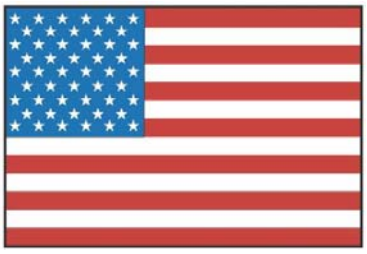
U.S. Department of Transportation
Federal Aviation Administration

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



ALERT NUMBER 317

DECEMBER 2004

CONTENTS

AIRPLANES

POWERPLANTS

ACCESSORIES

AIR NOTES

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.

AIRPLANES

BEECH

Beech (Raytheon); B200C; Flap Extension Failure; ATA 2750

While in flight the aircraft flaps failed to extend to the selected position. The pilot had to cycle the flap select switch several times before effecting flap extension.

Maintenance was able to duplicate the problem on the ground. When the flaps were selected to the *approach* position, they moved approximately 5 degrees then stopped. A finger tap on the flap motor relay returned the flaps to normal response operation. Installation of a replacement relay solved the problem.

The failed relay (P/N SM50D) had 69.0 hours of use since repair by the manufacturer, Eaton Aerospace. A search of the FAA Service Difficulty Reporting System database revealed 44 entries for this relay since January 1995.

Part total time: unknown.

Beech; F33A; Gear Selection Failure; ATA 3230

A pilot reports selecting *gear down* with no results. The gear came down after cycling the selector switch a second time. The submitter tracked the problem to an intermittent relay (P/N SM50D7), but offers no recommendations.

Part total time: 396.0 hours.

Beech; 1900C; Inner Windshield Failure; ATA 5610

An inner windshield pane shattered during cruise at FL 250. There was an outside air temperature of -35 degrees C and the windshield heater was operating normally. Cracks suddenly appeared all over with a loud "...bang...". The manufacture is noted as PPG (P/N 114-38920-5). Appended research from the local ASI notes this operator has had 4 such failures in 14 months. The SDRS database records 12 similar failures over the last 12 months.

Part total time: (unknown).

Beech; (Raytheon); 400A; Broken Cable, Emergency Gear Extension; ATA 3230

A scheduled inspection revealed a L/H main gear uplock emergency extension cable broken near the outboard end. The technician replaced the broken part with a new assembly (P/N 128-380021-55), noting it was the third iteration of this particular cable as indicated by their illustrated parts catalog. The part number of the removed assembly was not determined--it may have been original. Submitter believes the unit failed from time in service and recommends life-limits and/or service bulletin(s) as solution.

Part total time: (unknown).

CESSNA

Cessna; TR 182; Broken Flap-Track Support Bracket; ATA 5753

A mechanic relates the following observations: the L/H wing inboard flap-track rib assembly (P/N 1221010-15) has two brackets for attachment to the lower inboard trailing edge wing skin. One of the brackets had cracked, allowing it to slightly twist, decreasing the clearance between the bracket and the flap roller slot in the track assembly.

Following a preflight inspection, the pilot tried to raise the flaps. The front of the support arm rib assembly caught on the cracked and twisted bracket, jamming the I/B end of the flap. The actuating motor continued to run, causing substantial damage to the flap structure. The aircraft was repaired by replacing both the flap and the cracked bracket on the track rib assembly.

The cause of the crack was not determined. This mechanic recommends special attention be given to all the flap track assembly components during preflight, 100 hour, and annual inspections.

Part total time: (unknown).

Cessna; 206; 207; 210 (except 210R/T210R); Horizontal Stabilizer Front Spar; ATA 5511

The Aircraft Certification Office (ACE-118W) of the Aircraft Certification Office (ACO), located in Wichita, Kansas, submitted the following article. *(This article is published as it was received.)*

Cracks in the horizontal stabilizer front spar (P/N 1232622-23) have been reported on Cessna Series 210 airplanes. This spar is also used in Cessna Series 206 and 207 airplanes. The loss of strength in the spar could cause the airplane to become uncontrollable in flight.

The Commonwealth of Australia Civil Aviation Safety Authority (CASA) issued Airworthiness Directive AD/CESSNA 210/69 dated 4/2002 that is applicable to all models of Cessna 210 airplanes except 210R/T210R serial numbers 21064898 and subsequent. The CASA AD became effective on 6 March 2002.

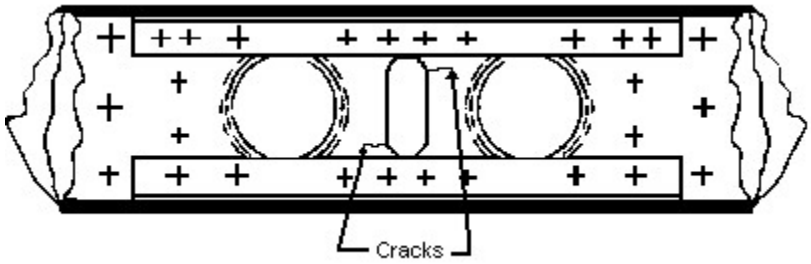
The Australian AD requires visual inspection of the front and rear faces of the horizontal stabilizer front spar assembly center section for cracks around the cut-out in the front spar web, see the figure below. The front spar web must be repaired if any cracks are found before the airplane can be flown.

Access to the spar assembly is accomplished by removing the fillet fairing. The front surface is then visible. The backside of the spar can be seen by inserting a mirror and light through a hole in the upper surface of the horizontal stabilizer. This inspection may require some experimenting to determine good viewing. Thus, the use of a borescope is recommended to make the inspection easier.

The front spar is fabricated from two channels, joined at the stabilizer centerline. The channels are spliced by a formed channel on the aft face of the spar, and by two splice angles along the upper and lower surfaces. Since the splice channel is sandwiched between the spar channels and the splice angles, it can only be examined from the edges of the slotted hole or from the aft edge of the spar cap. Cracks typically grow from the upper and lower edges of the slotted hole for the elevator trim tab cables as shown in the figure below. The cracks shown in the figure would be expected to develop from unsymmetrical horizontal tail loads. The right hand only trim tab produces some unsymmetric horizontal tail loads, but a more likely source is unsymmetric ground handling loads from forcing the tail down to clear the nose landing gear for moving the airplane. Another suggested source of cracks is rough field operations, where the rocking of the fuselage drives the horizontal tail. This condition would likely produce symmetric cracks (both sides at the upper and lower ends of the cutout.)

For compliance to the Australian AD, CASA states: “a. For aircraft with less than 10,000 hours time in service, inspect before exceeding 10,000 hours total time in service, and thereafter at intervals not exceeding 100 hours time in service. b. For aircraft with 10,000 or more hours time in service, inspect before 18 March 2002, and thereafter at intervals not exceeding 100 hours in service.”

Only a few FAA Service Difficulty Reports have been documented. These cracks have been observed primarily on airplanes near or exceeding 10,000 hours time in service. These inspections are currently required by a general note in Cessna’s maintenance manuals to check metal parts for cracks.



CIRRUS

Cirrus; SR 22; Cracked Oil Cooler; ATA 7921

The report describes a crack found on the lower L/H flange area of the oil cooler (NDM: P/N 10281A). Cirrus is aware of this problem and associated discussion can be found on their web site (http://www.cirrusdesign.com/body.asp). No cause or solutions were offered with this submission.

Part total time: 308.5 hours.

Cirrus; SR 22; Cracked Oil Cooler; ATA 7921

"This aircraft has had an oil cooler (NDM: 10281A) replaced for the same defect at less than 300 hours. The new oil cooler is cracked again at the lower L/H flange area.”

The submitter notes Cirrus provides a six-point engine mount option to help with vibration control. It was installed on this aircraft at the same time of the first oil cooler replacement. The owner reported a noticeable difference in vibration levels, but the oil cooler still cracked.

Cirrus provides discussion of this issue on their web site (http://www.cirrusdesign.com/body.asp).

Part total time: 474.9 hours.

PIPER

Piper; PA 28R-201; Nose Gear, Drag Brace Failure; ATA 3222

The pilot reported hearing a loud, sharp "pop" sound while in flight. He lowered the landing gear and made an uneventful touchdown. The first inspection opportunity revealed the nose gear upper drag brace was broken just forward of the area where the landing gear actuator attaches to the brace. No other damage was noted. A possible cause of failure: fatigue due to the number of hours or cycles on the part. The technician reports having submitted an M or D Report on 5/28/04 for the same failure on a similar type aircraft.

Part total time: 3172.6 hours.

POWERPLANTS

EMBRAER

Embraer; EMB 145LR; Allison; AE 3007A; Engine Starter and Mount Failure; ATA 8011

Moments after aircraft takeoff, climbing past 500 feet, the air crew reported a fire indication on number 1 engine. A minute later the fire warning bell rang. The crew managed a quick and safe landing. Inspection revealed the air turbine starter (P/N 35059105) broken off the mounting pad. This action severed adjacent fluid lines which likely caused the fire. The engine was changed due to heat damage to the outer bypass duct. No data or speculation was provided for the starter/mount breakage.

Part total time (since overhaul): 55.0 hours.

ACCESSORIES

PIPER

Piper; PA 28-161; Lycoming; O-320-D3G; Broken Magneto (Slick Magneto 4370); ATA 7414

This aircraft is used in a training environment. Its pilot describes suddenly losing engine power in flight. He immediately applied carburetor heat, then switched fuel feed to the opposite tank. Neither action produced a positive engine response. After a precautionary landing, the pilot (again) observed a magneto check. Selecting right magneto killed the engine.

Magneto disassembly revealed the rotor unit (M3548) broken off at the base of the machined fork and the plastic distributor drive gear (M3827). Fragments of the fork were found, but no other discrepancies were noted with this unit. The reporting mechanic describes never having seen a like failure or any indications of mechanical degradation during earlier inspections of the same unit. A rotor time limit was suggested as potential hedge against future failures.

Part total time: 1284.1 hours.

AIR NOTES

HAPPY HOLIDAYS
REFLECTIONS AND PROJECTIONS

As we approach the end of another productive year, let us reflect on the events of the past and look, with enthusiastic optimism, to the future. May the experiences of the past year guide us to decisions that will increase aviation safety in the years to come.

Over the past year, it has been our privilege to provide the aviation community with this media for disseminating your aviation experiences. The intent is to create a safer aviation environment through the interchange of information. With your input and help, this publication has existed since August 1978. Since that time, there have been many changes in aviation. Many of the innovations and advancements have taken place because one person had an idea or wondered how something could be done better.

As we ponder and project the future of aviation, we have visions of great changes to come, which now are only a glimmer in someone's mind. We anticipate what each new day will present. Challenges and problems are met with solutions and changes.

As the Holiday seasons approach, we wish all of you a safe and joyous time with family and friends.

HAPPY HOLIDAYS

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

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

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

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

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

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

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

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

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

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

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

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

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

The SDRS database contains records dating back to 1974. At the current time, we are receiving approximately 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 November 19, 2004, and December 16, 2004, 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**
2004FA0000830	AGUSTA	ALLSN	ALLSN	ADAPTER	SHEARED
8/12/2004	A109	250C20B		230397911	NR 2 COMPRESSOR

DURING FLIGHT PILOT HEARD MUFFLED BANG AND EXPERIENCED YAWING OF FUSELAGE WITH RELATED HIGH TOT INDICATION OF NR 2 ENG. ENGINE SHUT DOWN AND EMERGENCY LANDING CARRIED OUT. AC RECOVERED BY ROAD TO MAINT FACILITY. INVESTIGATION REVEALED MINOR DEBRIS ON ACCESSORY GB, CHIP DETECTOR AND COMPRESSOR/ POWER TURBINE SPINS FREELY BY HAND BUT, WITH COMPRESSOR TURNING ACCESSORY DRIVES DO NOT ROTATE. ENG MODULES SEPARATED AND COMPRESSOR ADAPTOR FOUND SHEARED. ALERT BULLETIN HAS NOT BEEN COMPLIED WITH ON THIS ENGINE AND MFG MAY SET AN OPER TIME LIMIT.

2004FA0000799	AIMM	ROTAX	GASKET	DETERIORATED
6/9/2004	AMT300	ROTAX914		FUEL TANK

FUEL TANK GASKETS MAY NOT BE COMPATABLE WITH AUTO FUEL. ENGINE IS APPROVED FOR AUTO FUEL. GASKETS WERE FOUND SEVERELY DETERIORATED. (WP11200403100)

2004FA0000815	AMD	GARRTT	TRANSITION DUCT	FAILED
7/30/2004	FALCON50MYST	TFE73140	30606944	HP TURBINE

FLIGHT CREW MADE 3 ATTEMPTS TO START NR 3 ENGINE. COCKPIT INDICATION ON N1 AND N2 SHOWED NO ROTATION. 4TH ATTEMPT SHOWED ROTATION WITH A NORMAL START. DURING FLIGHT BACK, CREW NOTED N2 APPROX 2 PERCENT LOWER AT CRUISE. ITT WAS APPROX 100 DEGREES HIGHTER. ALL OTHER PARAMETERS INDICATED NORMAL. MAINTENANCE CARRIED OUT GROUND MOTORING RUNS THAT INDICATED HARD RUB INSIDE ENGINE. COMPUTER DOWNLOAD COMPLIED WITH AND ANALYZED BY MFG AND ECTM CONFIRMING HIGH PRESSURE TURBINE AND SHROUD FAILURE ENGINE NR 3 REMOVED AND SENT FOR REPAIR. BANK ENGINE INSTALLED AND AC RELEASED FOR SERVICE. (NM1200411360)

2004FA0000757	AMD	GARRTT	PRESSURE SWITCH	LEAKING
8/18/2004	FALCON900B	TFE731*	95G50	NR 2 HYD SYSTEM

APPROX 5-10 MINUTES AFTER TAKEOFF, PILOTS NOTED NR 2 HYDRAULIC SYSTEM LOSING FLUID. SYSTEM CONTINUED TO LOSE FLUID SO NR 2 ENGINE WAS SHUT DOWN AND AIRCRAFT LANDED. MAINTENANCE FOUND NR 2 HYDRAULIC SYSTEM PRESSURE SWITCH LEAKING. INSTALLED NEW PRESSURE SWITCH CLEANED AIRCRAFT AFT COMPARTMENT AND TESTED SYSTEM FOR OPERATION AND LEAKS. AIRCRAFT RETURNED TO SERVICE. NEW SWITCH WAS A LATER GENERATION SWITCH (PN 906229).

2004FA0000837	AMRGEN	LYC	FLOAT	DAMAGED
9/16/2004	AA1A	O235K2C	30804	CARBURETOR

ENGINE STALLED WHILE AIRCRAFT WAS ON FINAL APPROACH. DURING TEST RUN, ENGINE PERFORMED NORMALLY DURING RUN UP CHECK, IDLE CHECK AND MIXTURE CHECK AT 1000 RPM. HOWEVER, WHEN THE ENGINE LT AT IDLE (650 RPM) THE ENGINE WOULD BEGIN TO RUN RICH, LOPE AND QUIT RUNNING AFTER ABOUT 1 TO 2 MINUTES. THE CARBURETOR WAS REMOVED AND INSPECTED. ONE HALF OF THE FLOAT, WHICH IS MADE OF HOLLOW PLASTIC, WAS FILLED WITH FUEL.

2004FA0000831	AMRGEN	LYC	PLATE	MISINSTALLED
9/23/2004	AG5B	O360A1D	51023306	SEAT BELT

WHILE REPLACING REAR PASSENGER SEAT BELTS, IT WAS DISCOVERED THAT PN 51023306 REINFORCEMENT PLATE HAD BEEN INSTALLED ON FWD SIDE OF AFT SEAT BULKHEAD UNDER SEATBELT ATTACH BRACKET. THE -6 PLATE SHOULD HAVE BEEN INSTALLED ON AFT SIDE OF THE BULKHEAD IAW AGAG DRAWING 5102299. MS20364-1032 (THIN SHEER NUT) WAS USED TO SECURE THE AN3-5A RETAINING BOLTS. MS20365-1032 OR MS21042-3 NUTS SHOULD HAVE BEEN INSTALLED AS CALLED OUT ON THE DRAWING. THIS RESULTS IN REDUCED SEATBELT ATTACHMENT STRENGTH WHEN COMPARED WITH THE DESIGN CONFIGURATION. THIS AC APPEARED TO HAVE THE ORIGINAL SEATBELTS INSTALLED SO IT IS LIKELY THAT THIS IMPROPER INSTALLATION WAS ACCOMPLISHED DURING ASSEMBLY. (EA07200406183)

BJ82004F00000	BEECH	PWA	MOTOR	FAILED

10/23/2003	200BEECH	PT6*		50041	BLOWER

PILOT REPORT SMELLING SMOKE IN COCKPIT. LANDED SAFELY. UPON INVESTIGATION FOUND FWD EVAPORATOR MOTOR HAD A BURN SMELL. REPLACED, OPS CHS GOOD. NO CHAPTER 4 OR 5 TIME ITEMS OR EVAPORATOR BLOWER ASSY OR INSPECTION OF BRUSHES.

CA041001013	BEECH	PWA		FITTING	CHAFED
9/28/2004	200BEECH	PT6A41		351150582	WING

(CAN) DURING THE WING BOLT INSPECTION, THE LT LOWER AFT BATHTUB FITTING WAS FOUND TO HAVE CHAFE MARK FROM CONTACT WITH THE CLIP ON THE WING FITTING COVER. ONE MARK EXTENDED INTO THE FITTING RADIUS. MFG WAS CONSULTED AND SENT OUT A FIELD REPAIR TO REMOVE THE DAMAGE. EACH BATHTUB FITTING COVER IS HELD IN PLACE BY A SPRING STEEL CLIP THAT GRIPS THE WING FITTING AT ONE END WHILE THE OTHER END IS HELD IN PLACE BY A SCREW. IT APPEARS THAT THE COVER MAY HAVE BEEN A LITTLE LOOSE ALLOWING IT TO FLUTTER OR VIBRATE AND CAUSING THE CLIP TO CHAFE THE WING FITTING.

2004FA0000740	BEECH	PWA		BOLT	BROKEN
9/10/2004	400BEECH	JT15D5		MS2000626	MLG WHEEL

RT MAIN TIRE SIDEWALL AND TREAD DEPARTED AIRCRAFT ON LANDING ROLLOUT. DETERMINED BROKEN WHEEL THROUGH BOLT DISLODGED INSIDE WHEEL HALF CAUSED BREAKAGE OF FUSIBLE PLUG AND EVENTUAL DEFLATION OF TIRE DURING FLIGHT. AIRCRAFT LANDED ON DEFLATED TIRE. (CE09200404725)

CA040929004	BEECH	PWA	BEECH	SCOOP	DEPARTED
9/25/2004	99	PT6A28		509102751229	OIL COOLER

(CAN) ON APPROACH TO AIRPORT THE LT OIL SCOOP DEPARTED THE AIRCRAFT. THE SECURING FASTENERS WERE FOUND STILL ATTACHED TO THE BOTTOM OF THE NACELLE. PIECES OF FIBERGLASS WERE STILL UNDER THE HARDWARE. THERE WAS SLIGHT SHEET METAL DAMAGE TO THE BOTTOM OF THE NACELLE.

2004FA0000796	BEECH	PWA		BOLT	LOOSE
8/15/2004	B90	PT6*			WING

INSPECTION AFTER TURBULENT AIR, DISCOVERED BOTH UPPER FWD WING BOLTS AND NUTS WERE ONLY INSTALLED HAND TIGHT. REVEALED THAT WING BOLT INSP HAD BEEN COMPLETED 116.8 HOURS BEFORE. WING BOLT RETORQUE CHECK HAD BEEN COMPLIED WITH 72.8 HOURS AFTER THAT. AIRCRAFT HAS WING STRAP INSTALLED. THE STC ICA AND SB ONLY MENTIONS PROCEDURES FOR TORQUEING THE LWR FWD BOLTS. PROCEDURE FOR TORQUEING REMAINDER BOLTS IS LEFT TO MFG SIRM. WING BOLT MAINT, SIRM STATES TO CHK TORQUE IAW FIGURES SHOWN. IT APPEARS THAT REQUIRED TORQUE COULD BE MET, EVEN THOUGH NUTS WERE NOT FULLY ENGAGED, OR CORRECTLY TORQUED TO BEGIN WITH, DUE TO DOWNWARD PRESSURE EXERTED ON WING. SIRM STATES (ENSURE WING IS PROPERLY SUPPORTED FOR MAINT).

2004FA0000843	BEECH	PWA		HOSE	DETERIORATED
10/22/2004	E90	PT6A28		62402312D0463	OIL COOLER

DURING CLIMB OUT, OIL PRESSURE ON BOTH ENGINES DROPPED TO APPROXIMATELY 50 PSI WITH SLIGHT SURGING. AUTOFEATHER WAS ENGAGED AT THE TIME. MAINTENANCE FACILITY DISCOVERED THAT BOTH OIL COOLER LONG LINES WERE DETERIORATING INTERNALLY. THE HOSES ARE AEROQUIP HOSES PART NUMBER 033 624023-12D0463. THIS BATCH OF HOSE WAS PRODUCED IN THE 3RD QUARTER OF 2004 AS INDICATED ON THE DATA TAG. THE HOSES HAD APPROXIMATELY 7 HOURS USE PRIOR TO FAILURE.

2004FA0000820	BEECH	CONT		SERVO	BROKEN
9/3/2004	F33A	IO520*		1C7501668P	PITCH

ONE SIDE OF BRIDLE CABLE BROKE AT CAPSTAN PIN. OTHER SIDE O BRIDLE CABLE BACKLASHED AND TANGLED IN CAPSTAN BRIDLE CABLE GUARD PINS CAUSING RESTRICTION OF UP ELEVATOR CONTROL. CENTURY FLIGHT SYSTEMS SB CSB-2003-01 EXISTS FOR THIS TYPE OF CONDITION. POSSIBLY AD WOULD ENSURE COMPLIANCE. (WP17200405843)

2004FA0000825	BEECH	CONT		RELAY	INTERMITTENT
9/23/2004	F33A	IO520*		SM50D7	MLG

PILOT SELECTED GEAR DOWN AND NOTHING HAPPENED, SELECTED GEAR DOWN AGAIN AND GEAR CAME DOWN. UP ON FURTHER TROUBLESHOOTING FOUND RELAY WAS INTERMITTENT, PROBABLE CAUSE AT TIME, UNKNOWN, THIS IS SUPPOSE TO BE AN IMPROVED RELAY SO THERE IS NO RECOMMENDATIONS AT THIS TIME.

CA041001001	BELL	ALLSN	PARKERHANFIN	DRIVE GEAR	CRACKED
9/22/2003	206B	250C20B		8505141	TACH DRIVE

(CAN) DURING A NORMAL O/H OF THE PUMP ASSY MPI INSP OF THE DRIVEN GEAR FOUND A CRACK ON THE TACH DRIVE END

OF THE SHAFT. THE CRACK WAS IN THE CORNER OF THE SQUARE DRIVE. PUMP GEARS REPLACED.

2004FA0000849	BELL	ALLSN	TURBINE WHEEL	FAILED
10/18/2004	206B	250C20J	689967	ENGINE

DURING GROUND RUN, AFTER SCHEDULED TURBINE REPLACEMENT, LEAK CHECKS HAD BEEN COMPLETED AT IDLE POWER. WHILE ADDING POWER, AT ABOUT 85 PERCENT N2 THE NR 3 TURBINE WHEEL EXPERIENCED AN UNCONTAINED FAILUE DESTROYING THE ENGINE AS WELL AS DAMAGING THE COWLING, ROTOR BLADES, AND ENGINE PAN AND STRUCTURE. THE CAUSE IS UNDER INVESTIGATION BY MFG.

2004FA0000850	BELL	ALLSN	TURBINE WHEEL	FAILED
10/18/2004	206B	250C20J	689967	ENGINE

DURING GROUND RUN, AFTER SCHEDULED TURBINE REPLACEMENT, LEAK CHECKS HAD BEEN COMPLETED AT IDLE POWER. WHILE ADDING POWER, AT ABOUT 85 PERCENT N2 THE NR3 TURBINE WHEEL EXPERIENCED AN UNCONTAINED FAILURE DESTROYING THE ENGINE AS WELL AS DAMAGING THE COWLING, ROTOR BLADES, AND ENGINE PAN AND STRUCTURE. THE CAUSE IS UNDER INVESTIGATION BY MFG.

CA041001006	BELL	ALLSN	DETECTOR	LEAKING
9/21/2004	206L3	250C30	206063613003	FUEL SYSTEM

(CAN) WHILE RESEARCHING ASB 206L-04-132, FOUND LOW FUEL DETECTOR SEEPING. DRAINED FUEL SYSTEM TO CHECK LOW LEVEL INDICATOR OPERATIONS AND QUANTITY. LOW FUEL LIGHT FOUND DISCONNECTED. UPON CONNECTING, LOW FUEL LIGHT WOULD NOT GO OUT AFTER 110LBS FUEL ADDED TO TANK. DETECTOR REMOVED, FOUND TO HAVE POOR REPAIRS. ITEM SEALED WITH SILICONE LEAKED. SUBSEQUENTLY THE SWITCH FELL APART WHEN HANDLED. NEW SWITCH INSTALLED AND OPERATIONS CHECKED FOR CORRECT INDICATION.

CA041006002	BOEING	PWA	CONTROL VALVE	FAILED
9/21/2004	727223	JT8D15A	65404494	TE FLAPS

(CAN) AFTER TAKE-OFF DURING FLAP RETRACTION, BOTH IB AND OB FLAPS STOPPED BETWEEN FLAP POSITION 5 AND 2. RECTIFICATION AFTER EXTENSIVE TROUBLESHOOTING CARRIED OUT. BOTH FLAP CONTROL VALVES WERE REPLACED. THE AIRCRAFT WAS TEST FLOWN WITHOUT ANY FURTHER PROBLEMS.

SROM200400058	BOEING	PWA	FUEL FILTER	ICED
11/4/2004	737201	JT8D17		NR 2 ENGINE

DURING CRUISE NR 2 ENGINE FILTER ICING LIGHT CAME ON AND WOULD NOT CLEAR WITH FUEL HEAT. OTHER ENGINE PARAMETERS INDICATE FUEL HEAT WAS OPERATIVE WITH ENGINE OPERATION NORMAL. UNEVENTFUL RETURN TO DEPARTURE AIRPORT. REMOVED AND REPLACED NR 2 ENGINE MAIN FUEL FILTER IAW WITH , MM 73-11-01 WITH GOOD ENGINE RUN. NOTE: REMOVED FILTER VISUALLY HAD SLIGHT AMOUNT OF DEBRIS PRESENT.

CA041006006	BOEING	PWA	ACTUATOR	CORRODED
10/5/2004	767233	JT9D7R4D	251T43101	STABILIZER TRIM

(CAN) INSPECTION OF HORIZONTAL STABILIZER SCREWJACK DURING M01CHECK REVEALED EVIDENCE OF INTERNAL CORROSION AS A RESULT OF DISCOLORATION IN LUBRICANT.

CA040924005	BOMBDR	PWC	SENSOR	SHORTED
5/21/2004	DHC8400	PW150A	401020101	NLG CENTERING

(CAN) UNABLE TO SELECT MLG GEAR UP DURING CLIMB. GEAR RECYCLED ONCE WITHOUT SUCCESS. RETURNED TO LAND AT OUR BASE. NWC SENSOR FOUND SHORTED. NOSE WHEEL CENTERING PROXIMITY SENSOR REPLACED ACC AMM 32-61-06.

2004FA0000783	CESSNA	LYC	CESSNA	CAP	CLOGGED
9/23/2004	172	O360A1A		C1560030101	FUEL TANK

PILOT EXPERIENCED FUEL INTERRUPTION TO ENGINE WHILE ENROUTE. SWITCHED FUEL TANKS AND ENGINE QUIT. MADE EMERGENCY LANDING. NO INJURIES OR DAMAGE TO AIRCRAFT. REMOVED AC FROM FIELD TO LOCAL AIRPORT (N75). DRAINED ALL FUEL FROM WING TANKS. FOUND WHILE DRAINING FUEL WITH FUEL CAPS ON THAT DRAINING FUEL WAS SLOW. REMOVING FUEL CAP QUICKENED FLOW RATE AT FUEL DRAIN. AFTER CLOSE INSP FOUND VENT HOLES CLOGGED WITH MUD. FOUND VENT TUBE IN LT WING WAS RESTRICTED. BLOWING NITROGEN THROUGH TUBE FREED UP BLOCKAGE. FRESH FUEL WAS INSTALLED IN EACH TANK AND FUEL CAPS WERE REPLACED WITH NEW UNITS. A FLIGHT WAS MADE WITHOUT INCIDENT. AFTER ARRIVING, THE OWNER REQUEST WE REPLACE THE FUEL SELECTOR AS A PRECAUTIONARY MEASURE.

CA041007005	CESSNA	LYC	PISTON	BROKEN
10/6/2004	172P	O320D2J	98820125	MASTER CYLINDER

(CAN) PISTON BROKE IN THREADED PORTION, OUTSIDE OF MASTER CYLINDER, IMMEDIATELY BELOW JAM NUT. NO EVIDENCE OF FRETTING THAT WOULD INDICATE AN EARLIER PARTIAL BREAK.

CQN2004F00000	CESSNA	LYC	BULKHEAD	CRACKED
9/30/2004	172RG	O360*	24120043	FUSELAGE

CRACKS WERE LOCATED AT LT AND RT RELIEF CUTS OF STATION 124.00 UPPER FUSELAGE BULKHEAD. PROBABLE CAUSE FOR LT SIDE IS AUX POWER RECEPTACLE AND RT SIDE COULD BE FROM LANDING STRESSES.

RO12004F00000	CESSNA	CESSNA	BRUSHES	MISINSTALLED
10/4/2004	172S			ALTERNATOR

THIS IS THE 3RD OCCURRENCE OF ALTERNATOR FAILURE IN NEW MFG ALTERNATORS. EACH TIME ONE OF THE FIELD BRUSHES WAS FOUND INSTALLED WITH THE WIRE TOWARD THE SLIP RING (BACKWARDS). THIS IS THE 2ND M AND D REPORT SUBMITTED REGARDING THIS SAME INCIDENT. NEED TO INFORM MFG OF SITUATION.

2004FA0000818	CESSNA	CONT	HOSE	LOOSE
9/18/2004	175C	GO300E	S116760180	CARBURETOR

LOST POWER ON TAKE OFF, APPROXIMATELY 100 FT IN THE AIR AT 100 MPH, HALFWAY DOWN RUNWAY. LANDED AT 10 FEET AT END OF RUNWAY. AIRCRAFT TAKEN BACK TO HANGER, REMOVED ENGINE COWL (TOP). NOTE: ENGINE PRIMER LINE TO LEFT AFT CYLINDER BROKEN. HOSE ASSEMBLY (CARBURETOR TO STRAINER) LOOSE AT CARBURETOR SIDE. (SW11200408528)

2004FA0000835	CESSNA	CONT	CIRCUIT CARD	MALFUNCTIONED
3/14/2004	180J	IO470*		DISPLAY

THE OPERATOR WAS IN THE PROCESS OF UPGRADING THE SOFTWARE FOR THE EFIS-SV SYSTEM IAW SB WSB IDU-III-6. THE NEW DATA WAS LOADED ONTO THE SMART MEDIA CARDS AND THE CARDS WERE THEN INSTALLED IN THE INTEGRATED DISPLAY UNITS (2 EA.) UPON INITIALIZATION OF THE SOFTWARE UPLOAD, THE ENTIRE SYSTEM MALFUNCTIONED AND COULD NOT BE REINITIALIZED. THE AIRCRAFT WAS GROUNDED. AFTER SEVERAL UNSUCCESSFUL ATTEMPTS TO RELOAD THE UPGRADE ONTO THE CARDS AND THEN UPLOAD THE INFORMATION INTO THE SYSTEM, THE SMART MEDIA CARDS WERE REPLACED WITH NEW, THE INFORMATION DOWNLOADED ONTO THE CARDS, AND THE SYSTEM SUCCESSFULLY REBOOTED AND FUNCTIONED PROPERLY.

2004FA0000816	CESSNA	LYC	STIFFENER	CRACKED
9/2/2004	182S	IO540*	07536007	FIREWALL

2 INCH LONG CRACK IN LT AREA OF FIREWALL STIFFENER IN AREA OF THE PARKING BRAKE BRACKET MOUNTING. BELIEVED TO BE CAUSED BY FLEXING OF FIREWALL BY APPLICATION OF PARKING BRAKE. THIS IS THE SECOND AC IN FLEET WITH THIS PROBLEM. THIS AREA NEEDS ADDITIONAL REINFORCEMENT TO MINIMIZE FLEXING IN THIS AREA.

2004FA0000861	CESSNA	LYC	CESSNA	WIRE	BURNED
10/31/2004	206H	IO540AC1A5			ALTERNATOR

PILOT REPORTED AN ALTERNATOR FAILURE. REMOVED ENGINE COWLING AND FOUND THE POWER WIRE AND THE GROUND WIRE FOR THE ALTERNATOR WERE BROKEN IN HALF ABOUT 3 INCHES FROM THE TERMINALS ON THE ALTERNATOR. THE ENDS OF BOTH WIRES WERE MELTED, SUSPECTED FROM ARCING. UPON FURTHER INSPECTION, FOUND THE GROUND WIRE TERMINAL STUD WAS BROKEN OFF THE BACK OF THE ALTERNATOR. WE SUSPECT THE WIRES BROKE BECAUSE OF THE SHARP BEND RADIUS THE WIRES ARE SUBJECTED TO BETWEEN THE ENGINE BAFFLING AND THE ALTERNATOR.

2004FA0000839	CESSNA		SPAR CAP	CORRODED
10/14/2004	404		58221664	WING

DURING OUR INITIAL INSPECTION OF THIS AIRCRAFT, DISCOVERED SEVERE INTERGRANULAR CORROSION ON UPPER AND LOWER REAR SPAR CAPS. THE AREA OF CORROSION IS LOCATED INSIDE THE MAIN GEAR WELL ON BOTH LEFT AND RT WINGS. NOTE: THIS AIRCRAFT IS OPERATED IN A SALT AIR ENVIRONMENT FOR THE LAST YEAR.

2004FA0000838	CESSNA		SPAR CAP	CORRODED
10/14/2004	404		58221661	WING

DURING OUR INITIAL INSPECTION OF THIS AIRCRAFT, DISCOVERED SEVERE INTERGARNULAR CORROSION ON UPPER AND LOWER REAR SPAR CAPS. THE AREA OF CORROSION IS LOCATED INSIDE THE MAIN GEAR WELL ON BOTH LEFT AND RIGHT WINGS. NOTE: AIRCRAFT IS OPERATED IN A SALT AIR ENVIRONMENT FOR THE LAST YEAR.

2004F00415	CESSNA	PWA	SKIN	CORRODED
5/7/2004	550	JT15D4	65223053	LT WING

AFTER REMOVAL OF THE LT WING DEICE BOOT, CORROSION ON THE IB WING SKIN WAS FOUND. THE DAMAGE WAS MEASURED AND FOUND TO EXCEED THE MANUFACTURERS LIMITS REQUIRING WING SKIN REPLACEMENT. THE DAMAGE WAS LIMITED TO CORROSION PITTING, NONE HAD PENETRATED THOUGH THE SKIN.

CA041008003	CESSNA	PWA	ENGINE	FAILED
10/5/2004	560CESSNA	PW545A		

(CAN) DURING CRUISE AT FL 410 THE N1 BEGAN FALLING BELOW 92 PERCENT. CREW SECURED ENGINE WITH N1 AT 20 PERCENT AND 6000 FT AGL. PILOT DIVERTED AND LANDED WITHOUT INCIDENT. UPON LANDING PILOT NOTED SMOKE COMING FROM THE INLET AND EXHAUST OF THE ENGINE. THE ENGINE WILL BE INVESTIGATED BY MFG TO ESTABLISH ROOT CAUSE OF THE INCIDENT. THIS SDR WILL BE UPDATED ONCE CAUSE HAS BEEN ESTABLISHED.

2004FA0000828	CESSNA	PWA	WHEEL	DAMAGED
6/22/2004	560XL	PW545A	31571299124879	MLG

AC WAS TOWED, WITH BRAKES RELEASED, WITHOUT ANY BRAKING ACTIVITIES BY PILOT, SHEARING NOISE WAS NOTED, TOWING PROCESS WAS STOPPED. HYD FLUID WAS SPILLED OUT FROM LT BRAKE UNIT. FIRST INVESTIGATION OF INSTALLED LT CARBON BRAKE UNIT DID SHOW, THAT ATTACHING SCREW FOR ONE INSERT ON WHEEL ASSY WAS SHEARED OFF, THEN LOOSE INSERT DAMAGED BRAKE UNIT. BRAKE FLUID SPILLED FROM DAMAGED ACTUATING CYLINDERS, PISTONS. AS EACH INSERT IS ONLY FIXED BY ONE SCREW, INCASE OF A LOOSEN SCREW CORRESPONDING INSERT WILL SHEAR OFF THIS SCREW. INSERT THEN MOVES OUT OF WHEEL AGAINST BRAKE UNIT. IN CASE OF THIS OCCURRENCE DURING TAKE OFF ROLL, AFTER TOUCH DOWN OR TAXI, UNCONTROLLED AND EVENTFUL BRAKE OUT WOULD BE FORSEEABLE.

2004FA0000851	CESSNA	PWA	WINDSCREEN	DISTORTED
9/23/2004	560XL	PW545A		COCKPIT

ON DELIVERY OF A NEW AIRCRAFT, DAY ACCEPTANCE CHECK CARRIED OUT AND AIRCRAFT 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 AND MFG ENGINEERS. PILOTS INSISTED CHECK BE CARRIED OUT AT NIGHT BY TEST PILOT WHO CONFIRMED DEFECT. WINDSCREEN CHANGED. PRESENT DAY TESTS ONLY FOR WINDSCREEN PARALLAX AND DISTORTIONS INADEQUATE TO DETECT THESE FLAWS WHICH CAN ONLY BE DETECTED AT NIGHT. MFG INDICATES THIS IS THE FIRST CASE DETECTED. SINCE THE PRESENT DAY TESTS ONLY CANNOT DETECT THIS FLAW/DEFECT MANY AIRCRAFT MUST BE FLYING WITH THIS DEFECT.

2004FA0000848	CESSNA	ALLSN	CAP	UNSCREWED
9/16/2004	750	AE3007C	67420861	STRUT

AT FLIGHT LEVEL 390, THE AIRCRAFT EXPERIENCED A JOLT AND THE LANDING GEAR UNLOCK LIGHT ILLUMINATED. THE PROBLEM WAS CAUSED BY THE NOSE LANDING GEAR DROPPING OUT OF THE UPLOCK HOOK. IT WAS DETERMINED THAT THE NOSE GEAR STRUT WAS OVER EXTENDED. THE NOSE GEAR WAS DISASSEMBLED AND THE LOWER ORIFICE CAP WAS FOUND TO BE PARTIALLY UNSCREWED. THE SAME PROBLEM HAS OCCURRED ON OTHER AIRCRAFT OF THIS MODEL.

2004FA0000840	CESSNA	CONT	DISTRIBUTOR BLK	BURNED
7/7/2004	A185F	IO520*		MAGNETO

ON 5/20/2004 THIS MAGNETO WAS REMOVED, PILOT REPORTED ROUGH ENGINE OPERATION AT ALTITUDES OF 8,000 FT OR HIGHER. PILOT ISOLATED MISFIRING MAGNETO. MAGNETO APPEARED TO BE FUNCTIONING NORMALLY ON GROUND AT SEA LEVEL AND INFLIGHT AT LOWER ALTITUDES. MAGNETO DISASSEMBLED. DIST BLOCK AND GEAR ASSY WERE SEVERELY BURNED AND MELTED. THE CARBON BRUSH WAS GONE, AN THE HIGH TENSION LEAD AREA OF THE COIL WAS BURNED. DUE TO SEVERAL FACTORS: INTERNAL ROUGHNESS OF HOLE IN SHAFT WERE CARBON BRUSH RIDES, CARBON BRUSHES MFG OF TOO SOFT COMPOUND AND CARBON BUILDUP WHICH CAUSES SHORT.

2004FA0000824	CESSNA	CONT	FITTING	DETACHED
9/2/2004	T210G	TSIO520M	07326015	TAILCONE

DURING COMPLIANCE WITH SEB88-3 TO REPLACE FORWARD STABILIZER ATTACH FITTINGS PN 0732601-5, IT WAS DISCOVERED THAT THE TOP TWO RIVETS OF BOTH FITTINGS HAD FAILED LEAVING ONLY THE THREE RIVETS IN THE LOWER PORTION OF EACH FITTING. ALL FOUR RIVETS FAILED IN BETWEEN THE STABILIZER AND THE FITTINGS, APPARENTLY IN TENSION, LEAVING THE HEAD AND TAIL OF THE RIVET IN PLACE. THERE WAS NO EVIDENCE OF ANY PROBLEM UNTIL THE FITTINGS WERE DRILLED OFF OF THE STABILIZER. A SUBSTANTIAL AMOUNT OF BLACK ALUMINUM RESIDUE WAS SANDWICHED BETWEEN THE PARTS INDICATING THE PROBLEM HAD BEEN THERE FOR A WHILE.

2004FA0000819	CESSNA	CONT	REINFORCEMENT	BROKEN
3/12/2004	T210N	TSIO520*	12326232	LT HORZ STAB

FOUND REINFORCEMENT BROKEN AT ANNUAL INSPECTION. BREAK IS AT LOWER OB BOLT HOLE. PROBABLE CAUSE UNKNOWN. RECOMMEND CAREFUL INSPECTION OF AFT HORIZONTAL STABILIZER SPAR REINFORCEMENTS AT EACH 100

HOUR/ ANNUAL INSP.

2004FA0000853	CESSNA		ROD END	BROKEN
7/9/2004	T310Q		08421211	NLG

THE AIRCRAFT DEPARTED. A LARGE NOISE WAS HEARD, COULD NOT EXTEND NOSE GEAR. LANDED WITH AN UNSAFE NOSE GEAR UP, NOSE GEAR COLLAPSED ON LANDING CAUSING DAMAGE. THE ROD END FAILED ON TUBE ASSY. NOTE: THIS IS A COMMON PROBLEM ON THE AK. (SW05200408481)

CA040830013	CESSNA	CONT	CRANKCASE	UNSERVICEABLE	
8/24/2004	U206F	IO520F	654101A7R	ENGINE	

(CAN) CRANKCASE FAILURE (7TH STUD CRANKCASE) INSP WAS CARRIED OUT. CYLS NR1, NR3 WERE REMOVED SO NR2, NR3 INTERMEDIATE BRG SADDLE COULD BE VIEWED. MOVEMENT OF BRGS HAD OCCURRED, TEAR DOWN WOULD BE REQUIRED FOR FURTHER INVEST. IT WAS FOUND THAT THERE WAS FRETTING OF CRANKCASE ON NR2, NR3 INTERM MAIN BRG THRU-BOLT PADS. PINCH FIT IS LOST ON MAIN BRGS IN THESE POSITIONS, BECOME LOOSE. BRGS ON BOTH SIDES OF CRANKCASE WERE MOVING IN NR2, NR3 INTERM BRG POSITIONS. BRG IS ABLE TO MOVE BACK AND FORTH IN BRG SADDLE (NOT ROTATIONAL). OPER WOULD HAVE ALLOWED INCREASED MOVEMENT OF BRG, BLOCKING OR RESTRICTING OIL FEED GALLERY IN SADDLE AND CAUSE OIL STARVATION. THIS WOULD LEAD TO CATASTROPHIC FAILURE.

AOC04001	CESSNA	CONT	CYLINDER	DAMAGED
7/12/2004	U206G	IO520F	AEC631397SN2A	ENGINE

FOLLOWING SEVERAL WRITE UPS CONCERNING HIGH CYLINDER TEMP, THE CYLINDERS WERE REMOVED AFTER EXTENSIVE TROUBLESHOOTING REVEALED NO DEFECT. UPON INSPECTION OF THE CYLINDERS, IT WAS NOTED THAT THREE CYLINDERS HAD UNUSUAL CIRCULAR MARKS ON THE CYLINDER WALLS. ONE CYLINDER HAD CRACKING IN THE NICKEL PLATING AROUND ONE OF THE MARKS. NEW CONTINENTAL STEEL CYLINDERS WERE INSTALLED AND CYLINDER TEMP RETURNED TO NORMAL. REMOVED CYLINDERS SENT BACK TO MANUFACTURER.

NF22004FCCC	CIRRUS	CONT	WIRE	CHAFED
7/23/2004	SR22	IO550*		ALT OUTPUT

ALTERNATOR OUTPUT WIRE CHAFED ON THE RT FWD VALVE COVER AND BURNED A .2500 INCH HOLE IN THE VALVE COVER. WIRE AND BAFFLE ABOVE VALVE COVER NEED TO BE SECURED BETTER. SHORTING OF THE WIRE ALSO CAUSED DAMAGE TO COMPONENTS IN THE MCU AND SUBSEQUENT NR 1 ALTERNATOR FAILURE.

2004FA0000844	CIRRUS	CONT	ELT	INCORRECT
10/20/2004	SR22	IO550*		CAIBN

DURING A RECENT INSPECTION OF A NEW AC IT WAS NOTED THAT THE ELT SWITCH WAS IN THE OFF POSITION FROM THE MANUFACTURE, UPON FURTHER INVESTIGATION THE PILOT RECEIVED THE AIRCRAFT FROM THE FACTORY AND WAS NOT INFORMED THAT THE SWITCH WAS OFF DURING HIS FLY-OFF FROM THE FACTORY.

220192004	CIRRUS	CONT	BOLT	CHAFED
10/4/2004	SR22	IO550N	AN334	ALT AIR DOOR

DURING REMOVAL AND REPLACEMENT OF PN 15708-001 INDUCTION DUCT ASSY IT WAS NOTED THAT INDUCTION DUCT WAS CRACKED IN AREA OF AN3-34 BOLT WHICH SERVES AS HINGE POINT FOR ALTERNATE AIR DOOR. AFTER REMOVING BOLT IT WAS FOUND TO HAVE A GROOVE WORN INTO BOLT SHANK ALL THE WAY AROUND (360 DEGREES). IT APPEARS THAT INDUCTION DUCT SUPPORT BRACKET PN 15671-002, STAINLESS STEEL, IS WEARING IT'S WAY INTO BOLT. OTHER AC WERE INSPECTED IN THIS AREA AND ALL WERE FOUND TO HAVE SOME DEGREE OF WEAR ON BOLT AND CRACKING ON THE DUCT ASSY IN SAME AREA. IT IS VERY DIFFICULT TO TELL IF THERE IS CRACKING ON DUCT (CRACKING LOCATED AT BOTTOM OF DUCT) WITHOUT REMOVING IT. CONDITION OF THE BOLT CANNOT BE VERIFIED UNLESS IT IS REMOVED.

2004FA0000855	CONAER	LYC	LINE	CRACKED
10/29/2004	LA4200	IO360A1B		HYD SYSTEM

DURING FLT, HYD PUMP STARTED TO CYCLE ABNORMALLY. IDENTIFIED HYDRAULIC PRESSURE LOSS TO LANDING GEAR RETRACT CIRCUIT AND ISOLATED WITH LDG GEAR SELECTOR. GEAR EXTENDED FOR LANDING NORMALLY. DURING POST INSPECTION FOR LEAK, LOCATED HYD TUBE AT AFT BULKHEAD STATION 126, CRACKED .5 INCHES FROM FITTING. LINES WERE BUNDLED TOGETHER WITHOUT PROPER SUPPORT OR SEPARATION AT FITTINGS. REMOVED FLOOR BOARDS AND ALSO FOUND BROKEN AND INADEQUATE SUPPORT ALLOWING LINES TO VIBRATE AND CHAFE. SECURED ALL LINES AND PROVIDED SEPARATION AT FITTINGS. LOGBOOK INDICATED PREVIOUS HYD TUBE FAILURE ON RT SIDE OF AIRCRAFT.

2004FA0000832	DHAV	PWA	DISPLAY	MALFUNCTIONED
3/24/2004	DHC2MK1	R985*	4010455000101	INSTRUMT PANEL

FOLLOWING THE INSTALLATION OF THE EFIS-SV SYSTEM, THE SOFTWARE WAS LOADED ONTO A SMART MEDIA CARD AND THE SMART MEDIA CARD WAS INSERTED INTO THE INTEGRATED DISPLAY UNIT (IDU). SEVERAL ATTEMPTS WERE MADE TO UPLOAD THE INFORMATION INTO THE SYSTEM. IT WAS DETERMINED THAT THE IDU WOULD NOT READ THE DATA FROM THE CARD, SO THE IDU WAS REPLACED AND THE SOFTWARE UPLOAD WAS COMPLETED SUCCESSFULLY. IDU SN 36244, MFG DATE CODE: 03328

CA041001008	DHAV	PWA	BARREL NUT	DAMAGED
9/29/2004	DHC6300	PT6A27	B42624	ENGINE MOUNT

(CAN) WHEN TORQUE CHECK OF ENGINE MOUNT BOLTS PERFORMED OB BOLT CORRECT TORQUE COULD NOT BE ACHIEVED. BARREL NUT REMOVED AND FOUND TO HAVE DAMAGED THREADS AND WAS OF FIBER LOCK STYLE. BARRREL NUT AND BOLT REPLACED WITH IPC REQUIRED PARTS.

CA041007007	DHAV	PWA	GUARD	MISSING
10/6/2004	DHC8102	PW120A	NAS427K23	AILERON

(CAN) THE AIRCRAFT DEPARTED AIRPORT AND REPORTED AILERON CONTROLS STIFF. THE AIRCRAFT RETURNED TO WITHOUT FURTHER INCIDENT. UPON INVESTIGATION IT WAS FOUND THAT AN AILERON CABLE IN THE LT WING WAS DISLODGED FROM THE PULLEY. FURTHER INVESTIGATION SHOWED THE CABLE GUARD WAS MISSING. THE CABLE WAS INSPECTED AND REPOSITIONED ON THE PULLEY. WHEN CABLE TENSION WAS VERIFIED IT WAS FOUND BELOW LIMITS. THE ENTIRE AILERON CABLE SYSTEM WAS INSPECTED, RIGGED AND TENSIONED. NO OTHER FAULT S WERE FOUND AND THE AIRCRAFT WAS RETURNED TO SERVICE.

872SJ004	DOUG		FLOOR SUPPORT	CORRODED
10/22/2004	DC871F			FUSELAGE

LT W/W LT SIDE UPPER, SECOND FLOOR SUPPORT HAS CORROSION ON LOWER SIDE. GBAMC NR04176 -OPEN-

872SJ007	DOUG		STRUCTURE	CORRODED
10/22/2004	DC871F			LT MLG WW

LT WW UPPER LT SIDE FWD AND AFT OF NR 6 FLOOR SUPPORT HAS CORROSION. GBAMC NR04178 -OPEN-

872SJ006	DOUG		FINGER DOUBLER	CORRODED
10/27/2004	DC871F			FUSELAGE

LT OB TOP SIDE OF WHEEL WELL PRESSURE DOGHOUSE BETWEEN STA 960 AND 980, FINGER DOUBLER HAS CORROSION ON FWD UNDERSIDE. GBAMC NR304186 -OPEN-

872SJ005	DOUG		FINGER DOUBLER	CORRODED
10/22/2004	DC871F			FUSELAGE

CARGO AREA RT SIDE STA 960 HAS CORROSION UNDER FINGER DOUBLER UNDER FLOORBOARD. GBAMC NR04182 -OPEN-

2004FA0000817	GROB		MOUNT BRACKET	CRACKED
9/23/2004	G109		G1092805	TAIL WHEEL

BRACKET WAS CRACKED AND BROKEN, ALLOWING THE BRACKET TO BECOME LOOSE. THE TAIL WHEEL ATTACH STUD CONTACTOR TO ELEVATION TORQUE TUBE DAMAGING THE TUB. RECOMMEND A FLEET WIDE VISUAL INSPECTION FOR CRACKS/ DAMAGE OF BRACKETS/ TORQUE FUSER.

040103119	GULSTM	RROYCE	PUMP	FAILED
7/23/2004	GIV	TAY6118	1159SCH20041	HYD SYSTEM

ENGINE DRIVEN HYDRAULIC PUMP INTERNAL FAILURE. LARGE ACCUMULATION OF METAL SHAVINGS FOUND IN HYDARULIC FILTER AND CANISTER, CAUSING THE BYPASS INDICATION BUTTON TO POP.

20040720	HELIO	LYC	HOUSING	CRACKED
7/20/2004	H295	GO480B	6225544	CHECK VALVE

MFG PN 6-2255-44 CHECK VALVE IN FUEL LINE WAS LEAKING. THE HOUSING OF THE CHECK VALVE WAS CRACKED.

2004FA0000841	HUGHES	LYC	BRACKET	CRACKED
10/21/2004	269C1	HO360*	269A84601	THROTTLE

A STUDENT NOTICED ON PRE-FLIGHT, A CRACK ON THE THROTTLE BELLCRANK SUPPORT BRACKET, (PN 269A8460-1) MOUNTED TO THE CARBURETOR. THE CRACK WAS LOCATED JUST BELOW THE THROTTLE CONTROL BELLCRANK ATTACH

LUG AND WAS NOTICEABLE UPON APPLYING LATERAL PRESSURE TO A LINKAGE TO WHICH THE THROTTLE BELLCRANK IS ATTACHED. THE CRACK WAS APPROX. AROUND 75 PERCENT OF THE WEB.

2004FA0000842	HUGHES	LYC	BRACKET	CRACKED
10/21/2004	269C1	HO360*	269A84601	THROTTLE

A STUDENT NOTICED ON PRE-FLIGHT A CRACK ON THE THROTTLE BELLCRANK SUPPORT BRACKET, (PN 269A8460-1)MOUNTED TO THE CARBURETOR. THE CRACK WAS LOCATED JUST BELOW THE THROTTLE CONTROL BELLCRANK ATTACH LUG AND WAS NOTICEABLE UPON APPLYING LATERAL PRESSURE TO A LINKAGE TO WHICH THE THROTTLE BELLCRANK IS ATTACHED. THE CRACK WAS APPROX. AROUND 75 PERCENT OF THE WEB.

2004FA0000806	LEAR	SAFT	WIRE HARNESS	MISPINNED	
9/30/2004	45LEAR		024081000	BATTERY	

WHILE PERFORMING THE OPERATIONAL CHECKS ON BATTERY, BOTH THE T1 (140 DEGREE) SWITCH AND T2 (160 DEGREE) SWITCH WERE IMPROPERLY WIRED. TEMP SWITCH T1 WAS WIRED TO PINS C AND D INSTEAD OF PINS C AND E AND SWITCH T2 WAS WIRED TO PINS E AND F INSTEAD OF PINS D AND F. IN EVENT OF THERMAL RUNAWAY ON THE AC, 160 DEGREE SWITCH NOT ONLY PROVIDES A RED CAS AND CREW MWP BATT OVHT INDICATION BUT ALSO REMOVES THE BATTERY FROM CHARGING CIRCUIT, WITH THIS DEFECTIVE SWITCH HARNESS INSTALLED NOT ONLY WOULD A THERMALLY UNSTABLE BATTERY BE ALLOWED TO CONTINUE TO CHARGE AND RUNAWAY BUT CREW WOULD NOT HAVE INDICATION THAT EVENT IS TAKING PLACE.IF THEY HAD EICAS CONFIGURED TO VIEW A PAGE OTHER THAN THE SUMMARY OR ELECTRICAL PAGES.

2004FA0000823	MOONEY	LYC	EATON	CLUTCH SPRING	FAILED
9/8/2004	M20M	TIO540*			GEAR ACTUATOR

LANDING GEAR ACT CYCLED ON AND OFF AT 5-10 SECOND INTERVALS IN DOWN POSITION. FOUND NO-BACK CLUTCH SPRING (SLIPPING) WHEN GEAR WAS UNDER PRELOAD IN DOWN OR UP POSITION. SB M20-282 AND SI 102000-1-901 REV2 , INSTALLING NEW NO-BACK CLUTCH SPRING, MECHANISM WAS STILL ALLOWING ACT TO (BACK UP) UNDER NORMAL LOADS. IT WAS FOUND THAT EXCESS FRICTION BETWEEN INPUT/DRIVE GEAR ASSY, OUTPUT/DRIVEN GEAR ASSY CAUSES THEM TO (LOCK) TOGETHER AND ROTATE. NO-BACK CLUTCH SPRING WILL SLIP AND NOT LOCK PROPERLY. TWO CAUSES WERE NOTED: IF POINT OF CONTACT BETWEEN TWO DRIVE GEAR ASSY IS AT LARGER DIAMETER HUBS INSTEAD OF SMALLER DIAMETER GEAR SHAFTS. IF GEAR SHAFT IS PRELOADED TO MAX ACCEPT LIMIT AS IN ABOVE BULLETINS.

2004FA0000821	MOONEY	LYC	SHAFT	MISINSTALLED
9/8/2004	M20M	TIO540*		MLG ACTUATOR

GEAR ACTUATOR (CHATTERED) DURING LANDING GEAR RETRACTION CYCLES. FOUND APPROX .020 INCH END PLAY ON DRIVE GEAR ASSY SHAFT. INSPECTION OF RELATED PARTS REVEALED NO EXCESSIVE WEAR. IT APPEARS THAT WITH ONLY 632 HRS TSI ON THE ACTUATOR (WHICH HAS NEVER BEEN PREVIOUSLY DISASSEMBLED) THAT IT MUST HAVE BEEN IMPROPERLY SHIMMED FROM THE FACTORY. (EA07200405963)

2004FA0000822	MOONEY	LYC	CLUTCH SPRING	MISSING
9/8/2004	M20M	TIO540*		MLG ACTUATOR

AFTER COMPLIANCE WITH SB M20-282 AND THE CORRESPONDING SI 102000-1901 REV 2 THE NO-BACK CLUTCH SPRING MECHANISM WAS ALLOWING THE ACTUATOR TO (BACK UP) UNDER NORMAL LOADS. IT WAS FOUND THAT EXCESSIVE FRICTION BETWEEN THE INPUT/DRIVE GEAR ASSY AND THE OUTPUT/DRIVEN GEAR ASSY CAUSES THEM TO (LOCK) TOGETHER AND THEREFORE ROTATE SIMULTANEOUSLY. UNDER THIS CONDITION THE NO-BACK CLUTCH SPRING WILL SLIP AND NOT LOCK PROPERLY. TWO CAUSES OF THE EXCESSIVE FRICTION WERE NOTED. IF THE POINT OF CONTACT IS A THE LARGER DIAMETER HUBS INSTEAD OF THE SMALLER DIAMETER GEAR SHAFTS. IF GEAR SHAFT ASSY IS PRELOADED TO THE MAX ACCEPTABLE LIMIT AS DEFINED IN THE ABOVE TWO BULLETINS.

CA040927005	PILATS	PWA	WIRE	BROKEN
9/22/2004	PC1245	PT6A67B	L40B16L41A16N	LANDING LIGHT

(CAN) TAXI LIGHT FOUND TO BE UNSERVICEABLE. INVESTIGATION REVEALED BROKEN WIRES L40B16 AND L41A16N AT THE PIVOT AREA OF THE NLG. THE WIRES WERE REPAIRED AND THE AIRCRAFT RETURNED TO SERVICE

20041024	PIPER	LYC	BRACKET	CRACKED
9/22/2004	PA23250	IO540C4B5	76028	ZONE 400

ALTERNATOR BELT ADJUSTMENT BRACKET CRACKED AT THE SLOTTED END.

2004FA0000827	PIPER	LYC	OIL FILTER	DEFECTIVE
8/23/2004	PA28161	O320D3G	ES48110	ENGINE

THIS DEFECT WAS FOUND ON 100 HR INSP. HAD RUN AC TO ENSURE CORRECT OPER OF ENG AND AVIONICS, ENABLE OIL TO

WARM UP. DRAINED OIL AND WENT TO REMOVE OIL FILTER. AS OIL FILTER CAME OFF, NOTICED THAT OIL FILTER THREADED STUD WAS STILL ENGAGED AND TIGHT IN ENG SIDE OF OIL FILTER ADAPTOR. IT WAS NOT DIFFICULT TO REMOVE THREADED STUD FROM ENG. ONCE THREADED PORTION HAD BEEN REMOVED, DRAINED OIL FILTER. OPENED OIL FILTER IN ORDER TO INSPECT FILTER ELEMENT. UPON REMOVAL OF FILTER HSG, NOTED A DELAMINATION, SEPARATION OF FILTER ELEMENT AT CONNECTING POINT. NOTED THAT THERE WAS EXCESS POTTING COMPOUND WITHIN OIL FILTER TO SECURE ELEMENT TO ELEMENT HSG. THIS COMPOUND WAS GOOPY/SOFT.

2004FA0000782	PIPER	LYC	CESSNA	CAP	CLOGGED
9/23/2004	PA28181	O360A1A		C1560030101	FUEL TANK

PILOT EXPERIENCED FUEL INTERRUPTION TO ENGINE WHILE ENROUTE. SWITCHED FUEL TANKS AND ENGINE QUIT. MADE EMERGENCY LANDING. REMOVED AC FROM FIELD TO LOCAL AIRPORT (N75). DRAINED ALL FUEL FROM WING TANKS. FOUND WHILE DRAINING FUEL WITH FUEL CAPS ON THAT DRAINING FUEL WAS SLOW. REMOVING FUEL CAP QUICKENED FLOW RATE AT FUEL DRAIN. AFTER CLOSE INSP FOUND VENT HOLES CLOGGED WITH MUD. FOUND THE VENT TUBE IN LT WING WAS RESTRICTED. BLOWING NITROGEN THROUGH TUBE FREED UP BLOCKAGE. FRESH FUEL WAS INSTALLED IN EACH TANK AND FUEL CAPS WERE REPLACED WITH NEW UNITS. A LENGTHY RUNUP WAS PERFORMED WITH NO DEFECTS NOTED. AFTER ARRIVING, OWNER REQUEST WE REPLACE THE FUEL SELECTOR AS A PRECAUTIONARY MEASURE

2004FA0000845	PIPER	CONT	PIPER	SHAFT	MISMANUFACTURED
10/18/2004	PA28R201T	TSIO360F		6271607	CONTROL COLUMN

DURING 100 HOUR INSP AT 1V5, LT CONTROL COLUMN, P/N 62834-02, WAS REMOVED FOR REPLACEMENT DUE TO EXCESS PLAY. UPON REMOVAL, CONTROL COLUMN SHAFT, P/N 62716-02, WAS FOUND TO BE DRILLED (FOR AN-386-1-6A TAPER PIN) LESS THAN 0.025 INCH FROM AFT END OF SHAFT. HOLE IS SO CLOSE TO END THAT SHAFT WAS DEFORMED APPROX. .125 INCH BY TAPER PIN. FWD END OF SHAFT WAS INSERTED APPROX 0.20 INCH BEYOND THE END OF SPROCKET, P/N 62839-00, AND TAPER PIN HOLE IS APPROX. 0.35 INCH FROM FWD END OF SHAFT. REPLACEMENT UNIVERSAL, PMA, P/N CA62834-802, HAS A WITNESS HOLE TO ENSURE SHAFT IS FULLY INSERTED BEFORE DRILLING. INSPECT SHAFT TO DETERMINE AMOUNT OF PENETRATION, THROUGH SPROCKET, REPLACE SHAFT IF IT PROJECTS BEYOND SPROCKET.

2004FA0000846	PIPER	CONT	PIPER	SHAFT	MISMANUFACTURED
10/18/2004	PA28R201T	TSIO360F		6271607	CONTROL COLUMN

DURING 100 HR INSP AT 1V5, LT CONTOL COLUMN UNIVERSAL,P/N 62834-02, WAS REMOVED FOR REPLACEMENT DUE TO EXCESS PLAY. CONTROL COLUMN SHAFT, P/N 62716-02, WAS FOUND TO BE DRILLED (FOR THE AN-386-1-6A TAPER PIN) LESS THAN 0.025 INCH FROM AFT END OF SHAFT. HOLE IS SO CLOSE TO END THAT SHAFT WAS DEFORMED APPROX .125 INCH BY TAPER PIN. FWD END OF SHAFT WAS INSERTED APPROX 0.20 INCH BEYOND END OF SPROCKET, P/N 62839-00, TAPER PIN HOLE IS APPROX. 0.35 INCH FROM FWD END OF SHAFT. REPLACEMENT UNIVERSAL, PMA PRODUCTS P/N CA62834-802, HAS A WITNESS HOLE TO ENSURE SHAFT IS FULLY INSERTED BEFORE DRILLING. OPS INSPECT SHAFT TO DETERMINE AMT OF PENETRATION, THROUGH SPROCKET, REPLACE SHAFT IF IT PROJECTS BEYOND SPROCKET.

2004FA0000834	PIPER	LYC	CHELTON	CIRCUIT CARD	MALFUNCTIONED
3/20/2004	PA31350	TIO540*			IDU

OPERATOR WAS IN PROCESS OF UPGRADING SOFTWARE FOR EFIS-SV SYSTEM IAW SB WSB IDU-III-6. THE NEW DATA WAS LOADED ONTO THE SMART MEDIA CARDS AND THE CARDS WERE THEN INSTALLED IN THE INTEGRATED DISPLAY UNITS (2EA). UPON INITIALIZATION OF THE SOFTWARE UPLOAD, THE ENTIRE SYSTEM MALFUNCTIONED AND COULD NOT BE REINITIALIZED. THE AC WAS GROUNDED. AFTER SEVERAL UNSUCCESSFUL ATTEMPTS TO RELOAD THE UPGRADE ONTO THE CARDS AND THEN UPLOAD THE INFORMATION INTO THE SYSTEM, THE SMART MEDIA CARDS WERE REPLACED WITH NEW, THE INFORMATION DOWN LOADED ONTO THE CARDS, AND THE SYSTEM SUCCESSFULLY REBOOTED AND FUNCTIONED PROPERLY.

CA041001007	PIPER	LYC	BRACKET	BENT
9/27/2004	PA31350	TIO540J2BD	4177100	NG UP SWITCH

(CAN) AFTER GEAR UP SELECTED, FLT CREW DISCOVERED THE GEAR IN TRANSIT IND. ILLUMINATED. A/C RETURNED WITH 3 GREENS. A/C WAS PUT ON JACKS, GEAR CYCLED AND NOTICED THE NLG TORQUE TUBE SWITCH BRACKET WAS BENT RESTRICTING THE UP-LOCK SWITCH FROM CONTACTING.

2004FA0000836	PIPER	LYC		RECEIVER	MALFUNCTIONED
3/29/2004	PA32300	IO540*		84100020301	GPS/WAAS

THIS RECEIVER WAS INSTALLED AS PART OF THE EFIS-SV SYSTEM. AFTER APPROXIMATELY 30 HOURS OF OPERATION FOLLOWING THE INSTALLATION, AN LOI MESSAGE DISPLAYED ON THE INTEGRATED DISPLAY UNIT (IDU). THE RECEIVER WAS REPLACED, AND THE ERROR MESSAGE WAS NO LONGER DISPLAYED, AND THE SYSTEM FUNCTIONED NORMALLY. GPS/WAAS RECEIVER, SN 4048218.

2004FA0000833	PIPER	LYC	DISPLAY	MALFUNCTIONED

3/31/2004	PA32300	TIO540*		4010455000101	INSTRUMENT PANEL

DURING THE INITIAL GROUND CALIBRATION FOR THE EFIS-SV, THE RT CONTROL KNOB OF THE INTEGRATED DISPLAY UNIT (IDU) WOULD NOT ENTER THE CORRECT DATA WHEN PUSHED. THE IDU WAS REPLACED AND THE CALIBRATION PROCEEDED NORMALLY. IDU SN 34410.

F692004F00000	PIPER			BOLT	MISINSTALLED
6/9/2004	PA34220T			AN2315A	DOOR

DURING GROUND TESTING OF THE AIRCRAFT EMERGENCY EXTENSION SYSTEM THE RT A/C FAILED TO EXTEND INVESTIGATION, FOUND THE BOLT ATTACHING THE DOOR TO THE ACTUATING ROD INSTALLED AROUND THE WRONG WAY CAUSING IT TO FOUL ON THE WING SPAR.

2004FA0000847	PIPER			BELLCRANK	SHEARED
8/26/2004	PA46350P			82905003	TE FLAP

RT IB FLAP BELLCRANK SHAFT SHEARED ON APPROACH FOR LANDING CAUSING ASYMMETRICAL FLAP CONDITION. BELLCRANK SHOWED SIGNS OF BEING CRACKED FOR A LONG TIME. FLAP SYSTEM WAS WAY OUT OF RIG. OUT OF RIG PROBLEM CAUSED BY TWISTING OF BELLCRANK SHAFT AND FURTHER ADJUSTMENTS OF ROD END CAUSING UNDUE LOAD.

417011	PIPER	PWA		ACCESS PANEL	DEBONDED
10/15/2004	PA46500TP	PT6*			WING

WING FUEL PANELS HAVE A FOAM FILLER BLOCK AND SEALANT TO PREVENT WATER FROM BEING TRAPPED AT PANELS. THE SEALANT HAD TORN FREE AND THE FOAM BLOCK WAS FLOATING LOOSE IN THE TANK FROM ONE PANEL AND WAS LOOSE FROM A SECOND PANEL BUT WAS NOT FREE IN THE TANK YET. THESE PIECES ARE ABOUT 5 INCHES LONG, 3 INCHES WIDE AND .5 INCH THICK. PANELS WERE REPAIRED AND REINSTALLED IAW MM.

E8I2004F00000	RAYTHN	WILINT		CONTROL VALVE	INOPERATIVE
9/27/2004	390	FJ44		388111	EMERGENCY BRAKE

PILOT REPORTED NO BRAKING ACTION WITH HARD PEDAL PRESSURE, AIRCRAFT STOPPED ON ROLL-OUT WITH EMERGENCY BRAKING SYSTEM. TROUBLESHOT POWER BRAKE SYSTEM. REPLACED PN 3903843000003 (CRANE-HYDRO AIRE PN 388111) POWER BRAKE/ ANTISKID SYSTEM CONTROL VALVE WITH REPAIRED UNIT IAW MM 32-40-05-401. SYSTEM TESTS IAW MM 32-40-00-501, SATISFACTORY

E8I2004F00001	RAYTHN	WILINT		ACTUATOR	JAMMED
9/20/2004	390	FJ44		3903814020005	TE FLAP

PILOT REPORTED UNABLE TO RETRACT OR EXTEND FLAPS FROM 10 DEGREES EXTENDED POSITION. TROUBLESHOT SYSTEM, FOUND RT IB FLAP IB ACTUATOR JAMMED. REPLACED ACTUATOR WITH NEW PN 3903814020013 ACTUATOR IAW 390 MM 27-50-03-401 AND RIGGED FLAPS AS REQUIRED IAW MM 27-50-00-501. SYSTEM OPERATIONAL, TESTS SATISFACTORY. SUSPECT RELATED TO SUBJECT OF MANDATORY SB 27-3642/ SAFETY COMMUNIQUE NR 236.

CA041008001	ROBSIN	LYC		ANCHOR	BROKEN
10/5/2004	R44	O540F1B5		C3485	SEAT BELT

(CAN) DURING A ROUTINE INSPECTION THE PILOTS IB SEAT BELT ATTACHMENT POINT HAD BEEN FOUND CRACKED. THE ANCHOR HAD BEEN PULLED SLIGHTLY AND THE ANCHOR BROKE COMPLETELY OFF. DURING INSPECTION SCHEDULES, THE CONCERNED AREA IS BEING CLOSELY MONITORED.

CA040916009	SKRSKY	GE	SKRSKY	HUB	CRACKED
9/14/2004	S61N	CT581401		S611033003000	TAIL ROTOR

(CAN) DURING NDT INSPECTION THE HUB WAS FOUND TO HAVE A CRACK INDICATION ON ONE OF THE EARS. THE INDICATION WAS BLENDED, WITH APPROX. .010-.015 INCH OF MATERIAL BEING REMOVED. THE HUB WAS THEN RE-INSPECTED AND INDICATIONS OF THE DEFECT WERE STILL EVIDENT UNDER BLACK-LIGHT CONDITIONS.

031283	SPARTN	PWA		TUBE	BENT
9/1/2004	7W	R985*			FUSELAGE

DURING SCHEDULED INSPECTION, FOUND AFT FUSELAGE TUBES BENT AND CRACKED. THIS AREA HAD BEEN PREVIOUSLY REPAIRED FOR SIMILAR CONDITION. DAMAGE WAS APPARENTLY CAUSED BY TAIL WHEEL LINK STRIKING TUBES AS A RESULT OF UNDER INFLATION OR COLLAPSE OF TAIL WHEEL STRUT. THERE IS NO EXTERNAL STOP ON THE TAIL WHEEL ASSEMBLY TO PREVENT THE LINK FROM CONTACTING THE TUBES DUE TO COLLAPSE OR UNDER INFLATION OF TAIL WHEEL STRUT. RECOMMEND ALL MFG OWNERS CAREFULLY INSPECT THIS AREA DURING INSPECTIONS AND MAINTAIN THE PROPER SERVICING IN THE TAIL WHEEL STRUT.

CA041008002	SWRNGN	GARRTT	REGULATOR	LEAKING
10/6/2004	SA226TC	TPE33110UA	8944416	FUEL SYSTEM

(CAN) UPON LANDING THE FLIGHT CREW NOTICED FUEL RUNNING OUT OF THE ENGINE COWLING AND DRIPPING FROM THE LT WHEEL WELL. MAINTENANCE WAS INFORMED AND DISCOVERED THAT THE START FUEL PRESSURE REGULATOR WAS LEAKING FUEL OUT OF THE ELECTRICAL CONNECTOR PORTION OF THE VALVE. MAINTENANCE REPLACED THE REGULATOR VALVE AND GROUND RUN AND LEAK CHECKS WERE COMPLETED. THE NATURE OF THIS PROBLEM IS THE SAME AS A THE PROBLEM IDENTIFIED IN SB TPE331-73-026, UNFORTUNATLY THIS VALVE DOES NOT FALL WITHIN THE PN OR SN APPLICABILITY RANGE OF THIS SERVICE BULLETIN.

END OF REPORTS