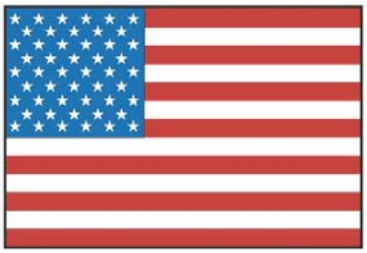
U.S. Department of Transportation
Federal Aviation Administration

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



ALERT NUMBER 381

APRIL 2010

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

AVIATION MAINTENANCE ALERTS

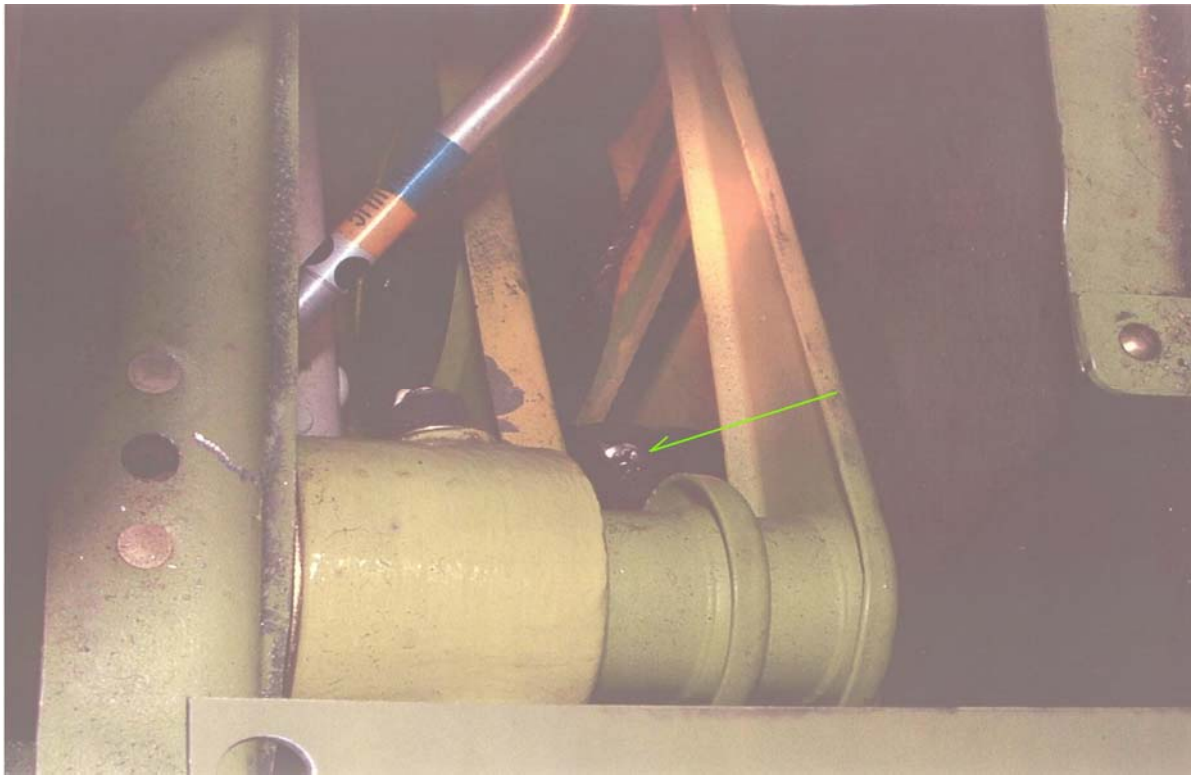
The Aviation Maintenance Alerts provides the aviation community with an economical means to exchange service experiences and to assist the FAA in improving aeronautical product durability, reliability, and safety. We prepare this publication from information operators and maintenance personnel who maintain 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.

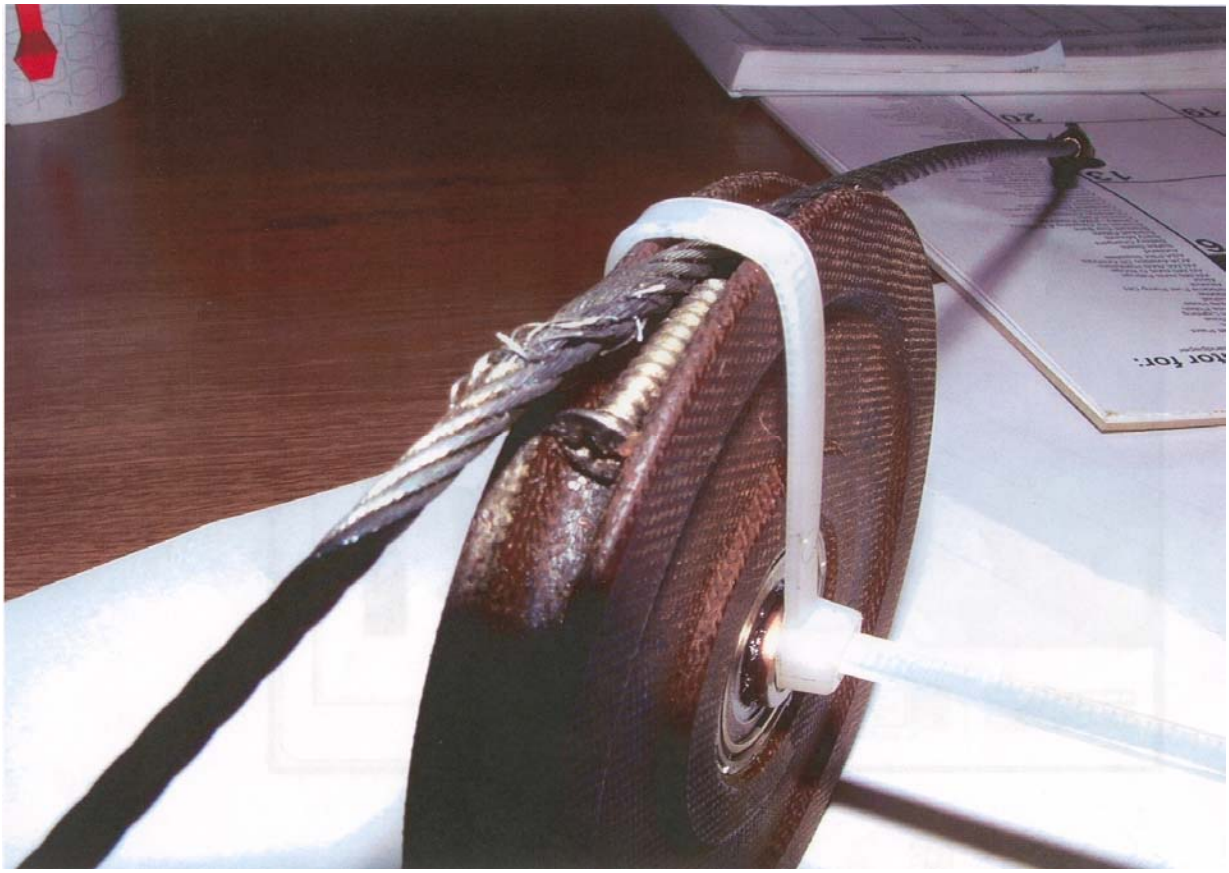
(Editor's notes are provided for editorial clarification and enhancement within an article. They will always be recognized as italicized words bordered by parentheses.)

AIRPLANES

Beechcraft: A36; Jammed Aileron Control Cable; ATA 2710

A repair station submitter writes, "During a pre-purchase inspection, *(I)* found the control yoke binding when turned to the left approximately 45 degrees. I inspected the aileron control system and found a screw lodged in a pulley groove—and the cable damaged. This aircraft had flown 2.0 hours since the last annual inspection. The screw appeared to be a floor panel screw."





(Aileron cable P/N: 106-524044-19.)

Part Total Time: 2,266.3 hours

Bombardier: CL600...: Jammed Nose Landing Gear Door; ATA (n/a)

(Transport Canada provides the following advisory.)

Transport Canada Transports Canada

TP 7394

No. / N°	AV-2010-02	1/3
Date	2010-03-04	

SERVICE DIFFICULTY ADVISORY

This Service Difficulty Advisory brings to your attention a potential problem identified by the Service Difficulty Reporting Program. It is a non-mandatory notification and does not preclude issuance of an airworthiness directive.

Bombardier Inc.
CL-600-2C10, CL-600-2D15 and CL-600-2D24
Aft Nose Landing Gear Door Upper Attachment Hinge Assemblies

The purpose of the Advisory is to inform Operators and Maintenance Personnel of a potential problem with the aft nose landing gear door (ANLGD).

Transport Canada Civil Aviation (TCCA) has become aware of problems with the ANLGD upper attachment hinge assemblies. In one instance, during flight operation on a CL-600-2C10 aircraft, the landing gear extension appeared to function normally, although unusual noises were heard from the nose landing gear area. The post landing inspection revealed damage to ANLGD and to the surrounding structure. In that case, evidence suggested that one of the self-locking nuts (Refer to figure 1, Item 110), which held the hinge pin (Item 95) in place, backed out enough to cause the hinge pin to disengage. This caused the door to bind, causing damage when the landing gear extended.

Bombardier Inc. has since revised the relevant Aircraft Maintenance Manuals (AMM) through temporary revisions recommending installation of a new nut (Item 110), each time the door is removed and reinstalled.

While conducting this investigation, Bombardier Inc. also became aware of excessive bearing (item 145 & 250) wear on the fleet and is currently investigating this issue.

In the interim, TCCA strongly recommends that Operators and Maintenance Personnel pay extra attention to the upper attachment hinge assemblies for security and any abnormalities whenever maintenance is carried out around the ANLGD area.

AVIS DE DIFFICULTÉS EN SERVICE

Cet avis aux difficultés en service a pour but d'attirer votre attention sur un problème possible qui a été révélé par le Programme de rapports de difficultés en service. Il est une notification facultative et n'exclut pas nécessairement la publication d'une consigne de navigabilité.

Bombardier Inc.
CL-600-2C10, CL-600-2D15 et CL-600-2D24
Articulation de la pièce de fixation supérieure de la porte arrière du train d'atterrissage avant des avions

Le présent Avis de difficultés en service vise à informer les exploitants et le personnel de maintenance d'un problème possible avec la porte arrière du train d'atterrissage avant (PATAA).

Transports Canada, Aviation civile (TCAC) a appris l'existence de problèmes avec l'articulation de la pièce de fixation supérieure de la PATAA. Dans un cas, pendant le vol d'un avion CL-600-2C10, la sortie du train d'atterrissage a semblé se dérouler normalement, bien que des bruits inhabituels provenant de la région du train d'atterrissage aient été entendus. L'inspection après atterrissage a permis de constater les dommages subis par la PATAA et la structure environnante. Au vu des éléments de preuve, il semble que l'un des écrous auto-freinés (voir la figure 1, pièce 110), qui tenait l'axe d'articulation (pièce 95) en place, s'est desserré suffisamment pour que l'axe d'articulation se dégage. La porte s'est ainsi bloquée et elle a été endommagée lorsque le train est sorti.

Bombardier Inc. a depuis révisé le manuel d'entretien d'aéronef pertinent au moyen de révisions temporaires recommandant l'installation d'un nouvel écrou (pièce 110) à chaque fois que la porte est déposée et reposée.

Lors de cette enquête, Bombardier Inc. a également constaté une usure excessive du roulement (pièces 145 et 250) dans la flotte. Une enquête sur cette question est en cours.

Entre-temps, TCAC recommande fortement aux exploitants et au personnel de maintenance de porter une attention particulière à l'articulation des pièces de fixation supérieures afin d'assurer que le tout est bien fixé et de détecter les anomalies à chaque fois qu'il y a de la maintenance autour de la PATAA.

To request a change of address, contact the **Civil Aviation Communications Centre (AARC)** at **Place de Ville, Ottawa, Ontario K1A 0N8**, or **1 800 305-2059**, or **www.tc.gc.ca/civilaviation/communications/centre/ address.asp**

Pour demander un changement d'adresse, veuillez contacter le **Centre des communications de l'Aviation civile (AARC)** à **Place de Ville, Ottawa (Ontario) K1A 0N8**, ou **1 800 305-2059**, ou **www.tc.gc.ca/AviationCivile/communications/ centre/ adresse.asp.**

24-0028 (01-2005)

Canada

No. N°	AV-2010-02	2/3

Any findings should be reported to Bombardier Customer Response Center. Please refer to Service Letter CRJ700/900-SL-32-040 dated 16 November 2009.

Defects, malfunctions and failures occurring on aeronautical products are to be reported to Transport Canada in accordance with the requirements of CAR 521, Service Difficulty Reporting.

For further information, contact a Transport Canada Centre, or Mr. Guy Richard, Continuing Airworthiness, Ottawa at 613-952-4357, facsimile 613-996-9178 or email CAWWEBFeedback@tc.gc.ca

For Director, National Aircraft Certification

Toute autre constatation devrait être signalée au Centre de réponse aux clients de Bombardier. Veuillez consulter la lettre de service CRJ700/900-SL-32-040, daté du 16 novembre 2009.

Les défectuosités, les mauvais fonctionnements et les pannes de produits aéronautiques devraient être signalés à Transports Canada, conformément aux exigences du RAC 521 qui obligent à transmettre des rapports de difficultés en service.

Pour de plus amples renseignements, communiquer avec un Centre de Transports Canada ou avec Guy Richard, Maintien de la navigabilité aérienne, à Ottawa, téléphone 613-952-4357, télécopieur 613-996-9178 ou courriel CAWWEBFeedback@tc.gc.ca

Pour le Directeur, Certification nationale des aéronefs

for Derek Ferguson
Chief, Continuing Airworthiness
pour Chef, Maintien de la navigabilité aérienne

Note: For the electronic version of this document, please consult the following Web address: **www.tc.gc.ca/CivilAviation/certification/menu.htm**	**Nota:** La version électronique de ce document se trouve à l'adresse Web suivante : **www.tc.gc.ca/aviationcivile/certification/menu.htm**

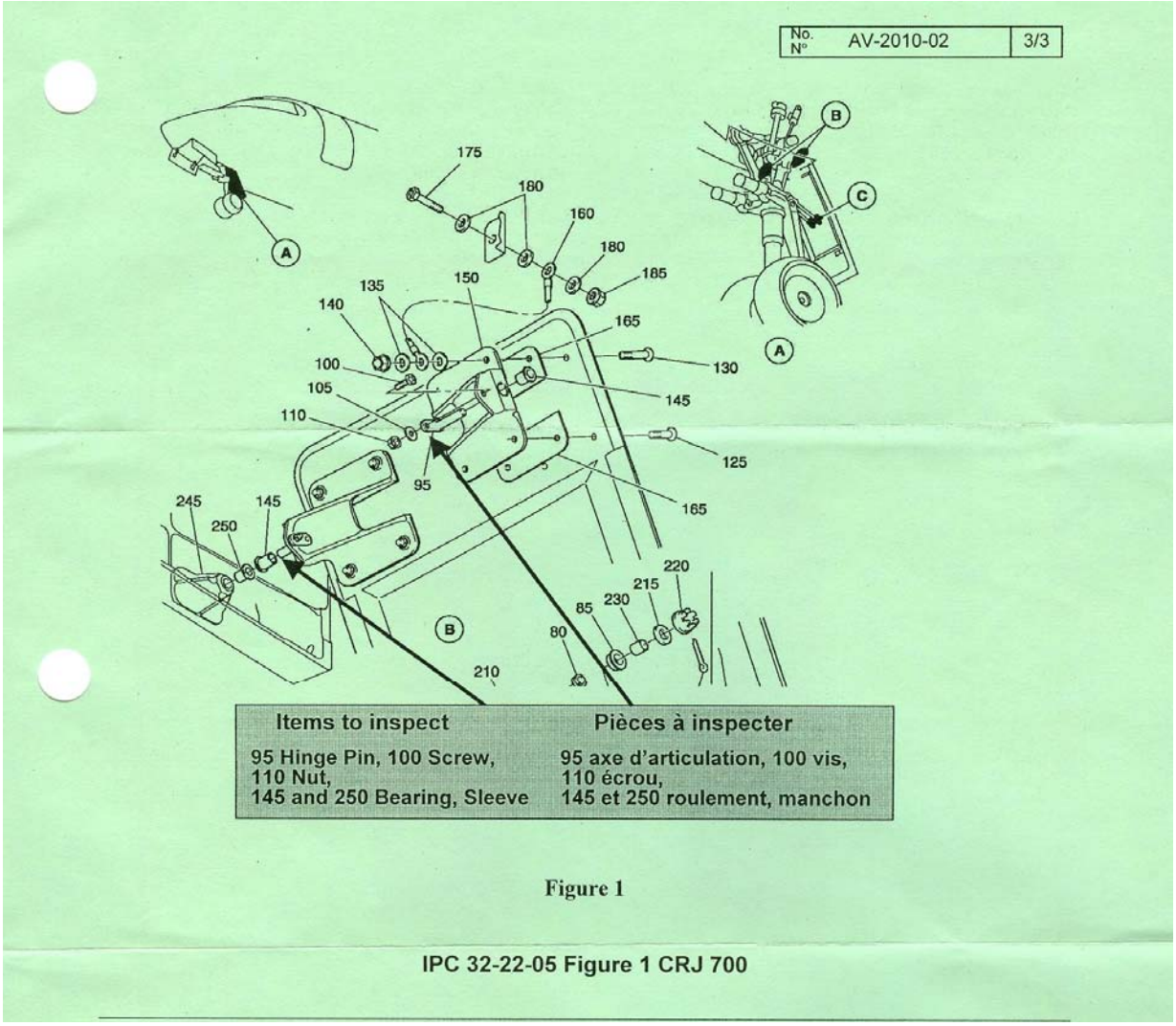


Figure 1

IPC 32-22-05 Figure 1 CRJ 700

Part Total Time: (n/a)

Cessna: 172S; Frayed Aileron Control Cables; ATA 2710

"The cabin overhead center panel was removed for progressive inspection," says a flight school chief inspector. "During the flap and aileron cable inspection, flat spots were noticed on three aileron control cables. *(We)* rolled the cables for a better view of the contact point with the pulleys and *(subsequently)* were able to catch frayed wires with a rag. A substantial groove could be seen in the carry-through cable. Cable tensions were within the proper specifications, and the area was clean and free of any dirt or debris. The plastic pulleys were also inspected—they too were clean and free to roll.

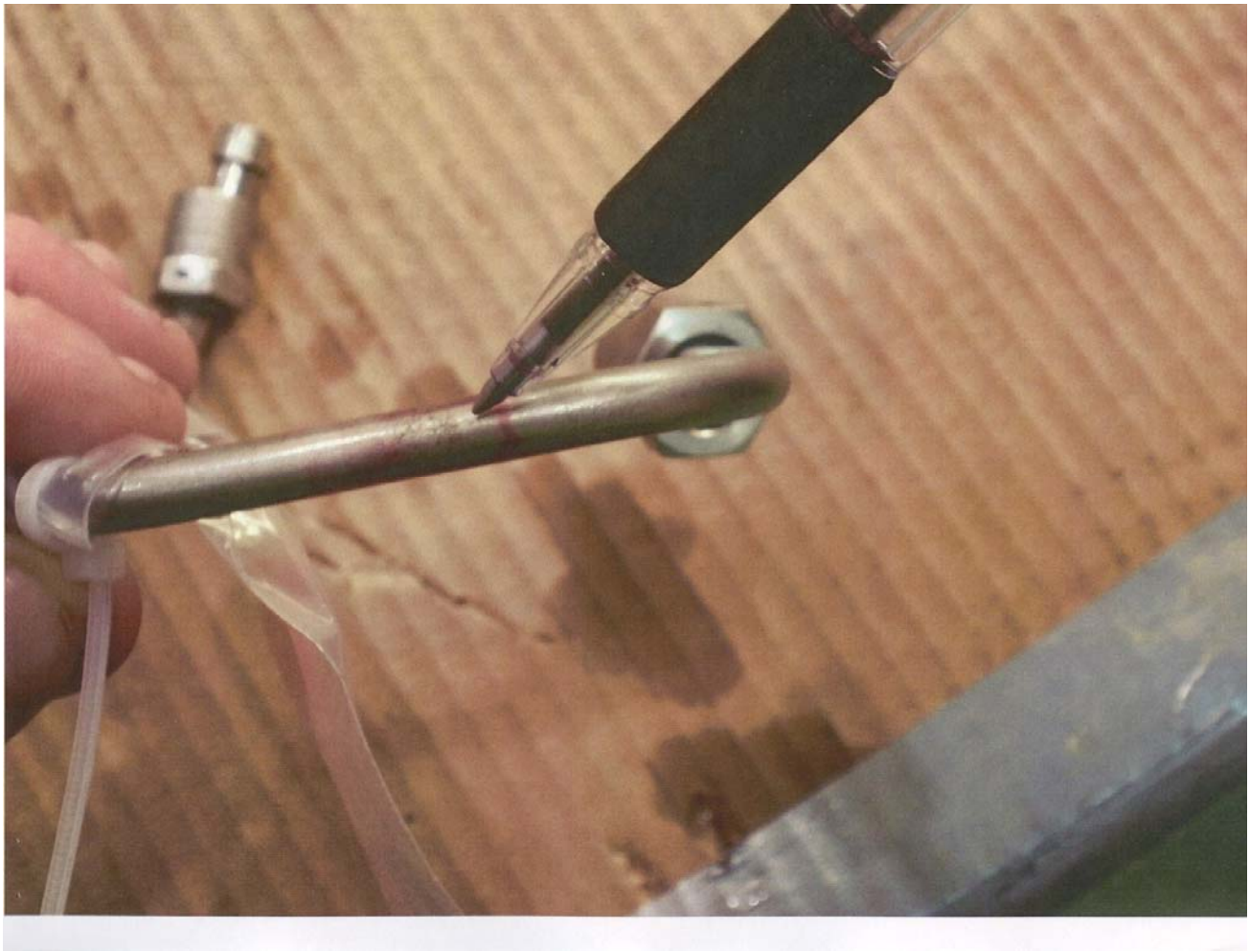
"This problem seems to be happening during normal flight training (school) use. This problem has been noticed with our other 172 aircraft having about the same *(airframe)* time.

"We feel the cause *(of this cable wear)* is from the pulleys themselves. They are made from a hard white plastic material. The braided steel cables are rubbing against the pulleys instead of rolling on them. This is causing them *(to develop)* a flat spot at first—and then a groove when worn deeper into the cable. *(Additionally),* there *(exists)* no noticeable cable deflection where the cables contact the pulleys—*(as if)* the pulley diameter is too small. Our recommendations: replace the pulleys with the normal, brown phenolic type pulley used in all other areas of the aircraft, or enlarge the pulley *(groove)* diameter to increase the cable-to-pulley contact." *(Aileron control cable part numbers: 0510105-365, -364, -360. The SDRS database reflects 17, 13, and 11 reports each on these cables, respectively.)*

Part Total Time: 2,096.7 hours

Cessna: 208B; Leaking Oil/Fuel Heater Tube; ATA 7312

A repair station technician says, "The ridged steel tube that feeds into the oil/fuel heater has developed little pin holes underneath the attached fire loop bracket. When this line is removed *(the little pin holes)* look like little dots of corrosion, but when pressurized with air it leaks at an extreme rate. The possible cause could be Adel clamp chafing or corrosion." *(Heater tube P/N: 3013446. A Pratt & Whitney PT6A-114 is attached to the nose of this aircraft.)*



Part Total Time: (unknown)

Cessna: ***(300-400 Series);*** **Collapsed Main Gear Advisory; ATA (n/a)**

(The following advisory is provided by Transport Canada.)

Transport Canada Transports Canada

TP 7394

No. N°	AV-2010-03	1/3
Date	2010-03-18	

SERVICE DIFFICULTY ADVISORY

This Service Difficulty Advisory brings to your attention a potential problem identified by the Service Difficulty Reporting Program. It is a non-mandatory notification and does not preclude issuance of an airworthiness directive.

CESSNA 300/400 SERIES
Main Landing Gear Malfunctions

The operator of a Canadian registered Cessna 401A reported that the R/H main landing gear (MLG) suddenly collapsed while taxiing out for takeoff. A maintenance investigation revealed that both the MLG adjusting screw, Part Number (P/N) 0841113-3, and the pivot bolt (P/N NAS 464P4-26) attaching the bellcrank assembly to the landing gear trunnion, had sheared. The operator of the Cessna 401A had not complied with all of the manufacturer's applicable Supplemental Inspection Documents (SID) listed below. It is important to note that the follow-up investigation revealed that the adjusting screw and other MLG parts that were found broken are part of a SID inspection

A search of the Service Difficulty Report (SDR) database revealed an earlier event whereby the MLG inadvertently retracted during landing and caused the aeroplane to veer off the runway. In that case, a maintenance investigation revealed that the R/H MLG adjusting screw failed and caused the side brace to unlock.

A SDR service history review shows that a number of previous events of MLG collapse or extension/retraction issues can be attributed to improper rigging of the landing gear. The MLG is actuated by an electric motor and reduction gear located in the area of the central lower fuselage. The rotation of this motor is transmitted simultaneously to all 3 legs of the landing gear through a set of levers, bellcranks, pivot bolt, side link, adjusting screw and torque tube, thereby moving each respective push-pull tube. Therefore, it is imperative that maintenance personnel precisely follow each sequential step of the manufacturer's instructions while rigging the landing gear system.

On 3 June 2002, the Cessna Aircraft Company issued SID Number 32-30-05 titled "Main/Nose Gear Retraction Systems Teardown and Inspection". The primary purpose of the Cessna corrective action SID is to thoroughly inspect the MLG and adjacent structure in order to prevent gear extension and retraction malfunctions.

AVIS DE DIFFICULTÉS EN SERVICE

Cet avis aux difficultés en service a pour but d'attirer votre attention sur un problème possible qui a été révélé par le Programme de rapports de difficultés en service. Il est une notification facultative et n'exclut pas nécessairement la publication d'une consigne de navigabilité.

CESSNA 300/400
Problèmes de fonctionnement du train d'atterrissage principal

L'exploitant d'un Cessna 401A immatriculé au Canada a fait savoir que le train d'atterrissage principal droit s'était soudainement affaissé pendant que l'avion circulait au sol pour aller décoller. À la suite d'une enquête de la maintenance, il est apparu que la vis de réglage du train d'atterrissage principal de référence (réf.) 0841113-3 et le boulon (réf. NAS 464P4-26) qui sert à fixer le guignol au tourillon du train d'atterrissage avait lui aussi été cisaillé. L'exploitant du Cessna 401A ne s'était pas conformé aux documents d'inspection supplémentaire (DIS) dont il est question plus bas. Il importe de souligner que l'enquête complémentaire a révélé que la vis de réglage et les autres pièces du train d'atterrissage principal retrouvées cassées faisaient partie d'une inspection décrite dans un DIS.

Une recherche dans la base de données des Rapports de difficultés en service (RDS) a révélé un autre cas antérieur au cours duquel le train d'atterrissage principal était rentré de façon intempestive à l'atterrissage, ce qui avait entraîné une sortie de piste de l'avion. Dans ce cas, l'enquête effectuée par la maintenance avait révélé que la vis de réglage du train d'atterrissage principal droit s'était rompue, ce qui avait provoqué le déverrouillage de la contrefiche latérale.

Un examen des antécédents en service des RDS montre qu'un certain nombre de cas antérieurs d'affaissement ou de rentrée/sortie du train d'atterrissage principal peuvent être attribués à un mauvais réglage du train d'atterrissage. Le train d'atterrissage principal est actionné par un moteur électrique et un engrenage réducteur situé dans la région centrale de la partie inférieure du fuselage. La rotation du moteur est transmise simultanément aux trois jambes du train d'atterrissage au moyen de leviers, de guignols, de boulons d'articulation, de biellettes latérales, de vis de réglage et de tubes de torsion, ce qui amène tous les tubes à double effet à se déplacer. Par conséquent, il est très important que le personnel de la maintenance suive à la lettre chaque étape des instructions du constructeur lors du réglage du circuit du train d'atterrissage.

Le 3 juin 2002, la Cessna Aircraft Company a publié le DIS numéro 32-30-05 intitulé « Main/Nose Gear Retraction Systems Teardown and Inspection » (démontage et inspection des systèmes de rentrée des trains d'atterrissage avant et principaux). Les mesures correctives décrites dans le DIS de Cessna portent principalement sur une inspection détaillée du train d'atterrissage principal et de la structure avoisinante afin de prévenir tout problème de rentrée et de sortie du train.

To request a change of address, contact the Civil Aviation Communications Centre (AARC) at Place de Ville, Ottawa, Ontario K1A 0N8, or 1 800 305-2059, or www.tc.gc.ca/civilaviation/communications/centre/ address.asp

Pour demander un changement d'adresse, veuillez contacter le Centre des communications de l'Aviation civile (AARC) à Place de Ville, Ottawa (Ontario) K1A 0N8, ou 1 800 305-2059, ou www.tc.gc.ca/AviationCivile/communications/ centre/ adresse.asp.

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Canada

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The SID also refers to Multi-engine Service Bulletin (SB) MEB88-5, Revision 2, which advises owners/operators to carry out initial and repeat inspections of the MLG trunnion lugs. Failure of the MLG trunnion lugs can result in substantial damage to the aeroplane and possible injury to occupants and/or ground personnel.

Le DIS renvoie également à la révision 2 du bulletin de service (BS) multimoteur MEB88-5, qui demande aux propriétaires et aux exploitants de faire une inspection initiale suivie d'inspections périodiques des pattes du tourillon du train d'atterrissage principal. Une défaillance des pattes en question risque d'entraîner des dommages importants à l'avion et d'éventuelles blessures aux occupants et/ou au personnel au sol.

In addition, the Federal Aviation Administration (FAA) has recently issued Special Airworthiness Information Bulletin (SAIB) CE-09-16 advising operators of Cessna twin-engine aircraft to inspect for fatigue cracks on the MLG torque tubes. Please refer to Cessna SID 32-10-01 or 32-10-02 entitled "MLG Torque Tube Assembly" to determine affected models. Failure of a torque tube can cause damage to the main gear bellcrank assembly resulting in MLG indication and retraction/extension problems. The SAIB also emphasizes that proper rigging of the landing gear is critical for safe operation. For further information please refer to the Cessna SB MEB09-2 entitled "MLG Torque Tube Life Limit".

En outre, la Federal Aviation Administration (FAA) a publié récemment le bulletin spécial d'information de navigabilité (SAIB) CE-09-16 afin de demander aux exploitants de bimoteurs Cessna d'inspecter les tubes de torsion du train d'atterrissage principal à la recherche de criques de fatigue. Consulter les DIS 32-10-01 ou 32-10-02 de Cessna intitulés « MLG Torque Tube Assembly » (tubes de torsion du train d'atterrissage principal) afin de connaître les modèles visés. Une défaillance d'un tube de torsion peut entraîner des dommages au guignol du train d'atterrissage principal aboutissant à des problèmes d'indication et de rentrée/sortie du train d'atterrissage principal. Le SAIB fait également valoir qu'un bon réglage du train d'atterrissage est d'une grande importance pour une exploitation en toute sécurité. Pour en savoir plus, consulter le BS MEB09-2 de Cessna intitulé « MLG Torque Tube Life Limit » (limite de vie utile des tubes de torsion du train d'atterrissage principal).

Additionally, Transport Canada Civil Aviation (TCCA) has reviewed a previous (Spanish) foreign accident report on a Cessna 402B in which the L/H main landing gear collapsed while taxiing for take-off roll. The post accident investigation revealed that the bellcrank pivot bolt (NAS 464P4-26) had failed first in this sequence of events. Yet another Cessna 421B (Spanish) accident event reported landing gear collapse during landing. Significant damage occurred following skidding off the runway. The sheared bellcrank pivot bolt, once again, appeared to be the initial component in the sequence of failures. Spanish authorities are aware of a number of other main landing gear pivot bolt failures and concluded that improper rigging of the landing gear can result in overload failure of the pivot bolt and consequent overload failure of the bellcrank assembly. The complicated nature of the rigging procedures required for the main landing gear needs to be completed from start to finish. Even small adjustments can introduce a pre-load that exceeds the design criteria of the landing gear resulting in main gear collapse. To verify the integrity of the bellcrank pivot bolt, compliance with Cessna SID 32-10-03 is strongly advised.

De plus, Transports Canada, Aviation civile (TCAC) a examiné un rapport d'accident étranger (espagnol) antérieur faisant état de l'affaissement du train d'atterrissage gauche d'un Cessna 402B qui circulait au sol pour aller décoller. L'enquête après l'événement a relevé que le boulon du guignol (réf. NAS 464P4-26) s'était rompu en premier dans la séquence des événements. Un autre événement s'est produit où on a signalé l'affaissement du train d'atterrissage d'un Cessna 421B (espagnol) à l'atterrissage. L'appareil a subi d'importants dommages après avoir dérapé hors de la piste. Un boulon de guignol cisaillé semble encore avoir été le premier élément de la chaîne des événements. Les autorités espagnoles sont au fait de nombreuses autres ruptures de boulons de trains d'atterrissage principaux. Elles ont conclu qu'un mauvais réglage d'un train d'atterrissage peut avoir pour conséquence une rupture due à une surcharge du boulon d'articulation qui entraîne ensuite la rupture en surcharge du guignol. Les procédures complexes de réglage du train d'atterrissage doivent être effectuées de A à Z. Même les petits réglages peuvent ajouter des charges qui dépassent les critères de conception du train d'atterrissage et qui peuvent mener à un affaissement du train d'atterrissage principal. Il est fortement recommandé de se conformer à la DIS 32-10-03 de Cessna pour vérifier l'intégrité du boulon d'articulation du guignol.

Aircrew should be aware that any problems with slow gear retractions/extensions and/or gear unsafe indications, coupled with a decay of climb/cruise speed, may be a warning of an impending MLG failure.

Les équipages d'aéronef devraient savoir que tout problème de rentrée ou de sortie lente du train ou toute indication d'un train non verrouillé, conjugués à une diminution de la vitesse de montée ou de croisière, peuvent être un signe d'une rupture imminente du train d'atterrissage principal.

TCCA strongly advises owners, operators and other responsible agencies to comply with Cessna SID Numbers 32-30-05, 32-10-01, 32-10-02, 32-10-03, SB MEB88-5 and recently issued MEB09-2.

TCAC recommande fortement aux propriétaires, aux exploitants et aux autres organismes responsables de se conformer aux DIS numéros 32-30-05, 32-10-01, 32-10-02 32-10-03 de Cessna ainsi qu'au BS MEB88-5 et au BS MEB09-2 publiés récemment.

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TCCA also advises Cessna 300/400 owners, operators and other responsible agencies that close monitoring of the various landing gear mechanisms and warning systems is needed. In particular, we strongly emphasize strict adherence to the manufacturers' maintenance instructions whenever rigging the landing gear system.

Malfunctions, defects and failures occurring on aeronautical products should be reported to Transport Canada, Continuing Airworthiness in accordance with CAR 521 mandatory Service Difficulty Reporting requirements.

For further information, please contact a Transport Canada Centre, or Mr. Barry Caldwell at 613-952-4357 or e-mail CAWWEBFeedback@tc.gc.ca or any Transport Canada Centre.

For Director, National Aircraft Certification

TCAC tient également à faire savoir aux propriétaires, aux exploitants et aux autres organismes responsables de Cessna 300/400 qu'ils doivent surveiller de près les divers mécanismes et les systèmes d'alarme. Notamment, il est fortement recommandé de suivre les instructions de maintenance du constructeur lors du réglage du circuit du train d'atterrissage.

Les mauvais fonctionnements, les défectuosités et les pannes de produits aéronautiques devraient être signalés au Maintien de la navigabilité aérienne de Transports Canada, conformément aux exigences du RAC 521 qui obligent à transmettre des rapports de difficultés en service.

Pour de plus amples renseignements, communiquer avec un Centre de Transports Canada ou avec M. Barry Caldwell, téléphone 613-952-4357 ou courriel CAWWEBFeedback@tc.gc.ca

Pour le directeur, Certification nationale des aéronefs

Derek Ferguson
Chief, Continuing Airworthiness
Chef, Maintien de la navigabilité aérienne

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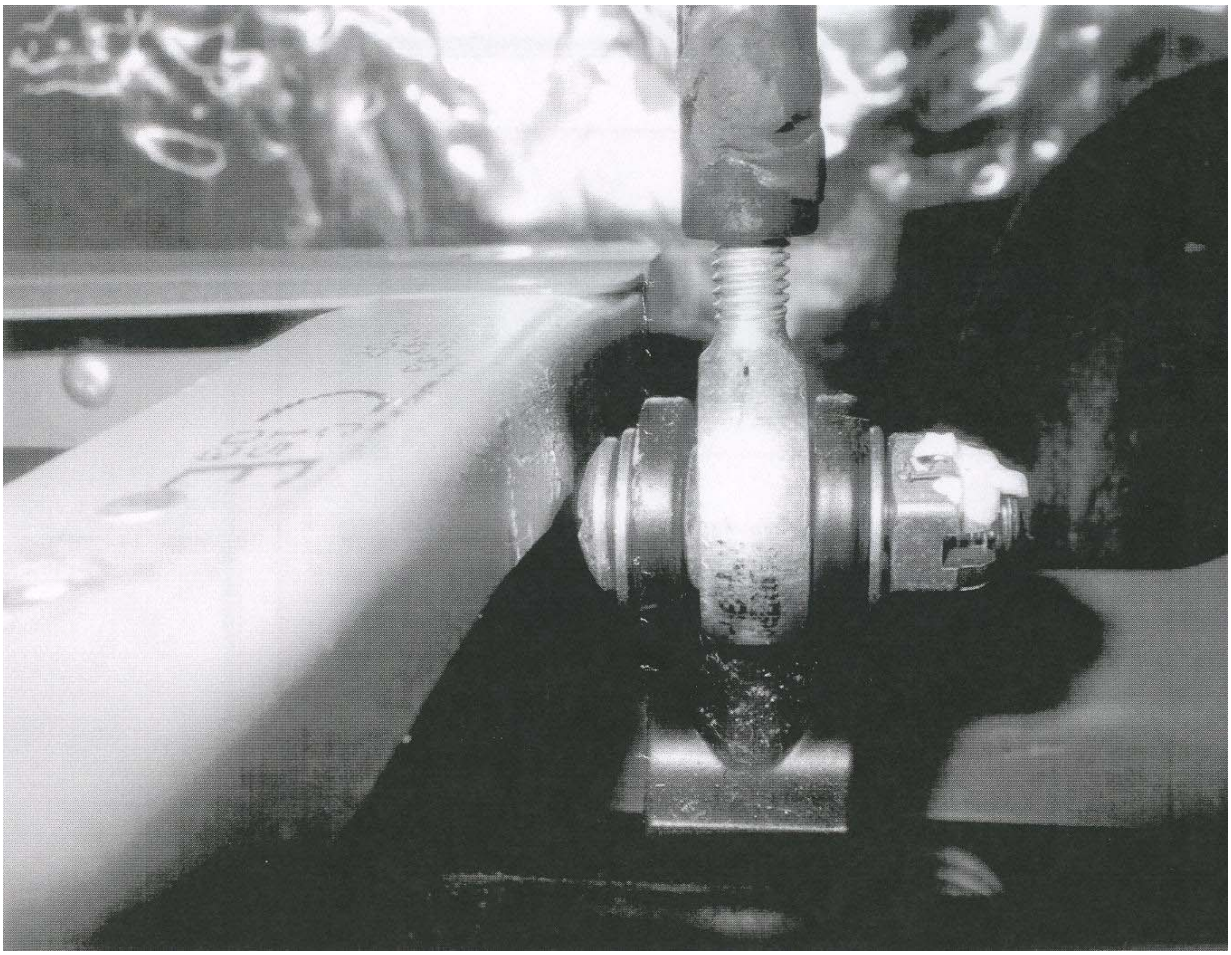
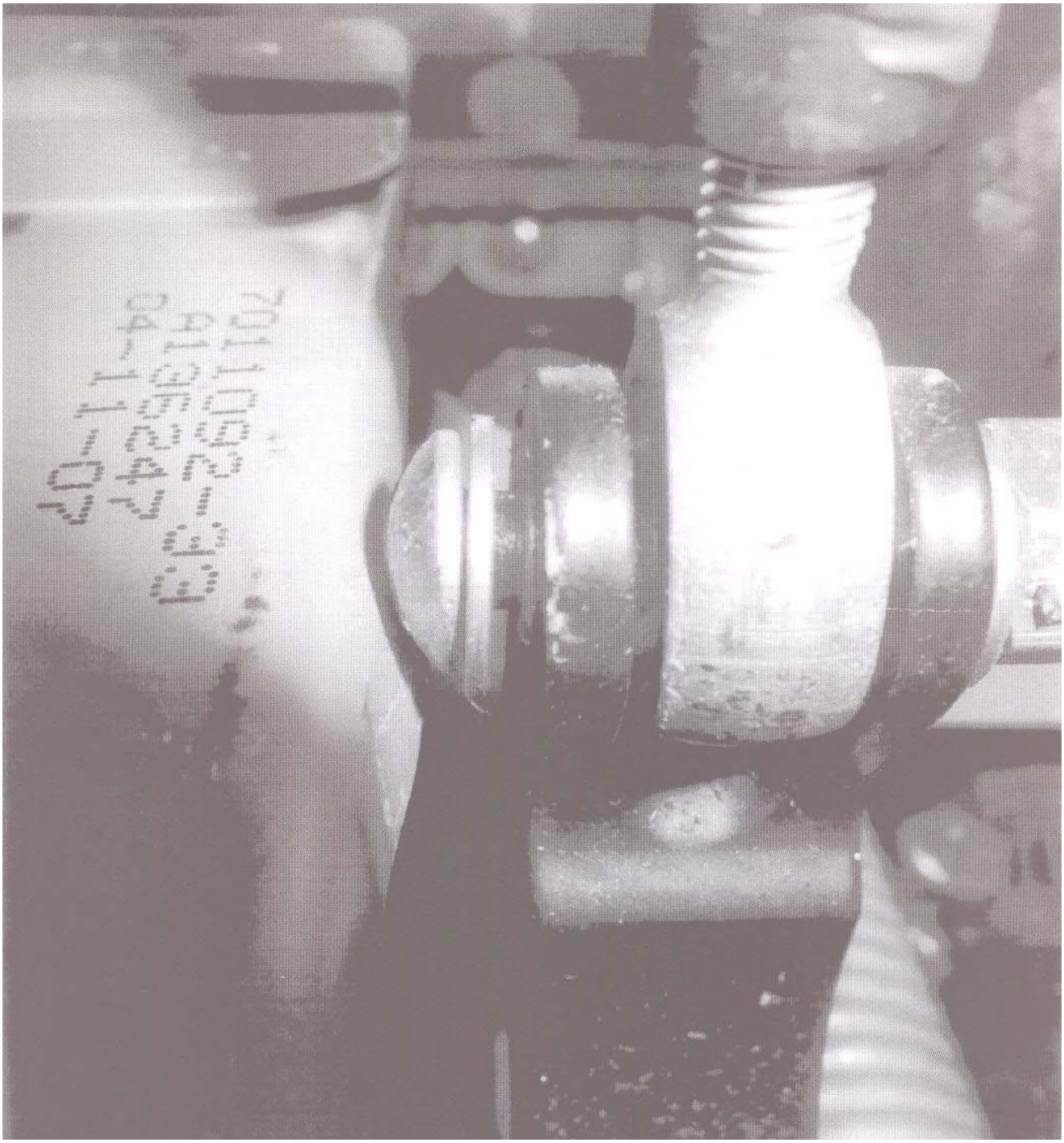
Part Total Time: (n/a)

Cessna: 510; Brake Pedal Pushrod Interference; ATA 2720

An English operator submitted this defect report, stating, "During a maintenance inspection in the area of the pilot's rudder pedals, it was noticed that the right brake pedal pushrod had (at some point) made contact with an adjacent, floor support angle, causing minor distortion to the angle's vertical flange. This condition could have resulted in the brake pedal remaining in a partially depressed state.

"Clearance from structure in this location is very limited. This condition was compounded by the fact that the bolt has lateral play due to insufficient washers being installed under the nut. The installation, however, was in accordance with the IPC *(illustrated parts catalog; 27-20-01, figure 1, item 30)*."



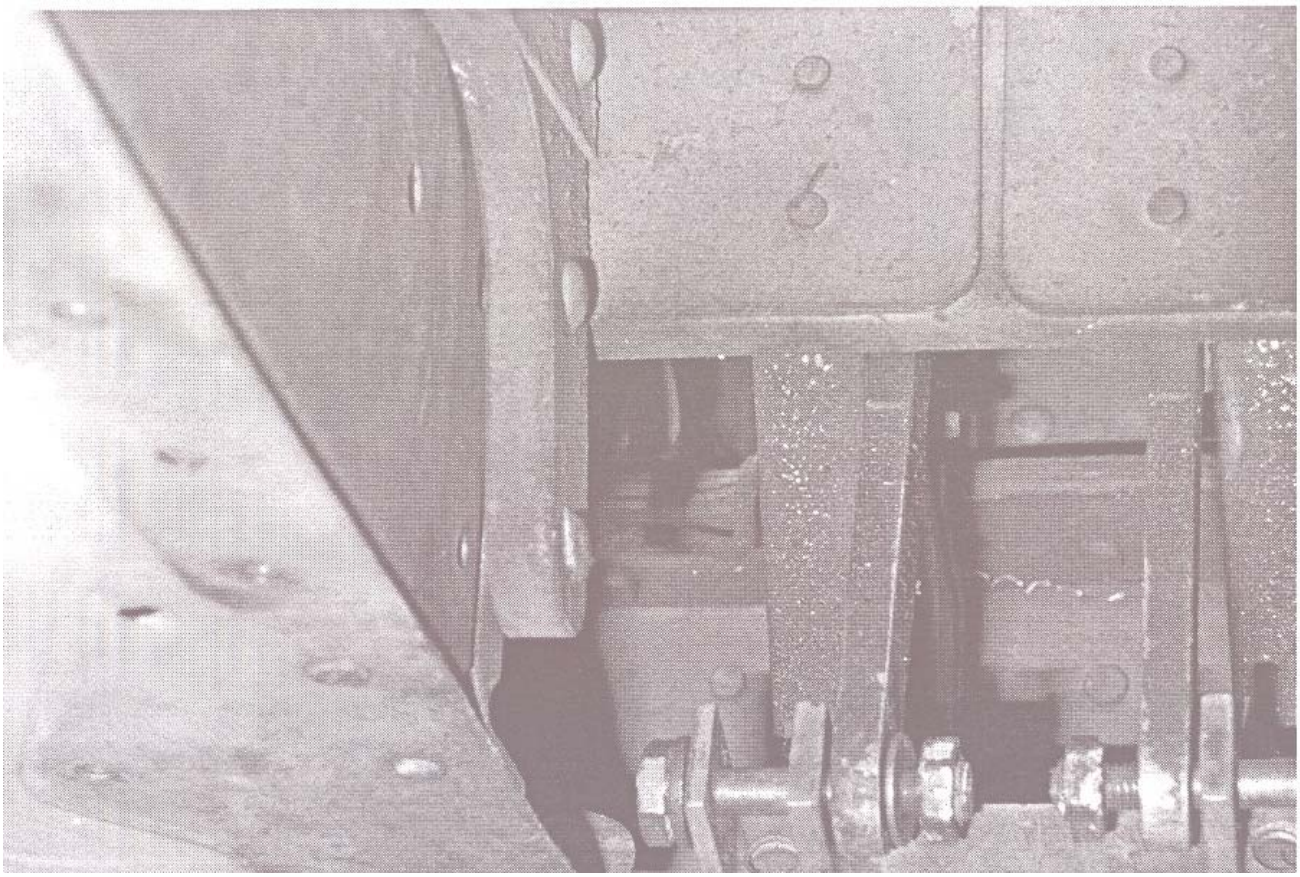


(The "component" P/N is provided: 7060310-3. Note also the first number in the above picture—angle part number?)

Part Total Time: 479.05 hours

Piper: PA46-350P; Sheared Elevator Actuator-Arm Rivets; ATA 2730

"An 'inoperative elevator trim' discrepancy was found to be caused by a frayed cable jamming the trim drum," writes a repair station technician. "*(I)* also found the elevator actuator arm (P/N 83515-02) to be loose—*(free)* to move in all directions. All actuator arm-to-elevator rivets (except one) were sheared or loose. Since both up and down stops are on this *(actuator)* arm, we believe a jet blast or severe wind caused the elevator to hit the stops *(with damaging force)*."



PIPER AIRCRAFT
PA-46-310P/350P MALIBU
AIRPLANE PARTS CATALOG

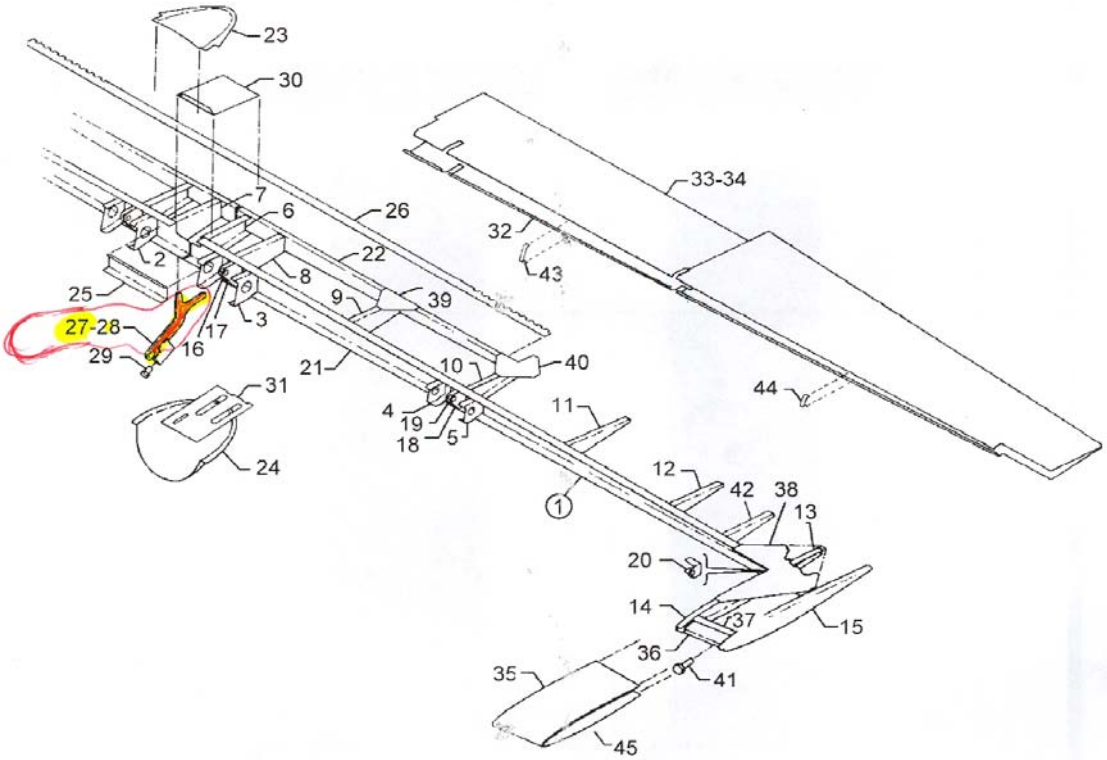


Figure 24. Elevator Assembly

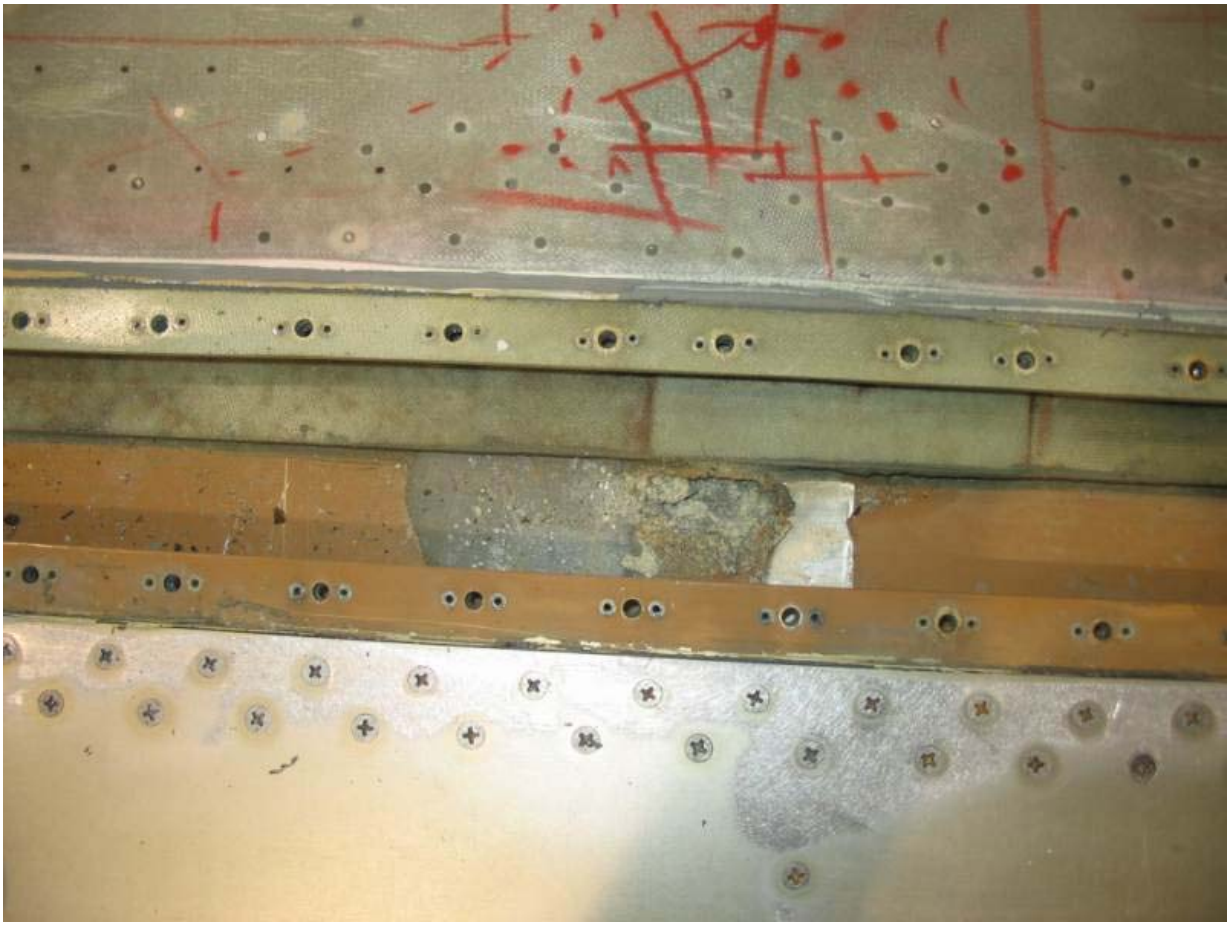
Reissued: September 10, 2006

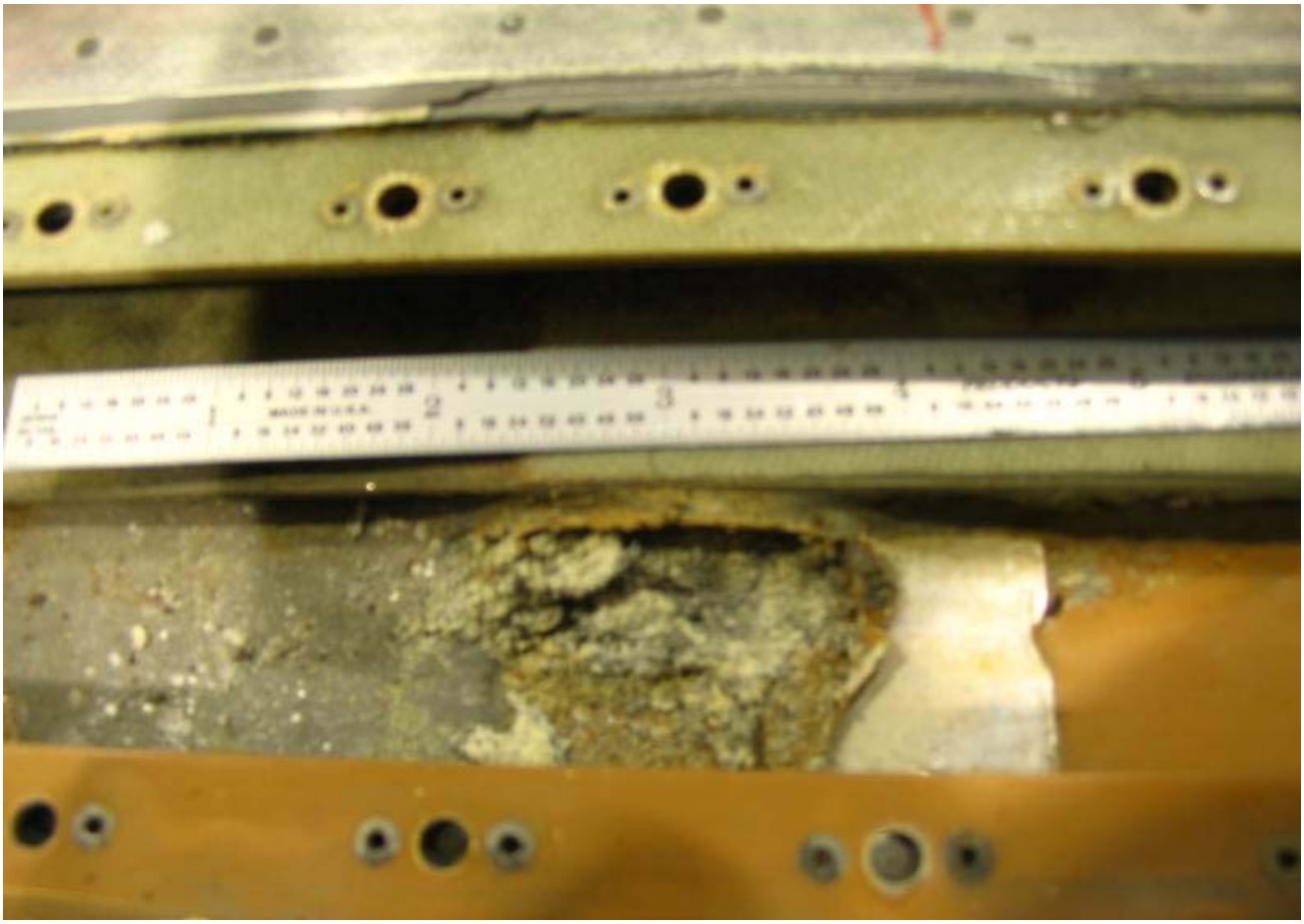
1E23

Part Total Time: 2,995.0 hours

Rockwell: NA265-65; Wing Panel Corrosion; ATA 5730

An unidentified submitter writes, "While the aircraft was stripped for a paint job, a visual inspection of the L/H over-wing fairing *(revealed)* delamination. After panel removal, corrosion was found extending under the over-wing panel...*(and)* through the L/H wing plank at wing station 102.5—107, approximately 10.0 inches from the front spar...." *(The exfoliation corrosion covered approximately 15.0 inches.)* "This area is only inspected by visual means during a 150 hours inspection, and the wing planks are covered up by the over-wing fairings (fiberglass overlays)." *(Skin panel P/N: 3701301213.)*

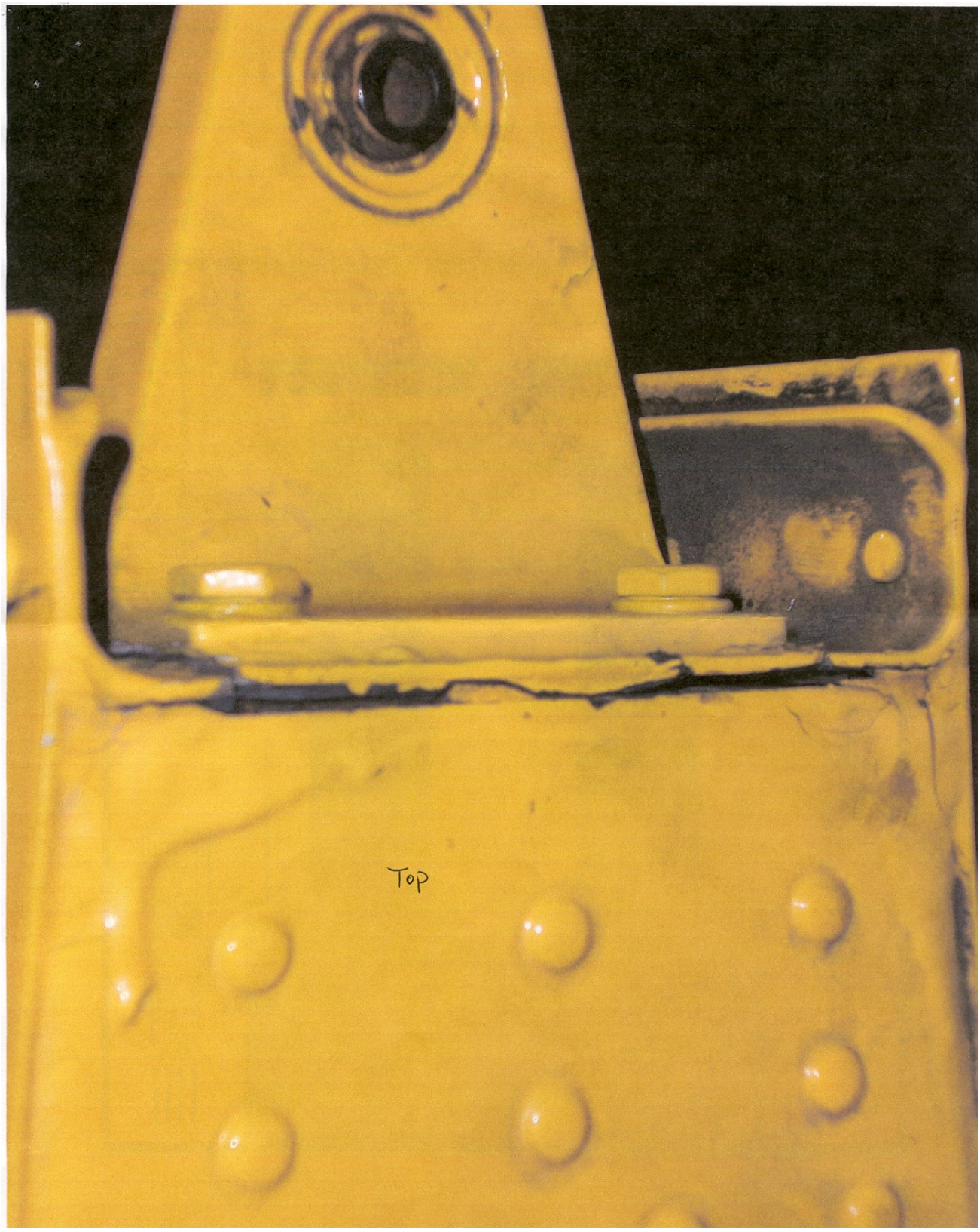




Part Total Time: 15,572.0 hours

Rockwell: S2R; Cracked Vertical Stabilizer Spar; ATA 5531

A mechanic says, "The top rudder attach bracket cracked out of the rear spar on the vertical fin. *(I)* noticed this crack at Annual Inspection. *(One might...)* possibly install a heavier rear spar or other *(support/doublers)* in that area. *(An included example is the Ayres Corporation Service Bulletin, number SB –AG-38. Aft spar P/N: 40261T023.)*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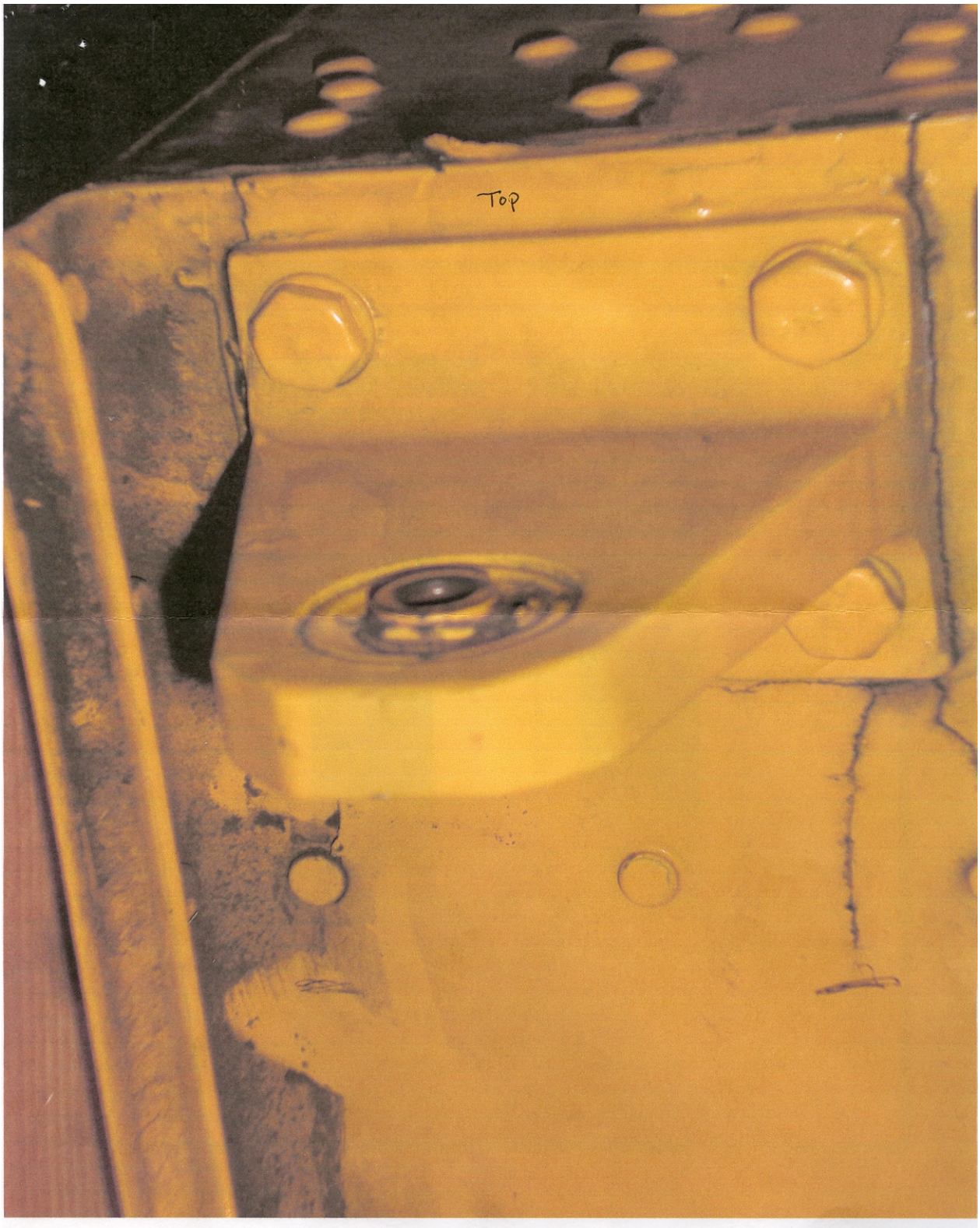

Part Total Time: (unknown)

POWERPLANTS

Continental: GTSIO520-H1; Cracked Turbo-exhaust Clamp; ATA 8120

"During an Annual Inspection," says a repair station technician, "the clamp between the turbocharger and exhaust on the left engine was found with a 4.5 inch crack along the circumference." *(P/N: NH1000897-50. The SDRS database has four, similar reports on these clamp failures.)*

Part Total Time: (unknown)

Continental: IO550-B; Cracked Exhaust Valve; ATA 8530

An unidentified submitter states, "This aircraft *(Beech A36)* experienced power loss, vibration, and low number 2 EGT *(exhaust gas temperature)*. Upon inspection the number two cylinder exhaust valve *(P/N 646286)* was found to be missing about half its face." *(Cylinder P/N: 655469E.)*

Part Total Time: 830.0 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 address below.

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

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

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

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

Federal Aviation Administration

Service Difficulty Report Data

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

Control Number	Aircraft Make	Engine Make	Component Make	Part Name	Part Condition
Difficulty Date	**Aircraft Model**	**Engine Model**	**Component Model**	**Part Number**	**Part Location**
2010FA0000150				TUBE	EXPLODED
2/11/2010					TIRE

LIQUID PENETRANT MAY CAUSE A TUBE-TYPE TIRE TO EXPLODE IF USED INDISCRIMINATELY. THIS WAS DISCOVERED AS PENETRANT WAS APPLIED TO LOOSEN FROZEN BICYCLE SPOKE NUTS. WHEN THE PENETRANT WORKED ITS WAY INTO THE WHEEL INTERIOR VIA THE SPOKE NUT, IT CONTACTED THE INNER TUBE WHICH INSTANTLY RUPTURED AND BLEW THE TIRE OFF THE RIM WITH A REPORT THAT SOUNDED LIKE A SHOTGUN BLAST. A SIMILAR REACTION INVOLVING A TUBE-TYPE ACFT OR GSE TIRE COULD BE DEADLY. THE MFG OF PENETRANT DID NOT RESPOND TO A CAUTIONARY EMAIL SUBMITTED VIA THEIR WEBSITE.

2010FA0000217				BLADE	CRACKED
3/5/2010					PROPELLER

2 CRACKS FOUND ALONG GRAIN OF WOOD. 1 CRACK WAS .5 INCH LONG. THE OTHER CRACK WAS .25 INCH LONG. PROPELLER TIS 360.0 HOURS.

2010FA0000198				DISTRIBUTOR GEAR	LOOSE
3/4/2010				M3008	MAGNETO

ROTOR CONTACT (COPPER ARM) WAS FOUND LOOSE IN THE DISTRIBUTOR GEAR IN A 4370 MAGNETO, THIRD TIME I HAVE FOUND THIS CONDITION IN A MAG, PN MOLDED INTO THE GEAR IS M3008, PN OF DISTRIBUTOR ASSY IS K3822

CA100117007				AUTOPILOT SYS	MALFUNCTIONED
12/24/2009					

(CAN) THE EVENT OCCURRED WHILE THE ACFT WAS FLYING WITH AUTO PILOT ON AND IN VERY TURBULENT CONDITION. AS A RESULT OF THE TURBULENT CONDITION THE PILOT CHANGED DIRECTION WITH AUTO PILOT STILL ON. A WARNING MESSAGE CAME ON INDICATING THE PILOT WAS ACTING AGAINST THE AUTO PILOT, WHICH WAS FOLLOWED BY A LOW OIL PRESSURE INDICATION AND AN ENGINE FAIL SIGNAL FOR BOTH ENGINES. THE PILOT VERIFIED THE POWER LEVERS AND NOTICED THAT BOTH ENGINES RESPONDED. THE DCU DOWNLOAD SHOWED THAT THERE WAS NO ENGINE FLAME OUT OR IFSD DURING THE EVENT. TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100217004				ANTENNA	MALFUNCTIONED
2/4/2010					SATELLITE TV

(CAN) DURING ENGINE RUNS, MX NOTED A SIGNIFICANT LOSS IN VHF NR 1 RECEPTION SENSITIVITY WHILE THE LIVE TV ENTERTAINMENT SYS WAS IN OPERATION, SPECIFICALLY IN THE UPPER TUNING RANGE. VHF NR 2 WAS UNEFFECTED. UPON REPLACEMENT OF THE LIVE TV SATELLITE ANTENNA, VHF NR 1 RECEPTION RETURNED TO NORMAL OPERATION. (TC 20100217004)

CA100218016				HUB	CRACKED
2/12/2010				230321900	PROPELLER

(CAN) ON 100 HR INSP, A CRACK WAS FOUND IN THE PROPELLER HUB. (TC 20100218016)

CA100224011		HEAD	JAMMED
2/23/2010	R1300317RB	R1265101	LIFE RAFT

(CAN) OPERATING HEAD PN. R1265-101 FAILED TO OPERATE DURING ROUTINE FUNCTION TEST, DURING LIFERAFT O/H. (TC 20100224011)

CA100119007	HOSE	MISINSTALLED
12/29/2009	106199825	

(CAN) THIS PART WAS INSTALLED IN A LOCATION WHICH IS PROHIBITED BY AD 2008-17-13. THE PART WAS ORDERED USING THE CURRENT MFG ILLUSTRATED PARTS CATALOGUE (IPC) APPLICABLE TO THIS ACFT. MY CONCERN IS WHY HAS MFG NOT AMMENDED THEIR IPC TO INDICATE THAT THIS PART IS NO LONGER FIT FOR INSTALLATION IN THIS LOCATION? ARE THERE OTHER COMPONENTS/PARTS IN THE SAME SITUATION AS THIS? ARE OEM`S NOT REQUIRED TO SUPPORT/AMMEND THEIR DOCUMENTS IN A TIMELY MATTER FOR THE BENIFIT OF SAFE FLIGHT? IN THIS INSTANCE THERE WAS NO ILL EFFECTS DUE TO THE INSTALLATION OF THIS WATER LINE AS IT WAS CAUGHT BY THE OPERATOR AFTER THE ACFT FLEW 2-4 LEGS. THE AIRCARFT WAS GOUNDED AND THE APPLICABLE SB WAS ACCOMPLISHED TO MAKE GOOD ON THE AD REQUIREMENTS. (TC 20100119007)

CA100122004	HUB	OUT OF LIMITS
1/18/2010	84074	PROPELLER

(CAN) AT DISSASSEMBLY DURING O/H, IT WAS OBSERVED THAT THE PN A-1817 SHAFT BUSHING WAS 0.100 BELOW ITS PROPER LOCATION. UPON REMOVAL, IT APPEARED THAT SHAFT SPLINES HAD BEEN MACHINED DOWN WHICH ALLOWED THE SHAFT BUSHING TO BE PRESSED TOO FAR INTO THE HUB. WHEN THE PROPELLER IS INSTALLED ON THE ACFT, THE SHAFT NUT PN B-1894 SHOULD TIGHTEN ON THIS BUSHING AND THE HUB FLANGE AT THE SAME TIME. WITH THE BUSHING BEING TOO FAR INTO THE HUB, THE NUT WOULD ONLY CONTACT THE HUB FLANGE AREA.

CA100128006	HUB	DAMAGED
1/27/2010	E6826	PROPELLER

(CAN) PROPELLER WAS REMOVED FOR L/E DELAMINATION. UNSCHEDULED REMOVAL. REMOVED ALL BLADES AND ACCOMPLISHED A STANDARD VISUAL INSP OF THE HUB UNIT. DEEP LINEAR INDICATIONS IN ALL BLADE SEAL GROOVE AREA WAS VISIBLE. MEASURED OVER AND ABOVE DAMAGE ALLOWANCES IN THIS SPECIFIC LOCATION. NEW SEALS PN C-6337-1 HAVE A VISIBLE LINES WHICH PRODUCES OUTWARDS FROM THE SMOOTH FLAT SERVICE THAT RUBS IN THE HUB SEAL GROOVE. DAMAGES FOUND IN THE HUB UNIT SEEMS TO MATCH THE LOCATION OF THE NEW SEALS LINE WHICH PRODUCES OUTWARDS. BLADES ROTATE WITH THESE SEALS INSTALLED ON EACH BLADE, MATING WITH THE SEAL GROOVE AREA INSIDE THE HUB UNIT. HUB UNIT WAS SCRAPPED - REMOVED FROM SERVICE WITH ONLY TSN 3035.2HRS.

CA100129005	SWITCH	UNSERVICEABLE
1/7/2010	975UNO1B4AA5P	START

(CAN) START SWITCH SELECTED OFF, ENGINE SHUTDOWN BUT CONTINUED TO MOTOR OVER, START SWITCH REPLACED WITH SAME AND PROBLEM CURED.

2010FA0000259	TRANSCEIVER	MALFUNCTIONED
3/16/2010	9810871	GLIDESLOPE

ON 01/30/2010 POST INSTALLATION, EMI TESTING WAS CONDUCTED IAW APPENDIX B OF TDFM-136 INSTALLATION AND OPERATING INSTRUCTIONS TIL DOC NR 99RE255, REV D ISSUE 7, DATED APRIL 2004. AS A RESULT OF THOSE TESTS IT WAS DETERMINED THAT AN INTERFERENCE PROBLEM EXISTS AS PERTAINING TO THE OPERATION OF THE ACFT GLIDESLOPE SYS WHILE BEING RAMP CHECKED. THIS INTERFERENCE OCCURS IN THE FORM OF THE GLIDESLOPE FLAGGING A LOSS OF SIGNAL AND/OR GLIDESLOPE NEEDLE DEFLECTIONS. 3 DIFFERENT ACFT AND 7 DIFFERENT TDFM-136 TRANSCEIVERS WERE RAMP TESTED AND IT WAS DETERMINED THAT THE PROBLEM IS PREVALENT IN ALL TDFM-136 TRANSCEIVERS TESTED. MFG REP INDICATED THE MFG CONDUCTS HARMONIC ATTENUATION LEVEL TESTING AT THE TEST FREQUENCIES OF 138, 156, AND 174 MHZ. THE FREQUENCIES DO NOT GENERATE A 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE AND THE TRANSMIT FREQUENCIES OF 164.575 THROUGH 167.500 WHICH WOULD GENERATE AND 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE ARE NOT BEING CHECKED AS PART OF FINAL CERTIFICATION TESTING. ORU

TESTING SHOWS SIGNIFICANT 2ND HARMONICS WITHIN THE 164.575 THROUGH 167.500 MHZ RANGE WHICH ARE OF SUFFICIENT ENOUGH LEVEL AS TO INTERFERE WITH RECEPTION OF THE GLIDESLOPE SIGNAL DURING RAMP TESTING. MFG ISSUED TIL NR TIBFM 03-06 DATED 03/09/10 REQUIRING PLACARDING OF ACFT WHILE THEY ENGINEER A REPAIR FOR REDUCING EXCESSIVE 2ND HARMONIC LEVELS FROM THEIR TRANSCEIVER.

2010FA0000264	TRANSCEIVER	MALFUNCTIONED
3/16/2010	9810871	GLIDESLOPE

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2010FA0000266	TRANSCEIVER	MALFUNCTIONED
3/16/2010	9810871	GLIDESLOPE

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2010FA0000267	TRANSCEIVER	MALFUNCTIONED
3/16/2010	9810871	GLIDESLOPE

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ENGINEER A REPAIR FOR REDUCING EXCESSIVE 2ND HARMONIC LEVELS FROM THEIR TRANSCEIVER.

2010FA0000258	TRANSCEIVER	MALFUNCTIONED
3/16/2010	9810871	GLIDESLOPE

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2010FA0000262	TRANSCEIVER	MALFUNCTIONED
3/16/2010	9810871	GLIDESLOPE

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2010FA0000263	TRANSCEIVER	MALFUNCTIONED
3/16/2010	9810871	GLIDESLOPE

ON 01/30/2010 POST INSTALLATION, EMI TESTING WAS CONDUCTED IAW APPENDIX B OF TDFM-136 INSTALLATION AND OPERATING INSTRUCTIONS TIL DOC NR 99RE255, REV D ISSUE 7, DATED APRIL 2004. AS A RESULT OF THOSE TESTS IT WAS DETERMINED THAT AN INTERFERENCE PROBLEM EXISTS AS PERTAINING TO THE OPERATION OF THE ACFT GLIDESLOPE SYS WHILE BEING RAMP CHECKED. THIS INTERFERENCE OCCURS IN THE FORM OF THE GLIDESLOPE FLAGGING A LOSS OF SIGNAL AND/OR GLIDESLOPE NEEDLE DEFLECTIONS. 3 DIFFERENT ACFT AND 7 DIFFERENT TDFM-136 TRANSCEIVERS WERE RAMP TESTED AND IT WAS DETERMINED THAT THE PROBLEM IS PREVALENT IN ALL TDFM-136 TRANSCEIVERS TESTED. MFG REP INDICATED THE MFG CONDUCTS HARMONIC ATTENUATION LEVEL TESTING AT THE TEST FREQUENCIES OF 138, 156, AND 174 MHZ. THE FREQUENCIES DO NOT GENERATE A 2ND HARMONIC WITHING THE GLIDESLOPE FREQUENCY RANGE AND THE TRANSMIT FREQUENCIES OF 164.575 THROUGH 167.500 WHICH WOULD GENERATE AND 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE ARE NOT BEING CHECKED AS PART OF FINAL CERTIFICATION TESTING. ORU TESTING SHOWS SIGNIFICANT 2ND HARMONICS WITHIN THE 164.575 THROUGH 167.500 MHZ RANGE WHICH ARE OF SUFFICIENT ENOUGH LEVEL AS TO INTERFERE WITH RECEPTION OF THE GLIDESLOPE SIGNAL DURING RAMP TESTING. MFG ISSUED TIL NR TIBFM 03-06 DATED 03/09/10 REQUIRING PLACARDING OF ACFT WHILE THEY ENGINEER A REPAIR FOR REDUCING EXCESSIVE 2ND HARMONIC LEVELS FROM THEIR TRANSCEIVER.

2010FA0000265	TRANSCEIVER	MALFUNCTIONED

3/16/2010 9810871 GLIDESLOPE

ON 01/30/2010 POST INSTALLATION, EMI TESTING WAS CONDUCTED IAW APPENDIX B OF TDFM-136 INSTALLATION AND OPERATING INSTRUCTIONS TIL DOC NR 99RE255, REV D ISSUE 7, DATED APRIL 2004. AS A RESULT OF THOSE TESTS IT WAS DETERMINED THAT AN INTERFERENCE PROBLEM EXISTS AS PERTAINING TO THE OPERATION OF THE ACFT GLIDESLOPE SYS WHILE BEING RAMP CHECKED. THIS INTERFERENCE OCCURS IN THE FORM OF THE GLIDESLOPE FLAGGING A LOSS OF SIGNAL AND/OR GLIDESLOPE NEEDLE DEFLECTIONS. 3 DIFFERENT ACFT AND 7 DIFFERENT TDFM-136 TRANSCEIVERS WERE RAMP TESTED AND IT WAS DETERMINED THAT THE PROBLEM IS PREVALENT IN ALL TDFM-136 TRANSCEIVERS TESTED. MFG REP INDICATED THE MFG CONDUCTS HARMONIC ATTENUATION LEVEL TESTING AT THE TEST FREQUENCIES OF 138, 156, AND 174 MHZ. THE FREQUENCIES DO NOT GENERATE A 2ND HARMONIC WITHING THE GLIDESLOPE FREQUENCY RANGE AND THE TRANSMIT FREQUENCIES OF 164.575 THROUGH 167.500 WHICH WOULD GENERATE AND 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE ARE NOT BEING CHECKED AS PART OF FINAL CERTIFICATION TESTING. ORU TESTING SHOWS SIGNIFICANT 2ND HARMONICS WITHIN THE 164.575 THROUGH 167.500 MHZ RANGE WHICH ARE OF SUFFICIENT ENOUGH LEVEL AS TO INTERFERE WITH RECEPTION OF THE GLIDESLOPE SIGNAL DURING RAMP TESTING. MFG ISSUED TIL NR TIBFM 03-06 DATED 03/09/10 REQUIRING PLACARDING OF ACFT WHILE THEY ENGINEER A REPAIR FOR REDUCING EXCESSIVE 2ND HARMONIC LEVELS FROM THEIR TRANSCEIVER.

2010FA0000245 CASE CRACKED

3/12/2010 MAGNETO

MAGNETO WAS REMOVED AND SUBMITTED TO FOR FURTHER INSPECTION, DEFECT APPEARED TO BE AN ACCEPTABLE FISSURE, BUT UPON FURTHER INSPECTION IT WAS DETERMINED TO BE A CRACK THAT EXTENDED THROUGH THE CASE.

2010FA0000260 TRANSCEIVER MALFUNCTIONED

3/16/2010 9810871 GLIDESLOPE

ON 01/30/2010 POST INSTALLATION, EMI TESTING WAS CONDUCTED IAW APPENDIX B OF TDFM-136 INSTALLATION AND OPERATING INSTRUCTIONS TIL DOC NR 99RE255, REV D ISSUE 7, DATED APRIL 2004. AS A RESULT OF THOSE TESTS IT WAS DETERMINED THAT AN INTERFERENCE PROBLEM EXISTS AS PERTAINING TO THE OPERATION OF THE ACFT GLIDESLOPE SYS WHILE BEING RAMP CHECKED. THIS INTERFERENCE OCCURS IN THE FORM OF THE GLIDESLOPE FLAGGING A LOSS OF SIGNAL AND/OR GLIDESLOPE NEEDLE DEFLECTIONS. 3 DIFFERENT ACFT AND 7 DIFFERENT TDFM-136 TRANSCEIVERS WERE RAMP TESTED AND IT WAS DETERMINED THAT THE PROBLEM IS PREVALENT IN ALL TDFM-136 TRANSCEIVERS TESTED. MFG REP INDICATED THE MFG CONDUCTS HARMONIC ATTENUATION LEVEL TESTING AT THE TEST FREQUENCIES OF 138, 156, AND 174 MHZ. THE FREQUENCIES DO NOT GENERATE A 2ND HARMONIC WITHING THE GLIDESLOPE FREQUENCY RANGE AND THE TRANSMIT FREQUENCIES OF 164.575 THROUGH 167.500 WHICH WOULD GENERATE AND 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE ARE NOT BEING CHECKED AS PART OF FINAL CERTIFICATION TESTING. ORU TESTING SHOWS SIGNIFICANT 2ND HARMONICS WITHIN THE 164.575 THROUGH 167.500 MHZ RANGE WHICH ARE OF SUFFICIENT ENOUGH LEVEL AS TO INTERFERE WITH RECEPTION OF THE GLIDESLOPE SIGNAL DURING RAMP TESTING. MFG ISSUED TIL NR TIBFM 03-06 DATED 03/09/10 REQUIRING PLACARDING OF ACFT WHILE THEY ENGINEER A REPAIR FOR REDUCING EXCESSIVE 2ND HARMONIC LEVELS FROM THEIR TRANSCEIVER.

2010FA0000261 TRANSCEIVER MALFUNCTIONED

3/16/2010 981087 GLIDESLOPE

ON 01/30/2010 POST INSTALLATION, EMI TESTING WAS CONDUCTED IAW APPENDIX B OF TDFM-136 INSTALLATION AND OPERATING INSTRUCTIONS TIL DOC NR 99RE255, REV D ISSUE 7, DATED APRIL 2004. AS A RESULT OF THOSE TESTS IT WAS DETERMINED THAT AN INTERFERENCE PROBLEM EXISTS AS PERTAINING TO THE OPERATION OF THE ACFT GLIDESLOPE SYS WHILE BEING RAMP CHECKED. THIS INTERFERENCE OCCURS IN THE FORM OF THE GLIDESLOPE FLAGGING A LOSS OF SIGNAL AND/OR GLIDESLOPE NEEDLE DEFLECTIONS. 3 DIFFERENT ACFT AND 7 DIFFERENT TDFM-136 TRANSCEIVERS WERE RAMP TESTED AND IT WAS DETERMINED THAT THE PROBLEM IS PREVALENT IN ALL TDFM-136 TRANSCEIVERS TESTED. MFG REP INDICATED THE MFG CONDUCTS HARMONIC ATTENUATION LEVEL TESTING AT THE TEST FREQUENCIES OF 138, 156, AND 174 MHZ. THE FREQUENCIES DO NOT GENERATE A 2ND HARMONIC WITHING THE GLIDESLOPE FREQUENCY RANGE AND THE TRANSMIT FREQUENCIES OF 164.575 THROUGH 167.500 WHICH WOULD GENERATE AND 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE ARE NOT BEING CHECKED AS PART OF FINAL CERTIFICATION TESTING. ORU TESTING SHOWS SIGNIFICANT 2ND HARMONICS WITHIN THE 164.575 THROUGH 167.500 MHZ RANGE WHICH ARE OF SUFFICIENT ENOUGH LEVEL AS TO INTERFERE WITH RECEPTION OF THE GLIDESLOPE SIGNAL DURING RAMP

TESTING. MFG ISSUED TIL NR TIBFM 03-06 DATED 03/09/10 REQUIRING PLACARDING OF ACFT WHILE THEY ENGINEER A REPAIR FOR REDUCING EXCESSIVE 2ND HARMONIC LEVELS FROM THEIR TRANSCEIVER.

2010FA0000234 TRANSCEIVER INTERFERENCE

1/30/2010 9810871

ON 01/30/2010 POST INSTALLATION EMI TESTING WAS CONDUCTED IAW APPENDIX B OF TDFM-136. INSTALLATION AND OPERATING INSTRUCTIONS TIL DOC NR. 99RE255, REV D ISSUE 7, DATED APRIL 2004. AS A RESULT OF THOSE TESTS IT WAS DETERMINED THAT AN INTERFERENCE PROBLEM EXISTS AS PERTAINING TO THE OPERATION OF THE ACFT GLIDESLOPE SYS WHILE BEING RAMP CHECKED. THIS INTERFERENCE OCCURS IN THE FORM OF GLIDESLOPE FLAGGING A LOSS OF SIGNAL AND/OR GLIDESLOPE NEEDLE DEFLECTIONS. 3 DIFFERENT ACFT AND 7 DIFFERENT TDFM-136 TRANSCEIVERS WERE RAMP TESTED AND IT WAS DETERMINED THAT THE PROBLEM IS PREVALENT IN ALL TDFM-136 TRANSCEIVERS TESTED. MFG REP INDICATED THE MFG CONDUCTS HARMONIC ATTENUATION LEVEL TESTING AT THE TEST FREQUENCIES OF 138, 156 AND 174 MHZ. THESE FREQUENCIES DO NOT GENERATE A 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE AND THE TRANSMIT FREQUENCIES OF 164.575 THROUGH 167.500 WHICH WOULD GENERATE A 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE ARE NOT BEING CHECKED AS PART OF FINAL CERTIFICATION TESTING. OUR TESTING SHOWS SIGNIFICANT 2ND HARMONICS WITHIN THE 164.575 THROUGH 167.500 MHZ RANGE WHICH ARE OF A SUFFICIENT ENOUGH LEVEL AS TO INTERFERE WITH RECEPTION OF THE GLIDESLOPE SIGNAL DURING RAMP TESTING. MFG ISSUED TIL NR TIBFM 03-06 DATED 03/09/10 REQUIRING PLACARDING OF ACFT WHILE THEY ENGINEERING A REPAIR FOR REDUCING EXCESSIVE 2ND HARMONIC LEVELS FROM THEIR TRANSCEIVER.

2010F00068 TRANSCEIVER INTERFERENCE

1/30/2010 9810871

ON 01/30/2010 POST INSTALLATION EMI TESTING WAS CONDUCTED IAW APPENDIX B OF TDFM-136 INSTALLATION AND OPERATING INSTRUCTIONS TIL DOC NR 99RE255, REV D ISSUE 7, DATED APRIL 2004. AS A RESULT OF THOSE TESTS IT WAS DETERMINED THAT AN INTERFERENCE PROBLEM EXISTS AS PERTAINING TO THE OPERATION OF THE ACFT GLIDESLOPE SYS WHILE BEING RAMP CHECKED. THIS INTERFERENCE OCCURS IN THE FORM OF THE GLIDESLOPE FLAGGING A LOSS OF SIGNAL AND/OR GLIDESLOPE NEEDLE DEFLECTIONS. 3 DIFFERENT ACFT AND 7 DIFFERENT TDFM-136 TRANSCEIVERS WERE RAMP TESTED AND IT WAS DETERMINED THAT THE PROBLEM IS PREVALENT IN ALL TDFM-136 TRANSCEIVERS TESTED. MFG REP INDICATED THE MFG CONDUCTS HARMONIC ATTENUATION LEVEL TESTING AT THE TEST FREQUENCIES OF 138, 156 AND 174 MHZ. THESE FREQUENCIES DO NOT GENERATE A 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE AND THE TRANSMIT FREQUENCIES OF 164.575 THROUGH 167.500 WHICH WOULD GENERATE A 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE ARE NOT BEING CHECKED AS PART OF FINAL CERTIFICATION TESTING. OUR TESTING SHOWS SIGNIFICANT 2ND HARMONICS WITHIN THE 164.575 THROUGH 167.500 MHZ RANGE WHICH ARE OF A SUFFICIENT ENOUGH LEVEL AS TO INTERFERE WITH RECEPTION OF THE GLIDESLOPE SIGNAL DURING RAMP TESTING. MFG ISSUED TIL NR TIBFM 03-06 DATED 03/09/10 REQUIRING PLACARDING OF ACFT WHILE THEY ARE ENGINEERING A REPAIR FOR REDUCING EXCESSIVE 2ND HARMONIC LEVELS FROM THEIR TRANSCEIVER.

2010F00069 TRANSCEIVER INTERFERENCE

1/30/2010 9810871

ON 01/30/2010 POST INSTALLATION EMI TESTING WAS CONDUCTED IN ACCORDANCE WITH APPENDIX B OF TDFM-136 INSTALLATION AND OPERATING INSTRUCTIONS TIL DOC NR 99RE255, REV D ISSUE 7, DATED APRIL 2004. AS A RESULT OF THOSE TESTS IT WAS DETERMINED THAT AN INTERFERENCE PROBLEM EXISTS AS PERTAINING TO THE OPERATION OF THE ACFT GLIDESLOPE SYS WHILE BEING RAMP CHECKED. THIS INTERFERENCE OCCURS IN THE FORM OF THE GLIDESLOPE FLAGGING A LOSS OF SIGNAL AND/OR GLIDESLOPE NEEDLE DEFLECTIONS. 3 DIFFERENT ACFT AND 7 DIFFERENT TDFM-136 TRANSCEIVERS WERE RAMP TESTED AND IT WAS DETERMINED THAT THE PROBLEM IS PREVALENT IN ALL TDFM-136 TRANSCEIVERS TESTED. MFG REP INDICATED THE MFG CONDUCTS HARMONIC ATTENUATION LEVEL TESTING AT THE TEST FREQUENCIES OF 138, 156 AND 174 MHZ. THESE FREQUENCIES DO NOT GENERATE A 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE AND THE TRANSMIT FREQUENCIES OF 164.575 THROUGH 167.500 WHICH WOULD GENERATE A 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE ARE NOT BEING CHECKED AS PART OF FINAL CERTIFICATION TESTING. OUR TESTING SHOWS SIGNIFICANT 2ND HARMONICS WITHIN THE 164.575 THROUGH 167.500 MHZ RANGE WHICH ARE OF A SUFFICIENT ENOUGH LEVEL AS TO INTERFERE WITH RECEPTION OF THE GLIDESLOPE SIGNAL DURING RAMP TESTING. MFG ISSUED TIL NR TIBFM 03-06 DATED 03/09/10 REQUIRING PLACARDING OF ACFT WHILE THEY ENGINEERING A REPAIR FOR REDUCING EXCESSIVE 2ND HARMONIC LEVELS FROM THEIR TRANSCEIVER.

2010F00070			TRANSCEIVER	INTERFERENCE
1/30/2010			9810871	

ON 01/30/2010 POST INSTALLATION EMI TESTING WAS CONDUCTED IAW APPENDIX B OF TDFM-136 INSTALLATION AND OPERATING INSTRUCTIONS TIL DOCUMENT NR 99RE255, REV D ISSUE 7, DATED APRIL 2004. AS A RESULT OF THOSE TESTS IT WAS DETERMINED THAT AN INTERFERENCE PROBLEM EXISTS AS PERTAINING TO THE OPERATION OF THE ACFT GLIDESLOPE SYS WHILE BEING RAMP CHECKED. THIS INTERFERENCE OCCURS IN THE FORM OF THE GLIDESLOPE FLAGGING A LOSS OF SIGNAL AND/OR GLIDESLOPE NEEDLE DEFLECTIONS. 3 DIFFERENT ACFT AND 7 DIFFERENT TDFM-136 TRANSCEIVERS WERE RAMP TESTED AND IT WAS DETERMINED THAT THE PROBLEM IS PREVALENT IN ALL TDFM-136 TRANSCEIVERS TESTED. MFG REP INDICATED THE MFG CONDUCTS HARMONIC ATTENUATION LEVEL TESTING AT THE TEST FREQUENCIES OF 138, 156 AND 174 MHZ. THESE FREQUENCIES DO NOT GENERATE A 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE AND THE TRANSMIT FREQUENCIES OF 164.575 THROUGH 167.500 WHICH WOULD GENERATE A 2ND HARMONIC WITHIN THE GLIDESLOPE FREQUENCY RANGE ARE NOT BEING CHECKED AS PART OF FINAL CERTIFICATION TESTING. OUR TESTING SHOWS SIGNIFICANT 2ND HARMONICS WITHIN THE 164.575 THROUGH 167.500 MHZ RANGE WHICH ARE OF A SUFFICIENT ENOUGH LEVEL AS TO INTERFERE WITH RECEPTION OF THE GLIDESLOPE SIGNAL DURING RAMP TESTING. MFG ISSUED TIL NR TIBFM 03-06 DATED 03/09/10 REQUIRING PLACARDING OF ACFT WHILE THEY ENGINEERING A REPAIR FOR REDUCING EXCESSIVE 2ND HARMONIC LEVELS FROM THEIR TRANSCEIVER.

CA100128003	ALLSN	ALLSN	GEAR	BROKEN
9/29/2009	250C20B	6894171	23035299P	TORQUEMETER

(CAN) TORQUEMETER GEAR PURCHASED NEW IN THE US FOR USE IN A RENTAL GEARBOX MODULE. UPON RETURN TO SHOP AFTER LEASE WITH 35.4 HOURS, VISUAL INSP REVIELED THAT A LARGE SECTION OF GEAR HAD BROKEN OFF. SUBSEQUENT INSP AND FORENSIC ANALYSIS REVEALED A MFG DEFECT THAT LED TO THE FAILURE.

CA100211005	ALLSN		ADAPTER	CRACKED
2/10/2010	250C20B	C20B6890550	23076559	COMPRESSOR

(CAN) ACFT WAS IN CRUISE AT 800 FT WHEN THE PILOT HEARD A HUMMING NOISE FOR ABOUT 2 SECONDS. AFTER THE 2 SECONDS THE ENGINE SHUTDOWN. PILOT AUTO ROTATED AND LANDED HELICOPTER. ENG HAD FLAMES COMING OUT OF THE EXHAUST STACKS UPON LANDING BUT QUICKLY DISSIPATED. ENGINE WAS DISMANTLED TO DETERMINE THE CAUSE OF THE IN-FLIGHT SHUTDOWN WITH REPRESENTATION FROM OEM AND AMO PARTIES WITH PRIOR MX INVOLVEMENT. COMPRESSOR COUPLING ADAPTER PN 23076559 WAS CRACKED. FWD SPLINES ON THE SPUR ADAPTER GEARSHAFT WERE SHEARED OFF AND LODGED IN COMPRESSOR COUPLING ADAPTER. THIS WAS DETERMINED BY THE INVESTIGATORS AS THE PRIMARY FAILED ITEM RESULTING IN THE LOSS OF POWER AND IN-FLIGHT SHUTDOWN. AT THE LAST O/H, CEB-A-1392/AD 2004-26-09 WAS COMPLIED WITH. THERE HAS BEEN NO MX RECORDED IN THE COMPRESSOR LOG BOOK SINCE THE PRIOR O/H EVENT. COMPRESSOR TSO: 2314.0 HOURS CSO: 1410 CYCLES, OEM HAS BEEN CONTACTED REGARDING THIS SDR. OWNER HAS BEEN CONTACTED TO PROVIDE AUTHORIZATION TO RELEASE FAILED HARDWARE FOR METALLURGICAL INVESTIGATION BY THE OEM. (TC 20100211005)

CA100203013	CONT	ECI	PISTON	BROKEN
1/4/2010	IO470VO			ENGINE

(CAN) DURING SERVICING, OIL PRESSURE SCREEN CHECKED AND FOUND TO BE FULL OF METAL. ENGINE SHIPPED FOR INSPECTION. ENGINE DISASSEMBLED AND FOUND 4 PISTONS WITH HALF OF THE SKIRT BROKEN OFF AT OIL SCRAPER RING GROOVE AND PIECES CONTAMINATED OIL. WHEN CYLINDERS WERE CLEANED FOR INSP AND REPAIRED, 2 CYLINDERS WERE FOUND TO HAVE SEVERE HEAD CRACKS. ALTHOUGH ECI MSB04-1 AND 06-2R3 ARE ONLY APPLICABLE TO OTHER ENGINES, THESE CYLINDERS ARE MADE WITH THE SAME HEAD CASTING PN AND MARKINGS AS THE CYLINDERS THAT ARE AFFECTED. (TC20100203013)

CA100208001	GARRTT	LINE	CRACKED
2/5/2010	TFE73140	SBJ10682501	HYDRAULIC SYS

(CAN) THE ACFT WAS ENROUTE WHEN IT EXPERIENCED A LOSS OF NR 1 HYD PUMP, PRESSURE FOLLOWED SHORTLY THEREAFTER BY LOW HYD RESERVOIR AND LOW NR 2 HYD PUMP PRESSURE. THE CREW CARRIED OUT QRH PROCEDURES AND RETURNED TO BASE. THE AUXILIARY HYD PUMP FUNCTIONED PROPERLY, THE LANDING GEAR WAS EXTENDED AND LOCKED DOWN BY THE ALTERNATE METHOD, AND FUEL WEIGHT WAS

REDUCED PRIOR TO LANDING. ACFT LANDED WITHOUT FURTHER INCIDENT. MX FOUND THAT THE STAINLESS STEEL PRESSURE LINE (PN SBJ10682-501) FROM THE NR 1 PUMP WAS CRACKED RESULTING IN LOSS OF HYD FLUID. ACFT MFG VERBALLY REPORTED THIS IS NOT THE FIRST OF THESE LINES TO CRACK. (TC 20100208001)

2010FA0000073	GARRTT	VALVE	STUCK
1/26/2010	TPE33111U	701000121	ENGINE OUTPUT

DURING TESTING OF ENGINE P-44720 AFTER REPAIR DUE TO BIRD INGESTION, IT WAS NOTED THAT THE NTS SYSTEM WOULD NOT SET IAW MM 72-00-25 REV 13, DATED FEB. 13 2003. AFTER TROUBLESHOOTING, HAD FOUND THAT THE NTS VALVE WOULD NOT SET (STUCK CLOSED) CAUSING THE NTS SYS TO FAIL. REPLACED THE VALVE WITH A NEW VALVE PN 70100012-1, SN 08P23169, NTS SYS TESTED GOOD.

2010FA0000221	PWA	FUEL NOZZLE	BURNED
2/19/2010	JT8D15A	809884001	NR 8

AS A RESULT OF BURNED T2 VANES, COMBUSTION MODULE DISASSEMBLED. NR 8 FUEL NOZZLE RETAINING NUT FOUND LOOSE WITH LOCK TAB INTACT. SEVERE BURN AWAY AREAS OF FUEL NOZZLE BODY, COMBUSTION CAN SWIRL VANES, INTERNAL LOUVER AND NR 1 LINER. DIFFUSER CASE BUCKLED FROM HEAT AROUND NR 8 FUEL NOZZLE MOUNT PAD, AND HEAT SOAK EVIDENT ON BOTH PRIMARY AND SECONDARY FUEL MANIFOLDS. BREAKOUT OF T2 VANES DUE TO HEAT HAS RESULTED IN EXTENSIVE FOD TO LPT MODULE AND T/E OF T1 VANES. NR 8 FUEL NOZZLE REMOVED FROM SERVICE AND FWD TO O/H VENDOR FOR DISASSEMBLY AND DETAILED FINDINGS REPORT. OTHER UNSERVICEABLE PARTS WILL BE REPAIRED/ REPLACED AS REQUIRED.

CA100224001	PWA	INDICATOR	MALFUNCTIONED
2/10/2010	PT642A		TORQUE

(CAN) POWER ROLLBACK: DURING FLIGHT, THE ACFT ENCOUNTERED TURBULENCE AND THE PILOT REDUCED ENGINE POWER AT WHICH TIME THE RT ENG POWER WENT ALL THE WAY DOWN TO MIN FLOW, WITH TORQUE INDICATING 2700 LBS. THERE WAS NO RESPONSE TO THROTTLE MOVEMENTS. THE ACFT LANDED UNEVENTFULLY. TROUBLESHOOTING IS ON-GOING. (TC 20100224001)

CA100117001	PWA	OIL SYSTEM	LEAKING
1/4/2010	PT642A		ENGINE

(CAN) THE ACFT WAS FLYING AT 21000 FT WHEN THE PILOT HEARD A LOUD SOUND COMING FROM THE ENGINE AND THE ACFT STARTED TO VIBRATE. THE PILOT SHUT DOWN THE ENGINE AND LANDED SAFELY AT AN AIRPORT WITH NO DAMAGE TO THE ACFT. THE PILOT REPORTED PRIOR TO TAKEOFF THAT THE OIL LEVEL WAS LOW ON THE SIGHT GLASS, BUT STILL IN THE EMM LIMITS. AFTER THE EVENT, THERE ARE REPORTS THAT THERE WAS NO OIL ON THE SIGHT GLASS, ON THE DIP STICK AND AT THE OIL FILTER, BUT THE FILTER CONTAINED METAL SHAVINGS.

CA100117009	PWA	ENGINE	MALFUNCTIONED
1/6/2010	PT6A114A		

(CAN) SHORTLY AFTER TAKEOFF FROM A BUSH STRIP, AT APPROX 200 FT AGL THE INERTIAL SEPARATOR WAS SELECTED OFF AND A PUFF OF SMOKE WAS SEEN ACCOMPANIED BY A LOUD NOISE. ALL ENGINE PARAMETERS WERE SEEN TO DECAY. THE ACFT STRUCK THE GROUND BEYOND THE END OF THE RUNWAY AND THE ACFT CARTWHEELED BEFORE COMING TO REST INVERTED. ONLY MINOR INJURIES TO 1 CREW AND 4 PASSENGERS REPORTED. MFG ASSISTANCE WAS OFFERED. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100125004	PWA	OIL SYSTEM	LOW PRESSURE
1/14/2010	PT6A114A		ENGINE

(CAN) DURING CRUISE, THE PILOT RECEIVED A LOW OIL PRESSURE WARNING. THE FLIGHT WAS DIVERTED. ACFT LANDED LONG AND COLLIDED WITH TERRAIN BEFORE FLIPPING OVER. ENGINE COMPLETELY SEPARATED FROM AIRFRAME. PILOT, ONLY ONE ON BOARD, WAS INJURED. MFG WILL OFFER ASSISTANCE. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100216008	PWA	FCU	FAULTY
2/9/2010	PT6A34		ENGINE

(CAN) UPON DEPARTURE, THE ENGINE TORQUE INCREASED UNCOMMANDED TO 1500 FT/LB WITH NO RESPONSE TO THROTTLE MOVEMENTS. THE PILOT INITIATED A RETURN TO THE AIRPORT AND THE ENGINE WAS SHUTDOWN DURING FINAL APPROACH. AN UNEVENTFUL DEAD STICK LANDING FOLLOWED. ON THE GROUND, THE ENGINE RIGGING WAS CHECKED AND FOUND OK. AN ATTEMPTED RE-START RESULTED IN THE ENGINE RUNNING AWAY AGAIN TO 1500 FT/LB. A FAULTY FUEL CONTROL UNIT IS SUSPECTED WHICH WILL BE REPLACED. MFG RECOMMENDS THE SDR BE CLOSED ON THE BASIS OF THE FOLLOWING INFORMATION. (TC 20100216008)

CA100224003	PWA	FCU	FAILED
2/8/2010	PT6A34AG		ENGINE

(CAN) POWER LOSS: THE ENGINE EXPERIENCED AN INFLIGHT SPOOLDOWN TO IDLE ON A CUSTOMER`S THRUSH. THE PILOT MANAGED TO PUT THE ACFT DOWN IN A FIELD WITHOUT ANY DAMAGE. TROUBLESHOOTING LEAD TO THE REPLACEMENT OF THE FCU. MFG RECOMMENDS THE SDR BE CLOSED ON THE BASIS OF THE FOLLOWING INFORMATION. (TC 20100224003)

CA100224006	PWA	FCU	SEPARATED
1/12/2010	PT6A34AG		ENGINE

(CAN) ABORTED TAKEOFF: DURING TAKEOFF ROLL, ENGINE RAN BACK TO IDLE WITH NO CLOSURE OF THE CLA WITHOUT WARNING OR OTHER INDICATION. THE PILOT CONCENTRATED ON CONTROLLING THE ACFT AND STATED THAT HE SUDDENLY SAW A PUFF OF SMOKE AND NOTICED THAT THE ITT WAS FALLING THROUGH ABOUT 900 DEGREES C. ACFT RAN OFF THE END OF THE AIRSTRIP WITH MINIMAL ACFT DAMAGE. THE FBO REPORTED THAT THEY FOUND THE FCU HAD A HSG PARTLY SEPARATED FROM THE UNIT WITH IT`S SECURING BOLTS BACKED OUT. MORE INFORMATION IS EXPECTED FROM THE FBO. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100224006)

CA100209007	PWA	ENGINE	FAILED
1/8/2010	PT6A34AG		

(CAN) ACCIDENT DURING T/O TO CONDUCT A SPRAY RUN WITH A FULL HOPPER LOAD, AT APPROX TWO THIRDS OF THE LENGTH OF THE STRIP, THE ENGINE POWER WAS LOST. THE PILOT WAS NOT ABLE TO STOP THE ACFT BEFORE IT HIT A DRAINAGE DITCH 250` BEYOND THE END OF THE STRIP. THE PILOT SUFFERED SERIOUS INJURIES. OFFER OF ASSISTANCE WILL BE MADE TO THE ECUADOR AUTHORITIES. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100209007)

CA100119001	PWA	METERING VALVE	FAILED
1/18/2010	PT6A41		FUEL CONTROL

(CAN) ENGINEERING INVESTIGATION REPORT EIR PT6A 2009-108. DURING START-UP, THE ENGINE REACHED 1000 DEGREES CENTIGRADE AND THE PROPELLER LOCKED UP. SUMMARY FINDINGS REVEALED PROP COULD NOT BE TURNED BY HAND AND THAT CT BLADES WERE HEAVILY BURNED AND ERODED. IT WAS REVEALED THAT THE FCU METERING VALVE HAD FAILED IN THE FUEL CONTROL AND THUS PROP LOCK-UP WAS A SECONDARY IN NATURE.

CA100224005	PWA	OIL SYSTEM	LEAKING
1/14/2010	PT6A60A		NR 1 ENGINE

(CAN) DURING CLIMB THE NR 1 ENG OIL PRESSURE DROPPED AND ENGINE WAS SHUTDOWN. ACFT LANDED SAFELY. THERE WAS NO DAMAGE TO THE ACFT. AN EXTERNAL OIL LEAK WAS FOUND, HOWEVER, THE EXACT LOCATION OF THE OIL LEAK IS UNKNOWN. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100224005)

CA100117010	PWA	COMPRESSOR	SURGES
1/5/2010	PT6A66		ENGINE

(CAN) ON APPROACH TO AIRPORT, FLIGHT CREW REPORTED A LOUD NOISE FROM THE ENGINE. PILOT REDUCED THE POWER SETTINGS AND 4 OTHER NOISES, SIMILAR TO ENGINE SURGE, WERE NOTED. ACFT LANDED SAFELY WITH THE ENGINE APPARENTLY STILL RUNNING. POST FLIGHT INSP SHOWED DAMAGE IN THE COMPRESSOR. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100209002	PWA	ENGINE	FAILED
1/29/2010	PT6A67B		

(CAN) IFSD (SINGLE ENGINE) DURING CRUISE, THE PILOT HEARD A LOUD NOISE FOLLOWED BY AN ENGINE CHIP DETECTOR WARNING. THE PILOT GAINED AS MUCH ALTITUDE AS HE COULD BEFORE THE LOW OIL PRESSURE WARNING LIGHT ILLUMINATED AND THE ENGINE LOST ALL POWER. A DEAD STICK LANDING WAS PERFORMED. THERE WERE NO INJURIES ON BOARD NOR WAS THERE ANY DAMAGE TO THE ACFT. PRELIMINARY INVESTIGATION FOUND THE PROPELLER COULD NOT BE ROTATED AND DEBRIS ON CHIP DETECTORS. THE LOCAL AUTHORITIES (ATSB) ARE INVESTIGATING THIS EVENT. THE LOCAL MFG FSR WAS ON SITE FOR THE PRELIM INSP. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100209002)

CA100216002	PWA	ENGINE	FLUCTUATES
1/19/2010	PT6A67D		

(CAN) DURING CLIMB THROUGH FL145, THE ENGINE TORQUE STARTED FLUCTUATING AND BECAME STEADY AGAIN. AT FL160 WHILE ACCELERATING TO CRUISE SPEED, THE TORQUE STARTED FLUCTUATING AND THE LOW OIL PRESSURE WARNING CAME ON. THE ENGINE WAS SHUTDOWN AND THE FLIGHT RETURNED TO DEPARTURE FOR AN UNEVENTFUL SINGLE ENGINE LANDING. POST FLIGHT TROUBLESHOOTING FOUND DEBRIS ON THE CHIP DETECTOR. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100216002)

CA100203006	PWA	OIL SYSTEM	LOW PRESSURE
12/21/2009	PW118		ENGINE

(CAN) DURING APPROACH, THE LOW OIL PRESSURE LIGHT ILLUMINATED. THE OIL PRESSURE DROPPED TO ZERO AND THE ENGINE WAS SHUTDOWN. AN UNEVENTFUL SINGLE ENGINE LANDING FOLLOWED. TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100203006)

CA100209006	PWA	ECU	FAILED
1/25/2010	PW120A		ENGINE

(CAN) POWER LOSS/IFSD WITH THE ENGINE OPERATING IN MANUAL MODE, THE ENGINE FUEL FLOW AND OTHER PARAMETERS WENT TO ZERO. THE PILOT ELECTED TO SHUTDOWN THE ENGINE AND A SINGLE ENGINE LANDING FOLLOWED. THE ELECTRONIC CONTROL UNIT (ECU) WARNING WAS ILLUMINATED AT THE TIME. THE ECU WAS REPLACED AND GROUND RUNS WERE SATISFACTORY. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100209006)

CA100215001	PWA	METERING VALVE	FAILED
2/12/2010	PW121		FUEL CONTROL

(CAN) ENGINEERING INVESTIGATION REPORT EIR PW100 2010-010 ENGINE REACHED 1000 DEGREES CELSIUS DURING ENGINE START AND THE PROPELLER LOCKED UP. FINDINGS: CT BLADES HEAVILY BURNED AND ERODED & PT BLADES WERE MELTED AND DISTORTED. INVESTIGATION REVEALED THAT METERING VALVE OF FCU HAD FAILED IN THE FUEL CONTROL. (TC 20100215001)

CA100216003	PWA	ENGINE	SHUTDOWN
2/11/2010	PW121		

(CAN) ON A FLIGHT, WAS REPORTED THAT ONE OF THE ENGINES HAD AN IFSD. THE CREW ELECTED TO DIVERT THE FLIGHT. FOR UNKNOWN REASONS, THE ACFT DID NOT REACH ITS INTENDED DESTINATION AND MADE AN EMERGENCY LANDING IN A RICE FIELD SOME 40KM FROM THE AIRPORT. 1 PASSENGER WAS INJURED. THE ACFT DAMAGE APPEARS TO BE LIMITED TO THE LANDING GEAR AND BOTTOM PART OF THE FUSELAGE. MFG HAS OFFERED ASSISTANCE TO THE LOCAL AUTHORITIES. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100216003)

CA100125001	PWA	ENGINE	POWER LOSS
1/8/2010	PW121		

(CAN) DURING T/O ROLL, THE ENG TORQUE DROPPED ACCOMPANIED BY A TEMPERATURE INCREASE. THE T/O

WAS ABORTED AND THE ACFT RETURNED TO THE GATE UNEVENTFULLY. TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100203004	PWA	LINE	BROKEN
1/24/2010	PW123		FUEL CONTROL

(CAN) DURING FLIGHT, THE CREW REPORTED ENGINE PROBLEMS AND PERFORMED A SHUTDOWN FOLLOWED BY UNEVENTFUL SINGLE ENGINE LANDING. POST FLIGHT INSP FOUND A BROKEN P3 LINE, WHICH WAS REPLACED BEFORE THE ACFT WAS RETURNED TO SERVICE. MFG RECOMMENDS THE SDR BE CLOSED ON THE BASIS OF THE FOLLOWING INFORMATION. (TC 20100203004)

CA100125002	PWA	ENGINE	FIRE
1/12/2010	PW127		LT ENGINE

(CAN) DURING T/O CLIMB, THE CREW GOT A FIRE WARNING AND CONFIRMED THAT FLAMES WERE EXITING THE NACELLE ON THE LT ENG. THE ENG WAS SHUTDOWN AND FIRE BOTTLES WERE DISCHARGED, HOWEVER THE FIRE DID NOT GO OUT. THE ACFT RETURNED TO THE DEPARTURE AIRPORT WHERE AN EMERGENCY LANDING WAS PERFORMED. FIRE PUT ITSELF OUT AFTER LANDING. THERE WERE NO INJURIES. MFG LOCAL FSR IS CURRENTLY ON SITE FOR A PRELIM ASSESSMENT. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100125005	PWA	FUEL NOZZLE	LOOSE
1/15/2010	PW127		ENGINE

(CAN) DURING APPROACH, THE PILOT NOTICED ENGINE FIRE WARNING. ENGINE WAS SHUTDOWN AND THE FIRE HANDLE PULLED. THE FIRE WARNING WENT OUT AND THE ACFT LANDED UNEVENTFULLY SINGLE ENGINE. POST FLIGHT INSP FOUND THAT THE FIRE ORIGINATED FROM A LOOSE FUEL NOZZLE MANIFOLD CONNECTION. NOT RELATED TO ENGINE MFG RECOMMENDS THE SDR BE CLOSED ON THE BASIS OF THE FOLLOWING INFORMATION.

CA100216005	PWA	TURBINE BLADES	FRACTURED
2/11/2010	PW127		NR 2 ENGINE

(CAN) DURING CLIMB AT FL90, THE NR 2 ENGINE NP SPEED REACHED 101 PERCENT WITH A PROPELLER ELECTRONIC CONTROL (PEC) FAULT. THE CREW REPORTED THAT ALL ENGINE PARAMETERS DECREASED FOLLOWING A PEC RESET AND THE ENGINE SHUTDOWN BY ITSELF. PILOT ELECTED TO RETURN TO ORIGIN AND PERFORMED A SINGLE ENGINE LANDING DURING WHICH 1 TIRE BURST AND ANOTHER DEFLATED. EXAMINATION OF NR 2 ENGINE FOUND FRACTURED TURBINE BLADES. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100216005)

CA100224007	PWA	ENGINE	DAMAGED
2/14/2010	PW127		TURBINE SECTION

(CAN) IFSD: DURING REVENUE FLIGHT, THE LT ENGINE ENCOUNTERED HIGH TORQUE AND ITT BEFORE IS WAS SHUTDOWN. A BORESCOPE INSP OF THE ENGINE SHOWED DAMAGE TO THE HOT SECTION AND IT WAS REMOVED. NO OTHER DETAILS ARE AVAILABLE. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100224007)

CA100125007	PWA	INDICATOR	INOPERATIVE
1/13/2010	PW206B2		TORQUE

(CAN) WHILE PRACTICING LANDINGS AND APPROACHES, WITH THE LT ENGINE IN MANUAL MODE, THE RT ENGINE TORQUE INDICATION WENT TO ZERO. PILOT THINKING HE HAD LOST THE RT ENG, INCREASED POWER TO THE LT ENG AND AN OVERSPEED WARNING SOUNDED. PILOT MANAGED TO SAFELY LAND THE ACFT. TROUBLESHOOTING IS ONGOING AND THE LT ENGINE WILL BE REMOVED FOR REPAIRS. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100216001	PWA	ENGINE	FLAMED OUT
2/4/2010	PW305A	PW305A	

(CAN) ABOUT 100 METERS FROM GATE, DURING TAXI, THE PILOT REPORTED A RUMBLING NOISE, FOLLOWED BY ENGINE FLAMEOUT. 2 RE-START ATTEMPTS WERE UNSUCCESSFUL AND THE ACFT WAS TAXIED BACK TO THE GATE. TROUBLESHOOTING IS ON-GOING BUT THE ENGINE WILL REQUIRE REMOVAL DUE TO OVER TEMPERATURE. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100216001)

CA100117004	PWA	WIRE HARNESS	OPEN
1/1/2010	PW305A		EEC TO HMU

(CAN) IT WAS REPORTED THAT DURING CRUISE AT FL410 , THE ENGINE POWER (N1) FLUCTUATED BETWEEN THE TARGET OF N1 90 PERCENT AND 85 PERCENT DOWN TO 78 PERCENT WITHOUT ANY PILOT INPUTS. N1 FINALLY DROPPED TO 40 PERCENT AND SLOWLY RECOVERED ON ITS OWN WHILE THE PILOTS DESCENDED TO FL350. THE REMAINDER OF THE FLIGHT WAS UNEVENTFUL. REVIEW OF THE FLIGHT DATA DOWNLOAD FOUND AN OPEN CIRCUIT BETWEEN THE P4 (EEC) AND P16 (HMU) ON THE OUTER WIRING HARNESS. MFG RECOMMENDS THE SDR BE CLOSED ON THE BASIS OF THE FOLLOWING INFORMATION.

CA100209008	PWA	ENGINE	MALFUNCTIONED
2/2/2010	PW530A		

(CAN) POWER LOSS DURING TAXI FOR A REPOSITIONING FLIGHT, THE PILOT HEARD A SMALL NOISE WHICH COULD NOT BE RE-PRODUCED. HE DECIDED TO CONTINUE THE FLIGHT. DURING DESCENT AT DESTINATION, A LOUD NOISE WAS HEARD FOLLOWED BY SMOKE IN THE CABIN, HIGH VIBRATIONS AND N1 FLUCTUATIONS. THE CREW ELECTED TO REDUCED ENGINE POWER TO IDLE BEFORE PERFORMING AN UNEVENTFUL EMERGENCY LANDING. TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100209008)

CA100203003	PWA	ENGINE	FLAMED OUT
1/25/2010	PW530A		ENGINE

(CAN) AFTER A LONG APPROACH WITH THE ENGINES AT IDLE AND OAT OF -25 DEGREES C, 1 ENGINE FLAMED OUT UNCOMMANDED. AN UNEVENTFUL SINGLE ENGINE LANDING FOLLOWED. POST FLIGHT GROUND RUNS FOUND NO PROBLEMS WITH THE ENGINE. TROUBLESHOOTING IS ON-GOING, THE OPERATOR IS PLANNING TO REPLACE THE FUEL CONTROL AFTER A RETURN TO BASE. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100203003)

CA100203007	PWA	ENGINE	SURGES
1/28/2010	PW535A		

(CAN) DURING DESCENT, THE PILOT NOTICED THE ENGINE SURGING TWICE BEFORE IT SHUTDOWN BY ITSELF. THE ACFT LANDED SINGLE ENGINE UNEVENTFULLY. GROUND INSP FOUND NO OBVIOUS ENGINE DAMAGE. TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100203007)

CA100209001	PWA	ENGINE	SURGES
1/28/2010	PW535A		

(CAN) SURGING/IFSD DURING DESCENT, THE PILOT NOTICED THE ENGINE SURGING TWICE BEFORE IT SHUTDOWN BY ITSELF. THE ACFT LANDED SINGLE ENGINE UNEVENTFULLY. GROUND INSP FOUND NO OBVIOUS ENGINE DAMAGE. TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100209001)

CA100117002	PWA	FUEL CONTROL	MALFUNCTIONED
12/20/2009	PW535A		RT ENGINE

(CAN) DURING CRUISE AT FL410, THE RT ENGINE N1 SPEED WAS READING 2 PERCENT LOWER THAN THE LT ENGINE. THE ENGINE N1 WOULD NOT RESPOND TO THROTTLE MOVEMENT AND N1 STARTED TO ROLL BACK TO 55 PERCENT WITH FURTHER ROLL BACK TO 35 PERCENT IN DESCENT. AT FL 186, THE ENGINE SPOOLED BACK UP TO NORMAL POWER AND INDICATION. ON GROUND TROUBLESHOOTING COULD NOT REPRODUCE THE PROBLEM. THE FCU AND T1 SENSOR WILL BE REPLACED AS A PRECAUTIONARY MEASURE.

CA100216007	PWA	BLEED VALVE	FAULTY

2/5/2010	PW545A		ENGINE

(CAN) SHORTLY AFTER TAKEOFF, THE PILOT REDUCED POWER TO CLIMB SETTING, A SERIES OF SURGES WERE HEARD ACCOMPANIED BY ENGINE TEMPERATURE AT MAX. GAGE DEFLECTION (ABOVE 800° C). POWER WAS REDUCED AND THE ENGINE EEC WENT TO MANUAL AND THE TEMPERATURE REDUCED. AS POWER WAS RE-APPLIED, VIBRATIONS WERE FELT AND AN ODOR ENTERED THE COCKPIT. THE ENGINE WAS SHUTDOWN AND AN UNEVENTFUL SINGLE ENGINE LANDING WAS MADE AT THE DEPARTURE POINT. TROUBLESHOOTING FOUND A FAULTY COMPRESSOR BLEED VALVE. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100216007)

CA100203002	PWA	TURBINE	LEAKING
1/22/2010	PW545A		ENGINE

(CAN) DURING REVENUE FLIGHT, PILOT NOTICED LOW OIL PRESSURE INDICATION AND SMOKE IN CABIN. PILOT ELECTED TO SHUTDOWN ENGINE AND DIVERT TO AIRPORT WERE AN UNEVENTFUL SINGLE ENGINE LANDING WAS PERFORMED. POST FLIGHT INSP REVEALED OIL IN THE BYPASS AND THE CORE. INVESTIGATION IS FOCUSING ON THE NR 1 BEARING AREA. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100203002)

CA100117006	PWC	COMBUST CHAMBER	BURNED
1/4/2010	PW127E		LT ENGINE

(CAN) DURING CRUISE FLIGHT, APPROX 7 MINUTES INTO THE FLIGHT, THE ACFT EXPERIENCED AN ENGINE FIRE ON THE LT SIDE. CREW PERFORMED THE EMERGENCY PROCEDURES FOR ENGINE FIRE AND BOTH FIRE EXTINGUISHERS WERE USED AND THE ACFT LANDED SAFELY. POST EVENT INSP OF THE ENGINE SHOWED EVIDENCE OF FIRE DAMAGE IN THE AREA OF THE NR 11 AND 12 FUEL NOZZLES. A MFG FIELD REPRESENTATIVE IS BEING DISPATCHED AT THE OPERATOR TO ASSIST IN TROUBLESHOOTING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100125006	PWC	FUEL NOZZLE	LEAKING
12/23/2009	PW127G		ENGINE

(CAN) DURING T/O RUN, THE CREW OBSERVED THAT RT ENGINE TORQUE COULD NOT GO ABOVE 70 PERCENT, THEY DECIDED TO ABORT T/O AND WHEN THEY REDUCE ENGINE POWER THE RT ENGINE FIRE WARNING CAME ON. PILOTS DISCHARGED THE FIRE EXTINGUISHER AND THE FIRE WARNING WENT OUT. POST EVENT INSP IDENTIFIED A FUEL LEAK AT FUEL NOZZLE NR 1. THIS ENG HAD UNDERGONE A FUEL NOZZLE REPLACEMENT A DAY BEFORE THE EVENT. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100203005	PWC	UNKNOWN	ODOR
1/26/2010	PW150A		COCKPIT

(CAN) DURING REVENUE FLIGHT, THE PILOT EXECUTED AN EMERGENCY LANDING DUE TO AN ODOR ON THE FLIGHT DECK. THE NATURE OF THE ODOR IN UNKNOWN, PASSENGERS WERE EVACUATED ON THE TAXIWAY. NO INJURIES REPORTED. TROUBLESHOOTING IS UNDER WAY. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100203005)

CA100216006	PWC	ENGINE	SMOKE
2/11/2010	PW150A		NR 2

(CAN) DURING FLIGHT, THE CREW REPORTED SMOKE IN CABIN 10 MINUTES PRIOR TO ESTIMATED LANDING. OXYGEN MASKS DEPLOYED AND ACCELERATED LANDING PROCEDURES WERE MADE. THE ACFT LANDED SAFELY, STOPPED ON THE RUNWAY AND THE PASSENGERS WERE EVACUATED. SUBSEQUENT GROUND RUNS ISOLATED THE NR2 ENGINE AS THE CAUSE OF THE SMOKE, TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100216006)

CA100203001	PWC	ENGINE	POWER LOSS
1/25/2010	PW206C		

(CAN) AFTER TAKEOFF THE ENGINE SUFFERED A DROP IN TORQUE FROM 75 PERCENT TO 68 PERCENT ACCOMPANIED WITH FLUCTUATIONS. THE PILOT SWITCHED TO MANUAL MODE AND THE PROBLEM PERSISTED, THEN HE SWITCHED AGAIN TO AUTOMATIC AND THE TORQUE DROPPED FROM 67 PERCENT TO 58 PERCENT. PILOT DECLARED EMERGENCY AND SAFELY LANDED. TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100203001)

CA100224002	PWC	ENGINE	NOISY
2/12/2010	PW306A		

(CAN) ABORTED TAKEOFF: DURING REVENUE FLIGHT ON TAKEOFF ROLL, THE PILOT REPORTED LOUD NOISES AND DECIDED TO ABORT THE TAKEOFF. THE ENGINES ARE BEING TROUBLESHOT FOR POSSIBLE SURGES.. (TC 20100224002)

CA100117005	PWC	OIL SYSTEM	LOW PRESSURE
1/3/2010	PW306A		RT ENGINE

(CAN) DURING TAXI, THE RT ENGINE WAS SHUTDOWN FOLLOWING A LOW OIL PRESSURE WARNING AND A HIGH ITT INDICATION. THE EDU DOWNLOAD SHOWED A SUDDEN RISE IN T45 WITH A GRADUAL DECREASE IN N2 SPEED. THE ENGINE WILL BE REMOVED FOR REPAIR. THERE IS NO TROUBLESHOOTING INFORMATION AVAILABLE PRIOR TO THE ENGINE REMOVAL. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100209003	PWC	SEAL	LEAKING
1/23/2010	PW306C		OIL SYSTEM

(CAN) LOW OIL PRESSURE/IFSD DURING CRUISE, THE OIL PRESSURE DROPPED BELOW 20 PSI AND THE CREW ELECTED TO SHUT THE ENGINE DOWN. AN UNEVENTFUL SINGLE ENGINE LANDING FOLLOWED. INSPECTION OF THE ENGINE IDENTIFIED AN OIL LEAK AT THE ALTERNATOR SEAL. MFG RECOMMENDS THE SDR BE CLOSED ON THE BASIS OF THE FOLLOWING INFORMATION. (TC 20100209003)

CA100216004	PWC	ENGINE	MALFUNCTIONED
2/11/2010	PW308C		

(CAN) DURING TAKEOFF ROLL FOR A REPOSITIONING FLIGHT, THE PILOTS HEARD A LOUD NOISE FROM ONE OF THE ENGINES. T/O WAS ABORTED AND THE ACFT RETURNED TO THE RAMP. THE PILOTS DO NOT KNOW FROM WHICH ENGINE THE NOISE CAME FROM. TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100216004)

CA100117008	PWC	BLEED VALVE	MALFUNCTIONED
1/3/2010	PW545B		ENGINE

(CAN) WHILE REDUCING POWER DURING CLIMBOUT, THE ENGINE EXPERIENCED A COMPRESSOR SURGE. AT 7000 FEET, WHILE RE-CONFIGURING THE ACFT FOR APPROACH, THE ENGINE EXPERIENCED A SERIES OF COMPRESSOR SURGES WITH AN ASSOCIATED EEC LIGHT. FOLLOWING DCU ANALYSIS, THE REPLACEMENT OF THE BOV TM WAS RECOMMENDED.

CA100117003	PWC	FIRE DETECTOR	MALFUNCTIONED
1/4/2010	PW615FA		NR 2 NACELLE

(CAN) DURING TAKEOFF, THE NR 2 ENGINE FIRE DETECTION WARNING WAS ACTIVATED. CREW RETARDED ENGINE POWER TO IDLE AND THE FIRE WARNING EXTINGUISHED. ACFT RETURNED TO THE POINT OF DEPARTURE. A SIMILAR EVENT OCCURRED ON THE SAME ENGINE, SAME ACFT BACK IN OCTOBER OF 2009, WHICH WAS IDENTIFIED AS AN AIRFRAME CABIN BLEED AIR LEAK IN THE NACELLE. TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100224004	PWC	WARNING LIGHT	ILLUMINATED
2/12/2010	PW615FA		ENG OIL PRESS

(CAN) IFSD/LOW OIL PRESSURE: DURING FLIGHT, THE PILOT OBSERVED MASTER WARNING AND ASSOCIATED CAS MESSAGE FOR LOW OIL PRESSURE. IAW THE CHECKLIST, SHUTDOWN AND SECURED THE ENGINE. TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100224004)

2010FA0000216		RROYCE	TURBINE BLADES	FRACTURED
9/9/2009		TAY65015	JR28904	ENGINE

THE REPORT SUGGEST THAT THE LPT3 BLADE HAD FRACTURED IN HIGH CYCLE FATIGUE THAT HAD PROPAGATED FROM AN INTERGRANULAR CRACK ON THE AIRFOIL T/E.

CA100125009	AEROSP	PWA	SENSOR	FAILED
1/22/2010	ATR42300	PW120	83161030010	OIL TEMP

(CAN) 28 MINUTES AFTER TAKEOFF, THE FLIGHT CREW REPORTED THE NR 2 ENGINE OIL TEMPERATURE INDICATOR WENT TO ZERO WITH A FAINT ELECTRICAL ODOR. DURING TROUBLESHOOTING OF THE OIL TEMERATURE PROBLEM, MX FOUND THE OIL TEMPERATURE SENDING UNIT UNSERVICEABLE. SENDING UNIT REPLACED AND GROUND RUN CARRIED OUT. DURING TROUBLSHOOTING OF THE ELECTRICAL ODOR, MX FOUND THE CABIN OVERHEAD FLORESCENT LIGHT SOCKETS AT ROWS 9 AND 10 BURNED. SOCKETS REPLACED AND FUNCTION TESTED. ACFT RETURNED TO SERVICE.

CA100120003	AEROSP	PWA		BOLT	BROKEN
1/14/2010	ATR42300	PW120	50068568R	MS2125006038	MLG WHEEL

(CAN) DURING A DAILY INSP IT WAS NOTED THAT THE NR 3 MAIN WHEEL PRESSURE WAS LOW. DURING PREPARATIONS TO SERVICE IT, THE TECH FOUND THE WHEEL HALF ASSEMBLY BOLT BROKEN. THE TIRE WAS DEFLATED AND THE WHEEL ASSY WAS REPLACED.

2010FA0000244	AGUSTA		HINGE	BROKEN
3/9/2010	A109E		109031047101	LT NLG DOOR

DURING GROUND TAXI ON SEMI-ROUGH TERRAIN, WHILE MAKING A RT TURN, THE NOSE TIRE CAME IN CONTACT WITH THE AFT CORNER OF THE LT NOSE GEAR DOOR. THE RESULT OF THE CONTACT WAS MINOR DAMAGE TO THE CORNER OF THE DOOR, AND THE AFT DOOR HINGE WAS BROKEN. INVESTIGATION REVEALED THE NOSE GEAR SHOCK STRUT NITROGEN CHARGE WAS AT THE LOWER END OF THE SERVICING CHART LIMITS. CONSULTATION WITH THE HELICOPTER MFG CONFIRMED THE POSSIBILITY OF CONTACT, BETWEEN THE NOSE TIRE AND GEAR DOORS, WITH LOW END STRUT SERVICING. THERE IS NO MENTION OF THE POSSIBILITY FOR CONTACT IN THE FLIGHT MANUAL. FLIGHT MANUAL GIVES NO INFO RELATING TO ACFT OPERATION OR UNEVEN/ROUGH TERRAIN WHILE MAKING TURNS, SUCH AS, REDUCE GROUND SPEED TO MINIMIZE NOSE GEAR SHOCK STRUT BOUNCE. IN THE EVENT OF A LANDING FOLLOWED BY A NOSE GEAR SHOCK STRUT COLLAPSE FROM WORN OR FAULTY SEALS, WHICH THE FLIGHT CREW MAY OR MAY NOT BE AWARE OF, ANY ADDITIONAL TAXI OF THE ACFT INVOLVING TURNS CERTAIN CONTACT WITH ONE OR BOTH DOORS WOULD BE INEVITABLE. RECOMMEND NOSE STRUT SERVICING TO UPPER END OF PRESSURE RANGE OF THE SERVICING CHART. POSSIBLY REDESIGN NOSE DOOR OPENING SYS TO OPEN DOORS FAR ENOUGH TO BE OUT OF RANGE OR CONTACT WHEN GEAR IS AT THE MAXIMUM STEERING STOP LIMIT.

2010FA0000182	AGUSTA	PWA	AGUSTA	REGULATOR VALVE	WORN
2/24/2010	A119	PT6*		727029	OIL COOLER

ENGINE OIL TEMPERATURE ROSE HIGHER THAN USUAL. FOUND TEMPERATURE REGULATOR VALVE (THERMAL VALVE)TO BE THE PROBLEM.

CA100118003	AIRBUS	GE	WINDSHIELD	ARCED
1/6/2010	A319114	CFM565A	STA320271	COCKPIT

(CAN) CREW- F/O WINDSHIELD BEGAN TO ARC AS THE FLT WAS ON FINAL APPROACH. UPON TD THE OUTER PANE CRACKED. MX- REPLACED WINDSHIELD, RECORDS SHOW THAT THIS WINDSHIELD HAD BEEN INSTALLED FOR 29200 HOURS.

CA100113005	AIRBUS	CFMINT	HYDRAULIC	LEAKING

			SYSTEM	
1/8/2010	A320211	CFM565A1	SC47003	GREEN SYS

(CAN) THE ACFT ENCOUNTERED A COMPLETE FAILURE OF THE GREEN HYD SYS PRIOR TO LANDING. FLIGHT CREW DECLARED A PAN PAN WITH ATC AS A PRECAUTION AND WERE TO BE MET BY CFR AFTER LANDING. AS RECEIVED IN HGR, GREEN RESERVOIR MECH QTY GAGE READS 5L AND REGISTERS ON ECAM. PILOT REPORTS PUMP SELECTED OFF AFTER ECAM WARNING (LESS THAN 5 MIN). UNIT SHOP CHECK WAS 11174 FH AGO.

CA100118001	AIRBUS	CFMINT	WINDSHIELD	FAILED
1/7/2010	A321211	CFM565B3P	NP1653115	COCKPIT

(CAN) CREW ENCOUNTERED A CRACKED OUTER WINDSHIELD ON THE CAPT`S SIDE. CREW DESCENDED TO FL230 AS A PRECAUTION AND DIVERTED TO AN ALTERNATE STATION. PAN PAN DECLARED AS A PRECAUTION TO BE GIVEN PRIORITY TO DESCEND. MX - WINDSHIELD CHANGED. RECORDS SHOW THE WINSHIELD HAD BEEN INSTALLED FOR 27463 HOURS.

CA100119005	AIRBUS	RROYCE	LINE	CHAFED
1/6/2010	A330243	RB211*	FK25361	FUEL SYSTEM

(CAN) LT ENGINE, LT FAN COWL AFT LATCH NR4 AND ATTACH BOLT (2EA) ARE CHAFING AGAINST MAIN ENGINE FUEL SUPPLY TUBE AT 6 O`CLOCK POSITION. MOST WORN BOLT HAS LOST 2 TREADS DUE TO WEAR. THE FUEL TUBE HAS 2 CIRCULAR CHAFE MARKS. THE INNER MARK IS A 0.003 DEEP ON THE FUEL TUBE. DEFECT 4025526 HAS BEEN RAISED DURING A-02 CHECK. DEFECT HAS BEEN CLOSED.

CA100118004	AIRBUS	RROYCE	WINDSHIELD	ARCED
1/14/2010	A330342	RB211*	NP1752015	COCKPIT

(CAN) F CREW- ON DESCENT, PASSING THROUGH 7000FT, THE CAPTS MAIN FWD WINDSCREEN CRACKED WITH SOME ARCING OCCURING. NORMAL APPROACH CARRIED OUT. MX- WINDSHIELD CHANGE RECORDS SHOW THE WINDSHIELD HAD BEEN INSTALLED FOR 32907 HOURS.

CA100223004	AIRTRC	PWA	PISTON	WRONG PART
2/22/2010	AT802A	PT6A65AG	09202100	BRAKE ASSY

(CAN) WRONG PISTON INSTALLED INTO BRAKE ASSY, PISTON PN 092-02100 FOR BRAKE ASSY 30-67B, WAS INSTALLED IN BRAKE ASSY 30-67C BRAKE ASSY 30-67C REQUIRES NO FRICTION SPRING AND SHOULD HAVE PISTON PN 092-01600 INSTALLED. REF IPC AWBPC0001-7 PAGE 4-50, 4-51. (TC 20100223004)

CA100223001	AIRTRC	PWA	BOLT	LOOSE
2/17/2010	AT802A	PT6A67		BRAKE ASSY

(CAN) NR1, 2, 3, 4 BRAKE ASSY`S FOUND LOOSE. INVESTIGATION FOUND THAT THE 6 BOLTS THAT MOUNT THE BRAKE MOUNT TORQUE PLATE TO THE MAIN GEAR AXLE ASSY HAVE WORKED LOOSE. ALL BOLTS REMOVED FOUND TO HAVE NO LOCKING FEATURES INSTALLED. (TC 20100223001)

CA100218010	AIRTRC	PWA	BRACKET	CRACKED
2/8/2010	AT802A	PT6A67		STABILIZER

(CAN) WHEN WE WERE DOING SL-NR 285, NOTICED A CRACK ON THE FWD WELD ON THE LT BRACKET THAT THE STABILIZER REAR SPAR MOUNT BRACKET BOLTS TO. (TC NR 20100218010)

2010FA0000250	AMD	GARRTT	LIFE RAFT	BULGED
3/10/2010	FALCON50MYST	TFE731*	46FAAVSLA	

THIS LIFE RAFT WAS REMOVED FROM THE ACFT DURING A SCHEDULED 4A+, INSP FOR A NORMAL RECERTIFICATION OF THE LIFE RAFT. THE CONTAINER WAS NOTED AS BEING " BULGED" COMPARED TO THE OTHER LIFE RAFT ON BOARD THE ACFT. BOTH RAFTS WERE SENT FOR INSPECTION AND RECERTIFICATION. A TEARDOWN REPORT HAS BEEN REQUESTED FOR THIS LIFE RAFT. TECH FROM THE SUBMITTING REPAIR STATION STATE THEY HAVE SEEN THIS CONDIRION ON ANOTHER OCCASION BUT CANNOT FIND A CAUSE FOR THE ANOMALY. DISCUSSION WITH RAFT MFG SUGGESTS THE VACUUM SEAL MAY HAVE BROKEN.

2010FA0000246	AMD	GARRTT	CONTROLLER	FAILED
2/23/2010	FALCON900EX	TFE73160	HYLZ5051441	COCKPIT TEMP

ON TAKEOFF ROLL THE CREW NOTED A STRONG ELECTRICAL BURNING ODOR IN THE COCKPIT. THE TAKEOFF WAS ABORTED. THE ACFT WAS SHUTDOWN, ELECTRICAL POWER WAS TURNED OFF AND THE BATTERIES WERE DISCONNECTED. THE ACFT WAS THEN TOWED BACK TO THE HANGAR. THE SOURCE OF THE ODOR WAS TRACED TO THE COCKPIT TEMPERATURE CONTROLLER, PN HYLZ50514-41, LOCATED BEHIND THE PILOT`S SEAT, MOUNTED ON THE FWD SIDE OF THE LT CLOSET. THIS CONTROLLER MONITORS AND CONTROLS THE TEMP IN AUTO MODE. THE TEMPERATURE CONTROLLER WAS DISCONNECTED AND REMOVED FROM THE ACFT. FURTHER INVESTIGATION REVEALED THAT THE CIRCULATION FAN/MOTOR , PN FYQM-33700, OF THE TEMPERATURE CONTROLLER WAS INOPERATIVE. THE MOTOR WAS REPLACED WITH A NEW UNIT. THE AIR CONDITIONING SYS/ TEMPERATURE CONTROLLER WAS GROUND OPERATIONALLY CHECKED AND WAS FOUND TO FUNCTION NORMALLY.

CA100212005	BAG	GARRTT		O-RING	CUT
2/10/2010	JETSTM3212	TPE33112UHR	8967002	M832481231	OIL FILTER HSG

(CAN) ON SHUTDOWN, ON WED FEB 10 2010, THE CREW NOTICED A LARGE AMOUNT OF OIL LEAKING FROM THE LT ENG COWLS. UPON FURTHER INSP IT WAS DETERMINED THAT THE O-RING SEALING THE OIL FILTER HSG ADAPTER TO THE ENGINE HAD BEEN PINCHED AND SUBSEQUENTLY SLICED ON INSTALLATION. THIS ALLOWED EXCESS AMOUNTS OF OIL TO VACATE THE ENGINE. THIS IS A FRESHLY O/H ENGINE AND WAS INSTALLED ON WING JUST A DAY PRIOR TO THE INCIDENT. MX CREWS REPLACED THE FAULTY O-RING AND PERFORMED GROUND RUNS TO ENSURE NO FURTHER LEAKAGE. THE ACFT WAS RETURNED TO SERVICE AND NO SIMILAR EVENTS HAVE BEEN INCURRED. (TC 20100212005)

2010FA0000203	BBAVIA	SPAR	CRACKED
2/17/2010	8KCAB		LT WING

FOUND CRACK IN LT MAIN WOOD SPAR APPROX 16 " INBD OF LIFT STRUT.

2010FA0000202	BBAVIA	SPAR	CRACKED
2/17/2010	8KCAB		AILERON

FOUND CRACK IN THE INBD AILRON BAY AREA.

2010FA0000210	BBAVIA	TRANSMITTER	LEAKING
2/22/2010	8KCAB		FUEL SYSTEM

FUEL LEAKING FROM SENDING UNIT, SCREW TOO LONG. WE ADDED NR 10 LOCK -O-SEAL TO EACH SCREW.

CA100127013	BEECH	FLAP TRACK	OUT OF LIMITS
1/15/2010	100BEECH	501600183	TE FLAPS

(CAN) DURING AN INSP, 2 FLAP TRACKS FOR OTBD FLAP. INBD TRACK WERE FOUND OUT OF LIMITS AND WERE REPLACED.

CA100212006	BEECH	PWA	GYRO	FAILED
2/10/2010	100BEECH	PT6A28	235010616	ATTITUDE

(CAN) ACFT STARTED UP AND TAXIED ACROSS THE FIELD TO PICK UP PASSENGERS. UPON THE NEXT START THE CO-PILOT ATTITUDE INDICATOR FAILED TO ERECT. THE ACFT RETURNED TO BASE FOR MX. THE ATTITUDE INDICATOR WAS REPLACED WITH A NEW UNIT, FUNCTION TESTED OK. (TC 20100212006)

CA100212007	BEECH	PWA	GYRO	FAILED
2/10/2010	100BEECH	PT6A28	235010616	ATTITUDE

(CAN) ACFT STARTED UP FOR AN INTENDED FLIGHT. THE CO-PILOT`S ATTITUDE INDICATOR FAILED TO ERECT. ACFT SHUTDOWN. THE ATTITUDE INDICATOR WAS REPLACED WITH NEW PN 23-500-06-16, FUNCTION CHECKED OK. (TC 20100212007)

CA100212003	BEECH	PWA	SKIN	CORRODED

2/11/2010	1900C	PT6A65B	1144300022	BS 290

(CAN) UPON FUSELAGE BELLY PROTECTIVE TAPE INSP, FOUND LOWER FUSELAGE SKIN CORRODED (THROUGH CABIN AFTER REMOVAL OF FLAKING MATERIAL) AT BS 290 LBL 19 TO 24. (TC 20100212003)

2010FA0000135	BEECH	PWA	LINE	CHAFED
2/8/2010	1900C	PT6A65B	11492000041	FUEL SYSTEM

MAIN FUEL LINE WAS REMOVED TO FACILITATE REPLACEMENT OF THE LT WING INBD WHEEL WELL KEEL. THE LINE WAS CHAFED APPROX HALF WAY THRU WHERE IT PASSES THRU THE KEEL. THIS AREA IS VERY DIFFICULT TO INSPECT AS IT IS ABOVE AND BEHIND THE MLG. THE RT WING MAIN FUEL LINE WAS INSPECTED AND FOUND TO BE CHAFED ALSO. BOTH LINES WERE REPLACED. SUGGEST CLOSE INSPECTION OF THESE LINES AT WING / WHEEL WELL INSPECTIONS.

CA100122009	BEECH	PWA	SHAFT	WORN
1/12/2010	1900C	PT6A65B	230851500	ARMATURE

(CAN) STARTER GENERATOR WAS FOUND TO HAVE FAILED. DISCOVERED DURING ENGINE START-UP, ENGINE FAILED TO ROTATE FOR START. UPON REMOVAL AND STARTER DISSASSEMBLY IT WAS DISCOVERED THAT THE ARMATURE SHAFT END, THAT RIDES IN THE BRG, WAS WORN TO THE POINT THAT IT HAD A VERY LOOSE FIT IN THE BRG, CAUSING VIBRATION TO THE POINT OF FAILURE.

CA100125008	BEECH	PWA	LINE	CHAFED
1/22/2010	1900C	PT6A65B	1149200041	FUEL SYSTEM

(CAN) THERE WAS A FUEL LINE ON BOTH SIDES OF THE AIRPLANE THAT WAS FOUND TO BE SEVERELY CHAFED. THIS FUEL LINE IS LOCATED AT THE BACK OF THE MLG WHEEL WELL. THE LINE ON BOTH SIDES (LT & RT) WERE REPLACED. THIS LINE WAS DISCOVERED DURING A REPLACEMENT OF THE INBD MLG WHEEL.

CA100126003	BEECH	PWA	SKIN	CRACKED
1/23/2010	1900C	PT6A65B		LT AILERON

(CAN) THERE WAS HAIRLINE CRACK ON THE UNDERSIDE OF THE SKIN OF THE LT AILERON. THE SKIN WAS ALSO SLIGHTLY WRINKLED, SO THERE WAS AN INSPECTION DONE ON THE AILERON SPAR AND A CRACK WAS FOUND IN THE ACTUAL SPAR.

CA100203010	BEECH	PWA	STRUCTURE	DEBONDED
2/2/2010	1900C	PT6A65B		PAX DOOR

(CAN) AFTER THE DAYS FLIGHT, THE PILOTS NOTICED THE MAIN CABIN PASSENGER DOOR STRUCTURE WAS SEPARATED AT THE HINGE ATTACH AREA. SEVERE CORROSION FOUND BY MX. THE HONEYCOMB INNER DOOR STRUCTURE WAS SEVERELY CORRODED. SOME RIVETS ATTACHING THE BONDED ASSY TO THE DOOR ALSO FAILED. (TC 20100203010)

2010FA0000220	BEECH	PWA	MOTOR	SEIZED
2/23/2010	1900D	PT6*	100384040	FLAP

ELECTRIC FLAP MOTOR SEIZED CAUSING ODOR IN THE CABIN AREA. FOUND THE FLAP MOTOR SEIZED AND REPLACED FLAP MOTOR/GEAR BOX WITH AN O/H UNIT IAW MM 27-50-03 AND 27-50-05.

CA100204008	BEECH	PWA	BLOWER	FAILED
2/2/2010	1900D	PT6A67D	1143800281	AIR DISTRIBUTION

(CAN) PILOT REPORTED SMOKE AND BAD SMELL IN CABIN. BLOWER (AFT) ASSY WAS REMOVED AND INSPECTED. INSP FOUND ARCING AT THE BRUSH COVER ATTACH SCREWS, AND ON BRUSH COVER WHERE 1 BRUSH LEAD WAS HUNG UP ON BRUSH HOLDER. THE LEAD WAS CLEARLY SQUASHED DOWN TO CLEAR COVER. THE COMMUTATOR HAS CLEARLY BEEN OVERHEATED, PROBABLY CAUSED BY THE HUNG BRUSH. THE LOW SPEED RESISTORS ARE BURNED UP WITH THE ASSOCIATED WIRING SHOWING SIGNS OF SIGNIFICANT HEAT. INSULATING WIRE SLEEVE HAS DARK HEAT RELATED STAINING AT EACH ADEL CLAMP. THE THERMAL PROTECTION DOES NOT APPEAR TO HAVE WORKED. IT APPEARS THAT MORE THEN ONE CONTRIBUTING FACTOR WAS RESPONSIBLE FOR FAILURE OF THE BLOWER ASSY. (TC20100204008)

2010FA0000185	BEECH	PWA	TAB	MISMANUFACTURED
2/2/2010	1900D	PT6A67D	118130022607	LT AILERON

RECEIVED NEW AILERON TRIM TAB FROM VENDOR. TAB WAS A NEW PART FROM MFG. INCOMING INSP NOTED THE RIVETS THAT SHOULD HAVE BEEN INSTALLED TO SECURE THE ACTUATOR HORN TO THE TAB WERE MISSING. THERE IS ALSO A ROW OF RIVETS, ALONG THE HINGE LINE, THAT WERE MISSING. THESE RIVETS ARE THE SUBJECT OF A SB. THIS IS THE SECOND TAB REJECTED FOR THIS PROBLEM.

CA100217005	BEECH	PWA	ELBOW	FRACTURED
7/7/2009	1900D	PT6A67D	310047001	RGB

(CAN) DURING BOLT REPLACEMENT CAMPAIGN RGB OIL PRESSURE TRANSFER ELBOW WAS VISUALLY INSPECTED AND DISCOVERED THE OTBD MOUNTING PAD LOOP FRACTURED. (TC 20100217005)

CA100217003	BEECH	PWA	ELBOW	FRACTURED
11/22/2009	1900D	PT6A67D	310047001	GEARBOX

(CAN) DURING BOLT REPLACEMENT CAMPAIGN RGB OIL PRESSURE TRANSFER ELBOW PN 3100470-01 WAS VISUALLY INSPECTED AND FOUND THE OTBD MOUNTING PAD ATTACHMENT LOOP FRACTURED. (TC 20100217003)

CA100216015	BEECH	PWA	DOWNLOCK SWITCH	BURNED
2/16/2010	1900D	PT6A67D	1003810061	MLG

(CAN) SELECTING GEAR DOWN, NEGATIVE ON ALL 3 GREEN INDICATION AND GEAR HANDLE INTRANSIT LIGHT DID NOT ILLUMINATE, GEAR C/B POPPED. C/B WAS PUSHED IN AFTER MX CALL. GOT 2 GREEN MAIN AND NEGATIVE NOSE, INTRANSIT HANDLE LIGHT WENT OUT AFTER EXTENSION. PERFORMED ABNORMAL LANDING GEAR CHECK LIST AND WITHOUT INCIDENCE. (TC 20100216015)

CA100224009	BEECH	PWA	FASTENER	MISSING
2/17/2010	1900D	PT6A67D		WING SPAR

(CAN) ACFT WAS ON SCHEDULED CHECK AND DURING INCORPORATION OF SB 57-3815/16 TO COMPLY WITH AD 2009-23-03. IT WAS DISCOVERED THAT THERE WAS A CONFLICT WITH THE SB DWG AND THERE WERE SOME MISSING FASTENERS (QTY 7) AT RWS 123 ON THE RT AFT WING SPAR THAT WERE MISSED DURING PRODUCTION OF THE ACFT. THIS PROBLEM WAS REPORTED TO THE MFG IMMEDIATELY UPON DISCOVERY. MFG DIRECTED PITCHING THE RIVETS IAW DWGS AND INVESTIGATING OTHER OCCURRENCES OF THIS NATURE. (TC 20100224009)

CA100211008	BEECH	PWA	WINDSHIELD	BROKEN
2/10/2010	200BEECH	PT642A	10138402524	COCKPIT

(CAN) IN CRUISE FLIGHT CREW NOTICED RT WINDSHIELD CRACKS GROWING AROUND THE CTR POST. CREW CONTINUED TO HOME BASE. MX REPLACED WINDSHIELD. (TC 20100211008)

CA100211001	BEECH	PWA	WINDSHIELD	CRACKED
2/9/2010	200BEECH	PT6A41	10138402523	COCKPIT

(CAN) AFTER TAKEOFF AND WHILE CLIMBING THROUGH 6500 FEET, THE CAPTAINS WINDSHIELD CRACKED IN THE OUTER PANE OF GLASS. THE ACFT WAS DEPRESSURIZED AND RETURNED TO THE AIRPORT FOR LANDING WITHOUT INCIDENT. THERE WERE NO OTHER INDICATIONS TO THE CREW PRIOR TO THE CRACK DEVELOPING AND THE WINDSHIELD HEAT WAS OPERATING NORMALLY. AN INSP OF THE WINDSHIELD REVEALED NO SIGNS OF EXTERNAL OR IMPACT DAMAGE AND THE HEATING ELEMENTS AND SENSORS WERE IN GOOD CONDITION. THE WINDSHIELD HAS SINCE BEEN REPLACED BY MX. (TC 20100211001)

CA100114005	BEECH	PWA	CHIP DETECTOR	SHEARED
1/7/2010	200BEECH	PT6A41	3030359	ENGINE

(CAN) LT ENGINE CHIP DETECTOR SHEARED IN HALF IN FLIGHT CAUSING PROP TO SLOW DOWN AND OIL PRESSURE TO DROP OFF. (TC NR 20100114005)

CA100204010	BEECH	PWA	WINDSHIELD	CRACKED
2/3/2010	200BEECH	PT6A41	10138402523	NR 1

(CAN) THE NR1 WINDSHIELD (CAPTAINS SIDE) OUTER PLY CRACKED AS THE ACFT CLIMBED THROUGH 26,500 FT. THE CREW FOLLOWED SOPS AND RETURNED TO BASE WITHOUT FURTHER INCIDENT. (TC 20100204010)

2010FA0000060	BEECH	CONT	MCAULY	HUB	MISMANUFACTURED
1/19/2010	35C33	IO470L		3A36C434A	PROPELLER

PROPELLER FACTORY NEW IN 12/10/99. PROPELLER HUB FOUND AT O/H TO BE UNAIRWORTHY DUE TO CYLINDER HOLES DEPTH DRILLED BY FACTORY TOO DEEP. 3 SMALL DIMPLES NOTED ON UNDERSIDE OF HUB ON INSPECTION. MFG HAS REJECTED HUB. FACTORY HAD TO HAVE IMPROPERLY DRILLED HUB AS THEY ARE THE ONLY ONE THAT HANDLES THE MACHINING IN THIS AREA. SUBSEQUENT CONVERSATIONS STATE REPAIR STATIONS HAVE ALSO SEEN THIS IN OTHER HUBS. IMPROPER DEPTH OF DRILLING AT MACHINING PROCESS OF NEW HUB IS THE ONLY WAY THIS HUB COULD HAVE BEEN DAMAGE. POSSIBLE NOT TO FIND IN INSP UNTIL WHICH TIME PROPELLER CYLINDER HAD BEEN OFF AND ON ENOUGH. FEEL THERE MAY BE MANY MORE THAT WERE DRILLED THE SAME DAY OUT IN THE FIELD THAT HAVE NOT BEEN FOUND.

2010FA0000092	BEECH	CONT	LIFTER	SPALLED
1/15/2010	58	IO550C	653888	NR 5 CYLINDER

REMOVED NR 6 CYLINDER FOR REPAIR, WHILE INSPECTING ASSOC COMPONENTS FOUND SPALLING ON FACE OF NR 5 CYLINDER EXHAUST LIFTER AND NR 5 AND NR 6 CYLINDER INTAKE LIFTERS CAUSING DAMAGE TO CAMSHAFT LOBES. (K)

2010FA0000207	BEECH	CONT	DISTRIBUTOR BLK	LOOSE
2/16/2010	58P	TSIO520WB	10391586	RT MAGNETO

CUSTOMER HAD INTERMITTENT ROUGH ENGINE THAT FINALLY HAD FAILED MAGNETO. DISASSEMBLED & FOUND DISTRIBUTOR GEAR AXEL WAS LOOSE IN BLOCK AND TOWER CONTACTS WERE GROUND OFF. REPLACED DISTRIBUTOR BLOCK AND LARGE GEAR. MAGNETO WAS O/H 250 PRIOR ON 11-1-2004.

2010FA0000080	BEECH	LYC	TRANSMITTER	LEAKING
12/29/2009	60	TIO540*	99251913354B1	FUEL FLOW

ON DECEMBER 29. 2009, ACFT DEPARTED AIRPORT ENROUTE TO GENERAL AIRPORT 18 MILES AWAY WITH APPROX 50 LBS OF FUEL PER SIDE. THE PIC EXPERIENCED AN IN-FLIGHT MALFUNCTION WITH THE RT ENGINE AND HAD TO MAKE AN EMERGENCY LANDING. THE PIC MADE AN UNEVENTFUL SINGLE ENGINE LANDING. A POST EVENT INSP OF THE RT ENGINE WITH THE COWLING REMOVED DISCLOSED FUEL WAS FREELY FLOWING FROM THE HOUSING BODY OF THE FUEL FLOW TRANSMITTER ONTO THE ENGINE AND ENGINE COMPONENTS WHENEVER THE FUEL PUMP WAS TURNED TO THE ON POSITION. DURING THE FLIGHT, THE PIC FEATHERED THE RT ENG WHEN THE ACFT WAS AT A CRUISE ALTITUDE OF 1500 AGL AND WAS THEN ABLE TO CONTROL THE ACFT WHICH HAD BEEN A ERRATIC BUCKING SURGING FLIGHT PRIOR TO FEATHERING THE ENGINE.

CA100119012	BEECH	LYC	SKIN	DAMAGED
1/18/2010	76	LO360A1G6		LT WING

(CAN) DURING A PREFLIGHT INSP, A PORTION OF SKIN WAS FOUND TORN FWD OF THE LT REAR SPAR, ON A SECTION OF SKIN THAT FORMS PART OF THE FAIRING THAT COVERS THE AFT PORTION OF THE LANDING GEAR WELL. THERE IS A PREVIOUS REPAIR ON THE RT SIDE OF THIS SAME ACFT. THE SKIN IN THIS AREA IS WHERE THE LANDING GEAR DOOR CONTACTS WHEN THE GEAR IS UP, IT IS ALSO WHERE THE WHEEL WELL CLOSE-OUT PANELS MOUNT TO ON THE AFT SIDE. THE ALUMINUM ANGLE THAT SUPPORTS THIS SKIN IS CUT OUT TO ALLOW CLEARANCE FOR THE LANDING GEAR DRAG BRACE. THE ANGLE WAS FOUND BROKEN AT THE CUTOUT AREA, WHICH IS LIKELY WHAT CAUSED THE SKIN TO FLEX WITH AIRLOADS AND EVENTUALLY BREAK. THE WHEEL WELL CLOSE OUT PANEL PROVIDES SUPPORT FOR THE MOST FWD AND INBD PORTION OF THIS SKIN, AND THE PANEL WAS FOUND TO BE TORN WHERE IT MOUNTED TO THE SKIN.

2010FA0000249	BEECH	CONT	LIFTER	SPALLED
3/9/2010	95B55	IO470L	653888	ENGINE

ENGINE CYLINDERS HAD LOW COMPRESSION. REMOVED CYLINDERS AND FUND LIFTERS HAD SPALLING AND CAM SHAFT WAS WORN. LIFTER PN 653888 AND PN 653877 INSTALLED. THESE PN ARE DESIGNATED AS NOT AFFECTED BY MSB 09-8 OR AD 2009-24-52.

CA100204009	BEECH	PWA	STARTER GEN	FAILED
2/1/2010	A100	PT6A28	23048018	NR 2 ENGINE

(CAN) DURING A TRAINING FLIGHT, THE NR2 ENGINE WAS SHUTDOWN. FOLLOWING MOMENTS REVEALED THAT THE NR1 ENGINE GENERATOR WAS FAILED. 1 BATTERY START OF NR2 ENGINE WAS TRIED WITH NO SUCCESS. DUE TO COMPLETE ELECTRICAL POWER FAILURE, THE CREW SUCCEEDED TO CONTACT ATC BY CELL PHONE TO LAND. MX REPLACED THE NR1 ENGINE STARTER (WHICH WAS SENT TO O/H SHOP FOR EVALUATION) AND DEPLETED MAIN BATTERY. FUNCTIONAL TESTS C/OUT AND ACFT RETURNED TO SERVICE. FURTHER TROUBLESHOOTING IS UNDERWAY TO VERIFY ELECTRICAL SYSTEMS FUNCTIONS. (TC 20100204009)

CA100208002	BEECH	PWA	FRAME	CRACKED
1/29/2010	A100	PT6A28	5042002858	BS 207

(CAN) RT LOWER FUSELAGE FRAME AT STATION 207 FOUND CRACKED. FRAME REPLACED. (TC 20100208002)

CA100208003	BEECH	PWA	KEELBEAM	CRACKED
1/29/2010	A100	PT6A28		FUSELAGE

(CAN) CRACKS FOUND IN THE LT & RT WHEEL WELL ON THE OTBD KEEL RIB. REPAIR ANGLES INSTALLED IAW MFG FIELD REPAIR NR FR-KA-03216. (TC 20100208003)

CA100208004	BEECH	PWA	STRINGER	CRACKED
1/29/2010	A100	PT6A28	504400145535	BULKHEAD

(CAN) 2 CRACKED STRINGERS ON REAR PRESSURE BULKHEAD FOUND CRACKED. STRINGERS REPLACED. (TC 20100208004)

CA100208005	BEECH	PWA	BEECH	FITTING	WORN
1/29/2010	A100	PT6A28		509800891	NACELLE

(CAN) DURING REMOVAL OF THE ENGINE MOUNT FROM THE NACELLE THE LOWER MOUNT ATTACHMENT FITTINGS WERE FOUND LOOSE INSIDE THE NACELLE ON BOTH THE LT & RT SIDES. THE LT INBD AND OTBD LOWER FITTINGS WERE REPAIRED BY REMOVING THE FITTINGS NDT REINSTALLING THEN DRILLING AND REAMING TO SIZE IAW MFG FIELD REPAIR NR FR-KA-033670. THE RT INBD AND OTBD LOWER FITTINGS WERE REPLACED AND REPAIRS COMPLETED IAW MFG FIELD REPAIR FR-KA-033665. (TC 20100208005)

CA100209010	BEECH	PWA	SPAR	CRACKED
1/1/2010	A100	PT6A28	5011002628	WS 110 .11

(CAN) THE OTBD WING REAR SPAR WEB WAS FOUND CRACKED AT THE LAP JOIINT WS 110.11, THE LOCATION OF THE OTBD FLAP, INBD TRACK. THE RIVETS SECURING THE LOWER CLIPS TO THE FLAP TRACK FAILED. THE FORCES APPLIED TO THE FLAP TRACK WHEN THE FLAPS WERE LOWERED PULLED ON THE WEB, AND IT CRACKED, ALSO ANGLE PN 50-110034-4. THE REPAR WAS COMPLETED IAW MFG REPAIR DWG NR FR-KA-03494 AND SRM CHAPTER 20-50-01 CHART 203. REPLACED ALSO WERE PN 50-110034-4 ANGLE, 35-15398-3 STIFFENER, 2 CLIPS ACFT RETURNED TO SERVICE. PN`S 35-11596-3 & 4. (TC 20100209010)

CA100224010	BEECH	PWA	INDICATOR	FLUCTUATES
2/4/2010	A100	PT6A28	10038000647	FUEL QTY

(CAN) DURING THE RECTIFICATION OF THE RT FUEL GAUGE INTERMITTENT FLUCTUATING, 2 FUEL QTY INDICATOR (PN 100-380006-47) FAILED ON INSTALL. THE FIRST INDICATOR (SN 7127M) WAS INSTALLED, THE ACFT WAS POWERED AND THE GAUGE PEGGED FULL. UNABLE TO MAKE ANY ADJUSTMENTS TO CORRECT THE INDICATION. THE SECOND INDICATOR (SN 5387) WAS INSTALLED IT ALSO FAILED, IT COULD BE ZEROED, BUT THE NEEDLE WOULD CREEP UP AFTER SITTING FOR A FEW MINUTES. A THIRD INDICATOR WAS REMOVED SERVICEABLE FROM ANOTHER ACFT, INSTALLED AND FUNCTION CORRECTLY. ACFT WAS RETURNED TO SERVICE. THE TWO INDICATORS THAT FAILED ON INSTALL WERE REPAIRED/OVERHAULED BY THE SAME VENDOR. (TC 20100224010)

CA100218014	BEECH	PWA	YOKE	DAMAGED
2/18/2010	A100	PT6A28	508202073	NLG ACTUATOR

(CAN) DURING INSP, PLAY WAS FOUND WHERE THE NLG ACTUATOR ATTACHES TO THE YOKE IN THE DRAG BRACE ASSY. WHEN THE ACTUATOR WAS REMOVED FROM THE YOKE, IT WAS DISCOVERED THAT THE HOLE IN THE YOKE FOR THE ACTUATOR ATTACH BOLT (PN AN24-23A) WAS DRILLED TOO LARGE. THE ATTACH BOLT IS A 1/4 BOLT AND THE HOLE IS 5/16. (TC 20100218014)

2010FA0000215	BEECH		CONTROL CABLE	FRAYED
2/18/2010	A36		10652404419	AILERONS

DURING A PRE-PURCHASE INSPECTION, FOUND CONTROL YOKE BINDING WHEN TURNED TO THE LT AT APPROX 45 DEGREES. INSPECTED AILERON CNTRL SYS AND FOUND SCREW LODGED IN PULLEY GROOVE AND DAMAGED CABLE. ACFT HAD FLOWN 2.0 HRS SINCE LAST ANNUAL INSPECTION. THE SCREW APPEARED TO BE A FLOOR PANEL SCREW.

2010FA0000243	BEECH	CONT	CYLINDER	CRACKED
3/4/2010	A36	IO550B	SA52006A1	ENGINE

THIS IS THE LATEST OF SEVERAL CYLINDERS PN SA52006A-1 WE HAVE HAD DEVELOP CRACKS BETWEEN HEAD AND BARREL ON EXHAUST SIDE. THE COMPRESSION WAS NORMAL AT 75/80 PSI, BUT WHEN A SOAP SOLUTION WAS APPLIED BETWEEN THE FINS A CRACK WAS FOUND.

CA100127015	BEECH	GARRTT	BRACKET	WORN
1/10/2010	B100	TPE3316252B		TE FLAP

(CAN) DURING A ROUTINE INSP OF THE FLAP SYS. DISCOVERED THAT MANY BRGS WERE USED INSIDE THE BRACKETS. EXCESSIVE SIDE PLAY CAUSED WEAR OF FLAP BRACKETS. HAD TO CHANGE THE DAMAGED BRACKETS, ALSO THE BRGS AND THE WASHERS OF TEFLON. A THOROUGH INSP OF OUR FLEET (4) THAT WERE LEFT AND FOUND MANY OTHERS WITH THE SAME PROBLEM.

CA100127005	BEECH	PWA	WINDSHIELD	CRACKED
1/26/2010	B200	PT642A	10138402523	COCKPIT

(CAN) DURING CLIMB, PILOT HEARD AND THEN NOTICED THE LT WINDSHIELD HAD CRACKED. PILOT RETURNED TO AIRPORT. MX DETERMINED OUTER PANE HAD MULTIPLE CRACKS, MOSTLY VERTICAL, PARALLEL TO AND SLIGHTLY OTBD OF WINDSHIELD WIPER. HAVE SEEN OTHER WINDSHIELDS FAIL WITH SPIDERWEB CRACKING OVER 100 PERCENT OF THE SURFACE. THIS CRACKING WAS NOT TYPICAL OF THAT FAILURE.

CA100129008	BEECH	PWA	POWERPACK	MALFUNCTIONED
1/27/2010	B200	PT642A		MLG

(CAN) MX WAS CARRIED OUT ON THE ACFT THAT REQUIRED GEAR SWING(S). THE FIRST WAS SUCCESSFUL. THE SECOND SHOWED A WEAK RETRACTION AND THE THIRD POPPED THE 60AMP GEAR CB. TROUBLESHOOTING POINTED TOWARDS THE POWERPACK. THE POWERPACK WAS REMOVED AND SENT TO THE O/H SHOP. THIS COMPLETE POWERPACK ASSY. HAD ONLY 16.6 HOURS AND 10 CYCLES SINCE OVERHAUL, AND SHOWED NO SIGNS OF PROBLEMS WHILE IN SERVICE.

CA100121002	BEECH	PWA	CONTROL UNIT	FAILED
1/20/2010	B200	PT642A	1H982	CABIN PRESSURE

(CAN) CREW NOTICED A DECREASE IN CABIN DIFF. WHEN ACFT RETURNED TO MX BASE. IT WAS GROUND RUN AND THE LT FLOW CONTROL UNIT WAS NOT SUPPLYING THE REQUIRED AIR FLOW TO MAINTAIN THE CABIN DIFFERENTIAL. FLOW CONTROL UNIT WAS REPLACED WITH A SERVICEABLE UNIT AND GROUND TESTED. THIS UNIT WAS INSTALLED ON THE ACFT OCTOBER 21/09 AND ONLY HAD 163.5 HOURS ON IT. THIS IS THE 3 O/H UNIT INSTALLED THAT HAS NOT PERFORMED. 1FAILED ON INSTALL, THE 2ND OPERATED FOR 10 HOURS, BOTH OF THESE UNITS HAVE BEEN SENT BACK TO THE O/H FACILITY FOR EVALUATION.

CA100216016	BEECH	PWA	INDICATOR	ERRATIC
2/12/2010	B200	PT642A		TORQUE

(CAN) CREW REPORTED THAT THE NR1 TORQUE INDICATOR WAS FLUCTUATING ERRATICALLY AND THE TORQUE INDICATOR CIRCUIT BREAKER HAD TRIPPED. AN INSP OF THE NR1 ENGINES FWD WIRE LOOM FOUND SEVERAL CHAFED WIRES. THE WIRES WERE CHAFING AGAINST THE FWD LOWER ENGINE COWL. ONE WIRE WAS CHAFED COMPLETELY THROUGH, 3 WIRES WERE EXPOSED AND ARCING AND 2 WIRES WERE CHAFING. ALL THE DAMAGED WIRES WERE REPAIRED & THE WIRE BUNDLE WAS RE-ROUTED AND SECURED TO PREVENT FURTHER DAMAGE. SUBSEQUENT ACFT WERE INSPECTED. 2 OF THE ACFT WERE BEGINNING TO SHOW SIGNS OF CHAFING IN THE SAME AREA. ALL EFFECTED WIRE BUNDLES WERE RE-ROUTED AND SECURED AS REQUIRED. (TC 20100216016)

CA100216010	BEECH	PWA	BEARING	DETERIORATED
2/16/2010	B300	PT6A60A	13600LA902A1	MLG WHEEL

(CAN) METAL GENERATION AND SUBSEQUENT BEARING DETERIORATION CAUSED A LOSS OF TORQUE ON WHEEL ASSY. (TC 20100216010)

CA100216011	BEECH	PWA	SUPPORT	DAMAGED
2/12/2010	B300	PT6A60A		MLG DOOR

(CAN) DURING GEAR RETRACTION AFTER TAKEOFF, THE INBD DOOR JAMMED BETWEEN THE STRUT AND THE WHEEL ASSY CAUSING DAMAGE TO THE GEAR DOOR CLOSING MECHANISM. THIS REQUIRED REPLACEMENT OF THE SUPPORT ASSY. IT APPEARS THAT THE OVER CTR LOCK WAS NOT ENGAGED ALLOWING THE DOOR TO MOVE INWARD EARLY IN THE RETRACTION PROCESS. (TC 20100216011)

CA100212004	BEECH	PWA	CROSS TIE	CRACKED
2/11/2010	B300	PT6A60A	974300000149	RT FUSELAGE

(CAN) WHILE CARRYING OUT 10000 CYCLE INSP, (INITIAL) FOUND RT AFT EMERGENCY EXIT CROSS TIE CRACKED. CRACK TERMINATES AT RIVET HOLE. THIRD INSTANCE IN THIS FLEET, ALL BETWEEN 5000 AND 10000 CYCLES. CRACK APPEARS TO ORIGINATE DUE TO ROUGH MACHINED SURFACE ON INNER RADIUS OF THE CROSS TIE, FROM MFG. CRACK REPAIRED IAW FIELD REPAIR FROM MFG. (TC 20100212004)

2010FA0000191	BEECH	PWA	ACCESS PANEL	CORRODED
3/1/2010	B300	PT6A60A		ZONE 600

THE CTR WING FUEL CELL ACCESS WAS FOUND TO HAVE CORROSION ON THE FLANGE. THIS FLANGE IS HIDDEN BY THE FUEL CELL COVER AND THE DAMAGE IS NOT READILY VISIBLE DURING NORMAL MX. THIS AREA HAS A HISTORY OF WATER/ CONDENSATION INGRESS AND SHOULD BE THOROUGHLY INSPECTED WHEN WATER IS FOUND POOLING IN THE COVER BAY. THE DAMAGE REPORT HAS BEEN FORWARDED TO MFG FOR REPAIR INSTRUCTIONS.

CA100127017	BEECH	PWA	SEAL	CUT
1/22/2010	B300	PT6A60A	5043006127	PAX DOOR

(CAN) ACFT WAS ENROUTE AT FL 260 WHEN THE CREW NOTICED A SLIGHT INCREASE IN CABIN RATE OF CLIMB. THE RATE CONTINUED FROM 500 FET PER MINUTE (FPM) TO A MAXIMUM OF 6000 FPM. THE CREW INITIATED AN EMERGENCY DESCENT AND LEVELED OFF AT 10,000 FEET. FLIGHT THEN DIVERTED TO THE CLOSEST AIRPORT AND LANDED WITHOUT FURTHER INCIDENT. THE ACFT WAS INSPECTED BY MX AND THE DOOR SEAL WAS FOUND TORN AND SUBSEQUENTLY REPLACED.

2010FA0000229	BEECH		WINDSHIELD	CRACKED
3/11/2010	C90		5042006929	COCKPIT

PILOT'S WINDSHIELD CRACKED WHILE IN FLIGHT AT CRUISE ALTITUDE OF 25,000 FEET.

CA100218005	BEECH	PWA	SKIN	CRACKED
2/16/2010	C90	PT6A21		NLG DOOR

(CAN) INNER NOSE GEAR DOOR SKIN AND DOUBLER FOUND CRACKED AT ACTUATOR ATTACH BRACKET PENETRATION. (TC 20100218005)

CA100126004	BEECH	PWA	SLEEVE	CRACKED

1/26/2010	C90A	PT6A21		FUEL LINE

(CAN) WHILE PERFORMING ENG INSP IN CONJUNCTION WITH THE SCHEDULED AIRFRAME PHASE CHECK, AME NOTED AN UNUSUAL MARK ON THE PROTRUDING BIT OF A FUEL LINE COUPLING SLEEVE AT THE REAR OF THE RT ENG FCU. THE LINE, FCU RETURN OR PURGE FUEL LINE, WAS REMOVED FOR CLOSER INSP UPON WHICH THE SLEEVE WAS FOUND TO BE CRACKED COMPLETELY THROUGH THE MATERIAL (STEEL SLEEVE). A NEW TUBE ASSY WAS INSTALLED. CAUSE OF THE SPLIT SLEEVE COULD NOT BE DETERMINED.

CA100218012	BEECH	PWA	SKIN	CRACKED
2/10/2010	E90	PT6A28	501201568182	FUSELAGE

(CAN) FUSELAGE PRESSURE SKINS PN 50-120156-81 AND 82 CRACKED AT LOWER SPAR CAP PENETRATIONS. (TC 20100218012)

CA100218013	BEECH	PWA	SKIN	CRACKED
2/10/2010	E90	PT6A28	504200111051	FUSELAGE

(CAN) FUSELAGE PRESSURE SKINS P/N 50-420011-1051 AND 1052 CRACKED AND WORN BY CHAFING ACTION BETWEEN THEM AND FILLETS PN 50-420023-31 AND 32 DUE TO NORMAL WING MOVEMENT. (TC 20100218013)

2010FA0000254	BEECH	CONT	TRANSMITTER	INOPERATIVE
3/22/2010	F33A	IO520BB	10238901211	ENG FUEL FLOW

PILOT REPORTED FUEL FLOW WAS FLUCTUATING ON TAKEOFF. ON TROUBLESHOOTING, THE MX DETERMINED FUEL FLOW TRANSMITTER WAS BAD. MX RECEIVED A UNIT FROM PARTS AND INSTALLED ON ACFT, WHEN THE MX WENT TO RUN THE ACFT HE WAS UNABLE TO KEEP THE ENGINE RUNNING, INSTALLED ANOTHER FUEL FLOW TRANSMITTER AND ENGINE PERFORMED NORMAL. PROBABLE CAUSE UNKNOWN AT THIS TIME.

2010FA0000255	BEECH	CONT	PUMP	FAILED
3/22/2010	F33A	IO520BB	AA3216CW	INSTRUMENT AIR

PILOT REPORTED INSTRUMENT AIR PRESSURE LOW AND GYRO WARNING LIGHT ON. UPON TROUBLESHOOTING THE MX DETERMINED THE AIR PUMP WAS NOT PRODUCING ENOUGH PRESSURE AT DIFFERENT POWER SETTINGS. INSTALLED NEW PUMP, SYSTEM WORKED NORMAL. NO PROBABLE CAUSE OR RECOMMENDATIONS AT THIS TIME.

2010FA0000218	BELL	ALLSN	TRANSMISSION	MAKING METAL
3/8/2010	206L1	250C28B	206040004111	MAIN ROTOR

CHECKED TRANSMISSION CHIP DETECTOR AFTER CHIP LIGHT ILLUMINATED ON APPROACH TO LANDING. SMALL PIECE OF METAL FOUND ON CHIP DETECTOR , CLEARED BY MX, 30 MIN GROUND RUN PROVED NO MORE METAL ON CHIP PLUG. MOVED ACFT TO NEW LOCATION, .1 FLIGHT TIME REINPECTED CHIP PLUG AND FOUND MORE CHIPS. DIRECTOR OF MX DECISION WAS TO REPLACE THE TRANSMISSION. WILL DO A TEAR DOWN REPORT.

2010FA0000164	BELL	PWA	BLADE	DETACHED
2/18/2010	212	PT6T3	212010750105	TAIL ROTOR

DURING GROUND RUN FOLLOWING COMPLETION OF ANNUAL INSP AND CHECK OF GENERATOR BEING INOPERATIVE. A VIB. WAS NOTED WITH THE ENGINE SHUTDOWN. INSP OF THE ACFT SHOWED A HOLE IN THE AFT COWLING TO THE RT SIDE OF THE OIL COOLER. THE DAMAGE CONTINUED THROUGH 2 BULKHEADS AND OFF THE ENGINE RPM COMP AND REFERENCE FLEX LINE DAMAGING THESE COMPONENTS. ADDITIONAL INSP SHOWED A MISSING STATIC WEIGHT ON ONE OF THE TAIL ROTOR BLADES.

CA100114007	BELL	PWA	RETAINER	MISINSTALLED
11/23/2009	212	PT6T3	3014228	FUEL LINE

(CAN) PART INSTALLED BACKWARDS, ALLOWING THE FUEL LINE BETWEEN THE AFCU AND MFCU TO BECOME DISCONNECTED. RESULTING IN ENGINE FLAME OUT. ALTHOUGH NOT A CONTRIBTING FACTOR AT THIS TIME, THE RETAINER IS ILLUSTRATED BACKWARDS IN THE IPC AND MM.

CA100209011	BELL	ALLSN	RETAINING RING	CRACKED

2/8/2010	407	250C47B	23064593	COMPRESSOR

(CAN) ENG PRODUCED A CHIP LIGHT DURING OPERATION AND METALLIC DEBRIS OF SIGNIFICANT SIZE WAS FOUND ON THE LOWER GEARBOX CHIP PLUG DURING LINE MX INVESTIGATION. ENG WAS SUBSEQUENTLY REMOVED FROM SERVICE. ON DISMANTLE TO INVESTIGATE CONDITION OF THE FOLLOWING ITEMS WERE FOUND: COMPRESSOR REAR SUPPORT RETAINING RING GROOVE CRACKED AND LIBERATED FROM THE REAR SUPPORT. GROOVE WAS COMPLETELY REMOVED FROM THE PART. THE NR 2 RETAINING RING KEY WORE INTO THE SLOT. EACH OF THE GROOVES HAVE CRACKS COMING FROM THE RADIUS. ROOT CAUSE OF THE FAILURE IS UNKOWN AT THIS TIME. FAILURE ANALYSIS WILL BE CONDUCTED IN-HOUSE. FURTHER UPDATE TO FOLLOW. THIS IS THE THIRD FAILURE OF THE RETAINING RING GROOVE THIS AMO IS AWARE OF. THE OTHER TWO ARE: ENGINE SN CAE 848073. ENGINE S/N CAE 848117. BOTH WERE NEW FROM MFG AND NO MX HAD BEEN PERFORMED TO THIS AREA OF THE COMPRESSOR. (TC20100209011)

2010FA0000134	BELL	ALLSN	TANK	LEAKING
1/25/2010	407	250C47B	206061505115	ENGINE OIL

DURING MX TEST FLIGHT AFTER ENGINE INSTALLATION AN EXCEEDANCE OF 150 PSI ENGINE OIL PRESSURE OCCURS FOLLOWED BY A LOSS OF OIL PRESSURE. AN EMERGENCY LANDING PERFORMED FOLLOWED BY ENGINE SHUTDOWN.

2010FA0000171	BELL	ALLSN	SUPPORT	DAMAGED
2/10/2010	407	250C47B	23051106	COMPRESSOR

ON 1/17/2010, THE PILOT, FLIGHT CREW, AND BASE MECHANIC REPORTED AN UNUSUAL NOISE COMING FROM THE ACFT/ENG. AFTER FLIGHT CKS, GROUND RUNS, AND TROUBLESHOOTIING OF THE ENG AND COMPONENTS, A DECISION WAS MADE TO REMOVE THE ENG FOR INSP AND REPAIR. ON 1/2/2010, THE ENGINE REPAIR VENDOR NOTIFIED US THAT THE SUSPECT ENG SUFFERED METAL TO METAL RUBBING CONTACT AND FAILED NR 1 COMPRESSOR BRG DUE TO IMPROPER INITIAL BUILD UP BY THE MFG. THIS NEW ENG (534 HRS TIS) WAS INSTALLED AS A NEW COMPONENT, AND HAD VERY LOW TIME ACCUMULATED. AS A PRECAUTION, WE REMOVED ANOTHER ENGINE FROM SERVICE (2 SERIAL NRS AWAY FROM THE DAMAGED ENGINE) UNTIL A VISUAL INSP BY REP WAS PERFORMED TO VERIFY THE INITIAL BUILDUP INSTALLATION, WHICH WAS CORRECTED. MFG HAS APPROVED THE REPAIRS TO THE DAMAGED ENG UNDER WARRANTY. MFG SHOULD VERIFY WHY THE IMPROPER BUILD UP OF THIS ENG OCCURRED, AND ASSURE NO OTHER UNITS WERE IMPROPERLY ASSEMBLED.

1E9R201001	BELL	ALLSN	BLADE	CRACKED
2/19/2010	430	250C40B	222016001131	TAIL ROTOR

ACFT WAS FLOWN TO FACILITY, REPORTED DEBONDING OF TAIL ROTOR BLADE L/E AT TIP OF BLADE. UPON FURTHER INVESTIGATION OF BLADE, IT WAS DISCOVERED THAT THE ROOT END OF THE BLADE HAD CRACKED AND THE SKIN WAS SEPARATED FROM THE BLADE END. INFO SUBMITTED TO MFG PRODUCT SUPPORT ENGINEERING. PROBABLE CAUSE UNKNOWN AT THIS TIME.

CA100122007	BELL	ALLSN		STUD	LOOSE
1/20/2010	430	250C40B	C40B	AN154720	GEARBOX

(CAN) QTY (2) STUDS PARTIALLY BACKED OUT OF THE THREADED HOLES OF THE 2-1/2 BRG CAGE MOUNTING BOSS. STUDS BACKED OUT APPROX 1 AND 2 THREADS RESPECTIVELY. NUTS ON THESE STUDS DID NOT HAVE ANY REMAINING TORQUE ON THEM. NUTS ON THE REMAINING STUDS WERE ALSO LOOSE. SIGNIFICANT FRETTING NOTED ON GEARBOX COVER UNDERNEATH BRG CAGE AS A RESULT OF VIBRATION/LOOSENESS. TWO PREVIOUS OCCURRENCES OF THIS CONDITION HAVE BEEN NOTED ON C47 ENGINES. C47B CAE847306 (TSN 4095.4, CSN 11987) NOVEMBER 2008 AND C47B CAE847611 (TSN 2863.7, CSN 8003) 5 JUN 2009. THE OEM HAS BEEN PROVIDED THIS SDR INFORMATION.

CA100216017	BOEING	PWA	FRAME	CRACKED
8/21/2009	727*	JT3D1		BS 328

(CAN) DVI OF NLG BAY APPROX BS 328 FOUND RT TRUNNION SUPPORT FITTING A FRAME CRACKED ABOUT 3 INCHES LONG IN THE UPPER PORTION OF THE A FRAME. REPAIR WAS COMPLIED IAW SRM. (TC 20100216017)

FY4Y197M20100201	BOEING	SPAR	CRACKED
1/27/2010	727212		LT WING

ACFT INPUT FOR 6C CHK ON DEC 10, 2009. DURING CPCP INSP, THE INSPECTOR PERFORMED VISUAL INSP AND FOUND LEVEL 2 CORROSION ON LT WING FRONT SPAR WEB BETWEEN WS 508 AND WS 517; LENGTH:3.75"; WIDTH:2.5"; THICKNESS OF ORIGINAL: 0.370"; THICKNESS OF CORROSION REMOVED: 0.272" . AFTER (OWNER) VERIFIED AS MAJOR REPAIR ON JAN 29, 2010, THE SPAR WEB CORROSION HAS BEEN REPAIRED IAW FAA DER APPROVED DATA AND FORM 337 ALSO SUBMITTED TO FAA FOR FINAL RESULT OF CORRECTIVE ACTION DETAIL.

FY4Y197M20100129	BOEING		SPAR	CORRODED
1/27/2010	727212			RT WING

THE ACFT INPUT FOR 6C CHECK ON DEC 10, 2009. DURING CPCP INSP, THE INSPECTOR PERFORMED VISUAL INSP AND FOUND LEVEL 2 CORROSION ON RT WING FRONT SPAR LOWER CHORD AT WS 727.5. THE CHORD THICKNESS OF ORIGINAL IS 0.103". THE THICKNESS OF CORROSION REMOVED IS 0.040". AFTER (OWNER) VERIFIED AS MAJOR REPAIR ON JAN 29, 2010, THE SPAR LOWER CHORD CORROSION HAS BEEN REPAIRED.

2010FA0000187	BOEING	PWA	BATTERY PACK	INOPERATIVE
2/26/2010	727212	JT8D17	900835A	EMERGENCY LIGHTS

CENTER CABIN EMERGENCY EXIT LIGHT INOP. REPLACED BATTERY PACK.

2010FA0000069	BOEING		STRUCTURE	CORRODED
1/23/2010	727227			RWS 277

CORROSION FOUND AROUND FASTENERS ON RT WING L/E WING STATION 277.

CA100201003	BOEING	PWA	SWITCH	DAMAGED
1/28/2010	727227	JT8D9A		KRUEGER FLAPS

(CAN) UPON FLAP RETRACTION AFTER DEPARTURE, THE NR 6 KRUGER FLAP IN TRANSIT LIGHT REMAINED ILLUMINATED. ACFT RETURNED TO BASE. THE SWITCH WAS REPLACED AND THE ACFT RETURNED TO SERVICE. (TC 20100201003)

CA100205001	BOEING	PWA	SPRING	BROKEN
2/4/2010	727231	JT8D15	69253642	RUDDER CONTROL

(CAN) ACFT YAWED ABRUPTLY TO THE LT ON TAKEOFF, RUDDER PEDALS FELT ABNORMALLY LOOSE, NO RESISTANCE/FRICTION. ACFT CONTINUED SHORT FLIGHT AND LANDED WITHOUT INCIDENT. MX FOUND INBD RUDDER CONTROL SPRING BROKEN. SPRING REPLACED. (TC 20100205001)

CA100223006	BOEING	PWA	PRESSURE SWITCH	FAULTY
2/19/2010	727243	JT8D9A	1163P181	OIL SYSTEM

(CAN) CREW EXPERIENCED A LOW OIL PRESS/FILTER BYPASS LIGHT ILLUMINATE FOR THE NR 3 ENG. THE NR 3 ENGINE WAS SHUTDOWN IAW THE CHECKLIST. A FAULTY FILTER BYPASS SWITCH WAS REPLACED AND THE ACFT RETURNED TO SERVICE. (TC 20100223006)

2010F00043	BOEING		ANTENNA	WRONG PART
2/17/2010	737*		3070571102	ENTERTAINMENT SY

CUSTOMER (LIVETV) REPORTED IN-FLIGHT ENTERTAINMENT RECEIVE ANTENNA PN 3070571-102, SN 369 CAUSED VHF NR 1 RECEPTION PROBLEM ON ACFT. ACFT WORK REQUEST STATES, "COMPLETE ENG RUN AND MONITORED VHF WHILE SELECTING SYS ON AND OFF. FOUND THAT LTV SYS CAUSED A 6-10DBM DROP IN SENSITIVITY ON NR 1 VHF SYS, NO EFFECT ON NR 2 VHF SYS USING IFR 4000 TEST BOX. NO OTHER SYS CAUSED ANY SENSITIVITY PROBLEMS ON VHF. DBM DROP GREATER AT HIGHER FREQS." EMS ANTENNA TROUBLESHOOTING CONFIRMED ANTENNA EMI EMISSIONS OUT OF SPEC IN VHF RANGE. INSPECTION INDICATED INTERMITTENT CONNECTION ON POWER CABLE SHIELD TO GROUND AND MISSING EMI FILTER IN 9-PIN CONNECTOR ON SUBASSEMBLY 190525-1. FAILURE ANALYSIS, PART INSPECTIONS AND CA ARE IN-PROCESS AT MFG.

CA100121008	BOEING	PWA	BELLCRANK	BROKEN

1/20/2010	737200	JT8D17	65622161	CARGO DOOR

(CAN) DURING OPENING OF THE MAIN CARGO DOOR, THE FWD CLEVIS ON THE BELLCRANK ASSY WAS FOUND FRACTURED.

CA100215002	BOEING	PWA	GCU	SMOKE
4/22/2009	737217	JT8D17A	915F212	ENGINE

(CAN) DURING ENGINE START THE GCU STARTED TO SMOKE, THE CREW REMOVED THE GCU, MX INSTALLED A SERVICEABLE GCU. (TC 20100215002)

CA100208010	BOEING	GE	SEAL	LEAKING
2/8/2010	73776N	CFM567B24	J1215P17	HMU FUEL LINE

(CAN) THE PILOT REPORTED THAT ON TAKEOFF ROLL, NR1 ENGINE REACHED APPROX 81 PERCENT N1 AND THEN ROLLED BACK AND FAILED THROUGH ABOUT 85 KIAS. MX FOUND FUEL LEAKAGE AT HMU DUE TO LARGE GAP BETWEEN MOUNTING PLATE OF FUEL DISCHARGE TUBE AND HMU. LINE RE-INSTALLED WITH NEW GASKET PN J1215P17 IAW MM 73-21-10. PART POWER LEAK CHECK ALSO CARRIED OUT IAW MM 71-00-00 AND ENGINE OPERATES NORMALLY. REVIEW OF THE MX HISTORY FOR THE ACFT REVEALED THAT THE HMU WAS REPLACED 4 DAYS PREVIOUS TO THE EVENT. AIRLINE WILL REVIEW THE EVENT FURTHER THROUGH THE SAFETY MANAGEMENT SYS PROCESS AND WILL UPDATE LATER IF FINDINGS LEAD US TO MAKE ANY PROCEDURAL CHANGES. (TC 20100208010)

CA100216012	BOEING	GE	BOLT	MISSING
2/10/2010	737800*	CFM567B24	BACB30NR4DK14	KRUEGER FLAP

(CAN) DURING A BI-WEEKLY INSP, AN AME NOTICED THAT THE RT INBD KRUEGER FLAP DID NOT SEEM TO BE DEPLOYED FULLY, AS COMPARED WITH THE OTHERS. ON INSP IT WAS NOTED THAT THE 3 BULLNOSE WAS DISCONNECTED AND THE HARDWARE WAS MISSING. THE AREA WAS INSPECTED FOR FURTHER DAMAGE AND IT WAS NOTED THAT A COTTER PIN WAS NOT INSTALLED IN THE RT OTRD POSITION. THE CORRECT HARDWARE WAS INSTALLED AND THE SYS WAS FUNCTION CHECKED SERVICEABLE. A REVIEW OF MX RECORDS SHOW THAT THE LAST TIME THAT AREA HAD MX CARRIED OUT WAS IN THE PRELEASE CHECKS. HAVE INITIATED A CHECK OF OTHER ACFT FOR THE SAME ISSUE, NONE FOUND INCORRECT AT THIS POINT. WILL UPDATE THIS SDR WHEN THE INSPECTIONS ARE COMPLETE. (TC 20100216012)

2010FA0000154	BOEING		BOLT	CRACKED
2/1/2010	747*		65B054544	NLG COMPONENT

BOLT IS CRACKED, VISIBLE IN THE INNER BORE PROGRESSING FROM A SMALL LUBE HOLE. BOLT WAS GOING THROUGH A NORMAL O/H PROCES. INITIAL FLUORESCENT MAGNETIC PENETRANT INSP (FMPI) DID NOT REVEAL CRACK. BOLT WAS SUBSEQUENTLY MACHINED TO REMOVE CORROSION FROM THE NSIDE FACE OF BOLT HEAD. BOLT WAS INITAL ETCH INSPECTED AND STRESSED RELIEVED FOR 4 HRS AT 375 DEGREES F =/-25 DEGREES F. BOLT WAS FMPI PRIOR TO SHOTPEEN WHEN CRACK WAS DISCOVERED. CRACK PROGRESSES IN BOTH DIRECTION FROM A LUBE HOLE LOCATED APPROX 2.275 INCHES FROM THE THREADED END OF THE BOLT. THE CRACK RUNS APPROX 1 INCH FROM THE LUBE HOLE TOWARD THE THEADED END OF THE BOLT AND APPROX .250 INCH, 180 DEGREES IN THE OPPOSITE DIRECTION. BOLT IS A LIFE LIMITED COMPONENT: LIFE LIMIT 50430 CYCLES. CYCLES SINCE NEW=17808

CA100126002	BOEING	GE	DUCT	DAMAGED
1/24/2010	767375	CF680C2B6	14A23421	LT WING ANTI ICE

(CAN) UPON ARRIVAL, MX DISCOVERED THAT THE L/E SLAT NR 4 (LT WING) OVERPRESSURE PANEL WAS OPEN. FURTHER INSP REVEALED THAT THE THERMAL ANTI-ICE INSTERSTITIAL DUCT WAS DAMAGED AND HAD IN FACT SEPARATED AT THE JOINT WITH THE ADJOINING SLAT ANTI-ICE DUCT WHILE IN FLIGHT. THE DUCT`S RUBBER O-RING/SEAL AND CLAMP WERE MISSING ALTOGETHER AND WERE SUSPECTED LOST DURING FLIGHT.

CA100119004	BOEING	GE	HOUSING	WORN
12/15/2009	777333ER	GE90115B		FUEL FILTER

(CAN) THE DAMAGED FUEL FILTER WAS FOUND ON ALIAS B34/SN 906537. THIS ENGINE IS CURRENTLY INSTALLED ON 731 POSITION NR 1. PRODUCTION PERMIT 777-73-39874 HAS BEEN ISSUED TO COVER THE FRETTING FOUND.

THE DAMAGE FOUND ON THE POWER PLANT WHEN IT WAS OFF WING. (THE BOTTOM OF THE FUEL FILTER HSG WITH A MIRROR IMAGE OF THE PN ETCHED IN THE FUEL FILTER NOW ALSO PRESENT IN THE HSG).

CA100119003	BOEING	GE	HOUSING	WORN
12/15/2009	777333ER	GE90115B		FUEL FILTER

(CAN) NR 1 ENGINE LP FUEL FILTER HSG AND FILTER SHOWING SIGNS OF WEAR. ATTACHED POWER POINT PRESENTATION SHOWS THE DAMAGED FOUND ON ENGINE NR 2. ENGINE NR 2 ALSO SHOWED SIGNS OF ARCHING AND THE PICTURE SHOWS WHAT APPEARS TO BE A BLACK HOLE. THE NR 1 ENGINE DID NOT HAVE THIS BLACK HOLE.

AMCR201001	BOMBDR	BOMBDR	ROTARY SWITCH	FAILED
3/10/2010	BD1001A10		36006203	

THE SYS TEST PANEL ROTARY SWITCH STARTED WORKING INTERMITTENTLY, ESPECIALLY UPON PRESSING THE KNOB FOR TEST. RECEIVED A REPLACEMENT PANEL ASSY UNDER WARRANTY AND THAT UNIT WOULD NOT TEST PROPERLY UNLESS THE KNOB WAS WIGGLED A CERTAIN WAY WHILE DEPRESSED. THE THIRD UNIT RECEIVED WAS IN A CONDITION IN WHICH THE KNOB WOULD NOT PHYSICALLY PRESS DOWN. THE FOURTH UNIT RECEIVED WORKED OK. THE MFG TOLD US NOT TO RETURN THE NEW DEFECTIVE UNITS. THE ROTARY SWITCH ON THE PANEL, AND THE SN THAT FAILED ARE DC0838, DC0826, DC0910.

CA100105004	BOMBDR	HNYWL	FIRE DETECTOR	FAILED
12/25/2009	BD1001A10	AS90711A	4741121	LT NACELLE

(CAN) L ENGINE FIRE CAS MESSAGE DISPLAYED 20 MIN INTO FLIGHT. PILOTS SHUT DOWN LT ENGINE AND BLEW FIRE BOTTLE. ACFT RETURNED TO MSP. LT ENG FIRE CAS MESSAGE STAYED UNTIL LANDING WHEN CAS MESSAGE CHANGED TO FIRE SYS FAULT. CUSTOMER INSPECTED LT ENG AND FOUND NO SIGN OF FIRE. SYS WOULD NOT TEST ON GROUND. CAS MESSAGES DISPLAYED ON GROUND APU FIRE, CARGO SMOKE, GEAR BAY OVHT, AND LAV SMOKE. MDC REPORTED B3-006747 AN INTERNAL FAULT TO THE FIREX CONTROL UNIT HAS BEEN DETECTED. CHECK FIREX CONTROL UNIT. CUSTOMER HAS FIREX CONTROL UNIT, 2 FIRE BOTTLES AND 2 SQUIBS ON ORDER.

CA100121009	BOMBDR	RROYCE	HAMSTD	COUNTERBALANCE	SEPARATED
1/20/2010	BD7001A10	BR700710A220			RAT

(CAN) A SCREW SHEARED AND A COUNTER BALANCE WEIGHT FLEW OFF THE TURBINE WHILE TESTING IN FLIGHT. THE FLIGHT CREW DID NOT NOTICE THE FAILURE. UPON RETURN, AN INSP PRIOR STOWAGE OF TURBINE REVEALED THE MISSING WEIGHT. AFTER THAT FACT, AN INSP WAS CARRIED OUT ON THE REMAINDER OF THE SITES ACFT WITH NO FURTHER WEIGHTS MISSING. THE INCIDENT WAS DEEMED ISOLATED, THE TUBINE REPLACED AND THE ACFT RETURNED TO SERVICE WITHOUT FURTHER INCIDENT. (TC 20100121009)

CA100209009	BOMBDR	PWC	SELECTOR VALVE	MALFUNCTIONED
1/29/2010	DHC8400	PW150A	483003	MLG

(CAN) GEAR DID NOT EXTEND WHEN GEAR HANDLE SELECTED DOWN. 3 RED LIGHTS ILLUMINATED, NO OTHERS ILLUMINATED. PERFORMED ALTERNATE GEAR EXTENSION PER E/A CHECKLIST PROCEDURE. GEAR EXTENDED OK. MX PERFORMED RESISTANCE CHECK AT LANDING GEAR SELECTOR VALVE AND FOUND HIGH RESISTANCE AT EXTEND CONTACTS. REPLACED LANDING GEAR SELECTOR VALVE. (TC 20100209009)

CA100219002	BOMBDR	PWC	FADEC	FAULTED
2/3/2010	DHC8400	PW150A	312240008	NR 2

(CAN) DURING CRUISE FLIGHT POWERPLANT MESSAGE POSTED. FLIGHT CREW OPTIONED TO RETURN TO DEPARTURE AIRPORT. ON GROUND FAULT CHECK REVEALED THE FOLLOWING FAULTS, NR 1 A CHANNEL 456,744 , 750 , 754, 755 B CH 456 , NR 2 A CHANNEL 30, 478, 456, 454, 10,711. TROUBLESHOOTING REPLACED NR 2 FADEC ACFT FUNCTIONED TESTED OK, RETURNED TO SERVICE. NO FURTHER ISSUES TO REPORT. (TC 20100219002)

CA100219003	BOMBDR	PWC	AMPLIFIER	FAULTY
2/1/2010	DHC8400	PW150A	47387203	FIRE CONTROL

(CAN) NR 1 ENG FAULT A AND B LIGHTS AND CHECK FIRE DETECT LIGHTS ILLUMINATED DURING CRUISE FLIGHT. ACFT RETURNED TO AIRPORT. MX REPLACED THE FIRE CONTROL AMP. (TC 20100219003)

CA100219004	BOMBDR	PWC	PUMP	FAILED
1/24/2010	DHC8400	PW150A	6617303	HYD SYSTEM

(CAN) CREW REPORT: DURING THE CLIMB THE NR 1 HYD PUMP CAUTION LIGHT ILLUMINATED. QRH PROCEDURES WERE FOLLOWED RESTORING ALL HYD SYSTEMS. A RETURN TO BASE WAS COMPLETED. MX REPORT: NR1 ENGINE EDP REPLACED IAW AMM 29-11-01. MAIN SYS 1 PRESSURE FILTER REPLACED. CASE DRAIN FILTER REPLACED AFTER LINE FLUSHED OF DEBRIS. NIL FURTHER FILTER ELEMENT DPI EXTENSION AFTER ENGINE GROUND RUN C/O. SYS 1 HYD RESERVOIR SERVICED AND BLEED, DELTA PRESSURE CHECK SATIS. (TC 20100219004)

CA100219005	BOMBDR	PWC	SEQUENCE VALVE	INOPERATIVE
1/19/2010	DHC8400	PW150A	483025	RT GEAR DOOR

(CAN) AFTER TAKEOFF, R DOOR AMBER LIGHT STAYED ON. SO ALTERNATE EXTENSION WAS DONE, AND BE AIR TURN BACK. OPS CHECK IN HANGER, MECHANIC CONFIRMED THE PHENOMENON. THE R DOOR WAS ACTUALLY OPEN. REPLACED RT SSV. THEN OPERATION BACK INTO NORMAL. (TC 20100219005)

CA100219006	BOMBDR	PWC	CONTROL LEVER	INOPERATIVE
1/19/2010	DHC8400	PW150A	4063000501	MLG

(CAN) ACFT RETURNED TO BASE WHEN ALL LANDING GEAR FAILED TO RETRACT. THE CREW REPORTED THEY HAD 3 RED, HANDLE LIGHT AND 3 GREEN. MX FOUND THE PSEU FAULT CODES WHERE DIN01A UNREASONABLE FALSE AND DIN02A UNREASONABLE TRUE. OPS CHECKED OF THE LDG CONTROL LEVER FOUND IT TO BE GOOD. MX REPLACED THE STEERING CONTROL UNIT. (TC 20100219006)

CA100115005	BOMBDR	PWC	WIRE HARNESS	OVERHEATED
1/13/2010	DHC8400	PW150A	82410732401	

(CAN) ELECTRICAL HARNESS PN 82410732-401, BUS BAR T9 PN 1034586-3 AND BUSS BAR PN 1033368-2 FOUND OVER HEATED AS YOU COULD SEE THE LACING CORD THAT IS SUPPOSE TO BE WHITE IS NOW BROWN. ON THE SIDE OF THE CONTACTOR BOX, THERE IS A BLACK SOOT TRACE. THE BUS BARS & CONTACTOR ARE SHOWING CHANGE OF COLOR TOO. WIRES WERE VERY WARM COMPARE TO SAME INSTALLATION ON AN OTHER A/C. (TC 20100115005)

CA100219008	BOMBDR	PWC	CONTROL VALVE	INOPERATIVE
12/31/2009	DHC8400	PW150A	3907001007	LT SPOILER

(CAN) LT OTBD ROLL SPOILER DEPLOYED APPROX 1/2 DEPLOYMENT DURING APPROACH. LINE MX TROUBLESHOOTING ASCERTAINED THAT THE LT OTBD SPOILER CONTROL VALVE TO BE DEFECTIVE. SPOILER CONTROL VALVE REPLACED. SYS TESTED IAW THE ACFT`S MM. ACFT RETURNED TO SERVICE WITHOUT FURTHER INCIDENT. (TC 20100219008)

CA100204006	CESSNA	LYC	CASE	CRACKED
1/19/2010	152	O235L2C	LW13282	LT ENGINE

(CAN) CRACKED LT ENGINE CASE IN BETWEEN MOST FRONT THROUGH BOLTS CAUSING MINIMAL OIL LEAK AT NORMAL OPERATING TEMPERATURE. SMOKE SMELL NOTED IN COCKPIT, ENGINE REPLACED. (TC 20100204006)

2010FA0000196	CESSNA	CONT	SOLENOID	STICKS
3/3/2010	172E	IO360*	878110S1660A1	STARTER

BURNED ODOR OF ELECTRICAL COMPONENTS AFTER ENGINE START UP. SELECTED ACFT MASTER SWITCH OFF AND SHUTDOWN ENGINE. INSP REVEALED STARTER MOTOR HAD OVERHEATED. FURTHER EXAMINATION REVEALED STARTER SOLENOID HAD STUCK IN THE CLOSED POSITION DURING ENGINE START ALLOWING STARTER MOTOR TO RUN CONTINUOUSLY EXCEEDING STARTER DUTY CYCLE LIMITS.

2010FA0000231	CESSNA	CONT	MCAULY	SPINNER	CRACKED
3/16/2010	172G	O300D			PROPELLER

WHILE INSPECTING THE FWD PROP SPINNER BULKHEAD, CRACKS WERE FOUND. LOOKING FURTHER IT WAS NOTICED THE CTR HOLE IN THE SPINNER DID NOT LINE UP WITH THE CTR OF THE PROP. AFTER REMOVING THE PROP, IT WAS FOUND THE EDGE DISTANCE FROM THE 6 BOLT HOLES TO THE CTR OPENING VARIED FROM .330 TO .385. IT WAS ALSO NOTED THE PROP WOULD NOT FIT ON THE HUB IN ANY OTHER POSITION THAN THE ONE REMOVED. CONTACTED MFG AND CONFIRMED THE ALIGNMENT OF THE CTR HUB AND THE 2 ALIGNMENT DOWEL PINS SHOULD ALLOW THE INSTALLATION OF THE PROP IN THE ORIGINAL POSITION AND IN THE OPPOSITE POSITION. WHEN THE PROP WAS REMOVED A LARGE SLIVER OF ALUMINUM WAS RETRIEVED FROM THE CTR OF THE PROP HUB.

CA100222001	CESSNA	LYC	CESSNA	HINGE BRACKET	CRACKED
2/10/2010	172M	O320E2D	C172M		RUDDER

(CAN) UPON INSP, FOUND CRACK ORIGNINATING FROM RIVET HOLE ON RT SIDE SECURING BRACKET TO SPAR. BRACKET REPLACED. (TC 20100222001)

CA100208007	CESSNA	LYC	BENDIX	BREAKER POINTS	WORN
2/5/2010	172N	O320H2AD		AB10382585	MAGNETO

(CAN) WHILE PERFORMING ROUTINGE INSP THE MAGNETO TO ENGINE TIMING WAS NOTED TO BE 5 DEGREES OFF. THE MAGNETO WAS REMOVED TO INSPECT AND ADJUST THE POINTS AND IT WAS FOUND THAT THE POINTS WERE JUST BARELY OPENING (WHICH MEANT THAT THE MAGNETO WAS CLOSE TO FAILING). THESE POINTS HAD ONLY 200 HOURS TIME IN SERVICE. THIS HAS BEEN AN ONGOING PROBLEM IN THE LAST NUMBER OF YEARS IN THAT THE PLASTIC/NYLON CAM WARS PREMATURELY CAUSING THE MAGNETO, SO IN THEORY IF ONE FAILED THE OTHER HALF OF THE MAGNETO SHOULD CONTINUE TO OPERATE BUT IN PRACTICE BOTH SETS OF POINTS TEND TO WEAR EQUALLY SO THAT IF ONE SET OF POINTS FAIL, THE OTHER IS CLOSE TO FAILURE AS WELL, WHICH WOULD THE CAUSE THE ENGINE TO QUIT. (THIS HAS HAPPENED TO 1 OF OUR ACFT IN THE PAST. (TC 20100208007)

CA100115001	CESSNA	LYC		WIRE	BURNED
1/12/2010	172N	O320H2AD			LANDING LIGHT

(CAN) ON JANUARY 12, 2010, APPROX 19:20 LOCAL TIME, ACFT WAS CONDUCTING NIGHT TRAINING OPERATIONS WHEN A BURNING SMELL IN THE COCKPIT WAS NOTED AND THE LANDING LIGHT FAILED TO OPERATE. INSP COMPLETED BY MX, FOUND THAT THE LANDING LIGHT WIRING LOCATED IN THE LOWER ENGINE COWL HAD CHAFED THROUGH ITS SHEILDING AND ARCED TO THE LOWER COWLING. LANDING LIGHT SWITCH AND ASSOCIATED WIRING WAS ALSO EXAMINED AND FOUND WIRING CONNECTIONS AT THE COCKPIT MOUNTED SWITCH SHOWING SIGNS OF POSSIBLE OVERHEATING. LANDING LIGHT SWITCH AND SYS WIRING WAS REPLACED AND THE SYS WAS FUNCTION TESTED WITH NO ADDITIONAL DEFECTS FOUND. THE ACFT WAS RETURNED TO SERVICE ON JANUARY 13, 2010.

CA100127008	CESSNA	LYC		RETAINING RING	CRACKED
1/16/2010	172N	O320H2AD			LANDING LIGHT

(CAN) LANDING LIGHT RETAINER RING CRACKED.

CA100122008	CESSNA	LYC	CESSNA	BULKHEAD	CRACKED
1/22/2010	172P	O320D2J	05503673	055032112	SPINNER

(CAN) WHILE DOING A 200HR INSP, AME NOTICED THAT THE SPINNER SCREWS WERE LOOSE AND THE SPINNER WAS CRACKED. SPINNER WAS REMOVED AND IT WAS NOTICED THAT THE REAR BULKHEAD WAS CRACKED BY THE PROP BLADE. THIS WAS THE NEW STYLE OF SPINNER AND REAR BULKHEAD - HEAVIER MATERIAL IAW SNL03-9. NEW BULKHEAD AND SPINNER INSTALLED.

CA100205002	CESSNA	LYC		MUFFLER	CRACKED
2/4/2010	172P	O320D2J		S000127B3	ENGINE

(CAN) CRACKED MUFFLER AT TAIL PIPE TO CAN WELD. FOUND WHEN SHINING A LIGHT THROUGH SMALL HOLE FOUND ON TAILPIPE SUPPORT. (TC 20100205002)

CA100205003	CESSNA	LYC		BULKHEAD	CRACKED
2/4/2010	172P	O320D2J		05503214	SPINNER

(CAN) SMALL HAIRLINE CRACKS DISCOVERED ON THE FWD SPINNER BULKHEAD AROUND 3 OF THE 6 BOLT HOLES THAT SECURE THE PROPELLER TO THE ACFT. (TC 20100205003)

CA100122001	CESSNA	LYC	HOUSING	FRACTURED
1/20/2010	172R	IO360L2A		STARTER

(CAN) DURING AN ATTEMPTED ENGINE START, THE CREW HEARD AN UNUSUAL SOUND. THE START ATTEMPT WAS ABORTED AND MX WAS ALERTED. A BRIEF VISUAL INSPECT REVEALED THAT A PORTION OF THE FWD SECTION OF THE DRIVE HSG WAS FRACTURED AND LAYING IN THE COWL. THE STARTER WAS REPLACED AND THE NEXT START WAS UNEVENTFUL. FURTHER VISUAL EXAMINATION OF THE DAMAGED STARTER DID NOT REVEL A REASON FOR THE DAMAGE.

CA100203012	CESSNA	LYC	GAUGE	STUCK
2/1/2010	172RG	O360F1A6	264600062	OIL PRESSURE

(CAN) ACFT WAS BEING BROUGHT INTO THE HANGAR FOR OVER NIGHT PARKING, PILOT NOTICED THAT WHEN HE SHUTDOWN THE ENGINE THAT THE OIL PRESSURE NEEDLE WAS STUCK IN THE MIDDLE OF THE GREEN ARC. AME CHECKED THE GAUGE NEXT MORNING IT WAS STILL SHOWING READING IN MIDDLE OF THE GREEN ARC. REMOVED THE GAUGE AND FOUND THAT IF YOU MOVED THE NEEDLE IT WOULD GO DOWN TO BOTTOM OF SCALE. IF MOVED BACK IT WOULD STICK WHERE YOU LEFT IT. NEW GAUGE ORDERED. OIL PRESSURE LINE CHECKED AND FOUND TO BE CLEAN. (TC 20100203012)

CA100218009	CESSNA	LYC	ACTUATOR	CRACKED
2/7/2010	172RG	O360F1A6	98820152	LT MLG

(CAN) AFTER TAKEOFF AND RETRACTING LANDING GEAR PILOT WAS TOLD BY THE CONTROL TOWER THAT THE LT LANDING GEAR LEG WAS NOT COMPLETELY RETRACTED AND WAS HANGING DOWN. PILOT RETURNED TO THE AIRPORT AND SELECTED GEAR DOWN WHICH WORKED NORMALLY AND REPORTED INCIDENT TO MX. THE ACFT WAS PUT ON JACKS AND GEAR RETRACTED AND THE LT GEAR WAS LEFT HANGING DOWN ABOUT A FOOT FROM THE STOWED POSITION. AFTER REMOVAL OF BACK SEAT AND FLOOR COVERS IT WAS NOTED THAT A LOT OF GREASE HAD LEAKED OUT OF THE LT ACTUATOR. AFTER CLEANING AND REMOVAL OF THE ACTUATOR IT WAS FOUND TO BE COMPLETELY CRACKED THROUGH AT ONE OF THE 3 MOUNTING HOLES, AND AS RESULT THE SECTOR GEAR AND THE ACTUATOR RACK HAD JUMPED A COUPLE OF TEETH. SEB01-2 REV2 ADDRESSES CRACKING OF THESE ACTUATORS, BUT THE LOCATION OF THE CRACK IS NOT IN THE SPOT THAT THE SB ADDRESSES. THE ACTUATORS HAD PREVIOUSLY BEEN REMOVED AND INSPECTED FOR CRACKS IN 2001. (TC 20100218009)

CA100222003	CESSNA	LYC	SWITCH	FAULTY
2/21/2010	172S	IO360L2A	CM358910	LANDING LIGHT

(CAN) CREW REPORTED A BURNING ODOR IN THE CABIN AND SAW SMOKE COME FROM THE LANDING LIGHT SWITCH. THE PIC CONTACTED DEPARTURE TO INFORM OF THE SITUATION, AND WAS CLEARED TO RETURN NR 1. ACFT ELECTRICAL FIRE CHECKLIST WAS COMPLETED AND THE SMOKE CEASED ONCE ALL ELECTRICS WERE TURNED OFF. A FIRE EXTINGUISHER WAS NOT NECESSARY. ACFT WAS ESCORTED TO THE COMPANY APRON BY THE AIRPORT FIRE DEPARTMENT AFTER LANDING. MX INSP THE ACFT LANDING LIGHT SWITCH, LIGHT BULB AND ALL ASSOCIATED WIRING AND FOUND THAT THE BREAKER/SWITCH PN CM3589-10 WAS FOUND TO BE FAULTY AND THE CAUSE OF THE SMOKE IN THE CABIN. NO OTHER DEFECTS WERE FOUND AT THIS TIME. THE SWITCH WAS REPLACED AND THE SYS TESTED SERVICEABLE FOR OPERATION. THE ACFT HAS BEEN RETURNED TO SERVICE. (TC 20100222003)

CA100205004	CESSNA	CONT	CESSNA	STIFFENER	BROKEN
12/23/2009	180J	IO520*	0512133	07116972	BULKHEAD

(CAN) DURING AN INSP AN AME FOUND LOWER RIVETS ON STIFFENER PULLED THROUGH BULKHEAD. STIFFENER REMOVED AND FOUND BULKHEAD CRACKED BETWEEN LOWER FLAP AND PULLEY BRACKETS. BULKHEAD REPAIRED IN AFFECTED AREA AND STIFFENER REINSTALLED WITH NEW RIVETS. (TC 20100205004)

2010FA0000165	CESSNA	CONT	ROLL PIN	FAILED
2/9/2010	180J	O470*	NAS56138	TRIM SPROCKET

THE ROLL PIN THAT SECURES THE CHAIN SPROCKET TO THE TRIM WHEEL SHAFT NEXT TO THE TRIM WHEEL,

SHEARED OFF AND WAS TURNING FREELY ON THE SHAFT. RENDERING THE ENTIRE STABILIZER TRIM SYS, INOPERATIVE.

CA100203011	CESSNA	CONT	CESSNA	LINK	CORRODED
12/23/2009	180J	O520*		07612022	CONTROL CABLE

(CAN) DURING A MX INSPECTION, THE AME FOUND THE LOWER CABLE LINK ON REAR ELEVATOR BELLCRANK TO BE SEIZED ON BELLCRANK, REMOVED BELLCRANK AND LINK, FOUND BELLCRANK LINK ATTACH HOLE TO BE CORRODED. REPLACED BELLCRANK AND DECORRODED LINKS, REASSEMBLED, LUBED AND RIGGED (TC 20100203011)

2010FA0000212	CESSNA			TRANSDUCER	LEAKING
2/17/2010	182C			FXT231	FUEL SYSTEM

DURING INSPECTION, FOUND EVIDENCE OF FUEL LEAKING FROM WITHIN THE FUEL TRANSDUCER. FUEL STAINS WERE FOUND ON EXTERIOR OF THE TRANSDUCER AND ON THE FIRE SHIELD SURROUNDING IT. THERE WAS NO APPARENT LEAKING OUTSIDE OF THE FIRE SHIELD ITSELF. THE UNIT WAS RETURNED FOR EVALUATION AND REPLACEMENT.

2010FA0000188	CESSNA	CONT		IMPULSE COUPLING	LOOSE
1/14/2010	182P	O470*			MAGNETO

DISCOVERED DURING FINAL TORQUING OF THE MAGNETO HOLD DOWN NUTS, THE IMPULSE COUPLING WOULD BOTTOM OUT IN THE ENGINE GEAR HSG. THIS WOULD LOCK THE COUPLING, CAUSING IT TO NOT WORK. IF THE COUPLING WAS PARTIALLY ENGAGED, IT WOULD HOLD THE DISPLACED TIMING BETWEEN THE IMPULSE COUPLING AND THE MAGNETO.

CA100218008	CESSNA	CONT		CYLINDER	DAMAGED
2/18/2010	182P	O470R		ECE680ST	ENGINE

(CAN) DURING A 100 HOUR INSP, A ROUTINE COMPRESSION TEST WAS CARRIED OUT AS PART OF ENGINE ON CONDITION PROGRAM IAW AN B041. A LEAK WAS NOTED ASSOCIATED WITH LOW COMPRESSION ON THE NR 5 CYL ASSY AT TOP DEAD CTR. THE PISTON WAS THEN PLACED AT BOTTOM DEAD CTR AND THE LEAK WAS PERSISTANT. CYL WAS SPRAYED WITH A WATER SOAP SOLUTION AND IT WAS DISCOVERED THAT AIR WAS LEAKING OUT BETWEEN THE CYL HEAD AND INTERFACE WITH THE CYL BORE. UPON FURTHER DETAILED INSP IT WAS FOUND THAT THE CYL HEAD WAS ACTUALLY COCKED TO ONE SIDE AND THERE WAS A DEFINITVE GAP BETWEEN THE CYL HEAD AND THE CYL BORE. IN LIGHT OF THE RECENT ISSUING OF AD 2009-26-12 ON ECI CYL ON THESE ENGINES THE SAME SCENARIO WAS FOUND ON THIS ENGINE 0-470-RCS WITH A CYL ASSY OF ONLY 150.6 HOURS SINCE O/H AND INSTALLATION. (TC 20100218008)

2010FA0000211	CESSNA	LYC		OIL FILTER	INOPERATIVE
2/22/2010	182T	IO540*			ENGINE

WHILETRYING TO TIGHTEN A NEW OIL FILTER ONTO ENGINE, THE FILTER WOULD GET PARTIALLY TIGHT THEN POP LOOSE. REMOVED OIL FILTER TO FIND CENTER MOUNTING STUD HAD BROKEN LOOSE. REMOVED OIL FILTER TO FIND CENTER MOUNTING STUD HAD BROKEN LOOSE AND STRIPPED THREADS WHERE IT IS SCREWED INTO THE OIL FILTER.

2010FA0000094	CESSNA			CONNECTOR	LOOSE
1/8/2010	206H			KTKSAD10280X3	FUEL PUMP

PILOT REPORTED THAT FLAPS WOULD NOT EXTEND. CONNECTED EXTERNAL POWER AND FOUND THAT FLAPS WORKED PROPERLY. ON POST INSPECTION RUN UP FOUND THAT FUEL BOOST PUMP WOULD NOT OPERATE AND BEACON WOULD NOT FLASH. FOUND THAT THE ABOVE COMPONENTS WERE ON THE SAME ELECTRICAL BUS. CHECK CONNECTIONS AT JUNCTION BOX AND FOUND GOOD CONTINUITY ON ALL CONNECTIONS INSIDE THE JUNCTION BOX. THE 3 WIRE CONNECTOR THAT ALSO INCLUDES THE WIRE FOR THE BUS OF THE INOPERATIVE COMPONENTS, WAS FOUND LOOSE. WHEN CONNECTOR WAS OPENED THE PINS THAT FED THE AVIONICS WAS BURNED AND ARCHED (NR1 BUS). REPLACED THE CONNECTOR ALONG WITH THE CONNECTOR PINS. ALSO APPLIED TYWRAPS TO THE CONNECTOR AND TIED IT SECURELY TO A NEARBY WIRE BUNDLE. RAN ACFT WITH NO FURTHER DEFECTS.

CA100202008	CESSNA	PWA	COLLAR	LOOSE
2/19/2009	208	PT6A114A	NAS528A6	WING STRUT

(CAN) AT INSPECTION SOME COLLARS ON HIGH SHEAR RIVETS PN NAS1054-6-10 WHICH ATTACH THE STRUT SUPPORT ASSY TO THE WING SPAR WERE FOUND ABLE TO ROTATE. 4 ON LT WING AND 7 ON RT WING. THE RIVETS ARE HIGH SHEAR AND PRESSED FIT AND SHOWED NO SIGNS OF MOVEMENT. THERE IS A STEP IN THE RIVET WHICH THE COLLARS CRIMP INTO WHICH WOULD HAVE HELD THEM FROM EVER FALLING OFF. ENGINEERING WAS CONSULTED AND ISSUED AN ENGINEERING APPROVAL TO REPLACE THE RIVETS WITH BOLTS PN NAS464P3A11 AND NUTS PN MS21042L3. (TC 20100202008)

CA100121007	CESSNA	PWA	COUPLING	BROKEN
11/4/2009	208	PT6A114A	C3010010211	FLAP XMSN

(CAN) AFTER NORMAL FLIGHT WAS COMPLETED AND ACFT SHUTDOWN, ATTEMPT WAS MADE TO LOWER FLAPS FOR ACFT WASHING. PRIMARY FLAP MOTOR OPERATED BUT FLAPS DID NOT MOVE. UPON INSP, PRIMARY FLAP MOTOR COUPLING WAS FOUND FAILED, DISCONNECTING MOTOR FROM FLAP ACTUATOR ASSY. A FUNCTIONAL TEST WAS DONE ON STANDBY FLAP MOTOR SYS WHICH OPERATED NORMAL. SYS INSPECTED FOR FURTHER DAMAGE, COUPLING REPLACED AND FUNCTIONAL TESTED NORMAL OPERATIONS.

CA100127006	CESSNA	PWA	OIL FILTER	SEPARATED
12/24/2009	208B	PT6A114	305925701	ENGINE

(CAN) VISUAL INSP DETECTED SEPARATION OF INTERNAL SCREEN AT SEAM. TECH REP ADVISED UNIT REPLACED WITH NEW.

CA100127007	CESSNA	PWA	ATTACH FITTING	DAMAGED
12/25/2009	208B	PT6A114	2622246201	WING STRUT

(CAN) THE HOLE FOR THE WING STRUT ATTACH BOLT APPEARED TO HAVE BEEN IMPROPERLY LINE BORED CAUSING A EGG SHAPED HOLE AT THE FACTORY BOTH FORE & AFT. FITTINGS WERE REPLACED AT THIS TIME.

CA100202006	CESSNA	PWA	BEARING SEAL	LEAKING
1/27/2009	208B	PT6A114A		TURBINE SECTION

(CAN) ODD SMOKE SMELL IN CABIN WHEN BLEED HEAT WAS APPLIED. COMPRESSOR WASH PERFORMED WITH NO RESULTS. ENGINE BORESCOPE COMPLETED AND NR2 BRG FOUND TO BE LEAKING A BIT. ENGINE SENT AND REPAIRED. ENGINE REINSTALLED AND PROBLEM WAS CORRECTED. (TC 20100202006)

2010FA0000095	CESSNA	PWA	STARTER GEN	UNSERVICEABLE
1/22/2010	208B	PT6A114A	23081023	ENGINE

PILOT REPORTED HIS GENERATOR FAILED. MX FOUND THAT THE INPUT SHAFT HAS EITHER SHEERED INTERNAL OF THE UNIT OR BECAME DISCONNECTED. UNIT HAS NOT BEEN OPENED UP FOR INSP AT THIS TIME. A VIDEO SHOWING THIS CONDITION IS ACCOMPANYING THIS REPORT. UNIT WILL BE SENT FOR REPAIR AND A TEAR DOWN REPORT WILL BE REQUESTED. (K)

CA100219007	CESSNA	PWA	HOSE	LEAKING
2/18/2010	208B	PT6A114A	AE366316K06	ENGINE OIL

(CAN) ENGINE OIL SUPPLY HOSE WAS REPLACED AS IT IS A LIFE LIMITED PART. THE NEW HOSE WAS INSTALLED AND FUNCTIONAL CHECKED. A LEAK WAS DETERMINED TO BE COMING FROM THE NEW HOSE FITTING. THE FITTING WAS CHECKED FOR TIGHTNESS BUT THIS DID NOT FIX THE LEAK. THE OLD HOSE WAS REINSTALLED AND THERE WAS NO MORE LEAKAGE. (TC# 20100219007)

CA100119011	CESSNA	PWA	ARTEX	G SWITCH	DEFECTIVE
1/19/2010	208B	PT6A114A			ELT

(CAN) AFTER 1 YEAR OF OPERATION SINCE NEW, THE ELT WAS SENT OUT TO A LOCAL AVIONICS SHOP TO BE RE-CERTIFIED. THE AVIONICS SHOP FOUND THE G-SWITCH TO BE DEFECTIVE. A NEW G-SWITCH WAS INSTALLED AND THE UNIT WAS RECERTIFIED.

CA100116001	CESSNA	CONT	TERMINAL	SHORTED
1/15/2010	210L	IO550F	12707171	MLG

(CAN) ON APPROACH, THE PILOT SELECTED GEAR DOWN IN ANTICIPATION FOR LANDING. AFTER DOING THIS, SPARKS WERE NOTICED BEHIND THE INSTRUMENT PANEL BELOW THE RADIO STACK. THE PILOT RETURNED THE GEAR SELECTOR TO THE UP POSITION AND PULLED THE GEAR PUMP CIRCUIT BREAKER. THE PILOT THEN BEGAN EXTENDING THE GEAR MANUALLY, WHILE THE GEAR WAS IN TRANSITION THE PASSENGER POINTED OUT THAT THERE WERE FLAMES IN THE FOOT WELL. THE PILOT IMMEDIATELY TURNED DIRECT TO THE RUNWAY AND DECLARED AN EMERGENCY. THE PILOT LANDED AND ELECTED TO SHUTDOWN AND EVACUATE ON THE RUNWAY. IT WAS AT THIS TIME THE PILOT SECURED THE ACFT AND EXTINGUISHED THE FIRE. THE ACFT WAS THEN TAKEN TO THE HANGER. MX EXAMINED THE ACFT. IT WAS DISCOVERED THAT THE TERMINAL END OF THE WIRE BETWEEN THE POSITIVE AND THE NEGATIVE TERMINALS ON THE LANDING GEAR MOTOR HAD SHORTED TO THE MOTOR BODY.

2010FA0000204	CESSNA		CABLE ASSY	BROKEN
2/4/2010	210N		505530401	MLG

MFG SERVICE KIT PN SK210-174 CABLE ASSY STRAINS OF CABLE BROKEN AT THREADED END.

2010FA0000192	CESSNA		FUEL TANK	CONTAMINATED
2/19/2010	305A			ZONE 600

PILOT REPORTED THAT ENGINE QUIT ON CLIMB, AND HE WAS ABLE TO LAND ON THE REMAINING RUNWAY. ENGINE RESTARTED EASILY WITH PRIMING AND HAD RUN UP WELL BEFORE TAKEOFF. FULL POWER RUN-UP WAS UNREMARKABLE AFTER TAXING BACK TO RAMP. ACFT HAD BEEN WASHED EARLIER THAT DAY AND A COUPLE OF PINHEAD-SIZED DROPS OF WATER WERE DRAINED FROM THE TANKS BEFORE STARTING. AFTER RETURNING TO THE RAMP ABOUT .7500 OF AN OUNCE OF WATER WAS DRAINED FROM EACH TANK. WINGS WERE ROCKED AND TAIL RAISED TO TWO-POINT ATTITUDE, AND NO ADDITIONAL WATER COULD BE FOUND IN FUEL. SURMISE THAT WATER IN THE FUEL WAS THE PROBLEM. TANK DRAINS DO APPEAR TO BE IN A POSITION THAT WOULD ALLOW A FEW OUNCES OF WATER TO REMAIN UNDRAINED IN THE THREE-POINT ATTITUDE. PERHAPS MODIFYING THE TANKS BY LOWERING OR 'DIMPLING' THE DRAIN LOCATION WOULD ALLEVIATE THIS PROBLEM. ALSO, EVEN THOUGH AD 84-10-01 APPLIES TO OTHER ACFT WITH RUBBER TANKS, EXPANDING ITS RECOMMENDATIONS (RELATED TO ROCKING THE WINGS & C. PRIOR TO SAMPLING FUEL) TO THIS MODEL WOULD BE IN ORDER.

2010FA0000190	CESSNA	CONT	STRUT	DISCHARGED
2/20/2010	310I	IO470*		NLG

DURING ROUTINE TAKEOFF AND AS LANDING GEAR RETRACTED A LOUD 'BANG' WAS HEARD. THE GEAR WAS THEN LOWERED AFTER LEVEL FLIGHT WAS ESTABLISHED; AFTER SEEING A 'GREEN' INDICATION THE AIRPLANE WAS LANDED WITHOUT INCIDENT. IT WAS DISCOVERED THAT THE NOSE STRUT HAD DEFLATED (DURING TAXI AS PREFLIGHT BY ME AND WITNESSED BY MX PERSON HAD REVEALED STRUT TO BE INFLATED.) AS A RESULT OF THE DEFLATED STRUT THE NOSE GEAR ENTERED THE WHEEL WELL IMPROPERLY AND CAUSED SOME DAMAGE, THE DEGREE OF WHICH IS BEING DETERMINED BY MX.

2010FA0000268	CESSNA	CONT	DOWNLOCK	LACK OF LUBE
3/24/2010	310Q	IO470*	50410181	ZONE 700

RT LANDING GEAR FAILED TO FULLY EXTEND AND LOCK. THE RT DOWNLOCK PN 5041018-1 SEIZED DUE TO LACK OF LUBRICATION. THE DOWN LOCK ROD END PN KWBS WAS ALSO SEIZED FOR THE SAME REASON. THE WEIGHT OF THE ACFT ON THE PARTIALLY EXTENDED GEAR PULLED THE BELLCRANK BRACKETS, PN 0811302-1 AND 0811303-1, FRON THE CTR FRONT SPAR, LOCATED TO THE RIGHT OF THE LANDING GEAR, GEAR BOX.(SHEARED THE ATTACH RIVETS) THERE IS A GEAR INSP REQUIREMENT IN THE MM WITH LUBRICATION REQUIREMENTS THAT SHOULD BE ACCOMPLISHED ANNUALLY.

CA100127014	CESSNA	CONT	SPAR	CRACKED
1/4/2010	337B	IO360C	14225007	LT WING

(CAN) ON INSP OF WING AD 78-09-05 WAS ACCOMPLISHED AND THE LT WING FWD SPAR AFT WEB WAS FOUND CRACKED.

2010FA0000205	CESSNA	CONT	BOLT	BROKEN
1/1/2010	340A	TSIO520*	504100111	MLG

AT TOUCHDOWN THE LT MAIN GEAR DID NOT LOCK OVER CTR RESULTING IN THE LT GEAR RETRACTING, PROP STRIKE AND DAMAGE TO LT TIP FUEL TANK. APPEARS BOLT (NAS464P4-26) AND SPACER (S133-4P32) THAT ATTACHES BELLCRANK (5041001-11) TO LT GEAR ASSY UPPER TRUNNION BROKE RESULTING IN BELLCRANK BREAKING AND GEAR NOT LOCKING OVER CENTER. RECOMMEND INSP AND REPLACEMENT OF ATTACH HARDWARE.

2010FA0000179	CESSNA	CONT	CYLINDER	CRACKED
2/23/2010	340A	TSIO520NB	631397	ENGINE

(1) CYL HEAD SEPARATED AT 360 TTSN ON THE RT ENG. ALL CYL ON BOTH ENGINES HAD JUST PASSED COMPRESSION CHECK WITH VALUES IN THE MID TO UPPER 70'S BUT PILOT REPORTED VIBRATION IN CRUISE FLIGHT ON LT ENGINE - UPON FURTHER INSP USING SHOP AIR AND LIQUID LEAK DETECTOR, 4 ADDITIONAL CYL WERE FOUND TO HAVE CRACKS (3 CYL ON LT ENG AND 1 CYL ON RT ENG). ALL CRACKS WERE LOCATED ABOVE THE EXHAUST PORT AT THE 3RD OR 4TH FULL COOLING FIN BEHIND THE SPARK PLUG. ALL CYL ARE STAMPED "A" ON THE FLANGE OF THE ROCKER BOSS.

2010FA0000155	CESSNA	CONT	CYLINDER	CRACKED
1/19/2010	414A	TSIO520NB	AEC631397	ENGINE

ON BOTH ENGINES, FOUND FUEL STAINS ON SEVERAL INDUCTION TUBES AFTER FURTHER INSPECTION FOUND FUEL STAINS ON CYLINDER FINS BY INTAKE VALVES/ REMOVED AND REPLACED ALL CYLINDERS/ LOOKING AT PAST RECORDS FOUND THAT INDUCTION GASKETS HAD BEEN CHANGED SEVERAL TIMES AND LEAKING CONTINUED TO INCREASES OVER TIME. CRACKED CYLINDERS IS MOST LIKELY CAUSE SENT CYLINDERS BACK TO RAM ACFT INSP.

2010FA0000253	CESSNA		SEAL	BROKEN
3/21/2010	500CESSNA			FWD BULKHEAD

ACFT HAD A RAPID CABIN PRESSURE RISE AT ABOUT 28,000 FT AGL DURING CLIMB OUT. PILOTS DECLARED AN EMERGENCY AND MADE AN EMERGENCY DECENT. OXYGEN MASKS DEPLOYED AT ABOUT 13,000 FT AND CABIN REACHED ABOUT 15,000 FT. AS THE ACFT REACHED 10,000 FT AGL PILOTS WITHDREW THE EMERGENCY DECLARATION AND RETURNED TO DEPARTURE. NO DAMAGE TO ACFT AND NO PASSENGER INJURIES. FOUND NOSE STEERING CABLE SEAL ON FWD BULKHEAD BROKEN.

2010FA0000213	CESSNA	PWC	PUSHROD	DISTORTED
2/21/2010	510	PW610FA	70603103	RUDDER PEDAL

DURING MX INSP IN THE AREA OF THE PILOT`S RUDDER PEDALS, IT WAS NOTICED THAT THE RT BRAKE PEDAL PUSH ROD HAD AT SOME POINT MADE CONTACT WITH AN ADJACENT FLOOR SUPPORT ANGLE CAUSING MINOR DISTORTION TO THE ANGLE VERTICLE FLANGE. THIS CONDITION COULD HAVE RESULTED IN THE BRAKE PEDAL REMAINING IN A PARTIALLY DEPRESSED STATE. CLEARANCE FROM STRUCTURE IN THIS LOCATION IS VERY LIMITED. THIS CONDITION WAS COMPOUNDED BY THE FACT THAT THE BOLT HAS LATERAL PLAY DUE TO INSUFFICIENT WASHERS BEING INSTALLED UNDER THE NUT, THE INSTALLATION HOWEVER WAS IAW THE IPC. MFG ADVISED.

2010FA0000181	CESSNA	PWC	ENGINE	MAKING METAL
2/18/2010	510	PW615FA	35C051001	RIGHT

CREW SHUTDOWN RT ENG AFTER HEARING A BANG AND NOTICING ITT RISE AT ALTITUDE 27,000 FT ON 18FEB2010. CREW LANDED. REMOVED THIS ENGINE AFTER FINDING METAL IN OIL & DEBRIS ON CHIP DETECTOR. COMPLETED A SOAP ANALYSIS WITH NORMAL RESULTS. REMOVED THE ENGINES FADEC PN 35C4035-03, SN 06-150 AND DOWNLOADED ENGINE DATA. SENT ENGINE TO MFG FOR ANALYSIS. CONTACTED THE LOCAL FAA FSDO AT SAINT ANN, MO, MFG AND ACFT MFG ON 18FEB2010. INSTALLED A RENTAL/SERVICEABLE ENGINE SN LB0015 AND COMPLETED A SUCCESSFUL GROUND RUN.

CA100121010	CESSNA	WILINT	SENSOR	FAILED
1/20/2010	525B	FJ443A	2423576707NC	TT2PT2

(CAN) PILOT REPORTED INTERMITTENT RT TT2PT2 HEATER FAILURE ON SECOND LAST LEG OF LAST FLIGHT. TROUBLESHOOTING INCLUDING TECH REP DISCUSSIONS AND TESTS IAW MM, NO OUT OF TOLERANCE READINGS FOUND SO SENSORS SWAPPED LT TO RT FOR TROUBLESHOOTING TEST FLIGHT. ON TAKEOFF LT SENSOR HEAT HARD FAILED (ACCORDING TO INDICATION) AND TAKEOFF ABORTED. SENSORS RETURNED TO ORIGINAL POSITIONS AND GROUND RUNS CONFIRMED HARD FAILURE OF PART IN NEW (ORIGINAL RT) POSITION. SENSOR REPLACED WITH UPGRADED PN 79646, GROUND TESTS AND RUNS DETERMINED ALL SYS SERVICEABLE.

2010FA0000193	CESSNA		WIRE	CHAFED
3/6/2009	550			AUTOPILOT SYS

PILOT REPORTS AUTOPILOT CB TRIPPED. TROUBLESHOT PROBLEM AND FOUND WIRING INSIDE COPILOTS YOKE TO BE CHAFED AND SHORTING TO GROUND WHERE THE WIRES FEED FROM THE BACK OF THE YOKE INTO THE YOKE HANDLE.

2010FA0000194	CESSNA	PWA	WIRE	CHAFED
1/16/2010	550	JT15D1A		AUTOPILOT SYS

PILOT REPORTS AUTOPILOT CB TRIPPED. TROUBLESHOT PROBLEM AND FOUND WIRING INSIDE COPILOTS YOKE TO BE CHAFED AND SHORTING TO GROUND WHERE THE WIRING GOES FROM THE BACK OF THE YOKE INTO THE YOKE CONTROL WHEEL.

CA100211006	CESSNA	PWA	LINK	CORRODED
1/28/2010	550	PW530A	65414352	MLG

(CAN) DURING SCHEDUALED RT & LT MLG PHASE 22 TRAILING LINK FWD BORE INSP, IT WAS NOTED THAT THERE WAS CORROSION FOUND INSIDE THE FWD BORE. TRAILING LINKS WERE REMOVED FROM ACFT AND SENT TO MFG FOR FURTHER INSP AND REPAIR. UPON FURTHER INVESTIGATION FROM MFG IT WAS DETERMINED THAT THE CORROSION WAS BEYOND LIMITS AND TRAILING LINKS WERE SCRAPPED. (TC 20100211006)

2010F00039	CESSNA	PWA	WIRE	LOOSE
2/8/2010	560CESSNA	JT15D5		CONNECTOR

RT ENG FIRE WARNING ANNUNCIATOR ILLUMINATED IN FLIGHT. CREW DISCHARGED BOTH FIRE EXTINGUISHER BOTTLES TO THE RT ENG. THE LIGHT REMAINED ON. THE CREW SHUTDOWN THE RT ENG AND LANDED. TECHS AT THE SERVICE CENTER INSPECTED THE ACFT. THEY DETERMINED THERE WAS NO FIRE OR BLEED AIR LEAK. THE CAUSE OF THE FALSE FIRE WARNING LIGHT WAS DETERMINED TO BE A LOOSE WIRE IN WIRE CONNECTOR P122. P122 WAS REPLACED. BOTH FIRE EXTINGUISHER BOTTLES WERE REPLACED. A FUNCTIONAL CHECK OF THE FIRE WARNING SYS WAS SATISFACTORY. ACFT APPROVED FOR RETURN TO SERVICE.

CA100223003	CESSNA	PWA	TRIM SWITCH	BROKEN
2/22/2010	560CESSNA	PW535A	3094318	

(CAN) PILOT ATTEMPTED TO TRIM ACFT ON CLIMB OUT USING ELECTRIC TRIM TO LEVEL OFF FOR TRAFFIC AVOIDANCE. ACFT FAILED TO RESPOND. EVASIVE ACTION TAKEN AS REQUIRED. FLIGHT CONTINUED USING COPILOT TRIM SWITCH AND/OR MANUAL TRIM AS REQUIRED. ON GROUND PILOT ATTEMPTED TO TROUBLESHOOT PROBLEM. HALF OF THE TRIM SWITCH ACTUATOR (ONE SIDE OF THE 2 PART ACTUATOR) FELL OFF WHEN VERY LIGHT PRESSURE APPLIED TO MOVE THE SWITCH. BOTH SIDES OF SWITCH MUST ACTIVATE FOR TRIM TO MOVE. NEW SWITCH INSTALLED AND ACFT RETURNED TO SERVICE. (TC 20100223003)

2010FA0000091	CESSNA		LAMP	FAILED
10/15/2009	560XL		GE387	MLG INDICATOR

RT MAIN GEAR GREEN LIGHT DID NOT ILLUMINATE DURING GEAR EXTENSION FOR DOWN AND LOCK. RED IN-TRANSIT LIGHT OPERATION NORMAL. CREW BLEW GEAR DOWN, (EMERGENCY AIR EXTENSION) GREEN LIGHT STILL NOT ILLUMINATED. PRESS TO TEST REVEALED LAMP STILL INOPERATIVE. LAMP FAILED. FAILURE AT TIME UNKNOWN. UNKNOWN IF LAMP FAILED PREVIOUS TOFLIGHT OR UPON ACTIVATION ON ATTEMPTED EXTENSION AND DOWN LOCKING. RECURRENT TRAINING TO PREVENT CREW COMPLACENCY. ADDITIONAL "HUMAN FACTORS" TRAINING.

2010FA0000172	CESSNA		ACTUATOR	FROZEN

1/29/2010	560XL		666016112	ELEVATOR TRIM

AFTER T/O, THE ELEVATOR TRIM WHEEL STARTED TO FREE PLAY DURING MOVEMENT. A POST FLIGHT INSP FOUND THE RT ELEVATOR TRIM ACTUATOR FROZEN IN PLACE AND THE ELEVATOR TRIM CABLE BROKEN. IT IS BELIEVED AT THIS TIME THAT THE ISSUES ARE RELATED. MFG ENGINEERING HAS BEEN NOTIFIED. THE ELEVATOR TRIM SYS WAS GIVEN A FULL INSP WITH NO FURTHER RELATED DEFECTS FOUND. A FULL SYS RIG CK AND OPS CK WAS PERFORMED AND THE ACFT WAS APPROVE FOR RETURN TO SERVICE.

2010FA0000173	CESSNA		CONTROL CABLE	BROKEN
1/29/2010	560XL		66600031	ELEVATOR TRIM

AFTER T/O, THE ELEVATOR TRIM WHEEL STARTED TO FREE PLAY DURING MOVEMENT. A POST FLIGHT INSP FOUND THE RT ELEVATOR TRIM ACTUATOR FROZEN IN PLACE AND THE ELEVATOR TRIM CABLE BROKEN. IT IS BELIEVED AT THIS TIME THAT THE ISSUES ARE RELATED. MFG ENGINEERING HAS BEEN NOTIFIED. THE ELEVATOR TRIM SYS WAS GIVEN A FULL INSP WITH NO FURTHER RELATED DEFECTS FOUND. A FULL SYS RIG CK AND OPS CK WAS PERFORMED AND THE ACFT WAS APPROVE FOR RETURN TO SERVICE.

CA100218001	CESSNA	PWA	WINDSHIELD	BROKEN
2/12/2010	560XL	PW545A	NP1397219	COCKPIT

(CAN) WINDSHIELD OUTER PLY SHATTERED AS ACFT CLIMBED THROUGH 10,000 FT, ACFT RETURNED TO LAND WITH NO FURTHER DIFFICULTY. (TC 20100218001)

2010F00027	CESSNA	PWC	TUBE	SHORT
3/4/2010	560XL	PW545B		ZONE 100

THE RUDDER CONTROL CABLES PASS THROUGH A PLASTIC GUIDE TUBE BETWEEN WING AND FUSELAGE. THIS GUIDE TUBE IS NOT SUPPORTED AT AFT END. IT IS TOO SHORT TO PASS THROUGH THE SUPPLIED SUPPORT CLAMP. SB560XL-27-20 ADDRESSES THIS CONDITION BUT IS NOT APPLICABLE TO THIS SN ACFT. ON THIS ACFT, THE INTENT OF THE SB WAS INCORPORATED DURING PRODUCTION. REPLACEMENT OF THE GUIDE TUBE WITH A LONGER TUBE WOULD CORRECT THE PROBLEM BUT DUE TO ACCESS DIFFICULTY, REPLACEMENT IS NOT REALLY FEASIBLE. MFG ENGINEERING SUPPLIED DWGS TO CORRECT THE SITUATION ON THIS ACFT.

2010F00029	CESSNA	GARRTT	WARNING LIGHT	ILLUMINATED
2/8/2010	650	TFE731*		

AS THE FLIGHT CREW TAXIED TOWARDS THE RUNWAY, THEY NOTICED RT ENGINE "FUEL COMPUTER MANUAL" LIGHT ILLUMINATED. CREW RETURNED TO THE HANGER AND NOTIFIED MX. MX PERSONNEL DOWNLOADED AND CLEARED DEECS' AND FOUND CODES 2,237, AND 242. CHECKED N1 RESISTANCE AND INSULATION RESISTANCE CHECKS, NO DEFECTS NOTED. SWAPPED DEECS'. PERFORMED ENGINE GROUND RUN AND OPS CHECK OF DEECS', NO DEFECTS NOTED. ACFT RETURNED TO SERVICE.

CA100211007	CESSNA	PWC	COOLING TURBINE	SEIZED
12/18/2009	680CE	PW306C	22066101	ECU

(CAN) DURING A MX GROUND RUN OF THE ACFT, IT WAS NOTED THAT THE CABIN & COCKPIT HEAT WAS UNCONTROLLABLE. TROUBLESHOOTING OF THE SYS WAS CARRIED OUT, AND THE COOLING TURBINE WAS FOUND TO BE SEIZED. THE COOLING TURBINE WAS REPLACED WITH AN O/H UNIT AND THE SYS FUNCTION CHECKED SERVICEABLE. (TC 20100211007)

CA100219010	CESSNA	ALLSN	ACM	SEIZED
2/12/2010	750	AE3007C	73838433	

(CAN) FLIGHT CREW REPORTED CABIN PAC SUPPLY DUCT TEMP VERY HOT AND UNCONTROLLABLE IN CRUISE. INVESTIGATION OF ENVIRONMENTAL SYS FOUND CABIN ACM SEIZED. UNIT WAS REPLACED WITH OVERHAULED UNIT AND GROUND TESTED SERVICEABLE IAW AMM 12 AND 21. ACFT PRODUCT SUPPORT WAS CONTACTED TO REVIEW ACM FAILURE RATES. MFG INDICATED A NORMAL LIFESPAN OF ACMS IN THIS APPLICATION IS APPROX 750 A/F HRS. (TC 20100219010)

2010FA0000088	CESSNA	ALLSN	WARNING LIGHT	ILLUMINATED
2/5/2010	750	AE3007C		SLAT ANTI ICE

SLAT ANTI ICE RT EICAS MESSAGE ON IN CRUISE POWER AT FL310.

CA100224012	CESSNA	CONT	SOLENOID	FAILED
2/15/2010	A185E	IO520D	111138D	STARTER

(CAN) STARTER SOLENOID STAYED CLOSED WHEN NOT SELECTED. RESULTED IN THE STARTER TURNING THE ENGINE OVER AS SOON AS THE MASTER IS TURNED ON EVEN THOUGH THE STARTER HAD NOT BEEN SELECTED. THIS IS THE 2ND SOLENOID IN 15 HOURS. FIRST SINCE NEW STARTER AND DIODE. (TC 20100224012)

CA100224013	CESSNA	CONT	SOLENOID	FAILED
2/18/2010	A185E	IO520D	111138D	STARTER

(CAN) STARTER SOLENOID STAYED CLOSED WHEN NOT SELECTED. RESULTED IN THE THE STARTER TURNING THE ENGINE OVER AS SOON AS THE MASTER IS TURNED ON EVEN THOUGH THE STARTER HAD NOT BEEN SELECTED. (TC 20100224013)

2010FA0000133	CESSNA		PIVOT	CRACKED
2/7/2010	R182			UNKNOWN

PIVOT CRACKED AT INBD END OF SHAFT.

2010FA0000232	CESSNA		CIRCUIT BREAKER	DEFECTIVE
3/17/2010	T182T		S136010L	ZONE 100

ON GROUND ROLL AFTER LANDING FLAPS STOPPED RETRACTING AT 10 DEGREES. FLUSH TYPE CIRCUT BREAKER DID NOT POP OUT BUT WAS TRIED NUMEROUS TIMES. ALL SWITCHES AND MOTOR CHECKED GOOD. REINVESTIGATING CIRCUT BREAKER, CAUSED CIRCUT BREAKER TO CLICK AND SYSTEM TO RUN PROPERLY. AFTER REMOVAL OF CIRCUT BREAKER IT APPEARS TO RESET EACH TIME IT IS PUSHED. AMPMETER SHOWS .3 AMPS WHILE FLAP MOTOR RUNS.

2010FA0000248	CESSNA	CONT	LIFTER	SPALLED
3/8/2010	U206G	IO550F	653877	NR 5 CYLINDER

LOW COMPRESSION NR 5 CYLINDER - BURNED VALVE. FOUND BOTH LIFTERS FOR INTAKE AND EXHAUST SPALLED. LOOKED AT OTHER LIFTERS IN ENGINE WITH A BORESCOPE AND FOUND SEVERAL OTHER LIFTERS IN ENGINE WITH SAME SPALLING DEFECT. PN ON LIFTERS IS 653888 AND 653877. THESE PN LIFTERS ARE DESIGNATED AS NOT AFFECTED BY MSB 09-8 OR AD 2009-24-52.

2010FA0000247	CESSNA	CONT	LIFTER	SPALLED
3/8/2010	U206G	IO550F	653888	NR 5 CYLINDER

LOW COMPRESSION NR 5 CYLINDER - BURNED VALVE. FOUND BOTH LIFTERS FOR INTAKE AND EXHAUST SPALLED. LOOKED AT OTHER LIFTERS IN ENGINE WITH A BORESCOPE AND FOUND SEVERAL OTHER LIFTERS IN ENGINE WITH SAME SPALLING DEFECT. PN ON LIFTERS IS 653888 AND 653877. THESE PN LIFTERS ARE DESIGNATED AS NOT AFFECTED BY MSB 09-8 OR AD 2009-24-52.

CA100122005	CIRRUS	CONT	CRANKCASE	CRACKED
1/20/2010	SR20	IO360ES		ENGINE

(CAN) DURING A NORMAL MX ACTIVITY AND BEFORE PUTTING BACK THE TOP COWLING, 1 CRACK ON EACH ENG CRANKCASE WERE FOUND. BOTH CRACKS START FROM THE TOP SPLIT OF THE CASES (FROM AN ATTACHMENT BOLT) AND GOING DOWN APPROX 1 INCH. ENGINE HAS BEEN REMOVED AND SENT TO ENGINE SHOP FOR INVESTIGATION AND REPAIR.

2010FA0000257	CIRRUS	CONT	CONT	STUD	BROKEN
3/19/2010	SR20	IO360ES			NR 3 CYL HEAD

NR 3 CYLINDER INTAKE ROCKER CAME LOOSE FROM BACKED OFF NUT AND BROKEN STUD. ROCKER BOUNCED AROUND INSIDE OF ROCKER COVER AND POKED HOLE IN COVER. METAL FROM COVER CONTAMINATED ENGINE. INSPECTED OIL FILTER AND FOUND FERROUS METAL INSIDE OF FILTER. ENGINE, PROP AND PROP GOVERNOR HAS TO BE TORNDOWN AND FLUSHED FOR METAL CONTAMINATION. REPAIRED CYLINDER WAS INSTALLED

ABOUT 12 HOURS PRIOR TO INCIDENT. OWNER ADVISED OF THE SITUATION.

2010FA0000175	CIRRUS	CONT	DISTRIBUTOR GEAR	BROKEN
1/12/2010	SR22	IO550N	10357586	MISSING TEETH

MAGNETO WAS REMOVED FROM ACFT FOR ROUTINE 500 HR MAGNETO INSP. DURING INSP, DISTRIBUTOR GEAR WAS FOUND TO BE MISSNG A FEW TEETH. THE ELECTRODE WAS LOOSE IN THE DISTRIBUTOR GEAR AND HAD WORN THE DISTRIBUTOR BLOCK ELECTRODE POSTS. BOTH PARTS WERE REPLACED. THERE IS NO INDICATION WHAT CAUSED THE TEETH TO BE BROKEN OFF OR THE ELECTRODE TO BECOME LOOSE. THERE WAS NO INDICATION DURING PRE-INSPECTION RUN-UP THAT THERE WAS A PROBLEM WITH THE MAGNETO INTERNAL COMPONENTS.

2010FA0000176	CIRRUS	CONT	DISTRIBUTOR GEAR	DAMAGED
12/11/2009	SR22	IO550N	10357586	MAGNETO

DURING PRE-TAKEOFF ENG RUN-UP, IT WAS NOTED THAT THERE WAS SOME ENGINE ROUGHNESS. THE MAG CHECK INDICATED THE THE LT MAGNETO WAS NOT FIRING PROPERLY (THE ENG WAS QUITTING). THE MAGNETO WAS REMOVED AND OPENED FOR INSP. THE DISTRIBUTOR GEAR WAS FOUND TO BE MISSING APPROX 10 TEETH IN SUCCESSION AND ANOTHER MISSING ABOUT AN INCH AWAY. THIS CAUSED THE MAGNETO TO BECOME UNTIMED IT ITSELF AND NOT FIRE PROPERLY. THE LOGBOOK INSP REVEALED THAT THE 500-HOUR MAGNETO INSP HAD BEEN COMPLIED WITH AT THE CORRECT INTERVALS. THERE IS NO INDICATION WHAT CAUSED THE TEETH TO FAIL.

CA100119010	CNDAIR	PWA	ATTACH FITTING	CRACKED
1/19/2010	CL2151A10	CWASP		LT MLG

(CAN) DURING C-CHECK, 2 CRACKS FOUND IN LT MLG FWD WEB AT LOCATION OF MLG FWD FITTING GREASE NIPPLE CUT OUT AT FS 438.8.

CA100128002	CNDAIR	PWA	BRACKET	CORRODED
1/4/2010	CL2151A10	CWASP	215925296	GUST LOCK

(CAN) CORROSION FOUND ON THE FWD FACE OF THE ELEVATOR GUST LOCK BRACKET DURING VISUAL INSP.

2010FA0000273	CNDAIR		COMPUTER	MALFUNCTIONED
3/25/2010	CL600*		4018369905	FLT DIRECTOR

RECEIVED AN EXCHANGE FLIGHT DIRECTOR COMPUTER THAT WAS IN AN "INSPECTED" CONDITION ON AN 8130-3 TAG. THE PREVIOUS DISCREPANCY ON THE UNIT THAT WE RECEIVED WAS THAT THE " FLIGHT DIRECTOR COMPUTER IN GLIDE SCOPE MODE IS ALWAYS BELOW THE GLIDESLOPE POINTER. INSTALLED THE UNIT AND NOTICED THAT WE COULD DUPLICATE THE ORIGINAL DISCREPANCY. WHEN THE NR 1 FLIGHT DIRECTOR WAS COUPLED TO THE AUTOPILOT COMPUTER, THE FLIGHT DIRECTOR WOULD FLY AN IMPROPER GLIDESLOPE ANGLE. SWAPPED FLIGHT DIRECTOR COMPUTERS AND FOUND THAT THE PROBLEM FOLLOWED TO THE NR 2 SIDE AND CAUSED THE SAME PROBLEM O THE COPILOTS SIDE. THIS UNIT MUST NOT BE RETURNED TO SERVICE UNTIL THE PROBLEM IS FOUND AND RESOLVED.

CA100122002	CNDAIR	GE	HINGE	WORN
1/4/2010	CL600*	CF348C5	BA690951031	OUTFLOW VALVE

(CAN) ON JANUARY 4TH/2010, A FLOATATION VALVE HINGE WAS FOUND LOOSE, FURTHER INSP REVEALED THAT 4 OF THE 6 PIANO HINGE TYPE LUGS WERE WORN OUT. THE DAMAGE WAS OBSERVED BY COINCIDENCE DURING A TRANSIT CHECK INSP. THE FLOATATION VALVE WAS REPLACED AND THE ACFT RETURNED INTO SERVICE. THE FLOATATION VALVE IS FITTED BELOW THE OUTFLOW VALVE IN THE AFT FUSELAGE COMPARTMENT, ITS PURPOSE IS TO REDUCE THE FLOW OF WATER IN THE CABIN COMPARTMENT SHOULD THE ACFT DITCH IN WATER. THE VALVE WAS LAST INSPECTED ON JUNE 28/2009 DURING A SPECIAL IN-HOUSE INSP AS A RESULT OF A SIMILAR FINDING ON ACFT. 14 SIMILAR DEFECTS WERE FOUND IN OUR MX DATABASE SINCE 2007. MFG TASK 000-21-310-124 DETAILED INSP OF THE FLOATATION VALVE, WHO HAS RECENTLY BEEN ESCALATED FROM 8000 FLIGHT HOURS (FH) TO 12000 FH, WAS LAST CONDUCTED ON NOV 08/2007. THE ACFT HAS ACCUMULATED 1581 FH SINCE JUNE 28/2009 AND 6574 FH SINCE NOV 2007. FLOATATION VALVE PN BA690-95100-1, REFERENCE IPC 21-32-

02-01-005. (TC 20100122002)

2010FA0000200	CNDAIR	GE	FRAME	CRACKED
2/4/2010	CL6002A12	CF34*	60034014102	FS 235

FWD FUSELAGE FRAME AT FS 235 ABOVE FLOOR, PILOTS AND COPILOTS SIDE, FOUND CRACKED DURING 240 MONTH INSP.

2010FA0000201	CNDAIR	GE	FRAME	CRACKED
2/5/2010	CL6002A12	CF343A	60034014107	FS 235

FWD FUSELAGE FRAME AT FS235 ABOVE FLOOR, PILOTS AND COPILOTS SIDE, FOUND CRACKED. DURING 240 MONTH INSP.

CA100101001	CNDAIR	WINDOW	CRACKED
12/27/2009	CL6002B19	NP13932211	COCKPIT

(CAN) LT WINDOW (SIDE) IN COCKPIT CRACKED WHILE DESENDING THROUGH 14,000 FEET. MX R & R THE CAPTAINS SIDE WINDOW IAW THE AMM 56-12-01.

CA100101002	CNDAIR	WINDOW	FAILED
12/16/2009	CL6002B19	NP13932211	COCKPIT

(CAN) CAPTAINS SIDE WINDOW MIDDLE PAN SHATTERED. DURING GROUND HANDLING.

CA091228003	CNDAIR	ATTACH FITTING	MISINSTALLED
12/23/2009	CL6002B19	17307107	HYD LINE

(CAN) WHILE PERFORMING BRAKE SYS BLEEDING FOUND THAT HYD SYS NR 2 WAS ACTUATING INBD BRAKE AND NR 3 WAS ACTUATING OTBD BRAKE. AFTER RESEARCH OF THE CAUSE, THE SWIVEL FITTING THAT TRANSFER FLUID TO THE GEAR WHILE IN MOVEMENT WAS NOT PROPERLY INSTALLED ON BOTH MLG. (LT SIDE SHOW ONLY). ALL HYD LINE WERE INSP AND FOUND SERVICEABLE ,THEY WERE RE-INSTALLED PROPERLY. THE ACFT ARRIVED AT OUR FACILITY AND NO ABNORMALITY WAS NOTICED. IT COULD HAVE SEVERLY AFFECT THE ACFT ANTI-SKID SYS IN BAD WEATHER CONDITION.

CA100105009	CNDAIR	APU	FIRE
3/23/2009	CL6002B19	38004883	

(CAN) DURING ACCEPTANCE CHECK WITH APU RUNNING, LOUD BANG HEARD FROM REAR OF ACFT. ON WALKAROUND, F/O NOTICED FIRE COMING FROM APU COMPARTMENT. APU FIRE PUSH LIGHTS SELECTED AND FIRE EXTINGUISHED. NO APU FIRE LIGHTS ILLUMINATED. COMPLIED WITH IMMEDIATE ACTION CHECKLIST. APU R & R.

CA100104008	CNDAIR	WINDOW	BROKEN
12/24/2009	CL6002B19	601R3303317	COCKPIT

(CAN) CREW REPORTED AT CRUISE THE OUTER PANE OF THE CAPTAINS WINDSHIELD SHATTERED. THE ACFT DIVERTED AND LANDED WITHOUT INCIDENT. MX INSPECTED IAW THE AMM. R & R THE CAPTAINS WINDSHIELD. CHECKS WERE MADE IAW THE AMM AND THE ACFT WAS RETURNED TO SERVICE

CA100107001	CNDAIR	THROTTLE CABLE	BROKEN
12/22/2009	CL6002B19	1603730003	LT ENGINE

(CAN) UPON ARRIVAL AT THE GATE, LT ENG WOULD NOT SHUTDOWN WITH THRUST LEVER. ENGINE SHUTDOWN ONLY AFTER SELECTING THE LT ENG FIRE SWITCH. INSPECTED LT ENG, FOUND BAD THROTTLE GEAR BOX AND BROKEN THROTTLE CABLE. LT ENG THROTTLE CABLE FROM GEAR BOX TO PYLON CONNECTOR FOUND BROKEN. LT ENGINE THROTTLE GEAR BOX IS VERY STIFF AND FEELS LIKE GRINDING AT TOP END OF TRAVEL. R & R GEARBOX AND THE THROTTLE CABLE.

CA100129003	CNDAIR	GENERATOR	FAILED
1/19/2010	CL6002B19		NR 1

(CAN) DURING APPROACH AFTER STARTING THE APU AND TRANSFERRING THE BLEEDS TO THE APU WITH NO ISSUES, THE NR2 GEN DROPPED OFF LINE. THE NR1 GEN DROPPED OFF LINE SHORTLY AFTER. THE APU GENERATOR TOOK OVER ALL ELECTRICAL LOADS AUTOMATICALLY. THE QRH WAS FOLLOWED AND GEN NR 1 WAS BROUGHT BACK ON LINE FOLLOWED BY NR2 GEN. AFTER A FEW SECONDS, BOTH GEN NR1 AND GEN NR2 DROPPED OFF LINE ALONG WITH THE APU GEN. THE ADG THEN DEPLOYED AUTOMATICALLY. ON FINAL APPROACH, THE FLAPS FAILED AT ZERO DEG AND THE CREW PERFORMED A ZERO FLAP LANDING. ALL 4 MAIN TIRES WERE BLOWN DURING THE LANDING ROLL OUT WITH NO OTHER DAMAGE NOTED. INVESTIGATION IS ONGOING BY NTSB, MFG.

CA100129004	CNDAIR	SMOKE DETECTOR	FALSE ACTIVATION
1/22/2010	CL6002B19	PU90421R3	LAVATORY

(CAN) DURING CLIMBOUT, FLT CREW REPORTED SMOKE TOILET CAUTION MESSAGE. COMPLETED NON-NORMAL CHECKLIST. F/A REPORTED LAV SMOKE DETECTOR WENT OFF FOR A COUPLE OF MINUTES AND THERE WAS A MUSTY BURNING ODOR IN CABIN WITH NO SMOKE OR FIRE NOTICED IN LAV. ACFT RETURNED TO BASE AFTER CONFERRING WITH DISPATCH. SMOKE TOILET CAUTION WAS ONLY ON FOR 3 TO 4 MINUTES THEN EXTINGUISHED (BLEEDS OFF ENG IN TO). MX R & R THE LAV SMOKE DETECTOR IAW AMM 26-16. RAN BOTH PACKS AND SUPPLIED APU AND BOTH ENGINES FOR 30 MINUTES ON GROUND AND COULD NOT DUPLICATE MUSTY SCENT. OPS CHECKED THE SMOKE DETECTOR IAW AMM 26-61. NO FURTHER DEFECTS NOTED. ACFT RETURNED TO SERVICE.

CA100128007	CNDAIR	WINDSHIELD	CRACKED
12/31/2009	CL6002B19	601R3303310	COCKPIT

(CAN) DURING CRUISE AT FL330, THE F/O OUTER WINDSHIELD CRACKED, THE SPIDER WEB COVERED THE REST OF THE RT WINDSHIELD. THE ACFT DIVERTED AND LANDED WITHOUT INCIDENT. CRACKED OUTER PLY MX R & R THE RT WINDSHIELD AND LEAK CHECKED. NO FURTHER DEFECTS NOTED. ACFT RETURNED TO SERVICE.

CA100128008	CNDAIR	WARNING MESSAGE	ILLUMINATED
1/19/2010	CL6002B19		

(CAN) DURING TAKEOFF ON RUNWAY 23, THE FLIGHT CREW REPORTED A TAKEOFF CONFIG WARNING AND ABORTED THE TAKEOFF. THE ACFT OVERRAN THE END OF THE RUNWAY COMING TO REST ON THE ENGINEERED MATERIALS ARRESTING SYS (EMAS). NO INJURIES WERE REPORTED AS A RESULT OF THIS INCIDENT. THE NTSB HAS REQUESTED THAT THE FDR BE QUARANTINED FOR ANALYSIS. THE FAA HAS RELEASED THE ACFT BACK TO PSA FOR THE PURPOSE OF RECOVERING THE ACFT. PRELIMINARY INSP OF ACFT INDICATES INSIGNIFICANT DAMAGE. FURTHER INSP ONGOING.

CA100129001	CNDAIR	FCU	MALFUNCTIONED
1/1/2010	CL6002B19	860D10018	TE FLAPS

(CAN) FLAP FAIL AT 12 DEG DURING RETRACTION AFTER TAKEOFF. UNSCHEDULED LANDING, ABNORMAL LANDING CONFIG, MX R & R THE FECU. CHECKS WERE CARRIED OUT IAW THE AMM. ACFT WAS RELEASED FOR SERVICE.

CA100128001	CNDAIR	BPSU	MALFUNCTIONED
1/8/2010	CL6002B19	855D10015	TE FLAPS

(CAN) FLT CREW REPORTED FLAP FAIL AT 8 DEG WHEN FLAP LEVER WAS MOVED TO 0 DEG AFTER TAKEOFF FROM. ACFT RETURNED TO GROUND AND LANDED OVERWEIGHT BUT WITHOUT INCIDENT. USING AMM AND FIM, MX R & R THE RT BPSU. CHECKS WERE MADE AND AN OVERWEIGHT LANDING INSP WAS PERFORMED IAW THE AMM. NO FURTHER DEFECTS NOTED. ACFT RETURNED TO SERVICE.

CA100205007	CNDAIR	WINDOW	CRACKED
1/24/2010	CL6002B19	NP13932210	COCKPIT

(CAN) FLT CREW REPORTED THE RT SIDE WINDOW CRACKED DURING CRUISE EN ROUTE. ACFT DIVERTED AND LANDED WITHOUT INCIDENT. MX INSPECTED THE ACFT IAW AMM. WINDOW REMOVED AND REPLACED AND LEAK CHECKED IAW AMM. ACFT RETURNED TO SERVICE. (SEE ALSO FAA SDR NR2010020600364/VNAA2010012700009) (TC 20100205007)

CA100205009	CNDAIR		WINDOW	CRACKED
1/12/2010	CL6002B19		601R3303312	COCKPIT

(CAN) F/O SIDE WINDOW CRACKED SUDDENLY DURING CRUISE FLIGHT AT FL 310. PRESSURIZATION REMAINED NORMAL THROUGHOUT INCIDENT. ASSOCIATED CAUTION MESSAGE R WINDOW HEAT POSTED. MX R & R F/O SIDE WINDOW. OPS CHECK GOOD (TC 20100205009)

CA100129002	CNDAIR	GE	BLEED AIR SYS	ODOR
1/27/2010	CL6002B19	CF343A1		ENGINE

(CAN) FLIGHT WITH 16 PASSENGERS AND 3 CREW, WAS ENROUTE AT FL320 ABOUT 110NM NORTHNORTHEAST OF MYRTLE BEACH,SC (USA), WHEN THE CREW REPORTED A SMOKEY ODOR ONBOARD AND DECIDED TO DIVERT. THE AIRPLANE LANDED SAFELY IN ABOUT 21 MINUTES LATER. ATTENDING EMERGENCY SERVICES FOUND NO TRACE OF FIRE OR HEAT. A PASSENGER REPORTED, THAT THERE WAS A BIT OF SMOKE VISIBLE IN THE CABIN. R & R NR 2 ENGINE.

CA100215004	CNDAIR	GE	ENGINE	SHUTDOWN
2/12/2010	CL6002B19	CF343A1	CF343A1	NR 2

(CAN) DURING CLIMB OUT AT 1,500 FT, WITH ENGINE PARAMETERS SHOWING NORMAL, NR 2 ENGINE SHUTDOWN. PILOTS REPORTED AN ACFT YAW AND A LOUD NOISE. PROCEEDED WITH SINGLE ENGINE APPROACH AND LANDED WITHOUT FURTHER INCIDENT. EVENT REPORT SUBMITTED TO MEXICAN DGAC (MEXICAN REGULATORY AUTHORITIES). RT ENGINE WAS R & R IAW THE AMM. (TC 20100215004)

CA100223005	CNDAIR	GE	WIRE	BROKEN
2/21/2010	CL6002B19	CF343A1		TE FLAPS

(CAN) JUST AFTER PUSHBACK, CREW SELECTED FLAPS FROM 0 TO 8 DEGREES. FLAPS DID NOT MOVE AND FLAP FAIL CAUTION MESSAGE DISPLAYED. RESET ATTEMPTED BUT NOT SUCCESSFUL. MTC INVESTIGATION FOUND A BROKEN WIRE AT CONNECTOR 2P2CE AT THE RT WING BPSU. THE WIRE WAS REPAIRED AND THE FLAPS TESTED SERVICEABLE. (TC 20100223005)

CA100219009	CNDAIR	GE	ANGLE	CRACKED
2/17/2010	CL6002B19	CF343A1	601R31058227	WHEEL WELL

(CAN) AME WAS CARRYING OUT A GENERAL VISUAL INSP IN THE WHEEL WELLS, WHEN HE FOUND CRACKS ON AN ANGLE IN THE MLG UPLOCK AND APRON STRUCTURE AREA. THIS CRACK WAS EVIDENT ON THE UPPER JOGGLE OF THESE ANGLES IN BOTH THE LTS AND RTS WHEEL WELL AT STA.FS516.85 & WL53.00. REFERENCE :CRJ 100/200/440 STRUCTURAL REPAIR MANUAL (SRM)CHAPTER 53-41-55 FIGURE 1 ITEM 80. CRACKED ANGLE PIECES REMOVED AND NEW REPLACEMENT ANGLES P/N 601R31058-227 AND -228 INSTALLED IAW SRM CHAPTER 51-10-06. (TC 20100219009)

CA100101003	CNDAIR	GE	ENGINE	OVERTEMP
12/16/2009	CL6002B19	CF343A1	CF343A1	NR 1

(CAN) DURING CLIMB AT FL 150 , CREW REPORTED THE ITT ENG NR 1 RAISING IN THE RED BAND AT 1000 DEG. CREW COMPLIED WITH QRH AND SHUTDOWN THE LT ENGINE. THE CREW ELECTED TO DO AN AIR TURNBACK AND LANDED TO DEPARTURE AIRPORT. MX FOUND EXCEEDANCE REPORT IN MDC AT 1108 DEG FOR 25.3 SEC.

CA100104007	CNDAIR	GE	CONTROLLER	MALFUNCTIONED
12/22/2009	CL6002B19	CF343A1	21197688	CABIN PRESSURE

(CAN) FLIGHT AT LEVEL FL290 WAS DIVERTED DUE TO A LOSS OF PRESSURIZATION. THE CREW RECEIVED A CABIN ALT CAUTION MESSAGE WITH EICAS INDICATING 8500 FT CABIN ALTITUDE AND INCREASING SLOWLY. ATTEMPTS TO MANUALLY CONTROL THE CABIN ALTITUDE IAW THE QRH WAS UNSUCCESSFUL. THE CREW ELECTED TO PUT ON THEIR OXYGEN MASKS AS A PRECAUTIONARY MEASURE. THE CABIN ALTITUDE SUDDENLY WENT THROUGH 10,000 FT FOLLOWED BY THE CABIN ALT WARNING AURALS AND INDICATIONS. PASSENGER MASKS DROPPED AND AN EMERGENCY DESCENT WAS INITIATED. CREW DECLARED AN EMERGENCY AND DIVERTED. R & R NR 1 CABIN PRESSURE CONTROLLER.

CA100104009	CNDAIR	GE	CARBON SEAL	LEAKING

12/25/2009	CL6002B19	CF343A1		IDG

(CAN) LT OIL PRESSURE MESSAGE IN FLIGHT. COMPLIED WITH QRH. EVENTUALLY SHUT DOWN LT ENG AND LANDED SINGLE ENG. R & R IDG B AXIS CARBON SEAL ASSY IAW AMM 72-60-00, AND SUP 05 018A. OPS CHECKED AND NO FURTHER DEFECTS NOTED.

CA091230001	CNDAIR	GE	DOOR FRAME	CRACKED
12/24/2009	CL6002B19	CF343B1	601R250279	CARGO DOORWAY

(CAN) CRACK WAS FOUND ON THE CARGO DOOR FWD FRAME SURROUND RADIUS AT STA FS576 AND WL 97.75. THIS CRACK IS NOT EASILY VISABLE DUE TO APPLICATION OF SEALANT UNDER THE FITTING. TASK 52-31-02-01 CALLS OUT DETAILED VISUAL INSP (DVI) OF THE AREA - BUT DOES NOT REQUEST ANY DISASSEMBLY. UPON REMOVAL THE SEALANT - EXTERIOR SIDE VISABLE, IT WAS NOT EVIDENT FROM THE INTERIOR. INSP REQUIREMENTS FOR AWL 52-31-102 IS JUST TO DO A VISUAL INSP OF THE DOOR PINS, PIN FITTINGS, STOP FITTINGS, BACK-UP FITTINGS AND THEIR LOCAL SUPPORT STRUCTURE WITHOUT REMOVING IT WITH THE DOOR STRUCTURE. REF:- PART 9/VISUAL/NDT TASK 9/52-31-102 SIMILARLY, MRB TASK 52-31-02-01, DETAILED INSP OF THE CARGO DOOR FITTINGS ONLY REQUIRES VISUAL INSP OF THE FITTINGS FOR CORROSION AND ENVIRONMENTAL DETERIORATION. THERE IS NO INSP REQUIREMENTS TO REMOVE THE SEALANT AND INSPECT THE RADIUS IN THIS LOCATION. MFG HAS BEEN NOTIFIED BY OUR STRUCTURES SPECIALIST. AS FOR THE REPAIR, WE HAVE SUBMITTED A REQUEST TO MFG TO INCLUDE THIS ACFT S/N 7270 TO THE TYPE SPECIFIC REO601R-52-31-091 THAT WAS PREVIOUS ISSUED TO ADDRESS A SIMILAR CRACK ON AIRCRAFT SN 7277. (TC 20091230001)

CA091231003	CNDAIR	GE	DRIVE UNIT	FAILED
12/31/2009	CL6002B19	CF343B1	865D1007	TE FLAPS

(CAN) CREW SELECTED FLAP 45 AND FOUND THAT THE FLAPS STOPPED AND STAYED AT 30 DEGREES. THIS WAS DISCOVERED ON APPROACH AT APPROX 2000 FT. THE CREW OVERSHOT DUE TO A SMALL TAILWIND ON RUNWAY 07 AND THEN GOT THEMSELVES RE-ESTABLISHED FOR THE APPROACH ONTO RUNWAY 25 AND LANDED WITHOUT FURTHER ISSUE. AN EMERGENCY WAS DECLARED AND THE FLAPS STAYED AT 30 DEGREES EVEN ON THE GROUND AFTER BEING CYCLED. FURTHER DETAILS OF REPAIRS WILL BE PROVIDED. MX TROUBLESHOOTING LED TO THE REPLACEMENT OF THE FLAP POWER DRIVE UNIT.

CA100121003	CNDAIR	GE	CONNECTING ROD	BROKEN
1/11/2010	CL6002B19	CF343B1	601R3864117	DOOR PRESS DUMP

(CAN) MCD PRESS DUMP DOOR CONNECTING ROD BROKEN. CREW DEPARTED AND COULD NOT PRESURIZE. NO INDICATIONS. THEY RETURNED TO DEPARTURE. (RESOLVED ON W/O: 221552 TASKCARD: NR-00001) MCD PRESS DUMP DOOR CONNECTING ROD REPLACED, RIGGED AND TESTED.

CA100202004	CNDAIR	GE	DOUBLER	CRACKED
2/2/2010	CL6002B19	CF343B1	601R3600234	FS 640

(CAN) WHILE PERFORMING A DETAILED VISUAL INSP OF ENGINE BEAM STRUCTURE IAW TASK:RJ2-53-310-505, AME NOTICED CRACKS ON REPAIR DOUBLERS AT FUSELAGE STA FS640 . THIS REPAIR WAS PREVIOUSLY ACCOMPLISHED IAW (SB)601R-53-061 PART.C. THIS ACFT HAD 7842 FLIGHT CYCLES SINCE THE REPAIR WAS INCORPORATED. IT IS IMPORTANT TO NOTE THAT THE CRACK WAS ONLY FOUND AT THIS TIME BECAUSE THE AME WAS PERFORMING AN INSP OF THE ENGINE BEAM IN THE VICINITY OF THE FS.640 REPAIR AREA. THE RECOMMENDED INSP OF THE REPAIR DOUBLER BY THE MFG IS 12,000 FLIGHT CYCLES. SHEETMETAL ENGINEERS ARE REMOVING THE CRACKED REPAIR DOUBLER. (TC 20100202004)

CA100205008	CNDAIR		WINDSHIELD	CRACKED
1/27/2010	CL6002C10		NP13932112	COCKPIT

FLT CREW REPORTED THE RT WINDSHIELD CRACKED DURING CRUISE ENROUTE. ACFT DIVERTED AND LANDED WITHOUT INCIDENT. MX R & R WINDSHIELD AND LEAK CHECKED. ACFT RETURNED TO SERVICE. (SEE ALSO FAA SDR NR 2010020600333/VNAA2010020100014) (TC 20100205008)

CA100119002	CNDAIR	GE	DEICE SYSTEM	FAILED
1/18/2010	CL604	CF343B	115677114	DRAIN MAST

(CAN) UPON RETURN FROM FLIGHT, HEATED DRAIN MAST WAS COVERED OVER WITH ICE INDICATING THAT IT WAS NOT FUNCTIONING IN FLIGHT. WHEN THE ACFT WAS PLACED IN THE HANGAR, ELECTRICAL POWER APPLIED AND THE SKIN REMAINED BELOW 45 DEG AND ALLOWED ELECTRICAL CURRENT TO THE MAST. THE MAST STARTED TO ARC AND CREATED LARGE SPARKS FOR APPROX 3-5 SECONDS THEN BURNED OUT. THE 7.5 AMP CIRCUIT BREAKER DID NOT TRIP. THIS SITUATION MAY CAUSE A POTENTIAL EXPLOSION HAZARD IF IT OCCURS DURING THE REFUELING PROCESS. THE MAST IS LOCATED ON THE LOWER FWD FUSELAGE WITHIN A FEW FEET OF THE SINGLE POINT REFUELING ADAPTER.

CA100216009	CNDAIR	GE	ROD	UNSERVICEABLE
2/14/2010	CL604	CF343B	113510512	THROTTLE ACT

(CAN) BOTH THROTTLE ACTUATOR RODS WERE FOUND WITH CHAFING DAMAGE RESULTING FROM CONTACT WITH THE ELEVATOR TORQUE TUBE ASSY PN 600-90410-803. THE CONTACT WAS WHEN THE THROTTLES WERE IN OR BETWEEN IDLE AND CUTOFF. LOCATION DAMAGE ON THE RODS IS AT THE FIRST BEND UP FROM THE BOTTOM ROD ENDS, 5.125 IN. FROM THE CTR OF THE BRG TO 5.75 IN. (TOTAL LENGTH 06.25 IN LONG) BY 0.250 IN. WIDE. DEPTH ON THE 1135-105-1 IS 0.040, DEPTH ON 1135-105-2 IS 0.020 IN. RODS WERE REPLACED WITH NEW SAME PN'S, SYS RE-RIGGED RESOLVING CLEARANCE ISSUES. THROTTLE ACTUATORS ARE INSTALLED IAW STC SA8191NM-D. (TC 20100216009)

2010FA0000219	COLUMB	CONT	CYLINDER	CRACKED
3/9/2010	LC42550FG350	IO550N	655932	NR 5

DURING ANNUAL INSP, FOUND CRACK FROM FUEL INJECTION NOZZLE PORT TOWARDS SPARK PLUG PORT ON NR 5 CYL. ENG WAS MFG 10/24/2006 AND INSTALLED IN ACFT.

CA100121001	CONAER	LYC	CONTROL CABLE	WORN
1/21/2010	LA4200	IO360A1B	2711557	AILERONS

(CAN) THE AILERON CABLES ON LAKE ACFT, MODELS, LA-4, -200, -250 HAVE BEEN FOUND WEARING AT FUS STA 117 0N LA-4, 200`S AND FUS STA 176 ON LA-250 WRE THE CABLE CONTACTS THE PHENOLIC FAIRLEAD. THE WEAR OF THESE CABLES IS DEPICTED IN AC43.13-1B, CHAP. 7, PG7-36, FIG. 7-17 AND PG. 7-37 CENTER PATTERN. TO THIS DATE 7 ACFT, 4 LA-250`S AND 3 LA-4`S, 200`S HAVE BEEN FOUND WORN. THE INSP ON THE CABLES CAN ONLY BE CARRIED OUT WITH THE FLOORBOARDS REMOVED. ALL THE WORN CABLES FOUND TO DATE HAVE BEEN REPLACED BY NEW.

CA100125011	CURTIS	PWA	DRIVE ASSY	DISCONNECTED
1/4/2010	C46*	R280051M1		MAGNETO

(CAN) UPON INSPECTION IT WAS FOUND THAT THE MAGNETO DISTRIBUTOR DRIVE WAS DECOUPLED AND THE POWER PLANT WAS REMOVED FOR REPAIR AT O/H STATION.

CA100202010	CVAC	ALLSN	GENERATOR	MALFUNCTIONED
2/1/2010	340CVAC	501D13D	30E029G	DC SYSTEM

(CAN) ACFT RETURNED TO BASE WITH A LOUD SQUEALING NOISE COMING THROUGH THE INTERPHONE SYS. THE NR 2 DC GEN WAS REPLACED AND THE ACFT RETURNED TO SERVICE. (TC 20100202010)

CA100125003	DHAV	DHAVXX	OIL SYSTEM	LOW PRESSURE
1/7/2010	DH82C	GIPSYMAJOR1C		ENGINE

(CAN) DURING CRUISE AT FL230, THE CREW RECEIVED A LOW OIL PRESSURE WARNING. ENGINE WAS SHUTDOWN AND AN UNEVENTFUL SINGLE ENGINE LANDING AT THE DEPARTURE AIRPORT FOLLOWED. TROUBLESHOOTING IS ON-GOING. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE.

CA100204004	DHAV	PWA	DHAV	SPAR	CRACKED
2/3/2010	DHC2MKI	R985AN14B	C2TP1A	C2TP57N	HORIZONTAL STAB

(CAN) CRACK WAS DETECTED ABOVE THE RT TOP FWD ATTACH POINT, BETWEEN THE TOP ATTACH BOLT AND THE RADIUS OF THE SPAR FLANGE. THIS UNIT HAD A TOTAL OF 963.4 HRS SINCE INSTALLATION. (TC

20100204004)

CA100217001	DHAV	PWA	PUSH-PULL ROD	CORRODED
2/9/2010	DHC2MKI	R985AN14B	C2CF619A8	ELEVATOR

(CAN) DURING FUEL BAY MX, THE ELEVATOR PUSH PULL ROD ASSY PN C2CF619A8 WAS NOTED TO HAVE BLISTERING IN THE PAINT COVERING. ON FURTHER INVESTIGATION THE BLISTERS WERE REMOVED TO REVEAL CORROSION, WATER AND A HOLES IN THE TUBE ASSY. THE UNIT HAS BEEN REMOVED FROM SERVICE PENDING NDT INSP AND REPAIR/OVERHAUL. (TC 20100217001)

CA100115007	DHAV	PWA	SUPPORT	UNSERVICEABLE
1/14/2010	DHC2MKI	R985AN14B	C2FF1160	SEAT

(CAN) RT SEAT SUPPORT CASTING C2FF1160 WAS FOUND BROKEN AT THE SLIDING SEAT LOCK PIN LOCATION. THE LOCK PIN PORTION OF THE CASTING WAS COMPLETELY MISSING, MAKING THE LOCK PIN ON THE RT SIDE OF THE SEAT HSG UNSERVICABLE.

CA100119015	DHAV	PWA	HINGE	CORRODED
1/19/2010	DHC2MKI	R985AN14B	C2FS1253A	CARGO DOOR

(CAN) C2FS1253A LT HINGE ASSY WAS CORRODED (DISSIMILAR METAL) AT THE C2FS1665ND BUSHING CAUSING THE FRONT OF THE HINGE CASTING TO CRACK. HINGE ASSY REPLACED WITH NEW UNIT.

CA100218011	DHAV	PWA	OIL FILTER	SEPARATED
2/11/2010	DHC6200	PT6A27	305925801	ENGINE

(CAN) INNER CONE (SCREEN) SEAMS ARE BECOMING UNGLUED. (TC 20100218011)

CA100120001	DHAV	PWA	RUDDER PEDAL	DAMAGED
1/17/2010	DHC6300	PT6A27	C6CFM12108	COCKPIT

(CAN) ACFT CREW TRIED TO RELEASE THE PARK BRAKE BY DEPRESSING BOTH RUDDER PEDALS, CAPTAIN'S SIDE, BUT WERE UNABLE TO RELEASE THE BRAKES. MX EXAMINED THE BRAKE RELEASE MECHANISM AND DISCOVERED THAT THE RT RUDDER PEDAL, CAPTAIN'S SIDE, HAD A PIECE BROKEN OFF THE RUDDER PEDAL AND A ONE RIVET WAS MISSING THAT HOLDS ON THE ATTACHMENT FOR THE BRAKE ACTUATING ROD ASSY. WHEN THE BRAKE PEDALS WERE DEPRESSED THERE WAS NOT ENOUGH MOVEMENT OF THE BRAKE ACTUATING ROD TO RELEASE THE PARK BRAKE. THE RUDDER PEDAL WAS REPLACED AND BRAKE RELEASE SYS TESTED SERVICEABLE.

2010FA0000242	DHAV	PWA	LEVER	SEPARATED
3/2/2010	DHC7102	PT6*	165009	NLG

THE ACFT LANDED WITH AN UNSAFE NOSE GEAR INDICATION. THE SUBSEQUENT INVESTIGATION DETERMINED THAT THE NOSE GEAR LOCK PIN LEVER SEPARATED FROM THE ACFT SOMETIME DURING TRAINING FLIGHT. A MORE DETAILED INSP OF LANDING GEAR COMPONENTS REVEALED THAT THE LOCK LEVER, PN 16537-3 AND LOCK PIN, PN 165171 WAS MISSING, POSSIBLY DUE TO THE ROLL PIN, PN MS1656227 AND COTTER PN, PN MS24665-73 LOOSENING OR BREAKING AWAY, DETACHING THE LOCK PIN LEVER FROM THE DOWN LOCK ACTUATOR RESULTING IN A FAILURE OF THE DOWN LOCK MECHANISM.

CA100201002	DHAV	PWA	WIRE	CHAFED
1/31/2010	DHC8102	PW120A		RT WING

(CAN) THE ACFT HAD A DUAL AC GENERATOR FAILURE ON DEPARTURE. THE ACFT RETURNED SAFETY TO THE AIRPORT. SUBSEQUENT INVESTIGATION FOUND 3 SHORTED WIRES AT THE RT REAR SPAR AREA JUST OTBD OF THE FUSELAGE. THE FOLLOWING WIRES FOUND CHAFED & SHORTED : 2421-1001G12A-1, 2421-1003G12C-1 & 2421-2001F12A-1. ALL 3 WIRES SPLICED IAW STD PRACTICES. WIRES SECURED IAW SL-24-010 ON BOTH SIDES. ENGINE RUNS WERE CARRIED OUT THE ACFT RETURNED TO SERVICE. (TC20100201002)

CA100129010	DHAV	PWA	ACTUATOR	CRACKED
1/29/2010	DHC8102	PW120A	A44700009	SPOILER

(CAN) THE ACFT ARRIVED WITH A HYD LEAK FROM THE LT WING AREA. SUBSEQUENT INVESTIGATION REVEALED

THAT THE LT OTBD ROLL SPOILER ACTUATOR HSG WAS CRACKED AND LEAKING. THE ACTUATOR WAS REPLACED. ROLL SPOILER ACTUATOR PN A44700-009, SN 0571, TSO-45981, CSO-48190. (TC 20100129010)

CA100127012	DHAV	PWA	COMPRESSOR	LEAKING
1/25/2010	DHC8102	PW120A		ENGINE

(CAN) DURING CLIMB OUT, THROUGH 1000 FEET, CREW STARTED TO GET SMOKE IN COCKPIT. THEY DECLARED AN EMERGENCY AND RETURNED TO LAND SAFELY. FIRE TRUCKS RESPONDED AND FLIGHT STOPPED ON THE RUNWAY FOR FIRE PERSONNEL TO INSPECT EXTERIOR OF ACFT FOR ANY SIGN OF FIRE. NO EVIDENCE OF FIRE. PASSENGER BUSSED TO TERMINAL AND ACFT WAS TOWED TO THE HANGAR FOR INSP. TRAX DEFECT 894816 OPEN. RUN UP C/OUT AND SMOKE CAME BACK, BOROSCOPE COMPLETED ON ENGINE AND FOUND OIL CONTAMINATION COMING FROM NR 2 ENGINE P3 PLENUN. NR 2 ENGINE REPLACED ALL LEAK CHECK AND RUN C/OUT AND BLEED AIR CHECK NO MORE SMOKE IN ACFT. DURING BOROSCOPE INSP ON NR 2 ENGINE, FOUND ONE BOLT MISSING, BOTH WERE FOUND LATER ON A DRAIN.

CA100127009	DHAV	PWA	WIRE	CHAFED
1/26/2010	DHC8102	PW120A		LT WING

(CAN) DURING CRUISE FLIGHT WITH CLEAR SKIES THE ACFT HAD A DOUBLE AC GENERATOR FAILURE WITH ALL ASSOCIATED CAUTION LIGHTS. TROUBLESHOOTING REVEALED THAT 2 OF THE 6 AC GCU "CROSSTALK" WIRES ALONG THE LT WING REAR SPAR BETWEEN THE NACELLE AND THE FUSELAGE WERE CHAFED AND SHORTED. THE WIRES WERE REPAIRED IAW SYD 8-24-005. GROUND RUNS WERE COMPLETED AND THE ACFT RETURNED TO SERVICE.

CA100127010	DHAV	PWA	ANGLE	CRACKED
11/25/2009	DHC8102	PW120A	85410149103	FUSELAGE

(CAN) FOUND CLOSING ANGLE CRACKED DURING C-CHECK.

CA100209005	DHAV	PWA	ENGINE	LEAKING
1/25/2010	DHC8102	PW120A		

(CAN) SMOKE IN COCKPIT WHILE CLIMBING THROUGH FL10, THE CREW OBSERVED SMOKE IN THE COCKPIT, THEY DECLARED AN EMERGENCY AND RETURNED TO POINT OF DEPARTURE. THE ACFT TOUCHED DOWN SAFELY 10 MINUTES AFTER DEPARTURE AND STOPPED ON THE RUNWAY TO HAVE ATTENDING EMERGENCY SERVICES INSPECT THE ACFT. THE PASSENGERS DISEMBARKED ONTO THE RUNWAY. NO INJURIES WERE REPORTED. MX TRACED THE CAUSE TO OIL CONTAMINATION OF CABIN BLEED AIR FROM ONE OF THE ENGINES. THE SUSPECT ENGINE WAS REPLACED AND THE ACFT RETURNED TO SERVICE. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100209005)

CA100224008	DHAV	PWA	LINE	LEAKING
2/23/2010	DHC8102	PW120A	82920010229	HYDRAULIC SYS

(CAN) UPON REACHING THE RUNWAY, CREW NOTICED AN ABNORMAL HYD LEVEL ON NR 2 HYD SYS AND ELECTED TO RETURN AT THE GATE. DURING TAXI BACK, THE F/A ADVISED THE CAPTAIN THAT SOME OF THE PASSENGERS WERE HAVING TROUBLE BREATHING. AFTER ARRIVING AT THE GATE THE CREW DEPLANED THE PASSENGERS. EMERGENCY MEDICAL SERVICES (EMS) WERE REQUESTED TO EVALUATE THE PASSENGERS` CONDITION, ALL WERE RELEASED. AIRCREW WAS RELEASED FROM FLIGHT DUTY AND SENT TO THE HOSPITAL. LINE MX NOTICED THE PRESENCE OF HYD FLUID IN THE CABIN AND REMOVED THE ACFT FROM SERVICE. ACFT WAS TOWED INSIDE COMPANY MX HANGAR WHERE TROUBLESHOOTING REVEALED THE PRESENCE OF A PIN HOLE ON THE NLG DOWN PRESSURE LINE, PN 82920010-229 REFERENCE IPC 29-00-00-10-230. THE HYDRAULIC TUBE RUNS FROM THE CEILING OF THE CTR CABIN, BEHIND A SIDE WALL ON THE RT SIDE OF THE CABIN AND UNDERFLOOR TO THE FWD PRESSURE BULKHEAD. THE PIN HOLE WAS LOCATED AT FUSELAGE STA X409 NEAR FLOOR JUNCTION, CAUSING A HYD MIST INSIDE THE CABIN. SECTION OF THE HYD TUBE WAS REPLACED, PERMA SWAGGED AND LEAK CHECKED SERVICEABLE. (TC 20100224008)

CA100210001	DHAV	PWA	WIRE	DAMAGED
2/8/2010	DHC8106	PW121		BEHIND GALLEY

(CAN) DURING HEAVY CHECK WHILE INVSTIGATING SOME INTERMITTENT ECU AND AUTO FEATHER DEFECTS, WIRES BEHIND THE GALLEY WERE FOUND TO HAVE BEEN ARCING. THESE WIRES HAD BEEN PREVIOUSLY

REPAIRED BY PERSONEL IN JANUARY 2009 WHILE IN THE PROCESS OF RESOLVING AN ECU DEFECT. FURTHER INFO REVEALS THAT THE OVEN ELECTRICAL WIRES WERE NOT ROUTED CORRECTLY OR PROPERLY PROTECTED (IMPROPER INSTALLATION). (TC 20100210001)

CA100211004	DHAV	PWA	LATCH	WORN
2/11/2010	DHC8301	PW123	NAS130322	RT COWL

(CAN) THE RT LOWER COWLING, INBD, FWD LATCH PIN (FOR HORSE COLLAR) FOUND WORN HALF WAY THROUGH THE DIAMETER OF THE PIN. THE WEAR ON THE BOLT PIN WAS FACING OUTWARD IN FULL VIEW. (TC 20100211004)

CA100219001	DHAV	PWA	SHUTOFF VALVE	FAILED
2/3/2010	DHC8301	PW123	AA115923	HYD SYSTEM

(CAN) DURING 3A CHECK, THE LT EMERGENCY HYD SHUTOFF VALVE DID NOT OPERATE TO THE `SHUTOFF` POSITION WHEN TESTED. THE MOTOR PORTION OF THE VALVE ASSY WAS CONFIRMED TO BE FAULTY AND REPLACED. THE SYS WAS THEN TESTED AND OPERATED NORMALLY. NB: VALVE ASSY WAS ORIGINAL FIT TO THIS ACFT. (TC 20100219001)

CA100127002	DHAV	PWA	HINGE FITTING	CRACKED
1/19/2010	DHC8301	PW123	85740337107	LT AILERON

(CAN) UPON INSP, IT WAS FOUND THAT THE LT AILERON HINGE FITTING NR4 WAS CRACKED. ACCORDING TO EXPERIENCED AMES ON THE FLOOR, THIS IS NOT A PROBLEM THAT THEY HAVE SEEN BEFORE AND THEREFORE SHOULD BE DOCUMENTED.

CA100209004	DHAV	PWA	OIL CAP	UNSECURE
1/31/2010	DHC8311	PW123		LT ENGINE

(CAN) LOSS OF OIL PRESSURE DURING INITIAL CLIMB, THE CREW NOTICED THE LT ENGINE OIL PRESSURE WARNING LIGHT FLICKERING. AND THEN THE ENGINE OIL PRESSURE BEGAN TO DROP. THE CREW DECLARED AN EMERGENCY, PERFORMED A CAUTIONARY ENGINE SHUTDOWN, AND RETURNED TO DEPARTURE, WHERE THE ACFT LANDED SAFELY. INVESTIGATION REVEALED THAT THE OIL FILLER CAP HAD NOT BEEN FULLY SECURED CAUSING THE LOSS OF APPROX 6 LITERS OF OIL. MFG WILL INVESTIGATE TO ESTABLISH ROOT CAUSE AND SUPPLEMENT THE REPORT ONCE THE INFORMATION IS AVAILABLE. (TC 20100209004)

CA100208008	DIAMON	ROTAX	BRACKET	LOOSE
2/3/2010	DA20A1	ROTAX912F3		ELT

(CAN) ELT DEPARTED MOUNTING BRACKET. THE CORRECT PIN BRACKET IS USED. MOUNTED IN THE FACTORY LOCATION. THE ELT WAS PLACED CORRECTLY IN THE BRACKET WITH THE LANYARD LOOPED AROUND THE TETHER PIN. DURING `NEGATIVE G` MANOUVERS THE ELT LIFTED OUT OF ITS BRACKET AND WAS SET OFF WHEN RETURNING TO THE BAGGAGE SHELF OF THE ACFT. THE FRICTION FIT OF THE ELT IS LOWER THAN LIKE UNITS IN THE FLEET. THE EBC 102A MANUAL WAS NO REQUIREMENT FOR MEASURING THE CORRECT FRICTION OR A PROCEDURE FOR CORRECTLY MOUNTING THE LET IN THE BRACKET. (TC 20100208008)

CA100115003	DIAMON	ROTAX	HOUSING	DAMAGED
1/14/2010	DA20A1	ROTAX912F3	810809	OIL PUMP

(CAN) WHEN PERFORMING OTHER MX, OIL LINE FROM THE OIL PUMP TO THE GOVERNOR NEEDED TO BE LOOSENED. WHEN ATTEMPTING TO TIGHTEN THE OIL LINE BANJO BOLT TO THE SPECIFIED TORQUE, ALUMINUM THREADS IN THE OIL PUMP HSG FAILED. (THIS HAS HAPPENED BEFORE ON ANOTHER ENGINE). UPON CLOSER EXAMINATION, IT APPEARS TO ME THAT THERE JUST IS NOT ENOUGH THREAD ENGAGING TO HAVE A TORQUE OF 150 IN-LB APPLIED. SO THERE SHOULD BE A LONGER THREADED PORTION OF THE BANJO BOLT (AS THERE IS PLENTY OF THREAD DEPTH IN THE OIL PUMP HSG) AND/OR THE TORQUE HAS TO BE CONSIDERABLY REDUCED.

CA100211002	DIAMON	CONT	RUDDER PEDAL	CORRODED
2/10/2010	DA20C1	IO240B	2227271300	COCKPIT

(CAN) PILOT RUDDER PEDALS CORRODED AND SEIZED ONTO PEDAL SUPPORT ASSY. THE PEDAL THEN BROKE AWAY PARTIALLY FROM THE ASSY. (TC 20100211002)

CA100126001	DIAMON	CONT	HOSE	LEAKING

1/22/2010	DA20C1	IO240B	AE7010101H01	OIL SYSTEM

(CAN) AFTER LANDING PILOT REPORTED OIL LEAK FROM LOWER COWLING, MAINTENANCE FOUND LEAKING OIL COOLER HOSE.

CA100122003	DIAMON	CONT	PEDAL	BROKEN
1/17/2010	DA20C1	IO240B	2227238100	BRAKE

(CAN) THE BRAKE PEDAL BROKE OFF ON ACTIVE RWY DURING BACKTRACK FOR DEPARTURE. THE PEDAL DID SHEAR OFF WHERE THE PEDAL WAS WELDED/ATTACHED TO THE TUBE ON THE PEDAL ASSY. THE TUBE IS ATTACHED TO THE RUDDER ASSY AND ALLOWS THE BRAKE PEDAL TO PIVOT FOR BRAKE CONTROL.

CA100120004	DIAMON	LYC	ROD	WORN
1/20/2010	DA40	IO360M1A	D4132232033B	NLG

(CAN) THE DAMPER ASSY D41-3223-20-00G WAS DISASSEMBLED TO REPLACE WORN RUBBER ELEMENTS. IT WAS DISCOVERED THAT THE LOWER END OF THE DAMPER ROD THAT HOLDS THE ASSY TOGETHER HAD BEEN SEVERELY WORN AND WAS BEYOND LIMITS. IT APPEARS THAT THE LOWER DAMPER PLATE (DAMPER PLATE III AND DAMPER PLATE I) HAVE BEEN SLIDING AGAINST THE DAMPER ROD CAUSING THE DETERIORATION.

2010FA0000235	DIAMON	LYC	MTPROP	BLADE	CRACKED
3/7/2010	DA40	IO360M1A		YK32756	PROPELLER

PAINT IS CRACKING PERPENDICULAR TO BLADE. LARGE CRACKS IN PAINT HAVE EXPOSED COMPOSITE LAYER.

2010FA0000240	DIAMON	LYC	BLADE	PEELING
2/19/2010	DA40	IO360M1A		PROPELLER

PAINT IS PEELING AND CRACKING PERPENDICULAR TO BLADE, EXPOSING COMPOSITE LAYER. THIS PROP WAS RECENTLY REPAIRED WITH THE NEWEST METHOD OF BLADE PAINTING APPROVED BY MFG.

2010FA0000236	DIAMON	LYC	BLADE	CRACKED
3/7/2010	DA40	IO360M1A	YK32757	PROPELLER

PAINT IS CRACKING PERPENDICULAR TO BLADE. LARGE CRACKS IN PAINT HAVE EXPOSED COMPOSITE LAYER.

2010FA0000237	DIAMON	LYC	MTPROP	PAINT	CRACKED
3/7/2010	DA40	IO360M1A		32758	PROP BLADE

PAINT IS CRACKING PERPENDICULAR TO BLADE. LARGE CRACKS IN PAINT HAVE EXPOSED COMPOSITE LAYER.

2010FA0000152	DIAMON	LYC	SUPPRESSOR	FAILED
8/27/2009	DA40	IO360M1A	70475K36	COCKPIT

SMOKE CAME OUT FROM UNDER THE INSTRUMENT PANEL. FOUND TRANSIENT VOLTAGE SUPPRESSOR FAILED.

2010FA0000151	DIAMON	LYC	SUPPRESSOR	FAILED
11/17/2008	DA40	IO360M1A	70475K36	VOLTAGE

AFTER HOOKING UP GROUND POWER UNIT (24 VDC), BATTERY CIRCUIT TRANSIENT VOLTAGE SUPPRESSOR BLEW SMOKE AND LOUD POPPING SOUND.

2010FA0000157	DIAMON	LYC	SUPPRESSOR	BLISTERED
1/26/2010	DA40	IO360M1A	70475K36	VOLTAGE

SMELL OF SMOKE IN COCKPIT. REPLACED TRANSIENT VOLTAGE SUPPRESSOR.

2010FA0000184	DIAMON	LYC	HOUSING	DAMAGED
2/8/2010	DA40	IO360M1A	D4171662030	ALT AIR VALVE

AFTER 150 HOURS ON ACFT DURING SCHEDULED MAINTENANCE THE FIRST ONE OF THE TYPE OF PROBLEM WAS FOUND. MECHANICS ARE FINDING THE ALTERNATE AIR VALVE BODY CONTROL CABLE (PN NR DAI-9076-00-04) LOOSE OR COMPLETELY DISCONNECTED AND HANGING NEXT TO THE PRIMARY/ALTERNATE AIR VALVE BODY

(PN D41-7166-20-30). THEN WHEN THEY TRY TO REINSTALL THE CABLE THEY ARE FINDING THAT THE THREADS ARE STRIPPED OUT ON THE ALTERNATE AIR VALVE BODY. THIS PROBLEM HAS NOW OCCURRED ON 14 DIFFERENT ACFT IN OUR FLEET ALL BETWEEN 150 TO 350 HOURS TTSN. MY CONCERN IS THAT THE OPERATOR OF THE ACFT (IF THE CABLE HAS BECOME DISCONNECTED) MAY NOT KNOW IF THE ENGINE IS GETTING FILTERED OR UNFILTERED AIR. THE FIX MIGHT BE THAT THE MANUFACTURE MAKES THE VALVE BODY THICKER (MORE THREADS), PUT IN A STEEL HELICOIL, OR MAYBE SPOT WELD A NUT ON THE OUTSIDE OF THE VALVE BODY.

CA100119009	DIAMON	THIELT	SHIELD	CRACKED
1/18/2010	DA42	TAE12502114	527520H005005	RT ENGINE

(CAN) THE SHIELD PROTECTING THE ENGINE HEAD FROM THE TURBOCHARGER HEAT IS CRACKED AND ONE MOUNTING EAR IS BROKEN OFF. IT APPEARS THAT REPAIRS HAVE BEEN MADE BEFORE.

CA100119014	DORNER	GARRTT	ROLLER	DAMAGED
1/16/2010	DO228202	TPE3315		NLG

(CAN) THE NLG FAILED TO RETRACT CORRECTLY, LODGING GEAR LEG LOCKING ROLLER INTO ABOVE SPACE BETWEEN UPLOCK IMPACT LATCH, AND THE UPLOCK HSG (INDICATED BY SCORE MARKS ON THE ROLLER THAT MEASURE PERFECTLY WITH THE UPLOCK LATCH AND UPLOCK HSG). OLEO PRESSURE KEPT THE LOCKING ROLLER PINNED IN THAT POSITION NOT ALLOWING HYD, OR EMERGENCY EXTENSION NITROGEN PRESSURE TO OVERCOME THE INCORRECT POSITION WHICH WAS NEARLY OVERCENTERED. GEAR LOCKING ROLLER APPEARS TO BE STRICKING UPLOCK LATCH SLIGHTLY SHY OF THE CORRECT AREA, HOWEVER THIS MAY HAVE CHANGED DUE TO THE IMPARCT OF LANDING WITH NOSE GEAR RETRACTED, AS THE UPLOCK MOUNT BRACKETS ARE SLIGHTLY BOWED. AT THIS TIME THE TRUE NATURE OF WHAT CAUSED THE LOCKING ROLLER TO MISS THE UPLOCK LATCH IS UNKNOWN, BUT THE SITUATION HAS BEEN RECREATED, AND GEAR FUNCTIONED IDENTICALLY TO THE CONDITION AS NOTED BY THE FLIGHT CREW, AND UNABLE TO EXTEND. TO REPLICATE THIS WAS COMPLETED BY DISCHARGING THE OLEO NITROGEN PRESSURE, DISCONNECTING THE GEAR ACTUATOR, PHYSICALLY PLACING THE GEAR IN THE CONDITION MENTIONED ABOVE, THEN OLEO WAS REPRESSURIZED WITH NITROGEN, AND THE GEAR ACTUATOR RE-ATTACHED TO THE GEAR LEG, DURING ATTEMPTS TO EXTEND AND RETRACT THE GEAR, THE MAIN GEAR FUNCTIONED CORRECTLY, AND NOSE GEAR REMAINED LODGED IN UNSAFE POSTION. IT SHOULD BE NOTED THAT OLEO PRESSURE WAS ADEQUATE PRIOR TO OUR INVESTIGATION. AT THIS TIME, THE NOSE UPLOCK, NOSE GEAR ACTUATOR, AND GEAR CONTROL VALVE HAVE ALL BEEN REMOVED, AND SENT OUT FOR INSP. FURTHER TESTING WILL CONTINUE AFTER THE RESULTS OF COMPONENT INSPECTIONS.

2010FA0000230	DOUG		CABLE	BROKEN
3/16/2010	DC873		3763151501	AILERON

RT AILERON BUS CABLE PN 3763151-501 BROKEN JUST OTBD OF THE RT INBD AILERON. FOUND LT AILERON WAS INOPERATIVE; THEREFORE PLACING HIGH TENSION ON THE BUS CABLE. WE ARE QUARANTINING THE ACTUATOR AND CABLE ASSY UNTIL FURTHER INVESTIGATION.

2010FA0000174	DOUG	ALLSN	BLADES	DAMAGED
2/6/2010	MD500E	250C20B		COMPRESSOR

PILOT EXPERIENCED COMPRESSOR STALL DURING FLIGHT WITH LOUD NOISE AND YAW OF ACFT. PILOT EXPERIENCED LOSS OF ENGINE POWER AND PROCEEDED TO LAND ACFT. UPON INSP MX FOUND 1 EA 1ST STAGE COMPRESSOR BLADE BROKEN OFF AT ROOT AND LAYING IN PLENUM CHAMBER IN FRONT OF THE COMPRESSOR INLET AND SEVERE DAMAGE TO REMAINING BLADES AND STATORS.

V0XR2010030300001	EMB		SILL	CORRODED
3/3/2010	EMB145EP		14529495005	ZONE 100

RT SILL FRM 53-59 IS CORRODED BEYOND LIMITS. R & R RT SILL.

V0XR201003040002	EMB		GUSSET	CORRODED
3/4/2010	EMB145EP		14522460009	ZONE 100

GUSSET THAT COVERS CENTER RT HAT CHANNEL BEAM AT Y0.0 FROM FRM 19-23 IS CORRODED BEYOND LIMITS. R & R GUSSET. W/C 1060

V0XR201003220004	EMB	GUSSET	CORRODED
3/22/2010	EMB145EP	14530633003	ZONE 100

YO.O GUSSET FRM 23-29 IS CORRODED BEYOND LIMITS. R & R GUSSET. W/C 1070.

V0XR201003240006	EMB	SILL	CORRODED
3/24/2010	EMB145EP	14525800010	ZONE 100

RT SILL AT FRM 36-41 IS CORRODED BEYOND LIMITS. R & R RT SILL. W/C 1097.

V0XR201003080013	EMB	SEAT TRACK	CORRODED
3/8/2010	EMB145EP	14532606001	ZONE 100

UPPER SEAT TRACK FRM 23-29 IS CORRODED BEYOND LIMITS. R & R SEAT TRACK. W/C 2149

V0XR201003230007	EMB	SEAT TRACK	CORRODED
3/23/2010	EMB145EP	14532605003	ZONE 100

RT UPPER SEAT TRACK BETWEEN 30-35 CTR FUSELAGE II IS CORRODED BEYOND LIMITS. R & R RT SEAT TRACK. W/C 2150.

V0XR201003250002	EMB	SILL	CORRODED
3/25/2010	EMB145EP	14520609005	ZONE 100

RT SILL AT FR 24-29 IS CORRODED BEYOND LIMITS. R & R SILL. W/C 1069.

V0XR201003250003	EMB	GUSSET	CORRODED
3/25/2010	EMB145EP	14530634005	ZONE 100

GUSSET AT LY 479.0 IS CORRODED BEYOND LIMITS. R & R GUSSET. W/C 1129.

V0XR201003250004	EMB	GUSSET	CORRODED
3/25/2010	EMB145EP	14530635003	ZONE 100

CTR GUSSET AT FR 53-59 IS CORRODED BEYOND LIMITS. R & R GUSSET. W/C 1136.

V0XR201003260002	EMB	SILL	CORRODED
3/26/2010	EMB145EP	14529495005	ZONE 100

RT SILL AT FRM 53-59 IS CORRODED BEYOND LIMITS. R & R SILL. W/C 1121.

V0XR201003260003	EMB	ANGLE	CORRODED
3/26/2010	EMB145EP	14590083005	ZONE 100

ANGLE AT FRM 14 LY 780 IS CORRODED BEYOND LIMITS. R & R ANGLE. W/C 1167.

V0XR201003260004	EMB	SUPPORT	CORRODED
3/26/2010	EMB145EP	14590082003	ZONE 100

CTR FLOORBOARD SUPPORT AT YO.O AT FR 18-20 IS CORRODED BEYOND LIMITS. R & R SUPPORT. W/C 2096

V0XR201003260005	EMB	SEAT TRACK	CORRODED
3/26/2010	EMB145EP	14530658003	ZONE 100

RT LOWER SEAT TRACK BETWEEN FR 30-35 CTR FUSELAGE II IS CORRODED BEYOND LIMITS. R & R SEAT TRACK. W/C 2149.

V0XR201003260006	EMB	SEAT TRACK	CORRODED
3/26/2010	EMB145EP	14530659001	ZONE 100

LT LOWER SEAT TRACK BETWEEN FR 24-30 CTR FUSELAGE II IS CORRODED BEYOND LIMITS. R & R SEAT TRACK. W/C 2163.

V0XR201003260007	EMB	SEAT TRACK	CORRODED
3/26/2010	EMB145EP	14530658001	ZONE 100

RT LOWER SEAT TRACK BETWEEN FR 24-30 CTR FUSELAGE II IS CORRODED BEYOND LIMITS. R & R SEAT TRACK. W/C 2164.

V0XR201003240012	EMB	GUSSET	CORRODED
3/24/2010	EMB145EP	14530633001	ZONE 100

GUSSET AT LY 479.0 FROM 23-29 IS CORRODED BEYOND LIMITS. R & R GUSSET. W.C. 1143.

V0XR201003240007	EMB	GUSSET	CORRODED
3/24/2010	EMB145EP	14530634009	ZONE 100

LY-479.0 GUSSET AT FRM 46-52 IS CORRODED BEYOND LIMITS. R & R GUSSET. W/C 1127.

V0XR201003240009	EMB	DOUBLER	CORRODED
3/24/2010	EMB145EP	14522461011	ZONE 100

BOTH DOUBLERS THAT COVER BEAM RY-479.0 AT FR 20-22 IS CORRODED BEYOND LIMITS. R & R DOUBLER. W/C 2091.

V0XR201003240010	EMB	GUSSET	CORRODED
3/24/2010	EMB145EP	14522460009	ZONE 100

CTR GUSSET AT FR 18-23 IS CORRODED BEYOND LIMITS. R & R CTR GUSSET. W/C 2095.

V0XR201003240011	EMB	PLATE	CORRODED
3/24/2010	EMB145EP	14522460015	ZONE 100

DIGITAL PLATE FROM Y0.0 TO LY-479.0 AT FR 17-18 IS CORRODED BEYOND LIMITS. R & R DIGITAL PLATE. W/C 2101.

V0XR201003240013	EMB	SILL	CORRODED
3/24/2010	EMB145EP	14525800016	ZONE 100

RT SILL AT FR 48-52 IS CORRODED BEYOND LIMITS. R & R RT SILL. W.C 1134.

V0XR201003240014	EMB	SILL	CORRODED
3/24/2010	EMB145EP	14525800015	ZONE 100

LT SILL AT FR 48-52 IS CORRODED BEYOND LIMITS. R & R LT SILL. W.C. 1128.

V0XR201003250001	EMB	ANGLE	CORRODED
3/25/2010	EMB145EP	14529063007	ZONE 100

RT OTBD ANGLE AT FR 23 IS CORRODED BEYOND LIMITS. R & R ANGLE. W/C 1064.

V0XR201003260008	EMB	SEAT TRACK	CORRODED
3/26/2010	EMB145EP	14530659011	ZONE 100

LT LOWER SEAT TRACK BETWEEN FR 18-24 IS CORRODED BEYOND LIMITS. R & R SEAT TRACK. W/C 2167.

V0XR201003240001	EMB	PARTITION	CORRODED
3/24/2010	EMB145EP	14525991004	ZONE 100

RT LOWER PARTITIAN AT FR 61 IS CORRODED BEYOND LIMITS. R & R LOWER PARTITIAN. W/C 1141.

V0XR201003160001	EMB	SILL	CORRODED
3/16/2010	EMB145EP	14525422003	ZONE 100

RT SILL FRM 61-65 IS CORRODED BEYOND LIMITS. R & R RT SILL. W/C 1112

V0XR201003080001	EMB		FLOOR SUPPORT	CORRODED
3/8/2010	EMB145EP		14522459003	ZONE 100

FLOORBOARD SUPPORT AT Y0.0 FROM FRM 18.5-20 IS CORRODED BEYOND LIMITS. R & R FLOORBOARD SUPPORT. W/C 1062

V0XR201003080002	EMB		FLOOR SUPPORT	CORRODED
3/8/2010	EMB145EP		14590082003	ZONE 100

FLOORBOARD ANGLE AT Y0.0 FROM FRM 18.5-20 IS CORRODED BEYOND LIMITS. REMOVED AND REPLACED FLOORBOARD ANGLE. W/C 1062

V0XR201003080003	EMB		FLOOR SUPPORT	CORRODED
3/8/2010	EMB145EP		14521718007	ZONE 100

CTR FLOORBOARD SUPPORT ANGLE PROFILE AT LY-479.0 FROM FRM 18.5-20 IS CORRODED BEYOND LIMITS. R & R CTR FLOORBOARD SUPPORT ANGLE PROFILE. W/C 1063

V0XR201003080004	EMB		FLOOR SUPPORT	CORRODED
3/8/2010	EMB145EP		14521718005	ZONE 100

CTR FLOORBOARD SUPPORT ANGLE PROFILE AT LY - 479.0 FROM FRM 18.5-20 IS CORRODED BEYOND LIMITS. R & R CTR FLOORBOARD SUPPORT ANGLE PROFILE. W/C 1063

V0XR201003080005	EMB		FLOOR SUPPORT	CORRODED
3/8/2010	EMB145EP		14530856015	ZONE 100

OMEGA BEAM AT LY - 479.0 FRM 20 IS CORRODED BEYOND LIMITS. R & R OMEGA BEAM. W/C 1065

V0XR201003080007	EMB		SEAT TRACK	CORRODED
3/8/2010	EMB145EP		14532606011	ZONE 100

LT UPPER SEAT TRACK FRM 18-23 IS CORRODED BEYOND LIMITS. R & R LT UPPER SEAT TRACK. W/C 2148

V0XR201003050001	EMB		SEAT TRACK	CORRODED
3/5/2010	EMB145EP		14530659001	ZONE 100

LY 479.0 SEAT TRACK FRM 24-30 IS CORRODED BEYOND LIMITS. R & R SEAT TRACK. W/C 1123

V0XR201003010001	EMB	ALLSN	SILL	CORRODED
3/1/2010	EMB145EP	AE3007A	14522178605	ZONE 100

SILL ON SERVICE IS CORRODED BEYOND LIMITS. R & R SILL.

V0XR201003010007	EMB	ALLSN	GUSSET	CORRODED
3/1/2010	EMB145EP	AE3007A	14522226003	ZONE 100

LT GUSSET AT LY - 479.0 FROM FRM 59-61 IS CORRODED BEYOND LIMITS. R & R LT GUSSET.

V0XR201003010009	EMB	ALLSN	GUSSET	CORRODED
3/1/2010	EMB145EP	AE3007A	14526437001	ZONE 100

RT GUSSET AT RY 479.0 FROM FRM 59-61 IS CORRODED BEYOND LIMITS. R & R RT GUSSET.

V0XR201003010015	EMB	ALLSN	FLOOR SUPPORT	CORRODED
3/1/2010	EMB145EP	AE3007A	14529150009	ZONE 100

ANGLE FLOOR SUPPORT BEAM Y0.0 - RY 780 BETWEEN FRM 23-24 IS CORRODED BEYOND LIMITS. R & R ANGLE.

V0XR201003080015	EMB		SEAT TRACK	CORRODED
3/8/2010	EMB145ER		14530659003	ZONE 100

SEAT TRACK AT LY 479.0 FRM 30-35 IS CORRODED BEYOND LIMITS. R & R SEAT TRACK. W/C 1125

V0XR1003080006A	EMB	FLOOR SUPPORT	CORRODED
3/8/2010	EMB145ER	14525140023	ZONE 100

LT PROFILE FROM FRM 17-18 IS CORRODED BEYOND LIMITS. R & R LT PROFILE. W/C 1073

V0XR201003080006	EMB	SEAT TRACK	CORRODED
3/8/2010	EMB145ER	14530658001	ZONE 100

CTR SEAT TRACK FRM 24-30 IS CORRODED BEYOND LIMITS. R & R CTR SEAT TRACK. W/C 1122

2010FA0000143	EMB	SEAT TRACK	CORRODED
12/11/2009	EMB145LR	14521699003	BS 5418-6523

OTBD SIDE OF SEAT RAIL AT LY 479 FROM STA X5418 - X6523 HAS CORROSION. R & R DIGITAL IAS SRM.

V0XR201001120006	EMB	BEAM	CORRODED
1/12/2010	EMB145LR	14524199001	ZONE 100

PROFILE AND BEAM AT FRM 17, YL 610 & 690 IS CORRODED OUT OF LIMITS. R & R PROFILE AND BEAM.

V0XR201001120011	EMB	SILL	CORRODED
1/12/2010	EMB145LR	14520609007	ZONE 100

RT SILL FROM FRM 29-35 IS CORRODED OUT OF LIMITS. R & R SILL.

2010FA0000146	EMB	FLOORBEAM	CORRODED
12/11/2009	EMB145LR	14621713006	BS 5418

FLOORBOARD PROFILE AT FRAME AT STA X 5418 RY .479 HAS CORROSION AROUND NUTPLATE. R & R BEAM IAW SRM.

2010FA0000140	EMB	SILL	CORRODED
12/11/2009	EMB145LR	14521726001	BS 5633

LT FLOORBOARD PROFILE AT STA X5633 OTBD OF LY479 HAS CORROSION. REMOVED DAMAGED SILL, LOCATED, DRILLED ALODINED AND PRIMED BARE AREAS, COUNTERSUNK AND INSTALLED IAW SRM.

2010FA0000144	EMB	FLOOR SUPPORT	CORRODED
12/11/2009	EMB145LR	14521713007	BS 5433

FLOORBOARD PROFILE AND INBD SIDE OF FRAME AT LY 479 AT STA X 5433 HAS CORROSION. R & R ANGLE IAW SRM.

2010FA0000142	EMB	SEAT TRACK	CORRODED
12/11/2009	EMB145LR	14521695003	BS 5415-6523

OTBD SIDE OF SEAT RAIL AT LY 479 FROM STA X 5415- X6523 HAS CORROSION. R & R DIGITAL IAW SRM.

V0XR1001120007A	EMB	PROFILE	CORRODED
1/12/2010	EMB145LR	14521718007	ZONE 100

PROFILE FWD OF FRM 20, LY 455 IS CORRODED OUT OF LIMITS. R & R PROFILE.

V0XR201001120007	EMB	SILL	CORRODED
1/12/2010	EMB145LR	14521725001	ZONE 100

SILL FROM FRM 19-20, LY 790 IS CORRODED OUT OF LIMITS. R & R SILL.

2010FA0000145	EMB	FLOOR SUPPORT	CORRODED
12/11/2009	EMB145LR	14522465009	FUSELAGE

FLOORBOARD PROFILE AT FRAME AT STA X 5202 AND Y 0 HAS CORROSION. R & R ANGLE IAW SRM.

V0XR201001120015	EMB	ALLSN	PROFILE	CORRODED
1/12/2010	EMB145LR	AE3007A	14525994003	ZONE 100

RT PROFILE AT FRM 61 IS CORRODED OUT OF LIMITS. R & R PROFILE.

V0XR201001120005	EMB	ALLSN	PROFILE	CORRODED
1/12/2010	EMB145LR	AE3007A	14525140023	ZONE 100

PROFILE AND BEAM AT FRM 17, YL 610 & 690 IS CORRODED OUT OF LIMITS. R & R PROFILE AND BEAM.

V0XR201001120012	EMB	ALLSN	CHANNEL	CORRODED
1/12/2010	EMB145LR	AE3007A	14523171003	ZONE 100

RT SILL HAT SECTION BEAM UNDER GUSSET FROM FRM 5-62 IS CORRODED OUT OF LIMITS. R & R HAT SECTION BEAM.

V0XR201001120013	EMB	ALLSN	SILL	CORRODED
1/12/2010	EMB145LR	AE3007A	14520609001	ZONE 100

LT SILL FROM FRM 24-29 IS CORRODED OUT OF LIMITS. R & R SILL.

V0XR201001120014	EMB	ALLSN	SILL	CORRODED
1/12/2010	EMB145LR	AE3007A	14525422001	ZONE 100

LT SILL FROM FRM 60-65 IS CORRODED OUT OF LIMITS. R & R SILL.

V0XR201001120009	EMB	ALLSN	GUSSET	CORRODED
1/12/2010	EMB145LR	AE3007A	14522226003	ZONE 100

CTR GUSSET FROM FRM 59-61 IS CORRODED OUT OF LIMITS. R & R GUSSET.

V0XR201001120010	EMB	ALLSN	SILL	CORRODED
1/12/2010	EMB145LR	AE3007A	14529495003	ZONE 100

LT SILL FROM FRM 59-61 IS CORRODED OUT OF LIMITS. R & R SILL.

V0XR201001120008	EMB	ALLSN	SILL	CORRODED
1/12/2010	EMB145LR	AE3007A	14525422003	ZONE 100

RT SILL FROM FRM 60.5-65 IS CORRODED OUT OF LIMITS. R & R SILL.

V0XR201001120016	EMB	ALLSN	DOUBLER	CORRODED
1/12/2010	EMB145LR	AE3007A	14525991004	ZONE 100

RT LOWER DOUBLER FWD PARTITION AT FRM 61 IS CORRODED OUT OF LIMITS. R & R DOUBLER.

CA100118005	EMB	GE	WINDSHIELD	CRACKED
1/18/2010	ERJ190100IGW	CF3410E5A1	NP18730113	COCKPIT

(CAN) INITIAL VERBAL REPORT. ACFT, ON PUSH BACK DURING ENGINE START CAPTS WINDSHIELD CRACKED. NO FURTHER REPORTS AT THIS TIME. WINDSHIELD HAS BEEN CHANGED. RECORDS SHOW THE WINDSHIELD HAS BEEN INSTALLED FOR 11497 HOURS.

CA100111002	EMB	GE	MECHANISM	FROZEN
12/30/2009	ERJ190100IGW	CF3410E5A1		L2 DOOR ARMING

(CAN) ON ARRIVAL L2 DOOR ARM/DISARM AND EXTERNAL FLAPER LEVERS FROZEN. USING RAMP HTR, APPLIED HEAT FROM INSIDE ACFT TO THAW DOOR MECHANISM.

CA100201005	FRCHLD	GARRTT	FITTING	CRACKED

1/27/2010	SA227DC	TPE33112UHR	2764065011	FUEL BOWL

(CAN) FUEL LEAK FOUND ON LT ENGINE WHICH WAS NOTICED WHEN THE COWL WAS OPENED TO PERFORM REGULAR MX. THE SOURCE OF THE LEAK WAS DETERMINED TO BE A CRACKED FITTING LOCATED AT THE MAIN FUEL FILTER BOWL. FITTING REPLACED AND ACFT RETURNED TO SERVICE. (TC 20100201005)

CA100114002	GRUMAN		VALVE	FAILED
12/17/2009	TURBOFIRECAT		503476	HYD SYSTEM

(CAN) NO ACTION FROM THE SERA (SINGLE ENGINE RUDDER ASSISTANCE) DURING TRAINING (PHASE : WATER BOMBING). SERA INDICATION LIGHT ON UPON SELECTION IAW FLIGHT AND OPERATION MANUAL REQUIREMENTS. FLIGHT CREW NOTED: NO ENGAGEMNENT OF SERA SYS. TRAINING ABORTED AND ACFT RETURNED TO BASE. MX PERFORMED TROUBLESHOOTING AND VERFIED FAILED VALVE PN 50347-6, SN 344G. FUNCTION OF THIS VALVE WHEN SELECTED ON IS TO ROUTE HYD PRESSURE TO THE CONCENTRIC SLIDE VALVES. SELECTOR VALVE ALSO ROUTES HYD PRESSURE TO EXTEND THE RUDDER TRIMMER LOCK ACTUATOR.

2010FA0000159	GULSTM	PWC	LANDING GEAR	MALFUNCTIONED
2/16/2010	200	PW306A		NOSE

NOSE GEAR DOES NOT INDICATE DOWN AND LOCKED AFTER PULLING EMERGENCY GEAR HANDLE.

CA100127016	GULSTM	LYC	SPAR CAP	CORRODED
1/5/2010	500S	IO540E1B5	21000056	WING

(CAN) AFTER ACCOMPLISHING AD 94-04-14 IT WAS NOTED THAT THE WING LOWER SPAR CAP WAS CORRODED BEYOND THE SAFE LIMIT ACCORDING TO SB 208A. THE ACFT WAS GROUNDED.

2010FA0000178	GULSTM		TERMINAL	BURNED
12/16/2009	690C			WINDSHIELD HEAT

PILOT REPORTED SMELLING SMOKE AND THEN SEEING FLAMES FROM THE RT SIDE FWD SECTION OF GLARE SHIELD. DECLARED AN EMERGENCY, FOLLOWED EMERGENCY PROCEDURES AND AFTER SHUTTING OFF THE WINDSHIELD HEAT, FLAMES EXTINGUISHED. LANDED WITHOUT INCIDENT. MX INSPECTED THE WINDSHIELD AND FOUND 1 LUG ON THE TERMINAL STRIP HAD INTERNALLY LOOSENED UP, SHORTED OUT, MELTING THE TERMINAL STRIP CAUSING THE FIRE AND SMOKE. THE WINDSHIELD AND WINDSHIELD HEAT WIRING HARNESS WERE REPLACED, THE SYS OPS CKD OK. ACFT WAS RETURNED TO SERVICE.

CA100125010	GULSTM	LYC	SPAR	CORRODED
1/7/2010	GA7	O320D1D		RT WING

(CAN) CORROSION EXFOLIATION TYPE FOUND ON THE WEB OF THE SPAR ON THE RT REAR WING (WS 76.63) (ONLY THE WEB SITUATED AT THE EXTERIOR OF THE STA, WAS 7663 WAS AFFECTED, THE INSIDE WEB WAS INTACT) ACFT HAS ALREADY FLOWN WITHOUT THE GEAR DOORS INSTALLED (BEFORE 2001) MAYBE THE CORROSION WOULD HAVE BEEN INITIATED AT THAT TIME WHEN THE EXHAUST GASES WOULD HAVE PENERTRATED THE REAR SPAR VIA THE WHEEL WELL. THE ACFT STOPPED FLYING IN JANUARY 2005 (ENGINE TO BE REPLACED) TO BE STORED.

2010FA0000197	GULSTM		PROBE	GROOVED
3/4/2010	GV		0856TK1	PITOT/STATIC

PILOT WROTE UP ALTIMETER SPLIT, WITH MADC NR 2 SHOWING 240' DIFFERENCE FROM MADC NR 1 & 3. MX PERFORMED PITOT/STATIC LEAK CHECK WHICH SHOWED A STATIC LEAK BEYOND LIMITS FOR MADC NR 2. TROUBLESHOT SYS AND FOUND THE LOWER LT PITOT/STATIC PROBE TO BE LEAKING. UPON EXAMINATION OF THE PROBE, FOUND TOOLING MARKS FROM THE MFG AT THE AFT PART OF THE TUBE WHICH RESULTED IN SMALL HOLES WHICH ENABLED THE STATIC AIR PRESSURE TO LEAK OUT.

2010FA0000071	HILLER		FORK	DAMAGED
1/25/2010	UH12E		521103	MAIN ROTOR

FOUND DURING AN INCOMING INSPECTION THE FOLLOWING DEFECTS ON 4EA NEW FAA PMA PARTS SN 11566P/11567P/ 11568P & 11569P AS FOLLOWS; EDGE RADIUS OF ALL FORK BLADE PIN BORES DO NOT HAVE A

SUFFICIENT RADIUS TO LET BLADE ATTACHMENT PIN TO SEAT AGAINST THE TOP SURFACE OF THE UPPER FORK TANG, WITH PIN INSERTED, MEASURED BETWEEN .008" TO .011" GAP UNDER HEAD OF PIN.TO INSERT BLADE PIN THROUGH EACH FORK, THE FORK HAD TO BE SPREAD APART RANGING FROM .004" TO .012". BEFORE SPREADING THE FORK, FOUND ALL FORK TANGS TO BE PARALLEL.

2010FA0000074	HUGHES		NUT	CRACKED
1/13/2010	369		MS21042L4	M/R BLADE

2 NUTS FITTED TO MAIN ROTOR BLADE PITCH CHANGE HORNS ON ACFT R227/09 FOUND CRACKED IN SERVICE. FURTHER ENQUIRIES FOUND OTHER NUTS FROM SAME LOT NR 16838 SUPPLIED 7/09 FITTED TO H369 M/R DRAG DAMPER 7 OUT OF 12 NUTS ALSO CRACKED. INVESTIGATION LABS DISCOVERED HYDROGEN EMBRITTLEMENT OF NUTS. SUPPLIER TRACED MFG . MOST OF APPROX 400 NUTS SUPPLIED FROM THIS LOT NR 16838 TRACED AND AIRWORTHINESS ACTION PENDING. REMAINING 600 NUTS QUARANTINED. THIS IS A SIGNIFICANT ISSUE AS THESE STANDARD PARTS ARE FITTED TO NUMEROUS ACFT COMPONENTS.

2010FA0000167	HUGHES	ALLSN	FUEL TANK	DETERIORATED
2/19/2010	369E	250C20	369H810135	ZONE 100

DURING TAKEOFF, A COMPRESSOR STALL FOLLOWED BY ENGINE SEARCH WAS EXPERIENCED. THE ENGINE HAS BEEN INSPECTED AND MX PROCEDURE PERFORMED FOUNDED ALL NORMAL. HELICOPTER FUEL TANK INSPECTED AND FOUNDED DEBRIS FROM AN UNKNOWN SOURCE LIKE RUBBER. HELICOPTER LATER RELEASED FOR FLIGHT AND THE SAME CONDITION REAPPEARS FURTHER INSP TO THE FUEL TANK REVEALS THAT THE RT SIDE WAS STARTING TO DECOMPOSE ON RUBBER MATERIAL FUEL TANK WAS REMOVED FROM THE ROTORCRAFT. MAIN FUEL TANKS HAVE BEEN REPLACED ON 1999.

T9ZR725YWO4459	LANCAR	CONT	STARTER	OUT OF TOLERANCE
2/26/2010	LC41550FG	TSIO550A		ENGINE

DURING REMOVAL OF THE STARTER AND THE O/H OF THE STARTER DRIVE ADAPTER IT WAS FOUND THAT THE NEWLY INSTALLED STARTER IS .015 SMALLER AT THE HOUSING FLANGE THAN THE FACTORY INSTALLED STARTER. THE STARTER DRIVE ADAPTER WAS OBSERVED TO BE LEAKING OIL WERE THE STARTER BOLTS TO THE ADAPTER. THE O-RING SEAL IS NOT CAPABLE OF SEALING THE AREA BETWEEN THE STARTER AND THE ADAPTER WITH THIS MUCH CLEARANCE. MEASURED A FACTORY STARTER AND 4 OTHER STARTER TYPES AND FOUND THE DIFFERENCE BETWEEN THE ADAPTER AND THE OTHER STARTERS TO BE ONLY .004 WHICH WOULD ALLOW THE O-RING TO DO IT'S JOB.

2010FA0000189	LANCAR	CONT	SPARK PLUG	BROKEN
1/4/2010	LC41550FG	TSIO550C	RHB32S	NR 4 CYLINDER

ONE SPARK PLUG CERAMIC WAS FOUND BROKEN. OTHERS WERE FOUND CRACKED. THESE SPARK PLUGS WERE MIS-FIRING DURING HIGH POWER OPERATION. NO DEFECT WAS NOTED DURING NORMAL GROUND ENGINE RUN UP MAGNETO CHECK.

2010FA0000251	LANCAR	CONT	MOUNT FLANGE	CRACKED
3/10/2010	LC41550FG	TSIO550C		OIL COOLER

OIL COOLER MOUNTING FLANGE IS CRACKED AT RADIUS. THIS IS A RECURRING ISSUE WITH THESE COOLERS. THIS COOLER IS HAS 254.0 HRS SINCE LAST CHANGE DUE TO THE SAME REASON, CRACKED FLANGE AT THE RADIUS WHERE THE FLANGE IS ATTACHED. LAST COOLER CHANGED WAS PN 654580, SN F07-5670-108.

2010FA0000214	LANCAR	CONT	CYLINDER	CRACKED
1/23/2010	LC42550FG	IO550N	655465	NR 3

DURING ANNUAL INSP, FOUND FUEL STAIN TRAILING FROM FUEL INJECTOR NOZZLE PORT TOWARD SPARK PLUG HOLE ON NR 3 CYLINDER. CYLINDER HAS 980.9 TSN. ENGINE WAS MFG IN JULY 2003 AND INSTALLED IN ACFT (SN 42018).

2010FA0000186	LEAR		ACOUSTIC LINER	INADEQUATE
2/25/2010	35A		SK8160	ZONE 200

AFTER INSTALLATION OF ACOUSTIC OVERFRAME BLANKET, PN BK-8160 LOT NR 123009-BL60, MECHANICS NOTICED THAT ALL THEIR TOOLS USED TO CUT AND FIT THE BLANKETS RUSTED OVERNIGHT. FURTHER INVESTIGATION BY WAY OF A TEST, USING 2 NEW RAZORS, ONE USED TO CUT A PIECE OF BLANKET, WHERE PLACED SIDE BY SIDE AND THE RAZOR THAT WAS USED TO CUT THE BLANKET RUSTED IN LESS THAN 12 HRS. CALLED MFG AND INFORMED OF PROBLEM AND AFTER SOME INTERNAL TEST THEY REQUESTED TO HAVE ALL THE BLANKETS REMOVED FROM ACFT DUE TO LOW PH. BLANKETS WHERE REMOVED IMMEDIATELY. FURTHER INVESTIGATION AND INSP TO THE ACFT IS REQUIRED FOR THE DETECTION OF RUST AND/OR CORROSION ON ACFT INSTALLED HARDWARE AND STRUCTURES THAT HAS COME IN CONTACT WITH BLANKET.

CA100127001	LEAR	GARRTT		THROTTLE CABLE	SHEARED
1/23/2010	35A	TFE7312		66003296	RT ENGINE

(CAN) ACFT WAS LEAVING AT ABOUT 0330AM. AT THE THRESHOLD, PILOT STARTED TO PUSH THE THROTTLES FWD, WHEN HE NOTICED THAT AT 60 PERCENT N1 THE RT ENGINE WAS ABNORMAL, RETARDED THE THROTTLE AND THE ENGINE SHUTDOWN. PILOT TRIED MULTIPLE RESTARTS, WITH NO SUCCESS. STARTER WOULD SPOOL TO 20 PERCENT, IGNITION WOULD LIGHT, BUT NO FUEL FLOW OR ITT RISE. MX WAS SENT TO INVESTIGATE. IT WAS FOUND THAT THE RT ENGINE THROTTLE CABLE INNER SHAFT WAS SHEARED AT ABOUT 6 INCHES FROM THE FCU QUADRANT. NEW CABLE ORDERED FOR REPLACEMENT. CORE TO BE SENT BACK TO MFG (EXCHANGE).

CA100204007	LEAR	GARRTT		DOWNLOCK SWITCH	OUT OF RIG
2/2/2010	35A	TFE7312		63210178	MLG

(CAN) GEAR SWING CARRIED OUT AFTER REPLACEMENT OF STEERING MOTOR. FOUND SERVICEABLE. ACFT ACCEPTANCE TEST FLIGHT WAS CARRIED OUT AND CREW EXPERIENCED NO DOWN LOCK INDICATION ON LT MAIN. SECONDARY INDICATION FOR DOWN & LOCK ALSO NOT PRESENT. GEAR EMERGENCY EXTENSION WAS CARRIED OUT AND ACFT SUCCESSFUL LANDED. DOWN LOCK SWITCH WAS FOUND OUT OF RIG. SWITCH RERIGED. OPS CHECK CARRIED OUT WITH NO FAULTS. (TC 20100204007)

CA100122006	LEAR	GARRTT	LEAR	SLEEVE	CRACKED
1/21/2010	45LEAR	TFE7312		145468	FLAP ACTUATOR

(CAN) DURING THE COMPLETION OF SB45-27-40 IT WAS DETERMINED THAT NR 3 (RT INBD) FLAP ACTUATOR BALLSCREW SLEEVE WAS CRACKED APPROX 0.250 INCHES LONG, CTR OF THE SLEEVE. REMAINING FLAP ACTUATORS (POSITIONS 1, 2, AND 4) WERE FOUND TO BE SERVICEABLE AT TIME OF INSP. THIS SB IS THE VISUAL, AND THEN FLUORESCENT PENETRATE OF THE FLAP ACTUATOR BALLSCREW SLEEVE. VISUAL INSP OF THE ACTUATOR DID NOT REVEAL ANY DISCREPANCIES OF SLEEVE. PART 3 OF THE SB REQUIRES AN EVALUATION OF THE DAMAGE TO DETERMINE TYPE OF RECERTIFICATION TO BE COMPLETED. IAW PAR 3(B)2 THE ACTUATOR WAS REPAIRED USING SB45-27-41. THIS REQUIRES A SLEEVE RETAINING CAP TO BE INSTALLED OVER THE OVER THE FLAP ACTUATOR BALL SLEEVE. ACFT SYS TESTED AND ACFT RETURNED TO SERVICE.

CA091223003	LEAR	GARRTT		PANEL	LEAKING
12/18/2009	55LEAR	TFE7313		28260461	WING

(CAN) DURING ROUTINE INSP OF LOWER WING SURFACE FUEL WAS NOTED LEAKING FOR THE LWR WING AND THE OTBD FUEL VENT. FURTHER INSP IDENTIFIED 2 CRACKS AROUND THE PARAMETER OF THE INSP PANEL WHERE THE FUEL VENT HSG WAS ATTACHED TO THE OUTER PANEL. ACFT WAS DEFUELED, PANEL REPLACED AND LEAKED CHECK CARRIED OUT. OPPOSITE WING FUEL VENT PANEL ALSO INSPECTED AND NO DEFECTS NOTED AT TIME OF INSPECTION.

2010FA0000224	LET	HINGE BRACKET	CRACKED
2/8/2010	L23SUPERBLAN	A730258N	ELEVATOR

DURING A 100 HR INSP, IT WAS DISCOVERED THAT THE INBD ELEVATOR HINGE BRACKET EXHIBITED SEVERAL CRACKS. ADDITIONAL CRACKS WERE FOUND ON THE ACFT AFTER A FLEET WIDE ONE TIME INSP WAS COMPLETED.

2010FA0000225	LET	HINGE	CRACKED
2/8/2010	L23SUPERBLAN	A730258N	ELEVATOR

DURING A 100 HR INSP, IT WAS DISCOVERED THAT THE INBD ELEVATOR HINGE BRACKET EXHIBITED SEVERAL CRACKS. ADDITIONAL CRACKS WERE FOUND ON THE ACFT AFTER A FLEET WIDE, ONE TIME INSP WAS COMPLETED.

2010FA0000227	LET	HINGE	CRACKED
2/8/2010	L23SUPERBLAN	A730258N	ELEVATOR

DURING A 100 HR INSP, IT WAS DISCOVERED THAT THE INBD ELEVATOR HINGE BRACKET EXHIBITED SEVERAL CRACKS. ADDITIONAL CRACKS WERE FOUND ON THE ACFT AFTER A FLEET WIDE, ONE TIME INSP WAS COMPLETED.

2010FA0000222	LET	HINGE	CRACKED
2/8/2010	L23SUPERBLAN	A730258N	ZONE 300

DURING A 100 HR INSP, IT WAS DISCOVERED THAT THE INBD ELEVATOR HINGE BRACKET EXHIBITED SEVERAL CRACKS. ADDITIONAL CRACKS WERE FOUND ON THE ACFT AFTER A FLEET WIDE ONE TIME INSP WAS COMPLETED.

2010FA0000223	LET	HINGE	CRACKED
2/8/2010	L23SUPERBLAN	A730258N	ZONE 300

DURING A 100 HR INSP, IT WAS DISCOVERED THA THE INBD ELEVATOR HINGE BRACKET EXHIBITED SEVERAL CRACKS. ADDITIONAL CRACKS WERE FOUND ON THE ACFT AFTER A FLEET WIDE ONE TIME INSP WAS COMPLETED.

2010FA0000226	LET	HINGE	CRACKED
2/8/2010	L23SUPERBLAN	A730258N	ELEVATOR

DURING A 100 HR INSP, IT WAS DISCOVERED THAT THE INBD ELEVATOR HINGE BRACKET EXHIBITED SEVERAL CRACKS. ADDITIONAL CRACKS WERE FOUND ON THE ACFT AFTER A FLEET WIDE ONE TIME INSP WAS COMPLETED.

2010FA0000139	LET	HINGE BRACKET	CRACKED
2/8/2010	L23SUPERBLAN	A730258N	ELEVATOR

RT UPPER FWD, DURING A 100 HOUR INSP, IT WAS DISCOVERED THAT THE INBD ELEVATOR HINGE BRACKET EXHIBITED SEVERAL CRACKS. ADDITIONAL CRACKS WERE FOUND ON THE NOTED ACFT AFTER A FLEET WIDE ONE TIME INSP WAS COMPLETED.

2010FA0000086	LKHEED	WRIGHT	WINDOW	SEPARATED
2/4/2010	P2V7	R3350*	438513L	COCKPIT

PILOTS OVERHEAD HATCH WINDOW SEPARATED FROM THE FRAME SHORTLY AFTER TAKEOFF. THE PLEXIGLASS WINDOW IS MOUNTED BY USE OF A FIBERGLASS LAMINATE. THE FIBERGLASS LAMINATE IS WHAT FAILED CAUSING THE SEPARATION. THE WINDOW RIPPED OFF THE COMM 1 ANTENNAE AND DENTED THE VERTICAL STABILIZER L/E. THE LT HORIZONTAL STABILIZER L/E WAS DENTED AS WELL.

2010FA0000228	MOONEY	CONT	MOUNT	BROKEN
3/12/2010	M20F	IO360*	0701290	ALTERNATOR

HAVE HAD MULTIPLE PROBLEMS WITH THE MOUNTING KIT FOR THE ALTERNATOR THROUGH STC SA334SW. A NEW ALTERNATOR WAS INSTALLED ON 9/8/2006. AFTER 64 FLIGHT HOURS, THE ALUMINUM MOUNTING BLOCK BROKE DURING FLIGHT ON 6/5/07, AND WAS REPLACED ON 6/13/07. AFTER 127 FLIGHT HOURS, ONE OF THE 2 BRACKETS CONNECTING THE ALTERNATOR TO THE MOUNTING BLOCK BROKE IN FLIGHT ON 12/3/08. THESE BRACKETS AND ADJUSTMENT LINK ARM FROM THE KIT WERE REPLACED ON 12/5/09. AFTER 18 FLIGHT HOURS,

ON 7/18/09, THE ALUMINUM MOUNTING BLOCK BROKE ON TAKEOFF AND WAS REPLACED ON 7/31/09. AFTER 39 FLIGHT HOURS, ON 10/23/09, THE BOLT ATTACHING THE ALTERNATOR TO THE ALUMINUM BLOCK BROKE ITS SAFETY WIRE AND CAME LOOSE, LOSING TENSION ON THE ALTERNATOR IN FLIGHT. THIS BOLT WAS TIGHTENED AND RE-SAFETIED ON 12/14/09. AFTER 2 HOURS FLIGHT TIME, FOUND THIS BOLT TO BE LOOSE AGAIN AND WHEN IT WAS REMOVED FOUND IT TO BE STRIPPED OUT. IT APPEARS THAT THE BOLT DID NOT HAVE A LONG ENOUGH THREAD LENGTH, AND SO WAS NEVER TIGHTENED PROPERLY. ALL OF THESE FAILURES SINCE THE INSTALLATION OF THE NEW ALTERNATOR WERE DO TO IMPROPER INSTALLATION DUE TO THE DIFFICULTY IN ALIGNING THE ALTERNATOR PROPERLY. THESE FAILURE WERE DUE TO A POOR SUPPORT DESIGN AND INSTRUCTIONS IN STC SA334SW.

2010FA0000169	MOONEY	LYC	THROTTLE CABLE	FRAYED
1/8/2010	M20J	IO360A3B6D	660226001	

THROTTLE CABLE LOCKED IN FLIGHT, EXAMINATION FOUND PARTIAL FAILURE OF INTERNAL CABLE APPROX I5 CM FROM SWAG AT CONTROL KNOB END OF ASSY. BELIEVE FAILURE TO BE CAUSED BY TURNING KNOB WHILE TIGHTENING THROTTLE LOCK OR BY ATTEPTING TO USE A VENIER CONTROL.

2010FA0000162	MULTEC	LYC	GASKET	FAILED
10/5/2009	D16A	O340*		FUEL PUMP

DURING CRUISE, THE PILOT EXPERIENCED A LOSS OF POWER/FUEL PRESSURE IN THE LT ENG. THE PILOT ATTEMPTED TO REESTABLISH FUEL FLOW TO THE ENG BY TURNING ON THE ELECTRIC FUEL PUMP AND THEN SWITCHING FUEL TANKS. THE ENG COULD NOT BE RESTARTED AND THE PILOT WAS FORCED TO MAKE AN EMERGENCY LANDING WHICH DESTROYED THE ACFT. THE PILOT RECEIVED SERIOUS INJURIES. THE FUEL SYS COMPONENTS WERE TESTED UTILIZING SB 106A. THIS SB IS NOT APPLICABLE TO THE ACFT ALTHOUGH MANY OF THE SAME COMPONENTS ARE USED ON BOTH ACFT. THE TESTS REVEALED THE END CAP GASKET ON THE ELECTRIC FUEL PUMP HAD FAILED ALLOWING AIR TO BE DRAWN INTO THE SYS BY BOTH THE ELECTRIC AND ENG DRIVEN FUEL PUMPS THUS STARVING THE ENG OF FUEL. THE INSTALL DATE/TT OF THE PUMP AND END CAP GASKET COULD NOT BE DETERMINED FROM THE MX RECORDS. MX PERSONNEL NEED TO BE VIGILANT WHEN PERFORMING MX ON OLDER LOW WING ACFT AS MANY OF THEM HAVE THE SAME OR SIMILAR COMPONENTS AS THOSE THAT ARE THE SUBJECT OF AD 2008-05-14 AND SB 106A.

2010FA0000132	PILATS	PWA	WINDSHIELD	CRACKED
2/7/2010	PC1245	PT6A67B	9598110109	ZONE 200

WINDSHIELD CRACKED/SHATTERED IN DESCENT PORTION OF FLIGHT. ACFT DID NOT DEPRESSURIZE AND WINDSHIELD HEAT STILL FUNCTIONED. APPEARS UPON INSPECTION FOR FERRY PERMIT THAT SOMETHING OF UNKNOWN ORIGIN IMPACTED WINDSHIELD. COULD FIND EXACT POINT OF IMPACT AND WINDSHIELD SHOWED NO INDICATION OF INTERNAL FAILURE FROM CABIN OR FROM HEAT SYS. NO ARCHING AT ALL AND HEAT FUNCTION STILL WORKED WELL. THE CRACKED ONLY EFFECTED THE EXTERNAL PANE OF WINDOW, INTERIOR STILL IN TACT.

5APR577Y32	PILATS	PWA	BRAKE DISC	BROKEN
3/9/2010	PC1245	PT6A67B	244759B	MLG BRAKE

DURING A LINE CHECK THE LT MAIN BRAKE OTBD BRAKE DISC WAS DISCOVERED BROKEN. R & R BRAKE ASSEMBLY IAW MM.

CA091118007	PILATS	PWA	WINDOW	CRACKED
11/13/2009	PC1245	PT6A67B	9598110111	COCKPIT

(CAN) DURING CLIMB/PRESSURIZATION, A POPPING NOISE WAS HEARD FROM LT COCKPIT SIDE WINDOWS. REMOVAL OF THE WINDOWS REVEALED CRACKS FROM SCREW HOLES OUTWARD TO THE EDGE. *NOTE: THE SAME WAS FOUND ON THE RT COCKPIT SIDE WINDOW P/N959.81.10.112 S/N 00061H1871 BOTH WINDOWS REPLACED WITH NEW.

CA100225001	PILATS	PWA	TRANSMITTER	MALFUNCTIONED
2/23/2010	PC1245	PT6A67B		AOA

(CAN) ON TAKEOFF, ONCE THE WEIGHT ON WHEELS SIGNAL WAS PRESENT, THE STICK SHAKER WARNING ACTUATED. PILOT RETURNED FOR LANDING. ACFT SPEED WAS REPORTED AS CORRECT. THE LT AOA

TRANSMITTER WAS FOUND TO BE SENDING A SHAKER RANGE SIGNAL TO THE FCWU REGARDLESS OF THE PHYSICAL POSITION OF THE VANE. PART REPLACED, FUNCTION TESTS SATISFACTORY. (TC 20100225001)

CA100128004	PILATS	PWA	SLIP RING	WARPED
1/28/2010	PC1245	PT6A67B	4E30081	PROPELLER

(CAN) PROPELLER ASSY WAS REMOVED BY CUSTOMER FOR SCHEDULED ENGINE CHANGE. PROPELLER ASSY WAS VISUALLY INSPECTED AND FOUND A WARPED OUTER RING - PROPELLER WAS SENT TO AN APPROVED PROPELLER FACILITY FOR EVALUATION. SLIP RING WAS INSPECTED AND FOUND ALL WITHIN LIMITS EXCEPT THAT THE OUTER RING WAS WARPED OUT WHICH RENDERED IT AS SCRAPPED. REMOVED FROM SERVICE. SLIP RING HAS MISSING RESIN WHICH IS MOLDED IN BETWEEN THE 3 RINGS AND IT HAS FALLEN OUT! THE RESIN KEEPS THE RINGS SPACED CORRECTLY AND PREVENTS WARPAGE. SLIP RING WAS PREVIOUSLY MACHINED AND IS ABOVE MINIMUM THICKNESS ALLOWANCES.

CA100115006	PILATS	PWA	MOTOR	MALFUNCTIONED
1/14/2010	PC1247	PT6A67		MLG

(CAN) ON APPROACH, GEAR DOWN WAS SELECTED. GEAR DOWN NOTIFICATION WAS POSITIVE BUT THE LANDING GEAR HYD MOTOR CONTINUED TO RUN VERY LOUD FOR MORE THAN 30 SECONDS. OVERSHOOT WAS INITIATED AND GEAR WAS CYCLED WITH THE SAME RESULTS, THE CREW ELECTED TO RETURN TO DEPARTURE. ON APPROACH GEAR DOWN WAS SELECTED 3SM FINAL. HYD MOTOR CONTINUED TO RUN FOR 10 SECONDS VERY LOUDLY AND THEN STOPPED. ALL INDICATIONS OF SAFE GEAR SITUATION WERE ILLUMINATED.

5APR577Y31	PILATS	PWA	BRAKE DISC	BROKEN
3/6/2010	PC1247	PT6A67B	244759C	MLG BRAKE

DURING A LINE CHECK THE RT MAIN BRAKE OTBD BRAKE DISC WAS DISCOVERED BROKEN. R & R BRAKE ASSEMBLY IAW MM.

5APR577Y30	PILATS	PWA	BRAKE DISC	CRACKED
2/10/2010	PC1247	PT6A67B	244755	RT MLG

DURING A 100 HR INSP THE RT BRAKE OTBD DISC WAS DISCOVERED CRACKED. R & R BRAKE ASSY IAW MM.

2010FA0000087	PIPER		SPAR	CORRODED
2/4/2010	J3C65			RT WING

SEVERE CORROSION ON LT AND RT AILERON MAIN SPARS BETWEEN SPAR AND BRACKETS. SPAR BULGES AROUND RIVETS ATTACHING THE BRACKETS TO THE SPAR. THIS CONDITION WAS FOUND WHEN INSPECTING AILERONS PRIOR TO RECOVERING. SUSPECT THEY MAY HAVE BEEN ON SEA PLANE OPERATED ON SALT WATER.

2010FA0000153	PIPER	LYC	CYLINDER	CRACKED
1/31/2010	PA12	O235*	3731630	ENGINE

CYLINDER SN 37316-30 WAS PRESSURE TEST INSPECTED IAW AD 2009-26-12 AND WAS FOUND TO BE CRACKED WHERE CYLINDER HEAD CONNECTS TO CYLINDER BARREL. THE DEFECTIVE CYLINDER IN THE NR 3 POSITION, WAS INSTALLED ON ENGINE ON 5/19/2006 AND HAD 397 HOURS IN SERVICE. CYLINDER NR 1 (SN 37316-26) ON THE SAME ENGINE WAS ALSO AFFECTED BY THE REF AD. NO LEAKS OR DEFECTS WERE DISCOVERED ON THIS CYLINDER, WHICH HAD THE SAME NR OF HOURS IN SERVICE AS THE DEFECTIVE CYLINDER DESCRIBED ABOVE. (K)

2010FA0000170	PIPER	LYC	TUBE	LEAKING
2/7/2010	PA28161	O320D3G	5005	MLG TIRE

TIRE WENT FLAT IN THE RUNUP AREA. SMALL PIN HOLE IN THE TUBE ON THE OUTER SIDEWALL. TIRE APPEARS TO BE FINE.

2010FA0000206	PIPER	LYC	SUPPORT	MISINSTALLED
2/12/2010	PA28235	O235B	6345100	UNKNOWN

SHOULD HAVE AN960 WASHERS UNDER THE (4) AN3-4L BOLTS TO SPREAD THE LOAD ON THE ASSY. THERE ARE NO WASHERS SHOWN IN PARTS LIST.

2010FA0000195	PIPER	LYC	HONEYWELL	CAPACITOR	LEAKING
3/2/2010	PA30	IO320*	KX155	097001040036	NAV/COM

NAVIGATION RECEIVER BECAME INOPERATIVE AFTER THE BELOW LISTED COMPONENT LEAKED ELECTROLYTE ON TO THE PRINTED CIRCUIT BOARD.

CA100217006	PIPER	LYC	HUB	DAMAGED
2/16/2010	PA30	IO320B1A	D2483	PROPELLER

(CAN) UPON DISASSEMBLY AND VISUAL INSP OF THE ABOVE HUB, THE PRELOAD SHELFS WERE FOUND TO CONTAIN VISUAL DAMAGE FROM PREVIOUS IMPACT. ACCORDING TO PROP MANUAL 202A VOLUME 6 CHAPTER 1, SPECIAL INSTRUCTIONS,(CURRENT REVISION 29), ANY HUB CONTAINING SIGNS OF PRELOAD SHELF DAMAGE IS CAUSE FOR AUTOMATIC REJECTION OF THE HUB. (TC 20100217006)

CA100202005	PIPER	LYC	LIFTER	BROKEN
1/30/2010	PA31	IO540M1A5		NR 2 CYLINDER

(CAN) SHORT WHILE AFTER TAKEOFF OIL PRESSURE ON THE LT ENGINE STARTED FALLING BELOW THE GREEN. RPM ALSO STARTED FALLING. WHEN OIL PRESSURE CAME CLOSE TO RED LINE, PILOT PULLED FEATHER (PROP) & SHUTDOWN THE ENGINE. AFTER INSP OF THE ENG, IT WAS FOUND THAT NR 3 CYLINDER HAD LOW COMPRESSION & METAL FILLINGS IN THE OIL SCREEN & OIL FILTER. ENG WAS REMOVED FROM ACFT, REMOVED ALL CYLINDERS & FOUND THAT NR2 CYL INTAKE LIFTER HAD BROKEN OFF CAUSING INTERNAL DAMAGE TO THE ENGINE.

CA100127003	PIPER	LYC		SHAFT	BROKEN
1/24/2010	PA31	TIO540A2B	268028		HYDRAULIC PUMP

(CAN) GROUND TEST AFTER FLIGHT, LANDING GEAR HANDLE DIDN`T RETURN TO NEUTRAL AFTER TEST. PUMP REMOVED AND FOUND DRIVING SHAFT BROKEN, PUMP REPLACED & CHECK OK. THIS KIND OF EVENTS HAPPEN FOR THE SECOND TIME FROM THE SAME SUPPLIER.

CA100129007	PIPER	LYC	BLADES	DAMAGED
1/29/2010	PA31	TIO540A2C	FC84686R	PROPELLER

(CAN) 2 PROPELLER BLADES, SN E33784 & E33694 CONTAINED TOOL MARKS/GOUGES IN THE BOTTOM OF THE BALANCE HOLES, WHICH WERE FOUND THROUGH VISUAL INSPECTION. THE BLADES HAVE BEEN SENT OUT FOR REAMING OF THE BORES AND RESHOT PEENING IAW MM 202A VOLUMES 2 REV. 28, VOLUME 9 REV. 29 AND 133C REV. 26.

CA100218007	PIPER	LYC	REGULATOR	FAILED
2/18/2010	PA31	TIO540A2C	A23D0475E	HEATER

(CAN) THIS FUEL REGULATOR IS NEW AND FAILED TEST AFTER INSTALLATION. THIS PART IS INSPECTED EVERY 100 HOURS IAW AD 2004-25-16R1 FOR LEAKS AND IT NEVER MADE IT PAST THE TESTING STAGE. (TC 20100218007)

2010FA0000199	PIPER		BATTERY CABLE	LOOSE
2/4/2010	PA31350		8000904	MASTER BATTERY

LOOSE BATTERY CABLES LED TO A COMPLETE LOSS OF ELECTRICAL POWER WHILE IN FLIGHT AT IFR FLIGHT LEVEL 13000. LOOSE CABLES CAUSE A LOSS OF ACFT BATTERY. WHEN THE ALTERNATORS WERE UNABLE TO CARRY THE LOAD, IT RESULTED IN TOTAL ELECTRICAL LOSS.

CA100122010	PIPER	LYC	TURBOCHARGER	FAILED
1/21/2010	PA31350	LTIO540J2BD	4091709001	ENGINE

(CAN) ACFT IN CRUISE FLIGHT HAD A POWER LOSS THEN RECOVERED. CREW DIVERTED TO MAIN BASE. MX FOUND RT TUBO U/S TT TURBO 716.5 REPLACED TURBO WITH O/H SPARE AND ACFT RETURNED TO SERVICE AFTER A SATISFACTORY TEST FLIGHT.

CA100202009	PIPER	LYC	CRANKCASE	CRACKED
2/1/2010	PA31350	LTIO540J2BD		NR 5 CLYINDER

(CAN) CRANKCASE CRACKED NEAR BASE BOLTS NR5 CYLINDER. (TC 20100202009)

CA100222006	PIPER	PWA	FUEL SYS	CONTAMINATED
2/16/2010	PA31T2	PT6A135		

(CAN) BOTH ENGINES WERE STARTED NORMALLY. UPON POWER APPLICATION FOR TAXI, THE LT ENGINE WOULD NOT RESPOND TO THROTTLE/POWER LEVER MOVEMENTS AND REMAINED AT IDLE. THE ACFT ENGINES WERE SHUTDOWN. MX FOUND CONTAMINATION IN THE AIRFRAME FUEL FILTERS AND TANKS. LT & RT FUEL TANKS, ALL FUEL HOSES & LT FCU & FUEL PUMP WERE DRAINED. FCU & FUEL PUMP FILTERS WERE REPLACED. GROUND RUNS COMPLETED, ALL CHECK SERVICEABLE. UPON SATISFACTORY TEST FLIGHT, THE ACFT WAS RETURNED TO SERVICE. (TC 20100222006)

2010FA0000156	PIPER	LYC	DIAPHRAGM	LEAKING
2/2/2010	PA32300	IO540K1A5		FLOW DIVIDER

CUSTOMER REPORTED ROUGH RUNNING ENGINE. FOUND FUEL FLOW DIVIDER ON ENGINE WAS LEAKING FUEL FROM DIAPHRAGM. HAD UNIT O/H AND FOUND PART TO ORIGINAL JAN 1967 PART. PART HAD NOT BEEN O/H IN 43 YEARS.

CA100115004	PIPER	LYC	RIB	CRACKED
1/15/2010	PA34200	IO360C1E6	6232800623281	TE FLAP

(CAN) DURING DISASSEMBLY FOR REPAIR TO THE FLAP ATTACH BRACKET, NOSE RIBS PN 62328-00 AND 62328-01 WERE FOUND TO BE CRACKED AT THE FLAP HINGE BRACKET ATTACH POINT. THIS BRACKET ALSO FORMS THE ATTACHING POINT FOR THE FLAP CONTROL ROD. BOTH LT AND RT FLAPS WERE FOUND TO HAVE THE SECOND RIB FROM THE INBD END CRACKED. THESE RIBS CAN ONLY BE INSPECTED IN THIS AREA WITH THE L/E SKIN REMOVED. AT THIS TIME THE RIVETS ATTACHING NOSE RIBS TO THE FLAP HINGE BRACKET WERE FOUND CORRODED AND SEVERAL HAD FAILED.

CA100204005	PIPER	LYC	SPRING	BROKEN
2/2/2010	PA44180	LO360A1H6	487495	MLG DOWNLOCK

(CAN) ON APPROACH TO LAND, THE LT MAIN GEAR DOWN AND LOCK LIGHT WOULD NOT INDICATE. AFTER SEVERAL ATTEMPTS, THE GEAR WOULD DOWN AND LOCK, BUT THE GEAR LIGHT WOULD FLASH OFF AND ON LIKE IT WAS CYCLING WITH THE HYD PUMP. THE ACFT LANDED AND THE GEAR LEG WAS SECURED. THE END OF THE DOWNLOCK SPRING HAD BROKEN OFF FROM THE HYD ACTUATOR BRACKET AND WAS HANGING LOOSE. THE SPRING WAS REPLACED AND GEAR CYCLES WERE CARRIED OUT WITH NO FURTHER ISSUES. (TC 20100204005)

CA100204002	PIPER	LYC	PUMP	DAMAGED
1/26/2010	PA44180	LO360A1H6	61E23632106019	ACCELERATOR

(CAN) THE ACFT WAS PREPARING FOR TAKEOFF. WHEN THE THROTTLES WERE ADVANCED BOTH ENGINES BALKED AND THEN QUIT. ALTHOUGH A POSSIBILITY OF CARB ICING WAS SUSPECTED, BOTH CARBURETORS WERE SENT FOR TEST AND REPAIR. THERE WAS A SB THAT APPLIED TO THE CARB ACCELERATOR PUMP (VOLARE SB-3). THE ACCELERATOR PUMPS WERE FOUND DAMAGED ON THE CARBURETORS. (TC 20100204002)

CA100121006	PIPER	LYC	JANITROL	SWITCH	FAILED
1/21/2010	PA44180	LO360A1H6	B3500	94E423	CABIN HEATER

(CAN) AT SCHEDULED MAINT - AD 2004-21-05 - HEATER DECAY TEST REQUIRED. THE DECAY TEST PASSED. FUNCTION CHECK OF THE FAILED SWITCH IS NOT REQUIRED BY THE AD BECAUSE OF THE PN ON SWITCH. NORMAL PRACTICE IS TO FUNCTION CHECK THIS SWITCH AS IT IS REMOVED TO CARRY OUT THE DECAY TEST. THE SWITCH WAS FOUND FAILED ON IN THE NORMALLY OPEN POSITION. THIS ALLOWED THE HEATER TO OPERATE BUT COULD HAVE CAUSED A PROBLEM ALLOWING THE HEATER TO OPERATE WITH A FAILED COMBUSTION AIR SOURCE.

CA100201001	PIPER	LYC	FITTING	CORRODED
1/28/2010	PA44180	LO360E1A6	79553800	WINDSHIELD

(CAN) WHEN LT WINDSHIELD WAS REMOVED FOR REPLACEMENT, THE STEEL BRACKET DOWN IN THE CORNER

WHERE THE WINDSHIELD SUPPORT MEETS THE SIDE FUSELAGE, WAS FOUND CORRODED. THE LT BRACKET WAS SEVERLY CORRODED ENOUGH THAT IT HAD TO BE REPLACED. THE RT BRACKET WAS ALSO FOUND SLIGHTLY CORRODED AND WAS CLEANED AND TREATED. THE CORROSION ON THE FUSELAGE WAS MINOR AND WAS TREATED AND PAINTED WITH ZINC CHROMATE PRIMER. (TC 20100201001)

2010FA0000161	PIPER	LYC	SPAR	CORRODED
11/10/2009	PA44180	O360*	86152001	ZONE 600

CORROSION, VISUALLY APPEARED TO BE INTERGRANULAR TURNING TO EXFOLIATION, FOUND EXPLODING OUT OF THE LOWER PORTION OF THE VERTICAL SURFACE OF THE RT WING SPAR WEB, PN 86152-001, AT APPROX WING STA 56.0. THE AREA IS JUST OTBD OF THE LANDING GEAR TRUSS BRACKET, PN 95643-009. THE AMOUNT OF MATERIAL REMOVED, TO ASSURE COMPLETE CORROSION REMOVAL, REQUIRED THE SERVICES OF A DESIGNATED ENGINEERING REPRESENTATIVE (DER) TO PROVIDE SUBSTANTIATION FOR THE REPAIR, AND THE SUBMITTAL OF AN FAA FORM 337. THE SUDDEN APPEARANCE OF THIS CORROSION INSINUATES THAT IT STARTED WITHIN THE METAL AND NOT THROUGH EXTERNAL INFLUENCE.

2010FA0000168	PIPER	LYC	CONTROL CABLE	FRAYED
1/28/2010	PA46350P	TIO540*	8351502	ELEVATOR ASSY

WHILE INSP INOPERATIVE ELEVATOR TRIM, WHICH WAS CAUSED BY FRAYED CABLE JAMMING TRIM DRUM, FOUND LOOSE ELEVATOR ACTUATOR ARM PN 8351502. THE END OF THE ARM COULD BE MOVED 1 INCH IN ALL DIRECTIONS. ALL ACTUATOR ARM TO ELEVATOR RIVETS EXCEPT 1 WERE SHEARED OR LOOSE. SINCE BOTH UP AND DOWN STOPS ARE ON THIS ARM, WE BELIEVE A JET BLAST OR SEVERE WIND, FROM THE REAR CAUSED THE ELEVATOR TO HIT STOPS.

2010FA0000241	PIPER	LYC	TUBE	DEFECTIVE
3/8/2010	PA46350P	TIO540*	TR67	MLG TIRE

NOSE TIRE WENT FLAT DURING TAXI FOR TAKEOFF. FOUND HOLE IN SIDEWALL OF TUBE. HAVE SEEN THIS DEFECT MANY TIMES IN NOSE AND MAIN TIRE TUBES IN THE LAST 12 MONTHS.

2010FA0000238	PIPER	LYC	TRANSDUCER	INTERMITTENT
2/19/2010	PA46350P	TIO540AE2A	C528072	STALL WARNING

STALL WARNING FAILS INTERMITTENT. UNIT WAS REMOVED AND SENT FOR REPAIR. UNIT WAS REINSTALLED AND FAILED ON FIRST FLIGHT. UNIT SHOWS SIGNS OF PREVIOUS REPAIR BUT NO LOG ENTRY WAS MADE.

2010FA0000239	PIPER	LYC	COMPUTER	INTERMITTENT
2/19/2010	PA46350P	TIO540AE2A	C528062	STALL WARNING

STALL WARNING FAILS INTERMITTENT. UNIT WAS REMOVED AND SENT FOR REPAIR. UNIT WAS REINSTALLED AND FAILED ON FIRST FLIGHT. UNIT SHOWS SIGNS OF PREVIOUS REPAIR BUT NO LOG ENTRY WAS MADE.

2010FA0000177	PIPER	LYC	BRACKET	BROKEN
2/5/2010	PA46350P	TIO540AE2A	07A19870	TURBOCHARGER

DURING AN ANNUAL INSP, THE LT TURBO MOUNTING BRACKET (PN 07A19870) WAS FOUND BROKEN IN 2 PLACES. THE CAUSE WAS PROBABLY A COMBINATION OF HEAT AND VIBRATION.

E81RJT227504	RAYTHN		DISPLAY	INOPERATIVE
2/8/2010	390		8221084014	COCKPIT

PILOT REPORTED COPILOT'S PRIMARY FLIGHT DISPLAY SCREEN WENT BLANK FOR APPROX 1 SECOND IN FLIGHT. UNABLE TO DUPLICATE DURING ON-GROUND CHECKS. REPLACED FLIGHT DISPLAY WITH AN O/H EXCHANGE UNIT, NO FAULTS OBSERVED. REMOVED UNIT O/H 8/26/2005.

E81RJW302431	RAYTHN		SHUTOFF VALVE	FAILED
2/18/2010	390		5188001	RT ENG ANTI-ICE

INVESTIGATED REPORTED RT ENG ANTI-ICE FAIL ANNUNCIATOR INDICATION. REPLACED INOPERATIVE ENG INLET ANTI-ICE SHUTOFF VALVE WITH NEW SHUTOFF VALVE, ENGINE ANTI-ICE FUNCTIONAL CHECKS OK. HAVE REPLACED SEVERAL LOW TIME NEW AND O/H ANTI-ICE VALVES ON ACFT THIS FALL/WINTER SEASON.

2010F00072	RAYTHN		TUBE	RUPTURED
3/11/2010	400ARAYTHEON		45AS6317075	ZONE 200

BLEED AIR DUCT LIGHT CAME ON INTERMITTENTLY DURING T/O. NO OTHER INDICATION DURING THE CONTINUATION OF FLIGHT. UPON VISUAL INSP OF THE AREA, BRAIDED PORTION OF BLEED AIR TUBE FRAYED AND BENEATH BRAIDED SECTION THE BELLOWS RUPTURED.

2010FA0000166	RAYTHN		SWITCH	ERRATIC
2/13/2010	C90GT		79513	STALL WARNING

THE STALL WARNING SYS ACTIVATES ERRATICALLY. INCIDENTS SURROUNDING THE STALL WARNING SYS ANOMALIES: SITTING MOTIONLESS ON THE GROUND, ENGINES NOT RUNNING. SITTING MOTIONLESS ON THE ENGINE RUNNING. DURING CLIMB, IN CLEAR AIR, BETWEEN 108 AND 140 KIAS. AT CRUISE, FL 270, 165 KIAS, SMOOTH AIR. MFGS ARE AWARE OF THE PROBLEM. WING TRANSDUCER PN 795-13 HAS BEEN REPLACED, NO AFFECT. COMMON PROBLEM AMONG THESE ACFT OPERATORS. UNABLE TO GET RESOLUTION FROM MFGS.

2010FA0000160	RAYTHN		DOOR	FROZEN
2/9/2010	HAWKER850XP			MLG

ACFT WAS ON APPROACH. WHEN THE GEAR WAS EXTENDED THE NOSE GEAR DID NOT COME DOWN. THE CREW DIVERTED TO AND AFTER SOME HIGH "G" MANEUVERS GOT THE NOSE GEAR TO EXTEND. THE ACFT MADE A NORMAL LANDING. THE ACFT WAS JACKED AND A GEAR SWING AND INSP WAS PERFORMED. NO PROBLEMS FOUND. THE ACFT WAS REPOSITIONED TO THE SERVICE CENTER FOR A MORE IN DEPTH INSP WITH NO PROBLEMS FOUND. AFTER TALKING WITH THE TECH REP THIS IS A KNOWN PROBLEM WITH THE ACFT AFTER DEPARTING IN MOISTURE AND GOING TO ALTITUDE. IT IS SURMISED THAT MOISTURE GETS IN BETWEEN THE GEAR DOORS AND FUSELAGE AND FREEZES KEEPING THE NOSE GEAR FROM EXTENDING. SOME TESTING WAS PERFORMED AT MFG AND IT WAS DETERMINED THAT A SIX INCH PIECE OF TAPE ACROSS THE NOSE GEAR DOORS COULD KEEP THE NOSE GEAR DOORS FROM EXTENDING. MFG HAS MODIFIED OUR DEPARTURE PROCEDURE IN COLD WEATHER TO TRY AND MITIGATE THIS PROBLEM.

2010FA0000183	RAYTHN	GARRTT	INLET	DAMAGED
2/24/2010	HAWKER900XP	TFE731*	716RA00013	ZONE 400

ON POST FLIGHT INSP, DISCOVERED 2 RIVET HEADS MISSING FROM THE LT ENGINE INLET COWL. THE ENGINE WAS VISUALLY INSPECTED AND DAMAGE TO THE FAN BLADES WAS NOTED. A BOROSCOPE INSP WAS ACCOMPLISHED ON THE 1ST STAGE COMPRESSOR BLADES AND DAMAGE WAS NOTED. THE ENGINE WAS REMOVED FOR REPAIR.

CA100208009	RAYTHN	GARRTT	FUEL CONTROL	MALFUNCTIONED
2/1/2010	HAWKER900XP	TFE731*		NR 1 ENGINE

(CAN) DISCREPANCY NR 1 ENGINE SURGING AFTER VR ON TAKEOFF WITH AN APR EVENT. WITH ENGINE POWER REDUCED TO IDLE THE N1 STABILIZED AND REMAINED AT IDLE FOR THE REMAINDER OF THE FLIGHT. KEPT THE ENGINE RUNNING AT IDLE TILL AFTER LANDING. RECTIFICATION LT FUEL CONTROL UNIT REPLACED, P3 LIMITER REPLACED, N2 MONOPOLE REPLACED & P3 SENSE LINE REPLACED. ALL UNITS REPLACED AT MFG REQUEST. (TC 20100208009)

UVVR2010022600006	RKWELL	GARRTT	FLOORBEAM	CORRODED
2/23/2010	NA26565	TFE731*	265311164	BS 166.3

ANGLE CORRODED (EXFOLIATED) ON LOWER FS 166.3 FUSELAGE FLOOR SUPPORT WEB RT BP 8-10, ATTACHED TO LOWER FUSELAGE SKIN AND WEB.

CA091106001	ROBSIN	LYC	JACKSHAFT	CRACKED
11/4/2009	R22BETA	O320B2C	A3371	

(CAN) DURING FLIGHT, PILOT FOUND THE CONTROLS TO BECOME UNRESPONSIVE (LOSS OF FULL SENSE OF OPERATION). FAR MORE FWD CYCLIC WAS REQUIRED AND HIGHER COLLECTIVE PITCH THEN NORMAL. PILOT LANDED THE ACFT WITHOUT INCIDENT. ANOTHER ACFT WITH AN AME WAS SENT TO THIS ACFT`S LOCATION TO RECOVER THE CREW. AME FOUND THE CAUSE TO BE A CRACKED JACKSHAFT PN A337-1. ONCE THE PART WAS

PROCURED THE JACKSHAFT WAS REPLACED AND THE ACFT RESUMED NORMAL OPERATION. THE JACKSHAFT TTSN IN UNKNOWN AS THIS IS NOT A LIFE LIMITED ITEM HOWEVER THE ACFT IS 4274.2 TTSN. THE ACFT HAD BEEN FLOWN LESS THAN 10 HOURS SINCE ITS LAST INSP.

CA100107004	ROBSIN	LYC	CARBURETOR	INOPERATIVE
12/29/2009	R44	O540F1B5	10603511	ENGINE

(CAN) ENG WILL NOT STAY RUNNING, CARBURETOR REPLACED.

CA100202002	ROBSIN	LYC	ANTENNA	BROKEN
1/20/2010	R44	O540F1B5	107733	ELT

(CAN) ANTENNA WHIP MISSING FROM BASE OF ANTENNA WHEN RETURNING FROM FLIGHT. AFTER INVESTIGATION, CONCLUDED THAT WHIP BROKE DUE TO EXCESSIVE VIBRATION, MAYBE CAUSED BY MAST FAIRING T/E TURBULENT AIR FLOW. THE POSITION OF ANTENNA IS JUST A FEW INCHES AFT OF FAIRING, ON TAILBOOM FAIRING. FOR PICTURES OF INSTALLATION, PLEASE ADVISE WE WILL BE PLEASED TO SEND YOU SOME AT YOUR REQUEST. (TC 20100202002)

CA100202001	ROBSIN	LYC	ANTENNA	BROKEN
1/20/2010	R44RAVENII	IO540AE1A5		ELT

(CAN) ANTENNA WHIP WAS MISSING FROM BASE OF ANTENNA WHEN RETURNING FROM FLIGHT. AFTER INVESTIGATION, CONCLUDED THAT WHIP BROKE DUE TO EXCESSIVE VIBRATION, MAYBE CAUSED BY BY MAST FAIRING T/E TURBULENT AIR FLOW. THE POSITION OF ANTENNA IS JUST A FEW INCHES AFT OF MAST FAIRING, ON TAILBOOM FAIRING. (TC 20100202001)

CA100121005	ROBSIN	LYC	BENDIX	POINTS	WORN
1/17/2010	R44RAVENII	IO540AE1A5		10382585	MAGNETO

(CAN) MAGETO WAS REMOVED FROM ENGINE TO DUE TIMING ISSUES. DURING DISSASSEMBLY THE MAIN CONTACT POINTS WERE FOUND WORN. MAGNETO WAS REPLACED AND ACFT RETURNED TO SERVICE.

CA091026003	ROBSIN	LYC	SPRAG CLUTCH	UNSERVICEABLE
10/17/2009	R44RAVENII	IO540AE1A5	C1883	MAIN ROTOR

(CAN) WHILE INCREASING THROTTLE TO FLIGHT RPM, WHEN RPM WAS AT APPROX 90 PERCENT, A LOUD BANG FOLLOWED BY GRINDING NOISE WAS HEARD AND FELT. THIS WAS ACCOMPANIED BY AN OBSERVED INCREASE OF THE ENG RPM TO OVER 115 PERCENT (TOP OF THE INDICATIONS ON THE GAGE) ROTOR RPM REMAINED UNAFFECTED. AFTER A FEW MOMENTS, THE ENGINE RPM NEEDLE `MARRIED` BACK UP WITH THE ROTOR INDICATION, AT WHICH TIME THE MIXTURE WAS PULLED AND THE ENGINE SHUTDOWN UNTIL IT COULD BE EVALUATED BY THE ENGINEERS. UPON THE ENGINEERS INVESTIGATION, THE ROTOR WAS TURNED BACKWARDS AND `CLICKING/GRINDING` NOISES COULD BE HEARD COMING FROM THE CLUTCH SPRAG. AT THE TIME OF THIS REPORT, THE ENG WAS BEING REMOVED FOR AN OVERSPEED INSP, AND CLUTCH ASSY AND LOWER FAN SHAFT BRG WERE BEING REPLACED PRIOR TO RETURNING THE ACFT TO SERVICE. PRELIMINARY INVESTIGATIONS INDICATE THE CLUTCH LET GO, RESULTING IN THE ENGINE BEING ALLOWED TO SPOOL UP WITH NO LOAD ON IT, WHICH RESULTED IN THE SEVERE OVERSPEED CONDITION. IT CANNOT BE DETERMINED YET WHAT CAUSED THE ENG TO MARRY BACK UP WITH THE ROTOR RPM, WHETHER THE CLUTCH GRABBED AGAIN, OR IF THE GOVERNOR FINALLY CAUGHT IT FOLLOWING THE TEARDOWN OF THE C018-2 CLUTCH ASSY, IT WAS NOTED THAT THE SPRAG CLUTCH HAD WORN A GROOVE IN THE BRG HSG, POSSIBLY ALLOWING ONE OF THE SPRAGS TO FLIP/BIND, RESULTING IN THE UNCONTROLLED OVERSPEED.

CA091102004	SKRSKY	SKRSKY	RING GEAR	CRACKED
10/30/2009	S61A		S613522017003	M/R GEARBOX

(CAN) DURING DISASSEMBLY OF THE S61MGB , THE RING GEAR PN: S6135-2201-003 WAS FOUND TO BE CRACKED. ALONG WITH THE RING GEAR, ONE OF THE MOUNTING STUDS WAS BROKEN AND ONE OF THE MS21045-5 MOUNTING NUTS WAS CRACKED. ALSO 3 OF THE BRG SUPPORT MOUNTING STUD HOLE BUSHINGS, IN THE SAME LOCATION THAT THE CRACKS WERE FOUND ON THE RING GEAR, WERE CRACKED. S61MGB THAT WAS LAST O/H IN FEB. 2002.

CA091106002	SKRSKY	RING GEAR	CRACKED

10/21/2009	S61N		S6113522017003	MAIN GEARBOX

(CAN) DURING DISASSEMBLY, THE RING GEAR PN: S6135-22017-003 WAS FOUND TO BE CRACKED. ALONG WITH THE RING GEAR, ONE OF THE MOUNTING STUDS WAS BROKEN AND ONE OF THE MS21045-5 MOUNTING NUTS WAS CRACKED. ALSO 3 OF THE BRG SUPPORT MOUNTING STUD HOLE BUSHINGS, IN THE SAME LOCATION THAT THE CRACKS WERE FOUND ON THE RING GEAR, WERE CRACKED. WAS LAST O/H IN FEB 2002 TECH REP CONTACTED. PRM NOTIFIED AND GEARBOX HELD IN SHORT TERM QUARANTINE PENDING TCCA/OEM RECOMENDATIONS - 23RD OCT 2009. OEM HAS REQUESTED RING GEAR AND ASSOCIATED HARDWARE FOR ENGINEERING EVALUATION. TCCA HAS AUTHORIZED US TO PROCEED WITH REPAIR AND O/H OF MGB -27TH OCT ,2009 MAIN GEARBOX PN S6135-20600-046.

CA100204003	SKRSKY	GE	GEARBOX	MAKING METAL
12/24/2009	S61N	CT581401		NR 1

(CAN) ENGINE CHIP LIGHT IN FLIGHT. NR1 CHIP PLUG CAUSING THE LIGHT TO ILLUMINATE. ON INSP FERROUS DEBRIS WAS FOUND ON PLUG. ENGINE REMOVED FOR FURTHER INVESTIGATION. (TC 20100204003)

CA100119008	SKRSKY	PWA	BLADE	DISLODGED
1/15/2010	S64E	JFTD12A4A		COMPRESSOR WHEEL

(CAN) COMPRESSOR WAS REMOVED FROM ACFT FOR HIGH VIBRATION. COMPRESSOR HAD 20.3 HOURS SINCE INSTALL AND LAST HOT SECTION INSP. UPON DISASSEMBLY, DAMAGE WAS FOUND TO VARIOUS STATORS, BLADES, BLEED BAND, AND OTHER PARTS. THE DAMAGE WAS CUASED BY A 4TH STAGE COMPRESSOR BLADE (PN 536204) THAT HAD DISLODEGED FROM THE DISK. THE BLADE WAS FOUND LODGED NEAR THE 3RD STAGE STATOR. THE TABLOCK (PN 536211) THAT RETAINS THE BLADE WAS MISSING AND IS SUSPECTED TO HAVE BROKEN, CAUSING THE BLADE TO DISLODGE. THE BLADE WAS INSTALLED INTO THE DISK AT LAST O/H 1502.1 HOURS AGO.

CA091113006	SKRSKY	SKRSKY	HOUSING	PEELING
10/7/2009	S76C	763510960004	7635109002055	M/R GEARBOX

(CAN) FAULTY SERMATEL COATING ON NEW UPPER HSG. FOLLOWING WASH AND INSP OF NEW UPPER HSG, IT WAS NOTED THAT THE PROTECTIVE COATING WAS FLAKING OFF IN 2 SPOTS ON INSIDE OF HSG EXPOSING MAGNESIUM CASTING. RETURN TO VENDOR FOR FULL WARRANTY. REQUEST FOR OEM FEEDBACK IN PROCESS .-27OCT 2009 PN 76351-09002-055.

CA091103002	SKRSKY	GE	SKRSKY	MOUNT	CRACKED
11/2/2009	S92A	CT78A	9235115100		M/R GEARBOX

(CAN) UPON PERFORMING THE 10 HR RECURRING INSP, A CRACK WAS DISCOVERED AT THE MAIN GEARBOX RT MOUNT FOOT. THERE ARE 2 BOLTS SECURING THIS FOOT, 1 FWD AND 1 DIRECTLY AFT APPROX3 INCHES APART. THE CRACK EXTENDS FROM THE AFT BOLT HEAD OTBD AND DOWN THE VERTICAL FACE OF THE FOOT TO THE MAIN GEARBOX FOOT MOUNT DECK.

CA100108006	SKRSKY	GE	GEARBOX	MAKING METAL
1/4/2010	S92A	CT78A	9235115100	MAIN ROTOR

(CAN) MAIN GEARBOX CHIP DETECTOR WARNING TRIGGERED IN FLIGHT. THE ACFT RETURNED TO BASE. THE MAIN CHIP DETECTOR WAS REMOVED FROM THE MGB FOR INSP. A PIECE OF FERROUS MATERIAL WAS FOUND ATTACHED . CYLINDRICAL IN SHAPE. APPOX .800IN LONG X .200 IN DIAMETER. ACFT REMOVED FROM SERVICE AND MGB MODULE REPLACED.

2010FA0000209	SNIAS	TMECA	GEARBOX	MAKING METAL
2/22/2010	AS350B2	ARRIEL1D1	350A32030004	MAIN ROTOR

DURING A TOUR FLIGHT THAT DEPARTED AIRPORT, THE MGB CHIP LIGHT ILLUMINATD 3 MINUTES INTO THE FLIGHT. THE PILOT RETURNED TO DEPARTURE WITHOUT INCIDENT. THE MECHANIC INSPECTED THE CHIP PLUGS AND FOUND METAL ON LOWER PLUG. THE OIL WAS CHANGED AND THE CHIP PLUG LIGHT ILLUMINATED AGAIN. THE MAIN GEAR BOX AND OIL COOLER WAS CHANGED.

CA100127011	SNIAS	TMECA	FCU	MALFUNCTIONED

1/7/2010	AS350B2	ARRIEL1D1	0164548720	ENGINE

(CAN) WHEN ACFT WAS ATTEMPTING TO START, THE INITIAL LIGHT OFF WAS ABSENT. THIS OCCURENCE HAPPENED ONLY WHEN ACFT WAS COLD SOAKED, AND NOT ALL THE TIME. IT SEEMS TO HAVE HAPPENED WHEN THE OAT DROPPED TO AT LEAST `0 DEGREES CELSIUS. AFTER MANY TRIES OF ACCESSORY COMPONENT EXHCANGES, IT WAS FOUND THAT WHEN WE CHANGED THE FCU THE PROBLEM HAS GONE AWAY.

KBTR 10 0315	SNIAS	TMECA	OIL COOLER	CONTAMINATED
2/26/2010	AS350B2	ARRIEL1D1	704A33220025	ENGINE

ENGINE CHIP LIGHT ILLUMINATED DURING DESCENT FOR LANDING AT MX BASE. INSPECTED ENGINE CHIP PLUGS, FOUND METAL FUZZ ON ALL PLUGS, AND IN OIL FILTER. ALSO FOUND SAND MEDIA DEBRIS IN OIL FILTER. DURING THIS MAINT CYCLE, ENG OIL COOLER WAS REMOVED DUE LEAKAGE AT UPPER FITTING, FROM POSSIBLE CRACK. THE OIL COOLER WAS REMOVED, SENT TO FAA APPROVE OIL COOLER REPAIR SHOP AND RETURNED IN O/H CONDITION WITH 8130-3.

2010FA0000256	SNIAS		CLAMP	BROKEN
3/23/2010	AS350B3			ZONE 300

AS PART OF A RECURRING 500HR INSP, FOUND DAMAGE TO THE VERTICAL STABILIZER SPAR INTERNAL STRUCTURE DUE TO 2ND CONDUIT CLAMP (ANTI-COLLISION LIGHT WIRING) FROM THE TOP, BROKEN LOOSE. DAMAGE WAS CAUSED BY THE CLAMP AND RIVET RUBBING ON THE SPAR. IN CONTACT WITH MFG FOR FURTHER INSTRUCTIONS. INSPECTION DONE UNDER CUSTOMS MAINTENANCE DIRECTIVE (CMD) CMD-AS350-09-22.

CA100127004	SWRNGN	GARRTT	HOSE	FAILED
12/22/2009	SA226AT	TPE3313U303G	SS1001J000D290	ENGINE OIL

(CAN) THE FLIGHT DEPARTED, AT APPROX 15:06 (CST) THE FLIGHT CREW RECEIVED A CLEARANCE INTO AIRPORT BY THE NDB RUNWAY 18 APPROACH. AFTER SETTING DESCENT POWER F/O NOTICED THE RT ENGINE WAS NOT INDICATING ANY TORQUE. HE BROUGHT THIS TO THE CAPTAINS ATTENTION. CREW THEN NOTED THE INDICATED OIL PRESSURE WAS DROPPING AND PROMPTLY COMPLETED A PRECAUTIONARY SHUTDOWN IAW SOP`S. SHUTDOWN OCCURRED AT APPROX 15:10 (CST). ATC WAS ADVISED. APPROACH WAS COMPLETED AND THE ACFT LANDED SAFELY AT 15:21(CST). THERE WERE NO DELAYS AND NO OTHER FLIGHT ABNORMALITIES NOTED. EXAMINATION OF THE ENG REVEALED A FAILED ENGINE OIL LINE THAT RESULTED IN OIL LOSS IN THE LINE LED TO ITS FAILURE, IT ALSO OVERLOADED THE FWD SCAVENGE PUMP CAUSING ITS FAILURE. LINE AND SCAVENGE PUMP WERE REPLACED. IT WAS NOTED THAT THE LENGTH AND ROUTING OF THESE SUBJECT HOSES IS PARTICULARLY CRITICAL IN THIS INSTALLATION. WHEN THE LOWER COWLING IS OPENED, WHAT APPEARS TO BE THE BEST LENGTH AND ROUTING IS IN FACT NOT THE MOST OPTIMAL WHEN THE COWLING IS SECURED INTO ITS NORMAL POSITION.

CA091113005	SWRNGN	GARRTT	BEARING RACE	FAILED
11/6/2009	SA226TC	TPE33110UA	M2040AC2	STARTER GEN

(CAN) ACFT SUFFERED A RT GENERATOR FAILURE ON DECENT. THE GENERATOR FAIL LIGHT ILLUMINATED IN THE COCKPIT BUT NO ADVERSE RESULTS FROM THE FAILURE OCCURED. MX REPLACED THE GENERATOR FOR INSP AND FOUND THAT THE REAR SUPPORT BRG HAD FAILED, MOST LIKLEY DUE TO OVERHEATING OR POOR LUBRICATION. THIS BRG IS SEALED AND CANNOT BE SERVICED IN THE FIELD.

CA091117006	SWRNGN	GARRTT	LINE	CRACKED
11/5/2009	SA226TC	TPE33110UA	2781006003	HYDRAULIC SYS

(CAN) UPON SELECTING GEAR DOWN ON FINAL, ACFT EXPERIENCED 2 HYD WARNING LIGHTS, CREW DECLARED AN EMERGENCY. ON THE INITIAL GEAR EXTENSION THE ACFT INDICATED ALL 3 LANDING GEARS DOWN AND LOCKED BUT JUST IN CASE THE CREW ELECTED TO DO THE EMERGENCY GEAR EXTENSION. MX DISCOVERED A CRACK IN THE RADIUS OF PN 27-81006-003 HYD LINE NEAR THE POWERPACK. A NEW LINE WAS FABRICATED AND A LOSS OF HYD, INSP WAS COMPLETED.

CA091222006	SWRNGN	GARRTT	WINDSHIELD	CRACKED
12/10/2009	SA226TC	TPE33110UA	2719442003	COCKPIT

(CAN) ON DECENT FOR LANDING. THE CREW NOTICED THE CAPTAINS HEATED FRONT WINDSHIELD HAD A LARGE

CRACK THAT SPIDERED DOWN THE WINDOW.

CA091222007	SWRNGN	GARRTT	WINDSHIELD	CRACKED
12/11/2009	SA226TC	TPE33110UA	2719442003	COCKPIT

(CAN) APROX 60 NM NORTH WEST, IN CRUISE THE CREW HEARD A LOUD CRACKING NOISE AND NOTICED THE LT HEATED WINDSHIELD HAD SHATTERED. THE CREW IMMEDIATELY STARTED DECENT AND DECREASING THE CABIN DIFFERENTIAL TO ZERO. THESE WINDOWS ON THE METRO ACFT CONTINUE TO FAIL EARLY. THIS WINDOW LASTED ONLY 16 MONTHS.

CA100114006	SWRNGN	GARRTT	WINDSHIELD	CRACKED
1/12/2010	SA226TC	TPE33110UA	2719442004	COCKPIT

(CAN) WHILE IN CRUISE, RT WINDSHIELD CRACKED. CREW DIVERTED TO MAIN BASE. REPLACED WINDSHIELD. TOTAL TIME 944.3 HOURS, 2 YEARS IN SERVICE APPROX. NUMEROUS FAILURES OF THIS TYPE, BUT NOT MANY WITH THIS LOW OF HOURS ON IT.

CA091118009	SWRNGN	GARRTT	STOP	BROKEN
11/10/2009	SA226TC	TPE33110UA	2754000169	RELEASE HANDLE

(CAN) ON APPROACH WHEN THE GEAR WAS SELECTED DOWN ONLY 2 MAINS WENT GREEN. CREW DIDN'T GET THE RED IN TRANSIT ON NOSE GEAR EITHER, THEY RECYCLED THE GEAR SEVERAL TIMES, WITH NO LUCK. AFTER TROUBLESHOOTING SELECTED GEAR DOWN AGAIN AND NOTHING HAPPENED. THEY PULLED LANDING GEAR CONTROL CIRCUIT BREAKER AND RESET IT, WITH NO CHANGE. THEY CHECKED SPINNER AND COULD SEE THE NOSE GEAR IN IT AND IT WAS EXTENDED. THEY DID EMERGENCY GEAR EXTENSION AND STILL DIDN'T GET ANY LIGHTS INDICATING ON THE NOSE GEAR (RED OR GREEN). ONCE IT BECAME CLEAR THAT NOTHING THEY WERE TRYING WAS GOING TO GET THE LIGHT TO COME ON, WE DECIDED TO TRY TO BRING THE GEAR UP AND HEAD FOR THOMPSON. THE F/O TRIED TO PUT FREE FALL HANDLE FOR EMERGENCY GEAR RELEASE UNDER HIS SEAT BACK TO NORMAL POSITION, BUT EVERYTIME HE DID, IT PUT DOWNWARD FORCE ON THE CONTROL COLUMN. WHEN HE WOULD TRY TO ROTATE THE HANDLE FWD, CONTROL COLUMN WOULD BE FORCED DOWN AND THE PLANE WOULD NOSEDIVE. THEY DECIDED TO LEAVE THE GEAR DOWN AND LANDED WITHOUT FURTHER INCIDENT. MX WAS DISPATCHED TO LOCATION AND DISCOVERED THAT THE 27-54000-169 STOP ASSY FOR THE EMERGENCY RELEASE HANDLE WAS BROKEN AND ALLOWED THE EMERGENCY RELEASE HANDLE TO TRAVEL PAST THE 90 DEGREE ROTATION PERMISSIBLE. THIS CAUSED THE RELEASE CABLE BOLT ATTACHED TO THE HANDLE TO SNAG THE ELEVATOR CONTROL CABLES FOR THE SAS(STALL AVOIDANCE SYS) SERVO. WHEN THE HANDLE WAS ATTEMPTED TO BE MOVED THE BOLT WOULD GRAB THE CABLE AND CAUSE THE ELEVATORS TO PUSH THE NOSE OF THE ACFT DOWN. NO DEFINITIVE REASON FOR THE BROKEN STOP WAS FOUND BUT FATIGUE FROM YEARS OF OPERATION IS SUSPECTED. A LANDING GEAR FUNCTIONAL CHECK WOULD HAVE BEEN COMPLETED WITHIN THE PREVIOUS 300 HOURS ON PHASE INSP AND WOULD HAVE PASSED THE FUNCTIONAL CHECK OF THE EMERGENCY GEAR EXTENSION. (TC 20091118009)

CA100126005	SWRNGN	GARRTT	VALVE	UNSERVICEABLE
1/26/2010	SA227*	TPE33111U	701000121	ENGINE

(CAN) PART FAILED DURING NTS SYS CHECK. AFTER ENG REPAIR DUE TO BIRD INGESTION, DURING ENGINE TEST, AN NTS SYS CHECK WAS ACCOMPLISHED AND THE NTS SYS DID NOT TRIP. THE NTS VALVE WAS REPLACED WITH A NEW UNIT AND THE NTS SYS WORKED PROPERLY. TTSN=1018.7 HRS.

CA100201004	SWRNGN	GARRTT	ACTUATOR	BINDING
1/28/2010	SA227*	TPE33111U		PITCH TRIM

(CAN) PITCH TRIM ACTUATOR FOUND TO BE BINDING AT THE FULL NOSE UP POSITION WHEN GOING FROM FULL NOSE UP TO NOSE DOWN AND MAKING A CLUNKING NOISE. NEW ACTUATOR IN SLATTED AND OLD ACTUATOR REMOVED FROM SERVICE AND ACFT RETURNED TO SERVICE (TC 20100201004).

CA100212002	SWRNGN	GARRTT	FCU	INTERMITTENT
2/4/2010	SA227*	TPE33112UHR	8978012	LT ENGINE

(CAN) CREW REPORTED THAT UPON LANDING THE LT THROTTLE WAS REDUCED FOR LANDING AND THE TORQUE DID NOT DROP BELOW 23 PERCENT. ACFT DID A GO AROUND AND THE 2ND ATTEMPT, THE TORQUE DROPPED TO MFG SPECIFICATIONS FOR LANDING. MX INVESTIGATED AND DID NOT FIND ANYTHING ABNORMAL - ALL CHECKS

WERE IAW MFG SPECIFICATIONS. THE FCU WAS REPLACED AS IT WAS DETERMINED THAT THIS WAS THE ONLY COMPONENT THAT COULD HAVE CAUSED THE SITUATION. THE FCU WILL BE SENT TO O/H SHOP FOR A RUN AS RECEIVED INSP AND POSSIBLE TEAR DOWN AFTER THAT TO DETERMINE IF INDEED IT WAS AT FAULT (TC20100212002)

CA100217002	SWRNGN	GARRTT	INDICATOR	INOPERATIVE
2/14/2010	SA227AC	TPE33111U	5040021908	ATTITUDE

(CAN) WHILE IN CRUISE FLIGHT THE CAPTAIN`S ATTITUDE INDICATOR FLAGGED. SHORTLY THEREAFTER AN ELECTRICAL SMELL WAS NOTED BY THE CREW FOLLOWED BY THE FACE OF THE INDICATOR FILLING WITH SMOKE. THE INDICATOR WAS ISOLATED BY PULLING THE CONTROL CIRCUIT BREAKER AND THE SMOKE EVENTUALLY DISSIPATED FROM THE INDICATOR. ACFT CHANGED IT`S ROUTING AND LANDED WITHOUT INCIDENT. MX INSPECTED THE ACFT SYS TO DETERMINE THE CAUSE. ALL CONNECTIONS AND WIRING WERE INSPECTED AND METERED, AND VOLTAGES AND GROUNDS CHECKED TO ENSURE THERE WERE NO FAULTS WITH THE SYS WIRING. REMOVED INDICATOR WAS NOTED TO HAVE A STRONG ELECTRICAL ODOR FROM WITHIN THE UNIT. A REPLACEMENT INDICATOR WAS INSTALLED AND ALL APPLICABLE FUNCTION CHECKS COMPLETED AND THE ACFT RELEASED. (TC 20100217002)

CA091030006	SWRNGN	GARRTT	TERMINAL	BURNED
10/30/2009	SA227AC	TPE33111U		CURRENT LIMITER

(CAN) LEVELING AT 16000 FT ON A DIRECT TRACK . IT WAS NIGHT AND CREW WERE IN IMC SINCE CLIMBING THROUGH ABOUT 1000 AGL. ALL ICE PROTECTION AND A MAJORITY OF INTERNAL AND EXTERNAL LIGHTING WAS ON. DURING LEVEL OFF F/O NOTICED A SUBTLE STRANGE ODOR IN THE COCKPIT AND POINTED IT OUT TO THE CAPTAIN WHO ALSO NOTICED THE ODOR AND INITIALLY THOUGHT IT WAS FROM THE CARGO AREA. WITHIN ABOUT 30 SECONDS FROM FIRST NOTICING, THE ODOR BECAME A VERY ACRID ELECTRICAL ODOR. F/O BEGAN COUGHING, BUT NO SMOKE WAS NOTICED. AT THIS POINT THEY IMMEDIATELY TURNED BACK AND ADVISED ATC. JUST PRIOR TO TURNING BACK THE CREW BEGAN CHECKING THE BUSS BREAKER PANELS AND ELECTRICAL LOADS. ALL WAS NORMAL. RIGHT AFTER TURNING BACK THEY DECREASED THE CABIN TEMP AND TURNED DOWN THE CABIN LIGHTS. UPON DESCENT THE ODOR BEGAN TO DEMINISH AND ALL ELECTRICAL INDICATIONS CONTINUED TO INDICATE AND FUNCTION NORMALLY. ACFT LANDED SAFELY. MX DISCOVERED THAT THE 225 AMP CURRENT LIMTER WAS BURNED AT THE CONNECTION TO THE BUSS BAR INSIDE THE COCKPIT JUNCTION BOX. IT WAS NOT KNOWN FOR CERTAIN IF THE CONNECTION WAS LOOSE AT THE CURRENT LIMITER AS THE NUT AND WASHERS WERE WELDED TOGETHER BUT THE TERMINAL WAS CORRODED WHICH WOULD HAVE CAUSED A HIGH RESISTANCE TERMINATION. THE AREA WAS CLEANED OF CORROSION AND A NEW CURRENT LIMITER AND PN 4164 MOUNT INSTALLED. NO FURTHER OVERHEATING WAS DETECTED AFTER FLIGHT TO BASE. AN EXISTING SB ISSUED BY MFG SB 227-24-003 IS NOT APPLICABLE TO THE SN ACFT IN QUESTION. THIS SB IS FOR INSP OF BUS WIRE TERMINALS INSIDE THE JUNCTION BOX. (TC 20091030006)

CA100108003	SWRNGN	GARRTT	WINDSHIELD	DELAMINATED
1/7/2010	SA227AC	TPE33111U	2719442004	COCKPIT

(CAN) IN CRUISE THE CREW NOTICED SPARKS AND HOT GLOWING SPOTS ON THE F/O HEATED WINDSHIELD. MX NOTED A LARGE AREA OF DELAMINATION PRIOR TO REPLACING THE WINDOW.

CA091229001	SWRNGN	GARRTT	WINDSHIELD	CRACKED
12/28/2009	SA227AC	TPE33111U	2719442003	COCKPIT

(CAN) IN MID-CRUISE AT FL220, THE CAPTAIN`S WINDSHIELD CRACKED. THE CREW DECENDED TO A100, SLOWED TO 190 AND DECREASED THE CABIN DIFF WINDSHIELD HEAT WAS ON HIGH AT THE TIME OF THE OCCURANCE. THIS WINDOW WAS IN SERVICE FOR A TOTAL OF 14 MONTHS.

CA091211010	SWRNGN	GARRTT	SWITCH	BURNED
11/27/2009	SA227AC	TPE33111U	AN32302	COCKPIT

(CAN) BURNING SMELL COMING FROM BEHIND THE CAPT CHAIR THE LT ESSENTIAL BUSS TIE SWITCH WAS EXTREMELY HOT TO TOUCH. BURNING SMELL AND HOT, SWITCH REMAINED ON FOR DURATION OF THE FLIGHT. ON TAXI FROM APRON TO HANGER THE LT ESSENTIAL BUS TIE SWITCH WAS TURNED OFF AND SWITCH COOLED DOWN BY TIME ACFT REACHED HANGER. SWITCH WAS REPLACED AND NO MORE HOT BURNED ODOR. ACFT RETURNED TO SERVICE.

CA091113011	SWRNGN	GARRTT	WINDSHIELD	FAILED
11/8/2009	SA227AC	TPE33111U	2719442004	COCKPIT

(CAN) ACFT TOOKOFF AND AFTER APPROX 15 MINUTES THE F/O WINDSHIELD OUTER PANE SHATTERED. ACFT WAS PRESSURIZED AND WINDSHIELD HEAT WAS ON. ACFT RETURNED TO BASE WITHOUT INCIDENT AND WINDSHIELD WAS REPLACED.

CA100202003	SWRNGN	GARRTT	ACTUATOR	MALFUNCTIONED
1/27/2010	SA227AC	TPE33111U	2719008007	PITCH TRIM

(CAN) DURING INSP IT WAS NOTED THAT THE HORIZ STAB HAD EXCESSIVE PLAY AT THE L/E. WHEN THE FREE PLAY CHECK WAS CARRIED OUT ON THE ACTUATOR IT WAS NOTED THAT THE MEASUREMENT WAS .027 WHICH IS ABOVE THE MAXIMUM ALLOWED. UNIT REPLACED AND ACFT RETURNED TO SERVICE. (TC 20100202003)

W59R29790	UNIVAR	CONT	PROPELLER	DAMAGED
2/26/2010	415C	A75*	1A90CF7351	

SUBMITTED FOR OVERHAUL DUE TO VIBRATION OVER 1500 RPMS. PROPELLER WAS FOUND WITH POSSIBLE ELECTRICAL ARC BURNS ON SEVERAL PLACES IN THE AIRFOIL OF BOTH BLADES AND A 1.5 INCH LONG CRACK ON THE OUTSIDE OF THE HUB.

2010FA0000208	WTHRLY	PWA	RIB	CRACKED
2/8/2010	620B	R985AN1	50022001	LT WING

MOST L/E RIBS CRACKED AT UPPER AND LOWER AFT CORNERS WHERE ATTACHED TO FWD HINGED HALF. 50 PERCENT TO LT WING RIBS WERE CRACKED AS WERE 90 PERCENT OF RT WING RIBS. THESE RIBS REQUIRED REPAIR AND REINFORCEMENT. OTHER ACFT MAY REQUIRE SIMILAR ACTION.

CA100212001	ZLIN	LYC	STRUT	BROKEN
2/11/2010	Z242L	AEIO360A1B6	L24266701310B	EXHAUST

(CAN) WHILE A 50HR INSP WAS BEING CARRIED OUT ON THE ACFT, IT WAS DISCOVERED THAT THE EXHAUST STRUT WAS BROKEN IN HALF APPX MID SECTION OF THE SHAFT. IT WAS OBSERVED THAT THERE WERE NO SIGNS OF CORROSION, BENDING, OR OBVIOUS DAMAGE TO THE PART TO CAUSE IT TO FRACTURE IN THIS AREA. (TC 20100212001)

CA100120002	ZLIN	LYC	TUBE FRAME	CRACKED
1/7/2010	Z242L	AEIO360A1B6	L2421100000C	FUSELAGE

(CAN) A CRACK WAS DISCOVERED IN THE AIRFRAME TUBING STRUCTURE FWD OF THE LT RUDDER PEDAL TORQUE TUBE SUPPORT LOCATION. THE CRACK WAS NOTED DURING A 100 HOUR INSP. THE CRACK APPEARED TO HAVE DEVELOPED QUICKLY WITHIN THE LAST 50 HOURS OF OPERATION. THE CRACK EXTENDS 75 PERCENT AROUND THE SQUARE TUBING.