



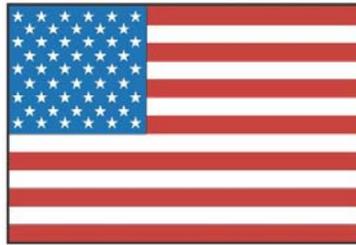
U.S. Department
of Transportation
**Federal Aviation
Administration**

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



**ALERT
NUMBER
333**



**APRIL
2006**

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

AVIATION MAINTENANCE ALERTS

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

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

AIRPLANES

BEECH

Beech: F33A; Cracked Vertical Stabilizer Fitting; ATA 5530

(The following combines two identical discrepancies found on separate F33A aircraft.)

The submitter describes finding a crack in the vertical stabilizer's forward fitting during unscheduled maintenance. While inspecting the fittings, in preparation for reassembly, a crack was noticed emanating from the R/H lower mounting hole. The vertical stabilizer part number provided is 33-640000-615; its cracked fitting; 33640000-39.

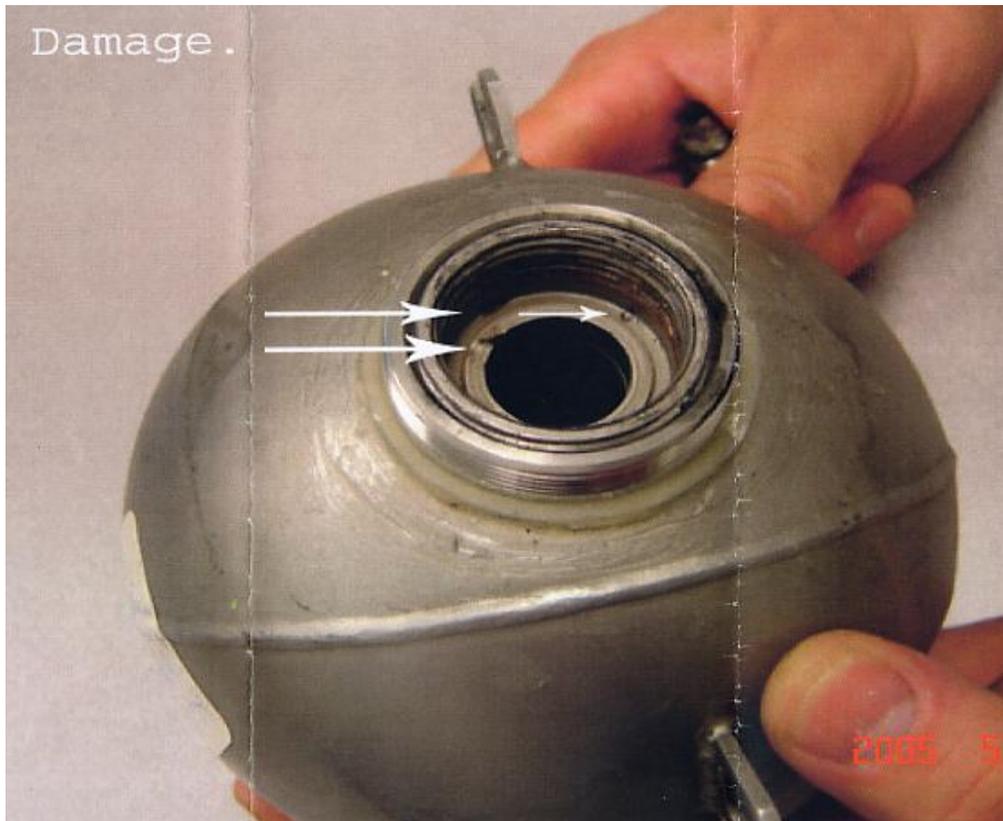
Part Total Time: 17,445.0 and 18,044.0 hours *(respectively)*.

BOEING

Boeing: 727; APU: High Fire Extinguisher Cartridge Heat; ATA 2621

This repair station technician writes, "Pacific Scientific received a Walter Kidde 829700-5 APU fire extinguisher for overhaul after *(its)* firing. During the disassembly it was discovered the pyrotechnic cartridge melted the stainless steel bottle's seat, rendering the pressure vessel *(as)* scrap. This type of damage is consistent with previously reported damage caused by this manufacturer's cartridges.

"Pacific Scientific is very concerned since at least two other unrelated repair stations have reported similar problems with the pyrotechnic cartridges from this manufacturer." The listed cartridge P/N is M805300-44; the fire extinguisher P/N is 829700-5. *(One of four submitted photos is shown below, slightly cropped and compressed.)*



Part Total Time: (unknown).

CESSNA

Cessna: 172S; Worn Aileron Cables; ATA 2710

A mechanic found a “flat spot” on the L/H aileron crossover cable at the abrasion strip attached to the rib at wing station 71.19. Further observation found this cable beginning to fray. “The cause is the cable wearing on the abrasion strip. To solve this problem I think the abrasion strip should be lowered, or a pulley installed.” (*The stainless steel cable P/N listed: 0510105-364. The abrasion strip P/N is 0523233-3. This defect was found during a 100-hour inspection. This submitter found similar cable discrepancies in two other aircraft—reported in last month’s Alerts. Search of the SDRS data base returns 25 cable related defects on 172 aircraft.*)

Part Total Time: 2,345.0 hours.

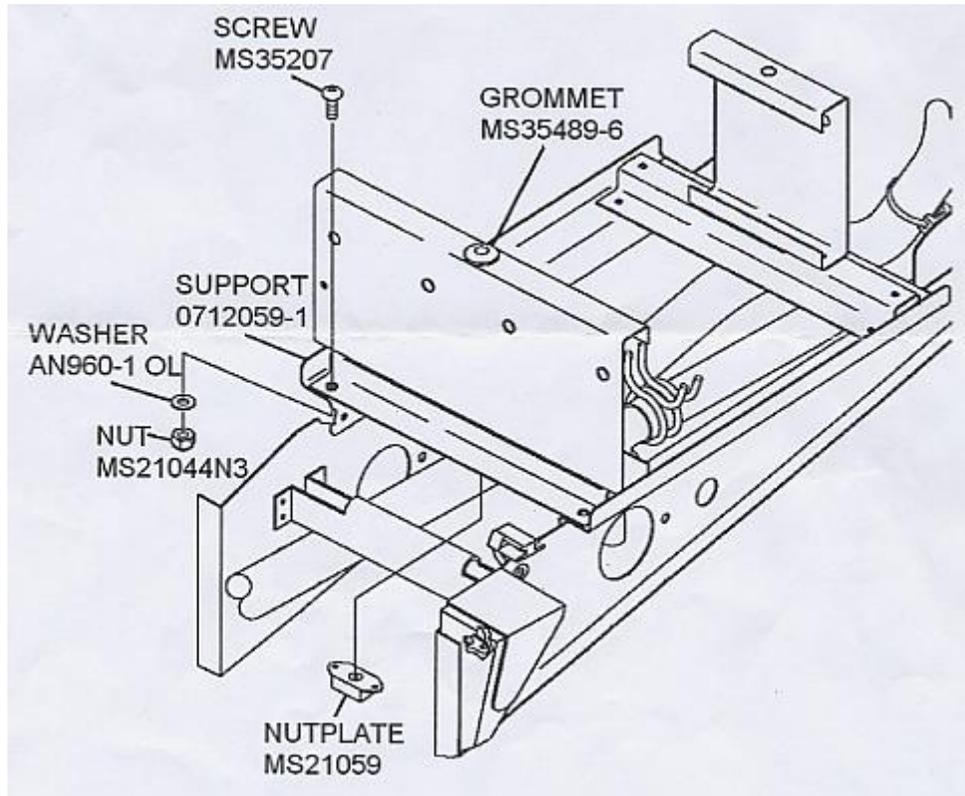
Cessna: 182/T182 (*see list*); Battery Box Tie-Down Failure; ATA 2571

(The following is published as received from the Wichita Aircraft Certification Office. The effected models include 1977-1985, 1996, 1997; or, S/N’s 18266524 through 18268541, 1820001 through 18281317, and T18208001 through T18208231. Contact information can be found at the end of this discussion.)

“The FAA has received Service Difficulty Reports (SDR) from the Civil Aeronautics Safety Administration (CASA) Australia regarding failure of the support (P/N 0712059-1) for the installation of 24 volt batteries in Cessna 182 airplanes. In one report, both supports failed at 295 hours flight time since they were new. Beginning in 1989, seven similar reports were found in the FAA SDR database. The tie-downs were changed on the Cessna 182S, 182T, and T182T series airplanes to eliminate this problem.

“A long tie-down bolt runs through the grommet and down to the nutplate in the lower hat section shown in the figure. As the tie-down bolt is tightened, the load force pushes down on the grommet and support (P/N 0712059-1). The reactive forces, pushing upward at the screws to the battery box on each side, will tear the support (P/N 0712059-1).

“The tie-down bolts (not shown in the figure) hold the cover on the battery box. The bolts are to be snugly tightened. The self-locking mechanism used in the battery box does not require a lot of torque. If the bolts are tightened similar to other parts of the airplane as described in the maintenance manual or the FAA AC43.13-1B, change 1 section 3, then the support angles under the battery box will fail by tearing. If this happens, then these parts must be replaced.”



(Further inquiry may be directed to Mr. Gary Park, aerospace engineer; Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, KS 67209. Phone 316-946-4107.)

Cessna: 182J; Cracked Aft Fuselage Bulkhead; ATA 5312

A mechanic describes finding cracks in both sides of this original bulkhead in the upper corners of the rudder cable cutouts -- between the cutouts and the flange. “Dye penetrant inspection of the front of the flange revealed no defects. Inspection of this bulkhead was previously accomplished at 3,607.0 hours—not required for inspection under AD 72-07-09 until 4,607.0 hours. (I) recommend shorter inspection intervals.” (This cracked...) bulkhead (P/N 712616-1) was replaced. (Search of the SDRS data base returns 50 bulkhead related defects on the 182 series aircraft.)

Part Total Time: 4,470.3 hours.

Cessna: T337G; Failed Turbocharger/Exhaust Pipe Clamp; ATA 8120

“The exhaust pipe to the turbocharger clamp for the front engine cracked at the spot weld and separated on take-off,” says this mechanic. “When this happened the exhaust pipe departed the aircraft and the exhaust scorched the engine cowling and firewall.” (*The noted engines under the hoods are Continental IO-360’s. The part number listed for the turbocharger exhaust clamp is S1921-1.*)

Part Total Time: (unknown).

KITFOX**Kitfox: IV; Locked Brakes; 3243**

(*An FAA safety inspector submitted the following discrepancy report originating from an aircraft incident.*)

The aircraft is described as having come to a full stop landing when the (*pilot/copilot*) Matco brakes locked up (*or failed to release...*), allowing the aircraft to nose over, with resulting damage to the propeller and lower engine cowling. “Skystar, the Kitfox kit distributor, has issued service letter number 23 regarding similar (*defects*)—if not the same problem. Solution: restrict brake use to either the pilot or co-pilot only, or remove the co-pilot portion of the system.” (*Part numbers were not provided, but the indicated defect is associated with the shuttle valve embodied within the brake master cylinder assemblies: MC-1 and MC-3. Skystar, regrettably, is no longer in business. Matco is still going strong: <http://www.matcomfg.com/>.*)

Part Total Time: (unknown).

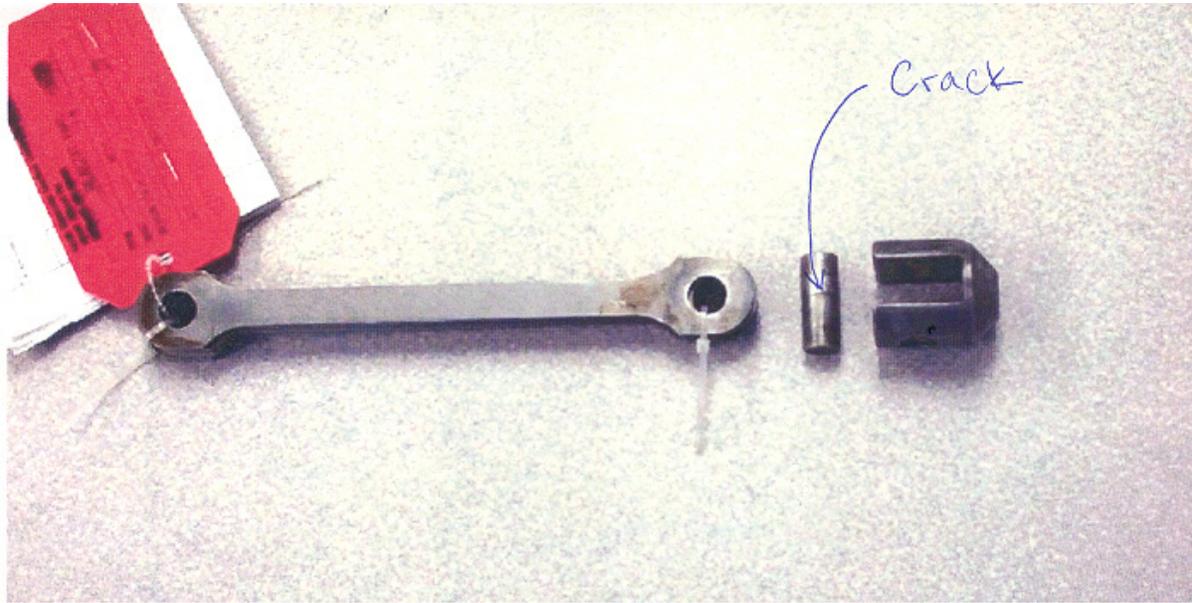
RAYTHEON**Raytheon (Beech): A-36; Cracked bulkhead; ATA 5312**

This mechanic describes finding a 3/8-inch crack in the fuselage bulkhead (P/N 002-440024-65) in the upper L/H area of its bend radius. The bulkhead’s location at station 272.0 ties the horizontal and vertical stabilizers together. Metal fatigue from high-airframe time is given as the probable cause of this defect.

Part Total Time: 19,200.0 hours.

HELICOPTERS**AGUSTA****Agusta: A109C; Cracked Tail Rotor Retention Strap Pin; ATA 6420**

A helicopter technician describes disassembling the tail rotor hub assembly as part of a scheduled 600-hour inspection requirement. The internal retention strap assembly was close to its service life of 5,000 hours, but this inspection point revealed a crack in the strap’s connecting pin. “(*I*) replaced the cracked strap pin and attaching parts: strap plug P/N 109-8131-06-1 with 4,070.0 hours, and the retention strap P/N 109-8131-07-1 with 1,735.0 hours.” The other assembly was also replaced as it too was close to its service life end. (*The provided tail rotor hub assembly P/N is 109-0131-02-125.*)



A109C IPC

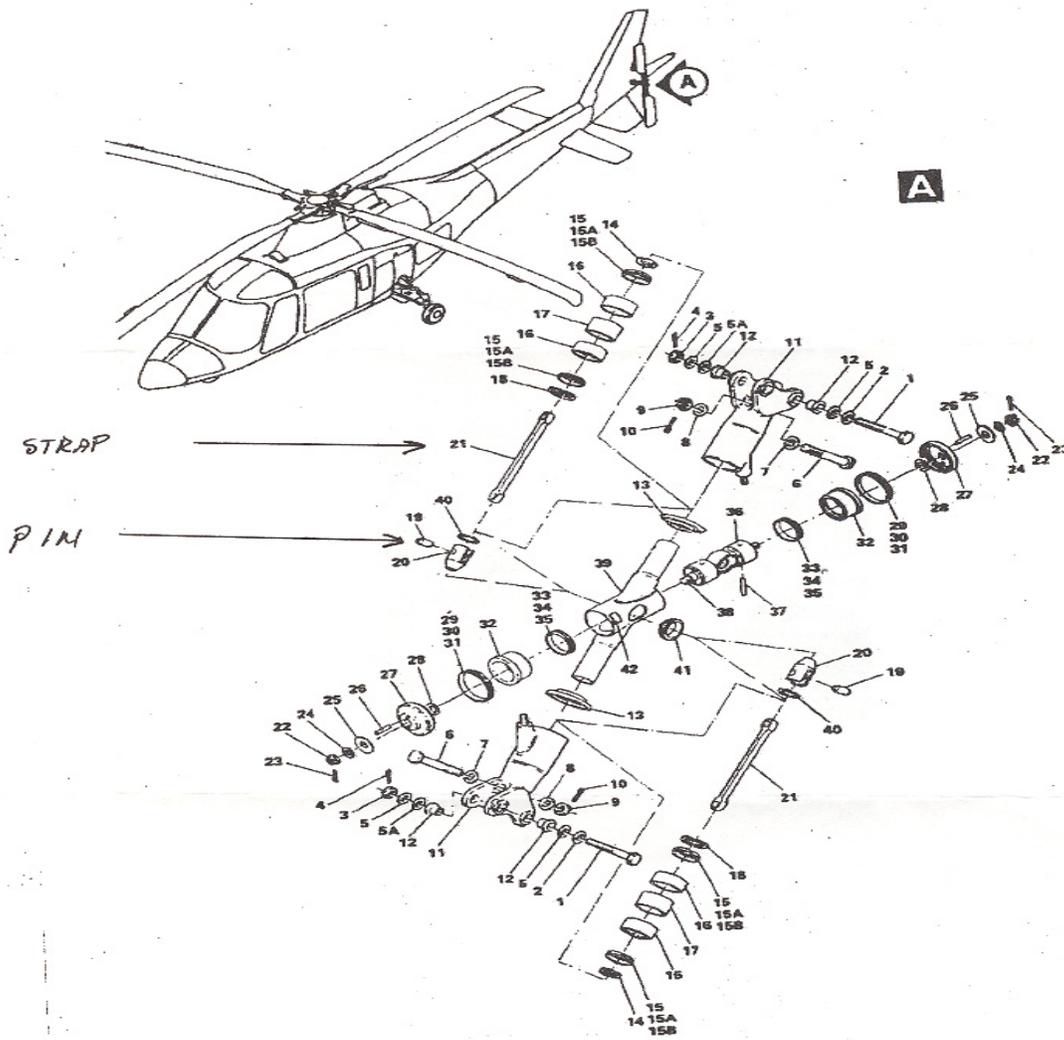


Fig. 1. HUB ASSY, TAIL ROTOR

Part Total Time: 4,070.0 hours.

Agusta: A109K2; Tail Rotor Trunnion Heat Damage; ATA 6420

(The following description combines two discrepancies of the same problem and on the same aircraft—but at different times.)

A 25-hour inspection of this helicopter's tail rotor trunnion (P/N 109-0131-05-115) evidenced signs of overheating: the part's enamel paint was discolored. Trunnion serial number K81 was removed after 149.8 hours of operation. A new trunnion was installed, S/N K56.

During a *future* daily inspection the attending mechanic found abnormal play in the tail rotor assembly's trunnion. Further inspection revealed signs of excessive heat to the trunnion's enamel paint described as "brown discoloration." This part (K56) managed 184.4 hours of operational life. *(Both this entry and the next are a bit dated, but the attached photograph—even at low resolution scan—is high quality and shows the brown discoloration. Trunnion discrepancies are reflected at least seven times in the SDRS data base for the A109 series tail rotors.)*



Parts Total Time: 149.8 and 184.4 hours (respectively).

Agusta: A109K2; Tail Rotor Trunnion Heat Damage; ATA 6420

(The following combines two different discrepancies on the same aircraft, but at different times.)

After 3,479.0 hours of operation, the entire tail rotor gearbox was removed from this helicopter. The mechanic states, "The output shaft was found to have metal transfer-type damage to the spline area. Heat generated from the tail rotor trunnion was also evident." New parts were installed.

It was 10.3 hours later when, during a daily inspection, a mechanic noticed excessive play in the tail rotor hub in the trunnion area. Removed for inspection, a soft-face mallet was required to free the trunnion from the tail rotor gearbox output shaft. Trunnion enamel overheat indications were noticed and its bushings/races were loose—sliding half-way off the trunnion without mechanical leverage. *(SDRS records at least seven additional trunnion entries for this series helicopter.)*

Part Total Time: 10.3 hours.

POWERPLANTS

CONTINENTAL

Continental: IO-520BA; Cracked Cylinder Head; ATA 8530

The mechanic states the ECI (*Engine Components, Inc.*) cracked cylinder head is of the type "A" design and was found in the number two position during a 100-hour inspection. Soapy water is being used for leak checks during compression tests. *(Cylinder part numbers were not provided.)*

Part Total Time: 497.0 hours.

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

(The following combines two reports from the same source concerning type X ECI cylinders on different aircraft, both with the same engines.)

The submitter describes these ECI cylinders to have been in the number 6 position and of the type “X” configuration. “These cracked cylinder heads were found at the (50)/100 hour inspections. We are finding signs of air leakage on the exhaust side of the cylinder heads when doing a compression check. We are spraying soapy water on the cylinders...*(for these inspection tests)*.” Part numbers were not provided with these submissions.

Part Total Times: 1,102.0 and 1,094.0 hours (respectively).

Continental: TSIO 520-R; Head Separation; ATA 8530

During departure from the Saint Louis airport, this Cessna T210 suffered head separation from the number two cylinder (P/N CCST71.2BCA). The submitting mechanic speculates “...the probable cause is a worn cylinder or possible over-boost. I recommend when performing a compression test you pressurize and soap the cylinder at the barrel and head assembly.” *(This is an ECI cylinder: Engine Components, Inc.)*

Part Total Time: 1,156.1 hours.

Continental: GTSIO-520-L; Failed Oil Pressure; ATA 8550

(This engine is described as a RAM conversion, mounted on the right wing of a Cessna 421C. The website is <http://www.ramaircraft.com>. This and the following two reports deal with this engine company.)

The submitting repair station technician provides very sketchy information about this maintenance event stating, “The oil pressure never came up after the pilot started the engine...*(and then)* the engine seized. Time on this engine: 30.3 hours TTSO *(total time since overhaul)*. The engine was removed and another was provided by RAM—under warranty—to take its place.” *(This Cessna’s story continues in the next discrepancy.)*

Part Total Time: 30.3 hours.

Continental: GTSIO-520-L; Failed Oil Pressure; ATA 8550

(It is now about 7 months later and the same Cessna in the previous discrepancy has a new complaint and submitter.)

“During a maintenance check—running the right engine at 1200 RPM—the engine lost oil pressure and shut down. This is the second engine that has failed within 30 hours of installation. Both engines have been RAM conversions.”

Part Total Time: 31.4 hours.

Continental: GTSIO-520-L; Cracked Crankcase; ATA 8520

(An FAA maintenance inspector has annotated this next discrepancy, indicating the subject Cessna 421C engine is also a RAM conversion.)

The submitter states, “The operator complained of small oil leaks *(observed)* in cruise flight. *(The engine was...)* cleaned and then run to inspect for oil leaks. After extensive visual inspections and dye penetrant inspection, three

cracks in the crankcase were discovered. Two cracks were noted extending from the top forward case-half bolt holes, and one crack was noted on the top left case under the magneto area.” (*Crankcase P/N given as 639468. Part time since overhaul: 514.0 hours.*)

Part Total Time: 3,459.0 hours.

ACCESSORIES

KELLY AEROSPACE

Kelly Aerospace: Heater; Failed Air Pressure Switch; ATA 2140

A repair station technician describes finding the “...Kelly Aerospace Combustion Air Pressure Switch (P/N 94E42-3) closed at all times (it has continuity). This is a normally open (N.O.) switch... (*which will close*) when it senses air pressure at the High Pressure Port. When it is closed at all times, this safety device will tell the heater it has combustion air, whether it's there or not. (*This is...*) not good if the combustion air blower fails. This 94E42 series switch does not require inspection per AD 2004-21-05 at this time. To prevent reoccurrence, I recommend testing these combustion air pressure switches in conjunction with the Pressure Decay Test mandated by AD 2004-21-05.” (*This pressure switch is part of the Kelly Heater Assembly, P/N 37D77-1. The SDRS data base has 12 entries on this switch part number. Aircraft information was not provided. Below are two additional heater defects from the same technician.*)

Part Total Time: (unknown).

Kelly Aerospace: Heater; Cracked Combustion Tube; ATA 2140

(*The above reporter provides another defect description of a heater, this one from a Beech Baron.*)

“A heater core was received from a customer. The combustion tube (P/N 45C40) was found cracked at the cross-over port which connects the inner combustion tube to the outer combustion tube. The malfunction was found using a pressure decay test, even though this test is not required on the D83A28 heater assembly. The serial number on the combustion tube indicates it was manufactured in August 1995. I recommend pressure decay tests on these heater assemblies. AD 2004-21-05 does not apply to these heaters.” (*The combustion tube part number yields four additional entries in the SDRS data base.*)

Part Total Time: (unknown).

Kelly Aerospace: Heater; Eroded Combustion Head; ATA 2140

(*The repair station technician from the previous two reports provides a third--and important--heat defect description.*)

“A heater core was received from the customer. Upon teardown I found the interior of the combustion head (P/N 51A45) severely worn from flame erosion. Previous inspections by this repair station have found small holes appearing in the wall of the combustion head. From the outside (*of the unit*), the combustion head appears to be good. Internally, this combustion head is not airworthy. By following the Beech and Janitrol maintenance manual, these conditions (*a deteriorated combustion head*) would have been found earlier. TBO time is every 500 hours of heater operation or every engine overhaul, whichever occurs first.” (*Heater assembly P/N given as D83A28. It is obvious this submitter has a great deal of experience and understanding of these units. Please share your speculations of the mechanical chain of event possibilities. For example: a deteriorated gas stove burner might*

produce an uneven flame for cooking—a small consequence; but if the burner is producing yellow flames—a much larger consequence of temperature and incomplete combustion. Are these concerns the same for the heater's combustion head, or is a misdirected flame the primary consequence? The SDRS data base has three additional entries for this combustion head part number.)

Part Total Time: (unknown).

AIR NOTES

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

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

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

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

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

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

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

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

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

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

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

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

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

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

The SDRS and iSDR web site point of contact is:

John Jackson
Service Difficulty Reporting System, Program Manager
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125
Telephone: (405) 954-6486
SDRS Program Manager e-mail address: 9-AMC-SDR-ProgMgr@faa.gov

IF YOU WANT TO CONTACT US

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

Editor: Daniel Roller (405) 954-3646
FAX: (405) 954-4570 or (405) 954-4655

E-mail address: Daniel.Roller@faa.gov

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

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

AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports submitted for the previous month, which have been entered into the FAA Service Difficulty Reporting (SDR) System data base. This is not an all-inclusive listing of Service Difficulty Reports. For more information, contact the FAA, Regulatory Support Division, Aviation Data Systems Branch, AFS-620, located in Oklahoma City, Oklahoma. The mailing address is:

FAA
Aviation Data Systems Branch, AFS-620
PO Box 25082
Oklahoma City, OK 73125

To retrieve the complete report, click on the Control Number located in each report. These reports contain raw data that has not been edited. Also, because these reports contain raw data, the pages containing the raw data are not numbered.

If you require further detail please contact AFS-620 at the address above.

Federal Aviation Administration

Service Difficulty Report Data

Sorted by aircraft make and model then engine make and model. This report derives from unverified information submitted by the aviation community without FAA review for accuracy.

Control Number	Aircraft Make	Engine Make	Component Make	Part Name	Part Condition
Difficulty Date	Aircraft Model	Engine Model	Component Model	Part Number	Part Location
2006FA0000215			BOEING	PISTON	CRACKED
2/28/2006				120611	ACTUATOR
SUBJECT PISTON WAS RECEIVED WITH THE 2 KENY SLOTS CRACKED ON ID RADIUS. CAUSE UNKNOWN. (K)					
2006FA0000235	AMD	GARRTT		ENGINE	UNKNOWN
2/15/2006	FALCON50MYST	TFE73140			FUSELAGE
OIL TEMP 112, OIL PSI 50, MASTER CAUTION LIGHT CAME ON OIL SMELL IN CABIN. SHUT NR 3 ENGINE DOWN LANDED AT AIRPORT. CAUSE UNKNOWN AT THIS TIME REMOVE ENGINE FOR INSPECTION AND REPAIR, INSTALLED RENTAL. (K)					
2006FA0000144	AYRES			PIN	MISMANUFACTURED
2/6/2006	S2RHGT65				TAILWHEEL LOCK
AIRCRAFT TAIL WHEEL LOCKING / UNLOCKING MECHANISH NOT SATISFACTORY PER PILOT'S REPORT. FOUND TAIL WHEEL LOCKING PIN OUTSIDE DIAMETER WAS NOT SUFFICIENT TO ALLOW THE LOCK PIN TO SLIDE WITHIN ITS HOUSING. A 1/4 TURN EITHER WAY FREED THE PIN. FURTHER, THE PART OF THE PIN THAT PROTRUDES INTO THE TAIL WHEEL CENTERING CAM WAS NOT SUFFICIENTLY ROUNDED OR TAPERED TO ALLOW A RAPID AND POSITIVE ENGAGEMENT. THE LOCK PIN IS CRITICAL TO THE SAFE LANDING OF THE AIRCRAFT IN GUSTY WIND CONDITIONS.					
R019280	BEECH	PWA	HARTZL	BEARING RACE	BROKEN
3/3/2006	1900D	PT6A67D	HCE4A3I	D7745	PROPELLER
CUSTOMER REMOVED PROPELLER DUE TO LOOSE BLADE IAW HARTZELL SERVICE BULLETIN HC-SB-61-283. ONE D-7745 BLADE SIDE BEARING INSTALLED ON BLADE SERIAL NUMBER 2828 WAS FOUND CRACKED CIRCUMFERENTIALLY.					
2006FA0000209	BEECH	PWA		COVER	CHAFED
2/21/2006	300BEECH	PT6*		1019800388	WINGS
COVER IS CHAFING LOWER FWD LT AND RT WING ATTACH POINT SPAR CAP AND WING SKIN. THE COVER HAS NO ANTI-CHAFE PROTECTION. RECOMMEND RUBBER EDGE SEAL OR FAY SEAL EDGE TO AVOID METAL TO METAL CONTACT WITH SPAR AND WING SKIN. (K)					
2006FA0000204	BEECH	PWA		COVER	CHAFED
1/21/2006	300BEECH	PT6A60A		1019800387	WINGS
COVER IS CHAFING LOWER FWD LT AND RT WING ATTACH PORT SPART CAP AND WING SKIN. THE COVER HAS NO ANTI-CHAFE PROTECTION. RECOMMEND RUBBER EDGE SEAL OR FAY SEALED EDGE TO AVOID METAL TO METAL CONTACT WITH SPAR AND WING SKIN. (K)					
2006FA0000207	BEECH	PWA		COVER	CHAFED
2/21/2006	300BEECH	PT6A60A		1019800388	WING
COVER IS CHAFING LOWER FWD LT AND RT WING ATTACH POINT SPAR CAP AND WING SKIN. THE COVER HAS NO ANTI-CHAFE PROTECTION. RECOMMEND RUBBER EDGE SEAL OR FAY SEAL EDGE TO AVOID METAL TO METAL CONTACT WITH SPAR AND WING SKIN. (K)					

2006FA0000220	BEECH	CONT	ENCODER	OUT OF ADJUST
3/1/2006	35A33	IO470*	SSD12030A	COCKPIT

CHECKED ENCODER SYSTEM AND COULD NOT VERIFIED REPORT OF ATTITUDE ERROR. REPLACED TRANS CAL BLIND ENCODER AS PRECAUTIONARY MEASURE. RECERTIFY TRANSPONDER AND ENCODER IAW FAR. (K)

2006FA0000234	BEECH		SERVO	INTERMITTENT
2/20/2006	400A		6226717104	RUDDER SERVO

INVESTIGATED PILOT REPORT OF INTERMITTENT RUDDER BOOST FAILURE ALONG WITH SIMULATANEOUS AUTOPILOT AND YAW DAMPER DISEGAGEMENT. FOUND RUDDER SERVO INTERMITTENTLY FAILING. REPLACED RUDDER SERVO WITH OVERHAULED UNIT, RUDDER BOOST AND AUTOPILOT FUNCTIONAL TESTS SATISFACTORY. (K)

3969	BEECH		LINE	CHAFED
2/24/2006	58		00292000051	ZONE 600

DURING SCHEDULED INSPECTION FOUND FUEL CROSSFEED LINE IN RT WHEEL WELL CHAFED 75 PERCENT THROUGH BY LANDING GEAR RETRACT ROD.

4381002	BEECH		GCU	MALFUNCTIONED
2/7/2006	B200		51530007B	LT GEN

AIRCRAFT CAME IN FOR GENERATOR PARALLELING. LEFT GENERATOR CONTROL UNIT NEEDED REPLACEMENT. INSTALLED OVERHAULED GCU S/N 10853A; GCU FAILED ON INITIAL RESET. INSTALLED SECOND GCU S/N 9183; GCU FAILED ON INITIAL RESET. BOTH ABOVE GCU'S HAD JUST BEEN OVERHAULED BY PRECISION ELECTRONICS, INC., ATLANTA, GA FOR THE SAME INITIAL FAILURE PROBLEM. INSTALLED A THIRD GCU S/N 9657; WHICH FUNCTIONED CORRECTLY, ALSO OVERHAULED BY PRECISION ELECTRONICS, INC.

2006FA0000233	BEECH	PWA	SWITCH	OUT OF TOLERANCE
2/24/2006	B300	PT6A6	10138402829	CABIN

DURING INITIAL 12 MONTH TEST OF CABIN OXYGEN SYSTEM FOUND BAROMETRIC SWITCH OPERATING OUT OF SPECIFIED MM TOLERANCE. REPLACED WITH NEW SUPERSEDING PN 10138402843 SWITCH SUPPLIED BY RAPID, TESTS PASSED SUCCESSFULLY. SUSPECT NEW 101384028-29 SEITCH ASSY MAY HAVE FAULT WHICH CAUSES THEM TO PASS INITIAL QA TESTS BUT FAIL AFTER USE OR IN STORAGE. (K)

2006FA0000232	BEECH	PWA	SWITCH	OUT OF TOLERANCE
2/23/2006	B300	PT6A6	10138402831	CABIN

DURING INITIAL 12 MONTH TEST OF CABIN ALTITUDE WARNING SYS FOUND BAROMETRIC SWITCH OPERATING OUT OF SPECIFIED MM TOLERANCE. REPLACED SWITCH WITH NEW SUPERSEDING (PN 101-38402845) SWITCH ASSY FROM STOCK, NEW SWITCH ALSO TESTED OUT OF SERVICE LIMITS. REPLACED WITH NEW (PN 101384028-45 SWITCH SUPPLIED BY RAPID, TESTS PASSED SUCCESSFULLY. SUSPECT NEW 101-384028-31 AND 101-384028-45 SWITCH ASSY MAY HAVE FAULT WHICH CAUSES THEM TO PASS INITIAL QA TESTS, BUT FAILED AFTER USE OR IN STORAGE. (K)

2006FA0000237	BELL	PWA	DEBRIS MONITOR	DEBONDED
2/17/2006	212	PT6T3	212040122101	SCAVENGE CUP

AFTER REMOVAL OF DEBRIS MONITOR FOR 50 HR, CLEAN AND INSP, THE SCAVENGE CUP/SCREEN TUBE ASSY (PN A8858 IS UNSCREWED FROM UNIT. THE O-RING FLANGE RING GLUED ONTO SCREEN TUBE SHEARS OFF OF SCREEN GLUE LINE, AND STAYS IN THE MAIN UNIT. FIX MAYBE TO APPLY GLUE TO RUFFED SURFACES (NOT DONE APARENTLY) AN TO INSIDE STEP OF ORING FLANGE RING TO THROUGH TUBE ASSY,OR OTHER METHOD. (K)

2006FA0000231	BELL	ALLSN	FITTING	FRACTURED
2/27/2006	UH1H	250C20B	2050318211P	TAILBOOM

AC LANDED FOR SHUTDOWN AFTER OPERATING FOR APPROX 3 FLIGHT HOURS, AC WAS SHAKING DURING SHUTDOWN. DURING POST FLIGHT INSP IT WAS FOUND THAT UPPER LT MOUNT HARD POINT PN 2050318211P ON

TAILBOOM (PN 20503280071), WAS FRACTURED, HAD TORN THRU FWD TAILBOOM BLKHD (PN 205030807123S) ON AIRFRAME WAS ALSO CRACKED IN 2 PLACES RADIATING FROM BOOM MOUNT HOLE TO EDGE OF FITTING. AC RECORDS DO NOT REFLECT ANY INSTANCE OF HARD LANDING, OVER TORQUE, OR OTHER DAMAGE HISTORY. AC HAS APPROX 8400 HOURS TT, RECORDS SHOW THAT TAILBOOM WAS INSTALLED APPROX 5000 HOURS AGO. SUSPECTED, WHEN UPPER FITTING FAILED INSIDE TAILBOOM, BOOM ASSY SAGGED, PLACING EXCESSIVE TWIST ON LWR LT AIRFRAME MOUNT CAUSING IT TO CRACK IN 2 PLACES. (K)

2006FA0000238	BLANCA	FRNKLN	LANDING GEAR	FAULTY
2/25/2006	14132	6A4165*		WINGS

THIS LANDING GEAR RETRACTED AT TOUCH-DOWN. AIRCRAFT WAS IN STORAGE FOR A NUMBER OF YEARS. IT WAS PUT BACK IN SERVICE THE SUMMER OF 2005. THE LANDING GEAR WAS OVERHAULED (MECHANICAL) IN JAN 2006. THE GEAR WAS MODIFIED FROM HAND CRANK RETRACT TO ELE/HYD RETRACT, QUITE SOME TIME BACK. FEEL THE ELECTRICAL PART OF THE DESIGN SHOULD BE LOOKED AT. (NO SQUAT SWITCH, ETC) GOOD GROUND SYS IN WOOD AIRCRAFT. (K)

2006FA0000240	BOEING	CFMINT	SLIDE	OUT OF ALIGNMENT
2/8/2006	737300	CFM563C1	D31591478	FUSELAGE

THE ESCAPE SLIDE FOR DOOR R-2 WAS DEPLOYED FOR A SAMPLE INSPECTION. THE SLIDE DID NOT DEPLOY CORRECTLY, THE SLIDE INFLATED TO THE FULL LENGTH, STRAIGHT OUT FROM THE AIRCRAFT, HOWEVER, IT WAS ROTATED 90 DEGREES, AND DID NOT TOUCH THE FLOOR. (K)

2006FA0000258	CESSNA		FLT CONTROLS	SEIZED
3/1/2006	172M			

AIRCRAFT HAD BEEN TREATED WITH ACF-50 OVER THE LIFE OF THE AIRFRAME. SEVERAL PULLEYS IN THE AILERON, ELEVATOR AND FLAP SYSTEMS WERE FOUND SEIZED OR GUMMED UP WITH ACF-50. LAST APPLICATION OF ACF-50; 18MO.

2006FA0000241	CESSNA	LYC	HARNESS	MISMANUFACTURED
3/13/2006	172N	O320H2AD	M2917	SPARK PLUG CAPS

THE AIRCRAFT HAD MAGNETO LEADS THAT NEEDED TO BE REPLACED. A NEW HARNESS SET WAS RECEIVED AND WAS INSTALLED ON THE ENGINE. THE ENGINE RAN POORLY. FOUND (T-4). ALSO NOTED THAT THE SHIELD ON NR 1 BOTTOM WIRE HAD BEEN CUT DURING MANUFACTURER AND THE SHIELD WAS OPEN. MFG REPLACED THE HARNESS FREE OF CHARGE AND FREIGHT FREE. (K)

2006FA0000203	CESSNA	LYC	TUBE	CHAFED
1/31/2006	172S	IO360L2A	SB997102	ENGINE MOUNT

DURING 100 HOUR/ANNUAL INSPECTION FOUND THE ENGINE OIL DIPSTICK CHAFING SLIGHTLY ON THE ENGINE MOUNT. INSPECTED FOR DAMAGE, ONLY PROBLEM NOTED WAS PAINT WAS CHAFED. THIS PROBLEM WAS SUPPOSED TO HAVE BEEN TAKEN CARE OF BY THE FACTORY PRIOR TO THIS SN AIRCRAFT. ENGINE OIL FILLER TUBE TO ENGINE MOUNT CLEARANCE, WAS ISSUED TO TAKE CARE OF EARLIER SN AIRCRAFT. THIS AIRCRAFT EVIDENTLY DID NOT GET THE CORRECT HARDWARE AT MANUFACTURER. INSTALLED CORRECT PARTS IAW TE IPC FOR THIS SN AIRCRAFT. (K)

2006FA0000244	CESSNA	LYC	FLAP	CRACKED
2/10/2006	172S	IO360L2A	052390138	WINGS

AIRCRAFT CAME IN FOR AN ANNUAL INSPECTION, DAMAGE TO THE FLAPS WERE FOUND DURING ROUTINE INSPECTION PROCESS. RT FLAP HAD CRACKS RADIATING OUT FROM RIVETS ON LOWER T/E SKIN, PLUS CRACKS RADIATING OUT FROM L/E SKIN, ON BOTTOM OF FLAP, IB OF MOUNTING BRACKET. DAMAGE DESCRIBED WAS ON RT FLAP. LT FLAP HAD SAME DAMAGE, ONLY LESS SEVERE. THE PROBABLE CAUSE WAS SUSPECTED TO BE CAUSED FROM LOWERING THE FLAPS AT TOO HIGH AN AIRSPEED. FLIGHT DEPARTMENT CHAIRMAN AGREED TO DISCUSS THIS POSSIBLE PROBLEM WITH THE OTHER FLIGHT INSTRUCTORS, SO THEY CAN DISCUSS THE PROBLEM WITH THEIR STUDENTS. (K)

2006FA0000250	CESSNA	CONT	CESSNA	BRACKET	CRACKED
2/22/2006	175	GO300*		051313211	ENGINE COMPARTMT

INSP 0513132-11, MOUNT BRACKET WAS FOUND TO BE CRACKED. CRACK RAN VERT THROUGH BRACKET AROUND OUTER RADIUS OF AN960-616 WASHER ON UPPER ENG MOUNT BOLT. INSP WAS DONE DUE TO 2 OTHER KNOWN REPORTS OF CRACKS IN THIS BRACKET ON SAME MODEL OF AC, ONE RESULTED IN A PARTIAL ENG AND FIREWALL SEPARATION FROM AC ON LANDING. MUST LOOK INSIDE STRINGER BEHIND INSTRUMENT PANEL. RECOMMEND THAT SPECIAL ATTENTION BE PAID TO UPPER ENG MOUNT BRACKETS DURING INSP. 0513132-3 AND -4 STRINGER ASSEMBLIES WERE USED ON 175 SN 55001 THRU 17557119, 172 SN 17247747 THRU 17272884P172 SN P17257120 THRU P17257188 F172 SN F17201235 THRU F17201909 FR172 SN FR172-0001 THRU FR17200655R172 SN R1722000 THRU R1723199.

2006FA0000257	CESSNA		AUTOPILOT SYS	INTERMITTENT
3/3/2006	182T		065001767904	

INTERMITTENT PITCH TRIM AND ACCELEROMETER FAILURES. POSSIBLY CAUSED BY INADEQUATE CONNECTOR ENGAGEMENT WITH THE MOUNTING RACK CONNECTORS, CAUSED BY IMPROPER POSITIONING OF THE TOP COVER.

R019142	CESSNA	CONT	HARTZL	HUB	CRACKED
2/22/2006	340CESSNA	TSIO520NB		D32517	PROPELLER ASSY

CUSTOMER WAS INVESTIGATING AN ABNORMAL GREASE LEAK ON THE RIGHT HAND PROPELLER. REMOVED THE SPINNER, DISCOVERED THAT THE ENGINE-SIDE HUB HALF WAS VISIBLY CRACKED. CRACKS ARE LOCATED ON THE PROPELLER MOUNTING FLANGE HUB HALF, LEAD EDGE SIDE OF BLADE SOCKETS NUMBER 1 AND 2. CRACKS RUN FROM HUB PARTING SURFACE TO MOUNTING FLANGE.

2006FA0000202	CESSNA	CONT		TURBOCHARGER	DISINTEGRATED
2/21/2006	414	TSIO520NB		20591	ENGINE

TURBOCHARGER CAME APART INTERNALLY RESULTING IN LOSS OF MANIFOLD PRESSURE AND ENGINE METAL CONTAMINATION. ENGINE REMOVED FROM SERVICE. (K)

2006FA0000242	CESSNA	WILINT		LINE	FAILED
2/16/2006	525A	FJ44			LT MLG BRAKE

AIRCRAFT DEPARTED THE RUNWAY DURING LANDING ROLLOUT. FAILURE OF BOTH THE HYDRAULIC AND PNEUMATIC LINES TO THE LT MAIN LANDING GEAR BRAKE CAUSED THE AIRCRAFT TO SPIN INTO A GRASSY AREA ADJACENT TO THE RUNWAY. THE NOSE LANDING GEAR SHEARED OFF AND THE AIRCRAFT CAME TO REST ON THE MAIN LANDING GEAR AND NOSE OF THE AIRCRAFT. THERE IS SUBSTANTIAL DAMAGE TO THE NOSE OF THE AIRCRAFT AND SOME MINOR DAMAGE TO THE WINGS. CAUSE OF THE LINE FAILURE IS UNDER INVESTIGATION. (SO35200603622)

CQWR20005006	CESSNA			LINE	DAMAGED
8/5/2005	560CESSNA			651631155	FUEL SYSTEM

DURING PHASE 1 THRU 5 INSPECTION, FOUND REFUEL/DEFUEL FLOW LINE ASSY (P/N 6516311-55) SAWED BY THE FORWARD FLAP CROSS-OVER CABLE. THIS LINE ASSY HAD BEEN DAMAGED MORE THAN 50 PERCENT OF THE WALL THICKNESS, AND IS LOCATED IN THE LEFT WING ROOT DRY BAY AREA FORWARD OF THE FLAP WELL. THE LINE ASSY IS SUPPORTED BY TWO ADEL CLAMPS. A DESCRIPTION OF THIS REPORT AND PICTURES HAVE BEEN SUBMIT TO CESSNA/CIATION VIA SERVICE CONDITION REPORT NR 200470.

CWQR2006005	CESSNA			DRAIN VALVE	LOOSE
3/8/2006	560XL			68C48	STATIC SYS

FOUND THE STATIC SYSTEM DRAIN VALVE POPPET RETAINING RING COMING LOOSE FROM VALVE BASE.

2006FA0000214	CESSNA			WINDSHIELD	CRACKED
3/8/2006	650			99143809	COCKPIT

PILOT'S GLASS WINDSHIELD SHOWED SIGNS OF OVERHEATING AT UPPER CENTER EDGE CAUSING COMPLETE CRACKING OF WINDSHIELD IN A SPIDER WEB FASHION. THE WINDSHIELD REMAINED STRUCTURALLY SOUND AND THE AIRCRAFT WAS ABLE TO LAND WITHOUT INCIDENT.

2006FA0000263	CESSNA			WIRE HARNESS	DISCONNECTED
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10/28/2005

750

APU FIRE BOTTLE

DURING THE CONDUCT OF THE RECURRING INSPECTION REQUIRED BY AD2005-09-01 AND PHASE 30, THE WIRING BUNDLE FOR THE APU FIRE BOTTLE WAS FOUND WRAPPED AROUND THE APU FUEL TUBE JUST FORWARD OF THE FIRE BOTTLE. THIS WIRE BUNDLE HAS BOTH AN ACTIVATION CIRCUIT (NORMALLY UNPOWERED) AND A BOTTLE PRESSURE SENSING CIRCUIT WHICH IS POWERED WHENEVER BATTERY POWER IS SELECTED. THE CONNECTOR WAS UNPLUGGED AT THE FIRE BOTTLE AND UNWRAPPED FROM THE FUEL TUBE, THEN TIED UP OUT OF THE WAY AND SPIRAL WRAP APPLIED TO WIRING HARNESS.

2006FA0000239	CIRRUS	CONT		RELIEF VALVE	RESTRICTED
3/15/2006	SR22	IO550*			ENGINE OIL SYS

LOSS OF OIL PRESSURE, INSPECTED OIL PRESSURE RELIEF VAVLE AND FOUND TIP OF DRILL BIT LODGED IN RELIEF VALVE. REMOVED TIP OF DRILL BIT AND REASSEMBLED RELIEF VALVE. GROUND RAN, OPS CHECKED GOOD. (K)

2006FA0000236	CIRRUS	CONT		FLIGHT DIR	INTERMITTENT
2/27/2006	SR22	IO550*		70000006000	COCKPIT

JUST GOT 2003 SR22 BACK FROM GETTING REVISION 6 COMPLETED. PUT ABOUT 10 HOURS ON THE AIRPLANE. TWICE DURING THIS TRIP, THE PFD DISPLAY ROTATED OR ROLLED LIKE THE OLD TELEVISION SETS DID. ONCE FOR ONLY 2 OR 3 SECONDS AND ANOTHER TIME FOR MAYBE 10 TO 20 SECONDS. BOTH OF THESE OCCURRED IN LIGHT TO ODERATE CHOP AND AFTER MORE THAN AN HOUR OF FLIGHT. ONE OF THESE OCCURRENCES WAS IN SOLID INSTRUMENT CONDITIONS AND THE OTHER WHILE ON IFR FLIGHT, WAS IN THE CLEAR. HE IS A PILOT FOR A MAJOR AIRLINE. HIS OPINION WAS THAT THERE COULD BE A WIRE OR CONNECTION LOOSE INSIDE THE BOX. (K)

2006FA0000245	DHAV	PWA		ENGINE	MAKING METAL
2/18/2006	DHC6300	PT6A27			LT WING

LT ENGINE OIL PRESSURE STARTED FLUCTUATING. PILOT RETURNED TO AIRPORT. MAINTENANCE CHECKED OIL FILTER AND FOUND METAL IN OIL. ENGINE REMOVED AND SENT TO REPAIR FACILITY. (K)

CMRR200603004	DORNER	PWA	HONEYWELL	POWER SUPPLY	OVERTEMP
3/14/2006	DO328300	PW306B	DU870	7018704902	EFIS

THE NR 1 PFD HONEYWELL DU-870 DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF DU FAILURE.

CMRR200603008	DORNER	PWA	HONEYWELL	POWER SUPPLY	OVERTEMP
3/14/2006	DO328300	PW306B	DU870	7018704902	EFIS

THE EICAS HONEYWELL DU-870 DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS PRIOR TO FERRY. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF DU FAILURE.

CMRR200603007	DORNER	PWA	HONEYWELL	POWER SUPPLY	OVERTEMP
3/14/2006	DO328300	PW306B	DU870	7018704902	EFIS

THE NR 2 PFD HONEYWELL DU-870 DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS PRIOR TO FERRY. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF DU FAILURE.

CMRR200602003	DORNER	PWA	HONEYWELL	POWER SUPPLY	OVERTEMP
2/22/2006	DO328300	PW306B	DU870	7018704902	COCKPIT

+THE NR 1 PFD DU-870 DISPLAY UNIT REFERENCED HERE IN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY PN 7018704-902 INSTALLED

INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF DU FAILURE.

CMRR200603006	DORNER	PWA	HONEYWELL	POWER SUPPLY	OVERTEMP
3/14/2006	DO328300	PW306B	DU870	7018704902	EFIS

THE NR 1 MFD HONEYWELL DU-870 DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS PRIOR TO FERRY. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF DU FAILURE.

CMRR200602002	DORNER	PWA	HONEYWELL	POWER SUPPLY	OVERTEMP
2/27/2006	DO328300	PW306B	DU870	7018704902	EFIS

THE HONEYWELL DU-870 DISPLAY UNIT REFERENCED HEREIN FAILED JUST PRIOR TO TAKEOFF. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF DU FAILURE.

CMRR200603005	DORNER	PWA	HONEYWELL	POWER SUPPLY	OVERTEMP
3/14/2006	DO328300	PW306B	DU870	7018704902	EFIS

THE NR 2 MFD HONEYWELL DU-870 DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS PRIOR TO FERRY. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF DU FAILURE.

2006FA0000225	GROB	LYC	BLOWER MOTOR	WORN
2/27/2006	G120A	AEIO540D4D5	125021116	AC SYSTEM

PILOT REPORTED EXCESSIVE VIBRATION WITH AIR CONDITION ON. WHILE TECH WAS TROUBLESHOOTING SYSTEM FOUND THAT BLOWER MOTOR HAD TOO MUCH END PLAY ON BLOWER FAN SHAFT MAKING IT VIBRATE. NO RECOMMENDATIONS AT THIS TIME. (K)

2006FA0000243	GULSTM	LYC	ACTUATOR	UNKNOWN
2/7/2006	114TC	TIO540*		NLG

AFTER REFITMENT, NLG FAILED TO EXTEND TO LAND POSITION. AC HAD BEEN UNDERGOING WORK TO SATISFY AD. AFTER WORK, GREEN NOSE WHEEL INDICATOR WOULD NOT ILLUM. FLYBY OF TWR, NLG WAS PARTIALLY EXTENDED TO ANGLE OF 45 DEGREES. RECYCLING STILL FAILED TO EXTEND NLG BEYOND 45 DEGREES. PWROFF LANDING WAS EXECUTED, NLG COLLAPSED, AC CAME TO REST ON 2 PROP BLADES, NOSE WHEEL BAY DOORS. LANDING HAD PUSHED NLG BACK TOWARD RETRACTED POSITION BUT WITH PART OF TIRE PROTRUDING THROUGH PARTIALLY OPEN NOSE BAY DOORS. PIN ATTACHING NOSE GEAR ACTUATOR TO NOSE LEG WAS REMOVED. GEAR FELL UNHINDERED AND UNAIDED TO DOWNLOCKED POSITION. INSP OF NLG, WHEN NG ACTUATOR IS AVAILABLE, (SHAFT BENT 45 DEGREES IN ACCIDENT) . (K)

2006FA0000226	GULSTM	RROYCE	WINDSHIELD	BROKEN
1/28/2006	G1159A	SPEY511*	1159SCB31029	PILOT WINDSHIELD

AT FL 380 PILOTS WINDSHIELD SHATTERED. SHATTERED AT HEATING ELEMENT. (K)

2006FA0000210	GULSTM	RROYCE	SWITCH	FAILED
2/28/2006	GIV	TAY6118	P24029	FUSELAGE

PILOTS RECEIVED PAX OXY OFF MESSAGE BEFORE TAXI OUT, INDICATING LESS THAN 50 PSI IN PASSENGER OXYGEN BOTTLE SYSTEM. VERIFIED PAX BOTTLES WERE TURNED ON AND PRESSURES WERE READING NORMAL AT BOTTLES AND COCKPIT INDICATORS. VERIFIED FLOW FROM THERAPEUTIC OXYGEN PORT AS THIS UTILIZES PASSENGER BOTTLES. TROUBLESHOT INDICATION SYSTEM AND FOUND FAILED SWITCH, IDENTIFIER 95S4. WIRING WAS OK. SWITCH WAS REPLACED WITH NEW UNIT. INDICATION THEN NORMAL.

2006FA0000217	GULSTM	RROYCE	WINDSHIELD	CRACKED
2/6/2006	GIV	TAY6118	1159SCB310212	COPILOT WNDSHLD

OUTER PLY OF CO-PILOT WINDSHIELD CRACKED IN FLIGHT. NO LOSS OF PRESSURIZATION OCCURRED. APPEARS HEATING ELEMENT SHORTED. (K)

8921	LEAR		RELAY	SHORTED
3/3/2006	31		2818106-13	FUEL PANEL

LEFT ENGINE WOULD NOT START. TROUBLESHOT TO SHORTED RELAY ON FUEL RELAY PANEL.

2006FA0000223	LEAR		PITOT SYSTEM	INTERMITTENT
1/6/2006	35A			UNKNOWN

ON 1/4/06 PILOT REPORTED ALTIMETER JUMPS DURING DESCENT, 300 FT, AND WARNING HORN SOUNDS. NO OVERSPEED. ALTIMETER SYSTEM WAS TESTED, IAW SRM AND FOUND TO BE OPERATIONAL. NO TROUBLE NOTED. AIRCRAFT REMAINS RVSM COMPLAINT. (K)

11143	LEAR	GARRTT	FITTING	CRACKED
2/23/2006	35A	TFE73122B	251120015	FUSELAGE

LT AND RT WING ATTACH POINT FITTING AT FRAME 20 IS CRACKED. LT IS CRACKED APPROX. 1.0 INCHES IN LENGTH. RT IS CRACKED APPROX. 1.25 INCHES IN LENGTH.

2006FA0000256	LEAR		SPAR	CORRODED
2/23/2006	55LEAR			STABILIZER

INSPECTIONS HAVE FOUND SERIOUS EXFOLIATION CORROSION IN THE REAR SPAR FLANGES, NEAR THE ELEVATOR HINGE BRACKETS OF AT LEAST 2 AIRCRAFT. CORROSION HAD PROGRESSED TO THE EXTENT REQUIRING REMOVAL/REPLACEMENT OF THE SPAR FLANGES OR REPLACEMENT OF THE STABILIZER. RECOMMEND A MORE DETAILED INSPECTION OF THE SPAR FLANGES AND A CONSIDERABLE SHORTENING OF THE TIME BETWEEN INSPECTION REQUIREMENTS. IN MY OPINION, THE CORROSION HAD PROGRESSED TO THE POINT OF COMPROMISING THE SPAR AND ATTACHED ELEVATOR HINGE MOUNTING.

2006FA0000254	LEAR	GARRTT	SPAR	CORRODED
2/23/2006	55LEAR	TFE731*		STABILIZER

INSPECTIONS, HAVE FOUND SERIOUS EXFOLIATION CORROSION IN THE REAR SPAR FLANGES, NEAR THE ELEVATOR HINGE BRACKETS OF AT LEAST 2 AIRCRAFT. CORROSION HAD PROGRESSED TO THE EXTENT REQUIRING REMOVAL/REPLACEMENT OF THE SPAR FLANGES OR REPLACEMENT OF THE STABILIZER. RECOMMEND A MORE DETAILED INSPECTION OF THE SPAR FLANGES AND A CONSIDERABLE SHORTENING OF THE TIME BETWEEN INSPECTION REQUIREMENTS. THE CORROSION HAD PROGRESSED TO THE POINT OF COMPROMISING THE INTERIORITY OF THE SPAR AND ATTACHED ELEVATOR HINGE MOUNTING.

2006FA0000255	LEAR	GARRTT	SPAR	CORRODED
2/23/2006	55LEAR	TFE731*		STABILIZER

DURING 12,000/12 YR DEMATE INSPECTIONS WE HAVE FOUND SERIOUS EXFOLIATION CORROSION IN THE REAR SPAR FLANGES, NEAR THE ELEVATOR HING BRACKETS OF AT LEAST TWO AIRCRAFT. CORROSION HAD PROGRESSED TO THE EXTENT REQUIRING REMOVAL/REPLACEMENT OF THE SPAR FLANGES OR REPLACEMENT OF THE STABILIZER. I RECOMMEND A MORE DETAILED INSPECTION OF THE SPAR FLANGES AND A CONSIDERABLE SHORTENING OF THE TIME BETWEEN INSPECTION REQUIREMENTS. IN MY OPINION, THE CORROSION HAD PROGRESSED TO THE POINT OF COMPROMISING THE INTERURITY OF THE SPAR AND ATTACHED ELEVATOR HING. MOUNTING.

2006FA0000253	PIPER	LYC	PIPER	WIRE	LOOSE
2/17/2006	PA28161	O320D3G			CONTACTOR

MFG HAS RECENTLY ISSUED REPLACEMENT PWR CONTACTORS, IN THIS CASE FOR ENG STARTER, WITH CONTACTORS THAT HAVE PLASTIC INSULATED MOUNTING (FEET). REPLACEMENT CONTACTORS UTILIZE A GROUND WIRE UNDER BOLT HEAD OF ONE OF MOUNT BOLTS FOR CONTACTOR ACTIVATION CIRCUIT GROUND. PLASTIC PORTION OF FEET COMPRESS DURING INSTALLATION, TORQUE PROCESS. CONTACTOR ATTACH POINT LOOSENS CAUSING CIRCUIT WIRE TO GROUND, TO LOOSEN RESULTING IN HIGH RESISTANCE TO GROUND FOR STARTER CONTACTOR ACTIVATION CIRCUIT. RESULT, PLASTIC (FEET) MELT DUE TO HIGH RESISTANCE HEAT,

CAUSING MATERIAL ON CABIN SIDE OF FIREWALL TO CAUSE SMOKE IN COCKPIT. BELIEVE THAT THIS COULD CAUSE A FIRE.

4381	PIPER		GCU	INOPERATIVE
2/7/2006	PA30		51530007B	LT GEN

AIRCRAFT CAME IN FOR GENERATOR PARALLELING. LEFT GENERATOR CONTROL UNIT NEEDED REPLACEMENT. INSTALLED OVERHAULED GCU S/N 10853A; GCU FAILED ON INITIAL RESET. INSTALLED SECOND GCU S/N 9183; GCU FAILED ON INITIAL RESET. (BOTH ABOVE GCU'S HAD JUST BEEN OVERHAULED BY PRECISION ELECTRONICS, INC., ATLANTA, GA FOR THE SAME INITIAL FAILURE PROBLEM). INSTALLED A THIRD GCU S/N 9657; WHICH FUNCTIONED CORRECTLY. (ALSO OVERHAULED BY PRECISION ELECTRONICS, INC.)

2006FA0000230	PIPER	LYC	TRUNNION	CRACKED
2/23/2006	PA32R300	IO540K1G5	6705403	NOSE GEAR

UPON INSPECTION OF THE NOSE GEAR. A 4.5 INCH CRACK WAS FOUND IN THE TUBULAR AREA OF THE LANDING GEAR TRUNNION CAUSE IS UNKNOWN, BUT SUSPECT HARD LANDING OR NOSE WHEEL TURNED BEYOND LIMITS. (K)

2006FA0000221	PIPER	LYC	DOWNLOCK	FAILED
2/16/2006	PA44180	O360*	8627503	NOSE GEAR

NOSE GEAR COLLAPSE DURING ROLLOUT AFTER BRAKE APPLICATION. PILOT HAD 3 GREEN LIGHTS. HOOK PORTION OF DOWNLOCK PN 86275-03 FOUND CRACKED, BROKEN OFF. FOUND BROKEN NAS 464P4-27 ALSO FOUND FAILED. BOLT FRACTURED MID SHANK. HEAD PORTION OF BOLT NEVER FOUND. REMAINDER OF BOLT WITH NUT AND COTTER PIN INSTALLED FOUND STILL INSTALLED IN DRAGLINK ASSY. UNCLEAR AS TO WHAT FAILED FIRST. DOWNLOCK TT 8258 HRS, BOLT TT UNKNOWN.

2006FA0000222	PIPER	LYC	BOLT	FAILED
2/16/2006	PA44180	O360*	NAS464P427	NLG

NOSE GEAR COLLAPSED DURING ROLL OUT, AFTER BRAKE APPLICATION. PILOT HAD 3 GREEN LIGHTS. HOOK PORTION OF DOWNLOCK PN 86275-03 FOUND CRACKED, BROKEN OFF. FOUND BROKEN PIECE ON RUNWAY. DRAGLINK BOLT PN NAS 464P4-27 ALSO FOUND FAILED. BOLT FRACTURED MID SHANK. HEAD PORTION OF BOLT NEVER FOUND. REMAINDER OF BOLT WITH NUT AND COTTER PIN INSTALLED FOUND STILL INSTALLED IN DRAGLINK ASSY. UNCLEAR AS TO WHAT FAILED FIRST. AD WAS PREVIOUSLY COMPLIED WITH. DOWN LOCK TT 8258 HRS, BOLT TT UNKNOWN. (K)

R019184	PITTS	LYC	HARTZL	BUSHING	LOOSE
3/6/2006	S2B	AEIO540D4A5	HCC3YR1A	B4776	PROPELLER ASSY

CUSTOMER REMOVED PROP DUE TO OIL LEAKING FROM BLADE. DISASSEMBLY OF THE PROPELLER REVEALED A LOOSE PITCH CHANGE ROD BORE BUSHING CAUSING THE OIL LEAK. THE PC ROD BUSHING WAS FOUND WEDGED BETWEEN THE FORK AND HUB. CENTRAL WEB AREA OF HUB WAS FULL OF OIL. THE PC ROD BORE BUSHING HAD BEEN INSTALLED AT OVERHAUL IN ACCORDANCE WITH HARTZELL MANUAL 202A VOLUME 3 REVISION 28.

UVVR200600002	RAYTHN		FITTING	CORRODED
2/23/2006	HAWKER800XP		258WF71A	LT WING

WHILE CHANGING A BONDING BRAID ON THE LT OB FLAP ATTACH FITTING, THE INNER SURFACE OF THE LOWER ATTACH POINT FLANGE WAS FOUND CORRODED. APPROXIMATELY .050 INCH DEEP AROUND THE BOLT HOLE. THE PART WAS REPLACED WITH A NEW FITTING.

UVVR200600001	RKWELL	PWA	NUT	CRACKED
2/21/2006	NA26560	JT12A8	NAS12913	WINGS

WHILE PERFORMING MAINTENANCE ON AIRCRAFT, IT WAS DISCOVERED THAT APPROXIMATELY 10 NUTS ON EACH WING THAT SECURES UPPER WING PLANK TO REAR SPAR UPPER FLANGE, FROM REAR SPAR STATION 161.1 TO 281.8 WERE CRACKED, WITH SOME MISSING PARTS OF THE NUT. AS A PRECAUTION, A TOTAL OF 96 SCREWS AND NUTS AT THESE LOCATIONS WERE REPLACED WITH NEW HARDWARE.

[2006FA0000246](#) SOCATA PWA ATTACH BRACKET CRACKED
2/21/2006 TBM700 PT6A64 T700A5760031020 OB LT WING

DURING A ROUTINE PHASE INSPECTION, THE LT WING TIP ASSY WAS REMOVED TO FACILITATE FURTHER INSPECTION OF THE AILERON CABLE. AFTER REMOVAL OF THE TIP, THE INSPECTING TECHNICIAN NOTICED A CRACK IN AT THE OB ATTACH POINT. THE BRACKET WAS REMOVED AND INSPECTED WITH A 20X MAGNIFYING GLASS WHICH REVEALED NO LESS THAN 6 CRACKS IN THE BRACKET. IT IS RECOMMENDED THAT ALL LT AND RT ATTACH BRACKETS BE INSPECTED FOR CRACKS WITH THE WING TIPS REMOVED. (K)

[2006FA0000248](#) SOCATA PWA ATTACH BRACKET CRACKED
2/21/2006 TBM700 PT6A64 T700A5760031001 OB WING ASSY

DURING A 6000 HOUR INSPECTION, THE LT AND RT WING TIP ASSEMBLIES WERE REMOVED TO FACILITATE FURTHER INSPECTION OF THE AILERON SYSTEM. AFTER REMOVAL OF THE TIPS THE INSPECTING TECHNICIAN NOTED CRACKS IN BOTH THE LT AND RT AILERON OB ATTACH POINTS. THE BRACKET WAS REMOVED AND INSPECTED WITH A 10X MAGNIFYING GLASS WHICH CONFIRMED CRACKS IN BOTH THE BRACKETS. IT IS RECOMMENDED THAT ALL LT AND RT ATTACH BRACKETS BE INSPECTED FOR CRACK WITH THE WING TIPS REMOVED. LT BRACKET (PN T700A5760031000) (RT BRACKET (PN T700A5760031001) (K)

[2006FA0000247](#) SOCATA PWA SUPPORT BRACKET CRACKED
2/21/2006 TBM700 PT6A64 T700A5760031000 AILERON

DURING A 6000 HOUR INSPECTION, THE LT AND RT WING TIP ASSEMBLIES WERE REMOVED TO FACILITATE FURTHER INSPECTION OF THE AILERON SYSTEM. AFTER REMOVAL OF THE TIPS THE INSPECTING TECHNICIAN NOTED CRACKS IN BOTH THE LT AND RT AILERON OB ATTACH POINTS. THE BRACKET WAS REMOVED AND INSPECTED WITH A 10X MAGNIFYING GLASS WHICH CONFIRMED CRACKS IN BOTH THE BRACKETS. IT IS RECOMMENDED THAT ALL LT AND RT ATTACH BRACKETS BE INSPECTED FOR CRACKS WITH THE WING TIPS REMOVED. LT BRACKET (PN T700A5760031000) RT BRACKET (PN T700A5760031001)

END OF REPORTS