001012		PWA		ENGINE	FAILED
9/21/2004		JT15D1A			
ENGINE WAS REMOVED FROM THE WING AFTER THE CUSTOMER THOUGHT THAT THE ENGINE HAD SUSTAINED A HIGH TURBINE BLADE FAILURE. THE ENGINE WAS SHIPPED TO ATLANTIC TURBINES FOR INVESTIGATION AND REPAIR. NO SIGNIFICANT DAMAGE WAS FOUND UPSTREAM OF THE HIGH PRESSURE TURBINE IT HAS BEEN CONCLUDED THAT THIS ENGINE DID SUSTAIN A HIGH TURBINE BLADE FAILURE. IT IS ATLANTIC TURBINES OPINION THAT THIS ENGINE DID SUFFER AN HP TURBINE BLADE FAILURE SINCE THERE WAS NO UPSTREAM DAMAGE PRIOR TO THE HPT DISK. ALL DAMAGE DOWNSTREAM IS THOUGHT TO BE SECONDARY DAMAGE CAUSED BY THE LIBERATED MATERIAL FROM THE HIGH TURBINE BLADES. THE SECONDARY DAMAGE IS CONCENTRATED MAINLY TO THE 2ND STAGE STATOR AND ROTOR.					
CA041006007		PWA		ENGINE	FAILED
9/28/2004		PT6A27		PT6A27	
(CAN) ENG REMOVED FROM WING DUE TO INFLT SHUTDOWN CAUSED BY A POWER SECTION SEIZURE. ENG SENT TO ATLANTIC TURBINES FOR INVEST. POWER SECTION, POWER TURBINE & RIB, SUFFERED DAMAGE. POWER TURBINE DISK WAS NO LONGER COUPLED TO RIB INDICATES THAT A POSSIBLE PT OVERSPEED AFTER IT DECOUPLED. THIS WOULD BE SUFFICIENT TO CAUSE PT BLADES TO FRACTURE & DEPART DISK. THIS WOULD RESULT IN FRACTURES AT SIMILAR LOCATIONS ON ALL BLADES WHICH IS NOT SEEN HERE. EVIDENCE OF SUDDEN STOPPAGE CAUSED BY 1ST STAGE GEARING. DAMAGE TO SUN GEAR & 1ST STAGE PLANET GEARS					

RESPONSIBLE FOR AMOUNT OF METAL CONTAMINATION. ATLANTIC TURBINES IS CONTINUING ITS INVESTI TO ATTEMPT TO DETERMINE WHAT THE PRIMARY FAILURE THAT CAUSED OTHER DAMAGE.

CA041129018		PWA		MANIFOLD	MALFUNCTIONED
11/26/2004		PT6A27			FUEL SYSTEM

(CAN) AFTER REPLACING A SET OF FUEL MANIFOLD ADAPTERS ON A PT6A-27 ENG, A GROUND RUN WAS CARRIED OUT. THE RESULTING GROUND RUN SHOWED SIGNS OF FUEL LEAKAGE FROM THE TRANSFER TUBES P/N 3011155. ENGINE PERFORMANCE DATA SHOWED THAT THE T5 TEMPERATURE AND FUEL FLOW NUMBERS WERE HIGHER THAN BEFORE REPLACEMENT. AFTER FURTHER TROUBLESHOOTING AND GROUND RUNS, THE T5 AND WF REMAINED ABOVE TARGET LIMIT ON DATA PLATE SPEED RUNS. AFTER DOUBLE CHECKING CALIBRATION OF THE T5 TEMPERATURE SYSTEM AND TORQUE INDICATION SYSTEM, ANOTHER SET OF GROUND RUNS WERE CARRIED OUT. THE RESULTS SHOWED CONTINUED HIGH T5 AND HIGH FUEL FLOW. THE ENGINE WAS THEN SPLIT AT THE 'C' FLANGE AND A HOT SECTION INSPECTION CARRIED OUT.

CA041101009		PWA		BOLT	FRACTURED
10/26/2004		PT6A65AR		MS949034	ENGINE

(CAN) ENG SHUTDOWN IN FLT DUE TO TORQUE FLUCTS & LOW OIL PRESS. 6 BOLTS USED TO ASSEMBLE 1ST STAGE CARRIER ASSY. 2 OF 6 BOLTS FAILED DURING OPS. 1 BOLT HEAD FOR 1ST STAGE CARRIER ASSY FRACTURED IMMEDIATELY UNDER BOLT HEAD. HEAD OF BOLT LODGED INTO 1ST STAGE REDUCTION GEAR TRAIN, RESULTING IN DEBRIS & FRACTURING OF 1ST STAGE RING GEAR. DEBRIS IN LAST CHANCE FINGER STRAINER IN RGB, PREVENTING OIL SCAVENGING. RESULTED IN RGB FILLING WITH OIL, & NO OIL BEING RETURNED TO REPERISH OIL TANK. OIL TANK RAN LOW ON OIL CAUSING LOW OIL PRESS. TORQUE FLUCTS RESULT OF DAMAGED RING GEAR & LOW OIL PRESS. 2ND BOLT FRACTURED IN ASSY, BUT STAYED IN ASSY & DIDN'T CAUSE SHUTDOWN. BOLTS WERE RE-INSTALLED DURING OVERHAUL.

CA040916008		ROTAX		LINE	CRACKED
7/29/2004		ROTAX914UL			OIL PRESSURE

(CAN) DURING NORMAL FLIGHT, PILOT SMELLED SMOKE IN THE COCKPIT, FOLLOWED SHORTLY AFTER BY A LOW OIL PRESSURE WARNING LIGHT ILLUMINATING. AN UNSCHEDULED LANDING WAS MADE WITH NO DAMAGE OR INJURIES. UPON EXAMINATION THE TURBO OIL PRESSURE LINE WAS FOUND CRACKED AT THE TURBO FITTING. 5 CLAMPS DESIGNED TO SUPPORT THE TURBO OIL LINES WERE FOUND MISSING. THE ABSENCE OF THESE CLAMPS ALLOWED VIBRATION TO HARDEN THE PRESSURE OIL LINE AND A CRACK FORMED AT THE TURBO FITTING CAUSING AN OIL LEAK AND AN OIL PRESSURE LOSS.

CA041130005	AGUSTA	ALLSN	RROYCE	COUPLING	SHEARED
9/30/2004	A109	250C20B		230397911	COMPRESSOR

(CAN) AFTER FRETTING WEAR OVER PILOT OUTSIDE DIA, THE ADAPTER COUPLING SHEARED IN T (TWO) PARTS. REFERENCES: CEB A-1392 FROM CEB 250-C20 SERIES.

CA041108011	AIRBUS	RROYCE		WIRE HARNESS	CHAFED
11/8/2004	A330*	RB211TRENT77			LIGHT

(CAN) FOUND DAMAGE TO 932 HOUSING ASSEMBLY AT 12 AC. THE STOWAGE CLOSET IS LOOSE AT THE TOP. FOUND LCD HARNESS INSIDE CLOSET CHAFED AND SHORTING OUT. DISCONNECTED THE HARNESS AT 6208VC112 (WIRE DIAGRAM). TO FIX THE PROBLEM RED S HOUSING ASSY/ STOWAGE CLOSET REPLACEMENT BEFORE THE HARNESS CAN BE REPAIRED OR REPLACED.

CA040907005	AMD	GARRTT		ADC	MALFUNCTIONED
9/7/2004	FALCON900	TFE7315BR		7000700647	COCKPIT

(CAN) DURING CRUISE FLIGHT THE CO-PILOT ALTIMETER SHOWED A GRADUAL LOSS OF 60' - 80' COMPARED TO THE PILOT'S ALTIMETER. IT REMAINED AT THE LOWER ALTITUDE FOR SEVERAL MINUTES BEFORE MATCHING UP WITH THE PILOT'S SIDE. THIS OCCURRED INTERMITTENTLY OVER SEVERAL MONTHS. BOTH AIR DATA COMPUTERS WERE REPLACED, ALTIMETERS EXCHANGED SIDE TO SIDE AND FULL OPERATIONAL TESTS AND LEAK TESTS OF BOTH PITOT-STATIC SYSTEMS WERE CARRIED OUT. NO FAULTS WERE FOUND AND THE PROBLEM REMAINED. WHEN THE FAULT WAS PRESENT ATC CONFIRMED THE DIFFERENCE BETWEEN THE SYSTEMS THROUGH TRANSPONDER ENCODER SELECTION. AFTER SEVERAL CONTACTS WITH THE HONEYWELL

ENGINEERING DEPARTMENT A TECHNICAL NEWSLETTER (A23-1980-04) CAME TO LIGHT WHICH PINPOINTE

2004FA0000891	AMTR	LYC	SLEEVE	FAILED
8/24/2004	LONGEZ	O235*	MS5184422	RUDDER CABLE

NICOPRESS SLEEVE (ZINC PLATED COPPER) WAS INSTALLED ON A .0625 INCH STAINLESS CABLE AND PULLED OUT UNDER FLIGHT LOADS. A TEST WAS MADE USING ANOTER SLEEVE AND THE CABLE ALSO PULLED OUT USING A PULL TEST. A TEST WAS PERFORMED USING THE SAME CABLE AND A NICOPRESS (NON PLATED COPPER), THE PULL TEST WAS SATISFACTORY.

CA041109002	BAG	GARRTT	DUCT	CONTAMINATED
10/24/2004	JETSTM3101	TPE33110U	1379219L401	CABIN HEAT

AFTER T/O CREW ADJUSTED TEMP CONTROL TO WARM UP CABIN. SHORTLY AFTER CABIN START'S TO FILL WITH SMOKE. TEMP WAS REDUCED, ATC NOTIFIED OF PROBLEM, QRH DRILL FOLLOWED. SMOKE CLEARED, A/C LANDED BACK IN 4 MM WITHOUT INCIDENT. MX INSPECTION REVEALED, INSULATION ON THE UNDERSIDE OF HEAT DUCT BENEATH FLOOR HAD ABSORBED HYD FLUID FROM A PREVIOUS HYD LEAK. TEMP INCREASE WITHIN DUCTING C CAUSED OIL SOAKED INSULATION TO EMIT A HAZE OR SMOKE CONDITION. HEAT DUCT WAS REPLACED AND FUNCTION TEST SERVICEABLE.

CA041104003	BBAVIA	LYC	LEAF SPRING	BROKEN
11/4/2004	8GCBC	O360C2E	315435	TAIL WHEEL

CENTER LEAF SPRING FOUND BROKEN AT ASSY ALIGNMENT DIMPLE. ALL FLEET A/C LEAF SPRINGS WHERE REPLACED APPROX JUNE 2003. THIS IS THE 4RTH A/C SPRING ASSY FAILURE IN 3 MONTHS. SUSPECT ALL FLEET AIRCRAFT LEAF SPRINGS ARE DEFECTIVE AND SPLAYING/STRAINING TO FAILURE.

2004FA0000885	BEECH		SERVO	BINDING
11/19/2004	200BEECH		1900741	RUDDER

RIGHT RUDDER BOOST SYSTEM DID NOT TEST PROPERLY WHEN THE RIGHT ENGINE WAS BROUGHT UP TO POWER. FOUND THE RIGHT RUDDER BOOST SERVO BELLOWS WAS HANGING UP IN THE SERVO. WOULD NOT RETRACT ALL THE WAY. REPLACED THE SERVO AND SYSTEM OPERATED NORMALLY.

2004FA0000890	BEECH	PWA	WINDSHIELD	CRACKED
10/8/2004	300BEECH	PT6*	10138402521	COCKPIT

THE AIRCRAFT WAS AT 33,000 FT WITH THE WINDSHIELD HEAT OFF, SPEED OF 290 KNOTS AND CABIN PRESSURIZED TO 6.5 PSI WHEN THE WINDSHIELD CRACKED. THEY WERE ALSO IN CLEAR AIR, WITH NO TURBULENCE. (GL21200500727)

2004FA0000897	BEECH		RETAINER	CRACKED
12/3/2004	58		968200183	NLG

DURING ANNUAL INSPECTION, FOUND UPPER NOSE GEAR STRUT HOUSING RETAINER CRACKED APPX 80% ACROSS.

CA041026012	BEECH	CONT	SHAFT	BROKEN
10/26/2004	95B55	IO470L		RUDDER PEDAL

PILOTS LT RUDDER PEDAL BROKE AT THE UPPER PEDAL SHAFT. THE PEDAL WAS FOUND BROKEN AFTER COMPLETION OF A FLIGHT. RUDDER PEDAL WAS REPLACED. INSPECTION OF THE PEDAL REVEALED WORN SHAFT ATTACHMENT HOLES.

CA040719003	BEECH	PWA	RELAY	INTERMITTENT
7/19/2004	A100	PT6A28	A41015455400	ELEVATOR TRIM

CREWS REPORT THAT DURING CRUISE, THE MAIN ELECTRIC STABILIZER TRIM WOULD NOT TRIM NOSE DOWN. CREW THEN DEACTIVATED THE MAIN TRIM SYSTEM AND ENGAGED STANDBY TRIM SYSTEM. STANDBY SYSTEM FUNCTIONED NORMAL. AIRCRAFT CONTINUED AND LANDED WITH NO FURTHER FAULTS. MAINTENANCE T/S FOUND REALLY P/N A410-1545654-00 INTERMITTENT. REPLACED.

CA040428006	BEECH	PWA	AILERON	OUT OF RIG
4/28/2004	A100	PT6A28		WINGS

DURING TROUBLESHOOTING OF A PILOT REPORTED SNAG, THE CONTROL COLUMN IS BANKED SLIGHTLY TO THE LEFT IN ORDER FOR THE AIRCRAFT TO FLIGHT STRAIGHT AND LEVEL, CHECKED THE AILERON RIGGING AND FOUND THAT IF THE PROCEDURES FROM THE MM ARE FOLLOWED THE AIRCRAFT WILL BE INCORRECTLY RIGGED AND THE RESULTS WOULD BE THE SAME AS THE REPORTED SNAG. THE PROBLEM IS THAT RAYTHEON HAS ISSUED A MANDATORY SERVICE BULLETIN (SB 27-3459) DELETING WITH THE GUST LOCK INSPECTION/REPLACEMENT. IN THIS SB WE ARE REQUIRED TO COMPLY WITH SERVICE INSTRUCTION NO 0887-155. THIS SI REQUIRES THE REPOSITION THE LOCK PIN HOLE IN THE FLIGHT CONTROL COLUMN RESULTING WITH THE COLUMN BANKED 15 DEGREES WHEN THE PIN IS INSTALLED.

B3OR20041029	BEECH		ATTACH FITTING	DAMAGED
9/22/2004	A200		1011200131	WING

ON 22 SEPTEMBER 2004 A 5 YEAR WING BOLT INSPECTION WAS COMPLIED WITH ON A BEECHCRAFT A200 AIRCRAFT. THREE OF THE WING ATTACH FITTINGS WERE FOUND TO HAVE DAMAGE TO THE FLAT FACE PORTION OF THE FITTINGS, THE AREA WHERE THE WASHER RESTS ON THE FITTING. THE DAMAGE WAS SEVERE ENOUGH FOR THE AIRCRAFT MANF, RAYTHEON AIRCRAFT TO BE CONTACTED AND A REPAIR SCHEME TO REPAIR THE DAMAGE WAS REQUESTED. THE AFFECTED FITTINGS WERE THE LT LOWER OUTBOARD AFT P/N: 35-115058-2, RT LOWER OUTBOARD AFT, P/N: 35-115058-3, AND THE RT LOWER INBOARD FWD FITTING WHICH INCORPORATES THE FWD CARRY THROUGH SPAR, P/N: 101-120013-1. THE DAMAGE SEEMED TO BE CAUSED BY THE WASHER BEING INSTALLED BACKWARDS AT ONE POINT.

CA041129017	BELL	ALLSN	COMBUSTION LINER	CRACKED
11/21/2004	206B	250C20	6870992C	ENGINE

(CAN) THE PILOTS WERE DOING TRAINING, THEY NOTICED AN INCREASE IN TOT. DID A POWER CHECK AND FOUND THAT THE ENGINE WAS BELOW SPEC. AIRCRAFT RETURNED TO BASE AND IT WAS DISCOVERED THAT THE THERE WAS A 1 INCH CRACK THAT FOLLOWED A WELD IN THE E ARM PIT AREA. NOTE: IN THIS REGION THERE IS A MESHED DOUBLER.

CA040719001	BELL	ALLSN	BATTERY	OVERHEATED
7/15/2004	206B	250C20	1656	MASTER

THE 'BATTERY TEMP' WARNING LIGHT ILLUMINATED ON ROUTE. THE BATTERY WAS TURNED OFF FOR THE REMAINDER OF THE FLIGHT. UPON LANDING AND SHUTTING DOWN , THE PILOT NOTICED THAT THE BATTERY FELT VERY HOT TO THE TOUCH. WHILE TALKING TO THE MAINTENANCE DEPT ON THE PHONE, THE 'BATTERY HOT' LIGHT CAME ON. THE BATTERY WAS REPLACED WITH A SERVICEABLE ONE BEFORE FURTHER FLIGHT. THE VOLTAGE REGULATOR WAS CHECK ED DURING THE GROUND RUN FOUND TO BE WITHIN LIMITS.

CA041029005	BELL	ALLSN	BELL	BEARING	SPALLED
10/24/2004	206B	250C20		206040036101	M/R MAST

THE AIRCRAFT WAS ON A FLIGHT WHEN A TRANSMISSION CHIP LIGHT OCCURRED, APPROPRIATE ACTION WAS TAKEN. THERE WAS FERROUS METAL FOUND ON THE TRANSMISSION OIL MONITOR AND TRANSMISSION CHIP DETECTORS. THE TRANSMISSION AND MAST WERE REMOVED FOR INVESTIGATION. THE M/R MAST ASSEMBLY WAS DISASSEMBLED, THE INNER RACE OF THE MAST BEARING WAS FOUND TO HAVE SPALLED AND WAS CREATING THE FERROUS METAL. NOTE: THE M/R TRANSMISSION WAS ALSO DISASSEMBLED AND NO DISCREPANCY WAS FOUND FOR THE CHIP LIGHT.

CA041029006	BELL	ALLSN	RROYCE	TACH GENERATOR	UNSERVICEABLE
10/29/2004	206B	250C20		2514022A649	GEARBOX

OUT OF THE FOUR MOUNTING PAD EARS, ONE EAR WAS FOUND COMPLETELY BROKEN OFF.

CA041027001	BELL	ALLSN		DRAG PIN	WORN
10/25/2004	206B	250C20		206031509005	GEARBOX YOKE

AFT CAST SURFACE OF DRAG PIN ASSY THAT IS PART OF M/R GEARBOX CONTACTED YOKE OF ISOLATION MOUNT. CONTACT DUE TO EXCESSIVE CASTING MATERIAL AFT OF BEARING BORE. COMPONENT SHOP

RECEIVED AN ISOLATION MOUNT FOR REPAIR THAT HAD FRETTING/CONTACT MARKS ON YOKE. MARKS WERE CONSISTENT WITH DRAG PIN RUBBING/CONTACTING. BASE THAT ISOLATION MOUNT RECEIVED FROM INFORMED, & DRAG PIN & GEARBOX WERE REMOVED & FORWARDED TO US. WHEN RECEIVED DRAG PIN, WAS APPARENT THAT DRAG PIN BEARING BORE WAS NOT SYMMETRICAL IN CASTING.

CA041109007	BELL	ALLSN	CHECK VALVE	UNSERVICEABLE
9/7/2004	206B	250C20B	6895171	FUEL SYSTEM

(CAN) UPON TROUBLESHOOTING FOR STARTING SNAG, FOUND THAT FUEL WASN'T BEING DELIVERED TO THE FUEL NOZZLE. REPLACED CHECK VALVE. THE REMOVED VALVE WAS FOUND TO HAVE A CRACKING PRESSURE OF APPROXIMATELY 15 PSI.

CA040407010	BELL	PWA	PIVOT ASSY	DAMAGED
4/7/2004	212	PT6T3	6390016901	INDICATOR MOUNT

(CAN) ADJUSTABLE PIVOT HAD MOST OF THE ADJUSTMENT SLOT BROKEN AWAY. PREVIOUS REPAIRER HAD 'FIXED' THE PROBLEM BY FLOODING THE AREA WITH EPOXY TO STOP THE PIVOT FROM ROTATING. THE RETAINING SCREW HAD INSUFFICIENT MATERIAL TO HOLD THE PIVOT AS DESIGNED.

CA041109008	BELL	PWA	SIMMONDS	WIRE	ARCED
9/27/2004	212	PT6T3			FUEL QTY IND

(CAN) FUEL QUANTITY REPORTED AS FLUCTUATING. DURING TROUBLESHOOTING PROCESS ONE OF THE WIRES ON THE RT TANK FORWARD FUEL PROBE WAS FOUND ARCING. PROBE REPLACED.

CA041130002	BOEING	PWA	PANEL	SEPARATED
11/17/2004	727217	JT8D17	653120043	HORIZONTAL STAB

(CAN) RT HORIZONTAL STABILIZER-TO-FIN SLIDING SEAL SEPARATED FROM AIRCRAFT DURING FLIGHT. DAMAGE WAS ALSO FOUND ON AN ADJACENT COMPOSITE VERTICAL FIN PANEL AND THE LOWER SURFACE OF THE HORIZONTAL STABILIZER, CAUSED BY SEPARATION OF THE SLIDING SEAL FROM THE AIRCRAFT.

CA041125001	BOEING	PWA	BRACKET	BROKEN
11/22/2004	727225	JT8D9A	65224787	NLG DOOR

(CAN) UPON ARRIVAL, MAINTENANCE PERSONEL NOTED THE NOSE LANDING GEAR DOORS HANGING OPEN. FURTHER INSPECTION FOUND THE BRACKET FOR THE DOOR OPERATION ROD BROKEN. SEE IPC 32-30-00-06 ITEM 89. BRACKET AND HARDWARE REPLACED AND GEAR SWINGS CARRIED OUT, AND A/C RETURNED TO SERVICE.

SR0M200400059	BOEING		MODULE	MALFUNCTIONED
12/3/2004	737201		693733587	FUEL SYSTEM

"NR 2 ENG FUEL FILTER ICING LIGHT ILLUMINATED INFLIGHT FL 320. FOLLOWED PROCEDURE LIGHT REMAINED ILLUMINATED. RETURNED TO ANC" THIS WAS A REPEAT WRITE-UP. CONTINUITY CHECK AND INSPECTION OF ALL ACCESSIBLE WIRING NORMAL. REPLACED FUEL MODULE , (AFTER TESTING BY VENDOR) REPLACED FUEL PRESSURE SWITCH P/N 42D185 WITH NEW UNIT AND REPLACED FUEL PRESSURE SWITCH CANNON PLUG WITH NEW. OPERATIONAL CHECK FLIGHT CONDUCTED WITH NO FAULTS OBSERVED. AIRCRAFT RETURNED TO SERVICE 12-10-04.

CA041129010	BOEING	PWA	SKIN	CRACKED
11/28/2004	737201	JT8D9A		FUSELAGE

(CAN) FUSELAGE CRACK FOUND ON OUTER SKIN AT STN. 955.9 - 959.65 BELOW STR. 21L. FUSELAGE CRACK REPAIRED IAW SRM 53-30-3 FIG 48 DETAIL X. TIMES- 64477:16

CA041129008	BOEING	PWA	ACTUATOR	MALFUNCTIONED
11/26/2004	737201	JT8D9A	651781914	NLG

(CAN) NOSE WHEEL DISAGREEMENT LIGHT REMAINED ON AFTER GEAR SELECTED UP. RETURNED TO FIELD. NOSE GEAR LOCK ACTUATOR REPLACED, AND GEAR SWINGS C/O. CHECKED SERVICEABLE. TIMES- 59932:32

CYCLES- 55882.

CA041105002	BOEING	PWA	PUMP	FAILED
11/1/2004	737201	JT8D9A	378200	ENGINE FUEL

DURING CLIMB, THE NR 2 ENGINE FLAMED OUT. THE AIRCRAFT RETURNED TO THE AIRPORT. MAINTENANCE TROUBLESHOOTING FOUND THAT METERED FUEL WAS NOT BEING DELIVERED TO THE ENGINE, BUT FUEL WAS PRESENT UP TO THE FCU/FUEL PUMP ASSY. THE FCU/FUEL PUMP ASSY WAS REPLACED AND SEVERAL GROUND RUNS WERE CARRIED OUT. THE AIRCRAFT WAS RETURNED TO SERVICE. THE FUEL PUMP APPEARS TO BE BINDING WHEN INSPECTED. THE REMOVED FCU/FUEL PUMP ASSY WAS SENT TO AN APPROVED FACILITY FOR FURTHER INSPECTION AND TESTING.

CA041108004	BOEING	PWA	CONTROL CABLE	FRAYED
10/30/2004	737210C	JT8D9A	BACC13AP3D30	RT WING SPOILER

DURING AN 'A' CHECK INSPECTION, FOUND THE CONTROL CABLE FOR NR 7 FLT SPOILER FRAYED, AS A RESULT OF CHAFING THROUGH A FAIRLEAD. CABLE WAS REPLACED, FAIRLEAD RE-POSITIONED, FUNCTION CHECKED. AIRCRAFT RETURNED TO SERVICE. NO OTHER PROBLEMS OR ACTIONS.

CA041117005	BOEING	PWA	ENGINE	FAILED
11/16/2004	7372Q9	JT8D9A		RIGHT

DURING DAILY CHECK, OIL WAS FOUND IN TAILPIPE AND LAST TWO STAGES OF TURBINE SECTION COATED WITH OIL. RT ENGINE SER NR 667210. RT ENGINE REPLACED. ENGINE SER NR ON 667217. TIMES 61700.25 CYCLES57721.

CA041126010	BOEING	GE	BFGOODRICH	AXLE	BROKEN
11/26/2004	767375	CF680C2B6	161T110070	161T11387	RT MLG

(CAN) ACFT 684 ON LANDING, DISCOVERED RT ML GEAR AFT AXLE BROKEN, IT SEEMS THAT HAPPEN DURING TAKEOFF IN XXX, BECAUSE FLIGHT CREW REPORT ANTI- SKID LIGHT WAS ON DURING WHOLE FLIGHT. MORE INFO AND PICTURES WILL FOLLOW AS IT BECOME AVAILABLE.

CA041123003	BOEING	GE	WIRE	BURNED
11/23/2004	767375	CF680C2B6F	H75C20	AFT LAV

FOUND WIRE BUNDLE INSIDE TOILET SHROUD BURNING AND SMOKING, C/B SYST 2 WATERLINE HEATER (LAV LIGHTS) POPPED IN AVIONICS BAY. FURTHER T/S ON WIRING BURNED, FOUND WIRES IDENTIFIED AS H75C20, H75A20, AND H75A20N (GRN) ALL BROKEN FROM SPLICES. ALSO, HEATER TAPE RINSE LINE B8 NEEDS TO BE REPLACED DUE WIRE BROKEN.

CA041124001	BOMBDR	RROYCE	INDICATOR	BROKEN
11/19/2004	BD7001A10	BR700710A220	C1621AA02	COCKPIT

(CAN) DURING STRAIGHT AND LEVEL FLIGHT, THE ISI (STANDBY ADI) SHUTDOWN AND CAME BACK ONLINE BY ITSELF. THE ISI WAS REPLACED.

CA041124002	BOMBDR	PWC	ACTUATOR	MALFUNCTIONED
8/26/2004	DHC8400	PW150A	3993001010	RT PITCH FEEL

DURING TAKEOFF RUN AT A SPEED BETWEEN 100 AND 120 KIAS, GOT 'ELEVATOR FEEL' FAULT LIGHT ON. TAKEOFF ABORTED, PASSENGERS DEBRIEFED, AND RETURNED TO GATE. THE CENTRAL DIAGNOSTIC SYSTEM (CDS) WAS INTERROGATED AND FCECU FAULT CODES EA AND E9 WERE FOUND LOGGED IN THE FAULT HISTORY, THESE FAULTS INDICATE THAT THE RIGHT PITCH FEEL ACTUATOR IS NOT CORRECTLY TRACKING THE COMMAND AND THE MESSAGE WILL SHOW WHEN THE RIGHT PITCH FEEL ACTUATOR OR THE FCECU HAS FAILED. THE RT PITCH FEEL ACTUATOR WAS CONSEQUENTLY REPLACED IN ACC WITH AMM TASK 27-32-11.

CA041110007	CESSNA	CONT	DOOR FRAME	CRACKED
10/29/2004	150L	O200A	04118685	FUSELAGE

(CAN) ON INSPECTION FOUND CRACKED AT UPPER FWD RADIUS ABOUT 1.0 INCH IN LENGTH. PART WAS REPLACED AS REQUIRED.

CA041110015	CESSNA	CONT	REINFORCEMENT	CRACKED
11/1/2004	180C	O470L	07122071	HORIZONTAL STAB

(CAN) HORIZONTAL STABILIZER WAS REMOVED TO ACCESS RT FUSELAGE SIDE SKIN REPLACEMENT (COSMETIC) WITH STABILIZER REMOVED VISIBLE ACCESS TO AFT FUSELAGE STRUCTURE REVEALED A CRACK AT THE LT AFT STABILIZER ATTACH LONGERON PN 0712207-1 - REF. CESSNA 180-C I.P.C. FIG 35 ITEM 35. NOTE AIRCRAFT HAS BEEN OPERATED ON SKIS AND HANDLING OF THE HORIZONTAL STAB MAY BE A CONTRIBUTING FACTOR. THOUGH NOT CALLED FOR IN THE CESSNA INSPECTION CHECK SHTS, IT WOULD BE PRUDENT TO REMOVE BOTH VERTICAL AND HORIZONTAL STABILIZERS FOR BETTER VISUAL/INTERNAL INSPECTION ON A REGULAR BASIS. IE. 400 HRS/5 YEARS.

CA041108003	CESSNA	CONT	SPRING	BROKEN
10/25/2004	182G	O470R	07416011	LT MLG

LEFT HAND MAIN LANDING GEAR SPRING ASSEMBLY BROKE OF AT FUSELAGE WHILE TAXIING FOR FLIGHT. THERE WAS NO VISUAL EVIDENCE OF A PREVIOUS CRACK. THE GEAR LEG WAS SENT TO TRANSPORT SAFETY BOARD TO BE ANALYZED.

CA041119001	CESSNA	CONT	SPAR	CRACKED
11/12/2004	310R	IO520M	08113507	WING

WHILE DOING A 100HR INSPECTION ON THE AIRCRAFT, AME'S NOTICED BELLY SKIN ON LOWER RT SIDE WRINKLED. FURTHER INSPECTION REVEALED THAT THE WEB SKIN ON THE REAR OF THE FUSELAGE FRONT SPAR SKIN WAS CRACKED. THE PROTECTIVE TOP CAP OF CARPET WAS REMOVED AND IT WAS DISCOVERED THAT THE UPPER SPAR CARRY THRU WAS BROKEN. AIRCRAFT WAS TAKEN APART AND THE FUSELAGE FRONT SPAR ASSEMBLY WAS REMOVED AND WILL BE REPLACED. INSPECTION OF THE TECHNICAL RECORDS SHOWED THAT THE AIRCRAFT HAD BEEN DAMAGED AFTER A NOSE GEAR COLLAPSE AND REPAIRED IN 1979. THE SKIN UNDER THE DOOR HAD BEEN REPLACED RIGHT BESIDE THE FUSELAGE FRONT SPAR ASSEMBLY.

O05R200400119	CESSNA		BLADE	SCRATCHED
6/17/2004	425		93KB0	PROPELLER

SCRATCH IN SHOT PEEN ON SHANK.

O05R200400120	CESSNA		BLADE	SCRATCHED
6/17/2004	425		93KB0	PROPELLER

SCRATCH IN SHOT PEEN ON SHANK.

O05R200400121	CESSNA		BLADE	SCRATCHED
6/17/2004	425		93KB0	PROPELLER

SCRATCH IN SHOT PEEN ON SHANK.

O05R200400122	CESSNA		BLADE	SCRATCHED
6/17/2004	425		93KB0	PROPELLER

SCRATCH IN SHOT PEEN ON SHANK.

2004FA0000852	CESSNA		WINDSCREEN	DISTORTED
9/23/2004	560XL			COCKPIT

ON DELIVERY OF NEW A/C, DAY ACCEPTANCE CHECK CARRIED OUT AND A/C ACCEPTED. DURING NIGHT FLYING LT WINDSCREEN OBSERVED TO HAVE PARALLAX DISTORTION ERROR. DAY TESTS CARRIED OUT OF GRID TEST AND WATER TEST. WINDSCREEN CERTIFIED SERVICEABLE BY VENDOR & MANUFACTURERS ENGINEERS. PILOTS INSISTED CHECK BE CARRIED OUT AT NIGHT BY TEST PILOT, OVERRIDING INSISTENCE BY ENGINEERS ON WINDSCREEN HAVING NO DEFECT & BEING SERVICEABLE. TEST PILOT CONFIRMED DEFECT. WINDSCREEN CHANGED.PRESENT DAY TESTS ONLY FOR WINDSCREEN PARALLAX & DISTORTIONS INADEQUATE TO DETECT THESE FLAWS WHICH CAN ONLY BE DETECTED AT NIGHT. CESSNA INDICATES THIS IS THE FIRST CASE DETECTED. SINCE THE PRESENT DAY TESTS ONLY CANNOT DETECT THIS FLAW/DE

CA041117004	CESSNA	PWA	ENGINE	FIRE
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11/15/2004 560XL PW545A

(CAN) SHORTLY AFTER TAKEOFF, THE CREW WERE ADVISED OF SMOKE AND FLAMES EMANATING FROM THE ENGINE. THE ENGINE WAS SECURED AND AN UNSCHEDULED LANDING WAS PERFORMED AT POINT OF DEPARTURE. P&WC WILL INVESTIGATE THE EVENT AND WILL REVISE THIS REPORT TO REFLECT ROOT CAUSE, ONCE ESTABLISHED.

[CA041120001](#) CESSNA CONT ENGINE MAKING METAL

11/2/2004 A185F IO520F

(CAN) DURING 200 HR. INSP. THE OIL FILTER WAS CUT OPEN TO LOOK FOR METAL. FILTER ELEMENT WAS WASHED IN VAROSOL AND DRAINED THROUGH A FILTER TO REVEAL METAL PARTICLES. THE ENGINE SHOP WAS CALLED TO IDENTIFY THE METAL. WE PULLED NR 2 & 4 CYLINDERS TO OBSERVE THE NR 3 CRANKSHAFT BEARING AND FOUND THAT IT WAS ABLE TO BE TURNED IN THE JOURNAL BY HAND. THE ENGINE WAS IN FINE WORKING ORDER UP TO THIS INSP. THE ENGINE WAS REMOVED AND SENT TO A REPAIR SHOP.

[CA041103003](#) CESSNA LYC TAPPET CORRODED

10/25/2004 R182 O540J3C5 72877 ENGINE

(CAN) METAL FOUND IN OIL SUCTION SCREEN. AFTER REMOVAL OF NR 1 & 2 CYLINDER FOR INSIDE INVESTIGATION. BOTH HYDRAULIC TAPPET ON THAT CYLINDERS FOUND CORRODED WITH PARTS MISSING ON THE EDGE OF THE BODY. ENGINE REMOVED. FURTHER REPORTS WILL FOLLOW BY THE OVERHAUL SHOP.

[2004FA0000893](#) CESSNA LYC OIL FILTER SEPARATED

11/17/2004 T206H TIO540AJ1A ES48110 ENGINE

REMOVED THIS FILTER AND CUT OPEN TO INSPECT CONTENTS AS PAR OF A ROUTINE OIL CHANGE. FOUND THE FILTER MEDIA HAD SEPARATED WHERE THE ENDS ARE CRIMPED TOGETHER. FOUND THE GASKET BETWEEN THE INNER FILTER AND THE END PLATE IMPROPERLY INSTALLED. THIS GASKET WAS TORN AND HANGING INTO THE FILTER PIC 2,3, AND 4. HAVE CUT OPEN 3 OIL FILTERS THIS BRAND, ALL 3 HAVE SHOWN THE SAME FAILURES. HAVE SENT COPIES OF PICTURES TO MFG ENGINEERING DEPT. NO IMMEDIATE DAMAGE TO THE ENGINE NOTED. THESE FAILURES ARE CAUSING UNFILTERED OIL TO CIRCULATE THROUGH THE ENGINE.

[CA041124012](#) CESSNA CONT CAMSHAFT SHEARED

11/22/2004 T303 TSIO520AE 643045 ENGINE

(CAN) THE ENGINE LOST POWER ON CLIMB-OUT OF CALGARY. THE PILOT FEATHERED THE PROP AND RETURNED TO CALGARY. THE ENGINE WAS GROUND RUN AND THE PROP GOVERNOR WAS FOUND TO BE INOPERATIVE. UPON REMOVAL OF THE GOVERNOR, IT WAS FOUND THAT THE DRIVE P/N 538076 WAS NOT IN INSTALLED POSITION. THE BEVEL GEAR P/N 534655 WAS ALSO MISSING. UPON FURTHER INSPECTION IT WAS FOUND THAT THE CAM SHAFT P/N 643045 HAD SHEARED ALLOWING THE GOVERNOR DRIVE TO FALL OUT OF ITS POSITION AND DROP INTO THE OIL PAN. THE ENGINE HAS BEEN REMOVED AND SENT TO AN ENGINE SHOP FOR TEARDOWN AND REPAIR. A COPY OF THE TEARDOWN REPORT WILL BE INCLUDED IN THIS SDR WHEN WE RECEIVE IT.

[CA040806006](#) CESSNA CONT SADDLE FAILED

7/26/2004 U206G IO520F CRANKCASE

CRANKCASE FAILURE (7TH STUD CRANKCASE) CRANKCASE FRETTING ON NR 2 & 3 INTERMEDIATE BEARING SADDLE THRU-BOLT PADS. THE OIL SUPPLY TO THE NR 2 CONNECTING ROD JOURNAL WAS EITHER CUT OFF COMPLETELY OR DRASTICALLY REDUCED CAUSING OIL STARVATION TO THE CONNECTING ROD BEARINGS. THIS IN TURN CREATED EXCESSIVE FRICTION AND HEAT CAUSING THE CONNECTING ROD TO FAIL AND EXIT THROUGH THE CRANKCASE RESULTING IN A CATASTROPHIC FAILURE OF THE ENGINE.

[2004FA0000898](#) CIRRUS FAIRING DEPARTED

11/1/2004 SR22 NLG

NOSE WHEEL FAIRING DEPARTED AIRPLANE ON CROSSWIND LANDING. HAD SIGNIFICANT SHIMMY IN THE FRONT WHEEL UPON TOUCHDOWN. DISCOVERED UPON REACHING RAMP AREA OF REAR PART OF FRONT WHEEL FAIRING.

[24041004](#) CIRRUS CIRRUS BRACKET CHAFED

10/28/2004 SR22 15671002 INDUCTION DUCT

THE INDUCTION DUCT SUPPORT BRACKET P/N 15671-002 HAS BEEN FOUND TO BE CHAFING INTO THE ALTERNATE AIR DOOR PIVOT BOLT P/N AN3-34. REPORTED THIS CONDITION BEFORE. A CHECK OF MULTIPLE AIRCRAFT HAVE SHOWED SIGNS OF CHAFFING AT THIS LOCATION. SUGGEST CLOSE LOOK AT THIS AREA WHEN PERFORMING MAINTENANCE. IT IS NECESSARY TO REMOVE THE DUCT ASSY P/N 15708-001 TO PERFORM THIS INSPECTION.

[25921104](#) CIRRUS BOLT CHAFED
11/29/2004 SR22 AN334 ALR AIR DOOR

THE BOLT (P/N AN3-34) THAT SERVES AS THE PIVOT FOR THE ALTERNATE AIR DOOR IN THE INDUCTION DUCT ASSY (P/N 15708-001) IS BEING CHAFED BY THE INDUCTION SUPPORT BRACKET (P/N 15671-002). IN ADDITION TO THE CHAFED BOLT THE PLASTIC DUCT IS SUSCEPTIBLE TO CRACKING AROUND THE PIVOT BOLT ON THE BOTTOM OF THE DUCT ASSY. THIS AREA IS VERY DIFFICULT TO INSPECT WITHOUT REMOVING THE DUCT ASSEMBLY. ALSO, IT IS NECESSARY TO REMOVE THE NUT AND SUPPORT BRACKET TO INSPECT THE BOLT FOR CHAFFING.

[CA041115001](#) CNDAIR GE ENGINE MALFUNCTIONED
11/11/2004 CL6002B19 CF343A1 RIGHT

DURING CRUISE, THE RT ENG OIL PRESSURE SLOWLY DROPPED BELOW 25 PSI AND OIL TEMPERATURE SLOWLY DROPPED FROM 106 TO 81 DEC C. PERFORMED PRECAUTIONARY SHUTDOWN OF RT ENG. PERFORMED DRY MOTOR AND SERVICED ENGINE OIL. PERFORMED OIL CONSUMPTION RUN: 2.5 QTS USED IN 1 HR OIL CONSUMPTION TOO HIGH. ENGINE REPLACED.

[CA041104012](#) CNDAIR GE WINDOW CRACKED
11/1/2004 CL6002B19 CF343B1 NP1393226 COCKPIT

RIGHT SIDE COCKPIT WINDOW REPLACED ACCORDING AMM PROCEDURE.

[CA041104001](#) CVAC ALLSN DRAIN OBSTRUCTED
11/2/2004 440 501D13D WATER SEPARATOR

(CAN) ON DEPARTURE, CARGO SMOKE DETECTOR LIGHT CAME ON WITH NO ODOR OR SMOKE IN COCKPIT. EMERGENCY DECLARE AND RETURNED AFTER 10 MINUTES AIR TIME. LIGHT EXTINGUISH DURING TAXI. CARGO CONTAINER AND A/C INSPECTED, NOTHING UNUSUAL DETECTED. PROBLEM TREATED LIKE A FAULTY DETECTION SYSTEM BY MX PERSONNEL. 1 TEST SWITCH AND 1 SMOKE DETECTOR REPLACE DUE TO SMALL SUSPECTED DISCREPANCY FOUND. A/C RETURN TO SERVICE. AT FOLLOWING DEPARTURE 1 MX PERSON ON BOARD LOOKED IN CABIN BEFORE TAKE-OFF AND SAW WATER VAPOR COMING OUT OF AIR CON SYS, INCREASE THE TEMP AND MIST DISAPPEAR. AFTER ARRIVAL, MX PERSONNEL DISCOVER THE WATER SEPARATOR DRAIN WAS OBSTRUCTED BY FOD. SYS CLEANED AND A/C RETURN TO SERVICE WITH NO FURTHER REPORT.

[CA041005002](#) CVAC ALLSN DOOR OUT OF RIG
9/8/2004 440 501D13D CARGO

(CAN) AIRCRAFT DISPATCH WITH 29 PASSENGER ABOARD AT 13:32 GMT AND CAME BACK AT 14:14 WITH C2 DOOR OPEN AT XXX. MAINTENANCE DISCOVERED THAT THE C2 DOOR COULD BE CLOSE IMPROPERLY IN SOME OCCASION AND NO DAMAGE WAS FOUND. MAINTENANCE CLOSE THE DOOR AND CONFIRM THE LOCK HAD ENGAGED, AIRCRAFT RETURN TO XXX NORMALLY. IN XXX, A VISUAL INSPECTION WAS C/O AGAIN OF THE DOOR AND DOOR FRAME, NO DAMAGE WAS FOUND. COMPLETE RIGGING OF DOOR WAS C/O IAW MAINTENANCE MANUAL AND AIRCRAFT RETURN TO SERVICE.

[2004FA0000925](#) DHAV ADC MALFUNCTIONED
12/21/2004 DHC2* 962830A1S8 COCKPIT

DURING GROUND FUNTIONAL TEST OF THE INITIAL INSTALLATION OF AIR DATA COMPUTER (ADC) INSTALLED AS PART OF THE CHELTON FLIGHT SYSTEMS EFIS-SV SYSTEM UNDER STC SA02203AK, ENCOUNTERED 100FT ALTITUDE DRIFT WITHIN 5 MINUTES AFTER BAROMETRIC PRESSURE HAD BEEN SET.

[CA040928013](#) DHAV PWA WIRE GROUNDED

7/30/2004 DHC2* R985AN14B ALTERNATOR

(CAN) DURING VFR FLIGHT THE ELECTRICAL CHARGING SYSTEM FAILED. AIRCRAFT LANDED AT MAINTENANCE FACILITY. VOLTAGE CONTROLLER FOUND TO BE BURNED INTERNALLY PROBABLY DUE TO GROUNDED FIELD WIRE IN ALTERNATOR. FIELD WIRE IN ALTERNATOR REPAIRED. INSTALLED NEW VOLTAGE CONTROLLER.GROUND RUN SATISFACTORY. AIRCRAFT RETURNED TO SERVICE.

[CA040928007](#) DHAV ROD END WORN
9/20/2004 DHC3 C3CF4205 ELEVATOR SERVO

(CAN) AFT ROD END ON PUSH ROD PN F3I-14 WORN OUT AND STC ROD END PN M34-14. ALSO, FOUND WORN OUT PLUS ELEVATOR HINGE PIN C2TP199 AND HINGE PIN C3TF7-5 AND OUTER BEARING KP5A, ALL FOUND WITH EXCESSIVE WEAR AFTER ONLY 100 HOURS OF OPERATION UNDER STC SA01059SE.

[2004FA0000895](#) DHAV CONTROL ROD FAULTY
11/24/2004 DHC6 C6CW10861 AILERON CONTROL

DURING A VISUAL INSPECTION OF THE CONTROL ROD, IT WAS DISCOVERED THE ROD DID NOT HAVE A CRIMPED SLEEVE WHICH IT SHOULD.

[2004FA0000896](#) DHAV CONTROL ROD FAULTY
11/24/2004 DHC6 C6CW10861 AILERON CONTROL

DURING A VISUAL INSPECTION OF THE CONTROL ROD, IT WAS DISCOVERED THE ROD DID NOT HAVE A CRIMPED SLEEVE WHICH IT SHOULD.

[CA040901006](#) DHAV BLADE CORRODED
8/31/2004 DHC8* SFA13M1R0AD PROPELLER

(CAN) BLADE RECEIVED FOR REPAIR OF FIBERGLASS DAMAGE ON THE OUTER SURFACE. DURING INITIAL INSPECTION, THE PLUG FOR THE BLADE TAPER BORE WAS REMOVED, FOUND THAT THE TAPER BORE WAS PRESSURIZED AS THE PLUG POPPED OUT WHEN RETAINING RING WAS REMOVED. FOUND CORROSION BY PRODUCTS, AND CORROSION DAMAGE INSIDE OF THE TAPER BORE. PER CMM 61-13-02, REPAIR 5-5, ZONE 4 IS ALLOWED 0.014 INCHES OF CORROSION DAMAGE DEPTH, THAT MUST BE REMOVED, THIS DEPTH WAS NOT MEASURED, BUT APPEARS TO EXCEED THE MAXIMUM DEPTH.

[CA041115002](#) DHAV PWA BLADE BROKEN
11/12/2004 DHC8* PW120A SFA13MIROADE PROPELLER

DETAILS EXTRACTED FROM MAJOR DEFECT REPORT: DAMAGE IN THE FORM OF SLASH TYPE CUTS TO THE DE-ICE BOOT WAS FOUND ON THE RIGHT PROPELLER, NR 3 BLADE, WHICH AS A RESULT REQUIRED THE PROPELLER BLADE TO BE REPLACED. DURING REPLACEMENT OF THE NR 3 BLADE SERIAL NUMBER 851372 ENGINEERS DISCOVERED THAT THE BLADE COLLARS WERE MISSING FROM THE NR 4 BLADE ASSY. SEPARATION OF THE BLADE COLLARS IS CURRENTLY UNDER INVESTIGATION BY THE TSB DUE TO A PREVIOUS COLLAR SEPARATION AND IMPACT DAMAGE ON ANOTHER A/C.

[CA041029004](#) DHAV PWA ENGINE LEAKING
10/26/2004 DHC8* PW123

(CAN) ON CLIMB A LOUD BANG WAS HEARD ACCOMPANIED BY YAW AND INDICATIONS OF ENGINE STOPPAGE. AN EMERGENCY WAS DECLARED AND THE AIRCRAFT RETURNED TO POINT OF DEPARTURE. THE CREW REPORTED THE PROPELLER DID NOT FEATHER ON SHUTDOWN AND ALTERNATE FEATHER PROCEDURES WERE EMPLOYED. AN EXTERNAL OIL LEAK WAS VISIBLE DURING POST FLIGHT INSPECTION. P&WC WILL INVESTIGATE THE INCIDENT AND WILL AMEND THIS SDR.

[CA041012005](#) DHAV PWA ACTUATOR CRACKED
9/7/2004 DHC8101 PW121 A44700009 RT WING SPOILER

PILOT REPORTED THAT WHILE CARRYING OUT PRE FLIGHT FULL AND FREE MOVEMENT OF FLT CONTROL SURFACES THAT RT OUTBOARD ROLL SPOILER ACTUATOR POSITION INDICATOR WAS NOT INDICATING

MOVEMENT WHEN THE FLIGHT CONTROLS WERE MOVED. A/C RETURNED TO THE BAY FOR FURTHER INVESTIGATION. PILOTS REPORTED THAT HYD FLUID WAS RUNNING THE RT SIDE OF THE #2 ENGINE NACELLE AND CONTACTED ENGINEERING'. ENGINEERING CONDUCTED AN INVESTIGATION OF THE DEFECT AND DISCOVERED THAT THE RT OUTBOARD ROLL SPOILER ACTUATOR WAS LEAKING EXCESSIVE AMOUNTS OF FLUID DUE TO A FAILURE OF THE HOUSING. ROLL SPOILER ACTUATOR WAS REMOVED AND THE ACTUATOR END CAP ITEM 560 OF CMM 27-60-02 WAS FOUND TO HAVE SEPARATED THE HOUSING DUE TO A FAILURE.

CA041101001	DHAV	PWA		ROD END	FAILED
10/24/2004	DHC8102	PW120A			RT MLG ACTUATOR

(CAN) UPON GEAR DOWN SELECTION ON APPROACH A LOUD THUMP AND THE AIRCRAFT JOLTED. 3 GREEN AND LANDED WITHOUT INCIDENT. UPON INSPECTION BY MAINTENANCE FOUND THE RT MLG RETRACTION ACTUATOR ROD END BROKEN. RT MLG RETRACTION ACTUATOR REPLACED GEAR SWINGS CARRIED OUT WITH NO FATHER FAULTS FOUND.

CA041102007	DHAV	PWA	LUCAS	BEARING	FAILED
10/18/2004	DHC8102	PW120A		03600923	STARTER GEN

(CAN) DURING CRUISE NR 2 DC GENERATOR CAUTION LIGHT ILLUMINATED , UNABLE TO RESET. NORMAL LANDING AT INTENDED DESTINATION. MAINTENANCE INSPECTION FOUND STARTER DRIVE UNABLE TO ROTATE. STARTER/GEN REPLACED. SHOP TEARDOWN FOUND FAILURE OF C.E, END BEARING.

CA041123002	DHAV			TIRE	FAILED
11/18/2004	DHC8301			DSC428	TIRE

(CAN) DURING A TAKEOFF, AS THE SPEED INCREASED A MILD VIBRATION WAS FELT WHICH QUICKLY INCREASED. THE VIBRATION WAS PROBABLY GENERATED BY THE LT OUTBOARD MAIN TIRE FAILING. THE TAKEOFF WAS REJECTED ABOVE 70 KNOTS WITH THE TIRE FINALLY FAILING BETWEEN 90 TO 100 KNOTS. THE AIRCRAFT WAS ABLE TO ROLL ON THE REMAINING LT INBOARD MAIN TIRE UNTIL IT FAILED AT ABOUT 20 KNOTS. THE AIRCRAFT WAS STOPPED ON THE RUNWAY WITHOUT FURTHER INCIDENT. ENGINEERING ASSESSED THE AIRCRAFT FOR DAMAGE CONFIRMING THAT THE WHEEL ASSEMBLIES ONLY REQUIRED REPLACEMENT. AIRCRAFT WAS RETURNED TO SERVICE WITHOUT FURTHER INCIDENT. GOODYEAR (31X9.75-14 12PLY)

CA041122016	DHAV	PWA		SEAL	WORN
11/20/2004	DHC8301	PW123		852202081007	PAX DOOR

(CAN) DURING CLIMB, UNABLE TO PRESSURIZE AIRCRAFT TO HIGH DIFFERENTIAL , 'CABIN PRESS' WARNING LIGHT ILLUMINATED. FLIGHT ATTENDANT REPORT LOUD WHISTLING FROM FORWARD EMERG EXIT DOOR. AIRCRAFT RETURNED TO ORIGINATING AIRPORT. MAINTENANCE INSPECTION FOUND FORWARD EMERGENCY EXIT DOOR INFLATABLE SEAL WORN. SEAL REPLACED. AIRCRAFT RETURNED TO SERVICE. (PART IS CONSIDERED AN EXPENDABLE AND TIMES ARE NOT TRACKED)

CA041102008	DHAV	PWA	LUCAS	BEARING	FAILED
9/4/2004	DHC8301	PW123		03600923	STARTER GEN

AIRCRAFT NR 2 DC GENERATOR CAUTION LIGHT ILLUMINATED, CREW ELECTED TO RETURN FOR NORMAL LANDING AT DEPARTURE AIRPORT. MAINTENANCE FOUND NR 2 STARTER GENERATOR END BEARING FAILED CAUSING COOLING FAN TO RUB ON HOUSING. SHOP TEARDOWN FOUND BEARING FAILURE AT ANTI-DRIVE END.

CA041102009	DHAV	PWA	LUCAS	BEARING	FAILED
10/20/2004	DHC8301	PW123		03600923	STARTER GEN

PRIOR TO TAKEOFF, NR 2 DC GEN HOT CAUTION LIGHT ILLUMINATED. AIRCRAFT RETURNED TO GATE. STARTER/GEN REPLACED. SHOP TEARDOWN INSPECTION FOUND DRIVE END BEARING FAILED.

CA041104004	DHAV	PWA		INVERTER	BURNED
11/4/2004	DHC8301	PW123		DH103024600	ELECTRICAL

DURING CLIMB-OUT, FLIGHT CREW IDENTIFIED A BURNING SMELL (NO SMOKE) IN CABIN AND COCKPIT. AIRCRAFT CONDUCTED AN AIR RETURN BACK BATEAUX INVERTER REPORTED TO FLICK ON BRIEFLY. PRECAUTIONARY REPLACEMENT OF AUX INVERTER CARRIED OUT. INVERTER ASSEMBLY SENT FOR INVESTIGATION AND REPAIR.

QUANTITY 3 CAPACITORS REPLACED AND UNIT TESTED SERVICEABLE. INVERTER PN. DH-1030-24-600-CS11B

CA041004001	DHAV	PWA	PRESSURE SWITCH	FAILED
10/2/2004	DHC8301	PW123	7G772	HYD SYSTEM

(CAN) APPROXIMATELY 45 NAUTICAL MILES NORTH EAST OF BASE, THE 'NR 2 RUD HYD' CAUTION LIGHT ILLUMINATED. FOLLOWING COMPLETION OF QRH DRILLS THE CREW ELECTED TO RETURN THE AIRCRAFT TO BASE WHERE A NORMAL APPROACH AND LANDING WAS CARRIED OUT. ENGINEERING INVESTIGATION REVEALED THAT THE NUMBER TWO RUDDER HYDRAULIC PRESSURE SWITCH HAD FAILED. THE PRESSURE SWITCH WAS REPLACED AND FOLLOWING REQUIRED FUNCTIONAL CHECKS THE AIRCRAFT WAS RETURNED TO SERVICE WITHOUT FURTHER INCIDENT. AIRCRAFT STATISTICS:TTSN = 12504 HRSTCSN = 11315 CYC.

CA041126008	DHAV	PWA	ADAPTER	PULLED
11/25/2004	DHC8311	PW123	31708500	AC GEN

(CAN) DURING CRUISE, NR1 ENG OIL PRESSURE FLUCTUATED. ON APPROACH NR 1 LOW OIL PX CAUTION LIGHT ILLUMINATED. CREW ELECTED TO FEATHER & SHUTDOWN NR 1 ENGINE. MAINTENANCE INSPECTION FOUND ENGINE WITH LOW OIL QUANTITY DUE TO OIL LOSS THROUGH PARTIAL OPERATION OF NR 1 AC GENERATOR FROM ADAPTOR PLATE. TOP TWO STUDS HAD PULLED OUT OF ADAPTOR PLATE, LOWER TWO STUDS AND NUTS STILL INTACT, BUT NUTS SLIGHTLY LOOSE, ALLOWING AC GENERATOR TO BACK OFF FROM ADAPTOR PLATE BY APPROX. 1/4 INCH AT TOP, STILL IN CONTACT WITH ADAPTOR PLATE AT BOTTOM. AC GENERATOR AND ADAPTER PLATE REPLACED. ADAPTOR PLATE IS CLASSIFIED AS AN EXPENDABLE PART, TIMES NOT TRACKED.

CA041122015	DHAV	PWA	CONTROL UNIT	MALFUNCTIONED
11/21/2004	DHC8311	PW123	51539008C	GENERATOR

(CAN) DURING MAINTENANCE SERVICING, ENGINEER FOUND STARTER GENERATOR WARM. AIRCRAFT ENGINE WAS COLD AND NO ATTEMPTED STARTS HAD BEEN MADE. MAINTENANCE INSPECTION FOUND FAULT CAUSED BY GENERATOR CONTROL UNIT. DC GENERATOR CONTROL UNIT REPLACED. AIRCRAFT RETURNED TO SERVICE.

K00R0323	DOUG	PWA	FITTING	CORRODED
1/15/2004	DC863	JT3D7	37560231N	FUSELAGE

EXTERNAL FUSELAGE SKIN HAS A BULGE AT FS315, LONGERON NR 33R. FOUND DOOR STRUCTURE FITTING CORRODED (FS 315, LONGERON 33R). REMOVED AND REPLACED FITTING IAW DC8, SRM 53-2-0, FIG 2D. CORROSION REMOVED IAW DC SRM 51-1-8.

CA041129015	DOUG	PWA	CSD	FAILED
11/25/2004	DC983	JT8D219		GENERATOR

(CAN) THE LEFT CSD LOW OIL PRESSURE LIGHT CAME ON IN FLIGHT. CSD DISCONNECTED PER QRH. AIRCRAFT DIVERTED TO XXX. A DMI (DEFERRED MAINTENANCE ITEM) 08580 WAS RAISED IAW MEL 24-1-1. MAINTENANCE LATER REPLACED THE CSD AND THE CSD OIL COOLER.

CA041104002	DOUG	PWA	FIRE DETECTOR	MALFUNCTIONED
11/2/2004	DC983	JT8D219		ENGINE

TAKEOFF REJECTED DUE TO MASTER CAUTION LIGHT ILLUMINATED. MAINTENANCE FOUND BREAKER B1-191 FOR RT ENGINE FIRE LOOP POPPED. ENGINE FIRE LOOP INSPECTED FOR CONDITION, NO FAULT FOUND. BREAKER RESET AND AIRCRAFT DISPATCHED SERVICEABLE.

CA041105001	DOUG	PWA	HAND RAIL	CORRODED
11/5/2004	DC983	JT8D219	591885323	AIRSTAIR

WITH VENTRAL AIR STAIR EXTENDED, BOTH LT AND RT HANDRAIL AFT VERTICAL TUBES ARE CORRODED-RUSTED AT THEIR LOWER END. CORROSION CAN BE SEEN AS A RING OF RUST POWDER AROUND THE JUNCTION OF THE TUBE INTO THE FITTING ASSEMBLY SUPPORT (P/N 39366673-501 OR -502). RETAINING BOLT HAS TO BE REMOVE AND THE TUBE PULLED FROM THE FITTING ASSEMBLY SUPPORT FOR A PROPER EVALUATION OF THE TUBE CONDITION. THESE ARE BELIEVED TO BE THE ORIGINAL TUBES.

CA041122008	EMB	ALLSN	COMPRESSOR	DAMAGED
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11/6/2004	EMB145	AE3007A		ENGINE
(CAN) UNCOMMANDED IN-FLIGHT SHUTDOWN. IN CLIMB MODE AT 10,000 FT, FLIGHT CREW HEARD A LOUD BANG AND THE NR 1 ENGINE SHUTDOWN. MINOR FINDINGS ON MCD'S. LP WILL ROTATE, HP WILL NOT ROTATE. CMC DOWNLOAD SHOWED HP VIBRATION EXCEEDANCE OF 1.7 IPS FOR 11SECONDS. FOUND HPC1 IGV DAMAGE AND HPC1 BLADE DAMAGE ON BORESCOPE. NO EVIDENCE OF FOD. ENGINE IN ROUTE FOR INVESTIGATION AT ROLLS-ROYCE CANADA.				
CA041122006	EMB	ALLSN	TURBINE	FAILED
11/20/2004	EMB145	AE3007A		STAGE 3
(CAN) ON TAKEOFF ROLL, RT ENGINE PERFORMED AN UNCOMMANDED IN FLIGHT SHUT DOWN AT 80 KNOTS. PRELIMINARY REPORT REVEAL A CRACK TURBINE CASE AND LP STAGE 3 BLADE FAILURE. THE FAN BLADES WORE A HUGE GROOVE IN THE FAN CASE. ENGINE EN ROUTE TO ROLLS ROYCE CANADA FOR FAILURE INVESTIGATION.				
EAHR200400002	ENSTRM	ALLSN	TUBE	BROKEN
7/21/2004	ENSTROM480	250C20	411004030	PYLON
PYLON TUBE, P/N 4110040-30, BROKEN AT UPPER CLUSTER.				
CA041129013	FOKKER	RROYCE	SENSOR	MALFUNCTIONED
11/25/2004	F28MK0100	TAY65015	861DL	ANGLE OF ATTACK
(CAN) NOV 25TH 2004, AIRCRAFT HAD A STALL COMPUTER FAULT, MFDU MESSAGE ON TAKEOFF ROLL. REJECTED THE TAKEOFF AT 90 KTS INDICATED. A DMI (DEFERRED MAINTENANCE ITEM) 14809 WAS RAISED IAW MEL 27-35-3, FOR A STALL WARNING COMPUTER TO BE REPLACED, IT WAS REPLACED NOV 26TH (P/N OFF-ON: EASPC8503-403-S/N OFF: FBE0202, S/N ON: FBE0158) ALONG WITH AN AOA VANE REPLACED (P/N OFF-ON: 861DL, S/N OFF: 017, S/NON:0299) IAW AMM.				
2304	GULSTM		HYDRAULIC SYSTEM	LEAKING
11/5/2004	GIV			
APPROX 3.5 HR INTO FLIGHT, RETURN TO BLOCK DUE TO HYD FLUID LOSS.				
AMCR200400005	GULSTM	RROYCE	ROLLER	OUT OF POSITION
11/3/2004	GULFSTREAMGV	BR700710A110		TE FLAPS
AFTER LANDING, THE PILOT WAS NOT ABLE TO RAISE THE FLAPS FROM THE 39 DEGREE POSITION AND HAD ASSOCIATED CAS MESSAGES CONCERNING THE FLAP SYSTEM. VISUAL INSPECTION REVEALED THE FLAPS TO BE OVER-EXTENDED WHICH CAUSED EACH OB ROLLER TO BE OUT BEYOND THE FLAP TRACK. THE FLAP SHIFTED SLIGHTLY AND THE ROLLERS JAMMED BEHIND THE TRACK. BESIDES SOME ROLLERS EXHIBITING SOME WEAR, NO DAMAGE WAS FOUND. THE FLAPS WERE FULLY RIGGED IAW THE MM AND RETURNED TO SERVICE. NOTE: THE FLAP SYSTEM WAS PREVIOUSLY RIGGED A FEW WEEKS PRIOR FOR A CONDITION IN WHICH THE FLAPS APPEARED NOT TO FULLY STOW.				
2004FA0000884	GULSTM		TRUNNION PIN	CORRODED
11/22/2004	GV		1159SCL56613	MLG
AIRCRAFT IN MAINTENANCE FOR THE SCHEDULED 5 YEAR LANDING GEAR CORROSION INSPECTION, FOUND AFT TRUNNION PINS AND THRU BOLT NAS1962C56 SEVERELY CORRODED. PARTS REPLACED WITH NEW.				
20040816	HELIO	LYC	BEARING	FLAKING
8/13/2004	H295	GO480G1D6	AEL11021M003	ENGINE
ASSEMBLED THE ENGINE ACCORDING TO THE LYCOMING OVERHAUL MANUAL AND STANDARD PRACTICES. THE ENGINE WAS PREOILED AND RUN IN A TEST STAND USING AEROSHELL 100W OIL. AFTER A TWO HOUR BREAK-IN RUN WHERE ALL TEMPS AND PRESSURES WERE NORMAL THE OIL FILTER WAS CUT OPEN AND INSPECTED. ABOVE NORMAL AMOUNT OF METAL FLAKES WERE FOUND. IT WAS RUN ANOTHER HOUR TO CHECK OIL CONSUMPTION AND THE FILTER INSPECTED AGAIN. THERE WAS LESS METAL BUT STILL OF CONCERN. NORMALLY THAT IS ALL THE TEST CELL RUNNING WE DO IF ALL LOOKS NORMAL, BUT SINCE WE WERE STILL SEEING METAL, WE PUT IN NEW OIL AND RAN IT ANOTHER TWO HOURS. SINCE STILL SEEING METAL WHICH				

LOOKED LIKE BEARING MATERIAL WE DISASSEMBLED THE ENGINE TO FIND THE PROB.

CA041124003	HUGHES	LYC	SLICK	ROTOR SHAFT	BROKEN
11/22/2004	269C	HIO360D1A	4345	M3548	MAGNETO

(CAN) ON RUN UP MAGNETO CHECK, FOUND LT MAG INOP. LT MAG REMOVED AND INSPECTED, ROTOR GEAR WAS FOUND SEPARATED FROM ROTOR SHAFT. RT MAGNETO WAS INSPECTED IN THE SAME AREA OF LT MAG FAILURE NO DEFECT FOUND. A NEW MAGNETO WAS INSTALLED IN LT POSITION RT MAGNETO REINSTALLED. MAGNETOS TIMED TO ENGINE AIRCRAFT GROUND RUN FUNCTION CHECK-SERVICEABLE.

CA041026011	HUGHES	ALLSN		TRANSMISSION	CORRODED
10/25/2004	369D	250C20B		369D25102SN006	MAIN ROTOR

(CAN) SEVERE CORROSION FOUND IN OIL GALLERY BEHIND M/R XMSN UPPER BEARING LINER FOR 369D25149 AND 369D25148 BEARINGS. PROBLEM INITIALLY INDICATED BY LACK OF FLOW FROM OIL ORFICES. CORROSION FOUND BY REWORK FACILITY DURING LINER REMOVAL, AND WAS UNDETECTABLE WITHOUT REMOVAL OF LINER.

CA041112005	HUGHES	ALLSN		SPRAG CLUTCH	BROKEN
11/10/2004	369D	250C20B		369D25351SN58	MAIN ROTOR

(CAN) CLUTCH REMOVED FOR GREASE BEARING REPLACEMENT. UPON INSPECTION 2 SPRAGS FOUND BROKEN.

2004FA0000892	ISRAEL	GARRTT		TRUNNION	CRACKED
8/20/2004	1124A	TFE731*		ES128545	NLG

DURING A 1200 HOUR SCHEDULED INSPECTION, THE OUTER STRUT BODY OF THE NOSE LANDING GEAR UPPER TRUNNION WAS FOUND TO HAVE A CRACK IN THE OUTER BARREL STARTING FROM THE UPPER THREAD LOCK BORE EXTENDING DOWN 5.75 INCHES.

CA041101002	LEAR	GARRTT		HOSE	LOOSE
10/25/2004	35LEAR	TFE73122B		2307006101	HYD SYSTEM

AT CRUISING ALTITUDE, FLIGHT CREW NOTICED A DROP IN MAIN HYDRAULIC PRESSURE. WHEN CREW START TO APPROACH THE HYDRAULIC WAS PRESSURE LOW. LANDING GEAR WERE SELECTED DOWN AND ALL PRESSURE WAS LOST. MAINTENANCE FOUND THE B-FITTING LOOSE ON THE NOSE LANDING GEAR ACTUATOR HYDRAULIC UPPER PORT. FITTING TIGHTENED, GEAR SWING COMPLETED. NO LEAKS FOUND. REFER TO LR35 IPC 32-31-05 FIG 5 ITEM 140-141.

CA040831004	NOORDN	PWA		WIRE HARNESS	FAILED
8/17/2004	UC64AS	S3H1			ALTERNATOR

THE AREA OF DIFFICULTY APPEARS TO HAVE ORIGINATED WITHIN A WIRE BUNDLE THAT SERVICES THE ALTERNATOR. THIS BUNDLE OF WIRES (4 WIRES OF AWG 20 SIZE EACH, APPROX 4 FT), RUNS FROM THE VOLT REG LOCATED ON THE UPPER LT SIDE OF THE FIREWALL, TO THE ALTERNATOR, WHICH IS LOCATED ON THE UPPER PORTION OF THE REAR CASE ON A P&W 1340 ENG. TO FURTHER DESCRIBE THE WIRE BUNDLE, THE 4 WIRES WITHIN HAD BEEN LIGHTLY TWISTED TOGETHER AND THIS ASSY HAD BEEN PLACED WITHIN A SLEEVE/TUBING OF SHIELDING- GROUNDING BRAIDED WIRE. IT APPEARS VIBRATION HAD CAUSED SOME CHAFING TO OCCUR WITHIN THE BUNDLE AND , POWER WENT TO GROUND AND THE WIRES MELTED, CAUSING THE SMOKE AND ODOR.

CA041101010	PILATS	PWA		CHIP DETECTOR	DAMAGED
10/30/2004	PC1245	PT6A67B		304544901	RGB

DURING INSPECTION IT WAS NOTICED THAT THE CHIP DETECTOR CONNECTOR WAS SITTING AT AN ANGLE. THE PLUG WAS LOCKWIRED BUT WHEN THE LOCK WIRE WAS REMOVED. THE CONNECTOR WAS LOOSE. WHEN THE CONNECTOR WAS REMOVED, NOTICED THAT THE THREADS ON THE CHIP DETECTOR WERE DAMAGED AND ONE OF THE PINS WAS BROKEN. THE CHIP DETECTOR WAS REMOVED AND NEW UNIT WAS ORDERED AND INSTALLED.

CA040910007	PILATS	PWA		IGNITION UNIT	MALFUNCTIONED
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8/27/2004 PC1245 PT6A67B ENGINE

UNCOMMANDED DISCHARGE OF ENG IGNITERS DURING ROUTINE 100 HR MX WHILE PERFORMING FUNCTION CHECK OF PROBES ELEMENTS, AN UNCOMMANDED DISCHARGE OF THE IGNITERS OCCURRED. GROUND POWER WAS APPLIED AND ON, PROBES SWITCH TURNED ON AT PANEL FOR APPX 30 SECS. BY PILOT IN COCKPIT WHILE MX CONDUCTED A WALK AROUND TO VERIFY PROBES ELEMENT HEAT. ON FINAL STAGE OF CHECK AT OR BEYOND TIME PROBES SWITCH SET TO OFF A D DISSIPATING DISCHARGE SOUND WAS HEARD FROM/AROUND THE ENG (APPX 5-6 FLASHES) THEN STOPPED. THE ENG WAS COMPLETELY DE-COWLED. ENGINE MX PERFORMED EARLIER IN THE DAY, COMPLETE WITH A FUNCTION CHECK OF THE IGNITERS. THEY WERE SECURELY INSTALLED AT THE TIME OF THE INCIDENT. THIS ANOMALY HAS OCCURRED 3 TIMES PREVIOUSLY.

CA041108001	PILATS	PWA	PIN	SHEARED
10/29/2004	PC1245	PT6A67B	5321012123	LT MLG

(CAN) PINS ON SPECIAL WASHER SHEARED ALLOWING BODY OF HYDRAULIC SWIVEL FITTING TO ROTATE ON GEAR RETRACTION/EXTENSION BREAKING HYDRAULIC LINE TO THE BRAKES P/N 5324412053. THIS APPEARS TO BE CAUSED BY TO THICK OF A SPACER WASHER P/N 532.10.12.136 WHICH CAUSES THE ASSEMBLY TO APPLY TO MUCH FORCE TO THE SPECIAL WASHER AND ITS PINS. FOUR THICKNESS'S OF WASHERS ARE AVAILABLE IN THE IPC BUT NO PROCEDURE I S SPELLED OUT IN THE MM FOR THE TECHNICIAN TO HELP HIM/HER DETERMINE IF THE PROPER GAP IS THERE ON ASSEMBLY.

CA041122007	PILATS	PWA	ROSEMOUNT	ELEMENT	FAILED
11/20/2004	PC1245	PT6A67B		9754421421	VANE HEATER

(CAN) WHILE PERFORMING A CHECK OF THE PROBES HEATING SYSTEM, THE LT VANE HEAT WAS FOUND INOP. AOA ASSY REPLACED, FUNCTION TESTS SATISFACTORY.

CA041116001	PILATS	PWA	RELAY	FAILED
11/5/2004	PC1245	PT6A67B	9740926112	HYDRAULIC SYS

ON TAKEOFF, THE PILOT SELECTED GEAR UP, A HYDRAULIC CAUTION AND WARNING SYSTEM LAMP, MASTER CAUTION AND AURAL GONG WAS ACTIVATED. THE LANDING GEAR WAS SELECTED DOWN NO CHANGE WAS OBSERVED AND THE LANDING GEAR WAS SELECTED UP NO CHANGE WAS OBSERVED. THE HYDRAULIC CIRCUIT BREAKER WAS PULLED. AT THIS POINT THERE WAS AN INDICATION OF A RED NOSE GEAR LIGHT AND GREEN MAIN GEAR LIGHTS. THE PILOT THEN FLEW THE AIRCRAFT BACK TO ITS MAIN BASE IN PRINCE ALBERT, SK., WITH THE LANDING GEAR DOWN. APPROACH INTO PRINCE ALBERT, THE LANDING GEAR WAS SELECTED DOWN AND THE EMERGENCY GEAR HANDLE WAS USED TO APPLY DOWN PRESSURE AND TO CONFIRM THAT T HERE WAS HYDRAULIC PRESSURE. ALL THREE GREEN LANDING GEAR LIGHTS ILLUMINATE

CA041122005	PILATS	PWA	CONTROL UNIT	MALFUNCTIONED
11/20/2004	PC1245	PT6A67B	065008617	YAW DAMPER

(CAN) YAW DAMPER INDICATION LAMP WOULD NOT ILLUMINATE ON KMC 321 CONTROL HEAD. 'YD' INDICATION OK ON BOTH EFIS SCREENS. REPLACED WITH SERVICEABLE UNIT.

AE1	PILATS	PWA	STRUCTURE	FAILED
12/10/2004	PC6B2H2	PT6A27		ELEVATOR

FAILURE OF ELEVATOR ATTACH POINT AND OR HARDWARE. ACTUAL CAUSE IS UNKNOWN BECAUSE THE ELEVATOR HAS NOT BEEN LOCATED FOR RECOVERY.

21200003AA	PIPER	PIPER	CYLINDER	BROKEN
11/7/2004	PA28180		653193	RT MLG

ON FINAL LANDING AFTER SEVERAL TOUCH AND GO`S, STUDENT PILOT AND CFI THOUGHT THAT THEY BLEW THE LT TIRE BECAUSE THE RT WING CAME UP. AFTER FULL STOP, NOTED THAT THE UPPER TORQUE LINK ATTACH LUGS OF THE RT MLG CYLINDER HAD BOTH BROKEN OFF, DISCONNECTING THE TORQUE LINK ASSY ALLOWING THE STRUT TO FULLY OPEN AND MISALIGNING THE WHEEL. OTHER THAN THE CYLINDER ASSY, NO OTHER DAMAGE INCURRED. THE LT MLG CYLINDER WAS DYE PENETRATED AND BOTH ATTACH LUGS HAD CRACKS PRESENT. VISUALLY LOOKING AT WHERE THE BREAK OCCURED, IT WAS APPARENT THAT THE CRACKS HAD BEEN THERE FOR SOMETIME AND THAT CORROSION HAD OCCURRED. BOTH CYLINDERS WILL BE REPLACED.

PIPER SERVICE BULLETIN NR 1131 DATED AUGUST 2003 WAS NOT COMPLIED WITH.

CA041101004	PIPER	LYC	CRANKCASE	CRACKED
10/20/2004	PA28R180	IO360B1E	10360BIE	ENGINE

THE ENGINE HAD AN OIL LEAK AT THE LT FRONT OF THE CRANKCASE. IT WAS CLEANED. A CLOSE CHECK FOUND TWO CRACKS LEAVING OIL. THE ENGINE WAS REMOVED AND SENT OUT FOR REPAIRS.

CA041029007	PIPER	LYC	HARTZL	HUB	CORRODED
10/29/2004	PA30	IO320B1A		D2483	PROPELLER

PROPELLER REMOVED FROM AIRCRAFT FOR 10 YR O/H. UPON VISUAL INSPECTION OF HUB, CORROSION BEYOND REPAIRABLE LIMITS WAS FOUND IN THE BLADE 'O' RING GROOVES. MANUFACTURERS RECOMMENDED TBO IS 2000 HRS OR 72 MONTHS. THIS PROPELLER HAS EXCEEDED THE CALENDAR TBO BY 48 MONTHS.

CA041119009	PIPER	LYC	MAGNETO	CRACKED
11/2/2004	PA31	TIO540A2C	S6LN1208	ENGINE

(CAN) MAGNETO WAS REMOVED AT ENGINE REMOVAL. MAG WAS SENT IN BECAUSE THE OIL SLINGER RING WAS NOT IN THE GROOVE. TEAR DOWN RESULTED IN THE FOLLOWING FINDINGS, WIRE ROUTING INCORRECT, LEAD WEARING ON COM SCREW, COIL LEAD NOT POSITIONED CORRECTLY, TUBING MISSING FROM COVER SCREW, EXCESSIVE GREASE LEAKING FROM ROLLER BEARING. IMPROPER GREASE IN BEARING, WRONG WASHERS INSTALLED ON DISTRIBUTOR BLOCK STUDS, DISTRIBUTOR GEAR WASHER WAS WORN ON ID, DISTRIBUTOR BLOCK CRACKED AT ONE OF THE 6 ELECTRODES, VENT SCREEN WAS PAINTED OVER.

CA041115007	PIPER	LYC	TRUNNION	CRACKED
11/11/2004	PA31350	TIO540J2BD	4027300	NLG

(CAN) DURING INSPECTION TWO CRACKS WERE FOUND IN THE UPPER CENTER AREA OF THE TRUNNION. IT APPEARS THAT THE CRACKS ORIGINATED IN A REPAIRED AREA THAT WAS WELDED. THE CRACKS WERE DETECTED VISUALLY.

CA041115008	PIPER	LYC	EXHAUST VALVE	ERODED
11/11/2004	PA31350	TIO540J2BD	LW16740	ENGINE

WHEN THE EXHAUST PIPES WERE REMOVED TO INSPECT THE EXHAUST VALVES, IT WAS FOUND THAT ALL SIX VALVES ON THE ENGINE HAD EROSION WEAR ON THE STEMS AND THE BACK SIDE OF THE VALVE FACE. THIS IS THE SECOND ENGINE THAT THIS PROBLEM HAS BEEN FOUND ON IN OUR FLEET.

2004FA0000880	PIPER	LYC	CRANKCASE	DAMAGED
8/2/2004	PA32260	O540E4B5	LW11033	ENGINE

WHILE CLIMBING OUT FROM RAWLINS, WY ON A FLIGHT TO HOLLISTER, CA., THE ENGINE STARTED TO RUN ROUGH AND THE PILOT NOTICED THAT THE OIL TEMPERATURE WAS RED LINED. THE PILOT RETURNED TO THE AIRPORT FOR EMERGENCY LANDING UNDER PARTIAL ENGINE POWER. THE AIRCRAFT LANDED WITHOUT FURTHER INCIDENT. THE ENGINE WAS INSPECTED FOR THE ROUGH RUNNING AND IT WAS FOUND THAT THE CRANKCASE WAS DAMAGED BY THE CRANKSHAFT AT THE REAR OF THE FRONT THRUST BEARING AREA.

2004FA0000879	PIPER	LYC	STARTER	INTERMITTENT
8/9/2004	PA32300	IO540J4A5	MZ6222	ENGINE

UPON ENGINE START UP, PILOT WENT TO ENGAGE STARTER, STARTER DID NOT ENGAGE. INVESTIGATED STARTER AND FOUND STARTER BENDIX WOULD NOT ENGAGE. SUSPECT FAULTY BENDIX.

BJ3R200400002	PIPER	LYC	ALTERNATOR	DEFECTIVE
9/27/2004	PA32R300	IO540K1G5	3656624R	ENGINE

PREVIOUSLY INSTALLED OVERHAULED ALTERNATOR FAILED AFTER APPROXIMATELY 27 HOURS OF OPERATION. THE ALTERNATOR WAS MANUFACTURED BY KELLY AEROSPACE/ELECTROSYSTEMS. THERE WAS EXCESSIVE BINDING OF THE ALTERNATOR SHAFT AND PULLEY. IN ADDITION, TWO EACH OF THE COOLING FINS BROKE OFF THE ALTERNATOR.

2004FA0000881	PIPER	LYC	DRIVE ASSY	LEAKING
8/5/2004	PA32R301T	TIO540*	29A21372	SCAV PUMP
PILOT REPORTED OIL LEAKING FROM ENGINE. THE DRIVE ASSEMBLY FOR THE TURBO SCAVENGE PUMP WAS FOUND LEAKING. THE PUMP WAS REMOVED FROM THE ENGINE, REPAIRED AND REINSTALLED. NO LEAKS FOUND AFTER GROUND RUN.				
2004FA0000874	PIPER	CONT	IMPULSE COUPLING	MISSING
10/6/2004	PA34200T	TSIO360EB		MAGNETO
WHILE PERFORMING AD 96-12-07, THE MECHANIC NOTICED THAT THE STOP PIN FOR THE IMPULSE COUPLING WAS MISSING. INSPECTED THE ACCESSORY SECTION AND FOUND THE PIN WEDGED BETWEEN THE CRANK CASE AND A GEAR. REMOVED THE PIN, NO FURTHER DAMAGE WAS FOUND.				
RX8R2004002	PIPER	PWA	STRUT	CRACKED
12/3/2004	PA42720	PT6A61	5768007	ZONE 700
RIGHT MAIN LANDING GEAR STRUT CRACKED AT ATTACH POINT TO ACTUATING BRACE. CRACK IS 2.5 INCHES LONG ALONG AFT SIDE OF AFT ATTACH POINT LUG. CRACK IS AT SAME LOCATION THAT GETS INSPECTED IAW PIPER SERVICE BULLETIN 969. AREA WAS INSPECTED PER SB 65.2 HRS. AGO, USING DYE PENETRANT. THERE WAS NO CRACK AT THAT TIME.				
2004FA0000894	PIPER		BELLCRANK	CRACKED
11/25/2004	PA46350P		82905-03	TE FLAPS
BEFORE LANDING, PILOT SELECTED 10 DEGREES FLAPS & ACFT DRIFTED LT. ABORTED LANDING, RAISED FLAPS & DID A GO AROUND THINKING, THAT ONE OF THE MLG HAD NOT COME DOWN. AT THE 2ND ATTEMPT, HAD SAME PROBLEM & REALIZED THE PROBLEM WAS NOT THE MLG, BUT THE FLAP SYS. RT FLAP HAD NOT GONE DOWN, RAISED FLAPS AGAIN & LANDED WITHOUT FLAPS. AFTER LDG, A FUNCTIONAL CHECK OF FLAPS, NO ABNORMALITIES. AFTER INSP, RT FLAP INBOARD BELLCRANK FOUND CRACKED ABOUT 80% OF CIRCUMFERENCE. OTHER BELLCRANKS OF BOTH FLAPS WERE VISUALLY INSP & NO PROBLEM FOUND. PILOTS STATES, THAT HE & OTHER PILOTS HAVE NEVER LOWERED THE FLAPS AT SPEEDS HIGHER THAN THOSE SPECIFIED IN THE ACFT POH.				
7529S	PIPER		CHANNEL	CRACKED
11/19/2004	PA60601		210056033	FUSLEAGE
ON INSPECTION, FOUND PART CRACKED AT RIVET HOLES WHERE ATTACHED TO P/N 210056-031 CHANNEL.				
2004FA0000902	PIPER		CHANNEL	CRACKED
11/19/2004	PA60601		210056033	ZONE 100
ON INSPECTION, FOUND PART CRACKED AT RIVET HOLES WHERE ATTACHED TO P/N 210056-031 CHANNEL.				
CA041119002	RKWELL	LYC	SEGMENT	BURNED
10/31/2004	700	TIO540R2AD	LW16620	LT ENG EXHAUST
DURING THE INSPECTION OF THE LT ENGINE AFTER IN-FLIGHT STOPPAGE, A HOLE WAS FOUND N AN EXHAUST SEGMENT. DUE TO RESTRICTED SPACE A HEAT SHROUD THAT CONCEALED THE HOLE COULD NOT BE REMOVED WITHOUT REMOVING THE ENTIRE EXHAUST SYSTEM. THE HOT GASES ESCAPING FROM GROUNDING THE MAG IMMEDIATELY SHUT THE ENGINE DOWN. THE COMPANY INSPECTION PROGRAM HAS BEEN AMENDED AND NOW REQUIRES THE EXHAUST SYSTEM TO BE REMOVED AND INSPECTED. THIS REQUIRES THE IMMEDIATE INSPECTION AND FOLLOW-UP REMOVAL, INSPECTION EVERY 200 HRS AND TRACKED ON COMPANY INSPECTION SHEETS.				
JV2R200400003	RKWELL	GARRTT	EEC	DEFECTIVE
12/9/2004	NA26565	TFE731*	21190208000	LT ENGINE
OPERATOR REPORTED LEFT DIGITAL ELECTRONIC ENGINE CONTROL COMPUTER FAIL LIGHT ILLUMINATED DURING CLIMB PUTTING THE SYSTEM IN MANUAL. THE OPERATOR REPORTED ATTEMPTING RESET ONE TIME, SYSTEM FAILED AGAIN AND OPERATOR RETURNED TO BASE. HONEYWELL WAS CONTACTED.				

JV2R200400001	RKWELL	GARRTT	COMPUTER	FAILED
12/9/2004	NA26565	TFE731*	21190208000	E/E BAY
DURING MAINTENANCE ENGINE RUN, THE LT COMPUTER FAIL LIGHT ILLUMINATED AT 92 PERCENT AND THE SYSTEM WENT TO MANUAL. THE ENGINE OPERATOR RESET THE SYSTEM PER MANUAL AND PERFORMED A SECOND ENGINE RUN. LEFT COMPUTER FAIL LIGHT ILLUMINATED AT IDLE ON THE SECOND ENGINE RUN AND WENT TO MANUAL. ENGINE OPERATION WAS STOPPED. HONEYWELL WAS CONTACTED.				
2004FA0000923	ROBSIN		BLADE	DELAMINATED
12/14/2004	R44		C016-2	MAIN ROTOR
PREFLIGHT INSPECTION FOUND ONE OF THE BLADES APPEARED TO HAVE SKIN SEPARATION AT TRAILING EDGE TIP APPROX 1/4" LONG. SENT DIGITAL PHOTO TO ROBINSON AND THEY REQUESTED BOTH BLADES BE SENT TO THEM FOR INSPECTION. UPON INSPECTION AT FACTORY BOTH BLADES WERE SCRAPPED DUE TO CORROSION DELAMINATION. SHIP HAS RECENTLY CHANGED OWNERS BUT PRIOR OWNER OPERATED SHIP IN FLORIDA. SHIP WAS MANUFACTURED IN EARLY 2000 AND ONLY HAS 775 HOURS SINCE NEW. ROBINSON DOES NOT CONSIDER THIS A DEFECT BUT CLAIMS THE PROBLEM WAS THE CORROSIVE ENVIRONMENT IT WAS OPERATED IN.				
MDR04061	SKRSKY	SKRSKY	BEARING RACE	CRACKED
8/19/2004	CH54B		6595207526101	TAIL ROTOR HEAD
TAIL ROTOR HEAD WAS REMOVED FROM AC DUE TO SUDDEN LEAKAGE FROM TAIL ROTOR GRIP. DISASSEMBLED TAIL ROTOR HEAD AND FOUND THE SHOULDER BOLT INNER RACE CRACKED ON THE BACK SLEEVE AND SPINDLE. CRACK TRAVELS COMPLETELY ACROSS BEARING CONTACT SURFACE AND COMPLETELY THROUGH INNER RACE TOT HE SHOULDER BOLT CONTACT SURFACE. THE CRACKING OF THE INNER RACE WAS A PROBABLE CAUSE FOR THE SUDDEN LEAKAGE. NOTE: THIS IS FIRST OCCURRENCE OF THIS TYPE. PART WILL BE SENT OUT FOR ANALYSIS.				
MDR03039	SKRSKY	PWA	ATTACH ANGLE	CRACKED
12/15/2003	CH54B	JFTD12A5A	642066340105	FUSELAGE
DURING A SCHEDULED INSPECTION, LT ATTACH ANGLE, PN 6420-66340-105, WAS FOUND CRACKED AT STA 767.8 LBL 5.5, WL 177.1. THE CRACK ORIGINATED AT THE BOTTOM HUCK FASTENER AND TRAVELED DOWN TO THE EDGE OF THE ANGLE. THESE ANGLES ATTACH THE INTERCOSTALS TO THE CANTED WEB AT THE ABOVE-LISTED LOCATIONS. PROBABLE CAUSE IS FATIGUE. RECOMMENDATIONS TO PREVENT RECURRENCE, USE 7078-T6, .063 EXTRUSION, RATHER THAN ORIGINAL MATERIAL 7075-T6, .050 INCH BENT SHEET.				
MDR03038	SKRSKY		SPAR	CRACKED
12/15/2003	S64E		151520604000	M/R BLADE
THE BLADE WAS INSPECTED DUE TO A BIM INDICATION IN THE FIELD. DURING THE INSPECTION, A LEAK INDICATION WAS NOTED ON THE BOTTOM SIDE OF THE SPAR BETWEEN POCKETS 5 AND 6. AFTER REMOVAL OF POCKETS 5 AND 6, AND FPI INSPECTION REVEALED A CRACK IN THE SPAR RUNNING CHORD WISE, BEGINNING .7500 INCH FROM THE BACK WALL EXTENDING .8750 INCH TOWARD THE LEADING EDGE. PROBABLE CAUSE IS CORROSION PIT ON SPAR .8750 INCH FROM THE BACK WALL.				
CA040916007	SNIAS	TMECA	SWITCH	MALFUNCTIONED
9/3/2004	AS350B	ARRIEL1B	NE15FBATI1TFGNO	HYD SYSTEM
SHORTLY AFTER T/O, WARNING HORN & NOTICED 'HYD CAUTION LIGHT' ON. A FEW SECONDS LATER, ERRATIC CYC MOVEMENT FELT. RETURNED & LANDED W/O INCIDENT. MX INSPECT DID NOT ISOLATE CAUSE FOR MALFUNCTION. HYD SYS CK APPEARED TO BE NORM. HYD PUMP SPLINES INSPECTED & FOUND LUBED & SERVICEABLE. ELECT CHECKS CARRIED OUT SAT. VISUAL INSPECT OF WIRE HARNESS REVEALED NO DISCREPANCY. GROUND RUN CARRIED OUT. ALL TESTS TURNED OUT NORM, HYD PUMP REPLACED. ACCUMULATOR'S PRESS CHECKED AT 170 PSI FOR 18 DEG C. ACCUMULATORS RE-CHARGED TO CORRECT PRESS. HYD TEST 'PUSH BUTTON' SWITCH REPLACED. ANOTHER GROUND RUN REVEALED NO DISCREPANCY. COLLECTIVE DUMP SWITCH REPLACED, GROUND RUN, NO DISCREPANCY. A/C RETURNED TO SERVICE.				
CA041110016	SNIAS	TMECA	SERVO	MALFUNCTIONED
10/28/2004	AS350B	ARRIEL1B	AC67244	CYCLIC STICK

WHEN HYDRAULIC POWER IS RE-ESTABLISHED AFTER DOING HYDRAULIC ACCUMULATOR PREFLIGHT CHECK, THE CYCLIC STICK WOULD GO HARD LEFT, BUT WAS ABLE TO BE OVERCOME AND WOULD ONLY LAST BRIEFLY. LEFT HAND SERVO WAS REPLACED FOR TROUBLESHOOTING AND PROBLEM WAS RECTIFIED. ALL FUNCTIONS NORMAL.

CA041110017	SNIAS	TMECA	PUMP	UNSERVICEABLE
9/4/2004	AS350B2	ARRIEL1D1	P94B12203C	FUEL BOOST

BOOST PUMP FOUND LEAKING DURING DI. UPON FURTHER INVESTIGATION FOUND PUMP LEAKING INTERNALLY. PUMP REPLACED.

CA041102010	SNIAS	TMECA	RECEPTACLE	LEAKING
11/2/2004	AS350B3	ARRIEL2B	9520011653	CHIP DETECTOR

WHILE CHECKING THE ENG MODULE 05 CHIP PLUG DURING ROUTINE D.I., THE SELF CLOSING VALVE OF RECEPTACLE WAS LEAKING. BY PUSHING THE CHIP PLUG IN AND OUT SEVERAL TIMES, THE VALVE WOULD CLOSE TIGHT, STOPPING LEAK. A NEW RECEPTACLE WAS THEN ORDERED. DUE TO DELAY IN RECEIVING THE PART, THE ENG WAS OPERATED FOR APPROX 75 HRS BEFORE THE RECEPTACLE WAS REPLACED. UPON REMOVAL OF THE FAULTY RECEPTACLE, IT WAS OBVIOUS THAT TWO WASHERS WERE CAUSING SELF CLOSING VALVE NOT TO CLOSE PROPERLY, ALLOWING IT TO LEAK. THE MANUF WAS CONTACTED AND IT WAS DECIDED TO REMOVE THE ENG FROM SERV UNTIL FURTHER INVEST. A SIMILAR WASHER WAS FOUND IN THE MODULE 01 SCAVENGE OIL STRAINER AT 99.9 HOURS.

CA041110009	SNIAS	TMECA	IGNITER	UNSERVICEABLE
11/8/2004	AS350BA	ARRIEL1B	9550175400	ENGINE

(CAN) WHILE TROUBLESHOOTING A SLOW STARTING ENGINE, THE LT IGNITER PLUG WAS REMOVED FOR INSPECTION. AN OPERATIONAL (SPARK) CHECK WAS CARRIED OUT WITH NO DEFECTS FOUND. UPON A SECOND LOOK AT THE IGNITER, IT WAS NOTICED THE SEMI CONDUCTOR SURROUNDING THE CENTRAL ELECTRODE WAS EXTENDED 1/16 OF AN INCH AND LOOSE. THE MAINTENANCE LOG SHOWS THE IGNITER WAS INSTALLED NEW ON SEPT 22 2003 AT AIRFRAME HOURS 11959.5A NEW IGNITER WAS INSTALLED AND A/C RETURNED TO SERVICE.

CA041110008	SNIAS	TMECA	PLATE	MISSING
9/30/2004	AS350BA	ARRIEL1B	350A27118120	TAILBOOM

DURING AN INSPECTION OF THE CABLE ASSEMBLY, THE BACKING PLATE FOR THE CABLE SUPPORT BEARING AT THE TAIL BOOM/AIRFRAME JUNCTION WAS FOUND TO BE MISSING. AIRCRAFT GROUNDED AND A PLATE INSTALLED. THE MISSING PLATE RESULTED IN EXCESS PLAY IN THE TAILROTOR PEDAL CONTROL.

CA041110018	SWRNGN	GARRTT	CLAMP	CRACKED
11/10/2004	SA226TC	TPE33110UA	83867	PROPELLER BLADE

PROPELLER RECEIVED FOR INSPECTION UNDER AD 88-24-15. DURING ROUTINE VISUAL INSPECTION OF THE BLADE CLAMP ASSEMBLES, A CRACKED WAS DETECTED IN ONE OF THE OUTBOARD CLAMP BOLT HOLES ON S/N EE1910. CLAMP HAS BEEN REMOVED FROM SERVICE AND REPLACED WITH AN OVERHAULED ASSY.

CA041103004	SWRNGN	GARRTT	BELLCRANK	WORN
11/2/2004	SA226TC	TPE33110UA	2751008018	MLG

DURING EXTENSION OF MLG, NOTICED RT MLG WOULD NOT EXTEND. NO INTRANSIT OR DOWN & LOCKED IND. CREW ATTEMPTED A VISUAL TO CONFIRM MLG EXTEND BUT COULD NOT SEE IT FROM INSIDE A/C. CREW MANUALLY EXTENDED MLG. MLG PROCEEDED TO COME DOWN & REMAINED LOCKED. MX CONTACTED & FLT PERMIT ISSUED FOR FLT BACK TO BASE. MLG REMAINED DOWN & LOCKED FOR REMAINDER OF FLT. MX SWUNG MLG & FOUND RT OB MLG POSITIONING BELLCRANK BEARING RIDING ON THE BELLCRANK DUE TO WEAR IN BELLCRANK TRUNNION PIN BUSHING & PIN CAUSING SIDE TO SIDE 'ROCKING' OF BELLCRANK. MINOR EVIDENCE OF POSITIONING CAM RIDING ON BELLCRANK & NOT BEARING, CAN BE SEEN ON BELLCRANK. MX REPLACED BELLCRANK & INSP REMAINING MLG COMPONENTS & SWUNG MLG WITH NO PROBLEMS.

CA040719002	SWRNGN		DOOR	OUT OF POSITION
7/12/2004	SA227AC		2722181	EMERGENCY EXIT

UPON LANDING, THE LT EMERGENCY EXIT HATCH OPENED AND FELL OUT OF POSITION. MX ENGINEER INSPECTED THE ESCAPE HATCH AND FOUND NO EVIDENCE OF DAMAGE. HATCH WAS INSTALLED AND FURTHER INCIDENT HAS OCCURRED.

CA041116002	SWRNGN	TUBE	CRACKED
11/8/2004	SA227AC	2781006143	HYD SYSTEM

HYDRAULIC FLUID WAS OBSERVED LEAKING FROM BELLY OF AIRCRAFT. FURTHER INSPECTION REVEALED A CRACK IN THE 90 DEGREE BEND SECTION OF THE TUBE. THE LINE WAS REPLACED AND AIRCRAFT RETURNED TO SERVICE. NOTE: THIS LINE IS NOT INCLUDED IN THE LIST IF LINES REQUIRING A SPECIAL INSPECTION IN ACCORDANCE WITH SB 227-29-005, YET THE LINE DOES PASS THE CRITERIA INCLUDED IN THE SB.

2004FA0000920	UNIVAR	SKIN	CORRODED
7/28/2004	415CD		WING CENTER SECT

INSPECTION OF WING CENTER SECTION PER AD 02-26-02 FOUND LIGHT CORROSION ON LOWER SKINS, MODERATE CORROSION ON 3 STIFFENERS. REPLACED STIFFENERS, CLEANED AND TREATED SKIN. AIRCRAFT WAS OUTSIDE WITHOUT COVER FOR AT LEAST 30 YEARS.

END OF REPORTS