



ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



ALERT NUMBER 406



MAY 2012

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

AVIATION MAINTENANCE ALERTS

The Aviation Maintenance Alerts provides the aviation community with an economical means to exchange service experiences and to assist the FAA in improving aeronautical product durability, reliability, and safety. We prepare this publication from information operators and maintenance personnel who maintain civil aeronautical products pertaining to significant events or items of interest. At the time we prepared this document, we have not fully evaluated the material. As we identify additional facts such as cause and corrective action, we may publish additional data in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported to the FAA Service Difficulty Reporting System (SDRS). We welcome your participation, comments, and suggestions for improvement. Send to: FAA; ATTN: Aviation Data Systems Branch (AFS-620); P.O. Box 25082; Oklahoma City, OK 73125-5029.

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

AIRPLANES

Cessna: 182G; Cracked Main Landing Gear Attach Casting; ATA 5343

A general aviation submission states, "A casting crack was found (*visually*) during the course of an Annual Inspection. The crack is located on the forward end of the support casting (*P/N 07416031*), (*starting*) 0.25 inches from the outboard mount holes and (*ends*) within 0.25 inches of the mount holes on the inboard side of the casting."





Part Total Time: 2,690.0 hours

Cessna: 208B; Cracked Inertial Vane Shaft; ATA 7160

"Bypass door loose—will not close all the way," states this report from a Part 135 operator. "Upon investigation, (we) found the shaft cracked on the forward inertial vane assembly (P/N 200803511002). The mechanic also noticed the inlet splitter (P/N 200803511002) was cracked at (its two ends, and one attach angle was broken)." (Reader minder: the italicized parenthetical expressions are my insertions—Ed.)









Part Total Time: 140.0 hours

Cessna: 208B; Rudder Torque Tube Corrosion; ATA 5540

A repair station technician states, "This Hawaiian based aircraft arrived at our (facility) for maintenance. The rudder was removed from the aircraft, and its skin (then removed) to allow access to the rudder torque tube (P/N 263066-3). (This torque tube...) was scheduled to be replaced due to elongated holes in the bell crank. Severe corrosion was found on the upper part of the torque tube which is located under the skin—(this area) is not visible to any scheduled maintenance. The corrosion had reached the stage of 'blistered rust', and the 'L' angle on one side was easily separated with (minor) force (about 11 pounds; and wiggled twice)." "By design the rudder is not sealed on the top. The (torque tube top attach) bracket is located about a foot from the bottom—this cross member seems to pool water running down from inside the rudder (even though) there are drain holes in the design. Hawaii is listed as a 'moderate' corrosion environment.

"The operator had no way to inspect this location. A borescope would need to be used to (*even*) get an idea of the health of this part—(*but still*) it is better to remove and disassemble the (*rudder*). I would suggest a rudder inspection (*hole be designed and implemented*) so maintenance can easily inspect the torque tube for corrosion."





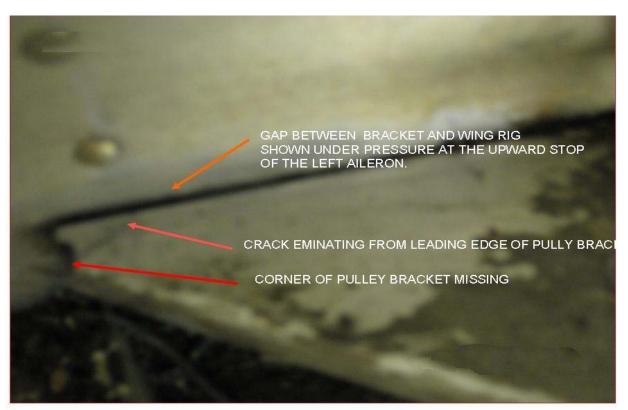


(Okay—that IS UGLY! Ed.)

Part Total Time: 12,563.6 hours

Piper: PA28R200; Cracked Aileron Pulley Brackets; ATA 2710

A General Aviation submission states, "During an Annual Inspection, both the L/H and R/H lower support aileron pulley brackets were (*found*) cracked in the forward inboard radius mount (*flange*) at each wing rib. A piece of one of these pulley brackets was detached." (*Pulley bracket P/N: 67550000*.)



VIEW LOOKING INBD AT L/H WING LOWER AILERON PULLEY BRACKET ATTACHED TO THE L/H MAIN WING RIB. * (NOTICE A PIECE OF THE BRACKET MISSING WITH GAP AT WING RIB). THE SEVERITY OF THE DEFECT WAS ACHIEVED BY ADDING UPWARD PRESSURE TO THE TRAVEL STOP WITH THE TRAILING EDGE OF AIRLERON.



"VIEW LOOKING DOWN ON RIGHT HAND WING FORWARD CORNER OF LOWER PULLEY BRACKET" NOTE*- THE CRACK WAS MORE EVIDENT WITH UPWARD PRESSURE ADDED TO THE TRAILING EDGE OF THE AIRLERON.





Part Total Time: (unknown)

Agusta: A119; Cracked Gleason Crown Gear; ATA 6320

A quality control supervisor for this repair facility says, "During a 4800 hour overhaul inspection, the Gleason Crown gear was found to have a crack."









(Gleason Crown gear P/N: 109040307103; Main Gear Box component P/N: 109040005103. A second such gear report is found in the SDRS database. Thanks for the photos—Ed.)

Part Total Time: 4,854.0 hours

POWERPLANTS

Continental: IO520C; Cracked Crankshaft; ATA 8520

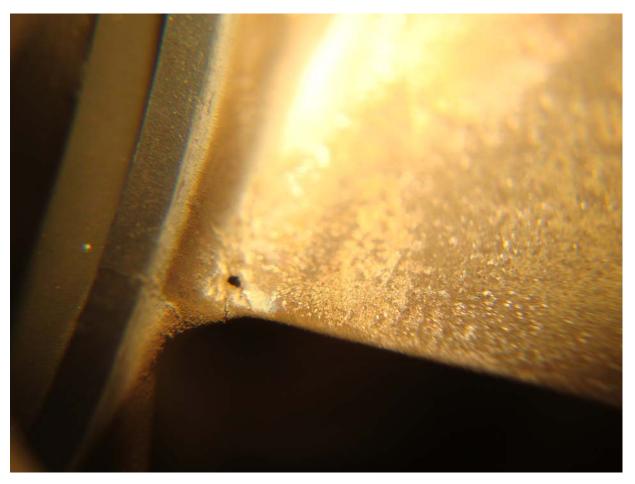
"The crankshaft cracked in the propeller flange at the radius," writes a technician. "The crack (appeared) in a 'V' shape. On one side the (crack) line was about four inches long, and the other about three inches." (Crankshaft P/N: 649859.)



Part Total Time: 4,531.0 hours

Turbomeca: Arriel 2B1; Cracked Turbine Guide Vane; ATA 7250

An AS350B3 helicopter operator writes, "While disassembling the engine to perform modification TU166, (I) found the power turbine nozzle guide vane cracked (P/N 0292517060). The 'Module 3' (P/N 70BM032020) must be returned to the manufacturer for repair."



Part Total Time: 2,590.0 hours

Turbomeca: Arrius 2B2; Cracked Guide Vane(s); ATA 7250

A technician for a corporate operation says, "While performing disassembly of this engine for a rear bearing oil pipe leak, (*I*) found damage to the following components, including: a PT nozzle guide vane cracked (HP segment, assembly P/N 0319217910); an HP nozzle guide vane cracked (P/N 0319218310); the flame tube cracked (P/N 031917850); Diffuser with FOD (P/N 0319210050; and the T-4 harness broken. All of these parts are being replaced." (*Additional listed parts: Module 2 P/N: 70EM027070 with cracked guide vane P/N 1319411580.*)











Part(s) Total Time: 4,763.0 hours

ACCESSORIES

Auxilec Generator: (P/N) A3579101; Failed Bearing; ATA 2434

(This report references a Bombardier BD1001-A10 aircraft with Honeywell AS90711A engines.)

A technician for a corporate operation says, "The generator rear bearing (opposite drive shaft) failed on the right engine. (Its) mounting pad sheared and the generator split apart. The crew received a 'Generator Fail' CAS (Crew Alerting System) message." There are six of these P/Ns in the SDRS database.)



Part Total Time: 1,397.0 hours

Cessna Alternator: (P/N) 99105923; Brush Failure; ATA 2434

(This report references a Cessna T206H aircraft with a Lycoming TIO540AJ1A engine.)

"The alternator field circuit breaker tripped intermittently over the last 25 hours, (causing) various instances of radio noise," states this mechanic. "The alternator remained functional. (I) suspected possible brush failure, and elected to replace the alternator during an Annual Inspection.

"The alternator was disassembled—found the ground brush (to be) 0.375 inches long. The field brush was completely disintegrated, with the spring contacting the slip ring. This alternator is only available from the manufacturer. There are no known third party overhaul facilities. The aircraft manufacturer service documents provide no service or parts data. There are no aircraft manufacturer inspection protocols beyond external security checks. Brush and/or slip ring inspection can only be accomplished by disassembly of the case.

"I suggest a re-design to permit proper periodic inspection the brushes, make service and overhaul data available, and/or improve quality. Neither 'operation to failure' or 'periodic mandatory alternator replacement' is (acceptable)."





Part Total Time: 645.0 hours

AIR NOTES

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

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

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

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

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

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

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

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

The SDRS database contains records dating back to 1974. At the current time, we are receiving approximately 40,000 records per year. Reports may be submitted to the iSDR web site on active data entry form or submitted hardcopy to the following address.

The SDRS and iSDR web site point of contact is:

Pennie Thompson Service Difficulty Reporting System, Program Manager Aviation Data Systems Branch, AFS-620 P.O. Box 25082

Oklahoma City, OK 73125 Telephone: (405) 954-5313

SDRS Program Manager e-mail address: <u>9-AMC-SDR-ProgMgr@faa.gov</u>

IF YOU WANT TO CONTACT US

We welcome your comments, suggestions, and questions. You may use any of the following means of communication to submit reports concerning aviation-related occurrences.

Editor: Daniel Roller (405) 954-3646 FAX: (405) 954-4570 or (405) 954-4655 E-mail address: Daniel.Roller@faa.gov

Mailing address: FAA, ATTN: AFS-620 ALERTS, P.O. Box 25082, Oklahoma City, OK 73125-5029

You can access current and back issues of this publication from the internet at: http://av-info.faa.gov/. Select the General Aviation Airworthiness Alerts heading.

AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports processed for the previous month, which have been entered into the FAA Service Difficulty Reporting System (SDRS) 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.

submitted by the avia	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	
2012FA0000149				LIFE VEST	DAMAGED	
3/10/2012				S512506300	CABIN	
LIFE VEST HAS SEVERE RUST ON HARDWARE AND RUST STAINS ON ATTACHMENT STRAPS.						
2012FA0000164				RING	BROKEN	
3/22/2012				3037251	TURBINE VANE	
OF THE CT BLADES. ON THE CT VANE RING, ONE OF AIRFOILS SHOWED A "THUMBNAIL" TYPE INSERT ON THE T/E OF ONE AIRFOIL WHICH WAS PARTIALLY LIBERATED AND FOLDED BACK INTO THE GAS PATH. THE INSERT IN FOLDING BACK IMPINGED ON THE L/E OF THE CT BLADES AND RESULTED IN HEAVY RUB. VISUAL EXAMINATION OF THE REST OF THE VANE RING SHOWED THE REMAINING 13 AIRFOILS ALL HAVE HAD A THUMBNAIL TYPE INSERT SIMILAR TO THE FAILED AIRFOIL. THE INSERT EXTENDS BACK FROM THE TRAILING EDGE APPROXIMATELY 1.25" WITH A WIDTH OF .700". THE INSERT EXISTS IN BOTH THE CONVEX AND CONCAVE AIRFOILS WITH A DISTINCT LINE BETWEEN THE INSERT AND THE VANE RING. IT APPEARS THAT SINCE A DISTINCT LINE EXISTS THAT THE INSERT WAS NOT WELDED IN PLACE BUT RATHER BRAZED. THE INSERT APPEARS TO HAVE BEEN MFG FROM 2 PIECES OF FLAT STOCK WELDED ON ONE EDGE TO FORM THE T/E OF THE VANE.						
AG2R2012040532747		LYC		TRANSFER TUBE	LEAKING	
4/5/2012		IO360L2A		131327120	ENGINE OIL	
LEAK FOUND ON CE	NTER MAIN OIL TR	ANSFER TUBE C	ON CRANKSHAFT, SI	N .		
2012FA0000158	AGUSTA	PWC		SUPPORT	WORN	
3/13/2012	A109E	PW206C		109060547	ENGINE MOUNT	
DURING ACCOMPLISHMENT OF 109EP-112, ENGINE MOUNT INSTALLATION INSPECTION AND RT AND LT V-SHAPED SUPPORTS AND REAR SUPPORT LEGS REPLACEMENT. NR 2 ENGINE INBD MOUNT V-SHAPED SUPPORT, FORWARD LEG HAD LATERAL PLAY. UPON REMOVAL OF MOUNT, MOUNT BOLT WAS FOUND WORN THRU ABOUT 90 PERCENT OF BOLT THICKNESS. V-SHAPED SUPPORT MOUNT HOLD WAS FOUND ELONGATED. SHEARING OF THE BOLT WOULD HAVE CAUSED LATERAL SHIFTING OF ENGINE AND SHEARING OF ENGINE TO MAIN TRANSMISSION DRIVESHAFT. ENGINE OR MOUNT HAS NOT HAD A HISTORY OF REMOVAL OR REPLACEMENT FROM THE ACFT SINCE FACTORY. SUGGEST SHORTENING COMPLIANCE TIME OF TB 109EP-112 OR FLEET WIDE SPECIFIC INSPECTION.						
DT1R2012041204	AGUSTA	PWA	AGUSTA	GEAR	CRACKED	
4/12/2012	A119	PT6B37A		109040307103	M/R GEARBOX	
DURING 4800 HR O/H	HINSPECTION, SU	BJECT GLEASON	CROWN GEAR WAS	S FOUND TO HAVE A	CRACK.	
EE4Y20120329155	AIRBUS			FLOOR SUPPORT	CORRODED	
3/29/2012	A319132			D5347219220000	ZONE 200	
UPPER FUSELAGE P STRINGER Y765. DAI A1A079, SUB JOB 2,	MAGED PARTS WA					

EE4Y20120326148 AIRBUS TUBE SCRATCHED

3/29/2012 A319132 201371304 ZONE 700

LOWER FUSELAGE RT MLG SLIDING TUBE EXTERNAL SURFACE WITH SCRATCH AT 9 O'CLOCK POSITION. DAMAGED PART WAS REPAIRED IAW REPAIR GUIDELINES, UNDER THE NON ROUTINE ITEM: WO A1A079, SUB JOB 1. ITEM 93.

 EE4Y20120326149
 AIRBUS
 SKIN
 DAMAGED

 3/26/2012
 A319132
 ZONE 300

VERTICAL STABILIZER RT SIDE BETWEEN RIB 3 AND RIB 4 SKIN WITH LIGHTNING STRIKE. DAMAGED AREA WAS REPAIRED IAW REPAIR GUIDELINES 70560175/006, UNDER THE NON ROUTINE ITEM: WO A1A079, SUB JOB 3, ITEM 11

<u>EE4Y20120326150</u> AIRBUS SKIN DAMAGED 3/26/2012 A319132 D5547100400000 RUDDER

VERTICAL STABILIZER RUDDER RT SIDE AT STA 80 AND 25" OF THE T/E SKIN WITH LIGHTNING STRIKE. DAMAGED AREA WAS REPAIRED IAW REPAIR GUIDELINES 70560169/008, UNDER THE NON ROUTINE ITEM: WO A1A079, SUB JOB 3, ITEM 12.

<u>EE4Y20120326151</u> AIRBUS SKIN DAMAGED 3/26/2012 A319132 D5547100400000 ZONE 300

EMPENNAGE VERTICAL STABILIZER RUDDER SIDE PANEL HOISTING POINT NR 3 LT WITH TRAPPED FLUID. DAMAGED AREA WAS REPAIRED IAW REPAIR GUIDELINES 70560165/006, UNDER THE NON ROUTINE ITEM: WO A1A079. SUB JOB 3. ITEM 20.

<u>EE4Y20120329152</u> AIRBUS FLOOR SUPPORT CORRODED 3/29/2012 A319132 D5367423920000 ZONE 100

LOWER FUSELAGE AFT CARGO COMPARTMENT BETWEEN FR58-FR59 LT FLOOR SUPPORT WITH CORROSION. DAMAGED PART WAS REPLACED IAW SRM 51-72-11, PARA 4, 5 AND 6. UNDER TO NON ROUTINE ITEM: WO A1A079, SUB JOB 1, ITEM 145.

<u>EE4Y20120329153</u> AIRBUS PROFILE CORRODED 3/29/2012 A319132 D5347646000000 ZONE 100

LOWER FUSELAGE AFT CARGO COMPARTMENT FROM FR53 TO FR55 -Y28 PROFILE WITH CORROSION. DAMAGED PART WAS REPLACED IN ACCORDANCE WITH THE A319 SRM 51-72-11 PARAGRAPH 4, 5 AND 6. UNDER THE NON ROUTINE ITEM: WO A1A079, SUBJOB 1, ITEM 125.

<u>EE4Y20120326144</u> AIRBUS FITTING CORRODED 3/26/2012 A319132 D57259162000 ZONE 100

LOWER FUSELAGE LT MLG RETRACTION JACK ANCHORAGE FITTING LOWER FACE AND BORE WITH CORROSION PITS. THE DAMAGED AREA WAS REPAIRED FOLLOWING REPAIR GUIDELINES 70560297/009. UNDER THE NON ROUTINE ITEM: WO A1A079. SUBJOB 1, ITEM 103.

<u>EE4Y20120329154</u> AIRBUS PROFILE CORRODED 3/29/2012 A319132 D534704752600 ZONE 100

LOWER FUSELAGE AFT CARGO COMPARTMENT FROM FR53 TO FR55 +Y28 PROFILE WITH CORROSION. DAMAGED PART WAS REPLACED IAW THE SRM A319 51-72-11, PARA 4, 5 AND 6. UNDER THE NON ROUTINE ITEM: WO: A1A079, SUB JOB 1, ITEM 126.

<u>EE4Y20120326145</u> AIRBUS ANCHOR FITTING CORRODED 3/26/2012 A319132 D57259162001 ZONE 100

LOWER FUSELAGE RT MLG RETRACTION ANCHORAGE FITTING LOWER FACE AND BORE WITH CORROSION. DAMAGED PART WAS REPAIR IAW REPAIR GUIDELINES, UNDER THE NON ROUTINE ITEM: WO A1A079, SUBJOB 1, ITEM 104.

VQIA2012FA0000120 AIRBUS FLOOR SUPPORT CORRODED

1/23/2012 A320214 D5347220924500 CABIN

FLOOR SUPPORT AT FRAME 68-69 AREAS OF CORROSION 50" TO THE RT OF CENTERLINE. LENGTH 1" X WITTH 1.2" X DEPTH .050".

VQIA2012FA0000121 AIRBUS FLOOR SUPPORT CORRODED

1/14/2012 A320214 D53448004320701 CABIN

TOP FLOOR SUPPORT, FURTHEST OTBD ON RT SIDE BETWEEN FRAMES 62 AND 66 HAS AN AREA OF CORROSION. LENGTH 2" X 2.5" WIDTH X DEPTH .050".

<u>2012FA0000026</u> AIRBUS ENGALL DISK DAMAGED 1/3/2012 A380861 GP7270 3821005050 HPC STG 6

THE HPC MODULE COM320015 WAS REMOVED FROM ENGINE PROPULSOR, P550135 AND DISPATCHED FOR INSPECTION AND REPAIR. THE REASON FOR ENGINE REMOVAL WAS HPC AND HPT DAMAGE. MISSING MATERIAL WAS NOTED ON THE BAFFLE PLATE OF THE HPC STAGE 6 DISK DURING INSPECTION OF THE HPC ROTOR MODULE. THE OEM HAS BEEN INFORMED. THE DEFECT HAS BEEN COMFIRMED BY ADDITIONAL BORESCOPE INSP AND THE INVESTIGATION IS IN PROGRESS.

<u>2012FA0000181</u> AMD SEAT TRACK WORN 4/2/2012 FALCON50MYST MY20212608811 COCKPIT

PILOT SEAT SLID AFT AFTER TAKEOFF. PILOT NOTED A CLICK AS SEAT LATCH PIN ENGAGED. DISASSEMBLY REVEALED BOTH SEAT TRACKS HAD WEAR MARKS BETWEEN HOLES DOWN CENTERLINE OF TRACK AND LATCH PINS HAD BEEN GROUND TO A CONICAL TAPER. NEW PINS ARE CYLINDRICAL WITH NO TAPER OTHER THAN A SLIGHTLY ROUND END. INSTALLATION INSTRUCTIONS DO NOT ALLOW MODIFICATION OF PINS. WHEN NEW PINS WERE INSTALLED ONLY ONE WOULD ENGAGE AT A TIME. SEAT WAS CHECKED FOR SQUARE AND ALSO TRIED IN OTHER AIRCRAFT TO CONFIRM IT WAS NOT RELATED TO PROBLEM. SEAT TRACKS WERE 1/2 HOLE OUT OF ALIGNMENT FROM SQUARE. NEW TRACKS WERE INSTALLED WITH PROPER ALIGNMENT TO SEAT TRACK PINS. ACFT RECORDS RESEARCH AND WEAR OF ALL PARTS INDICATED THIS WAS ORIGINAL FACTORY INSTALLATION.

<u>2012FA0000162</u> AMTR GUSSET CRACKED 3/19/2012 VELOCITYXL NLG

THE NOSE GEAR SPRING STRUT APPEARED TO HAVE FAILED AT THE END OF THE GUSSET. THERE APPEARED TO BE A PREVIOUSLY UNDETECTED CRACK IN THE LOWER END OF THE GUSSET WELD.

<u>2012FA0000192</u> BEECH TUBE DEFLATED 4/8/2012 35B33 092315 MLG TIRE

HAVE EXPERIENCED MULTIPLE FAILURES OF SUBJECT INNER TUBES SINCE DEC 06. FIRST FAILURE OCCURRED ON LANDING SEPT 08; 21 MO. TIS, 70 HRS. ALL SUBSEQUENT FAILURES OCCURRED WHILE ACFT WAS PARKED. SECOND FAILURE NOV 09; 14 MO. TIS, 55 HRS. THIRD FAILURE APR 12; 24 MO. TIS, 62 HRS. CAUSE OF FAILURE ON LANDING WAS INDETERMINATE DUE TO EXTENT OF DAMAGE (STEM WAS NOT RECOVERED). OTHER FAILURES WERE THE RESULT OF A FRACTURE IN THE RUBBER AT THE BASE OF THE STEM. MFG WAS CONTACTED IN NOV 09. THE SECOND TUBE TO FAIL WAS PROVIDED TO THEM FOR ANALYSIS AT THEIR REQUEST. 2 REPLACEMENT TUBES WERE PROVIDED GRATIS, 1 OF WHICH WAS THE LAST TO FAIL. THE AIRCRAFT HAS NOT BEEN SUBJECTED TO COLD WEATHER OPERATIONS. TIRE PRESSURES HAVE BEEN MAINTAINED IAW ACFT MFG SPECIFICATIONS. TIRES ARE SERVICED WITH AMBIENT AIR (VICE NITROGEN). NO HISTORY OF SIMILAR FAILURES WITH OTHER MFG PRODUCTS OVER THE PAST 29 YEARS OWNING AND OPERATING THIS ACFT.

<u>2012FA0000155</u> BEECH UPLOCK SWITCH SHORTED

3/15/2012 400A 1EN6 MLG

ACFT EXPERIENCED A LANDING GEAR UNSAFE LIGHT (RED HANDLE) IN FLIGHT, PILOT ATTEMPTED AND WAS ABLE TO CYCLE LANDING GEAR NUMEROUS TIMES, LIGHT WOULD NOT EXTINGUISH. PILOT VARIED GEAR DOWN AND LOCKED, LANDED ACFT.

2012FA0000178 BEECH CONT ROD END BROKEN

4/4/2012	A45	O470*		HMY5FG	NLG
ACFT LANDED AND A RETRACT ROD END H				ED. INSPECTION REVI	EALED THAT THE
J8UR20120326002	BEECH			HANDPUMP	MALFUNCTIONED
3/23/2012	B300C			207006	
DURING EMERGENC' HANDPUMP HANDLE HAND PUMP ASSEME	SEPERATED FROM	M PUMP HOUSIN	IG. (SNAP-RING TĤ	AT HOLDS PISTON AS	SEMBLY INTO THE
2012FA0000176	BEECH	PWA		TRANSDUCER	FAILED
3/24/2012	C90	PT6A135A		1013890237	RT OIL PRESSURE
RT ENGINE OIL PRES	SURE TRANDUCE	R QUIT WORKIN	G DURING CLIMB C	UT.	
2012FA0000154	BEECH			CIRCUIT BREAKER	WRONG PART
3/15/2012	F33A			35380132XX	
AD 2008-13-17 APPLIES TO THE ACFT DISCRIBED. WHILE ADMIRING THE AIRPLANE, NOTICED THE CIRCUIT BREAKERS DID NOT HAVE THE SAME APPEARANCE OF THE CORRECT BREAKERS. THE PERSON THAT COMPLIED WITH AD 2008-13-17 USED CIRCUIT BREAKERS THAT WERE NOT CALLED OUT IN SB 3735. THERE WAS NO AMOC IN PLACE FOR THE INSTALLED BREAKERS. THE AD IS STILL OUTSTANDING.					
2012FA0000160	BEECH	CONT		CIRCUIT BREAKER	FAILED
3/13/2012	F33A	IO520BB		35380132101	ZONE 100
PILOT REPORTED NA BREAKER AT FAULT. INSTALLED TO COMP	INSTALLED NEW C	CIRCUIT BREAKE			
3HCR03222012	BELL	ALLSN		BUSHING	MISINSTALLED
3/22/2012	206L1	250C28	ALAD1	2526146	GOVERNOR
GOVERNOR ALLOWS ASSEMBLED. SPOOL		_			UNIT IMPROPERLY
2012FA0000185	BELL	ALLSN		MAST	BROKEN
2/10/2012	OH58A	T63A720		206010332121	MAIN ROTOR
ACFT LANDED ON LO AND FOUND MAST PO		RECEIVED FUEL	. AND LOAD. PILOT	FELT VIBRATION AND	SHUTDOWN ACFT
FOTR0409201227183	BOEING			VANE	DEBONDED
3/29/2012	717200				LT WING TE FLAP
LEFT WING AFT MOV	ABLE FLAP VANE L	OWER SKIN HA	S A SMALL AREA O	F DISBOND.	
FOTR040920012	BOEING			SKIN	DENTED
4/5/2012	717200				ZONE 100
FOUND DENT ON THE WO22051 NR 28247 W			15 JUST BELOW FLO	OORLINE AT L-18. RE	PAIRED ON FAS
FOTR0312201226588	BOEING			DOOR FRAME	CORRODED
3/6/2012	717200				ZONE 100
MULTIPLE AREAS OF	CORROSION ALO	NG C1 DOOR FR	AME (LOWER).		
FOTR0312201227966	BOEING			SKIN	DAMAGED
3/13/2012	717200				ZONE 100

HOLE IN FUSELAGE	SKIN AT BS 140 L-24 RIGHT. REPAIRED ON FAS WO 2	2031, NR 27966.	
FOTR0301201225306	BOEING	STIFFENER	CRACKED
3/1/2012	72731		ZONE 600
RIGHT WING FRONT	SPAR VERTICAL STIFFENER CRACKED, WS 200.		
FOTR0301201225522	BOEING	STRUCTURE	CORRODED
2/6/2012	72731		ZONE 300
RT HORIZ STABILIZE	R- LOWER CHORD BETWEEN ELEVATOR STA 50.50 A	AND 66.50 ON AFT SP	AR CORRODED.
FOTR0301201225523	BOEING	STRUCTURE	CORRODED
2/1/2012	72731		ZONE 300
RT HORIZ STABILIZE	R- VERTICAL STIFFENER AT ELEVATOR STA 53.91 AT	TAFT SPAR IS CORR	ODED.
7AHR201204132381	BOEING	FLOOR SUPPORT	CORRODED
4/13/2012	7372X6C		BS 663
	OR SUPPORT AT STA 663 NEAR RBL 45. REMOVED O TO BE OUT OF LIMITS. R & R FLOOR SUPPORT IAW		OUND SUPPORT,
7AHR201204132155	BOEING	SKIN	CORRODED
4/13/2012	7372X6C		RT WING
CORROSION, AFTER REVIEWING THE CUR WAS REFERED TO A	G UPPER SURFACE UNDER WING WALKWAY PAINT A CORROSION REMOVAL IT WAS DETERMIND THE MARENT SRM IT WAS DETERMIND THERE WAS NOT REDER, FLIGHT VEHICLES CONSULTING. A REPAIR SC ACCOMPLISHED UNDER THE INSTRUCTIONS PROVILED-12102-1.	ATERIAL LOSS WAS O EPAIR IN THE SRM. T HEME WAS DEVELOF	OUT OF LIMITS. AFTER HE DISCREPANCY PED AND PROVIDED.
7AHR201204092588	BOEING	RIB	CORRODED
4/9/2012	7372X6C		LT MLG DOOR
CORROSION ON AFT LIMITS. R & R RIB IAV	RIB OF LT MLG INNER DOOR. FOUND RIB ON INNER V SRM.	DOOR FOR LT MLG	CORROSION BEYOND
7AHR201204092598	BOEING	RIB	CRACKED
4/9/2012	7372X6C	69378551	L/E FLAP
LEFT FORE FLAP WB	L 355 INBD SIDE OF RIB HAS A CRACK IN FITTING. R	& R IAW SRM.	
7AHR201204112562	BOEING	FRAME	CRACKED
4/11/2012	7372X6C		BS 380
	FRAME, STRINGER 5R BODY STATION 380. REMOVE VED DAMAGED INTERIOR FRAME, FABRICATED REP		
7AHR201204112597	BOEING	RIB	CRACKED
4/11/2012	7372X6C		NR 2 NACELLE
	FAN COWL HAS CRACKED RIB. REMOVED CRACKED AIR PARTS IAW CURRENT SRM.	RIB AND FABRICATE	D REPAIR PARTS
7AHR201204112459	BOEING	FLOORBEAM	CORRODED
4/11/2012	7372X6C		BS 706
	ORBEAMS AT BS 706 AT RBL 45. REMOVED CORROS TO BE OUT OF LIMITS. FABRICATED REPAIR PARTS		

REPAIR PARTS IAW CURRENT SRM.

7AHR201204112458 BOEING FLOORBEAM CORRODED

4/11/2012 7372X6C BS 767

CORROSION ON FLOORBEAM AT BS 767 AT RBL 45. REMOVED CORROSION, AFTER CORROSION REMOVAL, DAMAGE FOUND TO BE OUT OF LIMITS. REMOVED CORRODED FLOORBEAM, AND FABRICATED REPAIR STRAPS AND INSTALLED STRAPS IAW CURRENT SRM.

7AHR35012D2219 BOEING STRINGER SPLICE CORRODED

4/13/2012 7372X6C BS 1016

CORROSION AT FUSELAGE BULKHEAD BS 1016 AT STRINGER 25R. REMOVED CORROSION, AFTER CORROSION REMOVAL, AREA FOUND TO BE OUT OF LIMITS AT STRINGER 25R FROM STA 1016 TO 1026. FABRICATED REPAIR SPLICE AND INSTALLED REPAIR COMPOENENTS IAW SRM.

<u>7AHR201204132167</u> BOEING SKIN CORRODED

4/13/2012 7372X6C BS 1016

EXFOLIATION CORROSION AT STA 1016 AT STRINGER 26R TO 27R IN AREA OF OUTER WASTE DRAIN PAN. REMOVED CORROSION, AFTER REMOVAL OF CORROSION IT WAS DETERMIND THAT THERE WAS EXCESSIVE MATERIAL LOSS, WHICH DETERMIND THE AREA TO BE OUT OF LIMITS. AFTER EVALUATION IS WAS DETERMIND THAT THE REPAIR WAS NOT A STANDARD SRM REPAIR. CONTACTED ENGINEERING FIRM FLIGHT VEHICLE CONSULTING (FVC). A REPAIR SCHEME WAS DEVELOPED AND SUBMITTED. A REPAIR EO WAS PROVIDED AND THE ACFT WAS REPAIRED IAW WITH FLIGHT VEHICLE CONSULTING EO 53-12090-1.

<u>2012F00072</u> BOEING SKIN CORRODED

4/5/2012 7372X6C WING

CORROSION ON INTERNAL SKIN AND LONGERON BETWEEN WING STA 557.0 AND WBL 583.0. REMOVED CORROSION. ALODINE. AND PRIMED STRUCTURE IAW CURRENT SRM.

<u>7AHR201204092258</u> BOEING ACCESS PANEL CORRODED

4/9/2012 7372X6C ZONE 500

CORROSION AT LT WING FWD LOWER SPAR AT ACCESS PANEL MATING SURFACE FROM WBL 227.0 TO WBL 522.0. REMOVE ALL CORROSION FROM PANEL MATING SURFACE. MATERIAL LOSS FOUND TO OUT OF LIMITS AT WBL 291.82 AND WBL 314.76. DAMAGE FOUND TO BE OUTSIDE OF THE PARAMETER OUTLINED IN SRM. A REPAIR SCHEME WAS DEVELOPED AND PROVIDED. ALL REPAIR PARTS AND INSTALLATION WAS PERFORMED AS OUTLINED DWG 57-12094-1. AREAS THAT WERE WITH-IN LIMITS WERE TREATED AND PRIMED IAW INSTRUCTIONS OUTLINED IN CURRENT SRM.

<u>7AHR201204052467</u> BOEING SKIN CORRODED

4/5/2012 7372X6C ZONE 500

CORROSION ON LEFT WING INTERNAL SURFACE AND LONGERON BETWEEN WING STA 557.0 AND WBL 583.0. REMOVED CORROSION, ALODINE AND PRIMED IAW CURRENT SRM.

7AHR201204052466 BOEING SKIN CORRODED

4/5/2012 7372X6C ZONE 600

CORROSION ON INTERNAL SKIN AND LONGERON BETWEEN WING STA 557.0 AND WBL 583.0. REMOVED CORROSION, MATERIAL LOSS WITHIN LIMITS. ALODINED AND PRIMED STRUCTURE IAW CURRENT SRM.

<u>7AHR2012040635012</u> BOEING SPAR CORRODED

4/6/2012 7372X6C RT WING

CORROSION AT LOWER RT WING L/E FWD SPAR AT WBL 227.0 TO WBL 522.0. REMOVED CORROSION, FABRICATED 2 REPAIR STRAPS AND INSTALLED IAW CURRENT SRM.

<u>7AHR201204062375</u> BOEING SEAT TRACK CORRODED

4/6/2012 7372X6C BS 663-747

CORROSION ON SEAT TRACK AT BS 663 TO 747 AT RBL 24.75. R & R SEAT TRACK IAW SRM. 7AHR201204062390 **BOEING SEAT TRACK CORRODED** 4/6/2012 7372X6C **ZONE 200** CORROSION ON SEAT TRACK AT BS 616 RBL 46. CORROSION FOUND TO BE OUT OF LIMITS, R & R SEAT TRACK IAW SRM. 7AHR201204062366 BOEING FLOORBEAM CORRODED 4/6/2012 7372X6C **ZONE 200** CORROSION ON FLOORBEAM AT BS 967 AND RBL 12. CORROSION FOUND TO BE OUT OF LIMITS. PERFORMED A SPLICE REPAIR TO THE FLOORBEAM IAW CURRENT SRM. 7AHR201204062357 **BOEING** FLOORBEAM CORRODED 4/6/2012 7372X6C **ZONE 200** CORROSION ON FLOORBEAM AT BS 727B AND RBL 24. REMOVED CORROSION. FLOORBEAM FOUND TO BE OUT OF LIMITS, FABRICATED REPAIR STRAP AND INSTALLED ALL REPAIR PARTS IAW SRM. 7AHR201204062365 **BOEING FLOORBEAM CORRODED** 4/6/2012 7372X6C **ZONE 200** CORROSION ON FLOORBEAM CAP AT STA 727B AND APPROX LBL 40. AFTER CORROSION REMOVAL FLOORBEAM FOUND TO BE OUT OF LIMITS. FABRICATED A REPAIR STRAP AND INSTALLED IAW CURRENT SRM. 7AHR201204062580 **BOEING** SEAT TRACK CORRODED 4/6/2012 7372X6C **ZONE 200** CORROSION ON SEAT TRACK AT STATION 540 AND RBL 64. AFTER CORROSION REMOVAL, SEAT TRACK FOUND TO BE OUT OF LIMITS. REPLACED SEAT TRACK IAW SRM. 7AHR201204062581 **BOEING FLOORBEAM** CORRODED 4/6/2012 7372X6C BS 540 CORROSION ON FLOORBEAM AT BS 540 AND LBL 24. REMOVED CORROSION, FLOOR SUPPORT FOUND TO BE OUT OF LIMITS. FABRICATED REPAIR STRAP AND INSTALLED REPAIR PARTS IAW SRM. 7AHR201204062571 **BOEING BRACKET** CRACKED 4/6/2012 7372X6C **ZONE 500** LEFT INBD MID FLAP - OTBD CARRIAGE ASSY PULLEY SUPPORT BRACKET CRACKED. R & R PULLEY SUPPORT BRACKET IAW WITH MM 27-51-21. 7AHR201204032220 **BOEING** STRINGER CORRODED 4/3/2012 7372X6C **ZONE 100** CORROSION AT AFT FUSELAGE BULKHEAD AT BS 1016, STRINGER 17L, CUT OUT DAMAGED STRINGER 17L FROM 1016 TO 1026 TO ACCESS STRINGER TIE FITTING. FABRICATED REPAIR PART AND INSTALLED IAW SRM. 7AHR201204062296 **BOEING ANGLE CRACKED** 4/6/2012 7372X6C **ZONE 100** AFT CARGO BAY LEFT TRANSITION PANEL ANGLE CRACKED BETWEEN STATION 907 AND 927. REMOVED CRACKED ANGLE AND FABRICATED REPLACE PARTS IAW SRM. 7AHR201204072417 **BOEING FLOORBEAM CORRODED** 4/7/2012 7372X6C **ZONE 200** CORROSION ON FLOORBEAM AT STA 312 AT RBL 12. REMOVED CORROSION, FLOORBEAM FOUND TO BE OUT OF LIMITS. CUT OUT TEE CAP EXTRUSION, FABRICATED REPAIR PARTS AND INSTALLED REPAIR PARTS IAW SRM.

RETAINER SEAL

CORRODED

7AHR201204072138

BOEING

4/7/2012 7372X6C NR 5 SLAT

CORROSION ON RT NR 5 L/E SLAT LOWER SEAL RETAINER. REMOVED CORROSION, SEAL RETAINER FOUND TO BE OUT OF LIMITS. FABRICATED NEW SEAL REATINER AND INSTALLED IAW WITH CURRENT SRM.

 7AHR201204072456
 BOEING
 SEAT TRACK
 CORRODED

 4/7/2012
 7372X6C
 ZONE 200

CORROSION ON SEAT TRACK AT STA 540 TO 578 AT LBL 24.75. REMOVED CORROSION, SEAT TRACK FOUND TO BE OUT OF LIMITS. FABRICATED REPAIR PARTS AND INSTALLED IAW SRM.

<u>7AHR201204072391</u> BOEING STRINGER SPLICE CRACKED 4/7/2012 7372X6C ZONE 100

STRINGER SPLICE CRACKED AT S4L AT BS 908. REMOVED CRACKED STRINGER SPLICE, FABRICATED REPAIR PARTS AND INSTALLED REPAIR PARTS IAW SRM.

<u>7AHR201204072657</u> BOEING STRINGER CORRODED 4/7/2012 7372X6C ZONE 100

CORROSION AT BS 1004, AT STRINGER 27L. CUT OUT CORRODED SECTION OF STRINGER. FABRICATED REPAIR PARTS AND INSTALLED REPAIR PARTS IAW SRM.

<u>7AHR201204092154</u> BOEING SKIN CORRODED 4/9/2012 7372X6C ZONE 500

CORROSION ON TOP OF LT WING UNDER WALKWAY PAINT. BLENDED CORROSION, AFTER CORROSION REMOVAL FROM WING SKIN, MATERIAL LOSS FOUND TO BE OUT OF LIMITS. REPAIR REQUIREMENTS FOUND TO BE OUTSIDE OF STANDARD SRM REPAIR. FABRICATED REPAIR PARTS AND INSTALLED ALL REPAIR PARTS AS OUTLINED BY EO 57-12101-1.

 Z6WR20120316004
 BOEING
 BOEING
 SKIN
 MISREPAIRED

 3/14/2012
 73776N
 737700
 315A2502102
 THRUST REVERSER

A REPAIR LOCATED ON THE AFT END MOVES FORWARD APPROX 18" AND APPROX 25" FROM THE UPPER EDGE MOVING DOWNWARD ON THE 315A2502-102 INNER WALL BONDED PANEL, HAS AN AREA OF BLOCKAGE (PERF SKIN TO CORE) THAT MEASURES APPROX 15" X 15" C/T THE 315A2501-16 ACOUSTIC PANEL INSTALLATION. ULTRASONIC INSP IAW NDT MANUAL REVEALS AN AREA OF DISBOND 1.8" X 12.7" LOCATED WITHIN THE REPAIR AREA. REPAIR APPEARES TO HAVE BEEN ACCOMPLISHED FROM THE OML SIDE, BUT PERF HOLES DIDN'T GET RETICULATED CAUSING A BLOCKAGE OF THE PERF THAT MEASURES 17" X 24". AFTER REMOVING DEBONDED PERF SKIN, THE CORE PLUG FOR THE REPAIR WAS FOUND TO HAVE A 1.0" GAP. ALSO AN UNKNOWN RED SUBSTANCE IS CURED INTO THE REPAIR.

FOTR0301201233124 BOEING SKIN **DENTED** 1/5/2012 75728A **ZONE 200** EXT FUSELAGE BS 1963-1992, 11:00 POSITION IS DENTED. FOTR0301201233119 BOEING SKIN DENTED **ZONE 100** 1/24/2012 75728A EXTERNAL FUSELAGE SKIN HAS 2 DENTS AT STA 1630 STR 18L AND STA 1650 STR 19L. FOTR2107117411 **BOEING** SEAT TRACK **GOUGED**

MAIN CABIN SEAT TRACK GOUGED ON UPPER SURFACE, LBL 24, BS 460 TO BS 640. FOUND SEAT TRACK OUT OF LIMITS IAW SRM 53-40-52. REMOVED SEAT TRACK BS 460 TO BS 640 LBL 24, DRILLED AND LOCATED NEW SEAT TRACK AND INSTALLED NEW SEAT TRACK BS 460 TO BS 640, LBL 24 IAW SRM 53-30-52, 53-00-52 FIG 201, AND 51-40-02.

ZONE 200

3/29/2012

7572Q8

FOTR2012032117114	BOEING		SKIN	DENTED
3/21/2012	7572Q8			CARGO DOOR
	SKIN HAS A DENT AT B.S. 618 BET\ CATING AND INSTALLING EXTERN			
FOTR0307201217239	BOEING		FLOOR SUPPORT	CRACKED
1/27/2012	7572Q8			ZONE 200
MAIN CABIN FLOORB	EAM INTERCOSTAL AT BS 1520 - 1	1540, BL 0 HAS CRA	CKED UPPER ANGLE	
FOTR0307201217238	BOEING		FLOOR SUPPORT	CRACKED
1/27/2012	7572Q8			ZONE 200
MAIN CABIN FLOORB WO 21071, NR 17238.	EAM INTERCOSTAL AT BS 1620-16	640, BL-0- HAS CRA	CKED UPPER ANGLE.	REPAIRED ON FAS
FOTR0307201217257	BOEING		SEAT TRACK	CORRODED
2/17/2012	7572Q8			ZONE 200
MAIN CABIN SEAT TR WO 21071 NR 17257.	ACK AT BS 1320 RBL 24 HAS AREA	A OF CORROSION C	ON UPPER SURFACE.	REPAIRED ON FASI
FOTR0307201217237	BOEING		FLOORBEAM	CORRODED
1/31/2012	7572Q8			ZONE 300
	FLOORBEAM HAS AREAS OF COP S WO 21071 NR 17237.	RROSION OF UPPER	R SURFACE BETWEE	N RBL 48 AND RBL
2012F00074	BOEING		ASPIRATOR	WRONG PART
4/10/2012	767300	767300	119000103	ESCAPE SLIDE
ASPIRATOR, INSTALL EVIDENCE OF MODIF	Y INSPECTION OF EVACUATION S LED IN EVACUATION SLIDE/RAFT IS ICATION OF ASPIRATOR AS REQU LIDE/RAFT WAS LAST SERVICED (S NOT IN COMPLIAN JIRED BY THE AD. N	NCE WITH FAA AD 90- MARKINGS ON THE GI	22-04. THERE IS NO
ABXR2012033100038	BOEING		SKIN	CORRODED
3/31/2012	767338		112T4701	ZONE 500
LEFT WING LOWER S AND AMES REA 46938	URFACE CORRODED IN SEVERAL BREA10.	SPOTS BETWEEN	WS 375 AND WS 992.	REPAIRED IAW SRM
ABXR2012033100039	BOEING		SKIN	CORRODED
3/31/2012	767338		112T3301	ZONE 600
RIGHT WING UPPER S SRM AND REA 46938F	SURFACE CORRODED IN SEVERA REA13.	L SPOTS BETWEEN	I WS 350 AND WS 102	1. REPAIRED IAW
ABXR2012033100040	BOEING		FAILSAFE	CORRODED
3/31/2012	767338		145T2524623	ZONE 100
FAILSAFE AREA COR	RODED AT BS 955 S23-26L. REPAI	RED IAW AMES REA	A 46938REA05.	
ABXR2012033100028	BOEING		STRUCTURE	CRACKED
3/31/2012	767338		015T10594	ZONE 200
BS 1809 RT/FWD UPP 46938REA19.	ER CHORD CRACKED AT LWR/FW	D FASTENER HOLE	E. R & R CHORD IAW A	AMES REA
ABXR2012033100030	BOEING		SKIN	CORRODED

3/31/2012	767338	145T252423	ZONE 100
	OSED BY LT FAILSAFE STRAP CORRODED. REPAIRE		
ABXR2012033100029		SKIN	CHAFED
3/31/2012	767338	148T31212	ZONE 100
FUSELAGE SKIN DAM	IAGED AT STA 1809, S12R. REPAIRED IAW SRM.		
ABXR2012033100041	BOEING	SKIN	CRACKED
3/31/2012	767338	148T322212	ZONE 100
FUSELAGE SKIN CRA	CKED AT STA 1726. REPAIRED IAW SRM.		
ABXR2012033100031	BOEING	HOUSING	DEBONDED
3/31/2012	767338	112T33012	ZONE 600
RIGHT OVERWING FI	LL HOUSING DID NOT BOND CHECK PROPERLY. REF	PAIRED IAW AMES RE	A 46938REA15.
ABXR2012033100032	BOEING	FITTING	CORRODED
3/31/2012	767338	112T10289	ZONE 100
LEFT KICK FITTING C	ORRODED. R & R KICK FITTING IAW REA 46938REA2	1.	
ABXR2012033100033	BOEING	FITTING	CRACKED
3/31/2012	767338	148T25126	ZONE 100
RIGHT BS 1809 FWD	SPLICE FITTING HAS CRACK INDICATION. R & R SPLI	CE FITTING IAW REA	46938REA28.
ABXR2012033100034	BOEING	FITTING	DAMAGED
3/31/2012	767338	148T904402	ZONE 100
BS 1809 RT LOWER C	CHORD TENSION FITTING HAS HOLE DAMAGE. R & R	TENSION FITTING IAV	W REA 46938REA22.
ABXR2012033100036	BOEING	SKIN	DAMAGED
3/31/2012	767338	112T4702	ZONE 600
	RFACE HAS DAMAGE TO SEVERAL FASTENER HOLES AND REA'S 46938REA11, 46938REA20, AND 46938REA		AND WS 1067.
ABXR2012033100035	BOEING	SKIN	CORRODED
3/31/2012	767338	112T4703	ZONE 600
	SURFACE CORRODED IN SEVERAL SPOTS BETWEE 8REA11 AND 46938REA16.	N WS 375 AND WS 10	67. REPAIRED IAW
ABXR2012033100037	BOEING	SKIN	CORRODED
3/31/2012	767338	112T3302	ZONE 500
	URFACE CORRODED IN SEVERAL SPOTS BETWEEN A09, 46938REA12, AND 46938REA24.	WS 344 AND WS 916.	REPAIRED IAW SRM
QMLD2012041103961	BOLKMS	RING	LOOSE
4/11/2012	BK117C2	11211418206	ROTOR HEAD
BOLTS SECURING RI	NGS TO MAIN ROTOR HEAD INNER SLEEVES LOOSE		
AMCR2012033003	BOMBDR	TIRE	BULGED
3/28/2012	BD1001A10	269K432	ZONE 700
AFTER FLIGHT, MX D CROWN EDGE OF TH	ISCOVERED MULTIPLE BULGES ON THE INBD SIDE C IE TIRE.	OF THE NR 3 TIRE SID	EWALL, NEAR THE

<u>QLFR20120309001</u> CAMRON VALVE FAILED 3/8/2012 A315 F8612 BURNER

THE BLAST VALVE (MAIN BURNER VALVE) NO LONGER FUNCTIONED. UPON DISASSEMBLING THE BLAST VALVE FROM BURNER SN:1221 THE SHUTTER VALVE WAS VISUALLY INSPECTED. THE VISUAL INSPECTION FOUND THE ADHESIVE COMPOUND BONDING THE BRASS TO THE RUBBER RING HAD FAILED. THE AMOUNT OF ADHESIVE BONDING THE TWO PIECES ALSO SEEMS TO BE INADEQUATELY OR UNEVENLY APPLIED. THE RUBBER RING SEPARATING FROM THE BRASS HOUSING RESULTED IN COMPLETE BLOCKAGE OF FUEL (PROPANE) TO THE BURNER COILS WHICH ULTIMATELY RESULTED IN FAILURE OF THE BLAST VALVE.

 SROM2011011
 CASA
 WIRE HARNESS
 CHAFED

 9/25/2011
 C212DF
 COCKPIT

MULTIPLE CIRCUIT BREAKERS ON OVERHEAD PANEL POPPED IN FLIGHT. FLIGHT CREW CONTINUED TO DESTINATION AND LANDED WITHOUT INCIDENT. BREAKERS THAT TRIPPED INSTRUMENT LIGHT, ANTI SKID AND TEST, RADIO POWER AND NR 2 INVERTER OUTPUT 26 VAC AND 115 VAC. DETERMINED THE WIRING CHAFED AT ANTI-SKID CONTROL SWITCH AREA. FOR CORRECTION ACTION PERMANENT REPAIRS AND RE-ROUTING OF WIRING BUNDLE WERE ACCOMPLISHED.

 2012FA0000175
 CESSNA
 LYC
 BOLT
 BROKEN

 3/6/2012
 152
 O235L2C
 78027
 ROD

IN CRUISE FLIGHT PILOT REPORTED LOSS OF ENGINE OIL PRESSURE. ACFT LANDED IN A FIELD. VISUAL EXTERNAL EXAMINATION OF THE ENGINE REVEALED AN 8" SQUARE AREA OF THE BOTTOM OF THE CRANKCASE MISSING BY THE NR 1 AND NR 2 CYLINDERS. THE CONNECTING ROD FOR THE NR 1 CYLINDER WAS NOT CONNECTED, THE ROD CONNECTION BOLTS WERE IN PLACE BUT BROKEN. THE CRANKSHAFT JOURNAL DID NOT SHOW EVIDENCE OF DAMAGE. 1 OF THE NR 2 CYLINDER PUSH RODS WAS BENT.

 NX4R2012031200028
 CESSNA
 CONTROL CABLE
 FRAYED

 3/12/2012
 172S
 0510105364
 AILERON

DURING A ROUTINE INSPECTION, THE AILERON CABLE, FOUND FRAYED WITH BROKEN STRANDS. THE WEAR IS AT WS: 65.33

 NX4R2012031501028
 CESSNA
 CONTROL CABLE
 FRAYED

 3/15/2012
 172S
 0510105391
 ZONE 100

DURING A ROUTINE INSPECTION, THE TOP ELEVATOR CABLE AT THE PULLEY PNS-378-3, F/S-205.81 WAS FOUND TO BE FRAYED WITH SEVERAL BROKEN STRANDS. THERE WAS NO ABNORMAL WEAR ON THE PULLEY AND THE CABLE WAS NOT WORN. THE STRANDS APPEARED TO BE BROKEN DUE TO A TENSION FAILURE. THE CABLE TENSIONS WERE CHECKED PRIOR TO THIS FINDING AND WERE WITHIN PUBLISHED SPECIFICATIONS.

<u>2012FA0000161</u> CESSNA WIRE MISINSTALLED 3/19/2012 172S ELECTRIAL

WHILE CONDUCTING THE ESSENTIAL AND CROSSFEED BUSS DIODES INSPECTION AS CALLED OUT IN MM 5-10-01 AND 24-61-01, 2 WIRES SLIPPED OUT OF BUSS 1 AND BUSS 2 CONNECTOR ON MALE END. WIRES APPEARED TO HAVE INCORRECT CRIMP CAUSING WIRES TO PULL OUT CREATING POWER LOSS.

<u>NX4R2012031200025</u> CESSNA CONTROL CABLE FRAYED 3/12/2012 172S 201201500 ELEVATOR

DURING A PHASE INSPECTION THE UPPER, AFT ELEVATOR CABLE P/N-2012-01500 HAD BROKEN STRANDS AT FS 205.81 AT PULLEY P/N-378-3.

 NX4R2012031200026
 CESSNA
 CONTROL CABLE
 FRAYED

 3/12/2012
 172S
 0510105391
 ELEVATOR

DURING A PHASE INSPECTION THE UPPER, AFT ELEVATOR CABLE PN-0510105-391 HAD BROKEN STRANDS AT FS 205.81 AT PULLEY PN-378-3.

NX4R2012031200027 CESSNA CONTROL CABLE **FRAYED** 3/12/2012 172S 0510105308 **ELEVATOR** DURING A PHASE INSPECTION, THE UPPER, AFT ELEVATOR CABLE PN-0510105-308, HAD BROKEN STRANDS AT FS 205.81 AT PULLEY PN-378-3. **CONTROL CABLE** NX4R2012030800029 CESSNA **FRAYED** 3/8/2012 172S 0510105360 **AILERONS** DURING A ROUTINE INSP, THE AILERON CABLE PN-01510105 AT WS 65.33 WAS FOUND FRAYED WITH BROKEN STRANDS. NX4R2012031900031 CESSNA SHAFT WORN CONTROL 3/19/2012 172S 05600595 COLUMN DURING A ROUTINE INSPECTION. CONTROL COLUMN SHAFT WAS SIGNIFICANTLY WORN AT THE 6 O'CLOCK POSITION WHERE IT EXITS THE INSTRUMENT PANEL. IT RIDES ON A BUSHED SURFACE. 2012FA0000152 **CESSNA** LYC LINE **OUT OF POSITION** 172S IO360L2A 050042500 2/18/2012 **FUEL SYSTEM** FUEL LINE. TOUCHING UPPER LIP OF LOWER FUSELAGE FORMER. THIS IS THE 3RD ACFT SEEN WITH THIS PROBLEM. LYC CABLE 2012FA0000165 CESSNA **BROKEN** 3/15/2012 172S IO360L2A 161102101R **COCKPIT SEAT** ONE OF TWO ATTACHING CABLES FOR THE SEAT TRACK LOCK PINS, FOUND BROKEN AT THE SWEDGE POINT, LEAVING THE CABLE FLAPPING LOOSE AND ONLY ONE PIN LOCKED IN SEAT TRACK. PULLING ON TEE HANDLE ONLY RELEASED PIN ON ONE SIDE. R & R CABLE ASSY. OPS CHECKED GOOD. CABLE ASSY BELIEVED TO BE ORIGINAL SINCE NEW. LYC **CESSNA** RIB 2012FA0000174 CORRODED 4/3/2012 177RG IO360A1B6 17130533 **ZONE 200** DURING ANNUAL INSPECTION, HEADLINER WAS REMOVED FOR REPLACEMENT. FOUND CORROSION THAT WAS HIDDEN BY INSULATION MATERIAL. CORROSION WAS ON BOTH LT AND RT FUSELAGE ROOT RIB AND CORROSION ON RT DOOR OUTER JAMB (PN 1711030-4). CORROSION CONCENTRATED IN AREA WHERE FRESH AIR SCAT DUCTING ROUTES THROUGH ROOT RIBS. SCAT TUBING HAD DETERIORATED LETTING MOISTURE INTO CABIN ROOT RIB AREA. ALL PARTS WERE REPLACED WITH NEW FACTORY PARTS. EVGR20120326001 **CESSNA** SKIN CORRODED 3/26/2012 182P **ZONE 100** CORROSION WAS FOUND UNDER THE BLACK SOUND DEADENING PATCHES ON THE INSIDE OF THE ACFT SKIN, AND WAS NOT DETECTED UNTIL THE PATCHES WERE REMOVED. 2012FA0000186 **CESSNA** LYC HUB CRACKED NR2 BLADE 2/1/2012 182S IO540* D7298C431 SOCKET LIQUID PENETRANT INDICATION ON THE EXTERNAL SOCKET ON NR 2 BLADE AT 4 O'CLOCK. THIS IS NOT A RADIAL INDICATION. THIS CRACK INDICATION WAS DISCOVERED DURING O/H. THE PART IS UNAIRWORTHY. HUB WAS SENT TO MFG FOR DESTRUCTIVE TESTING. 2012FA0000167 **CESSNA PWA BRACKET** WORN PT6* 3/26/2012 208B 26221102 FLAP BELLCRANK

THE PILOT COMPLAINED OF EXCESSIVE ROLL DURING LANDING WITH FULL FLAPS, INSPECTION FOUND THE RT

DISASSEMBLY A TORQUE CHECK WAS DONE ON THE CENTER STUD AND FOUND TO BE UNDER THE TORQUE

AND LT INBD AFT FLAP BELLCRANKS TO HAVE EXCESSIVE PLAY IN ITS ATTACH BRACKETS. DURING

VALUE OF 35"LBS WHICH IN TURN WAS A .2500 TURN OF THE STUD. AFTER COMPLETE DISASSEMBLY OF BOTH INBD BELLCRANKS IT WAS FOUND THAT BOTH RT AND LT UPPER BRACKETS HAD EXCESSIVE WEAR IN THE CENTER HOLE. REPLACED UPPER ATTACH BRACKETS AND VERIFIED FLAP RIGGING.

2012FA0000168	CESSNA	PWA	BRACKET	WORN
3/26/2012	208B	PT6*	26221101	TE FLAP

DURING A ROUTINE INSPECTION, FOUND RT AND LT INBD AFT FLAP BELLCRANKS TO HAVE EXCESSIVE PLAY IN ATTACH BRACKETS. DURING DISASSEMBLY A TORQUE CHECK WAS DONE ON THE CENTER STUD AND FOUND TO BE UNDER THE TORQUE VALUE OF 35"LB WHICH IN TURN WAS A .2500 TURN OF THE STUD. AFTER COMPLETE DISASSEMBLY OF BOTH INBD BELLCRANKS IT WAS FOUND THAT BOTH RT AND LT UPPER BRACKETS HAD EXCESSIVE WEAR IN THE CENTER HOLE. REPLACED UPPER ATTACH BRACKETS AND VERIFIED FLAP RIGGING.

2012FA0000197 CESSNA BENDIX BEARING WORN

4/7/2012 310N MAGNETO

PILOT DECLARED EMERGENCY AND PERFORMED UNSCHEDULED LANDING DUE TO LT ENGINE LT MAGNETO FAILURE. FAILURE APPEARS TO HAVE BEEN CAUSED BY A BAD BEARING IN THE MAGNETO.

 2012FA0000172
 CESSNA
 WILINT
 PADDLE
 MISSING

 3/29/2012
 525
 FJ441A
 635405179
 THRUST ATTEN

PILOT REPORTED THAT THAT THE NR 1 (LT) THRUST ATTENUATOR PADDLE WAS NOT PRESENT WHEN HE PERFORMED HIS POST FLIGHT INSPECTION. INSPECTION BY MX REVEALED THAT THE THRUST ATTENUATOR PADDLE HAD BROKEN OFF IN A CIRCUMFERENCE SURROUNDING THE ATTACHMENT FASTENERS. ALL FASTENERS ARE PRESENT AND APPEAR TO BE INTACT. THE ENTIRE TAIL PORTION OF THE ACFT HAS BEEN INSPECTED FOR IMPACT OR CONTACT DAMAGE RESULTANT FROM THE DEPARTING PADDLE AND NONE WAS FOUND. THE THRUST ATTENUATOR ON THE RT SIDE WAS INSPECTED FOR DEFECTS AND NONE WERE FOUND. A NEW PN 6354051-79 THRUST ATTENUATOR PADDLE ASSY HAS BEEN ORDERED FROM MFG AND WILL BE INSTALLED IAW AMM 78-30-00.

<u>WI5R201203010001</u> CESSNA WILINT BOLT IMPROPER PART 2/29/2012 525A FJ443A FJ443A MS955804 ENGINE DIFFUSER

DURING ON-WING REPLACEMENT OF A DIFFUSER ON ENGINE 216014, THE INCORRECT CONFIGURATION BOLT WAS FOUND INSTALLED IN THE SERVICE ISLAND OF THE DIFFUSER BEING REMOVED. INSTEAD OF THE PN MS9558-04, PLUG BOLT, THAT IS REQUIRED FOR THE THIS ENGINE, A PN 45947, SPECIAL HOLLOW BOLT, WAS INSTALLED. THE PN 45947 BOLT IS USED ON OTHER ENGINES TO GIVE CDP FEEDBACK TO THE FUEL CONTROL, AND THE TIP OF THE BOLT FITS THROUGH A HOLE IN THE DIFFUSER INNER FLOW PATH SKIRT. BECAUSE THE -3 DIFFUSER DOES NOT HAVE THIS HOLE, THE PN 45947, BOLT INSTALLED ON THIS -3 DIFFUSER CONTACTED THE INNER FLOWPATH SKIRT, PN 73185 AND DEFORMED IT AS THE BOLT WAS TORQUED DOWN. THERE ARE NO RECORDS OF PERFORMANCE ISSUES WITH THE ENGINE RELATED TO THE HOLLOW BOLT LEAKING CDP AIR INTO THE BYPASS AIR, ALTHOUGH THE TIP OF THE BOLT WAS GROUND INTO THE INNER FLOWPATH SKIRT AND MAY HAVE REDUCED THE AMOUNT OF LEAKAGE.

 2012FA0000198
 CESSNA
 WILINT
 BEARING
 FAILED

 3/18/2012
 525B
 FJ443A
 NR 2

ON DESCENDING FROM FL 360 FT, A SMALL VIBRATION WAS FELT. ALL INDICATIONS NORMAL AND PILOT REPORTED THE VIBRATION WAS COMING FROM THE LT ENGINE. AT FL100 FT A MORE STEADY VIBRATION FELT. ALL ENGINE PARAMETERS REMAINED GREEN (NORMAL). NOTICED RT OIL PRESSURE LOWER THAN LT. RT OIL PRESSURE WAS 58 PSI & LT 78 PSI. ABOUT 20 MILES OUT, CABIN FILLED WITH SMOKE. OXYGEN MASKS WERE PUT ON BY PILOTS & AN EMERGENCY WAS DECLARED. LANDED UNEVENTFULLY. ALL ENGINE PARAMETERS REMAINED IN GREEN THROUGHOUT FLIGHT. SHUTDOWN ENGINES AFTER TAXI. POST-FLIGHT INSPECTION FOUND THE NO OIL IN SIGHT GLASS OF RT ENGINE. INSPECTION OF CHIP DETECTORS FOUND ALL 3 CHIP DETECTORS CONTAMINATED WITH METAL. ENGINE REMOVED. FOUND WEAR OF THE NR 2 BEARING THE ROOT CAUSE OF ANOMALY.

 2012FA0000190
 CESSNA
 TORQUE TUBE
 CRACKED

 2/9/2012
 560CESSNA
 55421029
 NLG DOOR

DURING A SCHEDULED LANDING GEAR INSPECTION, NOTICED LT BOLT SECURING NLG TORQUE TUBE SHEARED AND NUT AND COTTER PIN MISSING. ON REMOVAL OF ORIGINAL BROKEN BOLT, NOTICED THE BOLT WAS INCORRECT. THE MARKING ON THE BOLT WAS A STANDARD TOLERANCE BOLT (AN4-10D), REQUIRED IS A HIGH SHEAR, CLOSE TOLERANCE BOLT (NAS4204-10D). BOTH LT AND RT NLG TORQUE TUBE BOLTS WERE CHANGED AT THE SAME TIME SINCE AN INSPECTION REVEALED THAT THE OPPOSITE SIDE BOLT WAS AN AN4-10D ALSO. DURING REPLACEMENT, NOTICED CRACKS AT WELDED END PLATES OF NOSE GEAR DOOR TORQUE TUBE. TORQUE TUBE ASSY WAS REPLACED AT THE SAME TIME.

2012FA0000188 CESSNA INLET GUIDE VANE DISCONNECTED

2/1/2012 560CESSNA 60525009 APU

DURING A ROUTINE MX CHECK, FOUND THE INLET AIR GUIDE DISCONNECTED AND LOOSE IN THE UPPER TAILCONE AREA. THE APU AIR INLET GUIDE AND "FIRE PROTECTION" FLANGE WAS LOOSE AND PARTIALLY COVERING THE AIR INLET TO THE APU. OPERATION OF THE APU BEFORE THE INSPECTION, GAVE NO INDICATION THAT THE INLET WAS PARTIALLY BLOCKED. THESE 2 PIECES APPEARS TO BE MADE FROM STAINLESS STEEL, AND BEING LOOSE IN THIS AREA, COULD CAUSE CHAFING INTO THE TAILCONE STRUCTURE. THE ATTACHMENT OF THESE PARTS ARE A FRICTION FIT TOT THE AIR INLET ADAPTER (THE ADAPTER IS MECHANICALLY SECURED TO THE ACTUAL INLET ON THE APU). THESE PART ARE DIFFICULT TO INSTALL AND VISUALLY CONFIRM PROPER INSTALLATION DUE TO THE LIMITED ACCESS TO THIS AREA. THERE ARE FORMED "NUBS" ON THE AIR INLET GUIDE MATCH UP WITH CORRESPONDING SPOTS IN THE AIR INLET ADAPTER. AGAIN, DIFFICULT TO VERIFY PROPER INSTALLATION. COULD NOT FIND ANY INFORMATION ON THE PROPER INSTALLATION OF THE PARTS LISTED ABOVE IN THE MM.

CWQR20120306012 CESSNA TRANSFER TUBE CHAFED

3/6/2012 560CESSNA 65264807 ZONE 600

WHILE WORKING SL560-28-09, FOUND FUEL TRANSFER TUBE CHAFED BY CLAMP ASSY BEYOND ALLOWABLE LIMITS. FOUND A NR OF THESE TUBES CHAFED BECAUSE OF MISALIGNMENT. A NEW TUBE WAS INSTALLED IAW ACFT MM.

<u>CWQR20120306011</u> CESSNA TRANSFER TUBE CHAFED 3/6/2012 560CESSNA 652640011 ZONE 600

WHILE WORKING SL560-28-09, FOUND FUEL TRANSFER TUBE CHAFED BY CLAMP ASSY BEYOND ALLOWABLE LIMITS. FOUND A NR OF THESE TUBES CHAFED BECAUSE OF MISALIGNMENT. A NEW TUBE WAS INSTALLED IAW ACFT MM.

CWQR20120306013 CESSNA TRANSFER TUBE CHAFED

3/6/2012 560CESSNA 65264807 FUEL SYSTEM

FOUND FUEL TRANSFER TUBE CHAFED BY THE CLAMP ASSY BEYOND ALLOWABLE LIMITS. HAVE FOUND A NUMBER OF THESE TUBES CHAFED BECAUSE OF MISALINEMENT. A NEW TUBE WAS INSTALLED IAW ACFT MM.

CWQR2012040225 CESSNA SUPPORT CHANNEL CRACKED

4/2/2012 560XL 66120692 CARGO DOOR

DURING A SCHEDULED INSPECTION OF THE TAIL BAGGAGE DOOR HINGE, FOUND THE LOWER FORWARD HINGE SUPPORT CHANNELS CRACKED, SB560XL-52-13 HAD BEEN COMPLIED WITH AT THE FACTORY. BUT BOTH THE 66120692 AND THE 6612069-11 CHANNELS WERE CRACKED IN 2 PLACES. THE CRACKS EXTEND FROM THE END OF THE PART PAST THE FIRST LOCK FASTNER TOWARDS THE SECOND.

CWQR2012040224 CESSNA CONTROL CABLE FRAYED

4/2/2012 560XL 66600031 ELEVATOR TRIM

DURING A SCHEDULED INSPECTION THE ELEVATOR TRIM CABLE WAS FOUND TO BE FRAYED BEYOND LIMITS. THIS CABLE ASSY IS LOCATED WHERE THE CABLE TRANSITIONS FROM A VERTICAL RUN TO THE HORIZ AT A PULLEY LOCATED IN THE HORIZ STABILIZER. WE HAVE SEEN NUMEROUS THIS SAME CONDITION. THE FRAYED CABLE ASSY AND A SERVICE CONDITION REPORT HAS BEEN SENT UNDER NR 613899.

CWQR2012040326 CESSNA HUB CRACKED

4/3/2012 560XL 62112975 CABIN DOOR

DURING A SCHEDULED INSPECTION OF THE CABIN DOOR, FOUND THE FORWARD CABIN DOOR COUNTERBALANCE SPRING REEL HUB TO BE CRACKED WHERE THE ROLL PIN GOES THROUGH THE HUB. PICTURES AND A SERVICE CONDITION REPORT HAS BEEN SENT TO MFG UNDER SDR 614143.

CWQR20120330020 CESSNA CONTROL CABLE FRAYED

3/30/2012 560XL 66600031 ELEVATOR TRIM

DURING A SCHEDULED INSPECTION THE ELEVATOR TRIM CABLE WAS FOUND TO BE FRAYED BEYOND LIMITS. THIS CABLE ASSY IS LOCATED WHERE THE CABLE TRANSITIONS FROM A VERTICAL RUN TO THE HORIZ AT A PULLEY LOCATED IN THE HORIZ STABILIZER. HAVE SEEN NUMEROUS WITH THIS SAME CONDITION. A SERVICE CONDITION REPORT HAS BEEN SENT TO MFG UNDER NR 613657.

CWQR20120320016 CESSNA HINGE CRACKED

3/20/2012 560XL 67113311 PAX DOOR

DURING A SCHEDULED INSPECTION, FOUND AN AREA OF CORRISION ON THE FWD MAIN CABIN DOOR HINGE, THAT IS ATTACHED TO THE DOOR FRAME. FOUND THE CORRISION ON THE FWD EDGE OF THE HINGE, PREFORMED A DYE-PEN CHECK AND FOUND THE HINGE TO BE CRACKED. THIS IS THE THIRD HINGE FOUND CORRODED AND CRACKED.

CWQR20120330023 CESSNA CONTROL CABLE FRAYED

3/30/2012 560XL 66600031 ELEVATOR TRIM

DURING A SCHEDULED INSPECTION, THE ELEVATOR TRIM CABLE WAS FOUND TO BE FRAYED BEYOND LIMITS. THIS CABLE ASSY IS LOCATED WHERE THE CABLE TRANSITIONS FROM A VERTICAL RUN TO THE HORIZONTAL AT A PULLEY LOCATED IN THE HORIZONTAL STABILIZER.

CWQR20120330022 CESSNA CONTROL CABLE FRAYED

3/30/2012 560XL 66600031 ELEVATOR TRIM

DURING A SCHEDULED INSPECTION, THE ELEVATOR TRIM CABLE WAS FOUND TO BE FRAYED BEYOND LIMITS. THIS CABLE ASSY IS LOCATED WHERE THE CABLE TRANSITIONS FROM A VERTICAL RUN TO THE HORIZ AT A PULLEY LOCATED IN THE HORIZ STABILIZER.

CWQR20120323017 CESSNA HINGE BRACKET CRACKED

3/23/2012 560XL 663400359 ELEVATOR

DURING A SCHEDULED INSPECTION, FOUND A CRACK ON THE ELEVATOR RT INBD HINGE THAT ATTACHES TO THE STABILIZER. VERIFIED CRACK WITH NDT, R & R HINGE.

CWQR20120330021 CESSNA CONTROL CABLE FRAYED

3/30/2012 560XL 66600031 ELEVATOR TRIM

DURING A SCHEDULED INSPECTION, THE ELEVATOR TRIM CABLE WAS FOUND TO BE FRAYED BEYOND LIMITS. THIS CABLE ASSY IS LOCATED WHERE THE CABLE TRANSITIONS FROM A VERTICAL RUN TO THE HORIZONTAL AT A PULLEY LOCATED IN THE HORIZONTAL STABILIZER.

CWQR20120327019 CESSNA HINGE BRACKET CRACKED

3/27/2012 560XL 663400359 ELEVATOR

DURING A SCHEDULED INSPECTION, FOUND RT ELEVATOR INBD HINGE CRACKED, VERIFIED WITH NDT, R & R HINGE ASSY.

CWQR20120323018 CESSNA HINGE BRACKET CRACKED

3/23/2012 560XL 663400361 ELEVATOR

DURING A SCHEDULED INSPECTION, FOUND RT ELEVATOR OTBD HINGE CRACKED, VERIFIED WITH NDT, R & R HINGE.

DXTR20120322002 CESS

CESSNA DRIP TRAY DEBONDED

3/22/2012 560XL 6213021661310766 ZONE 100

DURING ACCOMPLISHMENT OF SB-53-13, 1 AREA OF BOND SEPARATION NOTED ON RT SIDE AT FS 90.20, FROM LOWER EDGE OF NOSE COMPARTMENT DOOR OPENING UP TO 14". C/W SB-53-13 R1-- FUSELAGE NOSE DRIP CAP REPAIR OF MARKED AREA IAW SB-53-13 R1.

 DXTR20120302001
 CESSNA
 HINGE FITTING
 CORRODED

 3/2/2012
 560XL
 67113311
 ZONE 100

CABIN DOOR AFT LOWER HINGE AIRFRAME SIDE, UPPER FORWARD CORNER CORRODED.

 DXTR20120322001
 CESSNA
 WEB
 CRACKED

 3/22/2012
 560XL
 6611268
 PAX DOOR

WEB HAS 3 CRACKS AT DOOR HANDLE ATTACH POINT. REMOVED DAMAGE AS REQUIRED AND INSTALLED NEW STIFFENER IAW SRM 51-40-03 AND 51-40-06 AND SB-52-14.

<u>EMWC2012F00070</u> CESSNA CONT CABLE DAMAGED
11/26/2011 A185F GTSIO520D C3600 ZONE 700

DURING CRUISE FLIGHT, AFT SKI CABLE ATTACH CLEVIS PIN CAME LOOSE. CLEVIS PIN AND DIAPER PIN HOLDING CLEVIS DEPARTED ACFT. AFT SKI CABLE CAME LOOSE AND SKI FLIPPED FORWARD AND STRUCK WING LIFT STRUT, DENTING THE STRUT. PILOT MADE A SAFE LANDING. LIFT STRUT, AND SKI CHECK CABLE WERE REPLACED. SKI WAS REPAIRED. UPON FURTHER INVESTIGATION IT WAS DETERMINED THAT A SECOND HOLE IN THE AFT SKI CABLE ATTACH FITTING ON THE ACFT NEEDED A SECOND HOLE. A SECOND HOLE WAS DRILLED AND REAMED. THIS SECOND HOLE ALLOWS FOR THE REAR SKI CABLE AND REAR CHECK CABLE TO BE ATTACHED AT SEPARATE PLACES ON THE FITTING RATHER THAN ONE POINT AT BEFORE. ALSO THE CABLES WERE REATTACHED WITH AN BOLTS AND LOW PROFILE NUTS TO PROVIDE A MORE POSITIVE CONNECTION THAN THE PREVIOUS HARDWARE. AIRCRAFT WAS RETURNED TO SERVICE.

 2012FA0000184
 CESSNA
 CONT
 HUB
 CRACKED

 2/10/2012
 A185F
 IO520*
 D5856
 PROPELLER

PROP ASSY WAS SUBMITTED FOR O/H AND OIL LEAK FROM CRACK. CRACK EXTENDS FROM BLADE NR 1 PORTAL THROUGH THE CYL MOUNTING SURFACE.

<u>YN8R2012041013834</u> CESSNA LYC HOSE LEAKING 4/10/2012 T182T TIO540AK1A AE3663161G0174 FUEL SYSTEM

ON COMPLIANCE WITH SB 599, FUEL PUMP REPLACEMENT, IT WAS DISCOVERED THAT THE ENGINE DRIVEN FUEL PUMP INLET HOSE HAD INDICATIONS OF OUTER FIRESLEEVE DETERIORATION AND BULGING INDICATIVE OF THE FUEL HOSE LEAKING FUEL FROM CRIMPED AREA OF FITTING/HOSE. REPLACED HOSE WITH NEW PART. DEFECTIVE HOSE MAY HAVE BEEN ASSEMBLED INCORRECTLY OR NOT BEEN PRESSURE CHECKED DURING MFG.

2012FA0000182 CESSNA LYC CESSNA BRUSHES DISINTEGRATED
4/5/2012 T206H TIO540AJ1A ALTERNATOR

ALTERNATOR FIELD CIRCUIT BREAKER TRIPPED INTERMITTENTLY OVER LAST 25 HRS WITH VARIOUS INSTANCES OF RADIO NOISE. ALTERNATOR REMAINED FUNCTIONAL. SUSPECT POSSIBLE BRUSH FAILURE AND ELECTED TO REPLACE THE ALTERNATOR DURING AN ANNUAL INSPECTION. ALTERNATOR WAS DISASSEMBLED. FOUND GROUND BRUSH .3750" LONG. THE FIELD BRUSH WAS COMPLETELY DISINTEGRATED WITH SPRING CONTACTING THE SLIP RING. THIS ALTERNATOR IS ONLY AVAILABLE FROM MFG. THERE ARE NO KNOWN THIRD PARTY O/H FACILITIES. ACFT MFG SERVICE DOCUMENTS PROVIDE NO SERVICE OR PARTS DATA. THERE ARE NO ACFT MFG INSPECTION CAN ONLY BE ACCOMPLISHED BY DISASSEMBLY OF THE CASE. SUGGEST RE-DESIGN TO

 T22R2012032858301
 CESSNA
 LYC
 LYC
 RETAINER
 BROKEN

 3/28/2012
 T206H
 TIO540AJ1A
 LW16475
 ENGINE CYLINDER

ENGINE STARTED TO RUN ROUGH WITH POWER LOSS ON TAKEOFF CLIMB. RETURNED TO AIRPORT AND LANDED SAFELY. UPPER VALVE SPRING RETAINER BROKE APART WHICH ALLOWED EXHAUST VALVE TO DROP INTO

CYLINDER COMBUSTION CHAMBER ON A NEW CYLINDER WITH 8.0 HOURS ON IT. EXHAUST VALVE HEAD WAS BROKEN INTO MULTIPLE PIECES WITH THE MAIN SECTION LODGED INTO PISTON HEAD. EXHAUST VALVE STEM WAS FOUND IN EXHAUST SIDE OF TURBO IMPELLERS. METAL FOUND IN OIL FILTER. CYLINDER COMBUSTION CHAMBER AND PISTON DAMAGED.

2012FA0000170	CESSNA	LYC	CARBURETOR	FAILED
3/25/2012	TR182	O540L3C5	105243	ENGINE

INSTALLED O/H HA-6 CARBURETOR, ON GROUND RUNS NOTED ENGINE EXTREMLY ROUGH AT POWER SETTING ABOVE 1400 RPM, STRONG ODOR OF FUEL AND BLACK SMOKE FROM EXHAUST. USE OF MIXTURE CONTROL AT 1400 RPM GAVE 200 RPM RISE AND CLEARED CONDITION. UNABLE TO REACH TAKEOFF RPM AT 41" MANIFOLD PRESSURE WITHOUT LEANING AT FIELD ELEVATION OF APPROX 700 FT UNLESS MIXTURE USED. IDLE AND IDLE MIXTURE WERE WITHIN LIMITS. UNIT RETURNED FOR INSPECTION AND REPAIR. CARBURETOR WAS INSTALLED DUE TO PREVIOUS UNITS MIXTURE UNABLE TO SHUTDOWN CLEAN. MIXTURE CONTROL WAS FOUND TO BE WORN AND LEAKING FROM BODY OF UNIT. NO OTHER ENGINE PERFORMANCE ISSUES NOTED PRIOR TO ITS REMOVAL.

2012FA0000157	CESSNA	CONT	BOLT	LOOSE
2/16/2012	TU206G	TSIO520M		RECTIFIER BRIDGE

DURING TROUBLESHOOTING FOR ALTERNATOR NOISE, INSPECTED ALTERNATOR AND FOUND BOLT LOOSE INSIDE ALTERNATOR CASE. REMOVED ALTERNATOR AND DISASSEMBLED, FOUND DIODE RECTIFIER BRIDGE BOLT HAD BACKED OUT AND HAD CONTACTED THE ROTOR, BENDING THE BOLT AND ELONGATING THE MOUNTING HOLE ON THE RECTIFIER BRIDGE.

2012FA0000177	CIRRUS	CONT	FUEL LINE	SPLIT
4/4/2012	SR20	IO360ES	649101	ENGINE

ON TAKEOFF ROLL, NOTICED AN EXCESSIVE FUEL FLOW INDICATION AND ABORTED TAKEOFF. ON INSPECTION OF THE DISCREPANCY THE MECHANIC WAS ABLE TO DUPLICATE THE HIGH FUEL FLOW READING. AFTER SHUTTING DOWN THE ENGINE AND REMOVING THE ENGINE COWL, A SPLIT IN THE NR 1 CYLINDER FUEL INJECTION LINE WAS NOTED AND WAS DUMPING RAW FUEL IN THE ENGINE COMPARTMENT CAUSING THE HIGH FUEL FLOW INDICATION.

2012FA0000196	CIRRUS	CONT	ATTACH BOLT	WORN
4/5/2012	SR22	IO550N	AN334	ENGINE INTAKE

FOUND ALTERNATE AIR FLAPPER BOLT THREADS STRIPPED FROM VIBRATION. FOUND AS A RESULT OF PREVIOUS INCIDENT.

IVLA2012FA0000194	CIRRUS	CONT	ATTACH BOLT	BACKED OUT
4/4/2012	SR22	IO550N	AN334	ENGINE AIR INTAK

BOLT AND ALTERNATE AIR FLAPPER HINGE FAILURE POSSIBLY DUE TO VIBRATION OVER TIME, WHICH CAUSED ONE OR MORE BUSHINGS TO ENTER THROUGH AN INTAKE VALVES. SYMPTOMS WERE SIMILAR TO A FOULED PLUG; THE PILOT REPORTED THAT HIS EGT ON CYLINDER NR 1 HAD INITIALLY DECREASED AND SUBSEQUENTLY DISCONTINUED THE TAKEOFF AS SOON AS POWER WAS APPLIED. ALSO STATED WAS ABLE TO "BURN IT OFF" AS THERE MAY HAVE BEEN SMALL METAL PIECES CLOGGING THE SPARK PLUGS THAT WERE DISPLACED. AFTER CONTINUED ROUGH OPERATION ON THE GROUND AFTER A HIGH POWER RUN-UP, GROUNDED ACFT IAW DISCREPANCY PROCEDURES. AFTER BORESCOPE INSPECTION, DAMAGE FOUND IN CYLINDERS.

2012FA0000169	CNDAIR	CARBON SEAL	DEFECTIVE
3/12/2012	CL6001A11		NR 2 IDG

AFTER PERFORMING SEVERAL PREFLIGHTS, IT WAS NOTED THAT THE NR 2 INTEGRATED DRIVE GENERATOR HAD AN INCREASE IN THE FREQUENCY AND QUANITY OF OIL SERVICING. AFTER INVESTAGATING THE CAUSE, IT WAS DETERMINED THAT THE DRIVE END CARBON SEAL WAS LEAKING, ALLOWING PRESSURIZED OIL TO TRANSFER INTO THE NR 2 ENG SYS. A NEW CARBON SEAL WAS INSTALLED IAW THE CMM AND THE ACFT RETURNED TO SERVICE. AFTER THE NEXT FLIGHT, THE NR 2 IDG OIL LEVEL WAS NOTED TO BE LOW AGAIN. THE IDG WAS THEN REPLACED WITH AN O/H RENTAL UNIT. PERFORMED ENGINE GROUND RUN FOR LEAK AND OP'S

CHECK WITH NO DEFECTS NOTED. THE ACFT WAS RETURNED TO SERVICE. UE5R201203280001 **DHAV** PLANETARY GEAR MISALIGNED 3/26/2012 DHC6 E310145502 REDUCTION GEAR IN THE PROCESS OF REPLACING 1ST STAGE SUNGEAR AND PLANET GEAR SET. A DEFECT IN THE BEARING INSTALLED IN ALL 3 PLANET GEARS WAS FOUND. THE BRONZE SLEEVE PORTION OF THE BEARINGS HAD ROTATED CAUSING MISALIGNMENT OF BEARING SCALLOPS. THE BRONZE SLEEVE SHOULD NOT MOVE DURING A TYPICAL SERVICE LIFE OF A 1ST STAGE PLANET GEAR. SUNGEAR AND PLANET GEAR SET WERE BEING REPLACED TO COMPLY WITH AD2011-25-15. REF SB-804, REV B. THIS IS THE 5TH INSTANCE OF BRONZE SLEEVE ROTATION WE HAVE SEEN FOR THIS PART. V0XR201203220001 **DHAV** RIB CRACKED 3/22/2012 DHC8102 85520268105 LT ELEVATOR CRACKED RIB AT YH 6.00 ON LT ELEVATOR. R & R CRACKED RIB AT YH 6.00 ON LT ELEVATOR IAW DWG 85520268. V0XR2012031500001 DHAV STRINGER CORRODED DHC8103 3/15/2012 85530192190 S9 CORROSION OUT OF LIMITS ON STR 9S BELOW APU EXHAUST HOLE ON STR UNDER HOLE. REPAIRED STRINGER WITH SPLICE REPAIR IAW DASH 8/100 SRM 53-10-21. V0XR201203090001 DHAV SKIN **DENTED** 3/9/2012 DHC8103 85320251 **ZONE 100** SKIN DENT APPROX X302.0 LT SIDE ABOVE STRINGER 23P. REPAIRED DAMAGED AREA IAW RD 8-53-10295. V0XR201203090002 DHAV MOUNT DAMAGED 3/9/2012 DHC8103 85530231 **ZONE 300** RIVETS PULLED THROUGH ON ELEVATOR HORN HEAT MX SWITCH BRACKET IN AFT ACCESS DOOR. REPAIRED CONDENSOR MIXER MOUNTING STRUCTURE AND ELEVATOR HORN HEAT MX SWITCH BRACKET IAW RD 8-55-2394, PERMANENT REPAIR INSTRUCTION FOR DAMAGED HOLES IN CONDENSOR MIXER MOUNTING STRUCTURE ASSY. **DHAV** V0XR201203090003 TRIM TAB DAMAGED 3/9/2012 DHC8103 85520213 RT ELEVATOR RIGHT ELEVATOR TRIM TAB T/E DAMAGED. REMOVED ELEVATOR TRIM TAB FOR REPAIR, REPAIRED TRIM TAB IAW RD 8-55-061, SPLICE REPAIR TO ELEVATOR TRIM TAB SKIN, REINSTALLED ELEVATOR IAW AMM 27-36-21, BALANCED TRIM TAB IAW SRM 55-20-61. V0XR201203090004 **DHAV** FRAME CORRODED 3/9/2012 DHC8103 85410318 NACELLE ACCOMPLISHED RD 8-54-1178. GENERIC REPAIR FOR LIGHT CORROSION AND FRETTING DAMAGE ON AFT FACE OF MLG FRAME TO BOTH LEFT AND RIGHT MLG. ACCOMPLISHED MLG RETRACTION AND EXTENSION OPS CHECK IAW AMM 32-30-00. V0XR201203090005 DHAV SKIN DAMAGED 3/9/2012 DHC8103 854106278 LT NACELLE

V0XR201203090006DHAVDOORDAMAGED3/9/2012DHC810385420006001LT MLGLEFT MLG GEAR DOOR DAMAGED. REPAIRED LEFT FWD MLG DOOR COMPOSITE DAMAGE IAW RD 8-54-554,
REPAIR TO EDGE DAMAGE ON FWD MLG DOOR ASSY.

LEFT NACELLE FWD/OTBD CORNER CUT OUT FOR MLG DOOR DAMAGED. REPAIRED DAMAGE ON FWD/OTBD CORNER MLG DOOR CUT OUT ON LT NACELLE IAW RD 8-54-874. PERMANENT REPAIR FOR CRACK DAMAGE AT

FWD UPPER CORNERS OF MLG DOOR OPENING.

<u>GR4D20120321020</u> GULSTM FLAP TRACK CORRODED 3/19/2012 GIV 1159WM200524 ZONE 600

FLAP TRACK CORRODED, ULTRA SONIC NDT INSPECTION COMPLIED WITH. AFTER ENGINEERING EVALUATION, REMAINING THICKNESS WAS UNACCEPTABLE. REF B/P SE05811901, REV D. REF CMP GIV MESSAGE 3575111 FOR INSPECTION.

<u>LD2R20120403001</u> GULSTM RROYCE ADAPTER BACKED OUT
4/3/2012 GV BR700710A110 39500221 FUEL PUMP

WHILE PERFORMING A SERVICE BULLITIN TO REPLACE THE FUEL PUMP SPLINE ADAPTER, WE FOUND THE ENGINE DRIVEN FUEL PUMP DRIVE SHAFT TO BE MIGRATING OUT OF THE FUEL PUMP AND INTO THE ACCESSORY GEAR CASE. UPON INSPECTION OF THE GEAR CASE WE FOUND A RETAINING PLUG IN THE GEAR CASE SPLINE TO BE PUSHING INTO THE GEAR CASE ALLOWING THE FUEL PUMP DRIVE SHAFT TO MIGRATE OUT OF THE FUEL PUMP.

 2012FA0000173
 LEAR
 WINDSHIELD
 CRACKED

 4/3/2012
 45LEAR
 4556100001V16001
 ZONE 200

OUTER PLY OF WINDSHIELD (PILOT SIDE) CRACKED IN FLIGHT DURING TAKEOFF.

2012FA0000199 MOONEY LYC AUTOPILOT SYS MALFUNCTIONED

4/11/2012 M20C O360* STEC50

DISCONNECTED AUTOPILOT AND HAND FLEW ACFT FOR SEVERAL MINUTES. SHORTLY AFTER INITIATING DESCENT TO LAND, AILERONS BEGAN TO "SEIZE." ELEVATOR STILL HAD FULL MOVEMENT, THEN IT ALSO BEGAN TO SEIZE. IT TOOK ABOUT FIVE TO TEN SECONDS TO LOSE AILERON AUTHORITY, THEN ELEVATOR AUTHORITY. STILL HAD FULL RUDDER AUTHORITY. HAD TO MAKE EMERGENCY LANDING WITH ONLY A FEW DEGREES OF OPERABLE AILERON AND ELEVATOR. CONTROLLED AIRPLANE WITH RUDDER AND THROTTLE. LANDED WITHOUT DAMAGE OR INJURY. DISCOVERED ON THE GROUND THAT A/P HAD RE-ENGAGED AND THAT SERVO CLUTCHES HAD "FROZEN." DID NOT ATTEMPT TO DISCONNECT A/P IN FLIGHT BECAUSE DIDN'T KNOW IT WAS ON.

<u>2012FA0000189</u> MOONEY LYC FUEL TANK LEAKING 2/15/2012 M20J IO360A1B6 240319

THIS ACFT HAS BEEN REPEATEDLY REPAIRED TO CORRECT FUEL LEAKS. EVERY DRAIN HOLE HAS BEEN COVERED UP ALLOWING WATER AND FUEL TO BE TRAPPED IN THE OTBD BAYS. ALSO THE DRAIN VALVE RECEPTACLE DRAIN HOLES WERE COVERED WITH SEALANT CAUSING WATER TO COLLECT UP TO .5" BEFORE IT COULD BE REMOVED OVER THE TOP OF THE RECEPTACLE, INSTEAD OF THE BOTTOM. THIS ACFT EXPERIENCED A ROUGH RUNNING ENGINE ON TAKEOFF. MOST LIKELY WATER INGESTION. UPON OPENING THE TANKS, A LARGE AMOUNT OF WATER WAS FOUND STILL IN THE TANKS, A LARGE AMOUNT OF WATER WAS FOUND STILL IN THE TANKS EVEN AFTER COMPLETE DRAINING. A LARGE AMOUNT OF FUEL WAS STILL TRAPPED IN THE MIDDLE FUEL BAY. HAVE SEEN THIS HAPPEN VERY OFTEN.

<u>5APR20120307110</u> PILATS PWA EFIS FAULTY 3/7/2012 PC1245 PT6A67B 066031252500 ZONE 200

PILOT REPORTS LEFT EHSI INTERMITTENT, HAS A BLURRY SCREEN. THE LEFT EHSI, WAS FOUND TO BE FAULTY. R & R WITH A SERVICEABLE UNIT IAW AMM 12-A-34-26-02-00A-920A-A AND TESTED GOOD IAW 2-A-34-26-00-00A-903A-A.

5APR20120327113PILATSPWAATTACH FITTINGOUT OF ALIGNMENT3/27/2012PC1247PT6A675551012150HORIZONTAL STAB

THE HORIZONTAL STABILIZER ATTACHMENT FITTING, WHERE THE PITCH TRIM ACTUATOR IS SECURED TO THE STABILIZER. EACH SIDE OF THE ATTACHMENT FITTING HAS 2 LUGS. ON THE LT SIDE, THESE 2 LUGS ARE SEPARATING. THE GAP WAS MEASURED WITH A FEELER GUAGE, AND FOUND TO BE .018". THERE IS NO EVIDENCE OF DAMAGE TO THE STABILIZER. THE BRACKET PN IS 555.10.12.150, ANGLE FITTING LT. THE ACFT WAS REPAIRED USING TEMPORARY REV 55-01 OF THE PC-12/47E SRM 12-B-55-00-00-00A-904A-A.

5APR20120325112	PILATS	PWA	DISPLAY	FAULTY
3/25/2012	PC1247	PT6A67B	066031252500	ZONE 200

PILOT REPORTS"EADI ON LT SIDE ZOOMS IN AND OUT GOING BLACK ON OCCASION." THE LT EADI PN 066-03125-2500 WAS FOUND TO BE FAULTY. IT WAS R & R WITH A SERVICEABLE UNIT OF THE SAME PN, IAW THE AMM 12-A-34-26-03-00A-920A-A AND TESTED GOOD IAW 12-A-34-26-00-00A-903B-A.

5APR20120224109	PILATS	PWA	DISPLAY	FAULTY
2/24/2012	PC1247	PT6A67B	066031252500	EADI

DURING ROUTINE MX THE PILOTS EADI WAS FOUND TO BE FUZZY. THE EADI DISPLAY PN 066-03125-2500 WAS R & R WITH A SERVICEABLE UNIT OF THE SAME PN IAW MM 12-A-34-26-03-00A-920A-A, AND OPS CHECKED GOOD IAW 12-A-34-26-00-00A-903A-A.

5APR20120310111	PILATS	PWA	EFIS	FAULTY
3/10/2012	PC1247	PT6A67B	066031252500	LEFT

PILOT REPORTS "LT EHSI DISPLAY UNIT IS FUZZY/HARD TO READ." THE LT EHSI PN 066-03125-2500 WAS FOUND TO BE FAULTY. IT WAS R & R WITH A SERVICEABLE UNIT OF THE SAME PN, IAW THE AMM DMC-12-A-34-26-02-00A-920A-A AND TESTED GOOD IAW DMC-12-A-34-26-00-00A-903A-A.

C41R201204050001	PILATS	PWA	BRAKE DISC	FAILED
4/5/2012	PC1247	PT6A67B	260926	MLG

ACFT WAS UNDERGOING A 100 HR INSPECTION. REMOVED LT & RT MLG WHEEL ASSEMBLIES TO COMPLETE NDT AND UPON WHEEL REMOVAL ONE OF THE WHEEL BRAKE DISC ASSEMBLIES FELL ONTO FLOOR IN 2 SEPARATE PIECES. THE LT AND RT BRAKE ASSEMBLIES BOTH SHOWED SEPARATED BRAKE DISCS. THE BRAKE DISC ASSEMBLIES WERE NOT THE ORIGINAL BRAKE ASSEMBLIES. THE AFFECTED BRAKE ASSEMBLIES WERE INSTALLED AT AN EARLY DATE AND TAGGED AS REMOVED FROM ANOTHER ACFT. THE OPERATOR DID NOT NOTICE ANY ABNORMAL SOUNDS OR CONDITIONS DURING ACFT OPERATIONS. THE TECH DID NOT NOTICE ANY ABNORMAL SOUNDS OR CONDITIONS DURING RUN UP OPS AND THE WEAR GUIDE PINS SHOWED NORMAL. SYS FUNCTIONED PROPERLY.

2012FA0000166	PIPER	STRUT	SEPARATED
3/22/2012	J5A		MLG

LEFT MLG COLLAPSED DURING LANDING. SUBSEQUENT EXAMINATION REVEALED THAT BOTH OF THE UPPER LANDING GEAR STRUTS HAD SEPARATED AT THE AXLE KNUCKLE, JUST ABOVE THE AXLE JOINT. BLACK DUST AND RESIDUE WAS PRESENT AROUND THE FRACTURE SURFACE OF THE AFT STRUT, INDICATIVE OF A PRE-EXISTING FAILURE. THE AREA OF FAILURE WAS OBSCURED BY FABRIC COVERING MATERIAL, AND THEREFORE COULD NOT BE DETECTED DURING PREFLIGHT. SEE NTSB REPORT WPR11LA370.

FQAR201203050001	PIPER	LYC	ELBOW	LEAKING
3/5/2012	PA28181	O360A4M	68778000	ENGINE OIL SYS

UPON INSTALLATION OF A NEW OIL PRESSURE HOSE ELBOW A DEFECT WAS FOUND IN THE PART. THIS IS AN ORIFICED FITTING, IT APPEARS THAT WHEN THE ORIFICE HOLE WAS MACHINED IT WAS DRILLED TO FAR AND THE HOLE CONTINUES OUT THE SIDE OF THE FITTING. THIS WOULD HAVE CAUSED OIL LOSS ONTO THE ENGINE WHEN STARTED.

2012FA0000171	PIPER	BRACKET	CRACKED
3/28/2012	PA28R200	67550000	All FRON PULLEY

DURING AN ANNUAL INSPECTION, IT WAS NOTED THAT BOTH LT AND RT LOWER SUPPORT AILERON PULLEY BRACKETS WERE CRACKED AT THE FWD INBD RADIUS MOUNT AT EACH WING RIB. A PIECE OF 1 OF THE BRACKETS WAS DETACHED.

2012FA0000159	PIPER	LINK	WORN
3/18/2012	PA31350	56981002	ELEVATOR

DURING REPLACEMENT OF THE ELEVATOR BUNGEE SPRING, PN 71056-003, THE FORWARD ATTACHMENT LINK,

WAS FOUND APPROX 30 PERCENT OF THE MATERIAL. THIS PART IS NOT REQUIRED TO BE REPLACED IAW AD 98-08-18 OR SB626C. THIS PARTICULAR PART WAS HOWEVER REPLACED DURING THE LAST BUNGEE SPRING REPLACEMENT 1000 HOURS PREVIOUS. THIS IS ALSO THE SECOND LINK WE HAVE DISCOVERED IN THIS CONDITION. RECOMMEND THAT THIS PART BE INSPECTED OR REPLACED DURING EACH REPLACEMENT OF THE BUNGEE SPRING.

2012FA0000163 PIPER CONTROL CABLE FAILED

3/21/2012 PA32R300 6270140 STABILIZER

DURING APPROACH AND ON LANDING, PILOT NOTICED NO RESPONCES TO STABILIZER CONTROL. DURING INSPECTION, FOUND THE LOWER CONTROL CABLE HAD SHEARED OR BROKE AT THE TURNBUCKLE. CAUSE OF FAILURE IS DUE TO INTERNAL CORROSION INSIDE THE SHEATHING.

ECPR20120310466 PIPER LYC THROTTLE CABLE STUCK

3/10/2012 PA44180 O360A1H6 554546 LEFT

AFTER PRACTICING INSTRUMENT APPROACH AND GO AROUND, THE LT ENGINE THROTTLE LEVER STUCK AT 25" MAINFOLD PRESSURE AND 2500 RPM. AFTER DEPARTURE FROM AIRPORT CONTROL AREA, INSTRUCTOR PILOT WAS ABLE TO REDUCE LT THROTTLE DOWN TO 16-18" MANIFOLD PRESSURE AT 2500 RPM. AFTER DISCUSSION WITH FLIGHT DEPARTMENT PERSONELL IT WAS DESCIDED THE BEST COURSE OF ACTION WAS TO SHUTDOWN THE LT ENGINE AND PERFORM A SINGLE ENGINE APPROACH AND LANDING. AN EMERGENCY DECLARED AND LANDED UNEVENTFULLY. SINCE PREVIOUS INSTANCES OF PROBLEMS WITH ENGINE CONTROL CABLES IN THIS PARTICULAR MAKE AND MODEL AIRCRAFT, THE LT ENGINE THROTTLE CABLE WAS REPLACED AS PART OF A SCHEDULED PROGRESSIVE INSPECTION.

<u>E81R2012032900001</u> RAYTHN WEB CRACKED

3/29/2012 HAWKER800XP 25FN486771 FUSELAGE

DURING SCHEDULED AIRFRAME "F" 24-MONTH AND "G" 48-MONTH INSPECTIONS, NOTED CRACK IN WEB OF FORWARD AND AFT RUNNING UNDER FLOORBEAM UNDER COPILOT'S SEAT AREA.

2012FA0000183 RAYTHN MEGGITT TIE BOLT MISSING

2/15/2012 HAWKER800XP EWB22516 NR 3 MAIN WHEEL

DURING A SCHEDULED INSPECTION, FOUND ONE TIE BOLT NUT AND BOLT MISSING AS WELL AS SEVERAL OTHER LOOSE ON THE MLG WHEEL.

2012FA0000187 RAYTHN HYDRAULIC LINE LEAKING

1/10/2012 HAWKER800XP HS783500115 RT PYLON

THRUST REVERSER DEPLOY LINE FLARE CRACKED RT SIDE DURING NORMAL OPERATION. THIS CAUSED HYD LEAK. POSSIBLE CAUSE DUE TO REPEATED REMOVAL AND INSTALLATION AND/OR OVER TORQUING DURING INSTALLATION.

KI2R20120323001 RAYTHN ROD END FAILED

3/21/2012 HAWKER800XP CN635MESP56 ELEVATOR TAB

DURING A MX PRE-FLIGHT INSPECTION, NOTICED RUST STAINING COMING FROM AFT ROD ENDS OF ELEVATOR TRIM TAB ROD ON BOTH LT & RT ELEVATOR TRIM TABS. FURTHER INSPECTION REVEALED THE GREASE SEAL ON ONE ROD END, HAD COME OFF & BALL BEARINGS WERE MOSTLY MISSING. OTHER ROD END STILL INTACT, RUST STAINING WAS ALSO OBSERVED COMING THROUGH GREASE SEALS. DURING REPLACEMENT OF ROD ENDS, NOTICED DE-ICING FLUID HAD PENETRATED INTO HOLLOW INNER PORTION OF TRIM TAB CONTROL ROD, NO EVIDENCE OF CORROSION EXISTED.

<u>LC1R20120306005</u> SOCATA LYC LYC PLUG LOOSE

3/6/2012 TB20TRINIDAD IO540C4D5 71640 CRANKSHAFT

DURING RUN UP OF A NEWLY FACTORY REBUILT ENGINE, THE PROPELLER DID NOT CYCLE. IT WAS DISCOVERED THAT THE PLUG, BEHIND THE OIL SUPPLY TUBE HAD COME LOOSE AND WAS ALLOWING PRESSURIZED OIL FROM THE GOVERNOR TO FLOW BACK THROUGH THE CRANKSHAFT AND NOT ACTUATE THE PROP.

2012FA0000191 UROCOP TMECA CONTROL PANEL UNSERVICEABLE

3/24/2012 EC130B4 ARRIEL2B1 704A46580119 COCKPIT

ON OTBD FLIGHT 30 ALPHA PANEL PRODUCED AN ELECTRICAL CHEMICAL SMELL, PERFORMED INSP ON PANEL, SN PO29433 AND FOUND ANTI-COLLISION CIRCUIT INOPERTIVE. REPLACED 30 ALPHA PANEL WITH SN PO15420.

QMLD2012022310212 UROCOP ROTOR DAMAGED

2/23/2012 EC135P2 L642A0101052 TAIL

A TAIL ROTOR IS IN THE SHOP FOR A 36 MONTH INSPECTION. ON BEGINNING THE INSPECTION, HAVE WHAT SEEMS TO BE A LIGHTNING STRIKE. AFFECTED ARE THE SPLINED FLANGE, PN L642A2019201, LAMINATED TORSION BAR, PN 350A33318000, AND 1 OF THE SLIDING RING BUSHINGS, PN L642A2035201. THE HUB BODY PN L642A2003102, HAS AN ANOMALY THAT IS NOT CONSISTENT WITH WHAT HAS NORMALLY BEEN FOUND DURING INSPECTIONS.

2012FA0000151 ZINAIR WHEEL BROKEN

3/6/2012 CH2000 20L41 MLG

DURING LANDING, THE PILOT TOUCHED DOWN ON THE MAIN GEAR AND THE THE PILOT LOWERED THE NOSE TO THE GROUND, UPON GROUND CONTACT, THE NOSE WHEEL SEPARATION FROM NOSE WHEEL STRUT. THE NOSE WHEEL MOUNTING BRACKET SUPPORT BROKE AWAY FROM THE VERTICAL STRUT TUBE. THE PILOT COMPLETED LANDING ON THE NOSE WHEEL STRUT TUBE. AFTER INSP, NO DAMAGE WAS FOUND ON ANY PART THE NOSE GEAR ASSY EXCEPT FOR THE THE WELD THAT ATTACHES THE WHEEL MOUNTING PLATE TO THE VERTICAL TUBE. AN EXISTING CRACK WAS ALSO DETECTED ON THE REAR WARD SIDE OF THE SAME WELD. NO SECONDARY DAMAGE TO THE ACFT OR INJURY TO THE PILOTS OCCURRED.