



U.S. Department
of Transportation

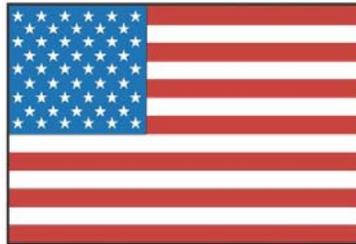
**Federal Aviation
Administration**

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



**ALERT
NUMBER**
377



DECEMBER
2009

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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

Beech: A36; Loose Exhaust Manifold Pipe; ATA 7810

"During an accident investigation," writes an unidentified submitter, "(I) found the top L/H engine cowling with evidence of fire (*damage*) and burned holes. The L/H exhaust manifold pipe was lying loose, and the L/H clamp for the turbo-compressor was broken and lying in the bottom of the engine cowl. This aircraft was destroyed in fire, (*sustaining*) one fatality. The engine had separated (*from the fuselage and lay 25 feet from the wreckage*). It was fully intact and still in the cowling." (*Exhaust clamp P/N: MVT69183200LW1.*)



(The installed engine is a Lycoming TIO540J2B.)

Part Total Time: 2,255.0 hours (aircraft time)

Canadair: CL600 (see list); Elevator Cable Chafing Conduit; ATA 2730

(Transport Canada provides the following advisory.)



Transport
Canada

Transports
Canada

TP 7394

No.		1/3
N°	AV-2009-04	
Date	2009-09-29	

**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.

**CANADAIR CHALLENGER CL-600-2A12,
CL-600-2B16 SERIES 601, 601-3A AND 601-3R**

**ELEVATOR CABLE VERTICAL STABILIZER
AREA**

Transport Canada Civil Aviation (TCCA), through the Web Service Difficulty Reporting System, was made aware of three cases where the elevator cable assembly Part Number (P/N) 600-90020-125, located in the vertical stabilizer just above rib #4, was found rubbing against and had partially worn through the electrical conduit P/N 601-56004-41(LH). Some of the electrical wires inside the conduit for the horizontal trim actuator (HTA) were damaged, but the HTA system was still operational. (See Appendix "A")

The above defects were found while conducting the 180 and 240 months inspections. Maintenance records were researched but the cause of the cable/conduit interference could not be identified.

Bombardier Aerospace has revised the aircraft maintenance manual (AMM) and will publish an Advisory Wire (AW) addressed to all operators. The AW will emphasize the importance of cable inspections, especially in the vertical stabilizer.

TCCA recommends that maintenance personnel pay extra attention during the next scheduled cable inspection to ensure that the entire cable run is fully inspected as per the AMM. Confined areas that are difficult to gain access to warrant close examination to ensure adequate clearance exist to prevent interference.

**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.

**CANADAIR CHALLENGER CL-600-2A12,
CL-600-2B16 DES SÉRIES 601, 601-3A ET
601-3R
CÂBLE DE PROFONDEUR PASSANT DANS
LA DÉRIVE**

Transports Canada, Aviation civile (TCAC) a appris par le Système Web de rapports de difficultés en service, l'existence de trois cas au cours desquels le câble de profondeur de référence (réf.) 600-90020-125 situé dans la dérive juste au-dessus de la nervure n° 4 a été trouvé frottant contre la gaine électrique de réf. 601-56004-41(Droite) qu'il avait partiellement usée. Certains des fils électriques à l'intérieur de la gaine électrique alimentant le vérin du compensateur de profondeur (HTA) étaient endommagés, mais le HTA était toujours fonctionnel. (Voir Appendice « A »)

Les défauts en question ont été découvertes pendant des inspections aux 180 et aux 240 mois. Une recherche dans les dossiers de maintenance n'a pas permis d'établir la cause de l'interférence entre le câble et la gaine.

Bombardier Aéronautique a révisé le manuel de maintenance de l'aéronef (AMM) et publiera un avis de sécurité (AW) destiné à tous les exploitants, lequel insistera sur l'importance de bien inspecter les câbles, et notamment ceux passant dans la dérive.

TCAC recommande au personnel de maintenance de bien s'assurer au cours de la prochaine inspection planifiée que ce câble soit inspecté sur toute sa longueur, conformément à l'AMM. Les endroits exigus difficiles d'accès devront être examinés de très près afin de garantir la présence d'un espacement suffisant empêchant toute interférence.

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

24-0028 (01-2005)

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.



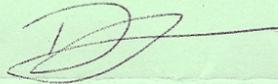
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Defects, malfunctions and failures occurring on aeronautical products should be reported to TCCA as per CAR 591 Service Difficulty Reporting requirements. For further information, contact a Transport Canada Center, or Mr. Guy Richard, Continuing Airworthiness, Ottawa at 613-952-4357, facsimile 613-996-9178, or email [CAW WEB Feedback@tc.gc.ca](mailto:CAW_WEB_Feedback@tc.gc.ca).

Les défauts, les mauvais fonctionnements et les pannes de produits aéronautiques devraient être signalés à TCAC, conformément aux exigences du RAC 591, Rapports de difficultés en service. Pour de plus amples renseignements, communiquer avec un Centre de Transports Canada ou avec M. Guy Richard, Maintien de la navigabilité aérienne, à Ottawa, téléphone 613-952-4357, télécopieur 613-996-9178 ou courrier électronique [CAW WEB Feedback@tc.gc.ca](mailto:CAW_WEB_Feedback@tc.gc.ca).

For Director, National Aircraft Certification

Pour le directeur, certification des aéronefs



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

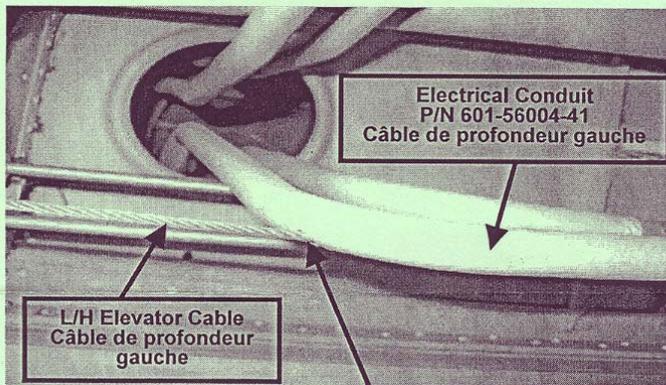
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APPENDIX "A" / APPENDICE « A »

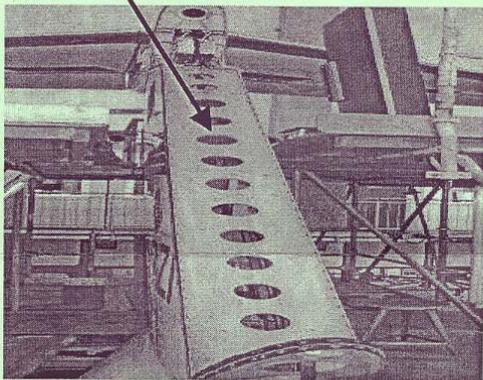
Top view looking down / Vue du dessus vers le bas



Electrical Conduit
P/N 601-56004-41
Câble de profondeur gauche

L/H Elevator Cable
Câble de profondeur
gauche

Area to inspect can be viewed through the spar once the vertical leading edge is removed or through panel 321 GL L/H side of Vertical Stabilizer.
La partie à inspecter est visible à travers le longeron, une fois que le bord d'attaque vertical a été déposé ou, à travers le panneau 321 GL du côté gauche ou de la dérive



www.tc.gc.ca/CivilAviation/certification/menu.htm

Part Total Time: (n/a)

Cessna: 560; Chafing Wire Bundle; ATA 7797

A technician states, "During unscheduled maintenance, a wire bundle was discovered chafing to the point of exposing the copper wire to the N1 (*engine: low pressure section*) indicating system. Also, a conditioned air hard tube was chafed by a flex duct (*in addition to*) a service air line. All damage occurred in the hellhole below the J-box, adjacent to the R/H vertical web. All damage has been repaired."







(Your photo efforts should drive some folks into the hellhole for a second look. Thank-you. No part numbers accompanied this report.)

Part Total Time: 5,241.0 hours (aircraft)

Piper: PA28-181; Chafed Wheel Rims; ATA 3246

The Director of Maintenance for an aviation flight school writes, "We operate five Piper Archer aircraft—all aircraft range from 1,500 to 4,000 hours total time. We have now had to start replacing wheel assemblies on many aircraft due to the Airhawk tires wearing a groove into the (*inner rim*) of the (*outboard*) wheel half. All of our tires are in good condition and under-inflation is not an issue." "I feel Parker and McCreary (*wheel and tire manufacturers*) should get together and determine why this (*wheel wear*) is occurring." (*McCreary Airhawk tires: 6:00 x 6; Parker wheel assembly P/N 40-86B.*)

Part Total Time: 2,750.0 hours (low/high average)

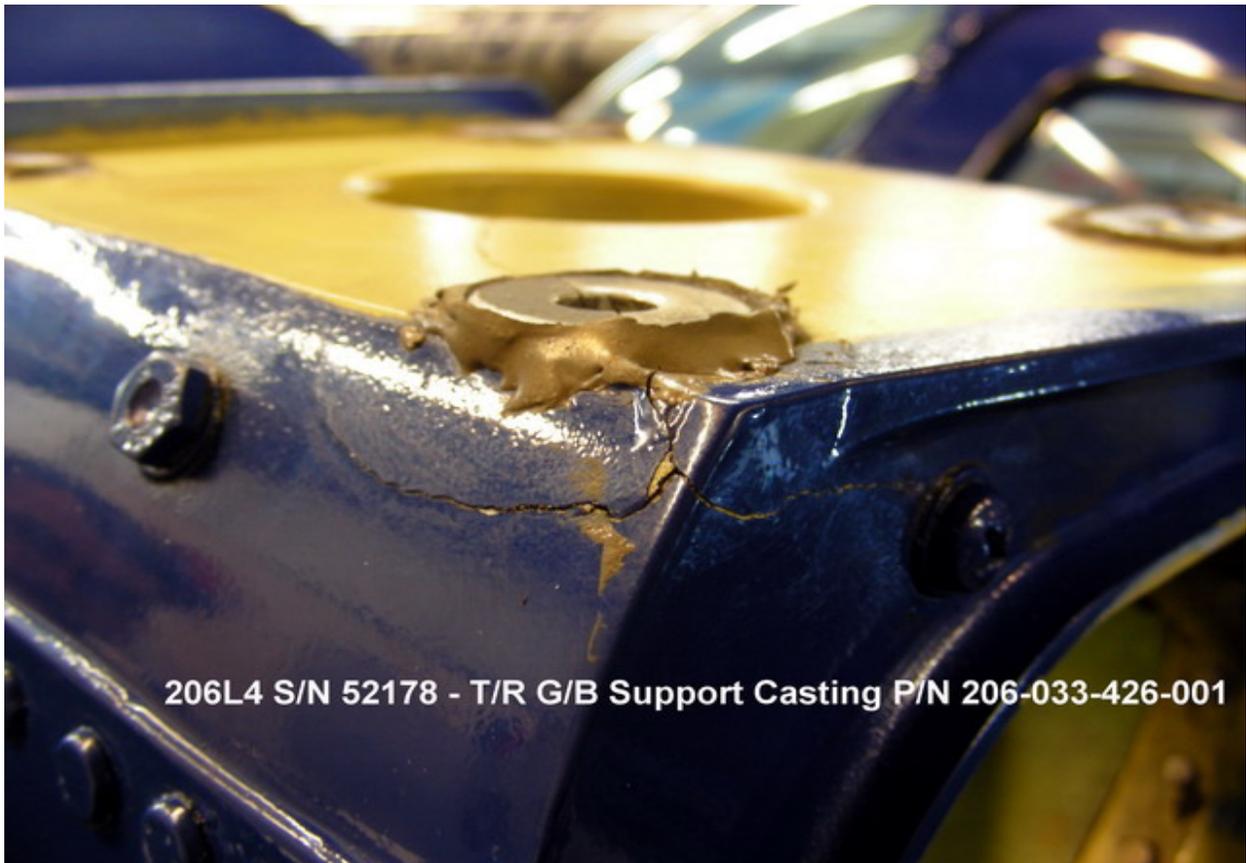
HELICOPTERS

Bell: 206L4; Cracked Tail Rotor Gear Box Mount Casting; ATA 5302

(An unidentified submitter provides few words for this defect report. On the other hand, the six attached photographs illustrate the problem rather dramatically.)

"During inspection of this aircraft, a crack was identified in the tail rotor gear box support fitting (P/N 206-033-426-001) at approximately the 7 o'clock position. This ship is fitted with a High Altitude Tail Rotor Kit." *(Four similar cracked mount reports list in the SDRS database.)*





206L4 S/N 52178 - T/R G/B Support Casting P/N 206-033-426-001







(Thank-you for the photography effort! Horizontal distortions are the editor's manipulations for article placement/fit. Next time, please include some speculation as to cause. This report and its photographs will certainly generate some interest—Ed.)

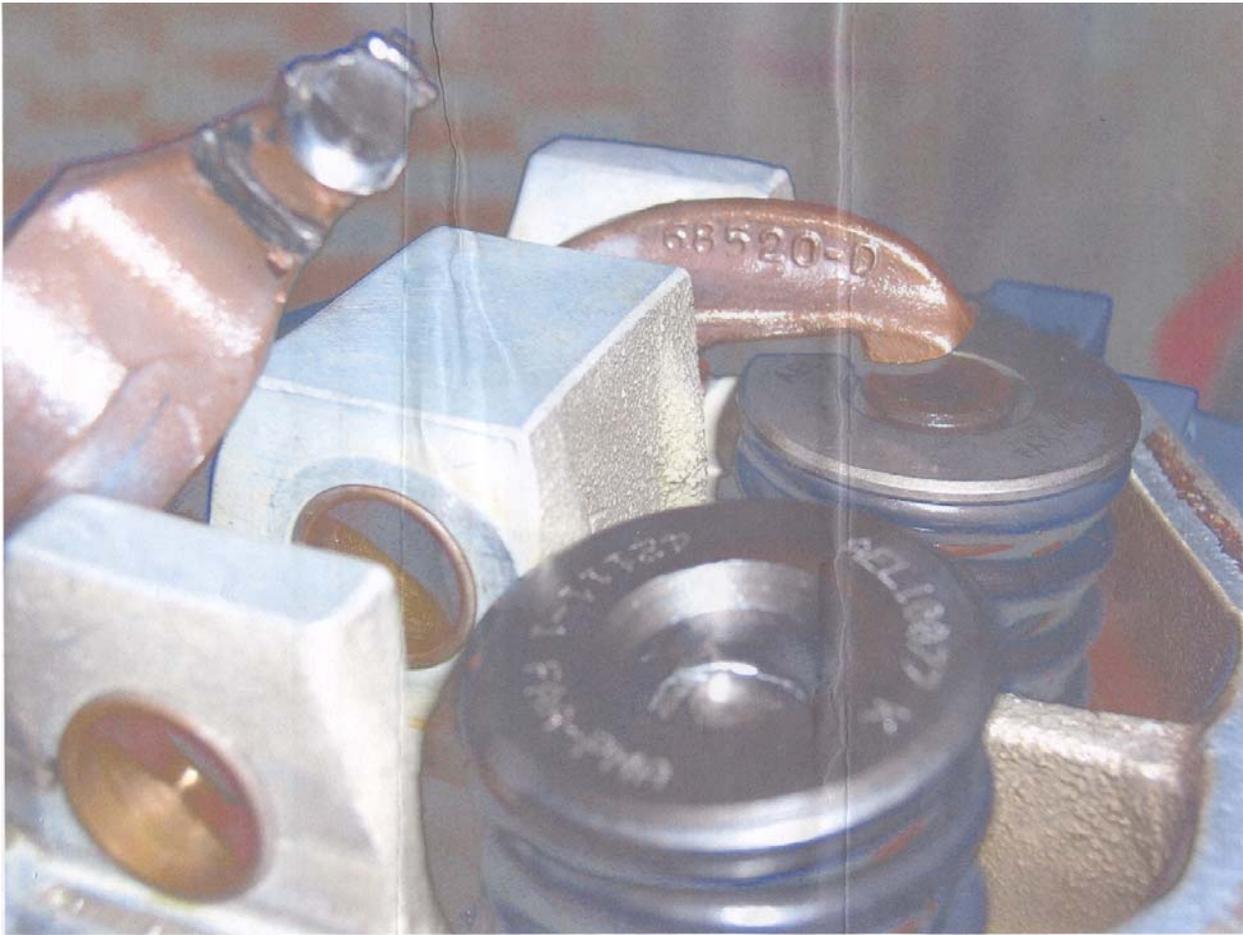
Part Total Time: 3,602.0 hours

POWERPLANTS

ECI Cylinder: (*unknown*); Failed Valve Keys; ATA 8530

(Several ECI part numbers were included for this Lycoming O320 discrepancy report, but not the cylinder assembly number.)

"The valve keys (P/N 60009) are pulled through the (*spring*) seat (P/N AEL 10077)," says this repair station submitter. "The rocker arm tip is destroyed. A hole wore through the valve cover from the upper spring seat, and the (*valve*) keys were stuck on the valve stem. This valve stem is damaged and will not pass through the valve guide." (*See last month for a very similar report and additional photographs.*)



Part Total Time: (unknown)

Lycoming: O360-A4M; Cracked Crankshaft; ATA 8520

A repair station technician states, "This aircraft was flying at 5,000 feet when the engine started to lose power—then failed. It landed safely in a field. Found to be locked-up, the engine was disassembled and the components inspected. The crankshaft was found to have cracked and it was separated at the forward end of the number four crankpin journal. (*This*) caused the engine to lock- up. The probable cause has not been determined at this time." (*Crankshaft P/N: 13B27134.*)

Part Total Time: 4,234.4 hours

Rotax: 912ULS; Leaking Fuel Pumps; ATA 7314

(The following engine report describes difficulties from the use of alcohol-blended gasoline in an amateur-built, experimental aircraft model known as Aircam. Hence, the aircraft manufacturer is the individual builder.)

A submission from an *aircraft manufacturer* states, "Both engine primer lines (*no P/N*) and fuel pumps (*P/N 892.545*) failed. The primer lines disintegrated and the fuel pumps started leaking almost simultaneously after fifteen hours exposure to fuel containing up to 10% ethanol." (*Here the submitter references a third party citation which has led him to believe up to 15% ethanol mix was satisfactory for engine operation.*) "This could be a major safety issue for Rotax users.

"Many LSA (*light sport aircraft*) and experimental aircraft use Rotax engines. The use (*or not*) of automotive gasoline containing ethanol should be clarified (*as to appropriate engine application*), in my opinion."

(There may be several, unidentified issues at play here. One consideration may be some particular or unique blend whose combination is too corrosive for the fuel lines and pumps. I too am a 912 owner, but for the moment it remains a gas-starved garage icon. Allow this editor two suggestions: 1) get a piece of new fuel line and soak it for two weeks in the exact same fuel blend with which you have experienced problems. Afterwards, if it cannot survive reasonable stretching, manipulation, and/or if it demonstrates swelling and softening—then 2) please contact again your indicated source and discuss your experiment. I have had the pleasure of one training class under the gentleman I believe you are referencing. If the same, he is an incredibly competent and knowledgeable individual who can quote gasoline blends and octane formulations as though they were cake recipes. Given you have a heretofore, unknown fuel blend dissolving lines, then I can assure you that man would want to know. So too would this editor, and thousands of other owner/operators, appreciate your submitting future developments in this matter. Anecdote: my 13:1 compression ratio motorcycle engine runs erratic and often stalls on any ethanol blends! Certainly I try to avoid said fuels, but at two years old the new Beemer has had to eat its share of that horrible fuel, but nary a leak for the trouble. Conversely, I stick anything in my truck, and at 11 years it too has never leaked a drop. But finding clean, un-adulterated gasoline is a problem only destined to grow larger. Beware....)

Part Total Time: (unknown)

ACCESSORIES

Kelly Turbocharger: Cf6005739000; Leaking Oil Seals; ATA 8120

(This report originates from a Piper PA34-200T and its Continental LTSIO360EB engines.)

An unidentified technician writes, "After installing a Kelly overhauled turbocharger, one hour of flight time was put on the part. After several days of unrelated maintenance—and waiting for VFR weather—the aircraft was scheduled for another test flight. On preflight inspection, it was noticed that oil had pooled (*on the ramp*)—it was dripping from the lower cowling; right engine. After investigating it was determined that the oil seals inside the turbocharger were leaking.

"Maintenance installed another turbocharger overhauled by Kelly Aerospace and the aircraft was test flown. No defects were noted. After several days of other unrelated maintenance and (*again*) waiting for VFR weather, another test flight was scheduled. Once again, oil was found on the preflight inspection, coming from the right engine. After investigating, it was determined that the oil seals inside the turbocharger were leaking. We are in process of replacing this (*second*) turbocharger with (*a third unit*)."

Part Total Time: 1.0 hours.

(Most Aircraft): Flush-Mount Fuel Cap Admonition; ATA 2810

(Transport Canada provides the following safety advisory.)



Transport
Canada

Transports
Canada

TP 7394

No.		1/3
N°	AV-2009-05	
Date	2009-09-30	

**SERVICE DIFFICULTY
ADVISORY**

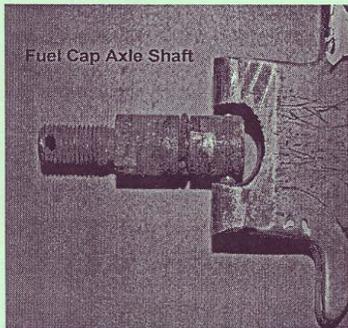
This Service Difficulty Advisory brings to your attention a potential problem identified by the Service Difficulty Reporting Program. It is a non-mandatory notification and does not preclude issuance of an airworthiness directive.

Inspection & Maintenance Guidelines for Flush-Mounted Fuel Caps.

Purpose: The purpose of this Advisory is to inform the aviation community of the importance of properly inspecting and maintaining aircraft flush-mounted fuel caps.

Background: The Canadian Transportation Safety Board (TSB) Aviation Safety Information Letter A08W0197-D1-L1, identifies a lack of specific original equipment manufacturer (OEM) inspection and maintenance guidelines for flush-mounted fuel caps.

Fuel caps from an accident aircraft were tested to simulate the fuel pressure within an aircraft fuel tank. No leakage is considered permissible. The fuel caps leaked by the axle and handle assembly with a minimum pressure of 0.5 psi. Following disassembly and inspection, O-rings on the axle shaft were found cracked and broken. The corrosion on the axle shafts indicated long-term exposure to moisture. (see attached photo).



An important part of the aircraft preflight inspection is to drain fuel tank sumps, reservoirs, gascolators, filters, and other fuel system drains to assure the fuel supply is free of water. If water were to be detected, a deteriorated fuel cap would be a prime suspect. It is also important to verify that the fuel cap is properly seated, that it is properly sealed, and that any deteriorated parts are replaced. Excessive water should be brought to the attention of the maintainer, who in turn will investigate the source.

**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.

Conseils d'inspection et d'entretien des bouchons encastrés d'avitaillement en carburant

Objet : Le présent Avis a pour objet d'informer le milieu aéronautique de l'importance de bien inspecter et entretenir les bouchons encastrés d'avitaillement en carburant des aéronefs.

Contexte : La Lettre d'information sur la sécurité aérienne A08W0197-D1-L1 publiée par le Bureau de la sécurité des transports du Canada (BST) fait état d'un manque de conseils d'inspection et d'entretien précis de la part des fabricants originaux (OEM) de bouchons encastrés d'avitaillement en carburant.

Les bouchons d'avitaillement d'un avion accidenté ont été soumis à un test reproduisant la pression qui règne à l'intérieur d'un réservoir de carburant de l'avion. Bien qu'aucune fuite ne soit tolérée, les bouchons se sont mis à fuir au niveau de l'axe et de la poignée sous une pression aussi faible que 0,5 lb/po². Après démontage et inspection, il est apparu que les joints toriques de la tige de l'axe étaient criqués et cassés. La corrosion présente sur la tige des axes était telle que l'exposition à l'humidité remontait à un certain temps déjà (voir la photo ci-jointe).

Un point important de l'inspection prévol d'un avion consiste à purger les puisards, les bâches, les filtres et autres dispositifs de purge des réservoirs de carburant afin d'assurer que le moteur soit alimenté par un carburant exempt de toute trace d'eau. En présence d'eau, un bouchon d'avitaillement abimé doit être considéré comme le principal suspect. Il importe également de vérifier que le bouchon a une bonne assise, qu'il joint hermétiquement et que toute pièce abimée est remplacée. Une présence d'eau excessive devrait être signalée au personnel d'entretien, lequel se chargera alors d'en découvrir la provenance.

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

24-0028 (01-2005)

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Some aircraft manufacturers, such as Cessna, have developed detailed guidelines for inspection and maintenance of flush mounted fuel caps (Service Information Letters SE80-59 and SE82-34). Some fuel cap OEMs consider the fuel caps to be a return item if repair, including O-ring replacement, or overhaul is required.

The Federal Aviation Administration's (FAA) Advisory Circular AC 43.13-1B, titled *Acceptable Methods, Techniques and Practices – Aircraft Inspection and Repair*, is a primary maintenance reference to be used when the OEM does not supply repair or maintenance instructions. The AC simply states that fuel cap O-rings are to be inspected to determine that they are in good condition.

FAA Advisory Circular AC 20-125 (AC) is also a good source of information regarding water contamination in aviation gasoline and jet fuel. The AC references 114 aircraft accidents due to the infiltration of water in the fuel supply. The probable cause in 85 of those accidents was due to inadequate preflight checks.

Comments: Transport Canada Civil Aviation (TCCA) has researched the Service Difficulty Report (SDR) data to validate fuel cap reported discrepancies. The 275 SDRs that were retrieved indicated lack of inspection and maintenance as a theme.

Owners, operators, maintainers and other responsible persons should review maintenance related information provided by the respective aircraft manufacturer and OEM. Where maintenance instructions are lacking or not provided:

- inspect the condition of the fuel cap gaskets, seals and O-rings to ensure they are in place and not damaged;
- inspect seal surfaces to ensure they are smooth; and
- inspect locking mechanism to ensure it is properly adjusted.

Any discrepancies which may compromise the fuel cap sealing and locking functions should be resolved before returning the aircraft to service.

Defects, malfunctions and failures occurring on aeronautical products are to be reported to Transport Canada, Continuing Airworthiness in accordance with CAR 591 mandatory Service Difficulty Reporting requirements.

Certains avionneurs comme Cessna donnent des conseils détaillés d'inspection et d'entretien de bouchons encastrés d'avitaillement en carburant (vc les lettres d'information en service SE80-59 et SE82-34). Pour certains fabricants d'origine de tels bouchons, ces derniers doivent leur être retournés s'il faut les réparer, y compris en remplaçant les joints toriques, ou les réviser.

La circulaire consultative AC 43.13-1B de la Federal Aviation Administration (FAA) intitulée *Acceptable Methods, Techniques and Practices – Aircraft Inspection and Repair*, est le principal document de référence à utiliser si le fabricant original ne donne aucune instruction de réparation ou d'entretien. Cette AC énonce simplement qu'il faut inspecter les joints toriques des bouchons d'avitaillement afin de voir s'ils sont en bon état.

La circulaire consultative AC 20-125 de la FAA est également une bonne source d'information sur la contamination par l'eau de l'essence aviation et du carburéacteur. Cette AC fait état de 114 accidents d'aéronef dus à une infiltration d'eau dans le circuit d'alimentation en carburant. La cause probable de 85 de ces accidents a été attribuée à de mauvaises vérifications prévol.

Commentaires : Transports Canada, Aviation civile (TCAC) a fait une recherche dans les données des rapports de difficultés en service (RDS) afin de valider les anomalies signalées à propos des bouchons d'avitaillement. Les 275 RDS retrouvés indiquaient un lien avec un manque d'inspection et d'entretien.

Il serait bon que les propriétaires, les exploitants, le personnel d'entretien et toutes les autres personnes responsables examinent les renseignements portant sur l'entretien fournis par le constructeur de l'aéronef ou le fabricant original des bouchons. En cas de manque ou d'absence d'instructions d'entretien :

- vérifier l'état des divers joints d'étanchéité et des joints toriques des bouchons d'avitaillement en carburant afin de s'assurer qu'ils sont en place et non endommagés;
- inspecter les surfaces des joints afin de s'assurer qu'elles sont lisses; et
- inspecter également le mécanisme de verrouillage afin de s'assurer qu'il est bien réglé.

Toute anomalie pouvant nuire aux fonctions de fermeture hermétique et de verrouillage des bouchons d'avitaillement devra être corrigée avant que l'aéronef soit remis en service.

Les défauts, les mauvais fonctionnements et les pannes de produits aéronautiques devraient être signalés au Maintien de la navigabilité aérienne de Transports Canada, conformément aux exigences du RAC 591 qui obligent à transmettre des rapports de difficultés en service.

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For further information, contact a Transport Canada Center, or Mr. Marcel Gauthier, Continuing Airworthiness, Ottawa at 613-952-4357, facsimile 613-996-9178, or email [CAW WEB Feedback@tc.gc.ca](mailto:CAW_WEB_Feedback@tc.gc.ca)

Pour de plus amples renseignements, communiquer avec un Centre de Transports Canada ou avec M. Marcel Gauthier, Maintien de la navigabilité aérienne, à Ottawa, téléphone 613-952-4357 télécopieur 613-996-9178 ou courrier électronique [CAW WEB Feedback@tc.gc.ca](mailto:CAW_WEB_Feedback@tc.gc.ca)

For Director, National Aircraft Certification

Pour le directeur, certification nationale des aéronefs



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

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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
CA090701001				AXLE	MISMANUFACTURED
6/30/2009				C6US100015	VARIOUS
<p>(CAN) AXLE ASSEMBLY WAS PURCHASED AS NEW SURPLUS/SERVICEABLE FROM SUNSHINE AIRSPARES WHO PROVIDED A CERTIFICATE OF CONFORMITY WITH ATTACHING PAPERWORK. THE AXLE ASSEMBLY WAS INSPECTED PRIOR TO INSTALLATION ON THE MAIN GEAR LEG P/N C6UM1180-4, THE FOLLOWING DEFECTS WERE NOTED, THE SPLINED INSERT FOR A WHEEL SKI MOUNT LUG WOULD NOT EXCEPT A SPLINED LUG, THE WHEEL BEARING LAND WAS OVER EXCEPTABLE DIMENSION FOR BEARING INSTALLATION AND THE RETAINING BOLT BORE WAS APPROX. .009" UNDER MIN. ORIGINAL DIMENSION FOR INSTALLATION ON ONE SIDE. THE PART BEARS STAMPS INDICATING IT WAS MANUFACTURED BY FIELD AVIATION ON MAY 30, 2001, HOWEVER FOR A NEW/SERVICEABLE ASSEMBLY THERE APPEARS TO BE A BLENDED SCORE ON THE AXLE APPROX. 1/2 THE DISTANCE BETWEEN INBOARD AND OUTBOARD BEARING SURFACES. (TC 20090701001)</p>					
2009FA0000879				ARMATURE	MISOVERHAULED
5/4/2009				23080370	STARTER GEN
<p>DURING DISASSEMBLY OF THE STARTER GENERATOR FOR OVERHAUL EVALUATION, IT WAS DISCOVERED THAT THE STATOR, ARMATURE AND INSIDE OF THE AIR INLET COVER HAD BEEN PAINTED WITH UNAUTHORIZED PAINT. THE O/H MANUAL "STRICKLY PROHIBITS" THE USE OF UNAUTHORIZED PAINT ON THE STATOR AND ARMATURE AND STATES THAT THEY MUST BE REPLACED IF THEY HAVE BEEN COATED WITH UNAUTHORIZED PAINT. THIS WOULD NOT HAVE OCCURRED IF THE CURRENT REVISION OF THE CMM HAD BEEN FOLLOWED.</p>					
2009FA0000933				HUB	CRACKED
7/15/2009				E715711R	PROPELLER
<p>PROPELLER, FIRST DISASSEMBLY, NO DAMAGE TO PROP SINCE NEW, TT ON PROP SINCE NEW 1711, INSTALLED NEW 05/16/1996. CRACK FOUN IN HUB - 1 3/4 INCH LONG WITH 3 OTHER CRACKS ORIGINATING FROM THE LONG ONE. (K)</p>					
2009FA0000878				STATOR	MISOVERHAULED
5/4/2009				23080305	STARTER GEN
<p>DURING DISASSEMBLY OF THE STARTER GENERATOR FOR OVERHAUL EVALUATION, IT WAS DISCOVERED THAT THE STATOR, ARMATURE AND INSIDE OF THE AIR INLET COVER HAD BEEN PAINTED WITH UNAUTHORIZED PAINT. THE O/H MANUAL "STRICKLY PROHIBITS" THE USE OF UNAUTHORIZED PAINT ON THE STATOR AND ARMATURE AND STATES THAT THEY MUST BE REPLACED IF THEY HAVE BEEN COATED WITH UNAUTHORIZED PAINT. THIS WOULD NOT HAVE OCCURRED IF THE CURRENT REVISION OF THE CMM HAD BEEN FOLLOWED.</p>					
2009FA0000948			SLICK	DISTRIBUTOR GEAR	LOOSE
11/2/2009				K3008	MAGNETO
<p>MAGNETO HAS A LOOSE DISTRIBUTOR GEAR ELECTRODE.</p>					
CA090820008			SLICK	COIL	WORN
8/20/2009				K3975	MAGNETO
<p>(CAN) MAG WAS RECEIVED FOR 500 HOUR INSPECTION, NO DETAILS GIVEN. UPON DISASSEMBLY GREASE WAS</p>					

FOUND ON THE DISTRIBUTOR AND ROTOR GEAR TEETH. THESE SHOULD NOT HAVE ANY GREASE ON THEM AS THEY ARE NYLON GEARS. WHEN THE DISTRIBUTOR BLOCK WAS REMOVED A WEAR RING WAS FOUND ON THE COIL TAB BECAUSE THE TAB HAD BEEN BENT UP ABOVE THE MAG FRAME PARTING SURFACE AND CONTACTED THE END OF THE DISTRIBUTOR GEAR SHAFT. WHEN THE COIL WAS TESTED FOR RESISTANCE THE SECONDARY WINDINGS WERE FOUND TO HAVE AN OPEN CIRCUIT CONDITION. UPON FURTHER EXAMINATION THE COIL WEDGES APPEAR TO HAVE BEEN REUSED (PRY MARKS UNDER THE WEDGE HEADS) INDICATING THAT THIS HAS BEEN A USED COIL INSTALLED IN THE MAG. SLICK REQUIRES REPLACEMENT OF THE INTERNAL MAG PARTS WITH NEW PARTS ONLY. THIS MAG HAS AN SIL REPAIR STICKER ON IT DATED 10/05/07, REF #14174. AN ESTIMATE TO REPAIR HAS BEEN SENT TO THE CUSTOMER. (TC# 20090820008)

2009FA0000949	SLICK	CAM	LOOSE
11/2/2009		M3050	IMPULSE COUPLING

MAGNETO HAS LOOSE FLYWEIGHT RIVETS ON IMPULSE CAM.

CA090320006		BLEED VALVE	WRONG PART
3/20/2009		1787003	ENGINE

(CAN) UNIT WAS IDENTIFIED DURING RECIEVING PROCESS THAT THE PART DID NOT LOOK OR CONFORM TO THE MFG PICTURES. PICTURES WERE TAKEN AND SENT TO MFG FOR EVALUATION. MFG REPLIED AND NOTIFIED THAT THE PART WAS A COPY OF THE OEM PART AND TO THEIR KNOWLEDGE IT WAS A KNOCK OFF. (BOGUS PARTS)

CA090827003		CYLINDER	DAMAGED
8/27/2009		LW11633	

(CAN) UPON RECIEVING THE NEW PART, CYL WAS REMOVED FROM BOX AND ALL PACKING MATERIAL REMOVED AND CARRIED OUT A VISUAL ACCEPTANCE CHECK AND DURING THE VISUAL INSP, A GOUGE ABOUT AN INCH LONG THAT RUNS PARALLEL TO THE LENGTH OF THE CYL BORE WAS FOUND NEAR THE CYL HEAR HEAD. THE VENDOR WAS NOTIFIED AND ANOTHER CYLINDER WAS SHIPPED OUT WITH NO DEFECTS NOTED.

CA090915007	KELLY	GEAR	WRONG PART
9/15/2009			STARTER

(CAN) WHEN INSTALLED THE STARTER TEETH WOULD NOT LINE UP. UPON FURTHER INSPECTION IT WAS FOUND THAT THE STARTER APPEARED TO HAVE THE WRONG GEAR INSTALLED FOR THE PART NUMBER. WHEN ANOTHER EXACTLY THE SAME TYPE OF STARTER WAS INSTALLED THE AIRCRAFT STARTED WITHOUT ANY PROBLEMS AND CHECKED OUT NORMAL. (TC# 20090915007)

2009FA0000897	CFMINT	GEARBOX	MISMANUFACTURED
7/2/2009	CFM567B22	3400525020	

SN IS DIFFERENT ON THE COMPONENTS OF THE BEARINGS. OUTER RING - EB033718-7, THE 2 INNER RINGS EB183718-J, (K)

2009FA0000887	CONT	GEAR	WORN
10/22/2009	GTSIO520H	653580	CRANSHAFT

DURING INSPECTION OF RIGHT ENGINE STARTER DRIVE UNIT PER AD 2007-05-15 FOUND THE CRANKSHAFT GEAR WORN BEYOND ACCEPTABLE LIMITS. REPLACED WITH KIT R-EQ6642 CONTAING NEW GEAR AND OVERHAULED STARTER DRIVE UNIT.

2009FA0000888	CONT	GEAR	WORN
10/22/2009	GTSIO520H	653580	CRANKSHAFT

DURING INSPECTION OF RIGHT ENGINE STARTER DRIVE UNIT PER AD 2007-05-15 FOUND THE CRANKSHAFT GEAR WORN BEYOND ACCEPTABLE LIMITS. REPLACED WITH CONTINENTAL KIT R-EQ6642 CONTAING NEW GEAR AND OVERHAULED STARTER DRIVE UNIT.

2009FA0000889	CONT	CONT	CLUTCH SPRING	BROKEN
10/22/2009	GTSIO520H		539601	ENGINE

PILOT REPORTED UNABLE TO START LEFT ENGINE. INSPECTED STARTER DRIVE UNIT AND FOUND CLUTCH

SPRING BROKEN. REPLACED WITH CONTINENTAL KIT R-EQ6642 CONTAINING AN OVERHAULLED STARTER DRIVE UNIT AND CRANKSHAFT GEAR. FAILURE COULD BE CAUSED BY ENGINE KICK BACK AT START.

2009FA0000886	CONT		GEAR	WORN
10/22/2009	GTSIO520H		631847	STARTER

DURING INSPECTION OF THE STARTER DRIVE UNIT PER AD 2007-05-15. FOUND STARTER ADAPTER DRIVE GEAR WORN BEYOND ACCEPTABLE LIMITS. REPLACED WITH KIT R-EQ6642.

CA090827002	GE		ENGINE	MAKING METAL
8/26/2009	CT581401			

AT THE END OF A 2 HR FLIGHT, NR 1 ENG CHIP LIGHT ILLUMINATED IN FLIGHT. ON INVESTIGATION A SMALL AMOUNT OF FERROUS MATERIAL WAS FOUND ON THE FWD CHIP PLUG.

CA090629003	PWA	PWA	BLADES	IMPROPER PART
6/29/2009	PT6A27			POWER TURBINE

UPON VISUAL INSP AFTER CLEANING, THE WORD "SCRAP" WAS SEEN TO BE VIBROPEENED INTO ALL THE POWER TURBINE BLADES.

CA090911012	PWA		OIL SYSTEM	LEAKING
8/24/2009	PT6A66			ENGINE

(CAN) ENGINE OIL PRESSURE WAS SEEN FLUCTUATING IN FLIGHT AND THE ENGINE WAS SHUT DOWN. SUBSEQUENT INSPECTION REVEALED AN INTERNAL OIL LEAK. THE ENGINE WILL BE INVESTIGATED TO ESTABLISH CAUSE. (TC# 20090911012)

CA090828004	PWA	WOODWARD	SPACER	MISMANUFACTURED
4/24/2009	PT6A67A			FCU

APPROX 5 MINUTES AFTER TAKEOFF ENGINE FLAMED OUT AND THE ACFT WAS FORCED TO DITCH. SUBSEQUENT INVESTIGATION REVEALED FCU DISTRESS ASSOCIATED WITH A BRG SPACER MFG ERROR.

CA090911009	PWA		ENGINE	MAKING METAL
8/28/2009	PT6A67D			

(CAN) DURING CRUISE THE LOW OIL PRESSURE WARNING ACTIVATED AND THE ENGINE WAS SHUT DOWN. INVESTIGATION REVEALED METAL DEBRIS IN THE ENGINE FILTER AND CHIP DETECTOR. THE ENGINE WILL BE INVESTIGATED TO ESTABLISH CAUSE. (TC# 20090911009)

CA090911007	PWA		EEC	FAILED
9/5/2009	PW119B			ENGINE

(CAN) ENGINE TORQUE WAS SEEN TO FLUCTUATE FOLLOWING TAKE-OFF AND THE ENGINE WAS SHUT DOWN. TROUBLESHOOTING LED TO REPLACEMENT OF A FAULT EEC. (TC# 20090911007)

CA090911008	PWA		VENT LINE	FRACTURED
9/7/2009	PW121			ENGINE

(CAN) IN FLIGHT SMOKE WAS EVIDENCED IN THE CABIN AND THE ENGINE FIRE WARNING WAS ACTUATED. FIRE BOTTLES WERE DISCHARGED AND THE ENGINE WAS SHUT DOWN. INITIAL INSPECTION REVEALED A FRACTURED 6&7 BEARING VENT LINE AND INTERNAL TURBOMACHINERY DAMAGE. THE ENGINE WILL BE INVESTIGATED TO ESTABLISH CAUSE. (TC# 20090911008)

CA090309009	PWA		EXCITER	IMPROPER PART
3/5/2009	PW123		90494001	ENGINE

EXCITER WAS PREVIOUSLY REPAIRED IN THE FIELD USING UNAPPROVED PROCEDURES. EXCITER WAS RECEIVED AT MFG ON 02-MAR-2009 WITH REASON FOR REMOVAL: REPAIR ORDER DATABASE HAS NO PREVIOUS RECORD OF THIS EXCITER SN. EXCITER PASSED ELECTRICAL TEST BUT FAILED LEAK TEST. UPON DISASSEMBLY, TECH OBSERVED FOLLOWING ITEMS THAT DO NOT CONFORM TO THE COMPONENT MM 74-12-06 DATED 15

MARCH 2005 OR DWG. 2 CONTROL RECTIFIERS ON PWR BOARD 9053371 AND THE 1 DIODE ON THE EMI BOARD 9049441 WERE REPLACED. CMM DOES NOT ALLOW FOR REPAIR AT THE CIRCUIT BOARD LEVEL. ALSO, THE PARTS WERE REPLACED BY CUTTING THE EXISTING LEAD WIRES PART NEAR THE BOARD SURFACE THEN SOLDERING TO THE LEADS OF THE NEW PART. ADDITIONAL WIRES WERE ADDED AND SPLICED TO THE EXISTING LEAD WIRES THAT CONNECT THE EMI BOARD 9049441 TO THE LOGIC BOARD 9053024, AND THE LOGIC BOARD TO THE POWER BOARD 9053371. THIS EXTRA MATERIAL AND PROCEDURES ARE NOT IN THE CMM. THE ALUMINUM HSG 9049291 WAS PREVIOUSLY REMOVED BY CUTTING THE PERIMETER WHERE IT IS SOLDERED TO THE OUTPUT COVER. HSG WAS MODIFIED WITH A 0.25 INCH WIDE COPPER STRIP SOLDERED AROUND THE HSG AND TO THE END COVER. THIS EXTRA MATERIAL AND PROCEDURE ARE NOT IN THE CMM.

CA090911011		PWA	ENGINE	SEIZED
8/21/2009		PW126A		

(CAN) ON TAKEOFF ROLL ENGINE TEMPERATURE WAS SEEN TO INCREASE AND TAKEOFF WAS ABORTED. SUBSEQUENT INSPECTION INDICATED SEIZURE OF ALL ROTORS. THE ENGINE WILL BE INVESTIGATED TO ESTABLISH CAUSE. (TC# 20090911011)

CA090911010		PWA	GASKET	LEAKING
8/22/2009		PW127		OSPEED GOVERNOR

(CAN) A LOW OIL PRESSURE WARNING ACTIVATED IN FLIGHT AND THE ENGINE WAS SHUT DOWN. SUBSEQUENT INSPECTION REVEALED A LEAKING OVERSPEED GOVERNOR GASKET. (TC# 20090911010)

CA090908010	AEROSP	TMECA	YOKE	CRACKED
9/8/2009	AS355*	ARRIEL1D1	350A371162	M/R HEAD

DURING STARFLEX CHANGE, ONE OF THE 3 YOKES WAS FOUND CRACKED. RECORDS INDICATE THAT THIS PART WAS AN ORIGINAL INSTALLATION. CLOSER INSP WILL TAKE PLACE AT 500 HR SCHEDULED INSP INTERVAL.

CA090702004	AEROSP	TMECA	ELECTRICAL SYS	MALFUNCTIONED
7/1/2009	AS355N	ARRIUS1A		CAROUSEL SWITCH

(CAN) INVESTIGATION INTO INADVERTENT LOSS OF 2 SLUNG LOADS CLOSE TO GROUND WITH NO DAMAGE, REVEALED THAT THE CAROUSEL RELAY PROVIDES AN UNANTICIPATED 6 TO 9 VOLTS VDC TO PIN C OF THE UTILITY CONNECTION ON THE BELLY OF THE AIRFRAME WHEN IT SHOULD ONLY BE SUPPLYING 28 VDC TO PIN E OF THE CONNECTION. THIS ERRANT VOLTAGE ISN'T ENOUGH TO OPEN A WATER BUCKET BUT IT HAS BEEN DEMONSTRATED TO OPEN A REMOTE HOOK ON 5 OF OUR 7 ACFT. 70 PERCENT OF OUR ACFT FROM DELIVERY HAVE THIS PROBLEM. AN EMERGENCY NOTICE HAS BEEN SENT TO ALL COMPANY PILOTS INSTRUCTING THEM TO USE EXTREME CAUTION TO AVOID ACTIVATION OF THE CAROUSEL SWITCH. MFG HAS BEEN INFORMED OF THIS SITUATION.

CA090807007	AEROSP	PWA	PUMP	UNKNOWN
7/30/2009	ATR42300	PW120	42053	HYD SYSTEM

(CAN) AUX HYD PUMP POPPING NORMAL SUPPLY CIRCUIT BREAKER DURING GROUND OPERATIONS.

CA090807008	AEROSP	PWA	FAN	INOPERATIVE
7/17/2009	ATR42300	PW120	EVAC2423FD	AIR CON SYS

GROUND COOLING FAN FAILED DURING OPERATION.

CA090824001	AEROSP	PWA	INVERTER	FAULTED
8/22/2009	ATR42300	PW120	559012A	NR 1

SATURDAY, AUGUST 22, 2009, FLIGHT 7F805 ATR42 ACFT REGISTRATION SHORTLY AFTER TAKEOFF, EXPERIENCED FUMES/ELECTRICAL ODOR IN THE COCKPIT. THE FO'S AIRSPEED INDICATOR BEGAN TO MALFUNCTION, SOON AFTER THE CREW RECEIVED AN OVER SPEED WARNING AND FLIGHT INSTRUMENTS BEGAN TO MALFUNCTION. THE CREW RETURNED THE ACFT TO DEPARTURE. THE LANDING WAS UNEVENTFUL. MX CREW FOUND FAULT WITH THE NR 1 INVERTER. INVERTER WAS REPLACED AND THE ACFT WAS RETURNED TO SERVICE.

CA090729002	AEROSP	PWA	SELECTOR	UNKNOWN
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AND MELTED ALUMINUM FALLING OFF. UPON INSP FOUND SEVERE DAMAGE TO ASSY.

CA090827001	AIRBUS	CFMINT	WARNING LIGHT	ILLUMINATED
8/21/2009	A320211	CFM565A1		NR 2 FADEC

SHORTLY AFTER TAKEOFF, ENG NR 2 FADEC ALTERNATOR FAULT FOLLOWED BY ENG NR 2 FIRE WHICH LASTED APPROX 10 SEC, THEN EXTINGUISHED. CREW PERFORMED ECAM SHUTDOWN AND LANDED.

CA090730001	AIRBUS	IAE	CIRCUIT BOARD	CORRODED
7/26/2009	A320232	V2527A5	350F51000	FIRE AUNNUNCIATO

AT START OF A MX TAXI, NR 2 ENG FIRE WARNING ANNUNCIATED, EMERGENCY PROCEDURES WERE CARRIED OUT AND ENG WAS SHUTDOWN AND BOTH FIRE BOTTLES DISCHARGED. FIRE WARNING CONTINUED AND EMERGENCY SERVICES WERE CALLED. BOTH GROUND CREW AND FIRE CREWS CONFIRMED THAT THERE WAS NO FIRE OR SMOKE PRESENT. ENGS WERE OPENED AND NO EVIDENCE OF HEAT OR FIRE DAMAGE WAS PRESENT. CONTAMINATION OF PC BOARDS BY WATER IS COVERED BY SB 35-0F6-33-001, AIB SB A320-33-1028, AND TFU 33.14.00.004. WATER INGRESS WAS ALSO EXAGGERATED BY A STATIC WATER LEAK AT THE RT DV WINDOW AND DRAIN LINE BEING BLOCKED. AIB HAS NO INSP SCHEDULED FOR INSP OF DRAIN LINE IN THE AMP. INCORPORATION OF "DESIRABLE" CLASSED SB WAS NOT INCORPORATED AT TIME OF FAULT OCCURANCE.

CA090915002	AIRBUS	RROYCE	DUCT	RUPTURED
9/13/2009	A330243	RB211*	LJ41491	ENGINE STARTER

(CAN) 2 ENGINES FAILED TO START DUE INSUFFICIENT DUCT PRESSURE. INVESTIGATION DISCOVERED RUPTURED STARTER DUCT ASSY ON INSIDE RADIUS OF ELBOW. REPLACEMENT CARRIED OUT. (TC# 20090915002)

CA090806004	AIRTRC	PWA	BEARING	DESTROYED
8/3/2009	AT802	PT6A67A		TAIL WHEEL

UPON LANDING THE PILOT HEARD A BANG AND NOTICED THE TAIL WHEEL TO BE VERY ROUGH AND LOOSE. LT WHEEL BRG AND RACES FOUND DESTROYED, ALL ROLLERS WERE MISSING. WHEEL ASSY AND AXLE WERE REPLACED.

CA090728004	AIRTRC	PWA	O-RING	CUT
7/26/2009	AT802A	PT6A65AG	MS28775314	MLG ACTUATOR

MLG ACTUATOR LEAKING, O-RING FOUND TO HAVE CUT IN IT. ACTUATOR SEALS REPLACED. O-RING INTERNAL IN BULKHEAD SUPPORT BLOCK WHERE ACTUATOR RAM PASSES THROUGH.

CA090813014	AIRTRC	PWA	ELECTRICAL SYS	INTERMITTENT
8/1/2009	AT802A	PT6A67		

ACFT WAS ON A FIRE SUPPRESSION MISSION, PILOT REPORTED ELECTRICAL SYS FAILURE WHICH AFFECTED VARIOUS COMPONENTS. THE ACFT RETURNED TO BASE AND LANDED GEAR UP CAUSING MINOR DAMAGE TO FLOATS AND SCOOP PROBE. ELECTRICAL SYS INVESTIGATED, NO FAULT FOUND THEREFORE STILL UNDER INVESTIGATION.

CA090922005	AIRTRC	PWA	INDICATOR	DAMAGED
9/18/2009	AT802A	PT6A67		FUEL FILTER

(CAN) UPON WINTER MAINTENANCE, IT APPEARED THAT THE AIRFRAME FUEL FILTER WAS IN BY PASS MODE BECAUSE THE BYPASS INDICATOR PIN WAS STICKING OUT. UPON DISSASSEMBLY IT WS NOTICED THAT THE RED INDICATOR HAS SEPARATED FROM THE INDICATOR PIN GIVING A FALSE INDICATION. THE FILTER WAS NOT IN BYPASS. THE FILTER ASSEMBLY WAS REPLACED. (TC# 20090922005)

CA090902002	AIRTRC	PWA	MOUNT BRACKET	CRACKED
8/30/2009	AT802A	PT6A67A		UPPER RH AUX FIN

FWD INBD MOUNTING BRACKET CRACKED AND SEPARATED FROM AUX FINLET ASSY.

CA090820009	AIRTRC	PWA	PUMP	LEAKING
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8/19/2009	AT802A	PT6A67A	510767	FUEL
(CAN) ENGINE DRIVEN PUMP LEAKING BY DRIVE SEAL, THIS FILLED ENVIRO CAN TO OVERFLOWING CAUSING FUEL ODOR IN COCKPIT. (TC 20090820009)				
CA090819002	AMD	GARRTT	SERVO VALVE	LEAKING
7/21/2009	20F5	TFE7315BR	A11124654	NR 2 BRAKES
(CAN) CAPTAIN'S NR 2 BRAKES FAILED ON LANDING, CO-PILOTS WORKED TO BRING ACFT TO A STOP. FOUND BRAKE RESERVOIR LEVEL LOW/EMPTY, LEAKING EXCITATION SERVO VALVE ON EMERGENCY PWR BRAKE VALVE. (1) HYDRAULIC LINE FOUND TUBE ASSY. PN MY20745-259 LEAKING/CRAKED. REPLACED BOTH THE POWER BRAKE VALVE AND TUBE, ACFT RETURNED TO SERVICE.				
CA090825002	AMD	GARRTT	ENGINE	SMOKE
8/21/2009	FALCON900	TFE7315BR		
IMMEDIATELY AFTER TAKEOFF, WITH OILY SMELLING SMOKE APPEARED IN COCKPIT AND CABIN. OIL LEVELS CHECKED IN ENGINES, APU, AND ACM FOUND TO BE CORRECT. VISUAL INSP CARRIED OUT BY BORESCOPE BEHIND FAN AREA FOR OIL TRACES NO FAULT FOUND. APU BLEED DUCT INSPECTED FOUND TO BE CLEAN. HIGH POWER GROUND RUNS CARRIED OUT, NO FAULT FOUND. AFTER INSP AND CONSULTING WITH ENGINE SPECIALISTS, IT IS DETERMINED THAT DUE TO THE PERIOD OF INACTIVITY POSSIBLY ONE OR MORE ENGINES HAVE LEAKED STATICALLY INTO COMPRESSOR SECTION AND WITH TAKEOFF POWER IT HAS CAUSED THIS OIL CONTAMINATION TO HEAT AND CAUSE SMOKE WHICH NOW APPEARS TO BE CLEARED.				
2009FA0000943	AMTR	CONT	BOLT	BROKEN
10/29/2009	DAKOTAHKDH23	C8512	22532	CRANKSHAFT
ENGINE QUIT IN FLIGHT DUE TO FAILURE OF CRANKSHAFT CLUSTER GEAR RETAINING BOLTS. LAST MAJOR OVERHAUL WAS 12/04/1973				
2009FA0000939	AMTR	CONT	COUPLING	FAILED
11/15/2006	KITFOXSERIE5	IO240A	365796	ALTERNATOR DRIVE
ALTERNATOR DRIVE COUPLING (ONE PIECE UNIT) FAILED IN FLIGHT. LOSS OF ALL ELECTRICAL CHARGING CAPABILITY. OCCURRED DURING NIGHT FLIGHT. UNSCHEDULED LANDING MADE. BATTERY CHARGED AND FLIGHT BACK HOME THE NEXT DAY (DAYLIGHT)				
2009FA0000940	AMTR	CONT	COUPLING	FAILED
10/25/2009	KITFOXSERIE5	IO240A	635796	ALTERNATOR DRIVE
ALTERNATOR DRIVE COUPLING FAILED IN FLIGHT CAUSING LOSS OF ALL ELECTRICAL CHARGING CAPABILITY. FLIGHT CONTINUED TO HOME BASE WITHOUT INCIDENT. THIS IS THE SECOND FAILURE OF THIS PART. FIRST PART (NEW ENGINE) AT 271 HOURS, REPLACED WITH REBUILT PART. THIS ONE LASTED 254 HOURS.				
CA090812009	AMTR	LYC	ECI	CYLINDER HEAD SEPARATED
6/12/2009	SPORTSMAN22	IO360A2A	AEL85099IR	CYLINDER
(CAN) THE TSB IS INVESTIGATING A FATAL ACCIDENT WHICH OCCURRED AFTER A CYLINDER HEAD SEPERATED FROM THE CYLINDER ON A O-360-A2A ENGINE THE HEAD WHICH SEPARATED IS P/N AEL 85099 IR S/N 35823-21 REFERENCE TO AMERICAN AWD 2008-19-05 GROUP B. THE ENGINE HAD 211.7 TTSN WELL BELOW THE 350 HR LIMIT AS PER THE AWD. THE NON TYPE CERTIFICATED ENGINE WAS AT A COMPRESION RATIO OF 9.2:1 WHICH IS ABOVE THE TYPE CERTIFICATED ENGINES TYPICALLY RUNNING AT 8:1. TRANSPORT CANADA DOES NOT ADVISE RECREATIONAL OPERATORS OF NON-TYPE CERTIFICATED EQUIPMENT OF AWDS WHICH COULD AFFECT THEIR EQUIPMENT. (TC# 20090812009)				
CA090728010	BAG	GARRTT	CONTACTOR	FAULTY
7/26/2009	JETSTM3112	TPE33110UGR	5153900213	STARTER GEN
THE ACFT WAS ON A TRAINING FLIGHT IN CRUISE, THE LT GENERATOR AND STARTER LIGHT FLICKERED AND THEN STAYED ON. THE LT ENG WAS SHUTDOWN AND THE ACFT RETURNED TO BASE. MX INSPECTED THE SYS AND FOUND THAT CONTACTOR (PN A-703G) WAS FAULTY. ALSO THE GCU WAS FOUND TO BE FAULTY. THE				

CONTACTOR AND THE GCU WERE CHANGED WITH SERVICEABLE UNITS AND THE SYS TESTED SERVICEABLE.

CA090609009	BAG	GARRTT	ROD	FAULTY
6/8/2009	JETSTM3112	TPE33110UGR	1862L	RT MLG

(CAN) DURING GEAR RETRACTION DURING CLIMB, IT WAS NOTED THAT RT MAIN LANDING GEAR FAILED TO FULLY RETRACT. IT WAS ALSO VISUALLY CONFIRMED. THE GEAR WAS SELECTED DOWN WITH 3 GREEN INDICATION AND ACFT RETURNED TO BASE WITH NO INCIDENT. THIS RADIUS ROD HAS BEEN IDENTIFIED AS ONE OF THE FAULTY UNITS BY THE MFG. EMERGENCY AD 2009-0121-E HAS ALSO BEEN ISSUED REGARDING FAULTY RADIUS RODS.

CA090702011	BAG		CABLE	FRAYED
7/1/2009	JETSTM3212		137187E424	NLG STEERING

(CAN) UPON LANDING THE CAPTAIN WENT TO TURN THE AIRCRAFT AROUND TO TAXI BACK TO THE TERMINAL WHEN THE LOWER STEERING CABLE, OPERATING THE DRIVE QUADRANT, SNAPPED. THIS WAS CAUSED BY THE CABLE FRAYING THROUGH, AT WHICH POINT IT FINALLY GAVE WAY. THE RESULT WAS A TOTAL LOSS OF NOSE WHEEL STEERING THROUGH THE USE OF THE TILLER WHEEL IN THE COCKPIT. THE CABLE WAS REPLACED AND FURTHER FLIGHTS WERE CARRIED OUT. (TC# 20090702011)

CA090807006	BEECH	PWA	SLIP RING	DAMAGED
7/25/2009	1900C	PT6A65B	4E26241	PROP DE-ICE

NR 1 PROPELLER DEICE FAULT IN FLIGHT. MX INSPECTED AND FOUND NR 1 PROPELLER SLIP RING IN POOR CONDITION. SLIP RING REPLACED.

CA090921001	BEECH	PWA	PURGE CAN	FAILED
9/20/2009	1900C	PT6A65B	1019200931	ENGINE

(CAN) AIRCRAFT WAS SMOKING UPON SHUTDOWN. PURGE CAN END WALL WAS FOUND BLOWN OUT. (TC# 20090921001)

CA090924009	BEECH	PWA	MOTOR	FAILED
9/22/2009	1900C	PT6A65B	481	HYD POWERPACK

(CAN) ON APPROACH GEAR WAS SELECTED DOWN, HYDRAULIC POWERPACK FAILED. GEAR HAD TO BE MANUALLY EXTENDED. AIRCRAFT LANDED WITHOUT FURTHER INCIDENT. UPON INSPECTION IT WAS FOUND THAT THE ELECTRIC MOTOR THAT DRIVES THE HYDRAULIC PUMP HAD FAILED DUE TO INTERNAL SHORT. MOTOR WAS REPLACED. (TC# 20090924009)

CA090911006	BEECH	PWA	SHAFT	SHEARED
9/10/2009	1900D	PT6A67D	1013800006	TE FLAPS

(CAN) UPON APPROACH FLAPS FAILED TO EXTEND PAST INITIAL APPROACH SETTING. VISUAL INSPECTION ON THE GROUND BY FLIGHT CREW NOTED THAT R/H OUTBOARD FLAP HAD NOT EXTENDED. FLAPS AUTOMATICALLY STOPPED DUE SPLIT FLAP. FLAPS RETRACTED AND MEL'D. UPON INSPECTION R/H OUTBOARD FLAP SHAFT ASSY. FOUND SHEARED. THIS PART HAS A LIFE LIMIT OF 22500 CYCLES, BUT FAILED AT 17050. FLAP SHAFT ASSY. REPLACED WITH NEW P/N 101-380000-6. (TC# 20090911006)

CA090820001	BEECH	PWA	BOLT	UNKNOWN
8/19/2009	1900D	PT6A67D		

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CA090909004	BEECH	BEECH	SKIN	CHAFED
7/20/2009	200BEECH		10116000124	TE FLAP

FLAP SKIN PN 101-160001-3 CHAFED DUE TO CONTACT WITH RAISEBECK WING LOCKER. PROBABLY DUE TO IMPROPER SHIMMING OF LOCKER ASSY.

CA090901005	BEECH	PWA	BEARING	SEIZED
8/28/2009	200BEECH	PT642A	206SZZC	ACM

CREW REPORT OF AIR CONDITIONING U/S. INSP OF COMPRESSOR DRIVE ON RT ENGINE ACCESSORY MOUNT FOUND THE QUILL SHAFT DRIVE SHEARED DUE TO A FAILURE OF THE FWD BRG. 3 MOUNT BOLTS WERE ALSO SHEARED. QUILL SHAFT, FWD AND AFT BRGS, MOUNT BRACKET AND ATTACHING HARDWARE REPLACED. ACFT RETURNED TO SERVICE.

CA090903004	BEECH	PWA	FIRE DETECTOR	FAULTY
9/1/2009	200BEECH	PT642A	302158	RT NACELLE

(CAN) SHORTLY AFTER LEVELING OFF IN CRUISE THE RT ENG FIRE WARNING LIGHT ILLUMINATED. CREW INITIATED A TURN AWAY FROM THE SUN TO CONFIRM LIGHT WHICH DID NOT EXTINGUISH. ENG WAS SHUTDOWN AND FIRE BOTTLE DISCHARGED. ACFT RETURNED TO DEPARTURE POINT AND LANDED WITH NO FURTHER PROBLEMS. FIRE WARNING TEST ON GROUND INDICATED A FAULTY DETECTOR WHICH WAS REPLACED WITH NEW.

CA090828001	BEECH	PWA	CONTROL CABLE	FRAYED
8/25/2009	200BEECH	PT642A	NAS306351172	AILERONS

DURING PHASE INSP, LT AFT OTBD AILERON CABLE WAS FOUND TO HAVE 3 BROKEN STRANDS IN MIDDLE OF CABLE BETWEEN PULLEYS AND FAIRLEADS. NO OBVIOUS REASON FOR DEFECT, OTHER CABLE OK. CABLE REPLACED WITH NEW PART.

CA090824008	BEECH	PWA	HOSE	DELAMINATED
8/20/2009	200BEECH	PT642A	330995F100270	FUEL SYSTEM

(CAN) ON APPROACH INTO AIRPORT CREW HAD LOW PRESSURE FUEL LIGHT COME ON AND FUEL FLOW GAUGE FLICKERED SEVERAL TIMES THEN ENGINE FLAMED OUT. ENG WAS FEATHERED AND SECURED, AND EMERGENCY WAS DECLARED, ACFT LANDED SAFELY. MX CHECKED ENG FOR LEAKS THEN TRIED A RESTART AND ENGINE FIRED UP WITH NO INDICATION OF A PROBLEM. ACFT WAS THEN RUN UP TO MAX PWR AND ALL INDICATIONS WERE NORMAL. ALL FUEL SCREENS AND FILTERS WERE CHECKED FOR CONTAMINATION AND NOTHING WAS FOUND. ALL FLEX FUEL HOSES WERE REMOVED AND INSPECTED. THE TWO FUEL HOSES CONNECTED TO LOW FUEL PUMP WERE FOUND TO HAVE THE RUBBER DELAMINATING. HOSES WERE JUST 5 YEARS OLD. NEW HOSES WERE INSTALLED AND ENG RUN UP AND CHECKED FOR OPS. ACFT WAS TEST FLOWN WITHOUT FURTHER PROBLEMS. FUEL HOSE PN 330995F10-0250, PN 330997F10-0270.

CA090807003	BEECH	PWA	SELECTOR VALVE	STUCK
7/13/2009	200BEECH	PT642A	1013890253	FUEL

DURING FUNCTION CHECK RT FUEL SHUTOFF VALVE OPERATION STUCK HALF WAY BETWEEN OPEN AND CLOSED. ELECTRIC MOTOR CONTINUED TO RUN. THE PART CYCLES, PART TSN AND PART TSO IS UNKNOWN.

CA090730011	BEECH	PWA	SWITCH	BROKEN
7/30/2009	200BEECH	PT642A	1015551531	NLG WW

(CAN) 2 SEPARATE ACFT AND OCCASIONS WHERE THE AIR CONDITIONING WAS REPORTED NOT WORKING. IN BOTH INCIDENTS FOUND THE RESET SWITCH IN THE NOSE WHEEL WELL PHYSICALLY BROKEN.

CA090730009	BEECH	PWA	SWITCH	FAILED
7/30/2009	200BEECH	PT642A	993402531	COMMS

COMM PUSH TO TALK SWITCHES HAVE VERY POOR LIFE EXPECTANCY IN SERVICE ON COMPANY ACFT, OFTEN ONLY A FEW MONTHS. ALSO HAVE REJECTED NEW SWITCHES FROM THE SUPPLIER DUE TO POOR QUALITY DETERMINED THROUGH VISUAL INSP ALONE.

CA090803002	BEECH	PWA	TRANSMITTER	FAILED
7/19/2009	200BEECH	PT6A41	903800097	FUEL FLOW

FLIGHT CREW SNAGGED THE ACFT AS "RIGHT FUEL FLOW U/S" TRANSMITTER WAS REPLACED AND PROBLEM WAS NOT RECTIFIED. ACFT TRANSMITTER WAS REPLACED WITH A SERVICEABLE ONE FROM ANOTHER ACFT AND PROBLEM WAS RECTIFIED. FAILED TRANSMITTER WAS PREVIOUSLY O/H. THE TRANSMITTER HAS BEEN RETURNED TO THE O/H FACILITY AND A FOLLOW UP REPORT IS EXPECTED.

CA090817002	BEECH	PWA	FIRE DETECTOR	FAULTY
8/13/2009	200BEECH	PT6A41	302158	NR 1 NACELLE

CREW HAD A NR1 ENG FIRE WARNING LIGHT ON DURING TRAINING FLIGHT WITHOUT ACTUAL FIRE. CAME BACK TO THE AIRPORT. TROUBLESHOOTING REVEALED THAT FIRE DETECTOR LOCATED ABOVE COMBUSTION CHAMBER AREA WAS SENDING A CONTINUOUS FIRE ALARM SIGNAL TO THE SYS EVEN WITHOUT AN ACTUAL FIRE. PART REPLACED AND SYS TESTED SERVICEABLE. ACFT RETURNED TO SERVICE.

CA090205006	BEECH	PWA	THRUST BEARING	IMPROPER PART
2/4/2009	200BEECH	PT6A41		ACTUATOR

MAIN GEAR ACTUATOR WAS REMOVED TO COMPLETE AN INSP, END PLAY AND RELUBE. WHEN ACTUATOR WAS DISASSEMBLED IT WAS DISCOVERED THAT THRUST BEARING (REF I.P.C. PAGE 32-30-40 ITEM 20) WAS NOT CORRECT. COMPONENT MM REQUIRES THAT THIS BEARING BE INSTALLED A CERTAIN WAY OR IT WILL FAIL. TO THAT END THE BEARING IS MARKED WITH THRUST HERE. THERE WERE NO MARKINGS ON THE BEARING THAT WAS INSTALLED AND IT DID NOT HAVE A PN THAT WOULD MATCH THE ORIGINAL BEARING. PN OF THE ORIGINAL BEARING WAS 7107KRD, PN ON THE INSTALLED BEARING WAS S 6007 C TA A7 GMN-A (GERMANY) THE OVERHAULER WAS CONTACTED AND THEY ASKED FOR THE ACTUATOR TO BE RETURNED. UNAPPROVED PART

CA050624004	BEECH	PWA	VALVE	MISINSTALLED
6/18/2005	200BEECH	PT6A41	1013840323	OXYGEN SYS

(CAN) PASSENGER OXYGEN MASKS DEPLOYED WHEN THE " PULL ON SYS READY" CONTROL KNOB WAS PULLED. MASKS SHOULD ONLY DEPLOY WHEN BAROMETRIC PRESSURE SWITCH IS TRIPPED OR THE PASSENGER MANUAL OVERRIDE CNTRL KNOB IS PULLED. " PULL ON SYS READY" IS USED TO ARM SYS. PASSENGER MANUAL OVERRIDE VALVE WAS ASSEMBLED IMPROPERLY DURING O/H. WHEN IT WAS INSTALLED, FUNCTION CHECK FOR THE VALE REQUIRES ENSURING THAT THE MASKS DEPLOY WITH BOTH CONTROL KNOBS PULLED WITH THE CONTROL ARM ON BACKWARDS THIS TEST WOULD ALWAYS PASS.

CA090916007	BEECH	PWA	COMPRESSOR	SEIZED
9/16/2009	200BEECH	PT6A41	1131325	AIR CON SYS

(CAN) DEFECT - AIR CONDITIONING NOT WORKING. RECTIFICATION - AIR CONDITIONING COMPRESSOR FOUND SEIZED. COMPRESSOR REPLACED. TIME IN SERVICE UNKNOWN. (TC# 20090916007)

2009FA0000935	BEECH	PWA	BEARING	DAMAGED
10/12/2009	200BEECH	PT6A42		SHAFT

PILOT REPORTED THAT THE LT ENGINE WOULD SURGE MODERATELY WHEN CLIMBING OR DESCENDING THROUGH 4000-8000 FT. NO SURGING WAS REPORTED ABOVE OR BELOW THAT ALTITUDE RANGE. WHEN SURGING OCCURRED, OSCILLATION WAS NOTED ON THE FUEL FLOW GAUGE AND ON THE PROP TORQUE GAUGE. FUEL FLOW WOULD OSCILLATE +/-25 PPH. PROP TORQUE WOULD OSCILLATE +/-50 FT LBS. THE LOW AND HIGH-PRESSURE COMPRESSOR BLEED VALVES (CBV) WERE SUSPECT AND WERE GROUND TESTED. THE HIGH-PRESSURE CBV FAILED THE TEST AND REPLACED. THE AIRCRAFT WAS TEST FLOWN. SURGING WAS STILL PRESENT WITH NO IMPROVEMENT NOTED. DURIN DESCENT FROM THE TEST FLIGHT, THE POWER ON THE PROBLEM ENGINE STUCK AT 1800 FT-LBS OF PROP TORQUE (APPROX 3/4 FULL POWER). MOVEMENT OF THE POWER LEVER WAS FREE, HOWEVER ENGINE POWER WOULD NOT DROP BELOW 1800 FT-LB TORQUE. PILOT EXECUTED AN ENGINE SHUTDOWN AND THE ACFT LANDED UNEVENTFULLY. REMOVAL OF THE ENG FUEL CONTROL UNIT (FCU) REVEALED THAT THE DRIVE END OF THE FCU WAS DAMAGED. THE NYLON DRIVE COUPLING WAS TWISTED BUT WAS IN TACT. THE METAL DRIVE SHAFT INTO THE FCU HAD A SEVERE AMOUNT OF AXIAL PLAY AND WOBBLE. THE BALL BEARINGS THAT SUPPORT THE DRIVE SHAFT WERE DISENTGRATED AND NONE OF THE BALLS WERE FOUND. FCU AND ENGINE-DRIVEN FUEL PUMP WERE REPLACED WITH O/H UNITS. TEST FLIGHT WAS PERFORMED WITH NO SURGING NOTED. (K)

CA090820011	BEECH	PWA	MOUNT BRACKET	CRACKED
8/18/2009	300BEECH	PT6A60A	11791006013	A/C COMPRESSOR

WHILE CARRYING OUT SCHEDULED ENG INSP, WHICH INCLUDED LUBING AIR CONDITIONING COMPRESSOR QUILL SHAFT, FOUND BRACKET WHICH THE AIR CONDITIONING COMPRESSOR MOUNTS TO AND PIVOTS ON WAS CRACKED AND THE REAR LUG WAS BROKEN RIGHT OFF. REPLACED WITH A SERVICEABLE PART. THERE IS A SB

(21-3932) FOR AN IMPROVED COMPRESSOR MOUNTING BRACKETS, HOWEVER, IT IS NOT APPLICABLE TO THIS SN (APPLIES TO FL-493 AND UP) THE SB ONLY REFERENCES A KIT NR TO INSTALL AND DOESN'T GIVE DETAILS, HOWEVER, WE INTEND TO RESEARCH THE PN AFFECTED WITH MFG TO DETERMINE APPLICABILITY.

CA090205008	BEECH	PWA	THRUST BEARING	IMPROPER PART
2/4/2009	99	PT6A27		ACTUATOR

BECAUSE OF AN ISSUE WITH ANOTHER ACTUATOR OF THE SAME PN THE COMPANY REMOVED THIS ACTUATOR FOR INSP. IT WAS FOUND THAT THRUST BRG ON THIS ACTUATOR WAS OF AN INCORRECT TYPE OR PN. (REF SDR 20090205006) THE TWO ACTUATORS WERE RECEIVED FROM THE SAME COMPANY AT THE SAME TIME. THIS PROMPTED AN INSPECTION OF THE ACTUATOR. UNAPPROVED PART

CA090728011	BEECH	PWA	RIB	CRACKED
6/12/2009	B200	PT642A	50980002825	WS 121

(CAN) DURING INSP, IT WAS FOUND THAT AT THE VERY L/E AT WS 121.966, LT WING RIBS AS WELL AS RT WING RIBS WERE CRACKED. THE CRACKING APPEARED TO BE FROM FATIGUE, AND NOT FROM A TOOLING MARK OR OTHER INDUCED CAUSES. THE REASON FOR FILING THIS SDR, IS THAT WE FOUND IT ODD THAT BOTH WINGS HAD THE SAME CRACKING, ON THE SAME PARTS. ALL DAMAGED PARTS WERE REPLACED WITH NEW.

CA090728012	BEECH	PWA	RIB	CRACKED
7/14/2009	B200	PT642A	50980002825	LT WING

(CAN) DURING INSP, IT WAS FOUND THAT AT THE LT WING L/E, AT WS 121.966, RIB PN:50-980002-825 WAS CRACKED. THE CRACKING APPEARED TO BE FROM FATIGUE AND NOT FROM A TOOLING MARK OR OTHER INDUCED CAUSES. THE REASON FOR THIS SDR IS THAT THIS IS THE THIRD AIRCRAFT IN OUR FLEET TO HAVE THIS TYPE OF DAMAGE FOUND AT THIS EXACT LOCATION. THE DAMAGED PART WAS REPLACED WITH NEW.

CA090904010	BEECH	PWA	OIL CAP	UNSECURE
9/3/2009	C90A	PT6A21		OIL SYS

DURING TRAINING FLIGHT AT APPROX 1 HOUR INTO FLIGHT, FLYING PILOT NOTICED A LWR THAN NORMAL ENG OIL PRESSURE ON LT ENGINE. EMERGENCY CHECKLIST WAS CARRIED OUT AND COMPLETED. LT ENG OIL PRESSURE WARNING LIGHT THEN ILLUMINATED MOMENTARILY (FLICKERED). ENG SHUTDOWN DRILL THEN COMPLETED FOR THE LT ENG. ACFT LANDED SINGLE ENG WITHOUT INCIDENT. ARFF MET THE ACFT UPON LANDING. AIRCREW SHUTDOWN ACFT ONCE CLEAR OF RUNWAY. ARFF CONFIRMED NO DANGER EXISTED BUT NOTED THAT LT ENGINE'S OIL CAP WAS FOUND IN THE UNLOCKED POSITION UPON OPENING COWLING. ARFF HAD MX CALLED TO RETRIEVE ACFT. AME REMOVED, INSPECTED/REINSTALLED OIL CAP TO CONFIRM NORMAL OPERATION. NO LOOSENESS OR OTHER DEFECTS NOTED WITH THE CAP. OIL FILLED TO EVALUATE FLUID LOSS (APPROX 5.5 QUARTS) AND MX CHECKS CARRIED OUT IAW ENG MFG INSTRUCTIONS. ENG AND NACELLE WAS WASHED AND GROUND RUN/LEAK CHECKS CARRIED OUT. ACFT WAS SUBSEQUENTLY RETURNED TO SERVICE. INVESTIGATION: NON-FLYING PILOT CONDUCTED THE WALK-AROUND ON THE LT SIDE OF ENGINE (AFFECTED ENGINE). REPORTED THAT THE OILS LEVELS WERE LOW AND THAT HE ADDED OIL. HE ADDED, THAT HE HAD DIFFICULTY REMOVING OIL CAP. MENTIONED THAT IT WAS POSSIBLE THAT HE MAY HAVE IMPROPERLY SECURED THE CAP.

CA090904011	BEECH	PWA	PETCOCK	OPEN
9/4/2009	C90A	PT6A21		PITOT HEAD

ACFT WAS DEPARTING FOR A LOCAL TRAINING FLIGHT. STUDENT OCCUPIED THE LT SEAT AND WAS PILOT FLYING, INSTRUCTOR WAS PILOT NOT FLYING ON RT SIDE. ON INITIAL CLIMB INSTRUCTOR NOTED THAT STUDENT HAD MISSED CROSSWIND TURN ALTITUDE AND ADVISED SAME. STUDENT CALLED OUT LT ALTITUDE AS READING 1900'. INSTRUCTOR READ THE RT ALTITUDE AS 2500' WHICH CORRESPONDED WITH THE RAD ALT. LT AIRSPEED INDICATION WAS ALSO NOTED TO BE READING LOW - AT THIS OBSERVATION INSTRUCTOR CALLED FOR AND TOOK CONTROL OF THE ACFT AND LANDED WITHOUT FURTHER INCIDENT. AIRCREW ADVISED MX OF FAULT. THIS WAS FIRST FLIGHT AFTER THE ACFT WAS RETURNED TO SERVICE FOLLOWING A SCHEDULED 200HR INSP. MX TESTED THE STATIC SYS AND DISCOVERED THAT LT INSTRUMENT STATIC AIR DRAIN COCK WAS INADVERTANTLY LEFT IN OPEN POSITION POST INSP. DRAIN COCK WAS RETURNED TO CLOSED POSITION AND STATIC SYS WAS TESTED FOR LEAKS WITH NO FURTHER FAULTS NOTED. ACFT WAS RETURNED TO SERVICE.

CA090702013	BELL	LYC	FITTING	CRACKED
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7/1/2009	205A1	T5317A		205031818001	TAIL ROTOR
DURING A POST FLIGHT INSP, THE TAIL ROTOR DRIVE FITTING WAS FOUND CRACKED. TIME ON THE FITTING IS UNKNOWN. CRACK WAS FOUND RADIATING FROM THE BORE OF THE BARREL NUT ATTACHMENT. UNSURE IF THIS MAYBE THE CAUSE OF OVER TORQUING OF THE BOLT. NUT WAS REPLACED WITH NEW AND NO FURTHER ISSUES HAVE BEEN NOTED.					
CA090806005	BELL	LYC		GOVERNOR	UNKNOWN
7/30/2009	205A1	T5317A		116085023	TURBINE
EXCESSIVE ENGINE DROOP.					
CA090619003	BELL	LYC		QUILL ASSY	SHEARED
6/16/2009	205A1	T5317A			STARTER GEN
ACFT WOULD NOT START, UPON FURTHER INVESTIGATION THE QUILL DRIVE FROM STARTER/GENERATOR TO ENGINE FOUND SHEARED.					
CA090818006	BELL	LYC	BELL	BOLT	BROKEN
8/14/2009	205A1	T5317BLYC		AN17412A	ENGINE MOUNT
WHILE THE ENGINEER WAS CARRYING OUT A DAILY INSP, FOUND HALF A BOLT WITH NUT ATTACHED ON ENG DECK. FURTHER INVESTIGATION REVEALED THAT BOLT (ONE OF TWO) WAS PART OF THE ATTACHMENT OF THE PILLOW BLOCK ASSY TO THE ENG BIPOD MOUNT ASSY. PART OF THE BOLT APPEARED TO HAVE BEEN CRACKED FOR SOME TIME. THE OTHER HALF OF THE BOLT HEAD WAS NOT FOUND. THE SECOND BOLT HAD SIGNIFICANT WEAR. BOTH BOLTS WERE REPLACED ON THE ENG BIPOD/PILLOW BLOCK ATTACHMENT.					
CA090626008	BELL	LYC		DRIVE SHAFT	DAMAGED
5/8/2009	205A1	T5317BLYC		205060922033	TAIL ROTOR
NR 1 TAIL ROTOR DRIVESHAFT CONTACTED COVER CAUSING DAMAGE TO SHAFT.					
CA090911005	BELL		BELL	BEARING	UNSERVICEABLE
9/11/2009	206B			206010470101	COLLECTIVE
(CAN) DURING A DAILY INSPECTION THE COLLECTIVE LEVER SPHERICAL BEARING, P/N 206-010-470-101, WAS FOUND TO HAVE ROTATED IN THE COLLECTIVE LEVER. THE ORIGINAL BHT WHITNESS MARKS WERE FOUND MISALIGNED DUE TO THE ROTATION. THE ROLL STAKING FAILED, ALLOWING THE SPHERICAL BEARING TO ROTATE. COLLECTIVE LEVER WILL BE ROUTED TO THE COMPONENT OVERHAUL SHOP FOR INSPECTION, EVALUATION AND REPLACEMENT OF THE SPECRICAL BEARING. (TC# 20090911005)					
CA090914007	BELL	ALLSN		FUEL CONTROL	FAILED
9/13/2009	206B	250C20		23070606	ENGINE
(CAN) WHEN TRYING TO ACCELERATE FROM IDLE TO 100% COMPRESSOR STALLING OCCURED WHEN THE ENGINE WAS HOT AFTER 1ST START OF THE DAY. NO PROBLEMS AT 100%, JUST SURGES ON ACCELERATION AS SOON AS THE PILOT ADVANCES THE THROTTLE (TC# 20090914007)					
CA090827006	BELL	ALLSN		SEAL	LEAKING
8/27/2009	206B	250C20B		206040272101	DRIVE SHAFT
DURING A DAILY INSP, DONE BY THE PILOT IN COMMAND, TELA TEMPS ON FWD DRIVESHAFT COUPLING WERE FOUND TO BE BLACK IN COLOR. UPON FURTHER INVESTIGATION GREASE WAS FOUND TO BE LEAKING AS WELL. DRIVESHAFT WAS REMOVED AND DISASSEMBLED. INNER PART OF THE SEAL WAS FOUND NO LONGER ASSEMBLED TO SHAFT CAUSING IT TO LEAK GREASE. NO OTHER DEFECTS WERE FOUND DURING INSP OF DRIVESHAFT. DRIVESHAFT WAS RE-ASSEMBLED WITH A NEW SEAL AND TELA-TEMPS AND RE-INSTALLED. CAUSE OF SEAL TO BECOME UNATTACHED FROM DRIVESHAFT MAY BE TOO MUCH SEALANT USED BETWEEN SEAL AND RING OF DRIVESHAFT ASSY.					
CA090831004	BELL	ALLSN		PUMP	LEAKING
8/26/2009	206B	250C20B		206076022005	HYDRAULIC SYSTEM

PUMP LEAKING, SERVICABLE PUMP INSTALLED.

CA090915001	BELL	ALLSN	SEAL	FAILED
9/9/2009	206B	250C20B		DRIVESHAFT

(CAN) THE SEAL ASSY FAILED AND THE DRIVESHAFT GREASE LEAKED FROM THE COUPLING CAUSING THE DRIVESHAFT TO OVER-TEMP DUE TO LOSS OF LUBRICANT (TC# 20090915001)

CA090721003	BELL	ALLSN	MOUNT	CRACKED
7/21/2009	206B	250C20B	206062102013	ENGINE

(CAN) NOTICED WORKING ENGINE MOUNT. INSPECTED ATTACHMENT BOLT FOR TORQUE AND FOUND IT PROPERLY TORQUED. LIFTED AFT END OF ENGINE AND FOUND MOVEMENT ON FIREWALL ATTACHMENT SIDE OF ENGINE MOUNT LEG AND UNDER CLOSER INSP FOUND IT CRACKED TWICE TO BOLT HOLE. REPLACED ENGINE MOUNT LEG AND ASSOCIATED HARDWARE.

CA090730004	BELL	ALLSN	BEARING	WORN
7/28/2009	206B	250C20B		LINEAR ACTUATOR

THE LINEAR ACTUATOR ADJUSTMENT SCREW STICKS AND DOES NOT POP BACK OUT, THE SHAFT BEARING HAS PLAY IN IT.

CA090730005	BELL	ALLSN	ARM	STIFF
7/28/2009	206B	250C20B		GOVERNOR

THE GOVERNOR CONTROL ARM IS STIFF, THIS CAUSES DROOP.

CA090922007	BELL	ALLSN	ELT	FAILED
9/21/2009	206B	250C20J	4536604	CABIN

(CAN) E.L.T SWITCHED ON WITH NO REASON AND WOULD NOT RESPOND TO RESET, NOT FROM REMOTE SWITCH AND NOT DIRECTLY FROM E.L.T SWITCH. E.L.T BATTERIES NEEDED TO BE DISCONNECTED TO DEACTIVATE THE E.L.T ALARM. E.L.T REMOVED AND SENT BY DUCEY AVIONICS TO MANUFACTURER FOR DIAGNOSTIC. (TC# 20090922007)

CA090812007	BELL		BULKHEAD	CRACKED
8/7/2009	206B3		206031200139	FUSELAGE

(CAN) DURING 12 MONTH SCHEDULED INSPECTION OF BOXBEAM AND AREA ACCESS PANEL WAS REMOVED FOR INTERIOR INSPECTION. ONE (1) INCH CRACK EMINATING FROM TOP STARBOARD RIVET OF BULKHEAD TO CORNER WAS DISCOVERED. REPLACEMENT OF BULKHEAD NOW UNDERWAY. (TC# 20090812007)

CA090722008	BELL	ALLSN	FITTING	BROKEN
7/20/2009	206B3	250C20B	206020121010	HORIZONTAL STAB

(CAN) 10TH-100 HR INSP REVEALED SLIGHT `GIVE` OR PLAY BETWEEN TAILBOOM AND RT HORIZONTAL MOUNT FITTING. VISUAL INSP SHOWED NOTHING. HORIZONTAL STABILIZER WAS TIGHT IAW PROPER INSTALLATION. FURTHER DISASSEMBLY OF RT STABILIZER FROM TAILBOOM REVEALED MOUNTING FLANGE (PN 206-020-121-010) WAS CRACKED IN HALF. RT HORIZONTAL STABILIZER WAS REMOVED FROM SERVICE AND REPLACED WITH SERVICABLE UNIT.

CA090902006	BELL	ALLSN	BEARING	SPALLED
8/21/2009	206L	250C20R	23031497	GEARBOX

ENG CHIP LIGHT PROBLEM FOUND WITH THE BALL BRG ON THE PWR TAKEOFF OUTPUT SHAFT.

CA090902007	BELL	ALLSN	BEARING	SPALLED
8/21/2009	206L	250C20R	23031497	GEARBOX

ENG CHIP LIGHT, FOUND PROBLEM WITH THE PWR TAKEOFF OUTPUT SHAFT BEARING, INNER AND OUTER RACE WORN.

CA090728016	BELL	ALLSN	CONTROL TUBE	CRACKED
7/6/2009	206L1	250C28B	2060011901	FLT CONTROLS

(CAN) THE HELICOPTER TRANSMISSION HAD BEEN REMOVED WITH THE FLIGHT CONTROL SUPPORT INTACT AND WAS ON THE BENCH IN THE O/H SHOP. A TECH THAT WAS INSPECTING THE CONDITION OF THE TRANSMISSION AND ATTACHED FLIGHT CONTROLS NOTICED THE CRACKED PART. THERE WERE 2 CRACKS IN THE BONDED FITTING END OF THE CONTROL TUBE. LAST CLOSE INSP OF THIS AREA WAS 3 MONTHS BEFORE AT THE ANNUAL INSP. THE TUBE WAS REPLACED WITH A NEW ONE.

CA090728015	BELL	ALLSN	DRIVE SHAFT	LEAKING
7/6/2009	206L1	250C28B	206040015015	M/R TRANSMISSION

INPUT SEAL ON HELICOPTER MAIN TRANSMISSION LEAKED OIL WHICH WASHED MAIN DRIVESHAFT COUPLING GREASE THROUGH SHAFT AND INTO ENG COMPARTMENT. GREASE WAS DISCOVERED ON DAILY INSP BY PILOT AND HELICOPTER WAS GROUNDED FOR FURTHER INSP. THERE WAS NO INDICATION OF OVERHEATING OF THE COUPLINGS (BY THE TEMP SPOTS), BUT MOST OF GREASE HAD BEEN WASHED OUT OF THE FRONT COUPLING, THROUGH SHAFT AND THROUGH REAR COUPLING. NORMALLY, IF GREASE LEAKS OUT OF THE COUPLING, USUALLY FROM A TORN BOOT, LIFE OF THE COUPLING IS VERY SHORT. DRIVESHAFT WAS SENT FOR OVERHAUL.

2009F00106	BELL	BELL	THRUST WASHER	FLAKING
11/3/2009	206L3		206010110105	M/R HUB

AFTER MAIN ROTOR BLADE CHANGE, DURING TRACK AND BALANCE, ROTOR SYS WOULD NOT RESPOND TO NORMAL CORRECTIONS. REMOVED ROTOR HEAD AND DISASSEMBLED TRUNION ASSY, FOUND "THRUST WASHER" FACE FLAKING OFF AND EFFECTING CENTERING. REPLACED THRUST WASHER AND RE-CENTERED TRUNION. TRACK AND BALANCE NORMAL.

CA090706005	BELL	ALLSN	BLADE	DEBONDED
6/17/2009	206L3	250C30P	206015011115	MAIN ROTOR

M/R BLADE UPPER SKIN DEBONDED AT BLADE TIP AT STA 218.07 AREA OF DAMAGE 1 INCH BY INCH.

CA090923004	BELL	ALLSN	LINE	CHAFED
7/28/2009	206L4	250C30P	70061H00T134	HYD SYSTEM

(CAN) BHTCL WAS MADE AWARE SHIP 52394 HAD A HYDRAULIC FAILURE, IN FLIGHT, ON APPROACH TO HELIPAD. THE REPORT STATES THE HYDRAULIC FLEX LINE P/N 70-061H000T134A SHOWED DAMAGE BY CHAFING. THE CHAFING APPEARED TO BE FROM CONTACT WITH AN ADJACENT FLEX LINE'S "B" NUT, P/N 70-061F000D112A. THE CHAFFING WORE THROUGH THE BRADDED STAINLESS STEEL MESH AND PUNCTURED THE RUBBER HOSE BENEATH. (TC# 20090923004)

CA090914010	BELL	PWA	CONNECTOR	MISINSTALLED
8/3/2009	212	PT6A11	118010601CV	ACTUATOR

(CAN) ACTUATOR CONNECTOR FOR SPHERICAL BEARING SCREW LOCK CUP INCORRECTLY LOCKED FROM MANUFACTURER. (TC# 20090914010)

CA090914002	BELL	PWA	WASHER	CRACKED
9/9/2009	212	PT6T3	204030913005	PYLON

(CAN) DURING A 600HRS INSPECTION, ONE OF THE WASHER P/N 204-030-913-005 WAS FOUND CRACKED. THE CRACK IS COMING INWARD FROM THE OUTER CIRCUMFERENCE OF THE WASHER. THIS IS THE THIRD TIME THAT THIS WASHER IS BEING REPLACED OVER A PERIOD OF JUST OVER A YEAR, THE TWO PREVIOUS TIME WAS AT A DIFFERENT LOCATION(FIRST WASHER FOUOD CRACK DURING A SCHEDULE INSP. AND THE SECOND TIME AT XMSN REPLACEMENT). (TC# 20090914002)

CA090909003	BELL	PWA	BELL	SKIN	CRACKED
7/4/2009	212	PT6T3		212030099066	TAILBOOM

SKIN PN 212-030-099-066 CRACKED AT FWD FAIRING ATTACH ANCHOR NUT.

[CA090702010](#) BELL PWA BEARING SPALLED
6/25/2009 212 PT6T3 3120118101 ACCESSORY G/B
FOUND FLECKS OF METAL ON CTR CHIP PLUG.

[CA090730008](#) BELL PWA LINE CRACKED
7/28/2009 212 PT6T3 212076433001 HYD SYSTEM
FOREST FIRE FIGHTING CREW NOTICED HYD FLUID LEAKING AS HELICOPTER LANDED TO HOOK UP WATER BUCKET CABLE TO CARGO HOOK. HELICOPTER WAS SHUTDOWN AND PILOT FOUND CRACKED LINE IN NR 1 HYD SYS. SUSPECT OVERTIGHTENING OF NUT AND VIBRATION AS PROBABLE CAUSE OF CRACK.

[CA090727009](#) BELL PWA BELL PLATE IMPROPER PART
7/15/2009 212 PT6T3 204040616001 HANGER RETAINER
(CAN) RETAINER PLATE IS NOT AUTHORIZED FOR INSTALLATION IN A 212 HANGER ASSY, -005 IS REQUIRED. COUPLING INNER SPLINES WORN DUE TO LOSS OF CLAMP UP FORCE.

[CA090716007](#) BELL ALLSN BLADE DELAMINATED
7/10/2009 407 250C47B 407015001137 MAIN ROTOR
(CAN) HELICOPTER M/R VIBRATIONS INCREASED RAPIDLY OVER A FEW DAYS. M/R WAS TRACKED AND BALANCED TO WITHIN LIMITS. WITHIN 2 DAYS, VIBRATIONS LEVELS HAD INCREASED BEYOND LIMITS AGAIN. FURTHER INSP REVEALED BLADE DELAMINATION SUSPECTED TO BE ABOVE LIMITS ON THE RED BLADE, AND DELIMINATION WITHIN LIMITS ON FOLLOWING GREEN BLADE. TO FIND THE DELAMINATION THE MR BLADE WAS TAP TESTED.

[CA090716008](#) BELL ALLSN BLADE DELAMINATED
7/10/2009 407 250C47B 407015001137 MAIN ROTOR
(CAN) HELICOPTER M/R VIBRATIONS INCREASED RAPIDLY OVER A FEW DAYS. M/R WAS TRACKED AND BALANCED TO WITHIN LIMITS. WITHIN 2 DAYS, VIBRATIONS LEVELS HAD INCREASED BEYOND LIMITS AGAIN. FURTHER INSP REVEALED BLADE DELAMINATION SUSPECTED TO BE ABOVE LIMITS ON THE RED BLADE, AND DELIMINATION WITHIN LIMITS ON FOLLOWING GREEN BLADE. THE M/R BLADE WAS TAP TESTED TO FIND THE DELAMINATION.

[CA090605004](#) BELL ALLSN SUPPORT ANGLE CRACKED
6/4/2009 407 250C47B 407023800129 TAILBOOM ASSY
WHILE CARRYING OUT A DAILY CHECK IT WAS NOTED THAT MAYBE A CRACK HAD DEVELOPED ON THE FWD ANGLE OF THE TAILBOOM/HORIZ UPPER LT ANGLE SUPPORT. FURTHER INVESTIGATION LEAD TO, IT IS CRACKED. ACFT GROUNDED FOR REPAIRS ADVISED MFG PRODUCT SUPPORT OF THE OCCURANCE.

[CA090608007](#) BELL ALLSN SLEEVE DISLODGED
6/5/2009 407 250C47B 206011732103 T/R PITCH ASSY
(CAN) WHILE GREASING THE T/R GEARBOX PITCH CHANGE ASSEMBLY IT WAS NOTED THAT THE BOOT P/N 406-312-106-101 WAS BEING PRESSURIZED BY THE GREASING. REMOVED THE T/R GEARBOX PITCH CHANGE ASSEMBLY AS PER BELL MM. THE ASSEMBLY WAS DISASSEMBLED. IT WAS FOUND THAT THE BREATHING HOLE DID NOT ALIGN UP WITH THE SLEEVE BREATHING HOLE (PRESSURIZING THE BOOT. REMOVED THE SLLEVE AND REALIGNED THE BREATHING HOLES ON THE SHAFT AND THE SLEEVE FOR THE BOOT TO VENT AS PER BELL 407 CR&O AND MM. (TC# 20090608007)

[2009FA0000892](#) BELL ALLSN BEARING SEPARATED
10/23/2009 407 250C47B 407310101101 MAIN ROTOR SYS
ACFT ARRIVED AT HANGAR. PILOT NOTE: THE MAIN ROTOR HAD A VIBRATION. MX INSP MAIN ROTOR AND FOUND SHEAR BEARING HAD BECOME SEPARATED FROM SPINDLE THAT IT WAS BONDED TO. (K)

[CA090914011](#) BELL ALLSN OIL TANK CRACKED
9/5/2009 407 250C47B 206061505115 ENGINE
(CAN) OIL WAS FOUND IN THE ENGINE OIL COOLER REGION. THERE WAS A LOSS OF ENGINE OIL. THE OIL WAS ORIGINATING FROM A CRACK OF THE ENGINE OIL TANK P/N 206061505115. THE CRACK WAS LOCATED NEAR THE

RIGHT FRONT SUPPORT LEG. (TC# 20090914011)

CA090812006	BELL		BEARING RACE	MISMANUFACTURED
4/20/2009	412		0805045625	M/R HEAD

(CAN) NEW INNER RACE NOT MANUFACTURED TO BHL STANDARDS. INNER RACE NOT MACHINED TO CORRECT FINAL DIMENSTIONS . PART RETURNED TOI OEM. PART NUMBER 412-010-414-103. (TC# 20090812006)

CA080403004	BELL		TRUNNION	MISMANUFACTURED
3/31/2008	412EP			TAIL ROTOR SERVO

(CAN) MFG WAS ADVISED THAT 14 PCS. OF 212-076-004-101 SERVO ACTUATOR, TAIL ROTOR HAD A MISMANUFACTURED DETAIL. ONE OF THE SUSPECT UNITS WAS DELIVERED TO A CUSTOMER ON THE ACFT NOTED ABOVE. OTHER SUSPECT UNITS WERE ALSO DELIVERED TO CUSTOMERS. THE 14 SUSPECT UNITS ARE SERIALIZED AS FOLLOW: HR3836H THROUGH HR3846H - HR3848H - HR3849H - HR3850H.

CA090917002	BELL	PWA	BLADE	CRACKED
9/16/2009	412EP	PT6T3		OILCOOLER BLOWER

(CAN) ONE EA. BLADE ON OIL COOLER BLOWERS S/N'S 5100-662 AND 5100-655 FOUND CRACK AT WELD AREA. CONDITION FOUND DURING PREFLIGHT INSPECTION. SEE ATTACHED PICTURES FOR CLARITY. (TC# 20090917002)

CA090901007	BELL	PWC	BOLT	BROKEN
8/12/2009	427	PW207D	NAS660430	VERTICAL FIN

ONE OF THE 4 VERTICAL FIN ATTACHMENT (NAS6604-30) BOLTS FOUND BROKEN (BOTTOM AFT BOLT). REMAINING 3 BOLTS WERE NOT FINGER LOOSE, BUT WERE NOT AT MAXIMUM TORQUE. THE NUTS WERE NOT BOTTOMED ON THE SHANK OF THE BOLTS. FRETTING DAMAGE TO TAIL FIN FLANGE BUSHINGS WAS NOTED. ALSO, SUPPORT LOWER AFT HOLE WAS FOUND ELONGATED IN THE FORE AND AFT DIRECTION. (SEE ALSO FAA SDR 2009091200010/AC2A2009081282853).

CA090915003	BLANCA	LYC	FOLLOWER	BROKEN
7/29/2009	7GCBC	O320A2D	72877	CRANKSHAFT

(CAN) HEAD OF CAM FOLLOWER BROKE OFF AND JAMMED UNDER HEAD OF AJOINING FOLLOWER, DAMAGING CRANKCASE. (TC# 20090915003)

CA090911001	BOEING	GE	HONEYWELL	LIMIT SWITCH	FAILED
8/26/2009	1072	CT581402			SPEED TRIM ACT

(CAN) DURING THE DAILY FUNCTIONAL TEST OF THE SPEED TRIM LIMIT SWITCHES THE RETRACT LIMIT SWITCH FAILED TO STOP THE MOTOR. THIS SPEED TRIM ACTUATOR WAS IN SERVICE FOR 30 HOURS AFTER REPAIR FOR THE SAME FAILURE. (TC# 20090911001)

CA090806009	BOEING	RROYCE	TUBE	MISSING
8/5/2009	717200	BR700715A130	BRH18910	LP/HP TURBINE

DURING NORMAL PRODUCTION OF ENG MX, A SET OF 4 NEW LP/HP TURBINE COOLING AIR TUBES WERE FOUND FOR AN ENG THAT WAS ALREADY IN OPERATION. INVESTIGATION ON MATERIAL INVENTORY HAS CONCLUDED THAT 4 LP/HP AIR COOLING TUBES WERE NOT INSTALLED ON ENG PREVIOUSLY DELIVERED TO CUSTOMER. CUSTOMER WAS IMMEDIATELY ADVISED TO INSPECT ENG FOR PRESENCE OF THE AIR TUBES. CUSTOMER INSP HAS CONFIRMED THAT AIR TUBES WERE NOT INSTALLED. ENG WILL BE REMOVED FROM SERVICE AND WILL BE RETURNED TO AMO. THE 4 LP/HP INTERNAL AIR TUBES DELIVER COOLING AIR TO THE LP/HP TURBINE. REDUCED COOLING AIR OF THE LP/HP TURBINE CAN CAUSE PREMATURE AGING OF TURBINE COMPONENTS. MX ERROR WAS DONE DURING REPAIR OF ENG TO AN OEM REDUCED WORK PACK PROCEDURE FOR HP TURBINE CAMPAIGN. OTHER ENGINES USING SAME PROCESS HAVE BEEN IDENTIFIED AND ON WING INSPECTION HAS BEEN MANDATED TO INSPECT FOR THE PRESENCE OF THE AIR TUBES. INVESTIGATION IS IN PROCESS.

CA090827005	BOEING	PWA	PWA	SWITCH	UNSERVICEABLE
8/27/2009	727225	JT8D15		62101	THRUST REVERSER

AFTER GEAR SELECTED UP ON DEPARTURE, NR 3 "REVERSER OPERATING" LIGHT ILLUMINATED. THRUST REVERSER WAS VIEWED TO BE IN NORMAL POSITION AFTER LANDING AND ACFT TAXIED BACK TO RAMP. LIGHT REMAINED ILLUMINATED UNTIL GROUND PWR WAS APPLIED TO THE ACFT. NR 3 "THRUST REVERSER POSITION INDICATOR SWITCH" AND NR 3 REVERSER OPERATING LIGHT MODULE WILL BE REPLACED.

CA090928001	BOEING	PWA	WIRE	BROKEN
9/23/2009	727233	JT8D15		NLG

(CAN) AFTER DEPARTURE FROM YVP, THE FLIGHT CREW ADVISED OF A NOSE LANDING GEAR DISAGREEMENT LIGHT. THE GEAR WAS RECYCLED SEVERAL TIMES AND THE DISAGREEMENT LIGHT REMAINED. MAINTENANCE DISCOVERED A BROKEN WIRE IN THE NOSE LANDING GEAR DOWNLOCK WIRE HARNESS. WIRE WAS REPAIRED AND THE AIRCRAFT RETURNED TO SERVICE. (TC# 20090928001)

2009F00099	BOEING		BATTERY	DETERIORATED
10/19/2009	737		539CH1	MASTER

TWO BATTERIES RECEIVED IN "NOT AIRWORTHINESS CONDITION" BUT CERTIFIED AS OVERHAULED. PARTS BEEN DELIVERED WITH THE FOLLOWING FINDINGS: BAD ISOLATION DUE TO OVERFLOW OF ELECTROLYTE, BLACK TRACES ON CELLS CONNECTIONS USUALLY COMING FROM AN ELECTRIC ARC WHICH IS CAUSED BY TOOLS OR OTHER METALLIC DEVICES. ONE BATTERY CONNECTOR PIN ALSO SHOWING MARKS OF ELECTRIC ARCING, SALT FROM DRIED ELECTROLYTE ALL OVER THE BATTERY CELLS, AND TORQUE APPLIED ON CELLS CONNECTION NUTS IS INCORRECT.

CA090821003	BOEING	GE	ALTIMETER	MALFUNCTIONED
8/7/2009	7377*	CFM567B24	066500070101	AUTOFLIGHT SYS

THE CREW (FIRST OFFICER PILOT FLYING - PF) WAS ON THE RNP 16 APPROACH AND THROUGH 1000 FEET AGL THE PF DISENGAGED THE AUTOPILOT IN ORDER TO HAND FLY THE APPROACH. THE PF REPORTED EVERYTHING WAS NORMAL UNTIL APPROX 150 FEET AGL WHEN HE FELT THE THRUST LEVERS RETARDING TO THE IDLE POSITION (HIS LT HAND WAS ON THE THRUST LEVERS). THE PF LOOKED DOWN AT THE PRIMARY FLIGHT DISPLAY (PFD) TO MAKE SURE THIS ACTION WAS APPROPRIATE BY REFERENCING THE AIRSPEED. HE NOTICED THAT THE AIRSPEED WAS SLIGHTLY BELOW THE TARGET SPEED OF 133 KNOTS AND QUICKLY GLANCED AT THE FLIGHT MODE ANNUNCIATOR (FMA) WHERE HE NOTICED IT WAS COMMANDING RETARD ON THE N1 DISPLAY. THE PF DISENGAGED THE AUTO THROTTLE AND APPLIED ADDITIONAL THRUST TO CORRECT THE LOW ENERGY STATE. THE ACFT MADE A NORMAL LANDING AND THE CREW TAXIED TO THE GATE. FLIGHT DATA WAS DOWNLOADED FROM THE ACFT AND MFG WAS ASKED TO PROVIDE ASSISTANCE IN REVIEWING THE DATA.

CA090909007	BOEING	GE	PUSHROD	CRACKED
9/8/2009	7377*	CFM567B24	162A31084	NLG DOOR

(CAN) FOUND BOTH NLG DOOR'S UPPER PUSHRODS CRACKED AT THREADED ENDS. NOTE: SPECIAL FLIGHT PERMIT ISSUED AND FOR FERRY FLIGHT THE GEAR PINS WERE INSTALLED IN MAIN AND NOSE LANDING GEAR, WARNING FLAGS REMOVED. ALSO BOTH NLG DOORS AND PUSHROD ASSYS REMOVED SERVICE REQUEST ID: 1-1417322694 PART NUMBER: 162A3108-3 PART SERIAL NUMBER: N/A P/N CAGE CODE: AIRPLANE (VARIABLE/SERIAL): YB606/32749 REGISTRY: C-FWBG HOURS/CYCLES:24,427/11,202 SUBJECT: YB606 - NLG DOOR MECHANISM P/N 162A3108-3 UPPER PUSHROD ASSEMBLY - CRACKING AT ROD END CASTELLATIONS REFERENCES: /A/P/N 162A3108-3 UPPER PUSHROD ASSEMBLY /B/DIGITAL PHOTOGRAPHS DESCRIPTION: DURING A MAINTENANCE DAILY CHECK ON WJI TAIL 207 (YB606), CRACKS WERE NOTED ON BOTH THE LHS AND RHS NOSE GEAR DOOR UPPER PUSHROD ASSEMBLY P/N 162A3108-3. THE CRACKS WERE LOCATED AT THE END OF THE ROD THAT ATTACHES TO THE DOOR LINKAGE BELLCRANK ASSEMBLY. THE CRACKS EMANATE FROM THE CASTELLATED SLOTS MACHINED INTO THE END OF THE -4 ROD. SEE THE REF/B/DIGITAL PHOTOGRAPHS FOR DETAILS. WJI REMOVED THE NOSE GEAR DOORS AND OPERATING LINKAGE AND FERRIED THE AIRPLANE TO YYC. INSPECTION OF BOTH ROD ASSEMBLIES REVEALED THE FOLLOWING: - THE LEAD TAMPER SEALS WERE INTACT AT BOTH ENDS INDICATING NO ROD ADJUSTMENT SINCE DELIVERY (ROD IS SET AT 30.77 IN PRODUCTION AND NOT TO BE FURTHER ADJUSTED) - ROD LENGTHS MEASURE @ 30.77 INCHES PER DESIGN - AT THE END OF THE ROD WHERE THE CRACKS EMANATE FROM THE CASTELLATED SLOTS, THE ROD ENDS WERE LOOSE, I.E., COULD BE ROTATED EASILY WITH HAND PRESSURE SEVERAL DEGREES WITHIN THE RESTRICTIONS OF THE LOCKING TAB SLOTS - AT THE END OF THE ROD WHERE NO CRACKS ARE VISIBLE, THE ROD END (TC# 20090909007)

CA090914006	BOEING	GE	AXLE	SHEARED
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9/12/2009

7377*

CFM567B24

NLG

(CAN) PILOT REPORT: NORMAL LANDING. WHEN EXITING ON YYC C1 AND TURNING ONTO C, THE NOSEWHEEL STRUCK A "POTHOLE" ON TAXIWAY. DIDN'T SEEM ABNORMAL. HOWEVER, FOLLOWING AIRCRAFT REPORTED A WHEEL BOLOCKING THE TAXIWAY. ON ARRIVAL AT GATE, GROUND CREW NOTED LEFT SIDE NOSEWHEEL SHEARED OFF AT AXLE. I SPOKE WITH THE FIRST OFFICER FROM THE COMPANY AIRCRAFT THAT FOUND THE WHEEL. HE SAID THAT THERE WAS A `TRIANGLE CHUNK OF CONCRETE MISSING` NEAR THE CENTERLINE OF THE TAXIWAY, CLOSE TO WHERE THE WHEEL WAS FOUND. REF: BOEING SERVICE LETTER SL-737-32-150-B MPD TASK CARD 32-085-00 1036.7 FH, 481 CYCLES, 113 DAYS SINCE LAST INSPECTION PER REFERENCE TASK CARD. SHEARED AXLE PIECES INCLUDING LWR CYCLINDER WILL BE FORWARDED TO BOEING FOR EXAMINATION. (TC# 20090914006)

TIPR20090030	BOEING	SKIN	MISREPAIRED
10/26/2009	767222	146T3440	ZONE 100

DURING MAINTENANCE CHECK, THE RIGHT HAND FUSELAGE SKIN ASSY WAS FOUND TO HAVE AN EXISTING EXTERNAL REPAIR WITH NO PRIOR APPROVAL. THE REPAIR AS INSTALLED DOES MEET MINIMUM GENERAL SRM REQUIREMENTS BUT IS WITHIN 22" OF THE DOOR CUT OUT. NO SPECIFIC SRM REPAIRS ARE AVAILABLE FOR THIS AREA. REMOVED EXISTING REPAIR PER REO-G13006 REV IR, INTALLED NEW REPAIR PER REO-G13006 REV A AND B.

TIPR20090031	BOEING	SKIN	MISREPAIRED
10/27/2009	767222	148T3251	ZONE 100

DURING MAINTENANCE CHECK, THE FUSELAGE SKIN ASSY P/N 148T3251 WAS FOUND TO HAVE 1 EACH EXISTING EXTERNAL REPAIR WITH NO PRIOR APPROVAL. THE REPAIR, AS INSTALLED DOES NOT MEET MINIMUM GENERAL SRM REQUIREMENTS. REPAIRED PER REO-G13018 REV C. FAA APPROVAL VIA 8100-9.

TIPR20090032	BOEING	SKIN	MISREPAIRED
11/1/2009	767222	146T3240	ZONE 100

DURING MX CHECK; THE FUSELAGE SKIN ASSY PN 146T3240 WAS FOUND TO HAVE EXISTING EXTERNAL REPAIR WITH NO PRIOR APPROVAL. THE REPAIR, AS INSTALLED, DO MEET MINIMUM GENERAL SRM REQUIREMENTS BUT IS WITHIN 22"OF ONE AN OTHER REPAIR. NO SPECIFIC SRM REPAIRS ARE AVAILABLE FOR THIS CONDITION. REPAIRED IAW REO-G1320 REV B., FAA APPROVAL VIA 8100-9 DATED OCT 30,2009.

TIPR20090033	BOEING	SKIN	MISREPAIRED
11/1/2009	767222	148T3220	ZONE 100

DURING MX CHECK; THE FUSELAGE SKIN ASSY 148T3220 WAS FOUND TO HAVE EXISTING EXTERNAL REPAIR WITH NO PRIOR APPROVAL. THE REPAIR AS INSTALLED DOES MEET MINIMUM GENERAL SRM REQUIREMENTS BUT IS WITHING 22" OF AN OTHER REPAIR. NO SPECIFIC SRM REPAIRS ARE AVAILABLE FOR THIS CONDITION. REPAIRED IAW REO-G1320 REV B., FAA APPROVAL VIA 8100-9, DATED OCT30,2009.

TIPR20090034	BOEING	SKIN	MISREPAIRED
11/1/2009	767222	148T3220	ZONE 100

DURING MX CHECK; THE FUSELAGE SKIN ASSY PN 148T3220 WAS FOUND TO HAVE EXISTING EXTERNAL REPAIR WITH NO PRIOR APPROVAL. REPAIR AS INSTALLED, DOES MEET MINIMUM GENERAL SRM REQUIREMENTS BUT IS WITHIN 22" OF AN OTHER REPAIR. NO SPECIFIC SRM REPAIRS ARE AVAILABLE FOR THIS CONDITION. REPAIRED IAW REO-G1320 REV B., FAA APPROVAL VIA 8100-9, DATED OCT30, 2009.

TIPR20090035	BOEING	STRINGER	CORRODED
11/1/2009	767222	146T3003	ZONE 100

DURING MX CHECK, THE FUSELAGE STRINGER 39R AT BS 1263 FOUND CORREDED BEYOND ALLOWABLE SRM LIMITS. REPAIRED STRINGER IAW SRM 53-00-03 FIG 201 REPAIR 2.

TIPR20090036	BOEING	STRINGER	CORRODED
11/1/2009	767222	146T3003	ZONE 100

DURING MX CHECK, STRINGER 39R WAS FOUND CORRODED BEYOND ALLOWABLE SRM LIMITS. REPAIRED

STRINGER IAW SRM 53-00-03, FIG 201, REPAIR 2.

CA090925003	BOEING	GE	SENSE LINE	BROKEN
9/19/2009	767223	CF680A1	332T12166	RT ENGINE

(CAN) FLIGHT CREW REPORTED AT IDLE THRUST, RIGHT ENGINE DUCT PRESSURE READ 4 PSI. MAINTENANCE PERSONNEL CARRIED OUT TROUBLESHOOTING OF THE RIGHT ENGINE BLEED AIR SYSTEM AND DISCOVERED THE SENSE LINE AT THE ENGINE HIGH PRESSURE CONTROLLER WAS BROKEN AT THE B-NUT FERREL. THE LINE WAS REPLACED WITH A SERVICE UNIT AND GROUND RUNS CARRIED OUT. THE AIRCRAFT HAD NO ADDITIONAL FAULTS AND WAS RELEASED FOR SERVICE. (TC 20090925003)

2009FA0000896	BOEING		WIRE	WORN
7/17/2009	767300			BEVERAGE MAKER

GALLEY C BEV MAKER NR5 TEA POT RETURNED TO STOWAGE, BREW HANDLE MOVED DOWN TO POT. A FLASH OF WHITE SPARK WAS SEEN FROM BEV MAKER. BEV MAKER SWITCHED OFF. A VISUAL INSP IN THE WORKSHOP FOUND THAT THE SWITCH ACTUATOR PLATE ATTACHED TO THE BREW HANDLE HAD RUBBED AT THE SWITCH CABLES EXPOSING THE INNER CORE, SUBSEQUENTLY CAUSING A SHORT TO GROUND. FOLLOWING AN INSP OF ANOTHER 64751-1, IT WAS NOTED THAT THE OTHER UNIT WAS FITTED WITH A P-CLIP TO RETAIN THE CABLE SO THAT THE POSSIBILITY OF CONTACT WITH MOVING PARTS IS MINIMIZED. HOWEVER, THE SUBJECT UNIT DOES NOT HAVE A P-CLIP FITTED OR HAVE A HOLE PERMITTING FITMENT OF A P-CLIP, SUGGESTING THAT THERE ARE DIFFERING STANDARDS OF 64751-1 UNITS. (K)

CA090818003	BOEING	GE	LUG	DAMAGED
8/10/2009	767375	CF680C2B6 6806404		ACM

90 MINUTES AFTER TAKEOFF, AT 34,000 FT, RED CABIN ALTITUDE WARNING AND BELL SOUNDED. CABIN ALT SHOWED 10,000 FT WITH CABIN ALTITUDE CLIMBING AT 800-1000 FT/MIN. PRESS CHECK LIST ACCOMPLISHED, MASKS DEPLOYED AND CREW DECLARED A PAN PAN. FLIGHT DESCENDED TO 8,000 FT, FLIGHT DIVERTED. FOUND DUCT OFF ACM TO HEAT EXCHANGER DUE TO ACM DUCT COUPLING FLEXIBLE RESTRAINTS PULLED THROUGH ACM LUG. REF IPC 21-51-01-10 ITEMS 330, 345, 425, 360. P/N 2203924-1 COOLING PACK DUCT , PN 2202323-4 DUCT, MFR: PN 5652 SEAL, PN 2203925-1 TUBE, OTHER PACK WAS ON INOP ON MEL.

CA090728006	BOEING	PWA	BOEING	BRACKET	CHAFED
7/27/2009	7673Y0	PW4060			PITOT LINE

LEAK IN ELEVATOR FEEL PITOT LINE LOCATED ON RT SIDE OF ACFT ABOVE LAVATORY AT R2 DOOR. THIS LEAK WAS FOUND WHEN CARRYING OUT A PITOT SYS TEST. THE MX CREW WERE UNABLE TO GET THE DESIRED AIRSPEED AND THUS BEGAN TROUBLESHOOTING THE SYS. PREVIOUS STATUS MESSAGES : "ELEVATOR FEEL" NOTED AT THIS POINT THE LEAK WAS FOUND. AUX PITOT 2 PRESSURE AND DRAIN TUBES REPAIRED IAW PP B767-27-38737 AND B767-27-38738. AFFECTED TUBE MPN: 233T9110-608(TUBE) AND 233T9110-614 (TUBE) LEAK IS BELIEVED TO BE CAUSED BY CHAFING BY THE BRACKET AND BOLT HOLDING THIS LINE IN PLACE. EVIDENCE OF CHAFING FOUND ON THE BOLT AND BRACKET. REF L4584853

CA090813004	BOEING		RADAR	FAILED
8/6/2009	777233LR		9301000001	LEFT WX

(CAN) SHORTLY AFTER TO, BOTH WEATHER RADARS FAILED. FLIGHT DIVERTED TO YVR. DUE TO REPEAT SNAGS, NEW S/W INSTALLED ON BOTH RADAR PROCESSORS. RT UNIT: P/N SAME, S/N RP00616 SW IS THROUGH HONEYWELL SB 930-1000-34-05 (TC 20090813004)

CA090811001	BOEING	GE	TRANSMISSION	FAILED
7/23/2009	777333ER	GE90115B	256W311010	TE FLAPS

AFTER TAKE-OFF THE FLIGHT HAD A FLAPS GEAR DRIVE FAILURE WITH THE FLAPS IN A POSITION BETWEEN 5 AND 20. FLIGHT WAS UNABLE TO CONTINUE TO DESTINATION AND RETURNED TO DEPARTURE. THE FLIGHT WAS APPROX 75000K OVERWEIGHT AND CREW CALLED A PAN PAN EMERGENCY FOR LANDING. AFTER LANDING SEVERAL TIRES DEFLATED, THE PASSENGERS WERE DEPLANED TO BUSES AND FOR THE RETURN TO THE TERMINAL. NR 8 FLAP TRANSMISSION REPLACED. P/N LISTED ABOVE, S/N 0342. UNIT WAS INSTALLED IN JULY 7 2009, AND REMOVED AFTER INCIDENT. IT HAD 205 HRS SINCE INSTALLATION. UNIT MFR IS BOEING. ETQ RELIANCE INVESTIGATION NR 6638.

CA090706001	BOLKMS	ALLSN	CHECK VALVE	MALFUNCTIONED
6/18/2009	BO105S	250C20B	6895171	NR 1 ENGINE
<p>(CAN) PILOT ON HELI-PAD, BOTH ENG ONLINE WITH TORQUE`S MATCHED. WHEN PILOT PULLED ACFT INTO HOVER NOTICED A LARGE TORQUE SPLIT BETWEEN NR 1 AND NR 2 ENG. NR 1 Q READ 60 PERCENT AND N1 ONLY READ 90.5 PERCENT. COLLECTIVE LOWERED, ACFT LANDED WITH NO PROBLEMS, PILOT RETARDED NR 2 THROTTLE TO GND. IDLE AND PULLED IN PWE ON NR 1 ENG. COULD NOT ATTAIN TORQUE 60 PERCENT N1 90.5 PERCENT. EXTENSIVE TROUBLESHOOTING OF NR 1 ENG. FUEL, AIR AND ENG CONTROLS CARRIED OUT. CHECK VALVE FROM NR 2 ENG. REMOVED AND INSTALLED ON NR 1 ENG. SUBSEQUENT ENG START ON NR 1 ENG FOUND TO BE NORMAL, WITH TORQUE RISING ABOVE 60 PERCENT AND N1 INCREASING ABOVE 90.5 PERCENT. SUSPECT CHECK VALVE REMOVED FROM SERVICE AND AVAILABLE FOR INSP.</p>				
CA090901006	BOMBDR		PUMP	INOPERATIVE
8/7/2009	BD1001A10		9558057	HYD SYSTEM
<p>CREW REPORTED THEY HAD TAXIED OUT FOR TAKEOFF AND JUST PRIOR TO APPLYING TAKEOFF PWR AMBER CAS (L GEN FAIL) POSTED AND LT GENERATOR DROPPED OFF LINE. A FEW SECONDS LATER AMBER CAS (APU GEN FAIL) POSTED. CREW TAXIED BACK OFF THE RUNWAY. DURING TAXI, CREW NOTED CYAN CAS (R HYD DC PUMP FAIL) CYCLED ON. CREW TAXIED BACK AND SHUTDOWN THE ENGINES. CREW THEN NOTED THE C/B R DC PUMP C11 WAS TRIPPED. CREW RESET C/B AND TURNED ON THE RDCMP AND THE C/B POPPED AGAIN. THE RDCMP WAS REPLACED AND THE OPS CHECKS WERE GOOD ON THE GENERATORS.</p>				
CA090826013	BOMBDR	PWC	BUSS BAR	BROKEN
8/18/2009	DHC8400	PW150A	697070212	NR 1 PROP
<p>NR 1 PEC CAUTION MESSAGE WITH POWERPLANT MESSAGE ON CLIMB ABOVE 10,000`. NR 1 PROPELLER WENT TO 1050 TO 1060 NP. UNABLE TO GET PROPELLER UNDER 1020 NP. NR 1 ENG SHUTDOWN IAW EA CHECKLIST. NR 1 PROPELLER OVERSPEED ABOVE 1050-1060 UNCONTROLLABLE FAULT CODES: NR 1 160A LOCAL NP MPU EXTRA PULSES 160B LOCAL NP MPU EXTRA PULSES 162A NP DISAGREES WITH QA AND QB SPEEDS 162B NP DISAGREES WITH QA AND QB SPEEDS NR 2 156A MPU 7P IN EXTRA/MISSING PULSES 156B MPU 7P IN EXTRA/MISSING PULSES MX REPLACED BROKEN BUSS BAR ON NR 1 PROPELLER. ACFT RTS SB D8400-61-66 IS RELATED TO THIS ISSUE.</p>				
CA090917001	BOMBDR	PWC	TERMINAL	LOOSE
9/16/2009	DHC8400	PW150A		WINDSHIELD HEAT
<p>(CAN) DURING CRUISE, WINDSHIELD HEAT SET TO NORMAL = SMOKE IN FLIGHT COMPARTMENT PROBLEM WINDSHIELD IDENTIFIED AND CIRCUIT ISOLATED. MAINTENANCE DISCOVERED 115 VAC POWER TERMINAL L1 & L2 NOT SECURED PROPERLY. (TC# 20090917001)</p>				
CA090928003	BOMBDR	PWC	WIRE	CHAFED
9/26/2009	DHC8400	PW150A		PROP DE ICE
<p>(CAN) DURING TROUBLESHOOTING FOR A PROPELLER DEICE SNAG. AC POWER WIRES WERE FOUND CHAFING INSIDE THE NR 1 AC CONTACTOR BOX. AC CONTACTOR BOX REPLACED AND AIRCRAFT RETURNED TO SERVICE. (TC# 20090928003)</p>				
CA090824010	BOMBDR	PWC	BLEED VALVE	MALFUNCTIONED
8/21/2009	DHC8400	PW150A	304796605	NR 2 ENGINE
<p>NR 2 ENG FADEC CAUTION LIGHT ILLUMINATED IN FLIGHT. MX CONTROL ADVISED CREW TO RETURN TO BASE. MX FOUND FADEC FAULTS 967 AND 908 ON BOTH CHANNELS OF NR 2 ENG. THE P2.7 HBOV WAS REPLACED.</p>				
CA090909002	BRAERO	GARRTT	SEAL	LEAKING
7/31/2009	BAE125800A	TFE7315R		NLG ACTUATOR
<p>NLG ACTUATOR SEAL FAILED OVER NIGHT WHILE ACFT WAS SITTING IN HANGAR. A LARGE AMOUNT OF HYD FLUID LEAKED, REQUIRING REPLACEMENT OF NOSE GEAR TIRES.</p>				
CA090811002	BRAERO	GARRTT	STRUCTURE	DAMAGED
8/9/2009	HS125700A	TFE7313R1H		

AUG 09-2009 HS-125 700A INCIDENT REPORT HAIL DAMAGE. ACFT WAS RETURNING TO MAIN BASE FROM A 704 TRIP AND ATC ADVISED CREW OF THUNDER STORM ACTIVITY IN AREA. ACFT WAS HELD IN A HOLDING PATTERN AND THEN CLEARED. BETWEEN 13000FT AND 10000FT ACFT ENTERED AN AREA OF HEAVY TURBULENCE AND RAIN. DURING DESCENT THE ACFT SLOWED TO APROX 200 KNOTS INDICATED. ONCE ACFT REACHED BELOW 6000FT, VECTORED ONTO ILS APPROACH WITH 5000FT VISIBILITY. CREW REPORTED TO ATC OF MODERATE CHOP AND RAIN AND WAS NOT AWARE OF ANY POSSIBLE HAIL ACTIVITY IN AREA. UPON LANDING, PASSENGERS WERE DISEMBARKED AND ACFT RELOCATED TO MX BASE WHEN CREW NOTICED EVIDENCE OF HAIL DAMAGE THROUGH OUT ACFT. MX WAS ADVISED AND ACFT WAS FOUND TO HAVE SIGNIFICANT DAMAGE THROUGHOUT LT AND RT WING L/E TKS PANELS, FAIRINGS AND STATIC WICKS BROKEN. ACFT WILL BE SUBJECTED TO AND INSPECTED IAW UNSCHEDULED INSPECTIONS 05-50-00 SET OUT IN MM FOR POSSIBLE LIGHTNING STRIKE AND FLIGHT INTO HAIL STORM CONDITIONS. THIS ACFT IS SUBJECTED TO A VERY COSTLY REPAIR AND UNFORTUNATELY A LENGTHY DOWNTIME BEFORE IT IS RETURNED TO SERVICE.

2009FA0000870	CESSNA	CESSNA	ROD END	CORRODED
10/22/2009	120		0422012	ZONE 500

A MAJOR PORTION OF THE ROD END IS CORRODED. THE TOP OF THE SPHERICAL END OF THE BALL (ROD END) IS AGAINST THE BOTTOM OF THE WING SKIN. THE ROD END IS VERY DIFFICULT IF NOT IMPOSSIBLE TO INSPECT WITHOUT REMOVING THE WING STRUT AND PERFORMING A GOOD VISUAL INSPECTION.

CA090731003	CESSNA	CONT	EXHAUST VALVE	STUCK
7/25/2009	150M	O200A	646612	ENGINE

(CAN) EXHAUST VALVE STUCK IN OPEN POSITION.

CA090731004	CESSNA	CONT	EXHAUST VALVE	STICKING
7/29/2009	150M	O200A	646612	ENGINE

ENGINE RUNNING ROUGH, MISSING ETC. DP PERFORMED AND FOUND 0/80, FOUND STUCK VALVE IN OPEN POSITION.

CA090908005	CESSNA	CONT	VALVE STEM	BROKEN
9/8/2009	150M	O200A	AEC655971	EXHAUST VALVE

DURING CRUISE UPON RETURN TO BASE ENG DROPPED ABOUT 300 RPM AND BEGAN TO RUN ROUGH, LANDING WITHOUT INCIDENT. UPON INVESTIGATION EXHAUST VALVE FACE HAD BROKEN INTO 2 PIECES AND VALVE STEM WAS BENT AND HAD BROKEN JUST BELOW THE TIP WITH ALL 3 PIECES BEING FOUND IN EXHAUST. REMAINING TIP OF VALVE STEM ALONG WITH KEEPERS WERE STILL INSTALLED IN VALVE SPRING SEAT. PISTON CROWN AND CYL HEAD SHOWED EVIDENCE OF DAMAGE DUE TO CONTACT WITH THE PIECES OF VALVE.

2009FA0000927	CESSNA		FITTING	CRACKED
10/8/2009	152		04311481	VERT STAB

VERT STABILIZER ATTACH FITTINGS CORRODED (FILLIFORM AND EXFOILATION), ONE OF THEM CRACKED DUE TO CORROSION. ACFT KEPT OUTSIDE IN AN OCEAN ENVIRONMENT 3.5 MILES FROM COAST. PROBABLE CAUSE IS IMPROPER PREVENTATIVE MAINTENANCE. RECOMMENDATIONS: COLOSER AND MORE FREQUENT INSP OF THESE ITEMS AND MORE STRINGENT STEPS TO ASSURE CORROSION PREVENTATIVE PRIMERS, PAINTS, AND WAXES ARE NOT DETERIORATED IN THESES AREAS. (K)

CA090813006	CESSNA	CONT	YOKE	CORRODED
6/23/2009	172E	O300C	05117821	CONTROL COLLUMN

YOKE BROKE DURING WIND STORM. YOKE FOUND BORKEN AT THE BOTTOM PART DUE TO CORROSION (INSIDE TUBE).

CA090805004	CESSNA	LYC	CYLINDER	PRESSURE LOSS
8/5/2009	172K	O320E2D	AEL65102	ENGINE

REPORTED HIGH OIL CONSUMPTION, FOUND NR 2 CYL LOW COMPRESSION 20/80 PAST RINGS.

CA090824009	CESSNA	LYC	PISTON	BROKEN
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8/21/2009	172N	O320D2J	75089	CYLINDER ASSY
(CAN) COMPRESSION CHECK DURING INSP INDICATED LOW COMPRESSION, INSP REVEALED BROKEN PISTON RING LAND BETWEEN TOP 2 RINGS.				
CA090730002	CESSNA	LYC	FAIRING	IMPROPER PART
6/24/2009	172N	O320H2AD	A221ANDA222	WING
PART DOES NOT HAVE PROPER CERTIFICATION.				
CA090914004	CESSNA	LYC	FLOAT	STUCK
9/11/2009	172N	O320H2AD	105217	CARBURETTOR
(CAN) PILOT REPORTED ENGINE RUNNING ROUGH AND ON SHUT DOWN FUEL COMING FROM COWLING. INSPECTION REVEALED FUEL COMING FROM CARB INLET DUE TO STUCK FLOAT OR NEEDLE VALVE. CARB REPLACED AND AIRCRAFT RELEASE. (TC# 20090914004)				
CA090902008	CESSNA	LYC	SLICK	IMPULSE COUPLING
9/2/2009	172N	O360A4A	M3529	BROKEN
DURING 500 HR INSP OF MAGNETO, PAWL PLATE WAS FOUND TO BE MISSING PIECES AT BOTH OF THE STOP LOCATIONS. ONE PIECE WAS FOUND ON THE LIP OF THE MAGNETO ADAPTER AND THE OTHER WAS RETRIEVED WITH A MAGNET FROM THE BOTTOM OF THE ACCESSORY CASE.				
CA090915008	CESSNA	THIELT	ALTERNATOR	FAILED
9/13/2009	172P	TAE12502114	057150	ENGINE
(CAN) CHARGING SYSTEM WARNING LIGHT CAME ON IN FLIGHT. AIRCRAFT LANDED WITHOUT INCIDENT. MAINTENANCE REPLACED THE ALTERNATOR AND GROUND TESTED SERVICEABLE. THE AIRCRAFT WAS RELEASED BACK TO SERVICE. (TC# 20090915008)				
2009FA0000924	CESSNA	LYC	BULKHEAD	CRACKED
10/2/2009	172R	IO360L2A	05522311	SPINNER
PROPELLER SPINNER FWD BULKHEAD HAS CRACKS AROUND BOLT HOLES. CAUSE IS FROM NORMAL WEAR. COULD BE PREVENTED BY INSTALLING A RING UNDER BOLTS SIMILAR TO THE ONE USED IN THE PROPELLER. INSTALLATION IAW SB NR SB221B. (K)				
CA090915004	CESSNA	LYC	STARTER	SEIZED
9/15/2009	172S	IO360L2A	149NL	ENGINE
(CAN) STARTER SEIZED. HEAVY CURRENT DRAW ON ATTEMPTED START. (TC# 20090915004)				
CA090915005	CESSNA	LYC	STARTER	SEIZED
9/9/2009	172S	IO360L2A	149NL	ENGINE
(CAN) STARTER SEIZED. HEAVY CURRENT DRAW ON ATEMPTED START. (TC# 20090915005)				
CA090908008	CESSNA	LYC	LINE	WORN
8/20/2009	172S	IO360L2A	0500118127	BRAKE
DURING SCHEDULED MX, NOTICED DRIP ON FLOOR. TRACED TO A WORN BRAKE LINE THAT HAD CONTACTED A FAIRING SCREW. LOSS OF BRAKE WOULD HAVE BEEN IMMINENT.				
CA090908009	CESSNA	LYC	LINE	LEAKING
8/26/2009	172S	IO360L2A	0500118126	BRAKE
PLASTIC TUBING COVERING BRAKE LINE TO PREVENT DAMAGE, ALLOWED MOISTURE TO COLLECT AND CAUSED CORROSION. FORTUNATLEY THIS WAS FOUND ON SCHED MAINT BEFORE BRAKE LOSS OCCURED.				
CA090902003	CESSNA	LYC	FAIRLEAD	WORN

9/1/2009	172S	IO360L2A	052264712	AILERON CABLES
AILERON CABLES IN THE RT WING ARE DEFLECTED OVER A FAIRLEAD STRIP TO CLEAR AUTOPILOT ROLL SERVO CAPSTAN. SYNTHETIC MATERIAL USED FOR THE RUB STRIP IS VERY HARD AND HAD WORN THE STAINLESS STEEL AILERON CABLES IN AN UNUSUALLY SHORT PERIOD OF TIME. SUGGEST THAT A SOFTER MATERIAL BE EMPLOYED AT THIS LOCATION. EXISTING MATERIAL WILL WEAR THE CABLES AGAIN WITHIN 600 HOURS.				
CA090826006	CESSNA	LYC	HOUSING	BROKEN
7/13/2009	172S	IO360L2A		STARTER GEAR
STARTER BENDIX HSG BROKE, CAUSING STARTER TO BECOME INOPERATIVE.				
CA090923003	CESSNA	LYC	ALTERNATOR	FAILED
9/13/2009	172S	IO360L2A	991059111RX	
(CAN) THE ALTERNATOR WOULD NOT HOLD A CHARGE AND NO OUTPUT (TC# 20090923003)				
CA090923001	CESSNA	LYC	CARBURETOR	MALFUNCTIONED
9/15/2009	177B	O360A1F6	103678	ENGINE
(CAN) CAUSES RPM TO STUMBLE AND DROPOFF GOING THROUGH 1500 RPM, POOR IDLE CUTOFF (TC# 20090923001)				
CA090731002	CESSNA	LYC	CARBURETOR	MALFUNCTIONED
7/30/2009	177B	O360A1F6	105034R	ENGINE
(CAN) ENG RPM FLUCTUATES AT 1500 RPM-MID RANGE MIXTURE THICK.				
CA090812001	CESSNA	LYC	AIR BOX	CRACKED
8/7/2009	177B	O360A1F6	17520883	CARBURETTOR
FOUND CRACKED IN TWO PLACES.				
CA090826015	CESSNA		SHAFT	MISSING
7/13/2009	182		LW13896	GOVERNER IDLER
MASSIVE OIL LOSS DURING FLIGHT. ACFT LANDED ON HYW 17. ACFT LOADED ONTO TRANSPORT AND RELOCATED. INSP REVEALED ENG PLUG PN LW-13896 HANGING FROM LOCKING. PROPELLER GOVERNER IDLER SHAFT FOUND MISSING. PN LW-14021 IDLER GEAR PN LW-10541 FOUND FLOATING INSIDE ENGINE CASE CAVITY. LOCAL SUPPORT CONTACTED. SERVICE INSP 134313 MAY NOT HAVE BEEN COMPLETED AT LAST O/H. ENG REMOVED FOR SHIPMENT TO USA REPAIR FACILITY. NOTE: ENG WAS NOT SHUTDOWN UNTIL AIRCRAFT HALTED. RAN APPROX 3 MINUTES WITH NO OIL PROCESS INDICATED.				
CA090319012	CESSNA	CONT	ENGINE	MAKING METAL
12/10/2008	182B	O520*		
FERRIOUS METAL WAS FOUND IN FILTER, THE TEARDOWN FOUND.				
CA090915006	CESSNA	CONT	CYLINDER	WRONG PART
7/31/2009	182P	O470*		ENGINE
(CAN) DURING ROUTINE MAINTENANCE THE NR 1 AND 3 CYLINDERS WERE FOUND TO HAVE LOW COMPRESSION. THE CYLINDERS AND PISTONS WERE REMOVED AND SENT IN FOR REPAIR. AFTER RECEIVING THE CYLINDERS AND PISTONS, DISCOVERED THAT THE PISTONS PART NUMBERS WERE THAT OF A "U" ENGINE TYPE. THE ENGINE HAD BEEN OVERHAULED AND WAS RECEIVED AS AN R AND THE TYPE CERTIFICATE FOR THE 182P IS THAT OF THE R. WAS SENT 6 NEW PISTONS AND 6 NEW CYLINDERS WHICH WERE INSTALLED WHICH THEN MADE THE ENGINE CONFORM TO THE R CERTIFICATION.				
CA090902001	CESSNA	CONT	SKIN	CORRODED
9/2/2009	182Q	O470U	07133343LH	FUSELAGE
DURING A NR3 AND NR4 INSP, CORROSION WAS FOUND ON SURFACE OF LWR LT AND RT FUSELAGE SKIN. IT WAS				

FOUND INSIDE THE COCKPIT BY THE PILOT'S/CO-PILOTS RUDDER PEDALS AREA, BEHIND THE TRIM PANEL. SKIN IN QUESTION ARE ONLY ALCLADDED, NO PRIMER OR PAINT WERE EVER APPLIED. THE SKINS WERE LOOSELY COVERED IN YELLOW FIBERGLASS INSULATION.

CA090924010	CESSNA	PWA	CESSNA	SKIN	CORRODED
9/23/2009	208	PT6A114A		26340141	ELEVATOR

(CAN) WHILE AIRCRAFT WAS UNDERGOING A PHASE INSPECTION, IT WAS NOTICED SOME CORROSION POWDER AT ELEVATOR MASS BALANCE AREA. FURTHER INSPECTION REVEALED MASS BALANCE WEIGHT SPAR CORRODED BEYOND REPAIR. PART WAS REPLACED WITH FACTORY NEW UNIT. ELEVATOR WAS BALANCE CHECKED AND RETURNED TO SERVICE. (TC 20090924010)

CA090730006	CESSNA	PWA	MCAULY	SPRING	WRONG PART
7/24/2009	208	PT6A114A			PROPELLER PISTON

PROP INSTALLED ON ACFT HAD PROP ZERO PITCH LATCH KIT INSTALLED IAW STC SP96-1. THE PROP HAD A HARD TIME COMING OFF LATCHES. PROP WAS DISMANTLED TO THE EXTENT NECESSARY TO DETERMINE THAT THE WRONG FLYWEIGHT SPRINGS HAD BEEN INSTALLED AT THE PREVIOUS O/H. SPRINGS SHOULD BE MODIFIED IAW THE STC. PROPER SPRINGS PN B-5020WPL INSTALLED AND PROP RETURNED TO SERVICE.

CA090804001	CESSNA	PWA		SHAFT	SHEARED
7/29/2009	208	PT6A114A			FUEL CONTROL

(CAN) FCU INPUT SHAFT BEARING DISINTEGRATED AND FCU INPUT SHAFT COUPLING SHEARED. ENG LOST CONTROLLABILITY DURING TAXI OUT FOR TAKEOFF. FCU SHOWED NO PREVIOUS INDICATION OF BEARING DISTRESS ON ANY OF THE BEARING WASH OUT INSPECTIONS. LAST PREVIOUS INSP WAS 85.3 HRS BEFORE FAILURE. BOTH THE FCU AND THE FUEL PUMP HAVE BEEN REPLACED WITH OVERHAULED UNITS.

CA090914005	CESSNA	CONT		SUMP	WORN
9/1/2009	2105A	IO520F		633412	ENGINE

(CAN) DRUING ROUTINE 200 HOURS INSPECTION A SMALL OIL DRIP WAS OBSERVED ON OIL SUMP. INVESTIGATION SHOWED THE OIL DIPSTICK WAS WEARING THROUGH FROM THE INSIDE. OIL SUMP REPLACED. PROG AIR (ENGINE SHOP) ADVISED US TO CHECK DIPSTICK SPIGOT - AS IT WAS PRESSED INTO CASE TOO FAR ALLWOING DIPSTICK TO GO TO FAR. (TC# 20090914005)

CA090807004	CESSNA	CONT		SUPPORT BRACKET	BROKEN
7/8/2009	401B	TSIO520EB			TURBOCHARGER

RT TURBO SUPPORT BRACKET FOUND BROKEN DURING INSP.

CA090819006	CESSNA	CONT		FITTING	CRACKED
8/12/2009	421B	GTSIO520H		AN9112	FUEL INJECTOR

ON WALK AROUND BEFORE FLIGHT A VERY SMALL POOL OF FRESH FUEL WAS DISCOVERED DRIPPING FROM BOTTOM OF LT ENG COWL, UPON FURTHER EXAMINATION A BRASS FUEL FITTING IN FUEL CONTROL ASSY. HAD CRACKED IN THE UPPER THREADED PORTION CAUSING FUEL TO LEAK FROM ENG JUST AHEAD AND ABOVE TURBOCHARGER. HIGH POTENTIAL RISK FOR IN FLIGHT FIRE IF IT HAD GONE UNDETECTED.

CA090728008	CESSNA	CONT		SKIN	CRACKED
6/29/2009	421C	GTSIO520L		52130409	FUSELAGE

(CAN) DURING INSPECTION, REFERENCED SKIN WAS FOUND CRACKED UNDER NOSE GEAR TRUNNION BEARING SUPPORT BLOCK SPACER. CRACK THAT WAS FORMING FOLLOWED THE EXACT EDGE OF THE SPACER AND WAS APPROX 1/7TH THE PERIMETER LENGTH, OF THE SPACER. SKIN WAS SUBSEQUENTLY REPLACED. THE EDGES OF THE SPACER WERE DE-BURRED AS IT WAS BELIEVED THE SHARP EDGE OF THE SPACER PLATE IS WHAT CAUSED THE STRESS THAT EVENTUALLY CAUSED THE CRACK.

CA090826009	CESSNA	CONT		VALVE SPRING	BROKEN
8/9/2009	421C	GTSIO520L		637837	EXHAUST VALVE

(CAN) CREW REPORTED RT ENG RUNNING ROUGH. UPON INSP, MX FOUND NR5 CYL EXHAUST VALVE SPRING BROKEN. SPRING REPLACED AND ENG GROUND RUN NORMAL.

CA090826003	CESSNA	PWA	CONTROL CABLE	MISINSTALLED
7/16/2009	425	PT6A112	9520000828	RUDDER CONTROL

BOTH LT AND RT RUDDER CABLES NOT INSTALLED CORRECTLY. PASSING OVER THE GUARD PINS INSTEAD OF THROUGH THE PULLEYS, RESULTING IN SEVERE CABLE CHAFING. THE LT GUARD PIN FAILED UNDER STRESS AND THUS REDUCING CABLE TENSION. THE RT GUARD PIN REMAINED INTACT, ABBRAIDING AND SEVERELY DAMAGING THE CABLE. (GUARD PIN ITEM NR182)

CA090826004	CESSNA	PWA	NUT	MISSING
7/16/2009	425	PT6A112	MS178263	CELVIS BOLT

CLEVIS BOLT NOT SECURED. RETAINING NUT IS MISSING (AND COULD NOT BE LOCATED IN ACFT) CLEVIS BOLT DID NOT COMPLETELY SEPARATE FROM THE CLEVIS HSG (ITEM NR 32).

CA090826005	CESSNA	PWA	RETAINING CLIP	MISSING
7/15/2009	425	PT6A112	MS212561	CABLE TURNBUCKLE

TURNBUCKLE CLIP WAS NOT ON TURN BUCKLE ALLOWING THE LOWER TURNBUCKLE TO UNSCREW AND SEPARATE FROM THE LWR CLEVIS INFLIGHT INDICATION WAS `PORPOSING O AUTOPILOT IN CRUISE`.

2009FA0000911	CESSNA		WHEEL	MISINSTALLED
9/11/2009	525A		63610091	ELEVATOR TRIM

DURING TAKEOFF OF THE ACFT, WENT INTO A CLIMB IMMEDIATELY AFTER LIFTOFF. THE ACFT TRIED TO GO NOSE UP EXCESSIVELY AND THE PILOT HAD TO APPLY FWD PRESSURE TO THE CONTROL COLUMN TOO ARREST THE CLIMB AND CONTROL THE ACFT. A POST FLIGHT INSP FOUND THE POINTER FOR TRIM POSITION AND THE ACTUAL TRIM TAB POSITION DID NOT AGREE. INSP OF THE SYSTEM REVEALED THE TRIM WHEEL WAS INSTALLED 90 DEGREES OUT OF POSITION. CAUSE OF CONDITION UNKNOWN, SYS WAS NOT WORKED DURING MX VISIT. THE TRIM WHEEL WAS REMOVED AND REINSTALLED PROPERLY AND A RIG CHECK OF THE SYS CONDUCTED. ACFT WAS RETURNED TO SERVICE AND DEPARTED.

CA090825001	CESSNA	PWA	CONTROL CABLE	DISLODGED
8/24/2009	550	JT15D4		ELEVATOR TRIM

(CAN) THE ELEV TRIM CABLE AT SOME TIME HAS WORN THE TAILCONE SKIN OPENING. A SIMILAR PROBLEM WAS FOUND ON C550-0700 AND MFG ISSUED A REPAIR FOR THIS CONDITION. THE SAME REPAIR WAS USED TO RECTIFY THE ISSUE ON THIS ACFT.

CA090821008	CESSNA	PWA	SKIN	WORN
7/2/2009	550	JT15D4	651201030	TAILCONE

DURING ELEVATOR TAB CONTROL SYS RIGGING, MX FOUND ELEVATOR TRIM TAB CONTROL CABLES RUBBING ON FUSELAGE TAILCONE SKIN AT CUT OUT HOLES. TRIM CABLES, PULLEYS AND CABLE RUNS WERE INSPECTED AND FOUND CORRECT, NO DAMAGE OR DEFECTS. ENGINEERING WAS ADVISED AND ISSUED A RD TO DRESS THE TAILCONE SKIN AT THE TRIM CABLE EXIT HOLES SUFFICIENTLY TO ESTABLISH CLEARANCE. CAMPAIGN 851-27-30-050 WAS ISSUED.

2009FA0000944	CESSNA		WARNING LIGHT	ILLUMINATED
10/29/2009	560CESSNA			CARGO DOOR

RIGHT NOSE BAGGAGE ANNUNCIATOR ILLUMINATED IN FLIGHT.

2009FA0000926	CESSNA	GARRTT	BLADE	SEPARATED
8/6/2009	650	TFE7314R	30747856	HPT ROTOR

ON AUG 6, 2009 AT 6:45 AM, DURING TAKEOFF, THE NR 2 ENGINE FAILED WITH A REPORTED "LOUD SHARP BANG" RESULTING IN THE ACFT'S "YAWING". THERE WERE NO INDICATIONS OF FIRE/SMOKE, HOWEVER, AN EMERGENCY WAS DECLARED AND ACFT RETURNED TO DEPARTURE AIRPORT AND LANDED UNEVENTFULLY. POST FLIGHT INSPECTION REVEALED THE N1 SPOOL HAD LOCKED UP AND VISUAL INSPECTION OF THE EXHAUST

DUCT REVEALED LPT3 BLADE MID SPAN BLADE SEPARATIONS WITH SUBSEQUENT DOWN STREAM OBJECT DAMAGE IN THE FORM OF IMPACT DAMAGE (DENTS). THE ENGINE WAS RETURNED TO MFG FOR ENGINEERING INVESTIGATION. DISASSEMBLY FINDINGS AND MATERIAL ANALYSIS OF THE HPT ROTOR ASSY REVEALED ONE BLADE EXHIBITED A FLAT AREA INDICATIVE OF FATIGUE AND WAS OBSERVED ON THE FRACTURE SURFACE AND APPEARED TO EMANATE FROM THE L/E OF THE BLADE. HEAVY OXIDATION OBSCURED THE FINER FEATURES ON THE FRACTURE SURFACE. THE REMAINING FRACTURE SURFACES OF THE SEPARATIONS ON THE REMAINING HPT BLADES WERE INDICATIVE OF OVERLOAD AND DID NOT EXHIBIT ANY FEATURES RELATED TO FATIGUE. (K)

CA090807010	CESSNA	PWC	LIGHT	BURNED
8/6/2009	680CE	PW306C	CLE23602	RT SIDE CABIN

(CAN) SHORTLY AFTER REACHING CRUISE ALTITUDE, SMOKE WAS OBSERVED IN THE PASSENGER CABIN IN THE VICINITY OF OVERHEAD LED STRIP LIGHTS. FLIGHT CREW COMPLETED QRH AND ISOLATED LIGHTING CIRCUIT. SMOKE DISSIPATED AND ACFT CONTINUED TO ITS DESTINATION. MX INSPECTED THE ACFT AND OBSERVED THAT NO CIRCUIT BREAKERS HAD TRIPPED, PWR WAS THEN APPLIED ONLY THEN DID THE DOWN WASH CIRCUIT BREAKER TRIP. THE DEFECT WAS TRACED TO THE RT NR 3 DOWN WASH LED LIGHT ASSY. ONE END OF THE LIGHT ASSY WAS BURNED. THE LIGHT ASSY WAS REPLACED.

2009FA0000893	CESSNA	LYC	BRACKET	CRACKED
10/23/2009	A150L	O360A2D	04320041	HORIZONTAL STAB

FOUND CRACK IN BRACKET APPROX 3 IN LONG, TOP RT CORNER BROKE OUT AROUND NUTPLATES. ALSO FOUND CRACKS IN REINFORCEMENT 0432001-15 & 0432001-56, APPROX 2 IN LONG, BELIVED TO HAVE BEEN CAUSED BY MOVEMENT AS RESULT FROM CRACKED BRACKET. CRACKS FOUND WHILE PERFORMING INSPECTION PER AD 80-11-84.

CA090902009	CESSNA	CONT	CRANKSHAFT	BROKEN
8/21/2009	A185E	IO520F	10520F	ENGINE

IN FLIGHT FAILURE OF CRANKSHAFT AT THE NR 2 BEARING LOCATION. ACFT LANDED SAFELY.

CA090921005	CESSNA		MOTOR	BURNED
9/19/2009	S550			CABIN AIR BLOWER

(CAN) CREW WERE TAXING TO HANGAR WHEN THEY DETECTED ELECTRICAL BURNING AND THEN SMOKE IN THE COCKPIT. MAINTENANCE DISCOVERED BAD BURNED ODOR IN COCKPIT AND IN TAILCONE. TTHE MOTOR WINDINGS HAD BURNED UP IN THE CABIN UNDERFLOOR BLOWER ASSEMBLY (TC 20090921005)

CA090826018	CESSNA	CONT	CABLE	FAILED
8/24/2009	T210K	TSIO520H	98600581	TE FLAPS

OWNER/PILOT REPORTED THAT AFTER LANDING, FLAPS WOULD NOT RETRACT TO FULL UP NOR DID FLAP INDICATOR INDICATE CORRECT POSITION OF FLAPS. TROUBLESHOOTING REVEALED THAT FLAP FOLLOW UP CABLE OUTER CASING SHATTERED JUST INBD OF ATTACH CLAMP IN ROOF ABOVE PILOTS HEAD. THIS CAUSED INTERNAL ACTUATING PORTION OF CABLE TO "BALL UP". RESULT WAS THAT CABLE COULD NOT TRANSMIT FOLLOW UP ACTION TO MOVE MICROSWITCH FOLLOWER PLATE AT CONTROL HANDLE STOPPING MOTION OF FLAPS. CABLE WAS REPLACED WITH A NEW CABLE WHICH HAD A NEW UPGRADED PN AS WELL AS DESIGN BY MFG S1244-9. THE OLD CABLE HAD A PLASTIC STYLE OUTER CASE, NEW ONE IS A STEEL OUTER CASE. PLASTIC ON THE OLD CABLE IS VERY BRITTLE AND CAN BE EASILY BROKEN BY BENDING CABLE WHICH ONE WOULD BE SUSPECT IS DUE TO CABLES AGE. IT COULD NOT BE DETERMINED FROM THE ACFT LOGS IF THIS CABLE HAD EVER BEEN REPLACED SINCE MFG.

CA090806008	CESSNA	CONT	BOLT	BENT
7/12/2009	U206F	IO520F	NAS14643NAS145	LT WHEEL AXLE

SORRY FOR THE DELAY BUT WE CONTACTED T.C. AND IT SEEMS THIS IS THE ONLY WAY TO ADDRESS THE PROBLEM. WHILE CHANGING TIRES, THE WHEEL BOLT P/N NAS 145-41 WAS FOUND LOOSE. WHEN REMOVED BOLT P/N NAS 146-43 WAS FOUND BENT. ALL BOLTS WERE REPLACED. THE DISTURBING PART IS THAT THE ACFT HAD JUST BEEN RECEIVED BACK FROM INSP REBUILD AND WAS CERTIFIED AIRWORTHY.

CA090818002	CESSNA	CONT	KELLY	GROUND STUD	BROKEN
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8/15/2009 U206F IO520F DOFFIO300BR ALTERNATOR
(CAN) THE GROUND POST WAS FOUND BROKE OFF, THE ALTERNATOR WAS NOT PRODUCING A CHARGE, BATTERY DIED.

[CA090806010](#) CESSNA CONT CESSNA BOLT BENT
7/12/2009 U206F IO520F SCISSOR LINKS

WE WERE IN CONTRACT WITH TC CONCERNING THIS INCIDENT AND THIS SEEMS TO BE THE ONLY WAY OF DEALING WITH THIS PROBLEM. AFTER THE INCIDENT REPORTED SDR 2009 0707010 THE SCISSORS LINK WAS INSPECTED AND BOLT P/N AN 4 -31 WAS FOUND BENT. BOLT PN NAS 6203-22D WAS FOUND WORN. ALL THE BOLTS WERE RENEWED. THE DISTURBING FACT OF THIS INCIDENT IS THAT WE JUST RECEIVED THE ACFT BACK AFTER AN ACCIDENT AND IT WAS CERTIFIED INSPECTED AND REPAIRED.

[CA090812011](#) CESSNA CONT WIRE HARNESS FAULTED
8/8/2009 U206G IO520F COMMS

(CAN) PILOT HAD RADIO FAILURE IN BOUND TO YMM SQUAKED 7600, TOWER GAVE HIM GREEN LIGHT AND LANDED UNEVENTFULL MAINTENANCE FOUND FAULTY PIN ON WIRING HARNESS. AWAITING PARTS (TC# 20090812011)

[CA090811003](#) CNDAIR PWA STRATOFLEX LINE LOOSE
8/9/2009 CL2151A10 CWASP HYD PUMP

ACFT LOST HYD PRESSURE AFTER DROPPING 1ST LOAD OF THE DAY. ACFT RETURNED TO BASE AND COMPLETED A LANDING WITH EMERG HYD SYS. HYD LINE AT WATER PROBE ACTUATOR FOUND TO BE LOOSE. RT ENG DRIVEN HYD PUMP FOUND TO BE LEAKING AT DRIVE SEAL. HYD LINE WAS TIGHTENED AND THE PUMP REPLACED. SYS GROUND FUNCTION CHECKED SERVICEABLE AND ACFT WAS RETURNED TO SERVICE.

[CA090901003](#) CNDAIR CNDAIR STRUCTURE CRACKED
8/27/2009 CL2156B11215 2158750162 LT MLG

ON LT MAIN GEAR, DURING AFTERFLIGHT INSP, A CRACK 80MM LONG WAS DISCOVERED ON LWR MEMBER 215-87501-62 SN H257. LOCATED 20MM FWD OF SECOND RIB (STARTING BOTTOM TO UPPER SIDE). NO APPARENT IMPACT AND OR DAMAGE IN THAT AREA. TSN HOURS: 3793.9 CYCLES: 2891 TSO HOURS: 1494.9 CYCLES: 1088.

[CA090910008](#) CNDAIR PWA FUEL CELL LEAKING
9/3/2009 CL2156B11215 PW123 21564002 LT WING

FUEL LEAK DISCOVERED FROM LT WING. ALL 8 LT FUEL CELLS REMOVED AND TESTED. CELLS NR 8, 7, 6, 4 AND NR 3 REPLACED. SYS REINSTALLED AND GROUND CHECKED SERVICEABLE CELL NR 8 PN 215-64075 S NR 89106, CELL NR 7 PN 215-64002 S NR 568, CELL NR 6 PN 215-64002-2 S NR 85-09115, CELL NR 4 PN 215-64002-4 S NR 72561, CELL NR3 PN 215-64002 S NR613.

[CA090831001](#) CNDAIR GE SIGNAL COND UNIT FAULTY
8/18/2009 CL600* CF341A 601639039 OIL QTY

RT LOW OIL PRESSURE ON CLIMB-OUT, AFTER LANDING, RT ENGINE WAS DOWN 5 LITRES. OIL LEVEL RETURNED TO NORMAL (5 LITRES ADDED) AND NO FURTHER INCIDENTS. OIL LEVEL SIGNAL CONTROL UNIT WAS FOUND TO BE FAULTY, THERE FORE INDICATING FULL ALL THE TIME, SO NO OIL WAS BEING ADDED FROM THE AUTO OILER.

[2009FA0000895](#) CNDAIR GE PRESSURE SWITCH FAILED
7/2/2009 CL6002B16 CF343B 4060T64P01 OIL FILTER

DID THE NEW FULL FUNCTIONAL CHECK OF OUR SENSORS ON OUR CF343B AND IT TOOK SOME TIME TO GET THE ONE SENSOR TO PASS AND THE OTHER ENGINE SENSOR NEEDED TO BE REPLACED. ON THAT SENSOR YOU COULD HEAR THE MECHANICAL HALF OF THE SENSOR ACTUATING BUT THE CONTACTS IN THE SENSOR/SWITCH NEVER CLOSED. (K)

[CA090906001](#) CNDAIR CONTROL UNIT MALFUNCTIONED

8/24/2009 CL6002B19 706010 SLATS
CREW REPORTED AN UNCOMMANDED STAB TRIM MOVEMENT DURING TAKEOFF ROLL, CREATING A TAKEOFF CONFIG WARNING. TAKEOFF WAS ABORTED AND ACFT RETURNED TO GATE WITHOUT FUTURE INCIDENT. MX INSPECTED IAW ACFT AMM AND REMOVED AND REPLACED THE HSTCU. OPS CHECKS WERE CARRIED OUT IAW THE AMM AND NO FURTHER DEFECTS NOTED. ACFT RETURNED TO SERVICE. FDR DOWNLOADED REQUESTED TO OPERATOR TO CONFIRM THE UNCOMMANDED MOVEMENT.

[CA090813017](#) CNDAIR GE CONNECTOR CORRODED
8/11/2009 CL6002B19 CF343A1 2060441 CABIN LIGHTS
CONNECTOR PLUGS, P53MD AND J53MD, FOUND WITH HEAVY CORROSION WITH PINS BROKEN WHEN CONNECTOR WAS TAKEN APART. THIS HAD CAUSED THE IN OPERATION OF NO SMOKING LIGHTS IN THE CABIN. DUE TO INAVAILABILITY OF THIS CONNECTOR, THE AME TRIED TO ROB THIS CONNECTOR OFF ANOTHER ACFT THAT WAS IN A HEAVY CHECK. THE CONNECTOR ON THE OTHER ACFT WAS ALSO FOUND IN SIMILAR CONDITION. LOCATION OF THIS CONNECTOR IS IN THE CABIN CEILING JUST AFT OF FRAME FS 409.00. NEW PARTS CONSISTING OF CONNECTORS PN 206044-1, 206043-1, SOCKET PN 1-661105-9, PINS PN 1-66103-8 WERE ORDERED FOR REPLACEMENT.

[CA090816001](#) CNDAIR GE CONNECTOR CORRODED
8/13/2009 CL6002B19 CF343A1 2060441
PINS IN CONNECTOR PLUGS, P53MD AND J53MD, FOUND CORRODED. THIS DEFECT WAS NOTED WHEN ATTEMPTING TO ROB THIS UNIT FOR USE ON ANOTHER ACFT WITH SIMILAR PROBLEM. CONNECTORS PN 206044-1, 206043-1, SOCKET PN 1-661105-9 AND PINS PN 1-66103-8 REPLACED.

[CA090823001](#) CNDAIR GE CONTACTOR DAMAGED
8/18/2009 CL6002B19 CF343B1 D7GSZ AC BUSS
DURING FLIGHT PREP, WITH NO PAX ON BOARD, AFTER CONNECTING GPU, FLIGHT CREW HEARD A STRONG CLUNK NOISE FOLLOWED BY A PWR FLICKERING. FLIGHT CREW DECIDED TO SHUT THE POWER DOWN AND RIGHT AFTER, A STRONG ELECTRICAL SMELL AND SMOKE WERE NOTICED IN THE COCKPIT. BATTERY MASTER SWITCH WAS CUT OFF. THE FLIGHT CREW ADVISED FIRE DEPARTMENT AND EVACUATED THE ACFT. THERE WAS NO FIRE. THE GPU WAS RULED OUT SINCE ITS OUTPUT WAS VERIFIED BEFORE AND AFTER THE INCIDENT. MX FOUND AC SERVICE BUSS CONTACTOR TO HAVE AN INTERNAL PROBLEM. THE CONTACTOR IS THE K4XA. CONTACTOR K4XA SEAL IS PROTRUDING AND IT IS CONTAMINATED WITH SOOT. MOVING PARTS FROM INSIDE CAN BE HEARD WHEN SHAKEN. THE OTHER 3 CONTACTORS ON THE TRAY ARE CONTAMINATED WITH SOOT BUT THERE ARE NO DAMAGES THAT CAN BE OBSERVED FROM THE OUTSIDE. ALL CONECTIONS AND WIRING ARE OK.

[CA090905001](#) CNDAIR GE ENGINE MALFUNCTIONED
9/1/2009 CL6002B19 CF343B1 LEFT
(CAN) FLT 5918 "CREW REPORTED THAT ON DEPARTURE FROM IND, HEARD A GROWLING SOUND, THEN FELT A SHUDDER FROM THE LT ENGINE. NOSE OF THE A/C YAWED, THE LT ENGINE ITT SPIKE INTO THE RED, AND THE ENGINE SHUT ITSELF DOWN. CREW DECLARED AN EMERGENCY, AND GOT BACK ON THE GROUND WITH NO FURTHER INCIDENT. MDC ENGINE EXCEEDENCES SHOWS A LEVEL 3 EVENT, 1145 DEG FOR 89.5 SEC."
ATTACHMENTS ARE FROM THE BORESCOPE INSPECTION OF THE COMPRESSOR. CORRECTIVE ACTION: MAINTENANCE WILL REMOVE AND REPLACE THE ENGINE. "UPDATE 9/2 PM: ENGINE IN READY TO HANG CONDITION. MECHANICS WILL BE BACK ON THE JOB AT 8AM TO HANG THE ENGINE. STILL DOWN AT THE END OF THE NIGHT UPDATE 9/3: MX WILL SHOW THIS MORNING AND BEGIN INSTALLATION OF THE PREPPED ENGINE."
TSN: 15116.5/CSN: 12516/TSI: 1400.3 HRS. (TC# 20090905001)

[CA090826017](#) CNDAIR GE WIRE BURNED
8/9/2009 CL6002B19 CF343B1 XC3A8CORN ADG
WHILE TROUBLESHOOTING, AN AIR DRIVEN GENERATOR FAULT MX FOUND THE ORANGE MAIN FEED WIRE BURNED THOUGH AFT OF THE CONNECTOR P1XC. WIRE ALSO EXHIBITED EVIDENCE OF PITTING CORROSION. INSULATION WAS ALSO FOUND DEGRADED ON ONE OF THE WHITE LEADS. ALL 3 MAIN FEED WIRES XC1A8AWHT, XC2A8BBLUE, XC3A8CORN, THE GROUND WIRE XC51A8N AND THE ADG WERE REPLACED.

[CA090908003](#) CNDAIR GE TRANSDUCER FAILED

9/7/2009	CL6002C10	CF348C5A1	C16258AA	AOA
DIVERSION DUE TO STALL FAIL CAUTION MSG DURING CRUISE FLIGHT. FLIGHT LH 3172 SCHEDULED, DIVERTED, BECAUSE OF A STALL FAIL CAUTION MSG DURING CRUISE FLIGHT. MDC READOUT SHOWED: RT-AOA FROZEN, ACCORDING FIM AND AMM 27-35-05 RT-AOA TRANSDUCER CHANGED. STALL TEST AND OPS TEST OF RT AOA VANE IAW AMM 27-35-05-710-801 A01. PERFORMED, SATISFIED. ACFT RETURNED TO SERVICE.				
CA090820010	CNDAIR		QUICK DISCONNECT	MISINSTALLED
8/17/2009	CL6002D24		H155006191001	HYD SYSTEM
(CAN) AFTER LANDING WHILE TAXIING AIRCRAFT, THE CREW NOTICED NO BRAKING ACTION AT ALL WAS AVAILABLE FROM THE RT LANDING GEAR. ANTI SKID SYSTEM WAS TURNED OFF WITH NO BETTER RESULT. ALL BTMS AND HYDRAULICS SYNOPTIC INDICATIONS WERE INDICATING GREEN/NORMAL. NO EICAS MESSAGE WARNED THE CREW ABOUT THE BRAKING SYSTEMS (2)FAILURE. A TACTILE INSPECTION HAS BEEN CARRIED OUT AFTER SHUTDOWN AND BRAKE DISCS ON BOTH WHEELS (INBD/OUTBD) WERE COLD CONFIRMING THE NO BRAKING ACTION FROM THE RT GEAR. AFTER INVESTIGATION THE QUICK DISCONNECT ON THE BRAKE ASSEMBLIES WERE NOT FULLY TIGHTEN AND COMPLETELY SAFETIED. CAUSING LOST OF PRESSURE AT THE BRAKE ASSEMBLIES (TC 20090820010)				
CA090808001	CNDAIR	GE	WINDOW	CRACKED
7/22/2009	CL6002D24	CF348C5	NP13932211	COCKPIUT
AT FLT LEVEL 250 PILOTS SIDE WINDOW CRACKED. CREW DESCENDED TO FLT LEVEL 100 AND LANDED. MX REPLACED WINDOW. ADR MHUT-09-20327514 RAISED. SIDE WINDOW LH PPG NP139322-11 08203H3860.				
CA090808002	CNDAIR	GE	AUTOPILOT SYS	MALFUNCTIONED
7/14/2009	CL6002D24	CF348C5		
REPORTING TO FLIGHT OPERATIONS: AFTER ROTATION F/O CALLED FOR "GEAR UP, SPEED MODE". AFTER PRESSING SPEED MODE BUTTON THE FMA REFERENCE REPORTED CLB 40 AND THE FLIGHT DIRECTOR SLOWLY BEGAN COMMANDING A HIGHER PITCH ATTITUDE THAN NORMAL. ACFT WAS BEING HANDFLOWN BY THE FO WHO NOTICED THE ABNORMALITY AND DID NOT PITCH UP INTO THE COMMAND BARS. AFTER REBUGGING THE SPEED IT REPORTED AN ACCURATE REFERENCE. IT SHOULD BE NOTED THAT JUST AFTER TAKEOFF, EXPERIENCED WAKE TURBULENCE FROM A PREVIOUS DEPARTURE. PRESSED THE FDR EVENT BUTTON AND CALLED MX UPON LANDING, NOTES FROM FSR. FDR DOWNLOAD IS SCHEDULED TO OCCUR JULY 16TH. WILL ATTACH DATA TO ADR ALONG WITH OTHER DATA AS REQUESTED IAW SL 22-0006. NO PARTS REPLACED.				
CA090901004	CNDAIR		COWLING	DEPARTED
9/1/2009	CL604			NACELLE
DURING TAKE-OFF PHASE, ACFT LOST THE LT FWD ENG COWLING.				
CA090731005	CNDAIR	GE	SENSING ELEMENT	CHAFED
7/28/2009	CL604	CF343B	24410457	RT FIRE WARNING
CREW REPORT AT 14,000 FT GOT RT ENGINE FIRE WARNING. WARNING WENT OUT WHEN PWR LEVER WAS PULLED TO IDLE. SECURED ACFT VIA CHECKLIST. DID NOT USE ENG FIRE EXTINGUISHERS. RT ENG COMBUSTION SECTION FIRE DETECTION SENSE ELEMENT, PN:244-10457 SN:9724 REMOVED DUE TO EXCESSIVE FRETTING ON HP AIR PIPE, REPLACED WITH NEW PN:744-10457 S/N:092315 P/O NR 44986. CHECKED/TESTED IAW 26-11-10 WITH SATISFACTORY RESULTS. W/O NR 3386-100.01 FOR DETAILS.				
CA090824002	CVAC	ALLSN	HOSE	FAILED
8/22/2009	340CVAC	501D13D	9036261	HYDRAULIC SYSTEM
FAILURE OF HYD PRESSURE LINE FROM ENG DRIVEN PUMP CAUSED TOTAL LOSS (EXCEPT EMERGENCY RESERVE) OF ACFT HYD FLUID. ACFT LANDED SAFELY.				
CA090807009	CVAC	ALLSN	ENGINE	DISCONNECTED
8/2/2009	440	501D13D	501D13	NR 1

BANG FOLLOWED BY METALIC GRINDING NOISE AS REPORTED BY PILOT. GEAR BOX OIL PRESS FUNCTUATION NOTICED (NR 1 ENG) AND ZERO HORSEPOWER REGARDLESS OF POWER LEVER POSITION, ENGINE STILL RUNNING. ENGINE FOUND TO BE DECOUPLED UPON GROUND INSP.

CA090813016	DHAV			FITTING	BROKEN
8/1/2009	DHC2MK3			VALTBS12441	AFT WIRE PULL

DURING ROUTINE 100 HOUR INSP, THE WIRE PULL WAS FOUND TO BE BROKEN.

CA090817003	DHAV	PWA	DHAV	TORQUE TUBE	CORRODED
8/13/2009	DHC2MKI	R985AN14B		C2UT473	WATER RUDDER

ACFT ON FLOATS TAXIED TO DOCK AFTER LANDING. PILOT REPORTED POOR OR LITTLE STEERING ON WATER. ACFT REMOVED FROM SERVICE AND INSPECTED FOR DAMAGE. WATER RUDDER TILLER TORQUE TUBE (C2UT473) TWISTED AND INOPERATIVE. PARTS REPLACED AND ACFT RETURNED TO SERVICE. DEFECTIVE PART BELEIVED TO BE BOGUS BECAUSE OF LACK OF WELD AND MATERIAL THICKNESS.

CA090130004	DHAV	PWA	BENDIX	ELBOW	IMPROPER PART
1/13/2009	DHC2MKI	R985AN14B		CSP66	CARBURETOR

DURING ACCIDENT INVESTIGATION ALLEGATIONS WERE MADE THAT THE AMO SIGNED A MX RELEASE FOR WORK ON AN ACFT THAT HAD UNAPPROVED PARTS. DURING THE AMO'S INVESTIGATION IT BECAME APPERENT THAT VERY FEW, IF ANY OF THESE ACFT HAVE THE PART INSTALLED THAT CONFORMS WITH THE MFG DRAWINGS.

CA090130002	DHAV	PWA		FLOAT	IMPROPER PART
1/13/2009	DHC2MKI	R985AN14B		3661	MLG FLOAT

DURING ACCIDENT INVESTIGATION ALLEGATIONS WERE MADE THAT THE AMO SIGNED A MX RELEASE FOR WORK ON AN ACFT THAT HAD UNAPPROVED PARTS. DURING THE AMO'S INVESTIGATION IT BECAME APPARENT THAT MOST FLOAT EQUIPPED ACFT HAVE FLOAT BALLS THAT ARE UNAPPROVED. A LETTER HAS BEEN WRITTEN IDENTIFYING THE SERIOUS NATURE OF THE UNAPPROVED BALLS.

CA090901014	DHAV	PWA		SPINNER	CRACKED
9/1/2009	DHC2MKI	R985AN14B		83632PR	PROPELLER

CRACKS DISCOVERED NEAR OTBD FLANGE AND INSIDE HOLE FOR PROP SHAFT, SEVERAL RIVETS SHEARED. COULD HAVE BEEN A PROBLEM IF UNDETECTED.

CA090917003	DHAV	PWA	DHAV	HOSE	WORN
9/15/2009	DHC2MKI	R985AN14B		MILH6000	HYD PUMP

(CAN) HOSE , MIL-H-6000 CONNECTING WOBBLE PUMP RELIEF VALVE TO ADAPTER FOUND TO BE CHAFED (NOT LEAKING) FROM CONTACT WITH BOTTOM PANEL SUB ASSY CENTER. HOSE WAS REPLACED AND TIED OFF TO PREVENT CONTACT WITH BOTTOM PANEL. (TC# 20090917003)

CA090910002	DHAV	PWA		SPAR	CRACKED
9/2/2009	DHC3	PT6A34		C3TF82	RUDDER

APPROX 2 INCH VERTICAL CRACK IN UPPER END OF SPAR WEB AT UPPER HINGE FITTING. UPPER FITTING LOOSE ON RIB - HINGE PIN LOOSE IN FITTING. CRACK IN SPAR NOT READILY VISIBLE UNTIL RUDDER IS REMOVED. PROBABLY A RESULT OF HIGHER AIRSPEEDS WITH TURBINE POWERED OTTER.

CA090910003	DHAV	PWA		BOLT	CRACKED
9/2/2009	DHC3	PT6A34		NAS14729	VERTICAL STAB

IGX POWER VISUAL INSP OF NAS BOLT - CRACKED (APPARANT) UNDER HEAD IN RADIUS. IPC DOES NOT INDICATE A CHAMBERED WASHER TO BE INSTALLED AS IS INDUSTRY PRACTICED WITH NAS BOLTS. NOTE THERE IS NO CHAMBER ON THE FITTINGS PN C3TF6-3. BOTH ATTACH BOLTS TO BE REPLACED WITH NEW.

CA090827004	DHAV	PWA		FITTING	BROKEN
8/8/2009	DHC3	PT6A34		9A02066005	DRAG WIRE

WHILE DOING A WATER LANDING. PILOT HEARD A LOUD POP ON LANDING. HE TAXIED TO THE DOCK WITH OUT ANY TROUBLES, UPON INVESTIGATION HE FOUND THAT THE FWD DRAG WIRE FITTING PN 9A02066-005 HAD BROKEN AT THE CLEVIS PIN END. ALL OTHER FITTINGS WERE INSPECTED AND DRAG WIRE FITTING WAS CHANGED.

CA090902004	DHAV	INDICATOR	DAMAGED
9/2/2009	DHC6	C6JF12881	FLAP POSITION

WHEN LIGHTED POINTER ASSY WAS INSPECTED PRIOR TO FLAP POSITION INDICATOR ASSY, TECH NOTED THAT LIGHT ASSY WAS HANGING LOOSE OUTSIDE THE PLASTIC SLIDE AS OPPOSED TO BEING IMBEDDED IN THE PLASTIC SLIDE. ASSEMBLING THE POINTER TO THE INDICATOR SCALE WOULD RENDER THE LIGHTED POINTER ASSY UNSERVICABLE. THE MFG HAS BEEN ADVISED OF THIS PROBLEM AND HAS ADVISED THAT THEY ARE LOOKING INTO THE PROBLEM.

CA090916003	DHAV	LEVER	CRACKED
9/16/2009	DHC6	C6CFM123427	STEERING SYS

(CAN) DURING BUILD UP OF THE AICRAFT CONTROL COLUMN, A NEW STEERING LEVER WAS TO BE INSTALLED. INSPECTION OF THE LEVER SHOWED SLIGHT SURFACE DISCONTINUITY AT THE STEERING CABLE BALL RECEIVER LOCATION. CLOSER INSPECTION REVEALED A CRACK RUNNING FROM THE OUTER FLANGE TO THE BALL RECEIVER. THE LEVER ASSEMBLY WAS SUBSEQUENTLY REPLACED. THE PART WAS ORIGINALLY PURCHASED FROM BOMBARDIER IN 2004 AND WAS ONLY ISSUED RECENTLY FROM THE STORES DEPARTMENT. (TC# 20090916003)

CA090817001	DHAV	STOP	MISMANUFACTURED
8/14/2009	DHC6	TBDFSCFS1837	RUDDER

ONE INSP OF OUR 2ND PRODUCTION RUN OF THE RUDDER STOPS (P/N TBC6FS1837-3 AND TBC6FS1837-9) IT WAS DISCOVERED THAT THE URETHANE WAS BONDED BACKWARDS TO THE ALUMINUM BASE. AFTER MAKING THIS FINDING THE FIRST PRODUCTION RUN WAS CHECKED AND THE SAME PROBLEM EXISTED IN THAT BATCH. ALL PARTS HAVE BEEN REMOVED FROM THE SHELF AND SALES HISTORY RESEARCHED. A TOTAL OF 48 HAVE BEEN SOLD. BROKERS ARE CURRENTLY BEING CONTACTED TO SEE HOW MANY WE CAN GET OFF THEIR SHELVES. RESEARCH HAS BEEN COMPLETED INTO THE EFFECTS OF THEIR INSTALLATION AND THE PROBLEM WON'T AFFECT THE OPERATION AS THE PARTS ARE STILL FUNCTIONING WITHIN THE PART PRODUCTION TOLERANCE AND ACFT SETUP TOLERANCES. PART FACES ARE STILL IN THE CORRECT ORIENTATION EVEN THOUGH THE URETHANE HAS BEEN INSTALLED UPSIDE DOWN SO NO RECALL ACTION WILL BE TAKEN AS TO TAKING THEM OFF THE ACFT. HAS NEVER BEEN ANY COMPLETE AS TO THE OPERATION OF THE RUDDER STOPS. A DRAWING OF THE PROBLEM FOR A BETTER EXPLANATION IS AVAILABLE FOR REVIEW.

CA090821002	DHAV	PWA	OIL SYSTEM	LEAKING
8/19/2009	DHC6100	PT6A20		ENGINE

ACFT WAS ON RUNWAY, ENGINES POWERED UP AND BLUE SMOKE WAS OBSERVED AND SMELLED COMING INTO CABIN. TAKEOFF WAS ABORTED AND ACFT RETURNED TO GATE. MX CHECKS FOUND THAT SMOKE WAS ENTERING ACFT WHEN NR1 ENG BLEED AIR SELECTED ON. INSP OF NR 1 ENGINE REVEALED OIL WAS PRESENT IN THE AIR INLET SECTION AND WAS PRESENT IN THE BLEED AIR LINE FROM THE ENG. ENG REMOVED FROM ACFT FOR INSP BY REPAIR FACILITY. NO FINDINGS AVAILABLE AT THIS TIME.

CA090916001	DHAV	PWA	BETA SWITCH	FAILED
9/14/2009	DHC6300	PT6A27	KX5116	PROPELLER

(CAN) DURING A ROUTINE CARGO FLIGHT, THE CREW REPORTED AN INDICATION OF UNCOMMANDED FEATHERING OF THE #2 ENGINE IN FLIGHT. THE UNCOMMANDED PROP FEATHER CHECK WAS COMPLETED AND THE ENGINE WAS SHUT DOWN. AFTER SHUT DOWN THE #2 BETA LIGHT ILLUMINATED STEADILY, INDICATING A MALFUNCTION OF THE BETA SWITCH. THE CHECK LIST WAS AGAIN CONSULTED AND DIRECTED THE CREW TO PULL THE CIRCUIT BREAKER IN FLIGHT WHICH WOULD INHIBIT THE BETA MALFUNCTION AND CONTINUE OPERATION. THE ENGINE WAS RESTARTED, AND ALL PARAMETERS AND OPERATION WAS IN THE NORMAL RANGE. THE AIRCRAFT RETURNED TO BASE FOR AN UNEVENTFUL LANDING. MAINTENANCE INSPECTED THE ENGINE AND RELATED SYSTEMS AFFECTING THE PROPELLER GOVERNING AND CONTROL, AND DETERMINED THAT THE #2 BETA SWITCH WAS THE CAUSE OF THE FAULT. THE CONTACTS INSIDE OF THE BETA MICRO-SWITCH

HAD FAILED. THE BETA SWITCH WAS REPLACED AND ALL GROUND RUN, OPERATIONAL AND FUNCTION CHECKS WERE SUCCESSFULLY COMPLETED. THE BETA SWITCHED USED IN THIS INSTALLATION IS PART NUMBER KX5-1-16. WE HAVE PREVIOUSLY IMPLEMENTED A 1000 HOUR SCHEDULED REPLACEMENT OF THIS SWITCH TO PREVENT SIMILAR NUISANCE FAULTS FROM OCCURRING DURING BETA TESTING, RUNS AND IN FLIGHT OPERATION. THE LAST ACCESS AND REPLACEMENT OF THIS SWITCH WAS ON JULY 21, 2009, WHICH IS 166.3 HOURS AGO. WE ARE CURRENTLY LOOKING AT THE POSSIBILITY OF COMPLETING A MODIFICATION IN ACCORDANCE WITH AN STC, WHICH PROVIDES FOR REMOVAL OF THESE SWITCHES TO PREVENT THE POSSIBILITY OF IN FLIGHT FAULTS SIMILAR TO WHAT WE EXPERIENCED. (TC# 20090916001)

CA090821007	DHAV	PWA	MENASCO	STUD	SHEARED
8/6/2009	DHC7*	PT6A50		161591	ACTUATOR

AFTER LANDING ROLL AT LXR, SPEED APPROX 20 KTS ON GROUND, A SEVERE VIBRATION, SHIMMY AND ABNORMAL SOUNDS WERE NOTICED IN NLG AREA OF THE ACFT WITH NO STEERING RESPONSE FROM THE NOSE WHEEL STEERING TILLER. STEERING SWITCHED OFF AND GENTLY TAXIED INTO THE ACFT STAND. MX FINDINGS:) STEERING ACTUATOR PN: 16700-109, SN: MC-132 FOUND DAMAGED, SHIFTED UP APPROX 2 INCHES AND ITS BEARING PN: 16901-5 FOUND DISLOCATED OR SEPARATED FROM ITS NORMAL POSITION IN THE ACTUATOR (REMAINED ON THE SHOCK STRUT). 2- INNER CYL NEEDLE PN: 16169-1 (ITEM 85), FOUND SHEARED AND BROKEN (REF: NLG CMM 32-20-11) 3- STEERING SPIGOT STUD PN: 16159-1 (ITEM 90), SPACER (95) PN: 16239-1 BROKEN, NUT (15), BOLT (12) BENT, WASHER (11), SPACER (20) & NUT (10) FOUND DISLOCATED BUT ASSEMBLED WITH THE STUD. 4- NO HYD LEAKS WERE FOUND. 5- DENT WAS FOUND IN THE NOSE WHEEL WELL UPPER SURFACE.

CA090728001	DHAV	PWA	BOMBDR	SKIN	DELAMINATED
7/20/2009	DHC8*	PW120A			SPOILER

UPPER SKIN TOTALLY DELAMINATED FROM SPOILER.

CA090909001	DHAV	PWA		BEARING	DAMAGED
8/29/2009	DHC8101	PW120A		7823011	PROP BLADE

FLT CREW REPORTED ABNORMAL VIBRATION THROUGHOUT ACFT IN ALL PHASES OF FLIGHT. VIBRATION BECAME WORSE WITH PROPS AT MAX AND HIGHER TORQUE SETTINGS. ACFT LANDED WITHOUT FURTHER INCIDENT. AFTER LANDING, RT ENG NACELLE WAS FOUND TO BE COATED WITH FLUID. ALL ENGINE INSTRUMENTS INDICATED NORMAL OPERATING CONDITIONS AND THERE WERE NO ASSOCIATED WARNING OR CAUTION LIGHTS. MX REPORTED THAT WHILE REMOVING PROPELLER, NR 4 BLADE HAD EXCESSIVE PLAY. PROPELLER ASSY WAS DISASSEMBLED AND IT WAS DISCOVERED THAT INNER RACE BRG PN 782302-1 AND OUTER RACE PN 782301-1 HAD DISINTEGRATED.

CA090909005	DHAV	PWA		HOUSING	CRACKED
9/4/2009	DHC8102	PW120A			SPOILER ACTUATOR

WHEN THE FLIGHT/TAXI SWITCH WAS SELECTED TO FLIGHT MODE PRIOR TO DEPARTURE, A LOUD BANG WAS HEARD IN THE CABIN BY THE F/A AND FLIGHT CREW. ALSO NOTED A RAPID LOSS OF HYD FLUID IN THE NR 1 SYS. ACFT RETURNED TO APRON. MX FOUND THE LT IB ROLL SPOILER ACTUATOR CASING HAD CRACKED CAUSING THE FLUID LOSS. ACTUATOR WAS REPLACED AND ACFT RETURNED TO SERVICE.

CA090821001	DHAV	PWA		BATTERY	OVERHEATED
8/18/2009	DHC8102	PW120A		4011769	AUXILIARY

DURING CLIMB, CREW RECEIVED A (AUX BAT HOT) WARNING MESSAGE, THE BATTERY TEMP MONITOR CONFIRMED THE OVERHEAT AND THE AUXILIARY BATTERY SWITCH WAS TURNED OFF. AN EMERGENCY WAS DECLARED AND THE ACFT LANDED WITHOUT FURTHER INCIDENT. AUXILIARY BATTERY WAS FOUND VERY HOT, A GENERAL VISUAL INSP OF THE BATTERY COMPARTMENT REVEALED NO EXTERNAL DAMAGE. BATTERY WAS REPLACED AND THE ACFT RETURNED INTO SERVICE.

CA090821005	DHAV	PWA		BRAKE	FIRE
8/18/2009	DHC8102	PW120A			MLG

ON A TAXI RUN FROM ONE HANGAR TO ANOTHER, A DISTANCE OF APPROX ONE MILE, WITH 2 INTERMEDIATE STOPS ENROUTE, ON ARRIVAL AND SHUTDOWN AT THE DESTINATION HANGAR, FLAMES WERE NOTED COMING FROM A RT WHEEL BRAKE. APPLICATION OF THE CONTENTS OF 2 FIRE EXTINGUISHERS WAS REQUIRED TO

EXTINGUISH THE FLAMES. TIME INVOLVED WAS APPROX 2 MINUTES UNTIL THE FLAMES WERE CONTAINED. THE THERMAL RELIEF VALVES IN THE WHEEL HAD ACTIVATED BY THIS TIME. WEATHER CONDITIONS WERE CLEAR AND 11 DEGREES C.

CA090807002	DHAV	PWA	NACELLE	DENTED
8/7/2009	DHC8102	PW120A	87140002001	RT

UPON ARRIVAL AT THE MX BASE, EVIDENCE OF A BIRD STRIKE WAS NOTICED ON THE RT WING L/E. UPON CLOSER EXAMINATION IT WAS FOUND THAT THE BIRD HAD IMPACTED ON THE FWD EDGE OF THE UPPER FWD ENG COWL (COMMONLY KNOWN AS THE HORSECOLLAR) AND SPLATTERED BACK ON TO THE WING L/E. THERE WAS NO DAMAGE TO THE WING, HOWEVER THERE WAS A DENT IN THE HORSECOLLAR. THE HORSECOLLAR COWL WAS REPLACED AND THE ACFT RETURNED TO SERVICE.

CA090805005	DHAV	PWA	SEAL	LEAKING
7/31/2009	DHC8106	PW121	311859701	HYD DRIVE

(CAN) ENROUTE, AND 170 MILES NORTH OF YWG, THE LT ENGINE OIL PRESSURE GAUGE STARTED FLUCTUATING ERRATICALLY FROM 60 TO 50 PSI. FLIGHT CREW WENT TO THE BACK OF THE AIRPLANE TO EXAMINE ENGINE AND NOTICED A POSSIBLE TRAIL OF A VENTED FLUID FROM THE LT ENGINE. ONCE RETURNING TO THE FLIGHT DECK CREW CONTINUED TO MONITOR THE THE OIL PRESSURE GAUGE AND 2-5 MINUTES LATER PRESSURE WAS STILL DECREASING. AS THE FLUCTUATIONS REACHED 40 PSI MOMENTARILY AND ACTIVATED THE RED LT OIL PRESSURE LIGHT MOMENTARILY, IT WAS DECIDED TO PROCEED WITH THE ENG SHUTDOWN DRILL, IAW QRH. AN EMERGENCY WAS DECLARED WITH ATC AND AN UNEVENTFUL LANDING WITH THE FIRE TRUCKS IN TOW FOLLOWED. MX DETERMINED ENGINE OIL WAS COMING FROM THE LT ENG NACELLE DRAIN FOR THE ECOLOGY TANK. SOURCE OF THE OIL WAS TRACED TO THE HYD PUMP DRIVE SEAL WHICH HAD FAILED ALLOWING ENG OIL TO BE DRAWN THROUGH CASE DRAIN, TO ECOLOGY TANK AND VENTED TO ATMOSPHERE. WHEN TROUBLESHOOTING IT WAS DETERMINED THAT ABOUT 1/2 QUART OF OIL WAS BEING VENTED FOR EVERY 10 MINUTES OF ENG OPERATION. AN INITIAL EXTERIOR INSP AFTER THE INCIDENT NOTED A SMALL STREAK OF OIL ORIGINATING FROM THIS NACELLE DRAIN TO THE REAR OF THE NACELLE. DURING A NORMAL WALK AROUND THIS AMOUNT OF OIL STREAKING DOWN THE COWL FROM THIS DRAIN MAY NOT HAVE CAUSED CONCERN. MX REPLACED THE HYD PUMP DRIVE SEAL AND RELEASED THE ACFT ON A FLIGHT TEST, AIRCRAFT WAS THEN SUBSEQUENTLY RELEASED TO SERVICE.

CA090806001	DHAV	PWA	SEAL	NONE
8/4/2009	DHC8106	PW121	85220255001	EMERGENCY DOOR

(CAN) SEALS FROM MFG DO NOT NECESSARILY COME WITH VENT HOLES, THEY HAVE TO BE MODIFIED IAW DWG. IF YOU FORGET TO MODIFY THE SEAL YOU CAN HAVE PRESSURIZATION ISSUES AND DIFFERENT NOISES.

CA090805002	DHAV	PWA	WASHER	MISSING
8/3/2009	DHC8106	PW121	CSP19277	ELEVATOR TRIM

(CAN) LAST TIME THE TRIM WHEELS WERE REMOVED IT APPEARS THE REPAIR STATION DID NOT INSTALL THE TWO WASHERS AS MANDATED BY THE IPC 76-10-00. THE WASHERS WERE FOUND AT THE BOTTOM OF THE CONSOLE. IT WAS DISCOVERED WHEN THE TRIM WHEELS STARTED TO STICK. WASHERS WERE INSTALLED AND THE ACFT RETURNED TO SERVICE.

CA090828002	DHAV	PWA	OIL COOLER	LEAKING
8/26/2009	DHC8106	PW121	28E997	ENGINE

OIL COOLER STARTED TO LEAK IN FLIGHT, CAUSING OIL PRESSURE FLUXUATIONS, ENG WAS SHUTDOWN, MX FOUND A LEAKING OIL COOLER. COOLER WAS REPLACED. COOLER WILL BE SENT IN TO OUR COMPONENT SUPPLIER FOR ANALYSIS.

CA090927001	DHAV	PWA	ANTI-SKID VALVE	FAILED
9/27/2009	DHC8106	PW121	39671	MLG

(CAN) ANTI SKID SYSTEM TESTED ELECTRONICALLY OK, DUE TO A CHAFING LINE, LINE WAS REPLACED WHICH MANDATED A SYSTEM MECHANICALL CHECK. BOTH VALVES HAD FAILED. THE A/C WAS IN ON A HEAVY CHECK, USING THE MANUFACTURER`S WORK CARDS, THERE IS NO CARD TO MECHANICALLY CHECK THIS SYSTEM. THE FAILED VALVE ALLOWED MAXIMUM BRAKE PRESSURE AT ALL TIMES. CANADIAN NORTH WILL BE DEVELOPING

THEIR OWN WORK CARD FOR THIS TASK (TC 20090927001)

CA090925001	DHAV	PWA	TUBE	CRACKED
9/24/2009	DHC8301	PW123	829100100233	HYDRAULIC SYS

(CAN) ON APPROACH, AFTER GEAR DOWN SELECTION, THE CREW NOTICED MIST WITH A STRONG SCENT OF HYDRAULIC FLUID. MAINTENANCE INSPECTION PERFORMED AND A SMALL CRACK WAS FOUND IN A HYDRAULIC TUBE UNDER THE COCKPIT FLOOR (PRESSURIZED ZONE). TUBE REPLACED AND AIRCRAFT RETURNED TO SERVICE. (TC# 20090925001)

CA090903002	DHAV	PWA	ACCESS DOOR	SEPARATED
8/31/2009	DHC8301	PW123	85410618	RT NACELLE

DURING ROUTINE FLIGHT REFUEL/DEFUEL ACCESS DOOR CAME OFF. ISAR Q123-2008-09 AND REPAIR DWG RD8-54-2335 AND IN-SERVICE MODSUM IS8Q5200012 WERE RAISED TO ADDRESS THIS ISSUE.

CA090908004	DHAV	PWA	ROD END	BROKEN
8/20/2009	DHC8301	PW123	LA11A2118	AILERON TRIM

AILERON TRIM INOP AND AP MISTRIM MESSAGE. AP DISCONNECTED AND MISTRIM CONFIRMED. FOUND TRIM TAB FULL UP (LWD) DEFLECTED AND MOVEABLE WITH FINGER. TRIMMING WITH ACTUATOR ONLY IN UP DEFLECTION POSSIBLE. FOUND AILERON TRIM ACTUATOR ROD END BOKEN OFF. TRIM TAB ACTUATOR REPLACED ACC. AMM 27-13-02. ADJUSTMENT AND FUNCTION CHECK OF AILERON TRIM SYS PERFORMED SATISFACTORY. NORMAL OPS.

CA090904001	DHAV	PWA	SENSOR	FAILED
8/10/2009	DHC8311	PW123	SD54434	MLG

DURING HEAVY MX VISIT WITH ACFT ON JACKS, LANDING GEAR UP AND LOCKED , ALTERNATE GEAR INDICATION LIGHTS WERE SELECTED "ON" AND BOTH MLG GREEN DOWN AND LOCKED LIGHTS ILLUMINATED. HARNESSSES ON THE LT AND RIGHT MAIN GEAR WERE REPLACED AND SENT TO A REPAIR VENDOR FOR EVALUATION. HARNESSSES WERE INSPECTED, NO PHYSICAL DAMAGE WAS FOUND. FUNCTION TEST WAS CARRIED OUT IN SHOP AND BOTH HARNESSSES FAILED. FURTHER INVESTIGATION REVEALED THAT PHOTO TRANSISTORS INTERNAL TO HARNESS HAD FAILED. FAILURE WAS CONFIRMED BY CONNECTING NEW PHOTO TRANSISTORS RESULTING IN A SUCCESSFIL FUNCTION CHECK. ACFT OPERATOR PREVIOUSLY INTRODUCED A 1000 HOUR INTERVAL TASK TO CARRY OUT AN OPS TEST OF THE LG ALTERNATE INDICATION LIGHTS. MX PROGRAM ALSO INCLUDES A SIMILIAR TASK SCHEDULED AT C CHECK INTERVAL.

CA090812004	DIAMON	ROTAX	OIL SYSTEM	LEAKING
7/30/2009	DA20A1	ROTAX912F3		ENGINE

A STUDENT PILOT PERFORMED AN OVERSHOOT OF THE RUNWAY AS REQUESTED BY TOWER AND EXPERIENCED ROUGH RUNNING ENG WHICH GOT PROGRESSIVELY WORSE UNTIL THE ENG QUIT, STUDENT WAS ABLE TO LAND ON THE RUNWAY. PRELIMINARY CAUSE OF ENG FAILURE WAS DUE TO LACK OF OIL. ENG RAN ROUGH UNTIL IT SEIZED. UNDETERMINED YET IS THE CAUSE OF THE LOSS OF OIL.

CA090806011	DIAMON	ROTAX	ENCODER	MALFUNCTIONED
8/5/2009	DA20A1	ROTAX912F3	SSD120	ALTIMETER

WHEN VHF COM WAS KEYED, THE MODE C ALTITUDE REPORTING WOULD JUMP BY 200 TO 500 FEET. REPLACED SSD120 ALTITUDE ENCODER WITH NEW SSD120 ENCODER CORRECTED DEFECT. PERFORMED TRANSPONDER AND DATA INTEGRATION TESTS IAW CARS STD 571 APPENDIX F. STATIC LEAK CHECK PERFORMED IAW CARS STD 571 APPENDIX B.

CA090825005	DIAMON	CONT	DIAMON	FORK	CRACKED
8/21/2009	DA20C1	IO240B		2032200800	NLG

(CAN) PILOT REPORTED A SLIGHT NOSE WHEEL SHIMMY ON ACFT ON FRIDAY, AUG 21, 2009. AN ENGINEER WENT TO INVESTIGATE TIRE CONDITION, TIRE PRESSURE ETC AND NOTICED A DIRTY LINE AT AFT END OF NLG FORK ASSY JUST FWD TO WHERE AXLE THROUGH BOLT AND NUT ASSY ATTACH AND JUST FWD OF BOSS OR RADIUS AREA OF FORK ON LWR PORTION OF FORK. DIRT IN THE AREA WAS CLEANED AND WHAT APPEARED TO BE A

CRACK REMAINED. OTHER OR OPPOSITE SIDE OF THE FORK ASSY WAS THEN CHECKED AND A CRACK IN IDENTICAL SPOT WAS IDENTIFIED. AREA WAS CLEANED AND AN LPI TEST WAS CONDUCTED AND CONFIRMED A CRACK ON BOTH SIDES OF NLG FORK ASSY. ACFT WAS IMMEDIATELY REMOVED FROM SERVICE AND A NEW FORK ASSY WAS ORDERED. REMOVED FORK ASSY HAS BEEN RENDERED UNSERVICEABLE AND WILL BE USED AS A TRAINING AID IN THE FLIGHT SCHOOL.

2009FA0000922	DIAMON	CONT	SCREEN	CRACKED
8/14/2009	DA40	IO360*		COND HSG INTAKE

REPAIR STATION IS HOLDER OF STC SA03674AT FOR THE INSTALATION OF R-134 COOLANT AIR CONDITIONER SYS IN THIS ACFT. IAW THIS STC INSTALLATION, A CONDENSER HOUSING IS MOUNTED ON THE BOTTOM OF THE ACFT FUSELAGE. IT HAS BEEN DISCOVERED THAT THE SCREEN WHICH COVERS THE FRONT OF THE CONDENSER HSG HAS CRACKED WHERE IT ATTACHES TO THE CONDENSER HSG. PROBABLE CAUSE OF THIS CONDITION IS VIBRATION. A MORE STURDY SCREEN ATTACHMENT SYS IS BEING INVESTIGATED TO CORRECT THE PROBLEM. THE CRACKING OF THIS SCREEN DOES NOT AFFECT THE AIRWORTHINESS OF THE ACFT NOR DOES IT AFFECT THE OPERATION OF THE AIR CONDITIONING SYS OR THE ACFT IN GENERAL. (K)

CA090901002	DIAMON	LYC	DRIVE GEAR	BROKEN
8/31/2009	DA40	IO360M1A		STARTER

ENG START ATTEMPT FAILED WITH LOUD GRINDING SOUND. UPON VISUAL INSP, STARTER DRIVE GEAR HSG FOUND BROKEN. STARTER SUPPORT EAR SNAPPED OFF AS WELL.

CA090924006	DIAMON		HOUSING	CRACKED
9/24/2009	DA42		D6032176151	MLG BEARING

(CAN) DURING 100 HOUR SCHEDULED INSPECTION, CRACK WAS VISUALLY FOUND AT THE 1 O'CLOCK POSITION AS VIEWED FROM THE AFT. UPON REMOVAL, CRACKS ALSO OBSERVED STARTING TO DEVELOP AT THE 2 AND 3 O'CLOCK POSITION BOLT HOLES. REF. FIG.2 ITEM #110 PAGE 590 CHAPTER 32-10 OF DA 42 IPC REV. 4 (TC# 20090924006)

CA090924007	DIAMON		BRACKET	CRACKED
9/24/2009	DA42		D6052877400	RT MLG DOOR

(CAN) DURING SCHEDULED 100 HOUR INSPECTION OF AIRCRAFT, CRACK WAS DISCOVERED VISUALLY ADJACENT TO THE GUSSET APEX, BESIDE THE FORWARD MOUNTING HOLE. REF. FIG. 5 PAGE 610 ITEM 81 OF THE DA 42 IPC REV. 4, CHAPTER 32-10 (TC 20090924007)

CA090922006	DIAMON	THIELT	PITOT TUBE	DEFORMED
9/21/2009	DA42	TAE12502114	PST305	

(CAN) PITOT TUBE BENT ON HORIZONTAL SHAFT NEAR ELBOW. SHOWS INDICATIONS OF OVERHEATING. BULGE IN METAL NEAR BEND DEFORMITY. (TC# 20090922006)

2009FA0000874	DIAMON	THIELT	CONTROL VALVE	DEFECTIVE
10/22/2009	DA42	TAE1250299	057212K021401	LT ENGINE

THE LEFT ENGINE PROPELLER CONTROL VALVE FAILED CAUSING THE PROPELLER TO FEATHER AND COMMANDED THE FADEC TO SHUT DOWN ENGINE. THIS ISSUE CAN BE RESOLVED BY COMPLYING WITH SB TAE 125-1007 P1, REV 2. (K)

CA090819003	DORNER	GARRTT	LINK ASSY	BROKEN
8/18/2009	DO228202	TPE3315251K 6731EL	31768	SEAT

CREW CLEANING CABIN BEFORE FLIGHT, IT WAS NOTICED THAT ONE OF THE PASSENGER SEAT BELTS HAD COME LOOSE AT THE ATTACHMENT BRACKET. UPON FURTHER EXAMINATION, IT WAS NOTED THAT PN 31768 LINK ASSY HAD FAILED CAUSING THE SEAT BELT TO DETACH FROM THE SEAT.

CA090701002	DORNER	PWA	PSEU	MALFUNCTIONED
6/28/2009	DO328100	PW119B		HYD SYSTEM

ON CLIMB AFTER TAKEOFF, PILOT RECEIVED A CAS MESSAGE "PRIORITY VALVE CLOSED" GEAR AND FLAPS IN-

TRANIST STOPPED, HYD PRESSURE CAS MESSAGE HIGH. THEN ALL HYD PRESSURE WAS LOST. PILOT RETURNED TO AIRPORT OF DEPARTURE TO LAND. HAD EMERGENCY CREWS STANDBY FOR POSSIBLE HYD LEAKS. GEAR LOCKED DOWN WITHOUT REQUIRING HAND EXTENSION. MX DISCOVERED DC STANDBY PUMP TO BE FAULTED, WITH BLOWN FUSE. MX IN TROUBLESHOOT TO DISCOVER WHY STANDBY PUMP WAS RUNNING WITHOUT THE MAIN SYS ON. MAIN SYS WAS FUNCTION TESTED-NO FAULTS FOUND. PROXI SYS BOX(PSEU) WAS FOUND TO BE AT FAULT, IT SHOWED A FAULT IN THE B PROX SWITCH ON THE HYD TANK. PSEU WAS REPLACED. ACFT TEST FLOWN AND FOUND SERVICEABLE. FURTHER UPDATE TO COME AFTER RECEIVE TEARDOWN REPORT ON THE PSEU BOX FROM 328SUPPORT SERVICES. JULY 20/09 DB. STANDBY PUMP AND PRIORITY VALVE GENERALLY COME ON WITH A LOSS OF HYD FLUID, ALTHOUGH THIS WAS NOT THE CASE AND DID NOT HAVE A LEAK. ACFT LANDED WITH NO HYD PRESSURE. MX TOWED THE ACFT FROM THE TAXI WAY BACK TO HANGAR. SDR TO REMAIN OPEN AS MAINTENANCE HAS NOT FOUND FAULT AND RETURNED AIRCRAFT TO SERVICE.

CA090806012	DORNER	PWA	CONTROL UNIT	MALFUNCTIONED
8/5/2009	DO328100	PW119C	5729C000003	ACM

FLIGHT CREW WAS TAXING OUT FOR ITS FIRST FLIGHT OF THE DAY WHEN THEY STARTED TO SMELL SMOKE IN THE COCKPIT. FA INFORMED THE CREW THAT THERE WAS ALSO SMOKE IT THE CABIN. ENGINES WERE SHUTDOWN AND QRH WAS CONSULTED. CREW NOTED THAT SMOKE WAS ELIMINATED ONCE THE PACKS WERE SELECTED OFF. ACFT WAS GROUNDED AS MX BEGAN TO TROUBLESHOOT. DURING THEIR TROUBLESHOOTING, MX NOTED THE PRESENCE OF THE RT PACK OVERHEAT CAS MESSAGE. THE RT ECU WAS INSPECTED. COOLING TURBINE WAS NOTED STIFF AND THE HEAT EXCHANGER DIRTY. RT ECU WAS REPLACED WITH A SERVICEABLE UNIT. ACFT GROUND RUNS WERE COMPLIED WITH OK AND A SATISFACTORY TEST FLIGHT WAS COMPLETED WITH NO REOCCURRENCE OF SMOKE.

CA090811006	DOUG	GE	BOLT	SHEARED
8/10/2009	DC1030	CF650C2	RA2230017	SUPPORT CASTING

WHILE PERFORMING A GENERAL VISUAL INSP OF THE MAIN GEAR WELLS, FOUND SHEARED BOLT IN THE RT WHEEL WELL FWD BULKHEAD OTBD DOOR SUPPORT CASTING. BOLT WAS REPLACED AND RETURNED TO SERVICE.

CA090813007	DOUG	PWA	CYLINDER	CRACKED
8/11/2009	DC6A	CWASP	356995	NR2 ENG, NR2 CYL

IN CRUISE, LEANING OF NR 2 ENG CAUSED BACKFIRING AND A BMEP DROP. ONCE INVESTIGATED NR 2 CYLINDER ON NR 2 ENG FOUND TO HAVE A CRACKED EXHAUST EAR.

EE4Y090358	DOUG		DOOR	CORRODED
11/5/2009	DC983		5919572512	ZONE 600

RT WING INBD BUTTE DOOR CORRODED.

EE4Y090347	DOUG		FLOORBEAM	CORRODED
11/4/2009	DC983		5936597514	ZONE 100

REPORTED ON LWR FUSELAGE, FWD CARGO COMPARTMENT AT Y STA 427 FLOOR SUPPORT WITH CORROSION.

EE4Y0346	DOUG		DOUBLER	CORRODED
11/4/2009	DC983		5911410367	BS 242 S20-21L

LWR FUSELAGE, STA 242.25 BETWEEN LONGERON 20LT AND LONGERON 21 LT INTERNAL DOUBLER PN 5911410-367 HEAVY CORRODED, COMMON TO FWD LAVATORY SERVICE CUTOUT.

EE4Y090359	DOUG		SKIN	CORRODED
11/8/2009	DC983			ZONE 100

LWR FUSELAGE, EXTERNAL SKIN AND INTERNAL DOUBLER HEAVY CORRODED AT STA 1318 BETWEEN LONGERON 21LT AND LONGERON 23LT COMMON TO AFT LAVATORY SERVICE CUTOUT.

EE4Y090348	DOUG		STRINGER SPLICE	CORRODED
11/4/2009	DC983		3913291501	ZONE 100

LWR FUSELAGE, AFT CARGO COMPARTMENT AT Y STA 1297 LONG. 25L, STR SPLICE WITH CORROSION.

EE4Y090349	DOUG	FITTING	CORRODED
11/4/2009	DC983	59364391	STRINGER 28L

LWR FUSELAGE, AFT CARGO COMPARTMENT AT Y STA 1338, LONG. 28L END FITTING WITH CORROSION.

EE4Y090350	DOUG	SKIN	CORRODED
11/4/2009	DC983	5912494501	ZONE 100

LWR FUSELAGE, FWD CARGO COMPARTMENT DOOR FUSELAGE CUTOUT, FWD, CTR AND AFT JAMB CORRODED.

EE4Y090354	DOUG	SUPPORT ANGLE	CRACKED
11/5/2009	DC983	993612521	ZONE 300

EMPENNAGE LT HORIZ STABILIZER L/E AREA AT STA XI-7 SUPPORT TEE CRACKED.

EE4Y090352	DOUG	SUPPORT	CORRODED
11/5/2009	DC983	595127315	ZONE 100

LWR FUSELAGE UNDER AFT FAIRING SUPPORT TEE WITH CORROSION AT YSTA=1012 BETWEEN -X=10 +X=10.

2009FA0000952	EMB	CONTROL UNIT	MALFUNCTIONED
11/4/2009	EMB500	900050341	BRAKE SYSTEM

FLIGHT CREW REPORTED BRAKE FAIL CAS MESSAGE, BRAKE CONTROL CIRCUIT BREAKER POPPED IN FLIGHT. CREW WAS ABLE TO RESET BREAKER IN FLIGHT. UPON LANDING ACFT NORMAL BRAKING WAS UNAVAILABLE. CREW USED EMERGENCY BRAKE TO STOP ACFT.

CA090828006	EMB	PWA	METERING UNIT	DAMAGED
8/13/2009	EMB500	PW118	1009000	FUEL SYSTEM

ON CLIMB, FOLLOWING TAKEOFF, ENG EXPERIENCED AN UNCOMMANDED PWR ROLLBACK AND FLUCTUATIONS. INVESTIGATION REVEALED A DAMAGED FUEL METERING UNIT. CAUSE OF DAMAGE REMAINS UNDER INVESTIGATION. WILL CLOSE THIS SDR WHEN ROOT CAUSE HAS BEEN ESTABLISHED.

2009F00098	EMB	BUSHING	CRACKED
10/26/2009	ERJ170100SE	14G0311203	THRUST REVERSER

PROBLEM FOUND ON THRUST REVERSER. UPON PRELIMINARY INSPECTION IT WAS DISCOVERED THAT THE FWD HINGE BUSHING WAS CRACKED ACROSS THE SHOULDER AND AROUND THE TRANSITION FROM THE RADIAL TO THE FLANGE ON THE OUTSIDE OF THE BUSHING. PHOTOGRAPHS OF THE BUSHING ARE ON FILE AT THE REPAIR STATION. THIS IS THE FIRST FINDING OF THIS TYPE BY THIS REPAIR STATION.

CA090904009	EMB	GE	TORQUE TUBE	UNKNOWN
9/2/2009	ERJ170200SU	CF34*	17009777407	AILERON

FLIGHT DECK CREW REPORTED THAT WHILE HAND FLYING ACFT, THERE WAS SOME AILERON RESISTANCE (BINDING) FELT DURING RT ROLL INPUT GOING THROUGH CENTER.

CA090908007	EMB	GE	GIRT BAR	MALFUNCTIONED
8/31/2009	ERJ170200SU	CF348E5A1		L1 DOOR

(CAN) ON ARRIVAL, THE FLIGHT ATTENDANT HAD DIFFICULTY OPENING THE L1 DOOR. MAINTENANCE NEEDED TO BE CALLED TO UNHOOK THE GIRT BAR FROM THE FLOOR FITTINGS. MODIFICATION SB 170-52-0031 HAS BEEN ACCOMPLISHED ON THIS ACFT, TO MODIFY THE DOOR HANDLE MECHANISM SO THAT, UPON OPENING OF THE DOOR FROM THE OUTSIDE, THE HANDLE MECHANISM WOULD AUTOMATICALLY DISARM THE DOOR EVEN IF THE VENT FLAP WAS NOT CLOSED. IT IS STANDARD PRACTICE TO OPEN THE DOOR FROM THE OUTSIDE ONCE THE FLIGHT ATTENDANT HAS GIVEN THE OK TO DO SO. IN THIS CASE, THE HOOKS WERE STILL ENGAGED IN THE FLOOR FITTINGS WHEN THE FIRST AND SECOND TRIES WERE ATTEMPTED. THE SLIDE COULD HAVE DEPLOYED IF THE DOOR WAS RAISED A LITTLE HIGHER, AND IT MAY HAVE CAUSED INJURY TO THE STATION ATTENDANT AND TO EQUIPMENT. INTERNAL INVESTIGATION SR 7307 IS RELATED. (TC# 20090908007)

CA090910009	EMB	GE	CONNECTOR	DISCONNECTED
9/9/2009	ERJ190100IGW	CF3410E5A1		SEAT 19C
HEATED PLASTIC ODOR CAME FROM UNDER SEAT 18AC. AFTER SCREENS 19AC AND 20AC WENT BLANK. 19A AND 20AC CAME BACK BUT NOT 19C. ODOR DISAPPEARED. CONNECTOR UNDER 18A RECONNECTED. 19C SVDU REPLACED. IP SEQUENCE AND SOFTWARE DOWNLOADED. AUDIO/VIDEO WORKS. NO BURNING ODOR.				
CA090916002	EMB	GE	ATTACH FITTING	FAILED
9/13/2009	ERJ190100IGW	CF3410E5A1	2822A000003	RETRACT ACTUATOR
(CAN) AFTER REMOVING THE LANDING GEAR IN ORDER TO REPLACE THE FWD SPAR PINTLE PIN BEARING, CORROSION/PITTING WAS FOUND ON THE BORE FACE WHERE THE RETRACT ACTUATOR ATTACHES TO THE MLG SHOCK STRUT. WHEN THE PIN WAS REMOVED FROM THE RETRACT ACTUATOR LUG, WHITE POWDER WAS FOUND WHERE THE HEAD OF THE PIN CONTACTS THE FACE OF THE BORE. THE CORROSION/PITTING WAS FOUND ON THE BORE FACE WHICH GOES ROUGHLY 120 DEGREES AROUND AS WELL AS ON THE RETRACT ACTUATOR LUG PIN. CORROSION WAS ALSO FOUND ON THE CHAMFER BETWEEN THE BUSH AND BORE FACE. THE CORROSION ON THE CHAMFER SEEMS TO BE LESS SEVERE THAN THE CORROSION ON THE BORE FACE BUT STILL CONTAINS PITTING AND GOES RIGHT TO THE EDGE OF THE BUSHING INSTALLED. THE BUSHING LOCATED WITHIN THE BORE IN QUESTION WAS FOUND TO HAVE THE SEALANT FULLY INTACT ON THE FLANGED SIDE. (TC 20090916002)				
CA090826001	EMB	GE	BEARING	WORN
8/17/2009	ERJ190100IGW	CF3410E5A1	DSRP8FS464	RUDDER
WHILE RUDDER WAS REMOVED FOR REPLACEMENT ON AC 306 IT WAS DISCOVERED THAT THERE WAS WEAR. AXIAL PLAY INTERNALLY OF THE RUDDER ATTACH BEARINGS - APPROX .025IN ON 4 OF THE 5 ATTACH BEARING (1 THROUGH 4) ON THE VERT STABLIZER. BEARINGS WERE REPLACED AND END PLAY CHECK CONDUCTED AND NO FAULTS FOUND. BEARINGS REF PN ARE DSRP5FS464, DSRP6F464 AND 2 EA, DSRP8FS464 .				
CA090904002	EMB	GE	ACTUATOR	FAILED
8/18/2009	ERJ190100IGW	CF3410E5A1	1703909	SLAT
ON APPROACH, THE CREW EXPERIENCED A FLAP/SLAT FAILURE WITH FLAPS AT POSITION 2, AND SLATS AT POSITION 0. AN EMERGENCY WAS DECLARED AND AN UNEVENTFUL LANDING WAS CARRIED OUT. LT NR 5 SLAT ACT CHANGED DUE TO TORQUE LIMITER IND TRIPPED.				
CA090904003	EMB	GE	FLAP SYSTEM	MALFUNCTIONED
8/20/2009	ERJ190100IGW	CF3410E5A1		TE FLAPS
ON APPROACH, CREW RECEIVED A FLAP FAIL MSG. A GO AROUND WAS CONDUCTED AND THE CHECK LIST FOLLOWED. FLAP SYS RETURNED TO NORMAL AND AN APPROACH AND LANDING WAS CARRIED OUT. FIM CARRIED OUT, NO FAULT FOUND. NIL HISTORY, NIL REPEAT.				
CA090904004	EMB	GE	ACTUATOR	FAILED
8/22/2009	ERJ190100IGW	CF3410E5A1		SLAT
DURING APPROACH, FLIGHT CREW RECEIVED A `SLAT FAIL` MESSAGE. THE CREW CARRIED OUT THE QRH AND LANDED UNEVENTFULLY. FAULT WAS "SLAT SLOW RATE". PREVIOUS "SLAT FAIL" FAULTS NON-VOLATILE MEMORY (NVM) NOT CLEARED. AFTER MEMORY CLEARED, DID NOT REPEAT. NOTE: PREVIOUS `SLAT FAIL` 2 ACTUATORS CHANGED.				
CA090904005	EMB	GE	SLAT SYSTEM	MALFUNCTIONED
8/24/2009	ERJ190100IGW	CF3410E5A1		LE SLATS
ON APPROACH TO LAND, FLIGHT HAD SLAT FAILURE. EMERGENCY EQUIPMENT WAS CALLED OUT TO RUNWAY. SLAT BREAKERS RESET. OPS CHECK CARRIED OUT, UNABLE TO DUPLICATE. NIL REPEAT.				
CA090813001	EMB	GE	LANDING GEAR	LACK OF LUBE
8/4/2009	ERJ190100IGW	CF3410E5A1		RIGHT
(CAN) LG LEVER DISAGREE EICAS MSG WITH GEAR SELECTED DOWN. RT MAIN SHOWING UP. MANUAL				

EXTENSION REQUIRED. FOUND RT MLG VERY CLEAN (NO GREASE). ALL 3 GEARS LUBED PER AMM. (TC# 20090813001)

CA090813002	EMB	GE	LANDING GEAR	MALFUNCTIONED
8/5/2009	ERJ190100IGW	CF3410E5A1		

(CAN) LANDING GEAR DISAGREE MASTER WARNING FOLLOWING GEAR EXT ON APPROACH. RT MAIN GEAR SHOWED UP. MISSED APR CARRIED OUT. ON SUBSEQUENT EXTENSION, RH GEAR REMAINED UP (YAW FELT). CYCLED PER QRH, THEN SHOWED ALL 3 DOWN AND LOCKED. BLED BOTH THE RT AND LT UPLOCK ACTUATORS. ALL GEARS RELEASED TOGETHER AND EXTENDED AT AN EQUAL RATE. LINES WERE LEAK CHECKED SATISFACTORY. (TC# 20090813002)

CA090813003	EMB	GE	ACTUATOR	MALFUNCTIONED
8/8/2009	ERJ190100IGW	CF3410E5A1	1703909	SLATS

(CAN) SLAT FAIL CAUTION ON APPROACH. QRH CARRIED OUT, AND MSG PERSISTS. FIM ACCOMPLISHED, FOUND SLAT ACTUATORS NR 5 AND 8 TRIPPED TORQUE LIMITER INDICATORS. RE-SET PER AMM. NR 8: P/N 1703911, S/N 0320, MFR: HAMILTON SUNDSTRAND (TC# 20090813003)

CA090813005	EMB	GE	SEAL	MISSING
8/10/2009	ERJ190100IGW	CF3410E5A1	19032514901	PIN BEARING

(CAN) LT MLG AFT PINTAL BEARING DUST SEAL LOOSE AND RT IS MISSING. (TC# 20090813005)

CA090813012	EMB	GE	STRUCTURE	CORRODED
7/23/2009	ERJ190100IGW	CF3410E5A1		CARGO BAY

FWD CARGO LWR CTR SEAL REST, UPPER FWD AND AFT SILL DOUBLER PLATES, SCUFF PLATE SUPPORTS, AND ATTACHMENT HARDWARE HAVE CORROSION. THIS IS THE 2ND ACFT TO HAVE THIS PROBLEM FOUND AFTER SILL SCUFF PLATES REMOVED. BELIEVE THE CAUSE MAY BE DUE TO LACK OF CORROSION PREVENTATIVE COMPOUND USED AND LACK OF GOOD DRAINAGE. ANOTHER ACFT WAS FOUND TO HAVE THE SAME CORROSION ISSUE. SEAL REST: PN 170-67467-001 DOUBLER: PN 170-67032-402 DOUBLER: PN 170-67115-002 SUPPORT: PN 170-67032-401 SUPPORT: PN 170-67032-402 SUPPORT: PN 170-67176-403 (QTY 3).

CA090925004	FOUND		ATTACH FITTING	BROKEN
9/24/2009	FBA2C1			FUSELAGE

(CAN) LEFT AFT TIE WIRE LUG FOUND BROKEN AT FUSELAGE. (TC# 20090925004)

CA090610003	FRCHLD	GARRTT	STRUT	CRACKED
6/9/2009	SA227DC	TPE33112UHR	2752505	NLG

(CAN) DURING A PHASE INSPECTION MAINTENANCE PERSONAL WERE PERFORMING A ROUTINE WHEEL BEARING INSPECTION AND LUBRICATION. WHILE REMOVING THE NOSE LANDING GEAR BEARINGS A SUSPECTED CRACK WAS NOTED ON THE NOSE GEAR AXLE HOUSING. AN NDT INSPECTION WAS COMPLETED AND CONFIRMED A 3/8-INCH CRACK IN THE NOSE GEAR AXLE HOUSING. THE NOSE GEAR ASSAY WAS REPLACED (TC# 20090610003)

CA090922003	GROB		HANDLE	MALFUNCTIONED
9/17/2009	G120A		GH115TA	MLG

(CAN) THE AIRCRAFT WAS ENGAGED IN A LOCAL TRAINING FLIGHT. WHEN LANDING GEAR WAS SELECTED DOWN FOR THE APPROACH, IT WAS NOTED THAT NO INDICATION OF LANDING GEAR POSITION EXISTED. THE A/C HAD A COMPLETE LANDING GEAR LIGHT SYSTEM FAILURE. ALL `SAFE` AND `UNSAFE` POSITION LIGHTING IS CONTAINED IN THE LANDING GEAR SELECT ASSY. THE INSTRUCTOR COMMANDED A MISSED APPROACH TO TROUBLESHOOT THE INDICATION PROBLEM. MAINTENANCE WAS CONTACTED AND THE AIRCREW CONFIRMED ALL CIRCUIT BREAKER AND SWITCH POSITIONS. MAINTENANCE SUGGESTED THE SELECTION OF EMERGENCY EXTENSION AND A RETURN TO THE AERODROME WITH A FLY-PAST FOR VISUAL CONFIRMATION OF LANDING GEAR POSITION. FOLLOWING THE SUCCESSFUL FLY-PAST THE AIRCREW CONDUCTED A NORMAL CIRCUIT AND LANDED WITHOUT FURTHER INCIDENT. ARFF RESPONDED AND ONCE SHUT-DOWN, MAINTENANCE CONFIRMED THE GEAR WAS, IN FACT, MECHANICALLY LOCKED DOWN. ONCE IN THE HANGAR AND ON JACKS, ELECTRICAL POWER WAS SELECTED ON AND ALL LIGHTING WORKED AS NORMAL. MAINTENANCE TRIED TO FIND FAULT AT ALL RELATED

WIRING HARNESSSES AND CONNECTORS BUT COULD NOT DUPLICATE THE INDICATION FAULT. IT WAS DECIDED TO REMOVE THE LANDING GEAR HANDLE ASSEMBLY AND REPLACE IT WITH A FACTORY REPAIRED AND TESTED UNIT. THE REMOVED HANDLE ASSEMBLY IS BEING RETURNED TO FACTORY FOR TESTING. (TC 20090922003)

CA090902005	GROB	LYC	TERMINAL	DAMAGED
8/31/2009	G120A	AEIO540D4D5	33466	ALTERNATOR

ACFT WAS ENGAGED IN A LOCAL TRAINING FLIGHT WITH STUDENT PILOT FLYING ON FINAL APPROACH WHEN "ALT OFF" ANNUNCIATOR ILLUMINATED AND AMMETER SHOWED DISCHARGE. INSTRUCTOR COMMANDED THE OVERSHOOT AND TOOK CONTROL OF THE ACFT. AN EMERGENCY WAS DECLARED AND THE INSTRUCTOR 'ACTIONED' THE "ALTERNATOR FAILURE" CHECKLIST INSTRUCTIONS. A NORMAL CIRCUIT AND LANDING WAS CARRIED OUT WITHOUT FURTHER INCIDENT. ACFT WAS MET BY ARFF POST LANDING. NO EVIDENCE OF FIRE WAS NOTED AND ACFT WAS RELEASED TO MXE. TROUBLESHOOTING REVEALED THE MAIN PWR WIRE WAS BROKEN CLOSE TO ALTERNATOR TERMINAL, ONLY FACTORY HEAT-SHRINK LAYERS AND INSULATION HELD CABLE TOGETHER. WIRE WAS PREPARED AND A NEW TERMINAL INSTALLED. ACFT WAS RETURNED TO SERVICE FOLLOWING A SUCCESSFUL SYS TEST.

CA090909006	GROB	LYC	IGNITION SWITCH	SHORTED
9/9/2009	G120A	AEIO540D4D5	103572101	COCKPIT

(CAN) A STUDENT PILOT WAS CARRYING OUT PRE-FLIGHT INSPECTION OF AIRCRAFT IN PREPARATION FOR A LOCAL TRAINING FLIGHT. WHEN THE BATTERY MASTER WAS SELECTED "ON", THE ENGINE BEGAN TO CRANK. THE MASTER WAS IMMEDIATELY SELECTED OFF AND CRANKING CEASED. THE STUDENT THEN HAD ANOTHER PILOT WHO HAD PARKED NEARBY RADIO MAINTENANCE PERSONNEL. THE STUDENT STAYED WITH THE AIRCRAFT UNTIL MAINTENANCE CREW ARRIVED TO ASSIST. THE ATTENDING AME CONFIRMED THAT THE IGNITION/START SWITCH WAS IN THE 'OFF' POSITION (NO KEY INSTALLED) AND THAT THE FAULT REMAINED. MAINTENANCE REMOVED THE BATTERY AND TOWED THE AIRCRAFT TO THE HANGAR. AFTER THE IGNITION/START SWITCH WAS REMOVED A ELECTRICAL CONTINUITY TEST SHOWED THAT SWITCH WAS INTERNALLY FAILED/SHORTED SO THAT START COMMAND REMAINED SELECTED EVEN THOUGH SWITCH WAS PHYSICALLY SELECTED 'OFF'. THE SWITCH WAS REPLACED WITH A NEW UNIT - AND SYSTEM TESTED SERVICEABLE. THE AIRCRAFT WAS RELEASED TO SERVICE. (TC# 20090909006)

CA090819004	GROB	LYC	WIRE HARNESS	CHAFED
8/13/2009	G120A	AEIO540D4D5	AWG20	TAXI LIGHT

ON A LOCAL TRAINING FLIGHT THE AIRCREW NOTED A "SMOKY ODOR" ON CLIMBOUT FROM A 'TOUCH AND GO' LANDING. THE AIRCREW ADVISED ATC OF THE PROBLEM AND THAT THEY WERE RETURNING TO THE AIRPORT. THEY THEN CARRIED OUT THE PUBLISHED "SMOKE IN THE COCKPIT" CHECKLIST. SECURING THE ENVIRONMENTAL SYS OFFERED IMMEDIATE IMPROVEMENT. ARFF AND MX MET THE ACFT AS IT CLEARED THE ACTIVE RUNWAY. NO ODOR COULD BE NOTED IN THE COCKPIT. AFTER ARFF DETERMINED THAT NO DANGER EXISTED MX REMOVED ENG COWLINGS- NO SMELL COULD BE DETCTED IN THE ENGINE COMPARTMENT. FURTHER INVESTIGATION BY MX IN THE HANGAR DISCOVERED THE PROTECTIVE WIRE COVERING AND INSULATION OF A WIRE FOR THE ENGINE COWL MOUNTED TAXI LIGHT SHOWED SIGNS OF EXCESSIVE HEAT. IT COULD NOT BE DETERMINED IF THIS CONDITION CONTRIBUTED TO THE SMELL IN THE COCKPIT. NO FURTHER DISCREPENCIES NOTED. THE TAXI LIGHT WIRE WAS REPAIRED. ACFT GROUND RUNS REVEALED NO ODORS. THE ACFT WAS RELEASED FOR SERVICE.

CA090819005	GROB	LYC	UNKNOWN	ODOR
8/19/2009	G120A	AEIO540D4D5		CABIN

(CAN) PREPARING FOR A LOCAL TRAINING FLIGHT, AIRCREW NOTED A "BURNING ODOR" DURING THE PRE-TAKE-OFF RUN-UP. AIRCREW ADVISED ATC OF THE PROBLEM AND THAT THEY WERE SHUTTING DOWN IN POSITION. THEY THEN CARRIED OUT THE PUBLISHED "SMOKE IN THE COCKPIT" CHECKLIST. SECURING THE ENVIRONMENTAL SYS OFFERED IMMEDIATE IMPROVEMENT. ARFF AND MX ATTENDED TO THE ACFT. NO SMELL COULD BE NOTED IN THE COCKPIT. AFTER ARFF DETERMINED THAT NO DANGER EXISTED MX REMOVED ENG COWLINGS- NO ODOR COULD BE DETECTED IN THE ENG COMPARTMENT. FURTHER INVESTIGATION BY MX IN THE HANGAR COULD NOT REVEAL ANY CAUSES OF THE SMELL. NO FURTHER DISCREPENCIES NOTED. ACFT GROUND RUNS REVEALED NO ODORS. ACFT WAS RELEASED FOR SERVICE.

CA090824004	GRUMAN	WRIGHT	EXHAUST PIPE	CRACKED
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8/21/2009	FIRECAT	982C9HE2		CYLINDER FLANGE
WHILE TAXIING TO POSITION ON THE RUNWAY FOR TAKEOFF THE LT FIRE WARNING ILLUMINATED AS POWER WAS ADDED, LIGHT EXTINGUISHED WHEN POWER WAS REDUCED. FOUND 3 CRACKED EXHAUST PIPES, 2 OF WHICH HAD BROKEN OFF OF THE CYLINDERS NR 4 AND 5. FIREWALL WAS INSPECTED SERVICEABLE, PIPES WERE REPLACED.				
CA090806014	GRUMAN	WRIGHT	FORK	BROKEN
8/1/2009	FIRECAT	982C9HE2		NLG DOOR ACT
NOSE GEAR WOULD NOT COME DOWN, PILOT MANAGED TO EXTEND GEAR BY PULLING NEGATIVE G, FORK END AND NOSE GEAR DOOR ACTUATOR WAS FOUND BROKEN. ACTUATOR ASSY WAS FOUND TO BE ASSEMBLED DIFFERENTLY FROM OTHER ACFT. ACTUATOR AFT ATTACH POINT IS 180 DEGREES OUT CAUSING HYD LINE TO BE LWR CAUSING NOSE GEAR AXLE T CONTACT HYD LINE IN UP POSITION IMPARTING A STRESS ON ACTUATOR FORK END CAUSING IT TO EVENTUALLY BREAK.				
CA090731006	GRUMAN	WRIGHT	CONNECTOR	CONTAMINATED
7/30/2009	FIRECAT	982C9HE2	12345	FIRE LOOP
(CAN) OIL IN FIRE LOOP CONNECTORS CAUSING HIGH RESISTANCE CAUSING FALSE FIRE INDICATION.				
CA090730007	GRUMAN	WRIGHT	ENGINE	FAILED
7/29/2009	FIRECAT	982C9HE2	R1820	
ON CLIMB OIL PRESSURE WAS FALLING AND OIL TEMP CLIMBED TO 125 DEGREES CELSIUS. ENG SEIZED, OIL SCREENS AND MAG PLUGS FULL OF METAL.				
CA090608005	GRUMAN	WRIGHT	BRAKE ASSY	DAMAGED
6/4/2009	FIRECAT	982C9HE2	147515	MLG
(CAN) WHILE DOING A PRE-FLIGHT WALK AROUND THE PILOT NOTICED A SMALL METAL PART NEXT TO THE RT MAIN WHEEL ASSY. ENGINEER RECOGNIZED THE PART AS BEING FROM THE BRAKE ASSY WAS FOUND TO BE DAMAGED.				
CA090603003	GRUMAN	WRIGHT	STRIKER	STICKING
5/29/2009	FIRECAT	982C9HE2		UPLOCK SWITCH
(CAN) DURING APPROACH THE PILOT NOTICE THAT THE NLG WAS INDICATING UP ALTHOUGH THE PILOT WAS ABLE TO VERIFY THE NOSE GEAR WAS DOWN. AFTER A NORMAL LANDING IT WAS DISCOVERED THAT THE NLG UPLOCK SWITCH STRIKER ASSY HAD BECOME SEIZED IN THE BULKHEAD OF THE FUSELAGE NOSE STRUCTURE WHERE IT SITS. THE STRIKER WAS FREED WITH LUBRICATED WHICH ALLOWED THE NOSE GEAR TO INDICATE CORRECTLY.				
CA090723008	GRUMAN	WRIGHT	ACTUATOR	LEAKING
7/21/2009	FIRECAT	982C9HE2	89H10527	LT MLG
LEFT MLG WOULD NOT RETRACT FULLY DUE TO LT GEAR DOORS CLOSING PREMATURELY ON LT MAIN WHEEL.				
CA090616004	GRUMAN	WRIGHT	LINE	CHAFED
6/13/2009	FIRECAT	982C9HE2		HYDRAULIC SYS
WHILE SERVICING ACFT NOTICED HYD FLUID LEAKING FROM A RIGID YD LINE IN THE RT MLG WHEEL WELL. IT WAS DETERMINED THAT THE LEAK WAS COMING FROM THE MLG DOOR OPEN HYD LINE. THE LINE WAS REPLACED, BLED AND LEAK CHECKED.				
CA090723010	GRUMAN	WRIGHT	SPLINE	STRIPPED
7/23/2009	FIRECAT	982C9HE2	4U1831	GOVERNOR PULLEY
UNCOMMANDED INCREASE IN RPM, NR 1 ENG ON CLIMB OUT. FOUND PULLEY ON GOVERNOR HAD STRIPPED SPLINES. GOVERNOR SPLINES SERVICEABLE. PULLEY WAS REPLACED AND ENGINE GROUND RUN SERVICEABLE.				

CA090911002	GRUMAN	WRIGHT	CONTROL CABLE	DISLODGED
9/10/2009	FIRECAT	982C9HE2	89P11441	FIREWALL PULLY

RT THROTTLE STICKING PERIODICALLY AND WILL NOT ALLOW MORE THEN 30-36" OF POWER. CABLE FOUND POPPED OUT OF PULLY GROOVE AT FIREWALL PULLY CLUSTER AND FOUND SITTING IN BETWEEN TWO PULLEYS.

2009FA0000951	GULSTM	LYC	PLUG	DAMAGED
10/16/2009	500B	IO540E1A5	60828	PISTON PIN

LT ENG STARTED LOSING RPM. PILOT REPORTED FUEL PRESSURE DROPPED BELOW NORMAL RANGE BUT HAVE TO BELIEVE IT WAS OIL PRESSURE. ENG WAS CAGED AND LANDED SAFELY. THE OIL PRESSURE SCREEN WAS FULL OF ALUMINUM RESTRICTING OIL FLOW TO THE ENG. ON TEARDOWN, THE NR 4 CYL WRIST PIN PLUG WAS BALLED UP TO ABOUT HALF ITS NORMAL SIZE AND THE REMAINING METAL WAS FLUSHED THRU THE ENG AND INTO THE OIL SCREENS.

CA090819007	GULSTM	LYC	RIVET	CORRODED
8/4/2009	680F	IO720B1B	AN4265	WING

ACFT IS HANGARED. ACFT WAS NOTED TO HAVE MISSING RIVET (HEAD) AT LT WS 24-54. LWR SPAR CAP AREA. TCAC WAS CONTACTED AND WE WERE ADVISED TO REPLACE RIVETS AND INSPECT THE AREA IAW TCAC SB 208A. ULTRASONIC INSP WAS COMPLETED BETWEEN WS 24 - WS 52. AVERAGE FLANGE THICKNESS IS AS FOLLOWS: FWD FLANGE 0.130 INCH, AFT THICK FLANGE 0.387 INCH, AFT THIN FLANGE 0.160.4 INCH. ALL READINGS ARE WITHIN THE NSC/50 PERCENT RANGE IAW SB 208A. AREA WAS TREATED WITH ACF 50. A DETAILED VISUAL INSP WAS COMPLETED AND NO SIGNIFICANT CORROSION OR OTHER DEFECTS WERE NOTED. A TOTAL OF 32 AN426-5 RIVETS WERE REPLACED (10 RIVETS IN FWD FLANGE AND 22 RIVETS IN AFT FLANGE) BETWEEN WS 28.5 TO 50.75. WE PLAN TO INSPECT THE RT WING IN THE SAME AREA AT THE NEXT SHOP VISIT. PLAN TO FOLLOW THE SB208A REINSPECTION GUIDELINES AND PERFORM CORROSION PREVENTIVE TREATMENT IN CONJUNCTION WITH REPETITIVE INSPECTION.

CA090824003	GULSTM	GARRTT	DOWNLOCK SWITCH	MISSING
8/21/2009	690	TPE3315251K	800029501	MLG

THE DOWNLOCK SWITCH ASSY WAS FOUND TO BE MISSING. THE ACTUATOR/LEVER THAT CONTACTS THE DOWNLOCK/UPLOCK WHEEL ON THE NLG DRAG BRACE. DURING GEAR EXTENSION FOR LANDING, THE PILOT FAILED TO GET A GREEN FOR THE NLG DOWN AND LOCKED. AFTER FLYING OUR AIRFIELD FOR VISUAL CONFIRMATION OF NLG DOWN AND LOCKED, THE ACFT LANDED WITHOUT FURTHER INCIDENT.

CA090910010	GULSTM	GARRTT	WINDSHIELD	CRACKED
9/9/2009	690A	TPE3315	36004314SS	COCKPIT

ON APPROACH DECENDING THRU 15,000 FEET, LOUD NOISE WAS HEARD AND RT WINDSHIELD CRACKED. (SHATTERED)

CA090922004	GULSTM		LINE	OBSTRUCTED
9/21/2009	695A		8505345	DOOR SEAL

(CAN) THE TUBE THAT SUPPLIES PRESSURIZED AIR FROM AIRFRAME SYSTEMS TO INFLATE THE ENTRANCE DOOR SEAL BECOMES KINKED. (SEE ATTACHMENT)THE TUBE COMES FROM UNDER THE CABIN FLOOR, UP THE FUSELAGE CABIN WALL BEHIND THE PILOT SEAT AND HAS A LOOP TO ALLOW MOVEMENT OF THE TUBE WHEN THE CABIN DOOR OPENS AND CLOSES. (SEE MAINT MANUAL ATTACHMENT ITEM #25). BESIDE THE TUBE IS A SMALL WIRE BUNDLE. WITH FLEXING OF THE LOOP DURING EVERY DOOR ACTUATION, THE TUBE KINKS RESULTING IN LOSS OF AIR TO KEEP THE DOOR SEAL INFLATED. THE TUBE IS MADE OF PLASTIC/TEFLON AND THERE ARE SEVERAL ITEMS TO CATCH AND SNAG THE LOOP SUCH AS STRUCTURE OR WIRE BUNDLES. THE HOSE WAS REPLACED, WIRE BUNDLES SECURED, SYSTEM TESTED AND FOUND SERVICEABLE. THIS IS THE SECOND AIRCRAFT IN THE FLEET TO HAVE THIS PROBLEM OCCUR. THE OTHER TWO AIRCRAFT IN THE FLEET WILL BE INSPECTED FOR THIS PROBLEM DURING UPCOMING WINTER MAINTENANCE. (TC# 20090922004)

2009FA0000882	GULSTM	RROYCE	ACM	BINDING
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3/4/2009 G1159 SPEY* 20392541

UNIT WAS INSTALLED WITH 8.6.1 HOURS. THE TURBINE WAS BINDING AND CAUSING OVERHEAT AND SMOKE IN THE CABIN. UNIT WAS REPLACED WITH AN AS REMOVED UNIT AND AN OPS CHECK WAS COMPLIED WITH. OIL LEVEL CHECK NO DEFECTS NOTED. THIS UNIT HAS LASTED OVER 150 HOURS AND IS STILL WORKING FINE. THIS WAS THE THIRD UNIT FROM THE SAME O/H SITE TO FAIL WITH UNDER 50 HOURS.

[2009FA0000914](#) GULSTM LIFE RAFT NO TEST

9/3/2009 GIV 1116FASL6301102

DURING TEST DEPLOYMENT OF THE SUBJECT LIFE RAFT, ON JANUARY 7, 2009, FAILED TO PROPERLY INFLATE. THE LEFT REAR QUADRANT OF THE LIFE RAFT TWISTED IN A WAY THAT PREVENTED THE LIFE RAFT FROM COMPLETELY OPENING WHICH WOULD PREVENT PROPER FLOATATION CREATING SEVERE DIFFICULTY IN BOARDING BY ANY SURVIVORS. THE ROOT CAUSE OF THIS FAILURE IS BELIEVED TO BE DUE TO THE BURSTING STRAP MATERIAL USED WHILE FOLDING THE LIFE RAFT. IAW RESULTS OF SAMPLES TEST BY OTHER COMPANY AUGUST 6, 2009, BURSTING STRAP MATERIAL USED IS ALMOST (6) TIMES THE STRENGTH OF THE BURSTING STRAP REQUIRED BY THIS COMPANY. THE STRENGTH OF THE IMPROPER STRAPS WAS AS MUCH AS 341 POUNDS TENSILE STRENGTH. THE RECOMMENDED STRAPS, WHEN INSTALLED, HAVE A TENSILE STRENGTH OF APPROX 59 POUNDS. THE STRENGTH OF THE BURST STRAP MATERIAL DID NOT ALLOW THEM TO BREAK AT THE PROPER TIME DURING THE DEPLOYMENT SEQUENCE, THEREFORE CAUSING THE ARCH AND BUOYANCY TUBES TO TWIST PREVENTING PROPER DEPLOYMENT. IN ADDITION THE SEA ANCHOR WAS NOT PROPERLY SECURED IN THE SEA ANCHOR POCKET AND TUCKED AS OUTLINED IN CMM 25-60-101, REV 1 SEC VIII FOLDING, POTENTIALLY CONTRIBUTING TO THE IMPROPER DEPLOYMENT.

[WL7R20091019002](#) GULSTM WINSLOW FIRING HEAD DAMAGED

10/15/2009 GIV A53077 LIFE RAFT

DURING THE ROUTINE INSPECTION OF LIFE RAFT LAST RETURNED TO SERVICE ON 10-10-2008, IT WAS DISCOVERED THAT THE BAYONET PROTECTIVE COVER REMAINED IN PLACE IN-BETWEEN THE FIRING HEAD AND CYLINDER HEAD OF THE LIFE RAFTS INFLATION SYS.

[WL7R20091019001](#) GULSTM WINSLOW FIRING HEAD DAMAGED

10/15/2009 GIV 1116FAAVSL A53077 LIFE RAFT

DURING ROUTINE INSP OF LIFE RAFT LAST RETURNED TO SERVICE ON 10-10-08, IT WAS DISCOVERED THAT THE BAYONET PROTECTIVE COVER REMAINED IN PLACE IN-BETWEEN THE FIRING HEAD AND CYLINDER HEAD OF THE LIFE RAFT'S INFLATION SYS.

[CA090609008](#) HUGHES LYC DRIVE BELT DELAMINATED

9/24/2008 269C1 HIO360G1A 269A5512 XMSION COUPLING

(CAN) DRIVE BELTS DELAMINATING. FOUND ON 100 HR INSP. DRIVE BELTS REPLACED UNDER WARRANTY.

[CA090609007](#) HUGHES LYC EXHAUST VALVE STUCK

11/19/2007 269C1 HIO360G1A NR 2 CYLINDER

(CAN) EXHAUST VALVE ON NR 2 CYL STUCK CAUSING LOSS OF ENG PWR. ACFT DESCENDED INTO A FIELD. THE HELICOPTER WAS TAKEN BY TRUCK TO MX FACILITY TO DETERMINE PROBLEM. ENGINE MFG WARRANTIED REPAIR OF CYLINDER AND VALVE ASSY.

[CA080610002](#) HUGHES ALLSN STARFLEX WORN

5/23/2008 369D 250C20B 369D27611503 M/R SWASHPLATE

M/R SWASHPLATE RECEIVED FOR O/H. AFTER DISASSEMBLY AND PAINT STRIPPING ROTATING STAR PN 369D27611-503 WAS FOUND WITH FORK INNER EAR SURFACE WEAR BEYOND LIMITS. THIS WEAR WAS FOUND FILLED WITH SOME SORT OF ADHESIVE ONCE THE ADHESIVE WAS REMOVED THE WEAR WAS BEYOND LIMITS.

[CA090810001](#) ISRAEL GARRTT HYDRAULIC SYSTEM LEAKING

8/8/2009 1124 TFE73131G

ACFT LOST HYD FLUID IN FLIGHT.

2009FA0000885	ISRAEL		CONNECTOR	MISMANUFACTURED
6/30/2009	1125		PCS06E8805	ITT INDICATOR

ENGINE EXPERIENCED INTER TURBINE TEMP (ITT) INDICATION FAULT. DURING TROUBLESHOOTING OF FAULT, FOUND THE AIRFRAME TO ENGINE ELECTRICAL HARNESS (PN PCS06E880S) (362) CONNECTOR DEFECTIVE. PURCHASED NEW CONECTOR. DURING PRE INSTALLATION OF THE NEW CONNECTOR IT WAS FOUND THAT CONNECTOR WAS MFG INCORRECTLY. CONNECTOR PIN ALUMEL AND CHROMEL PIN / SOCKET ARRANGEMENTS ARE NOT CORRECT.

CA090813009	LEAR	GARRTT	FUEL CONTROL	UNSERVICEABLE
7/1/2009	31	TFE73123B	307080011	ENGINE

ENGINE FLAME OUT ON TAXI FCU REPLACED ACFT RETURN TO SERVICE.

CA090918002	LEAR	GARRTT	SELECTOR VALVE	FAULTED
9/9/2009	35A	TFE73122B	48C48641	MLG

(CAN) DURING APPROACH ALL 3 GEAR WOULD NOT EXTEND. PILOTS PERFORMED ABNORMAL CHECKLIST, THEN PERFORMED THE EMERGENCY GEAR EXTENSION, WHICH WORKED PROPERLY AND INDICATED ALL 3 GEAR WERE DOWN. THE CONTROL TOWER WAS INFORMED AND EMERGENCY VEHICLES DISPATCHED AS A PRECAUTION. THE PILOTS PROCEEDED TO MAKE AN UNEVENTFUL LANDING AND TAXIED TO THE FBO. MAINTENANCE PERSONNEL TROUBLESHOOTING, FOUND THE LANDING GEAR SELECTOR VALVE TO BE AT FAULT. THE VALVE WAS CHANGED AND THE LANDING GEAR SYSTEM FUCTION CHECKED SERVICEABLE. (TC# 20090918002)

CA090918012	LEAR		SKIN	CRACKED
9/18/2009	45LEAR			FUSELAGE

(CAN) DURING A DAILY INSPECTION OF THE AIRCRAFT MAINTENANCE NOTICED A 3 INCH CRACK ON THE FORWARD LOWER FUSELAGE. THE CRACK EXTENDS FROM THE NOSE GEAR BAY DOOR FORWARD. THERE ARE NO REPORTS OF ANY ABNORMAL FLIGHT OR GROUND HANDLING INCIDENTS. MAINTENANCE INSPECTION OF THE AIRCRAFT DID NOT FIND ANY OTHER ABNORMAL STRUTURAL DAMAGE TO THE AIRCRAFT. (TC# 20090918012)

CA090717003	LEAR	GARRTT	LINE	LEAKING
7/10/2009	45LEAR	TFE731*	53A1101101	FUEL SYSTEM

(CAN) DURING A ROUTINE ACFT WALK AROUND A SMALL QUANTITY OF FUEL WAS NOTED ON THE GROUND, CTR FUSELAGE, MID WING. INVESTIGATION OF THIS AREA FOUND BOTH FUSELAGE TO WING TANK FUEL LINES WEEPING FUEL. MFG WAS CONTACTED AND INFORMED OF THE ISSUE. THEY IDENTIFIED THAT THIS WAS A KNOWN PROBLEM AND NEW STYLE LINES HAD BEEN IN PRODUCTION TO SUPERSEDE THE EXISTING UNITS. NEW LINES INSTALLED, LT AND RT (PN 53A1101-101 AND 102), LEAK CHECKS CARRIED OUT AND ACFT RETURNED TO SERVICE.

CA090717005	LEAR	GARRTT	AXLE	CORRODED
7/14/2009	45LEAR	TFE7312	2000203001	LANDING GEAR

(CAN) DURING THE INSTALLATION OF A LANDING GEAR SB (SB45-32-29R1) IT WAS REQUESTED THAT INSP OF THE INTERNAL SURFACES OF THE LANDING GEAR AXLE BEAM ASSY FOR POSSIBLE CORROSION. BOROSCOPE INSPECTIONS COMPLETED, CORROSION IDENTIFIED AND MFG CONTACT WITH THE RESULTS OF THE DISCOVERY. MFG ENGINEERING REQUESTED AXLE BEAMS BE REMOVED FOR REPAIR. LOANER AXLE BEAMS INSTALLED AND GEAR SWINGS COMPLETED WITHOUT INCIDENT. THIS IS A COMMON PROBLEM WITH THE LWR AXLE BEAM ASSEMBLIES AND INCORPORATION OF THE ABOVE MENTIONED SB IS THE SUGGESTED REPAIR.

CA090714004	LEAR	GARRTT	WIRE	BURNED
7/13/2009	45LEAR	TFE7312		LANDING LIGHT

(CAN) DURING POST-FLIGHT CHECK, NOTICED LT LANDING LIGHT WAS INOPERATIVE. FURTHER TROUBLESHOOTING FOUND BURNED WIRE, RAA0238-14, APPROX 12 INCHES AFT OF LT AFT DISTRIBUTION PANEL, A FEW INCHES FWD OF SPLICE SP302 WHERE ONE WIRE GOES FROM GAUGE 14 TO TWO 20 GAUGE

WIRES APPR. THIS WIRE WAS BURNED INSIDE ITS SHARP BENT. TYE-WRAP HAD BEEN INSTALLED TIGHTLY, CLOSED TO BEND RADIUS. CLOSED TO THIS BURNED WIRE RAA0238-14, 2 OTHER WIRES HAD THEIR INSULATION PARTIALLY MELTED, WIRE RBA0060B-14 BY SPLICE SP 631 AND WIRE L-RAA5384A-16 BY SPLICE SP5174. SP302 IS FOR THE LT LANDING LIGHT SP631 IS FOR THE LT PWR RECOGNITION LIGHT SP5174 IS FOR THE LOGO LIGHT ALL 3 WIRES WERE CUT AND RE-SPLICED, ELIMINATING THE BURNED AREAS.

2009FA0000950	LET		BRACKET	CRACKED
7/2/2009	L23SUPERBLAN		A730420N	ZONE 300

DURING A 100 HOUR INSPECTION, A SMALL CRACK WAS DISCOVERED IN A WELD ON THE STEEL BRACKET THAT PROVIDES THE AFT ATTACHMENT OF THE HORIZONTAL STABILIZER TO THE VERTICAL STABILIZER.

CA090727010	LKHEED	ALLSN	ENGINE	POWER LOSS
7/26/2009	188A	501D13		NR 2

DISPATCHED FOR FIRE ACTION. AFTER RETARDANT DROP NR 2 RPM DROOPED TO 13,500. RPM BEGAN TO HUNT BETWEEN 13500, 13300 (13820 NORMAL). NR 2 ENGINE SHUTDOWN AND SECURED IAW COMPANY SOP. ONE ENG INOP LANDING CARRIED OUT. MX IS TROUBLESHOOTING.

CA090727011	LKHEED	ALLSN	LINKAGE	OUT OF RIG
7/25/2009	188C	501D13		FEATHERING SYS

LOCAL TEST FLIGHT. ENGINE SHUTDOWNS AND RESTARTS PERFORMED. NR 1 ENG DEVELOPED A RPM FLUCTUATION. WANDERING 4-500 RPM. ENGINE MONITORED. SEVERAL CHECKS PERFORMED. ENGINE SHUTDOWN AND SECURED IAW COMPANY SOP. ENGINE INOP PROCEDURES FOLLOWED. UNEVENTFUL LANDING. MX FOUND NR 1 NTS LINKAGE SLIGHTLY OUT OF RIG, NTS RERIGGED AND TESTED SERVICABLE.

CA090824011	LKHEED	ALLSN	BRUSH BLOCK	WORN
8/24/2009	188C	501D13	6505679	PROP CONTROL

ON RETURN NR4 ENG RPM DROOPED TO 13,600. WHILE REVIEWING CHECKLIST FOR POSSIBLE ENG SHUTDOWN, ENG DROOPED TO 13,450 AND BEGAN TO HAVE HORSEPOWER SURGES. ENG WAS SHUTDOWN AND SECURED. IAW SOP'S (PROP GOVERNOR WAS CHANGED AND ACFT GROUND RUN AND RETURNED TO SERVICE) ON NEXT FLIGHT SHORTLY AFTER TAKEOFF NR 4 RPM AGAIN BEGAN TO SERGE RAPIDLY WITH HORSEPOWER. ENG WAS SHUTDOWN AND SECURED. ONE ENG INOP LANDING PERFORMED. MX FOUND PROP CONTROL BRUSH BLOCK WORN TO LIMIT, BLOCK CHANGED AND ENGINE GROUND RUN SERVICABLE.

CA090904012	LKHEED	ALLSN	ENGINE	MAKING METAL
9/4/2009	188LKHEED*	501D13		

ON CHECKING ENG OILS MX NOTICED NR 3 ENG TOOK MORE OIL THAN NORMAL, THEY NOTICE OIL COMING SCAVAGE PUMP DRAIN LINE. GEAR BOX FILTER CHECKED AND ABNORMAL METAL FILINGS WERE FOUND. ACFT WAS 3 ENG FERRIED TO MX FACILITY.

CA090914001	LKHEED	ALLSN	HOUSING	LEAKING
9/11/2009	382G	501D22A	582855	VALVE

(CAN) SEPT 11/09 C-GHPW NR 1 RPM DROPPED 1% TO 99% IN CRUISE, FURTHER DROPPED TO 96%. PITCHLOCK CHECK CARRIED OUT OKAY. RPM CONTINUED TO SLOWLY DROP. AT 95% THE ENGINE WAS SHUTDOWN. THE NR 1 VALVE HOUSING WAS REPLACED AND GROUND RUNS CARRIED OUT. (TC# 20090914001)

CA090813008	MOONEY	LYC	SWITCH	UNSERVICEABLE
7/18/2009	M20E	IO360LYC*	V31	THROTTLE

AFTER SELECTING GEAR UP, LANDING GEAR INDICATOR CIRCUIT BREAKER WOULD TRIP. ACFT COMPLETED FLIGHT WITH NO INCIDENT, AS THE GEAR IS MANUALLY DRIVEN. UPON INVESTIGATING THE PROBLEM, THE THROTTLE SWITCH WAS DISCOVERED TO BE THE SOURCE OF THE PROBLEM. THE SWITCH HAD FAILED INTERNALLY. SWITCH WAS REPLACED, AND ALL SYSTEMS FUNCTIONED NORMALLY.

CA090826010	NAVION	CONT	BLADE	DAMAGED
8/14/2009	STCNAVION	E2254	V8433N	PROPELLER

(CAN) PROPELLER RECEIVED FOR O/H AND REPAIR OF BLADE DAMAGE. BLADES WERE REPAIRABLE IAW MM 100D, 133C, 202A, 159.

2009FA0000954	PILATS		WINDSHIELD	FAILED
11/10/2009	PC1245		9598110109	ZONE 200

IN CRUISE FLIGHT AT FL200, IMC, THE PILOT'S WINDSCREEN CRACKED WITH A LOUD BANG. PIC PREFORMED AN EMERGENCY DESCENT AND CHOSE TO DIVERT, 10 MILES IN FRONT OF US. COORDINATED WITH ATC, DECLARED AN EMERGENCY, SET UP ILS, GOT ATIS, ETC. ALSO DE-PRESSURIZED THE ACFT USING THE MANUAL CONTROL VALVE DURING THE DESCENT. PIC PERFORMED THE ILS 13 AT DSM, TOOK OVER CONTROLS AND LANDED FROM THE RT SEAT DUE TO REDUCED VISIBILITY FROM THE LT SEAT. THERE WERE NO CHECKLIST ITEMS ON THE QRH FOR A CRACKED WINDSCREEN SO WE USED OUR BEST JUDGMENT IN DESCENDING, DEPRESSURIZING, AND LANDING ASAP. ALSO DEEMED IT PRUDENT TO DUCK BEHIND THE PANEL IN CASE THE WINDSCREEN WAS TO SHATTER INWARD. AFTER LANDING, THE OUTER LAYER WAS DISCOVERED TO BE CRACKED, THE INNER LAYER WAS INTACT. SOME SORT OF GOGGLES OR EYE/FACE PROTECTION SHOULD BE INCLUDED FOR THE PILOTS IN THE EVENT THIS WAS TO REOCCUR. MECHANICS COMMENT: UPON EXAMINATION OF THE REMOVED WINDSHIELD, IT APPEARS THE GLASS SHATTERED FROM ONE ORIGINAL STRESS RISER, MOST LIKELY DAMAGE RECEIVED FROM A STONE CHIP OR SOMETHING SIMILAR. IT SHOULD ALSO BE NOTED THAT THE WINDSHIELD WAS REMOVED IN ONE PIECE WITH THE INNER PLY MAINTAINING THE INTEGRITY OF THE GLASS. ALTHOUGH THE PILOT REPORTED A CRACKED WINDSHIELD, IT ACTUALLY SHATTERED TO THE POINT OF BEING COMPLETELY OPAQUE.

CA090618003	PILATS	PWA	PILATS	WIRE	BURNED
6/16/2009	PC1245	PT6A67B	972813220	H254A10H301A10	DEICE CONTROLLER

(CAN) BURNED WIRES AT CONNECTOR FOUND ON ANNUAL INSP. WIRES WERE SPLICED TO INSTALL A AW10 IN PLACE OF A AWG12 AT THE WINDSHIELD DE ICE CONTROLLER. THIS WAS DONE BY SB30-006. THE IN LINE SPLICE WAS PN 971.31.32.604.

5APR577Y13	PILATS		BFGOODRICH	BRAKE DISC	BROKEN
10/29/2009	PC1247			244755	BRAKE ASSY

DURING AND ANNUAL INSPECTION THE RIGHT BRAKE OUTBOARD DISC WAS DISCOVERED BROKEN INTO TWO PIECES. REMOVED AND REPLACED RIGHT BRAKE ASSEMBLY IN ACCORDANCE WITH MAINTENANCE MANUAL INSTRUCTIONS.

5APR577Y13A	PILATS			BRAKE DISC	BROKEN
10/26/2009	PC1247			244755	MLG

DURING A 100 HOUR INSPECTION THE LEFT MAIN LANDING GEAR BRAKE OUTBOARD DISC WAS DISCOVERED TO BE CRACKED. REMOVED AND REPLACED THE BRAKE ASSEMBLY.

2009FA0000938	PILATS			SPAR	CORRODED
10/8/2009	PC1247			STCSA5740NM	RT WING

DURING THE ROUTINE INSP ON ACFT, CORROSION WAS FOUND ON THE SPAR AT THE MID WING SECTION OF THE ACFT BETWEEN THE SPAR DOUBLERS (PN AD-AC-0191-1 LT OTBD DOUBLER AND 1A RT OTBD DOUBLER, AT APPROXIMATE WING STA 53.0-63.0, THE 10 INCH OVERLAPPED SECTION ON BOTH LT AND RT MID WING AREAS. CORROSION HAD FORMED AND CAUSED THE OVERLAPPED DOUBLER SECTION TO BUCKLE AND THE RIVET HEADS TO LOOSEN AND COME OFF. THE SPAR WAS AN APPROVED METHOD FOR TERMINATING ACTION ON AD94-04-14, SB208A WING SPAR INSP FOR THE ACFT. (K)

CA090922001	PILATS			GENERATOR	NOT GROUNDED
9/11/2009	PC1247				NR 1

(CAN) THIS IS THE 5TH OCCURANCE OF THE LEFT PWR JUNCTION BOX FAILURE. IN 12 MONTHS. WITH THE ASSISTANCE OF PILATUS SERVICE SUPPORT THE A/C BUS TIE CONTROL WIRING AND ALL CONNECTIONS WERE INSPECTED AND FOUND TO BE NORMAL. THE LEFT PWR JUNCTION BOX WAS REPLACED WITH A REPAIRED UNIT AS SUPPLIED FROM PILATUS. GROUND RUNS WERE CONDUCTED TO CONFIRM NORMAL OPERATION OF THE LEFT PWR JUNCTION BOX. GENERATOR NR 1 WAS FOUND NOT GROUNDED TO THE ENGINE CONTINUOUSLY . A BONDING STRAP WAS INSTALLED BETWEEN THE GENERATOR COOLING FAN COVER SCREW AND THE ACCY

GEAR BOX MOUNTING STUD.. THE INVESTIGATION IS ONGOING BY PILATUS TO DETERMINE THE LACK OF BONDING BETWEEN THE GENERATOR AND ENGINE ACCY GEARBOX (TC# 20090922001)

CA090609006	PILATS	PWA		POWERPACK	INOPERATIVE
6/5/2009	PC1247	PT6A67		9603101154	HYD SYSTEM

FLIGHT CREW REPORTED A HYD FAIL INDICATION AFTER GEAR SELECTION ALSO WITH A BRIEF AIR GROUND WARNING. A NORMAL GEAR DOWN SELECTION WAS MADE FOLLOWED BY A NORMAL LANDING. MX INVESTIGATION FOUND THE MAIN 100 AMP HYD PUMP CB WAS TRIPPED. CB WAS RESET AND THE PUMP WAS OPERATED, SHORTLY AFTER, A BURNING ODOR WAS NOTED AND THE CB WAS PULLED. THE CONNECTIONS WERE CHECKED ON THE HYD MOTOR AND THE PUMP WAS OPERATED AGAIN. DURING THE SUBSEQUENT GROUND OPERATION, HYD MOTOR STOPPED OPERATION AND THE SOFT START RESISTOR TO THE HYD PUMP MOTOR BEGAN TO GET VISIBLY HOT. THE 100 AMP POWER CB WAS MANUALLY PULLED. A FURTHER INSP NOTED THE LT WING TO FUSELAGE COMPOSITE PANEL EXHIBITED A SMALL AREA OF HEAT DAMAGE FROM THE ADJACENT SOFT START RESISTOR. HYD PWR PACK WAS REPLACED AND THE FUSELAGE SKIN ADJACENT TO THE SOFT START RESISTOR WAS INSPECTED FOR OVERHEAT DAMAGE. NO DAMAGE WAS NOTED. THE WING TO FUSELAGE PANEL IS SCHEDULED TO BE REPLACED FOR COSMETIC REASONS. NO FAULT WAS NOTED WITH THE AIR GROUND WOW SYS AND IT IS SUSPECTED THAT THE INDICATION MAY BY BEEN AS A RESULT OF A CROSSWIND TAKEOFF AND IS UNRELATED TO THE HYD PRESSURE FAILURE. SEVERAL GEAR SWINGS WERE CONDUCTED WITH THE NEW PWR PACK AND ALL INDICATIONS ARE NORMAL.

CA090616008	PILATS	PWA	LEACH	RELAY	FAILED
6/11/2009	PC1247	PT6A67		974033813	BUSS TIE

(CAN) PRIOR TO DEPARTURE, CREW NOTED THE BUSS TIE CB WAS POPPED. THE CB WAS RESET AND A NORMAL ENGINE START WAS CARRIED OUT. ON CLIMB OUT THE AMBER BUSS T CASS MESSAGE DISPLAYED AND THE BUSS TIE S/B POPPED. CREW RETURNED TO BASE. DURING THE TROUBLESHOOTING PROCEDURE IT WAS NOTED THE LT PWR JCT BOX WAS DEFECTIVE AND REPLACED WITH A SERVICEABLE SPARE. FUNCTION TEST WAS CARRIED OUT IAW CH 25-52 AND REPLACEMENT WAS DEEMED SERVICABLE. A NORMAL GROUND RUN WAS CONDUCTED AND ACFT RETURNED TO SERVICE. NOTE: THIS IS THE SECOND FAILURE OF THIS ASSY SINCE NEW TT 870 HRS THE DEFECTIVE UNIT IS BEING RETURNED TO MFG FOR INVESTIGATION.

CA090805001	PILATS	PWA	PILATS	BOLT	MIGRATED
8/4/2009	PC1247	PT6A67		NAS660311	PAX DOOR

FOLLOWING A FLIGHT, CREW ATTEMPTED TO OPEN THE PASSENGER DOOR AND COULD NOT. CREW NOTED UPPER FWD SHOOT PIN INDICATOR REMAINED "GREEN" WITH THE HANDLE OPEN. DOOR PANEL WAS REMOVED FOR INSP AND MX NOTED THE RETAINING BOLT FOR THE UPPER FWD SHOOT PIN HAD MIGRATED OUT OF POSITION. THE NUT FOR THE RETAINING BOLT WAS LOCATED IN THE DOOR. THE BOLT AND NUT WAS REINSTALLED INTO THE SHOOT PIN LINKAGE AND THE NUT WAS TORQUED IN SAFETY AND THE ACFT WAS RETURNED TO SERVICE. NO MX HAS BEEN PERFORMED IN THIS AREA SINCE MFG OF THE ACFT AND IS SUSPECTED THE NUT WAS NOT IN SAFETY DURING INITIAL INSTALLATION.

CA090826008	PIPER	LYC		HINGE BRACKET	CRACKED
8/19/2009	PA23160	O320B3B		2854002	VERTICAL STAB

BRACKET REMOVED FOR COMPLIANCE WITH AD 78-08-03 (HINGE BRACKET ASSY). CRACKS FOUND IN BRACKET OFF OF ANCHOR NUT RIVET HOLES. UPON FURTHER INSP, CRACKS FOUND ALSO IN SIMILAR LOCATION ON REAR VERTICAL FIN SPA (PN 17067-02). SERVICEABLE VERTICAL FIN ASSY INSTALLED ON ACFT, AD COMPLIED WITH ON INSTALLED ASSY. TO BE REVISTED IN 1000 HRS (TIS).

CA090903001	PIPER	LYC		BUNGEE	BROKEN
8/31/2009	PA23250	IO540C4B5		3318600	STAB

1/16 STABILATOR BUNGEE CABLE SEPARATED AT UPPER PULLEY WHERE IT MAKES A 90 DEGREE BEND.

CA090916004	PIPER	LYC		HORN	BROKEN
9/15/2009	PA28140	O320E2A		63300014	RUDDER

(CAN) ON WALK AROUND, THE AME NOTICED THAT THE RUDDER WAS EXCESSIVELY LOOSE. AME INVESTIGATED AND FOUND BROKEN STEERING HORN. HORN WAS REPLACED AND RUDDER RIGGING AND NOSE WHEEL

STEERING RIGGING CHECKED OK. (TC# 20090916004)

CA090811005	PIPER	LYC	PIPER	BOLT	BROKEN
8/11/2009	PA28151	O320D3G		AN411A	MLG

DURING ROUTINE 100 HOUR INSP, (2 EA) AN 4-11A BOLTS FOUND BROKEN IN LWR GEAR ATTACHMENT. REPLACED (4 EA) AN 4-11A BOLTS IN LT AND RT GEAR ATTACHMENT.

2009FA0000876	PIPER			IGNITION SWITCH	BURNED
4/15/2009	PA28161			103572001	INST PANEL

ACFT WAS BEING RUN UP AFTER 100 HR INSPECTION. SMOKE IN COCKPIT WAS NOTED. INSPECTION AFTER SHUTDOWN LED TO KEY (IGNITION) SWITCH. IGNITION SWITCH WAS REPLACED. SUSPECT IGNITION SWITCH WAS PULLED APART. INTERNALLY SWITCH BURNED. (K)

CA090812002	PIPER	LYC		ALTIMETER	UNSERVICEABLE
8/6/2009	PA31	TIO540A2C		5035P	

ALTIMETER UNSERVICABLE.

CA090905002	PIPER	LYC		CASE	CRACKED
9/3/2009	PA31	TIO540A2C			MAGNETO

MAGNETOS WERE REMOVED FROM LT ENG AND SENT FOR 500 HR INSP. INSP REVEALED A CRACK IN THE MAGNETO HSG. MAG MAY HAVE BEEN CRACKED FROM MFG. MAGNETO WAS SCRAPPED.

CA090730003	PIPER	LYC		STARTER	INTERMITTENT
7/24/2009	PA31325	LTIO540J2BD		MHB4014R	ENGINE

STARTER INTERMITTENT, REPLACED WITH SERVICEABLE STARTER.

CA090824006	PIPER	LYC		CAM FOLLOWER	MELTED
8/24/2009	PA31350	LTIO540J2BD			MAGNETO

MAG WAS RECEIVED DUE TO EXCESSIVE LT MAG DROP AND A 500 HR INSP WAS REQUESTED. MAG HAS AN SIL REPAIR STICKER DATED 17/4/2008 REF NR17615. UNKNOWN WHO O/H'D UNIT ORIGINALLY BUT TYPED FIELD O/H'D DATAPLATE HAS AN OLDER 2000 SERIES PN AND SN, BUT A NEWER 3000 SERIES MODEL NR(D6RN-3200) AND HAS BEEN CONVERTED TO A 3000 SERIES MAG USING A NEWER HSG (IT SHOULD NOW BE PN 10-682910-18). ALSO DATAPLATE INDICATES AN O/H DATE OF 19/07, WHATEVER THAT MEANS. THE MAG FAILED DUE TO MELTING OF THE NYLON CAM FOLLOWER, POSSIBLY CAUSED BY A LOSS OF CAPACITOR GROUND THROUGH THE HSG/COVER/CAPACITOR ATTACHING AREAS. UPON FURTHER DISASSEMBLY THE FOLLOWING WAS FOUND: THIS UNIT HAS 2 ORIFICE PLUGS INSTALLED FOR PRESSURIZATION PURPOSES WHERE ONLY 1 IS CALLED FOR. THE PRESSURIZATION FITTING IS ALUMINUM INSTEAD OF STEEL. PRESSURIZATION THREADED BUSHING HAS BEEN REPLACED WITH AN ALUMINUM PLUG THAT HAS BEEN DRILLED AND TAPPED TO ACCEPT PRESSURIZATION FITTING. ONE OF THE DISTRIBUTOR BLOCK BUSHINGS IS LOOSE IN DIST BLOCK AND THE GEAR ELECTRODE CONTACTED DIST ELECTRODES. WRONG GREASE HAS BEEN PUT IN THE ROLLER BEARING. AN OLD CAPACITOR HAS BEEN INSTALLED, DATE CODE 86-47, WHICH SHOULD HAVE BEEN REPLACED AT O/H. THE CUSTOMER OPTED TO GO WITH AN EXCHANGE MAGNETO.

CA090901013	PIPER	LYC		CYLINDER	DAMAGED
8/31/2009	PA31350	LTIO540J2BD			NR 2

IN CRUISE AT 5000 FT, HEARD LOUD SOUND AND NOTICED ON RT ENG, AN OIL LEAK. EMERGENCY PROCEDURE WAS FOLLOW. ACFT WAS REROUTED TO AN AIRPORT. ENG FOUND WITH CYL NR 2 UNSECURE FROM CRANKCASE, BOLT SHEARED. CONNECTING ROD HAD SEVERE DAMAGED. ENG SENT FOR REPAIR.

CA090917005	PIPER	LYC		TUBE	FAILED
9/14/2009	PA31350	LTIO540J2BD		G156006	MLG TIRE

(CAN) AT APPOIX. 8:20 LOCAL TIME AIRCRAFT GRWN LANDED IN CYZH. AFTER TOUCH DOWN THE PILOT NOTED A SLIGHT SHIMMY. AS THE AIRCRAFT DE-ACCELERATED THE SHIMMY INCREASED. THE PILOT SHUT DOWN THE AIRCRAFT ON THE RUNWAY AND VISUALLY CONFIRMED A FLAT NOSE TIRE. THE AIRCRAFT WAS REMOVED FROM

THE RUNWAY AND THE NOSE WHEEL ASSEMBLY WAS CHANGED. MAINTENANCE INVESTIGATION OF THE TIRE AND TUBE REVEALD THAT THE TUBE FAILED ALONG A MANUFACTURED SEAM IN THE TUBE ALONG THE SIDEWALL LOCATION OF THE TUBE. (TC# 20090917005)

CA090911004	PIPER	LYC	TAPPET	MAKING METAL
9/7/2009	PA31350	LTIO540J2BD	72877	ENGINE

(CAN) PILOT REPORT THAT AFTER RH ENGINE START, OIL PRESSURE LOW. MAINTENANCE FOUND SMALL METAL CHIP UNDER OIL PRESSURE RELIEF VALVE SEAT. RELIEF VALVE & SEAT CLEANED AND ENGINE OIL PRESSURE CHECKED NORMAL ON GROUND RUN. FURTHER MAINTENANCE INSPECTION OF THE MAIN OIL FILTER ELEMENT & OIL INLET SCREEN REVEALED NUMEROUS FERROUS MATERIAL - SLIVERS, FLAKES - IN THE MAIN OIL FILTER ELEMENT & NUMEROUS FERROUS CHIPS IN THE OIL INLET SCREEN. ENGINE HAS BEEN REMOVED & SENT TO ENGINE VENDOR FOR METAL CONTAMINATION INSPECTION & REPAIR. NO FINDINGS REPORT AVAILABLE AT THIS TIME. SEP. 16, 2009 - ENGINE REPAIR AGENCY REPORTS SUBSTANTIAL METAL CONTAMINATION DAMAGE THROUGHOUT THE ENGINE - #2 & #4 CYLINDER TAPPETS, CAM SHAFT, ALL PISTON ROD BEARINGS, & OIL PUMP & HOUSING. THE ROOT CAUSE OF DAMAGE APPEARS TO BE THE FAILURE OF #2 CYLINDER EXHAUST TAPPET BODY P/N 72877. THE ENGINE IS CONSIDERED BEYOND ECONOMICAL REPAIR AND WILL BE REPLACED WITH NEW. (TC# 20090911004)

CA090811007	PIPER	LYC	WIRE	BROKEN
8/10/2009	PA31350	TIO540J2BD	71644004	START SOLENOID

PILOTS REPORTED UNABLE TO START LT OR RT ENGINES AT DEPARTURE. MX INVESTIGATION REVEALED THE WIRE LEAD FROM ACFT BATTERY CONTACTOR TO THE STARTER SOLENOID WAS BROKEN AND SEPARATED AT THE BATTERY CONTACTOR END, JUST DOWN-STREAM OF THE TERMINAL CONNECTION. NEW WIRE MFG BY LOCAL AVIONICS VENDOR AND INSTALLED. ENGINE START AND OPERATION CHECKED NORMAL.

CA090910011	PIPER	LYC	POINTS	DAMAGED	
9/10/2009	PA32300	TIO540*	103493704	10382585	MAGNETO

(CAN) CUSTOMER BOUGHT EXCHANGE MAGNETO AND 1 HOUR AFTER INSTALLATION IT FAILED. MAG WAS RETURNED TO US AND A TEST RUN WAS PERFORMED, MAG WAS NOT PROVIDING ANY SPARK AT ANY SPEED. WHEN THE HARNESS CAP WAS REMOVED THE CONTACT POINTS WERE JUST VISIBLE UNDER THE CONTACT COVER AND THE HALF OF THE POINTS THAT IS RIVETED TO THE GROUND SIDE OF THE ASSY WAS MISSING ITS (TUNGSTEN?) CONTACT AREA. IT APPEARS TO HAVE FAILED AT THE JOINT BETWEEN THE CONTACT AND THE RIVET SECTION. THIS CAUSED THE POINTS TO STAY OPEN AND THE MAG FAILED. THE BATCH CODE ON THE POINTS WAS 0734, WHICH IS COVERED IN TCM'S DISTRIBUTOR INFORMATION BULLETIN (DIB) 2008-3. DIB 2008-3 STATES THAT ALL MAGS RECEIVED BETWEEN APR 15, 2007 AND APR 15, 2008 WITH POINT BATCH CODES BETWEEN 0719 AND 0816 BE RETURNED TO TCM. THIS MAG WAS PRODUCED BY TCM IN SEP 07 AND HAD A STICKER ON THE BOX STATING "COMPLIANT WITH DIB 2008-3". THE MANUFACTURER HAS BEEN CONTACTED AND WILL INSTRUCT ON DISPOSITION OF THE MAG. THE CUSTOMER WAS SUPPLIED WITH ANOTHER TCM NEW MAGNETO. (TC# 20090910011)

2009FA0000923	PIPER		BOLT	BENT
8/26/2009	PA34200T		400890	NLG DWNLOCK LINK

THE UPPER ATTACHMENT BOLT FOR THE NOSE GEAR DOWNLOCK LINK ASSY WAS BENT. WHILE THE ACFT WAS TAXIING BACK TO ITS PARKING SPOT THE NOSE GEAR COLLAPSED CAUSING DAMAGE TO BOTH PROPELLERS, ENGINES, NOSE CONE AND NOSE GEAR DOORS. THE PROBABLE CAUSE OF THIS INCIDENT WAS DUE TO OVER STRESS OF THE COMPONENTS DURING A LANDING WHICH CAUSED THE DRAG LINK ASSEMBLY TO COME OUT OF RIG AND THEREFORE CAUSE THE NOSE GEAR TO COLLAPSE. RECOMMENDATION TO PREVENT RECURRENCE WOULD BE FOR THE MFG TO REDESIGN THE METHOD OF SECURING THE DRAG LINKS ASSY TO MAINTAIN POSITIVE ENGAGEMENT OF THE NOSE GEAR ASSEMBLY FOR DOWN AND LOCK POSITION AND TO PROVIDE A BETTER DESCRIPTION IN THE MM TO ENSURE THAT ONCE RIGGED IT WOULD MAINTAIN OVER CENTER POSITIVE ENGAGEMENT EVEN IF THIS BOLT BECAME DAMAGED DURING A LANDING CYCLE. (K)

2009FA0000928	PIPER	LYC	SHAFT	SHEARED
10/14/2009	PA44180	LO360A1H6		MAGNETO ROTOR

ROTOR SHAFT SHEARED AT SPLIT FOR POINT CAM. MFG IS AWARE OF DEFECT DURING MFG OF ROTOR. (K)

CA090911013	PIPER	LYC		BRACKET	CRACKED
9/9/2009	PA44180	LO360A1H6		8628210	NLG DRAG BRACE
(CAN) DURING ROUTINE 100 HOUR INSPECTION, THE LT NOSE GEAR DRAG BRACE SUPPORT BRACKET WAS FOUND CRACKED ON THE AFT SUPPORT GUSSET IN THE AREA CLOSE TO THE DRAG BRACE PIVOT BUSHING. THE DEFECTIVE BRACKET WAS REMOVED AND A SERVICEABLE BRACKET WAS INSTALLED. (TC# 20090911013)					
CA090817004	PIPER	LYC		BLADE	WRONG PART
8/14/2009	PA44180	LO360E1A6		FJC7666A	PROPELLER
PROPELLER WAS RECIEVED FOR O/H AFER FOREIGN OBJECT STRIKE. UPON INSP IT WAS FOUND THAT PREVIOUSLY FJC7666A BLADES WERE INSTALLED. THE TC A19SO FOR THIS ACFT APPROVES FJC7666A-2R BLADES FOR THIS APPLICATION. THIS HAS ALSO BEEN CONFIRMED WITH SRM 159N. THE MAXIMUM DIAMETER FOR THIS INSTALLATION IS 74". DIAMETER RECIEVED WAS 76".					
CA090805003	PIPER	LYC		CONTROL CABLE	FRAYED
8/4/2009	PA44180	LO360E1A6		554294	CARB HEAT
UPON COMPLETION OF A ROUTINE TRAINING FLIGHT, THE PILOT REPORTED THAT THE LT CARBURETOR HEAT CONTROL FELT LOOSE. UPON CLOSER INSP BY MX, IT WAS DISCOVERED THAT THE CABLE ASSY HAD FAILED WHERE THE FLEXIBLE CABLE IS SWAGED TO THE LEVER END ROD. INNER CABLE WAS SEVERELY FRAYED TO THE POINT WHERE IT WAS NEARLY OR COMPLETELY SEPARATED. UNSERVICEABLE CABLE ASSY WAS REMOVED AND REPLACED WITH A NEW PART.					
CA090921002	PIPER	LYC	PIPER	TRUNNION	CRACKED
3/18/2009	PA44180	O360E1A6D		67054003	NLG
(CAN) FIRST 100 HR FOLLOWING IMPORTATION OF AIRCRAFT. AIRCRAFT REBUILT FOLLOWING DAMAGE FROM TORNADO PRIOR TO IMPORT. CRACKS EVIDENT VISUALLY 100 HRS AFTER REBUILD. (TC# 20090921002)					
CA090901009	PIPER	LYC		SEAT BACK	BROKEN
8/27/2009	PA60600	IO540K1J5			COCKPIT
PILOT FOUND SEAT BACK BROKEN AFTER ADJUSTING POSITION BEFORE ENTERING ACFT. MX FOUND SEAT BACK FRAME ATTACHEMENT HORN BROKEN AT PIVOT POINT HOLE.					
CA090826011	PIPER	LYC		SERVO	STICKING
8/24/2009	PA60600	IO540K1J5		25244919	THROTTLE SHAFT
THROTTLE PLATE STUCK ON ENG RUN UP RPM WOULD NOT GO BELOW 2000 RPM. WHEN SERVO INJECTOR WAS REMOVED FROM ENG, THROTTLE PLATE WAS MOVING FREELY AGAIN. THROTTLE SHAFT BUSHINGS SHOWED SIGNS OF EXCESSIVE WEAR. THIS PART WAS HIGH TIME.					
CA090715002	PROPJT	PWC		TERMINAL	MISINSTALLED
7/14/2009	200A	PW306A		MS20659130	WINDSHIELD
(CAN) WHILE CONDUCTING THE 1200HR INSP OF THE RT WINDSHIELD 'ANTI STATIC COATING' ON G200, IT WAS FOUND UNSERVICEABLE AND DID NOT MEET THE SPEC BY THE MFG IAW MM. THIS REQUIRED WIND-SHIELD REPLACEMENT. ON REMOVAL OF THE WINDSHIELD, FOUND ONE (1) OF THE PWR CABLES HAD ARCED TO ACFT STRUCTURE DUE TO POOR INSULATION ON THE TERMINAL END. CONTACTED MFG AND SENT THEM INFO ON THE FINDINGS. REPLACED WINDSHIELD AND TERMINAL END OF THE PWR CABLE. ON INSTALLATION ENSURED PWR CABLES HAD PROPER CLEARANCES FROM THE ACFT STRUCTURE AND TERMINALS WERE INSULATED. CARRIED OUT FUNCTION CHECK AND OPS CHECK OK. THIS INSP WILL BE EXTENDED.					
CA090724004	PROPJT	PWC		FIRE LOOP	FAILED
7/23/2009	200A	PW306A		7101771050	LT ENGINE
(CAN) ON CLIMB OUT AT APPROX 18,000 FEET, ACFT ROUTED ON EICAS THE PILOTS REPORTED THAT THE LT ENG FIRE DETECTOR INDICATED FAILED. PILOTS REPORTED THAT CHECK LIST HAD BEEN COMPLETED AND AS A PRECAUTIONARY MEASURE PROCEEDED TO SHUTDOWN ENG IN FLIGHT. ACFT WAS RE-ROUTED AND DECLARED AN EMERGENCY. TOWER REPORTED THAT NO FLAME OR SMOKE COULD BE SEEN FROM THE LT ENG. ACFT					

LANDED WITHOUT ANY OCCURRENCE. MX WAS CALLED TO INVESTIGATE AND FOUND THE FIRE LOOP IN ZONE 2 HAD FAILED. ZONE 2 FIRE LOOP WAS REPLACED AND CARRIED OUT FUNCTION CHECK ON SYS SERVICEABLE. WERE INFORMED OF THE FAILURE. PROBABLE CAUSE FOR FAILURE WAS IMPROPER CLAMPING AT THE END OF THE LOOP. NEW LOOP INSTALLED HAD THE LAST CLAMP, CLAMPED AT .250 INCHES FROM THE END OF THE LOOP WHICH LIMITS FREQUENCY VIBRATION. ACFT WAS GROUND RUN AND FUNCTION CHECK CARRIED OUT ON THE FIRE LOOP AND ALL SYS OPERATED SERVICEABLE. ACFT WAS RELEASED FOR RETURN TO SERVICE.

CA090727004	PROPJT	PWC	ACTUATOR	BINDING
7/23/2009	200A	PW306A		NR 3

(CAN) PILOTS REPORTED ALL SYS NORMAL. ON PRE-FLIGHT THE PILOTS COULD NOT GET THE SLATS TO MOVE WHEN SELECTED FLAPS DOWN. MX WAS CALLED AND COULD NOT DETECT WHAT WAS FAILED ON THE SYS. ACFT PROCEEDED TO COMPLETE A FERRY FLIGHT WITH SLATS RETRACTED USING BYPASS FEATURE AND ADHERING TO FLIGHT MANUAL LIMITATIONS. ACFT RETURNED TO BASE. MFG WAS NOTIFIED OF THE PROBLEM AND SENT TECH SUPPORT AND TEST BOX FROM TO TROUBLESHOOT AND REPAIR. SHORTLY AFTER ARRIVAL IN , MX INSPECTED L/E SLATS AND VERIFIED NO MOVEMENT OF THE SLATS. TAPPING AT THE NR 3 SLAT ACTUATOR ON LT AND RT WINGS SYS BEGAN TO OPERATE. THERE WERE NO FURTHER FAILURES. TEST BOX WAS USED TO TROUBLESHOOT THE RIGGING OF SLATS AND SYS OPERATION. SYS COULD NOT BE FAULTED. ACTUATORS WERE CHECKED ON SLAT FOR BINDING AND SMOOTH MOVEMENT OF THE BOLTS. LT NR 3 ACTUATOR BOLT HAD SOME BINDING. THE LT 2 ACTUATOR WAS ADJUSTED AT THE ROD END TO ACHIEVE NO BINDING AND SMOOTH MOVEMENTS OF THE BOLTS WHEN SLATS ACFT LANDED WERE EXTENDED OR RETRACTED. FUNCTION CHECK WAS CARRIED OUT IAW MM AND THE SYS OPERATED SERVICEABLE. TEN CYCLES OF THE SLATS FULLY EXTENDED AND RETRACTED WAS COMPLETED WITH NO FAULTS. SYS WAS COMPLETED AND ACFT WAS RELEASED FOR RETURN TO SERVICE.

E81R JW30190 1	RAYTHN		CONTROL MODULE	MALFUNCTIONED
10/13/2009	390		233700109	SPOILERS

FLIGHT CREW REPORTED "ROLL FAIL" AND "SPEED BRAKE FAIL" ANNUNCIATOR INDICATIONS. REQUIRED EXTENSIVE TROUBLESHOOTING WITH MANUFACTURER SUPPORT. REPLACED SPOILER CONTROL UNIT CONNECTOR 27P1 NO. 5 AND NO. 7 CONTACTS DUE TO LOW MOUNTING TENSION. CLEANED AND REASSEMBLED SPOILER CONTROL AIRFRAME GROUND 27GS2 DUE TO HIGH RESISTANCE INDICATION. REPLACED HBC P/N 390-384011-0019 SPOILER SYSTEM ELECTRONIC CONTROL MODULE AND ADJUSTED ROLL ACTUATOR LVDT'S, SURFACE POSITION SENSOR LVDT'S, AND CONTROL WHEEL POSITION SENSOR AS REQUIRED TO BRING READINGS WITHIN SERVICE LIMITS. AIRCRAFT HAD BEEN STORED OUTDOORS FOR AN EXTENDED PERIOD PRIOR TO RETURN TO SERVICE SEVERAL WEEKS PREVIOUS.

E81RJW301904	RAYTHN		CONTROL MODULE	OUT OF TOLERANCE
10/19/2009	390		233700109	SPOILER

DURING TROUBLESHOOTING FOR SIMULTANEOUS "ROLL FAIL" AND "SPEED BRAKE FAIL" ANNUNCIATOR INDICATIONS REPLACED HBC P/N 390-384011-0019 SPOILER SYSTEM ELECTRONIC CONTROL MODULE WITH AN ELECTRONIC CONTROL MODULE REPAIRED BY MANUFACTURER'S FACILITY 8/04/2009. DURING FOLLOWING MAINTENANCE OPERATIONS COULD NOT BRING POSITION SENSOR LVDT READINGS TO WITHIN SERVICE LIMITS. REPLACED ELECTRONIC CONTROL MODULE WITH ANOTHER UNIT REPAIRED BY THE MANUFACTURER AND LVDT'S AND SENSORS WERE ABLE TO BE ADJUSTED TO WITHIN SERVICE LIMITS. SPOILER SYSTEM WAS TESTED AND NO FAULTS INDICATED. RECOMMEND COMPONENT MANUFACTURER INVESTIGATE WHETHER UNIT SUFFERED DAMAGE FROM SHIPPING, HANDLING, OR ENVIRONMENTAL CONDITIONS DURING STORAGE OR WHETHER REPAIR TOLERANCES ARE TOO WIDE TO ENABLE SYSTEM ADJUSTMENTS ONCE INSTALLED.

E81RJW30194	RAYTHN	RAYTHN	ROLL PIN	MIGRATED
10/22/2009	390			BELLCRANK

CONFIRMED FLIGHT CREW REPORT OF THE SPOILER SYSTEM NOT PASSING THE PREFLIGHT BIT TEST PER THE AFM. REQUIRED ADJUSTING THE LT AND RT ROLL ACTUATOR LVDT'S AND LT AND RT SURFACE POSITION SENSORS LVDT'S VOLTAGES TO WITHIN SERVICE LIMITS. REQUIRED ADJUSTMENT OF THE RT WING SPOILER BLOWDOWN ACTUATOR RIGGING. FOUND ROLL PIN HAD MIGRATED OUT OF LT WING INBOARD "LIFT DUMP" SPOILER BELLCRANK. REPLACED THE COMPOSITE LT INBOARD SPOILER ASSY. WITH SUPERSEDING P/N METAL

CONSTRUCTION SPOILER. SPOILER SYSTEM TESTS NORMAL, NO FAULTS INDICATED. NOTE: HBC SB 27-3783R2, COMPOSITE SPOILER PANEL REPLACEMENT, NOT APPLICABLE THIS AIRCRAFT BY AIRCRAFT S/N AND SPOILER ASSY. P/N'S.

CA090619004	ROBSIN	LYC	SERVO	LEAKING
6/11/2009	R44	O540F1B5	D2121	HYDRAULIC SYS

(CAN) HYDRAULIC SERVO FOUND LEAKING ON INSPECTION. (TC# 20090619004)

CA090818005	ROBSIN	LYC	LYC	SPRING	BROKEN
8/17/2009	R44	O540F1B5	LW16475	EXHAUST VALVE	

DURING A POST MX GROUND RUN, THE ENG WAS FOUND TO BE RUNNING ROUGH AND VIBRATING EXCESSIVELY. POST-SHUTDOWN, A CHECK FOR COMPRESSION WAS CARRIED OUT, BUT THERE WAS NONE FOUND ON THE NR 4 CYL. REMOVAL OF THE ROCKER COVER REVEALED THE EXHAUST VALVE WAS SPRUNG OUT AGAINST THE ROCKER BOX COVER, AND SMALL METALIC PIECES FELL OUT WITH THE OIL. THE PIECES WERE LATER IDENTIFIED TO BE THE INNER PORTION OF SEAT PN LW-16475. DUE TO THE FAILURE OF THIS PIECE, THE EXHUAUST VALVE BENT, FORCING THE VALVE GUIDE (PN 74230) TO BECOME DISLODGED FROM THE CYL ASSY, AND BENDING THE PUSH-ROD AND PUSH ROD TUBE. A NEW CYL ASSY WAS INSTALLED WITH NEW PISTON AND PUSHRODS. A SATISFACTORY GROUND RUN AND TEST FLIGHT WERE CARRIED OUT AND THE ACFT WAS RETURNED TO SERVICE.

CA090901012	ROBSIN	LYC	SHAFT	WORN
8/27/2009	R44	O540F1B5		CLUTCH

UPON DISASSEMBLY FOR COMPANY CLUTCH MID LIFE INSP THE FOLLOWING WAS FOUND, SHAFT WORN UNDERSIZE, HUB WORN OVERSIZE, SPRAG WINDOWS WORN EXCESSIVE AND THE OIL WAS BLACK CONTAINING METAL PARTICLES.

EVGR20091028	ROBSIN		BEARING	SEPARATED
10/26/2009	R44RAVENII		A1273	THROTTLE

BEARING FAILED, SB-62 PREVIOUSLY COMPLIED WITH, WHICH INSTALLED LARGE AREA WASHERS. THE WASHERS DID THEIR JOB AND PREVENTED THE BEARING FROM FALLING APART AND CAUSING LOSS OF THROTTLE CONTROL.

CA090901010	ROBSIN	LYC	STARTER	INTERMITTENT
8/20/2009	R44RAVENII	IO540AE1A5	14924HTH	ENGINE

STARTER INTERMITTENT, SERVICABLE STARTER INSTALLED.

CA090901011	ROBSIN	LYC	SHAFT	WORN
8/27/2009	R44RAVENII	IO540AE1A5		CLUTCH

SHAFT WORN UNDERSIZE, HUB WORN OVERSIZE, DISCOLORED BLUE, OIL VERY BLACK AND FINE PARTICULES FOUND IN OIL.

CA090826012	ROBSIN	LYC	BEARING	UNSERVICEABLE
8/21/2009	R44RAVENII	IO540AE1A5		SPRAG CLUTCH

ON GROUND RUN DURING CHECK FOR NEEDLE SPLIT THERE WAS NO SPLIT. SPRAG CLUTCH OR UPPER BEARING U/S, CLUTCH REPLACED.

CA090826007	ROBSIN	LYC	PUMP	UNSERVICEABLE
8/16/2009	R44RAVENII	IO540AE1A5	D18187B	AUX FUEL

AUX FUEL PUMP FOUND ELECTRICALLY U/S.

CA090826014	ROBSIN	LYC	LENS	MISSING
8/21/2009	R44RAVENII	IO540AE1A5	A70811	STROBE LIGHT

DURING CRUISE, PILOT HEARD A NOISE BUT CHALKED IT TO HIS LOAD THAT SHIFTED IN REAR AFT SEAT

LOCATION. PILOT LANDED WITHOUT INCIDENT. UPON HIS NEXT FLIGHT DURING THE PILOTS PRE-FLIGHT INSP THE TAIL BEACON LENS WAS FOUND MISSING. CLAMPING DEIVCE AND LIGHT ASSY WAS STILL INTACT. AS THE PILOT WORKED HIS WAY BACK TO THE TAIL, DAMAGE WAS NOTED TO ONE TAIL TOTOR BLADE. EVIDENCE OF RED WAS ALSO NOTED ON THE T/R BLADE AND THEN DAMAGE WAS ALSO FOUND ON THE M/R BLADE AS WELL. ACFT WAS GROUNDED AND REMOVED FROM SERVICE.

CA090831005	ROBSIN	LYC	PUMP	LEAKING
8/20/2009	R44RAVENII	IO540AE1A5	LW15473	FUEL SYSTEM
FUEL PUMP LEAKING, SERVICABLE FUEL PUMP INSTALLED.				
CA090831003	ROBSIN	LYC	STARTER	FAILED
8/24/2009	R44RAVENII	IO540AE1A5	I14924HT	ENGINE
STARTER WILL NOT ENGAGE, STARTER REPLACED.				
CA090916005	ROBSIN	LYC	MAGNETO	UNKNOWN
9/11/2009	R44RAVENII	IO540AE1A5	106006169	ENGINE
(CAN) UNABLE TO TIME PROPERLY (TC# 20090916005)				
CA090911003	ROBSIN	LYC	CONDENSER	RUPTURED
8/9/2009	R44RAVENII	IO540AE1A5	D7831	AIR CONDITIONING
(CAN) PILOT REPORTED IDLING ON GROUND WHEN HE HEARD A BANG AND IMMEDIATELY SHUT DOWN THE AIRCRAFT. HE THEN CALLED FOR HELP AND MAINTENANCE WAS DISPATCHED AND FOUND THE AIR CONDITIONING CONDENSER HAD RUPTURED. (TC# 20090911003)				
CA090908001	ROBSIN	LYC	ALTERNATOR	INTERMITTENT
9/3/2009	R44RAVENII	IO540AE1A5	ALU8521R	
THE ALTERNATOR LIGHT WAS FLASHING INTERMITTENTLY, ALTERNATOR REPLACED.				
CA090908002	ROBSIN	LYC	STARTER	INTERMITTENT
9/3/2009	R44RAVENII	IO540AE1A5	14924HTH	
STARTER MOTOR WAS OPERATING INTERMITTENTLY, SERVICEABLE STARTER INSTALLED .				
CA090814002	ROBSIN	LYC	PUMP	INADEQUATE
8/11/2009	R44RAVENII	IO540AE1A5	C8187B	AUX FUEL
PRIOR TO TAKEOFF, THE AUX FUEL PUMP LIGHT CAME ON IN COCKPIT. TROUBLESHOOTING REVEALED THAT THE OUTPUT PRESSURE WAS INSUFFICIENT, BELOW 23 PSI.				
CA090818001	ROBSIN	LYC	WIRE	CHAFED
8/1/2009	R44RAVENII	IO540AE1A5		MAGNETO
(CAN) WHEN THE CONTACT HSG WAS OPENED, IT WAS DISCOVERED THAT THE RETARD LEAD HAD COME INTO CONTACT WITH COIL PRIMARY WIRE PUSH CONNECTOR, CHAFED AND SHORTED. THE MAIN POINTS WERE ALSO FOUND BURNED AWAY ON ONE SIDE. THE MAGNETO WAS OVERHAULED BUT WAS UNABLE TO BE RETURNED TO SERVICE, IT REPEATEDLY FAILED BENCH TESTS. MAGNETO IS B.E.R.				
CA090824007	ROBSIN	LYC	STARTER	INOPERATIVE
8/24/2008	R44RAVENII	IO540AE1A5	14924HT	ENGINE
DURING ENG START, STARTER WOULD NOT ENGAGE THE FLYWHEEL. STARTER WAS REPLACED WITH SERVICEABLE UNIT. NEW STARTER FUNCTION TESTED, NO DEFECTS FOUND.				
CA090727007	ROBSIN	LYC	BEARING	WORN
7/23/2009	R44RAVENII	IO540AE1A5		ALTERNATOR
WHILE CHANGING CRANKSHAFT SEAL THE ALTERNATOR BEARINGS WERE FOUND TO HAVE EXCESSIVE RADIAL				

PLAY. ALTERNATOR REPLACED, SN AND TSN NOT KNOWN AT THIS TIME.

CA090729001	ROBSIN	LYC		WIRE HARNESS	CHAFED
7/22/2009	R44RAVENII	IO540AE1A5	10600646201		MAGNETO

MAGNETO WAS REMOVED AFTER ENGINE OVERSPEED, DURING TEARDOWN FOR OVERHAUL REVEALED TACH HARNESS LEADS HAD CHAFED THRU THE OPPOSIT PIN ON THE TACH POINTS.

CA090617006	ROBSIN	LYC		STARTER	STUCK
6/11/2009	R44RAVENII	IO540AE1A5		14924HTH	ENGINE

STARTER STUCK IN THE ENGAGE POSITION DURING FLIGHT, CAUSING ENG TO DRIVE THE STARTER AND DAMAGING THE INTERNAL GEARS.

CA090717008	ROBSIN	LYC		ACTUATOR	INTERMITTENT
7/10/2009	R44RAVENII	IO540AE1A5		C0512	CLUTCH

(CAN) CLUTCH LIGHT FLICKERING, REPLACED ACTUATOR.

CA090605007	ROBSIN	LYC		SWITCH	UNSERVICEABLE
6/2/2009	R44RAVENII	IO540AE1A5			CLUTCH ACTUATOR

THE CLUTCH WOULD NOT ENGAGE, DISASSEMBLED THE CLUTCH AND FOUND THE SWITCH UNSERVICEABLE WITH A FAULTY WIRE.

CA090605008	ROBSIN	LYC		BEARING	LACK OF LUBE
6/4/2009	R44RAVENII	IO540AE1A5			SHAFT HANGER

(CAN) PILOT REPORTED TO THE ENGINEER, HIGH FREQUENCY VIBRATION IN FLIGHT. A GRINDING NOISE WAS HEARD DURING SHUTDOWN WHILE THE BLADES WERE SLOWING. TAIL ROTOR DRIVE SHAFT WAS REMOVED FOR INSP AND FOUND THE C172-1 HANGER BRG HAD NO LUBRICATION. THERE WAS NO EVIDENCE OF EXCRETED LUBRICATION AROUND THE BRG SO PROBABLE CAUSE COULD HAVE BEEN A LACK OF LUBRICATION FROM THE FACTORY.

CA090803001	ROBSIN	LYC		SHAFT	SHEARED
7/31/2009	R44RAVENII	IO540AE1A5			STARTER

(CAN) ON ENGINE START PILOT NOTED A BANG THEN THE STARTER MOTOR SPUN UP FAST. HE GOT OUT TO INVESTIGATE AND FOUND THE BENDIX GEAR LAYING ON THE GROUND. THE GEAR SHAFT SHEARED ON THE FWD END IN SIDE OF THE STARTER HSG. IT APPEARS TO HAVE BEEN CRACKED FOR SOME TIME. A NEW STARTER WAS INSTALLED.

CA090806003	ROBSIN	LYC		MAGNETO	UNKNOWN
7/30/2009	R44RAVENII	IO540AE1A5		BL6006169	ENGINE

DIFFICULTY STARTING, MAGNETO REPLACED.

CA090630006	ROBSIN	LYC	ROBSIN	YOKE	LOOSE
6/22/2009	R44RAVENII	IO540AE1A5		C9081	MAIN GEAR BOX

(CAN) THE NUT THAT HOLDS THE C908-1 YOKE ON TO THE INPUT DRIVE FOR THE MAIN GEARBOX WAS FOUND TO LOSE TORQUE IN TWO INCIDENTS CAUSING THE YOKE TO VIBRATE AND MAKE CONTACT WITH THE MAIN ROTOR TACH PICK UPS, AND CAUSE WEAR ON THE NUT AND SHAFT THREADS. THE COTTER PIN IN THE NUT WAS STILL IN PLACE. THE MAIN TRANSMISSION HAS BEEN SENT OUT TO ROBINSON HELICOPTERS LTD. FOR EVALUATION. (TC# 20090630006)

CA090709001	ROBSIN	LYC		MAGNETO	MALFUNCTIONED
7/4/2009	R44RAVENII	IO540AE1A5		10600646201	ENGINE

(CAN) THE GOVERNOR WAS HUNTING DURING FLIGHT. TROUBLESHOOTING REVEALED A FAULTY GOVERNOR SIGNAL FROM THE MAGNETO (TC# 20090709001)

CA090702015	ROBSIN	LYC	MAGNETO	FAILED
6/23/2009	R44RAVENII	IO540AE1A5	10600646201	ENGINE
DURING FIRST ENGINE START OF THE DAY, THE ENGINE TACH WAS PEGGED AT 100 PERCENT. MAGNETO WAS REMOVED AND NO FURTHER ISSUES WERE NOTED.				
CA090705001	ROBSIN	LYC	POINTS	BURNED
7/3/2009	R44RAVENII	IO540AE1A5		MAGNETO
MAGNETO COULD NOT TIME TO ENG. MAGNETO REPLACED AND AND TESTED. NO DEFECT FOUND. UPON FURTHER INVESTIGATION DURING TEARDOWN, FOUND THE MAIN AND RETARD POINTS BURNED AND WORN DOWN THROWING THE TIMING OUT. THAT SORT OF POINT DAMAGE IS TYPICAL OF A CAPACITOR FAILURE, HOWEVER THE CAPACITOR TESTED FINE COLD BUT IT MAY HAVE BEEN FAILING IN OPERATION WHEN HOT.				
CA090727001	ROBSIN	LYC	STARTER	FAILED
7/24/2009	R44RAVENII	IO540AE1A5	F4C180901	ENGINE
THE STARTER FAILED INTERNALLY. IT BLEW APART THROUGH THE OUTER CASING AND THE STARTER WOULD NO LONGER TURN OVER.				
CA090727003	ROBSIN	LYC	PUMP	LEAKING
7/21/2009	R44RAVENII	IO540AE1A5	AA21961	FUEL SYSTEM
(CAN) FUEL PUMP LEAKING OUT OF DRAIN.				
CA090705002	ROBSIN	LYC	ALTERNATOR	INOPERATIVE
7/4/2009	R44RAVENII	IO540AE1A5	ALU8521R	ENGINE
ALTERNATOR WOULD NOT PRODUCE CHARGE. ALTERNATOR REPLACED AND TESTED. NO DEFECTS FOUND.				
CA090605005	ROBSIN	LYC	MOTOR	INTERMITTENT
6/3/2009	R44RAVENII	IO540AE1A5	B2475	GOVERNOR
IN FLIGHT, ENGINE WAS PRONE TO OVERSPEED AND UNDERSPEED. GOVERNOR MOTOR WAS FOUND TO BE INTERMITTENT.				
CA090617005	ROBSIN	LYC	GEAR	BROKEN
6/12/2009	R44RAVENII	IO540AE1A5		STARTER
STARTER FOUND WITH A BROKEN TOOTH.				
CA090605003	ROBSIN	LYC	ACTUATOR	FAILED
6/2/2009	R44RAVENII	IO540AE1A5	C0512	XMSION COUPLING
(CAN) CLUTCH ACUTATOR FAILED. TROUBLESHOOTING FOUND FAULTY SWITCH IN ACTUATOR ASSY. SERVICABLE ACTUATOR INSTALLED.				
CA090714009	ROBSIN	LYC	GEARBOX	MAKING METAL
7/10/2009	R44RAVENII	IO540AE1A5	C0211	TAIL ROTOR
(CAN) T/R GEARBOX CHIP DETECTOR PICKED UP PARTICLES, PARTICLES. CHIP DETECTOR WAS CLEANED AND REFILLED, AFTER THE GROUND RUN PARTICLES FOUND AGAIN AND A WHITE FILM IN THE SIGHT GUAGE. T/R GEARBOX REPLACED.				
CA090721005	ROBSIN	LYC	LEAD	CHAFED
7/21/2009	R44RAVENII	IO540AE1A5		MAGNETO
MAGNETO WAS REMOVED DUE TO THE TACH PEGGING AT 100 PERCENT ON START UP. INVESTIGATION REVEALED ONE OF THE TACH LEADS WAS CHAFED THRU ON THE OPPOSITE PIN ON THE TACH POINTS. THE CLEARANCE WAS ALSO FOUND BELOW LIMITS AT THE TACH POINT: 0.012-0.015.				
CA090715006	ROBSIN	LYC	LEAD	CHAFED

7/8/2009	R44RAVENII	IO540AE1A5		MAGNETO
<p>(CAN) OIL SOAKED POINTS CAUSING THE ENG NOT INCREASING RPM MORE THAN 2 PERCENT WHILE THE ENGINE TACH NEEDLE WOULD BOUNCE FROM 100 PERCENT TO 110 PERCENT. UPON FURTHER REVIEW, DURING THE TEARDOWN, IT REVEALED ONE OF THE TACH LEAD WIRES HAD CHAFED THROUGH ON THE TACH POINTS OPPOSITE POST.</p>				
CA081210015	SAAB	GE	PRESSURE SWITCH	MALFUNCTIONED
12/9/2008	340B	CT75A2	GPP125012	HYD PUMP
<p>HYD PRESSURE SWITCH CONTROLLING THE HYD PUMP WOULD NOT ACTUATE THE PUMP UNTIL THE HYD PRESSURE DROPPED BELOW 1900 PSI. THE HYD PRESSURE WARNING LIGHT ILLUMINATED AT 2100 PSI. THIS IS THE SECOND SWITCH TO FAIL AS THE PREVIOUS ONE HAD 196 HOURS ON IT. THE BATCH DATE ON THE BOX IS DECEMBER 24, 2007.</p>				
CA050808006	SAAB	GE	COVER	MISINSTALLED
8/3/2005	340B	CT79B	3033T78G02	ACCESSORY G/B
<p>DURING CLIMB, RT ENGINE OIL PRESSURE LIGHT ILLUMINATED AND OIL PRESSURE WAS SEEN TO DROP TO NEAR ZERO. ENG WAS SHUTDOWN AND THE ACFT RETURNED FOR AN UNEVENTFUL LANDING. MX INVESTIGATION REVEALED THAT ACCESSORY GEARBOX DRIVE SHAFT AXIS `A` COVER WAS MISSING ALLOWING LOSS OF OIL. THE COVER, IT'S RETAINING RING, AND RUBBER DUST COVER WERE FOUND TOGETHER IN THE BOTTOM OF THE NACELLE. AXIS `A` COVER WAS REFITTED, OIL REPLENISHED, AND THE ENG TESTED AND FOUND SERVICEABLE. UPON FURTHER INVESTIGATION IT WAS FOUND THAT `A` AXIS COVER HAD BEEN REMOVED ON 01/08/05 TO ALLOW ROTATION OF THE ENG VIA THE ACCESSORY DRIVE SHAFT FOR ALIGNMENT PURPOSES DURING A COMPONENT CHANGE. IT IS KNOWN THAT THE AXIS `A` COVER CAN BE AWKWARD TO INSTALL BECAUSE OF IT'S CLOSE TOLERANCE FIT. THE MECHANIC WHO REMOVED AND SUBSEQUENTLY REINSTALLED THE COVER HAD NOT DONE THE JOB BEFORE AND WAS UNAWARE THE DIFFICULTIES INVOLVED. IT IS PROBABLE THAT COVER WAS SLIGHTLY SKEWED DURING INSTALLATION PREVENTING FULL ENGAGEMENT OF THE RETAINING RING. SUBSEQUENT VIBRATIONS DURING ENGINE OPERATION WOULD HAVE CAUSED RETAINING RING TO WORK FREE, ALLOWING `A` AXIS COVER TO MIGRATE OUT OF THE ENGINE CASING AND ENSUING LOSS OF OIL. SUPERVISING AME WHO HAD FLOWN, AT SHORT NOTICE TO ASSIST WITH AN UNRELATED DEFECT, ACKNOWLEDGED THAT HE HAD NOT CHECKED THE INSTALLATION OF `A` AXIS COVER.</p>				
CA090807005	SAAB	GE	LINE	BURST
8/6/2009	340B	CT79B	9302631001	HYD SYSTEM
<p>(CAN) WHILE TAXING OUT FOR DEPARTURE, HYD SYS WAS SEEN TO LOSE ALL PRESSURE. THE ACFT WAS STOPPED AND MX REQUESTED. INSP REVEALED THAT THE HYD LINE BETWEEN THE PUMP AND FILTER HAD BURST AT THE FILTER END FITTING. NO LEAKS HAD BEEN OBSERVED WHILE THE ACFT WAS STATIONARY AND ALL INDICATIONS WERE NORMAL PRIOR TO THE EVENT. FURTHER INVESTIGATION REVEALED THAT MFG HAD ISSUED AN OPTIONAL MOD IN 1996 (S/B 340-29-017, MOD 2771) TO INSTALL AN IMPROVED HOSE AT THIS LOCATION. HAVE INSTITUTED A FLEET CAMPAIGN TO ENSURE THAT ONLY THE IMPROVED HOSES ARE INSTALLED ON ACFT.</p>				
CA090812005	SKRSKY		BEARING CAGE	OUT OF LIMITS
8/7/2009	S61A		SB3316101	M/R GEARBOX
<p>BEARING CONE PN: SB3316-101 RECEIVED NEW WAS CAGE SHAKE CHECKED AND FOUND TO BE BEYOND LIMITS FOR USED BEARINGS IAW SA4047-76-7-8, CHG.10-30 NOV 08. MANUAL LIMIT IS .016" AND AVERAGE READING WHEN CHECKED WAS .021". COMPANY SQID NR 09-06198 ISSUED.</p>				
CA090811008	SKRSKY	GE	FUEL/OIL COOLER	LEAKING
8/7/2009	S61N	CT581401	37D400479P101	ENGINE
<p>HELICOPTER WAS ON A MISSION TO DO SOME SLINGING. WHILE THE ACFT WAS IN CRUISE IT WAS NOTED THAT THERE WAS AN FUEL ODOR IN THE CAB. THE HELICOPTER LANDED AS SOON AS PRACTICAL. ENGINEER DISCOVERED THAT THE FUEL/OIL COOLER OR FUEL/OIL HEAT EXCHANGER WAS LEAKING FUEL FROM THE NR 1 ENGINE. THE FUEL/OIL COOLER WAS REPLACED WITH A SERVICEABLE UNIT.</p>				

CA090824005	SKRSKY	GE	SERVO	INOPERATIVE
8/21/2009	S61N	CT581401	S61656150061	AUXILARY
HAD A YAW KICK.				
CA090820007	SKRSKY	GE	FUEL CONTROL	MALFUNCTIONED
8/16/2009	S61N	CT581401	7257255	NR 1 ENGINE
(CAN) THE NUMBER ONE ENGINE WAS UP TO OPERATING RPM THEN DEACCELERATED TO FLIGHT IDLE FOR NO REASON. THE FOLLOWING UNITS WERE REPLACED TO TROUBLE SHOOT THE DEFECT. FUEL CONTROL P/N725725-5 S/N 45275 TSO 3531. PILOT VALVE P/N 6028T23G01 S/N ESS30030 TSN: 17726.4 TSO 685.1 FUEL PUMP P/N 5002T83P02 S/N 1616A TSN 31772.9 TSO 2667.9 (TC# 20090820007)				
CA090812003	SKRSKY		GEARBOX	PEELING
8/7/2009	S76		7635109002	MAIN ROTOR
FOLLOWING CLEANING AND AIR PRESSURE DRYING OF UPPER HSG THE TECH NOTICED THAT THE PROTECTIVE COATING STARTING TO PEEL AWAY AT 4 AREAS INTERNALLY AT TOP PORTION OF HSG. THIS WAS VIEWED BY HSI DURING THEIR AUDIT VISIT. COMPANY SQID REPORT NR IS 09-06199.				
CA090901001	SKRSKY	ALLSN	PITCH HORN	CRACKED
8/16/2009	S76A	250C30S	7610305001101	T/R HEAD
(CAN) ROUTINE INSP REVEALED APPARENT CRACK IN T/R PITCH CHANGE BEAM (HORN, ADJACENT TO BUSHING). BEAM SN IS A067-00042. AFTER REMOVAL OF PROTECTIVE PAINT COATING EXISTENCE OF CRACK WAS CONFIRMED BOTH VISUALLY AND BY LPI METHOD. CRACK EXTENDS FROM THE OD OF THE BUSHING OUTWARD TO THE OUTER EDGE OF THE HORN. (SERVICEABLE PART INSTALLED ON HELICOPTER) FOR LOCATION OF DEFECT. PITCH CHANGE BEAM REPLACED, ACFT RETURNED TO SERVICE. DUE TO CRITICAL LOCATION OF DISCOVERED CRACK, OPERATOR TO IMPLEMENT ONE TIME INSP, INCREASED INSP GUIDELINES FOR REPETITIVE INSP, AND PERIODIC NDT WITH FULL O/H CRITERIA INSP.				
2009FA0000906	SNIAS		ELECTRICAL BOX	INTERMITTENT
9/22/2009	AS350B		540028C2A	AIR CON SYSTEM
25 AMP C/B ON INTEGRATED FLIGHT SYS ELECTRICAL BOX WAS INTERMITTENTLY POPPING. FOUND POOR WIRE ROUTING INSIDE THE BOX (DONE AT TIME OF MFG) CAUSING WIRE TO WEAR AGAINST SOLENOID STUD A/C IS INSTALLED UNDER STC NR SH35095W. (K)				
CA090813010	SNIAS	TMECA	PRESSURE SWITCH	FAILED
8/4/2009	AS350B1	ARRIEL1D	MA12402	HYD SYSTEM
HYD PRESSURE CAUTION LIGHT STAYS ILLUMINATED AND WARNING HORN IS ON WHEN THERE IS NO HYD FAILURE. NEW PRESSURE SWITCH PN MA124-01, SN 4021 INSTALLED. 185.4 HOURS LATTER IT FAILED, SAME PROBLEM, PN MA 124-01, SN 4136 WAS INSTALLED. 50.3 HOURS LATER IT HAD FAILED SAME PROBLEM. HAVE INSTALLED ANOTHER NEW SWITCH.				
CA090820002	SNIAS	LYC	SHAFT	SHEARED
8/16/2009	AS350B2	LTS101700D2	150SG11032	STARTER GEN
SHAFT SHEARED NEXT TO THE ENG DRIVE.				
CA090716009	SNIAS	LYC	FLEX COUPLING	CRACKED
6/10/2009	AS350B2	LTS101700D2	350A35105901	TRANSMISSION
PERFORMING A 30 HR INSP, A VISUAL INSP OF THE FWD TRANSMISSION DRIVE COUPLING, A CRACKED FLEX COUPLING WAS FOUND.				
CA090820003	SNIAS	LYC	ACCUMULATOR	FAILED
7/27/2009	AS350B2	LTS101700D2	704A34240015	
(CAN) ACCUMULATOR FAILED UPON PRE-TAKEOFF FUNCTIONAL TEST . THESE PARTS ARE ON CONDITION , NO				

LIFE LIMIT. (TC# 20090820003)

CA090820004	SNIAS	LYC	ACCUMULATOR	FAILED
3/6/2009	AS350B2	LTS101700D2	704A34240015	

(CAN) ACCUMULATOR FAILED UPON PRE-TAKEOFF FUNCTIONAL TEST. THESE PARTS ARE ON CONDITION, NO LIFE LIMIT. (TC# 20090820004)

CA090820005	SNIAS	LYC	ACCUMULATOR	FAILED
7/13/2009	AS350B2	LTS101700D2	704A34240015	

(CAN) CCUMULATOR FAILED UPON PRE-TAKEOFF FUNCTIONAL TEST. THESE PARTS ARE ON CONDITION, NO LIFE LIMIT (TC# 20090820005)

CA090612002	SNIAS	LYC	PUMP	FAILED
5/1/2009	AS350B2	LTS101700D2	430137702	ENGINE

ENGINE FUEL PUMP WAS REPLACED FOR A 600 HRS INSP IN MARCH 4, 2009. AFTER 80.5 HRS IN SERVICE, ENGINE FAILED TO START. A NEWLY O/H PUMP WAS INSTALLED FOR TROUBLESHOOTING AND THE SUSPICIOUS PUMP WAS SENT BACK TO THE COMPONENT SHOP FOR TESTING. THE SHOP CONFIRM THE PROBLEM AND THE FUEL PUMP WAS REPAIRED UNDER WARRANTY.

CA090825004	SNIAS	TMECA	BRACKET	CRACKED
8/21/2009	AS350B2	ARRIEL1D	350A21126220	ENGINE DECK

THE RT UPPER REAR CORNER BRACKET UNDER THE ENG DECK FOUND CRACKED.

CA090813015	SNIAS	TMECA	LINE	BURST
8/12/2009	AS350B2	ARRIEL1D1	704A34412037	HYDRAULIC SYS

PART OF INCIDENT REPORT SUBMITTED BY PILOT. LINE WAS REPLACED AND ACFT GROUND RUN WITH NO FURTHER ACTION. "3 MINUTES AFTER TAKEOFF FROM AIRSTRIP, DURING CRUISE FLIGHT, AT APPROX 100KTS AND 500FT AGL THE HYD LIGHT ILLUMINATED WITH THE CORRESPONDING HORN. REDUCED SPEED TO 60KTS WHILE CHECKING NR WHICH WAS NORMAL. STARTED A TURN BACK TO THE AIRSTRIP WHILE TRANSMITTING A RADIO CALL TO OTHER ACFT IN THE AREA. ABOUT TO TURN THE HYD SWITCH OFF WHEN ALL HYD ASSISTANCE WAS LOST. CONTINUED TOWARD THE AIRSTRIP AND TURNED THE HYD OFF WHILE MAINTAINING A SLOW AND STEADY APPROACH TO MY LANDING SITE AT AIRSTRIP. A SUCCESSFUL LANDING WAS MADE AND THE ACFT WAS SHUTDOWN. UPON EXITING THE ACFT, FOUND HYD FLUID ON THE OUTSIDE OF THE COWLINGS ALL THE WAY DOWN THE TAILBOOM AND TAILROTOR. AFTER OPENING THE PILOT SIDE TRANSMISSION COWL, FOUND ONE OF THE HYD LINES HAD BURST LEAKING OUT ALL OF THE FLUID.

CA090630004	SNIAS	TMECA	LINE	CUT
6/16/2009	AS350B2	ARRIEL1D1	STCSH9833	FUEL SYSTEM

(CAN) DURING ACFT START, WHILE PERFORMING A LEAK CHECK ON THE ACFT THE AME DISCOVER A FUEL LEAK COMING FROM THE FUEL CAP LOCATION, TO DISCOVER THAT THE LEAK WAS FROM THE TRANSMISSION DECK, THE FUEL LINE HOSE WAS CUT FROM THE INSIDE AT FITTING AND SPRAYING FUEL INSIDE THE TRANSMISSION COMPARTMENT. ACFT WAS SHUTDOWN AND FUEL HOSE REPLACED.

CA090730010	SNIAS	TMECA	PRESSURE SWITCH	FALSE INDICATION
7/27/2009	AS350B2	ARRIEL1D1	MA12401	HYD SYSTEM

(CAN) PILOT WOULD GET A HYD LIGHT OF A HYD PROBLEM. PILOT WOULD LAND AND ENGINEER WOULD TROUBLESHOOT PROBLEM. FLUID LEVEL WAS CHECKED AND HYD BELT WAS CHECKED FOR PROPER ADJUSTMENT, AND NUMEROUS OTHER POSSIBILITIES WERE CHECKED OUT. FALSE INDICATION WAS THE HYD PRESSURE SWITCH.

CA090806002	SNIAS	TMECA	WIRE	BROKEN
8/6/2009	AS350B2	ARRIEL1D1		POSITION LIGHT

POSITION LIGHT FOUND UNSERVICEABLE. TROUBLESHOOTING REVEALED BROKEN WIRE TOUCHING GROUND.

POSITION LIGHT SYS BREAKER DID NOT FUNCTION. POSITION LIGHT SWITCH NO LONGER SERVICEABLE.

CA090810002	SNIAS	TMECA	BATTERY	FAILED
8/7/2009	AS350B2	ARRIEL1D1	16061	MASTER

DURING START THE BATTERY HOT CAUTION LIGHT ILLUMINATED, PILOT ABORTED START AND FELT THE BATTERY. THE BATTERY WAS EXTREMELY HOT TO THE TOUCH. A REPLACEMENT BATTERY WAS INSTALLED. ACFT WAS GROUND RUN. ALL ACFT SYS SEEMED TO BE OPERATING CORRECTLY AND CHARGE VOLTAGE WAS CONFIRMED TO BE CORRECT AND STEADY. ORIGINAL BATTERY WAS SENT FOR DEEP CYCLE. THERMAL RUNAWAY IS SUSPECTED.

CA090723011	SNIAS	TMECA	SWITCH	INOPERATIVE
7/23/2009	AS350B2	ARRIEL1D1	MA12401	HYD INDICATOR

(CAN) HYD PRESSURE WARNING SWITCH STOPPED INDICATING CHANGES IN HYD PRESSURE. DISCOVERED DURING PRE-TAKEOFF CHECKS AND THE FLIGHT WAS ABORTED AS THERE WOULD BE NO INDICATION OF HYD FAILURE IN FLIGHT.

CA090703002	SNIAS	TMECA	BEARING	CRACKED
7/2/2009	AS350B2	ARRIEL1D1		PITCH LINK

DURING A SCHEDULED TAIL ROTOR GEARBOX CHANGE THE PITCH LINKS WERE INSPECTED. PITCH LINK WAS FOUND TO HAVE CRACKS IN THE INNER RACE OF THE INBD ELASTAMERIC BEARING. THE RUBBER PORTION OF THE BEARING APPEARED NORMAL. THE PART IS TO BE SENT TO MFG FOR O/H.

CA090903003	SNIAS	TMECA	ENGINE	FLAMED OUT
8/28/2009	AS350B2	ARRIEL1D1	LTS101700D2	

ENGINE FLAMED OUT DURING SURVEY FLIGHT, CONTROLLED AUTOROTATION FROM 1000 ` TO GROUND, LANDED IN A CLEAR LAKE WITHOUT ANY INCIDENT, WATER WAS ABOUT 3 FEET DEEP. MANUFACTURERS ADVISED IMMEDIATELY. ACFT TRANSPORTED TO BASE FOR FURTHER INVESTIGATION.

CA090910007	SNIAS	TMECA	CONNECTOR	FAILED
8/30/2009	AS350B2	ARRIEL1D1		ELT

AFTER SHUTDOWN PILOT NOTICED BURNING ODOR AND OBSERVED SMOKE COMING OUT OF RT BAGGAGE COMPARTMENT. CLOSER EXAMINATION REVEALED ELT TO BE SOURCE OF SMOKE. CARGO RESTRAINT NETTING FRAME INTERFERED WITH ELT CONNECTOR CAUSING CHAFING. FUNCTIONAL TEST OF ELT WAS CARRIED OUT AND CONFIRMED THAT ELT WAS STILL WORKING. NETTING FRAME WAS REPOSITIONED AND MODIFIED (FLEET WIDE TECH DIRECTIVE). ELT REPLACED AND ACFT RETURNED TO SERVICE. UPON DISMANTLING OF ELT AT OPERATOR'S AVIONICS SHOP, SUBSTANTIAL MELTING OF PLASTIC ELT CASE WAS OBSERVED, MOST LIKELY CAUSED BY INTERNAL SHORT WITHIN CONNECTOR RECEPTACLE ("DIN 12" CONNECTOR). IT HAS BEEN CONFIRMED THAT LITHIUM BATTERY PACK WAS INTACT AND NO LEAKAGE OF BATTERY FLUID OCCURRED.

CA090910004	SNIAS	TMECA	ENGINE	MAKING METAL
9/4/2009	AS350B2	ARRIEL1D1		

CHIP ENGINE LIGHT BEFORE LANDING. LANDING C/O NORMALLY. CONTAMINATION ON CHIP DETECTORS. CLEANED DETECTORS. HOVER FLIGHT REQUIRED TO CHECK FOR RE-OCCURENCES. CHIP LIGHT ON AGAIN JUST AFTER TAKEOFF (IN HOVER). LANDING C/O NORMALLY. CONTAMINATION AGAIN ON TU 208 DETECTOR. ACFT GROUNDED. REPLACED 5 ENG MODULES FOR INVESTIGATION AT MFG FACILITY.

CA090910005	SNIAS	TMECA	MAGNETIC SEAL	LEAKING
9/7/2009	AS350B2	ARRIEL1D1	9560134100	ENGINE

AFTER RE-INSTALLING ENG, FOLLOWING 5 MODULES REPLACEMENT, GROUND TESTS C/O AND FOUND SATISFACTORY. TEST FLIGHT REQUIRED. AFTER START, IMPORTANT OIL LEAK AT THE AIRFRAME LT DRAIN. TAKE-OFF CANCELLED. INVESTIGATIONS SHOW LEAK COMES FROM FRONT ENG SUPPORT DRAIN. ENGINE PWR SHAFT MAGNETIC SEAL FAILURE SUSPECTED. ENG REMOVED. MAG SEAL REPLACED. ENGINE RE-INSTALLED. TESTS C/O ON THE GROUND, SATISFACTORY. FLIGHT TEST REQUIRED AND C/O, NO DEFECT. ACFT RELEASED.

CA090622013	SNIAS	TMECA	BRACKET	WORN
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6/22/2009	AS350B3	ARRIEL2B		EXTERNAL LIGHT
<p>(CAN) UPON LANDING PILOT CARRIED OUT WALK AROUND, DISCOVERED VERTICAL FIN BEACON LIGHT ASSY HANGING ON SIDE OF FIN BY WIRE BUNDLE, MUST HAVE JUST HAPPENED AS MINIMAL DAMAGE TO PAINT AND NO DAMAGE TO FIN STRUCTURE. MOUNTING FLANGE OR BRACKET THAT AFIXES BEACON TO FIN VIA BAND CLAMP WORN TO PAPER THIN DIMENSIONS. ACFT HAS BEEN OUT OF PAINT SHOP LESS THAN 2 MONTHS. THIS WOULD HAVE BEEN LAST TIME BEACON WAS REMOVED AND INSTALLED BY PAINT SHOP. MOUNTING ADAPTER BRACKET IS SUPPLIED WITH BEACON LIGHT ASSY, IT HAS NO PN. ASSY REPLACED WITH NEW.</p>				
CA090806013	SNIAS	TMECA	WIRE HARNESS	UNKNOWN
8/6/2009	AS350B3	ARRIEL2B	9550176740	PYROMETRIC
<p>WHEN ACFT POWERED UP DURING SERVICING A FLASHING AMBER GOV LIGHT DISPLAYED ON ANNUNCIATOR PANEL. FAILURE CODE 123 CHECKED INDICATING "T4 FADEC L", GOING FURTHER INTO FADEC DATA -FAIL 1 CODE WAS 0020 (RAW T4.5 FAILURE) WAS DISPLAYED AND T4 INDICATION IN FADEC DATA WAS SOLID YELLOW WITH NO TEMP INDICATION NUMBERS. CONFIRMATION BOX, BOTH PYROMETRIC HARNESSSES (LT AND RT) AND APPLICABLE ENG HARNESSSES TESTED IAW MM, ALL SATISFACTORY. FINALLY REPLACED LT PYROMETRIC HARNESS WITH SERVICEABLE UNIT AND FLASHING AMBER GOV LIGHT DISAPPEARED. ACFT GROUND RUN, ALL SATISFACTORY. PYROMETRIC HARNESS SENT BACK.</p>				
CA090703003	SNIAS	TMECA	NUT	LOOSE
6/30/2009	AS350B3	ARRIEL2B1	DHS43911142	M/R GEARBOX
<p>(CAN) WHILE CARRYING OUT 600 HR INSP ON ACFT, WAS NOTED THAT THE MAIN ROTOR GEARBOX INPUT BEVEL NUT WAS LOOSE. THERE WAS SIGN OF FRETTING AND THE ADAPTER WAS LOOSE. THE NUT WAS REMOVED AND PINION INSPECTED NO DAMAGE. MFG WAS CONTACTED AND THE PINION WAS INSPECTED AND FOUND SERVICEABLE. A NEW NUT WAS INSTALLED AND ACFT RETURNED TO SERVICE. THIS IS THE MAIN INPUT DRIVE BETWEEN THE ENGINE AND TRANSMISSION AND IF THIS WASN'T FOUND WOULD HAVE DETACHED THE DRIVE BETWEEN ENGINE AND TRANSMISSION.</p>				
CA090715005	SNIAS	TMECA	FCU	INOPERATIVE
6/30/2009	AS350BA	ARRIEL1B	0164548540	ENGINE
<p>RATCHETY ARM ON THROTTLE BETWEEN 0 AND 30 PERCENT, REPLACED FCU.</p>				
CA090820006	SNIAS	TMECA	ACCUMULATOR	FAILED
7/21/2009	AS350BA	ARRIEL1B	704A34240015	
<p>(CAN) ACCUMULATOR FAILED UPON PRE-TAKEOFF FUNCTIONAL TEST. THESE PARTS ARE ON CONDITION, NO LIFE LIMIT. (TC# 20090820006)</p>				
CA090708004	SNIAS	TMECA	MOTOR	MALFUNCTIONED
7/6/2009	AS350BA	ARRIEL1B	9696	COOLER BLOWER
<p>(CAN) WHILE THE PILOT WAS SITTING ON THE GROUND IDLING HE NOTICED SMOKE THEN A FLAME COMING FROM THE CENTRE POST BETWEEN THE TWO FRONT WINDSHIELDS. HE IMMEDIATELY SHUT THE AIRCRAFT DOWN AND TURNED OFF ALL ELECTRICAL POWER. AS SOON AS ELECTRICAL POWER WAS TURNED OFF THE FLAME AND SMOKE STOPPED. AN AME AND AN E AME INVESTIGATED AND FOUND THE FOLLOWING. THE COPPER GROUNDING STRIP ON THE AS350 CENTRE POST HAD SIGNS OF ARCHING AND THAT IS THE SOURCE OF THE FLAME AND SMOKE. THE OIL COOLER BLOWER MOTOR IS SOMEHOW SHORTED INTERNALLY AND ALLOWS +28VDC TOO THE CASE OF THE MOTOR. THE GROUNDING WIRE FROM THE BLOWER MOTOR TO THE OIL COOLERS THERE WAS A HIGH RESISTANCE. THE GROUNDING JUMPERS FROM THE OIL COOLERS TO THE AIRFRAME THERE WAS ALSO A HIGH RESISTANCE. THE CURRENT FLOWED FROM THESE JUMPERS THROUGH THE GROUNDING STRIP EMBEDDED IN THE CANOPY TO THE CENTRE POST WHERE IT EXITED. IF THERE WOULD HAVE BEEN A CLEAN CONNECTION FOR THE GROUND AT THE FIRST PLACE WHERE THE GROUNDING FROM THE COOLERS TO THE AIRFRAME ATTACHES THE EVENT WOULD HAVE STOPPED THERE. (TC 20090708004)</p>				
CA090910006	SNIAS	TMECA	PUMP	FAILED
9/9/2009	AS350BA	ARRIEL1B	P94B12209	FUEL BOOST
<p>FUEL P CAUTION LIGHT DURING CRUISE. TEST C/O BY PILOT, FOUND THAT BOOST PUMP NR 2 IS NOT DELIVERING</p>				

PRESSURE. PUMP SWITCH TURNED OFF. ACFT LANDED NORMALLY. INVESTIGATION SHOWED THAT MOTOR STILL ROTATING BUT NO PRESSURE AT OUTLET. PUMP REPLACED. TEST C/O, SATISFACTORY. ACFT RELEASED.

CA090827007	SNIAS	TMECA	SKIN	CRACKED
7/20/2009	AS350BA	ARRIEL1B	350A09014920	TAILBOOM

DOUBLERS PN 350A09-0149-20 AND 23 WERE FOUND CRACKED AT BEND RADIUS IMMEDIATELY ADJACENT TO TAILBOOM SKIN. DEFECTIVE PARTS REPLACED WITH NEW.

CA090904006	SWRNGN	GARRTT	WIRE	CHAFED
9/4/2009	SA226TC	TPE33110UA		NACELLE

DURING THE COURSE OF AN IMPORT, NACELLE WAS DISCOVERED TO HAVE SEVERAL DAMAGED STRUCTURAL COMPONENTS. ENTIRE SKIN WAS REMOVED FROM INBD SIDE OF THE LT NACELLE. 4 GAUGE WIRES, RUNNING THROUGH THE NACELLE FROM THE GENERATOR TO GENERATOR RELAY AND FROM WING TO RELAY WAS FOUND CHAFING ON LIGHTENING HOLES. THIS AREA IS BASICALLY IMPOSSIBLE TO INSPECT CAREFULLY WITHOUT HAVING SKIN REMOVED. WIRES WERE REPLACED, AND ADDITIONAL CLAMPS WERE ADDED IAW STANDARD PRACTICES TO PREVENT THIS FROM RE-OCCURRING. RT SIDE WAS SIMILAR BUT NOT AS BAD. WORST CHAFING OCCURRED ON GENERATOR GROUND WIRE. COMPANY MX JUST COMPLETED A NACELLE REPAIR ON TC-235 AND FOUND EVIDENCE THAT WIRES WERE BEGINNING TO CHAFE AS WELL. THERE ARE INSP PANELS IN NACELLE INBD KEELSON SKIN BUT IT DOESN'T ALLOW FULL ACCESS TO INSPECT WHERE WIRING RUNS THROUGH THE NACELLE RIBS.

CA090904007	SWRNGN	GARRTT	STRUCTURE	CRACKED
9/4/2009	SA226TC	TPE33110UA	2735004002	LT NACELLE

THE 27-35008-010 KEELSON CAP WAS DISCOVERED CRACKED ON LR RADIUS. THIS IS A FAIRLY COMMON DEFECT AND WHEN NACELE SKIN WAS REMOVED TO REPLACE IT, 27-35004-002 CAP WAS FOUND CRACKED AS WELL. THIS PART CAN BE INSPECTED IN SERVICE BUT WOULD BE DIFFICULT TO SEE, IT WAS ONLY AFTER SKIN WAS REMOVED AND THE STRUCTURE CLEANED THAT CRACK WAS EVIDENT.

CA090904008	SWRNGN	GARRTT	ROSEMOUNT	DRIVE GEAR	CONTAMINATED
9/4/2009	SA226TC	TPE33110UA			SAS SERVO

ACFT WAS IN THE HANGAR FOR OTHER MX, ELEVATOR CONTROL WAS NOTED AS "ROUGH". INSPECTED AND DETERMINED IT WAS SAS SERVO CAUSING PROBLEM. SERVO WAS REMOVED FROM CLUTCH ASSY AND PROBLEM WENT AWAY. DISCOVERED CONTAMINATION IN FORM OF DIRT ON SERVO DRIVE GEAR, INTERFERING WITH CLUTCH GEARS. CLEANED AND INSPECTED, NO DAMAGE NOTED, SERVO WAS REINSTALLED, TESTED WITH NO FURTHER DEFECTS NOTED. THIS SDR IS BEING SUBMITTED LATE AS IT WAS MISSED AND SHOULD HAVE BEEN SUBMITTED, DISCOVERED BY COMPANY QA SYSTEM ON AN AUDIT.

CA090918004	SWRNGN	GARRTT	HOSE	RUPTURED
9/15/2009	SA226TC	TPE33110UA	SS1008F000E2	HYDRAULIC SYS

(CAN) UPON CLIMBOUT THE AIRCRAFT HYDRAULIC WARNING LIGHTS ILLUMINATED AND HYDRAULIC PRESSURE WAS LOST. THE AIRCRAFT RETURNED TO THE AIRPORT AND PERFORMED A FLAPLESS LANDING WITH THE EMERGENCY GEAR HANDLE ACTIVATED. MAINTENANCE DISCOVERED THE HYDRAULIC FLEXIBLE HOSE FROM THE HYDRAULIC POWER PACK TO THE ACCUMULATOR IN THE LH WHEELWELL RUPTURED AT A BEND RADIUS. THE DESIGN OF THE AIRCRAFT REQUIRED THIS HYDRAULIC HOSE TO HAVE A SIGNIFICANT BEND IN THE HOSE SO IT CAN BE ROUTED CORRECTLY. MINOR CHAFFING ON THE STEEL BRAIDING ON THE HOSE WAS FOUND BUT WAS NOT SIGNIFICANT ENOUGH TO CAUSE THE RUPTURE IN THE HOSE. THE HOSE WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. (TC# 20090918004)

CA090918011	SWRNGN	GARRTT	SWITCH	FAILED
9/13/2009	SA226TC	TPE33110UA	C1006	NLG STEERING

(CAN) UPON TAXI THE FLIGHT CREW NOTED THAT THE NOSE WHEEL STEERING WAS UNRESPONSIVE. THE TEST FUNCTION WORKED FINE. THE AIRCRAFT RETURNED TO THE GATE WHERE MAINTENANCE REPLACED THE FAILED POWER LEVER NOSE STEERING MICROSWITCH. NO WARNING INDICATIONS WERE GIVEN AND NONE WOULD BE EXPECTED AS FAILURE OF THIS COMPONENT WOULD NOT PROVIDE A WARNING NOTIFICATION TO THE FLIGHT CREW. MAINTENANCE REPLACED THE SWITCH AND RELEASED THE AIRCRAFT. LOCATION OF POWER

LEVER SWITCH IS ITEM #3 IN THE ATTACHED IPC DRAWING. (TC# 20090918011)

CA090925005	SWRNGN	GARRTT	LINE	CHAFED
9/22/2009	SA226TC	TPE33110UA	2781006089	HYD SYSTEM

(CAN) ON APPROACH THE CREW HAD JUST SELECTED FULL FLAP ON THE FINAL LANDING CHECKS WHEN THEY NOTICED SMOKE IN THE COCKPIT. SINCE THEY WERE LESS THAN 3 MILE FINAL THEY ELECTED NOT TO ATTEMPT TO PUT ON THEIR OXYGEN MASKS. THE CREW DUMPED CABIN PRESSURE, TURNED THE BLEED AIRS OFF AND TURNED THE FRESH AIR FAN TO OVERRIDE. THE SMOKE DIDN'T CLEAR VERY WELL. THE CREW TURNED BOTH GENERATORS OFF AND CONTINUED TO LAND. DURING FINAL APPROACH THEY WERE OVERWHELMED ENOUGH THAT THEY NEVER DID CHECK THE HYDRAULIC PRESSURE BUT THERE WERE NO HYDRAULIC PRESSURE LIGHTS ILLUMINATED ON THE ANNUNCIATOR PANEL. AFTER LANDING THEY INFORMED ATC THAT THEY HAD SMOKE IN THE COCKPIT. AS THEY TURNED THE A/C AROUND THEY GLANCED BACK TO THE CABIN AND COULDN'T EVEN SEE THE PASSENGERS IN THE FIRST SEAT. THEY IMMEDIATELY STOPPED THE A/C AND EVACUATED. MAINTENANCE FOUND THAT A FLAP DOWN LINE HAD RUPTURED AT THE LH WING CENTER SECTION IN THE VICINITY OF THE BLEED AIR MIXING VALVE. THE HYDRAULIC FLUID FOUND ITS WAY INTO THE AIR CONDITIONING SYSTEM AND CREATED THE SMOKE EVENT IN THE COCKPIT AND CABIN. THERE WAS NO FIRE. THE COMPANY REPLACED THE LINE AND CLEANED THE AIR CONDITIONING SYSTEM AND RELEASED THE AIRCRAFT. THE COMPANY WILL BE DOING A FLEET WIDE INSPECTION TO CHECK FOR DAMAGED HYDRAULIC LINES IN THESE AREAS AND ENSURE THE INSTALLATION OF THE GASKETS ON THE AIR CONDITIONING VALVES. NO INJURIES WERE REPORTED FROM THE INCIDENT. (TC 20090925005)

CA090702008	SWRNGN	GARRTT	CONTROL CABLE	BROKEN
6/27/2009	SA226TC	TPE33110UA	C8102419	POWER LEVER

(CAN) AFTER A NORMAL ENGINE START THE CREW COMPLETED THE NECESSARY CHECKS AND STARTED TO TAXI. DURING THE TAXI IT WAS NOTICED THAT THE RT PWR LEVER FELT LOOSE. THE CREW BEGAN TO MOVE IT AND IT WAS APPARENT THE EITHER THE CABLE WAS BROKEN OR THE LINKAGE HAD CAME LOOSE. ONCE BACK ON THE RAMP THE CREW ATTEMPTED TO PULL REVERSE, AND GOT A SLIGHT RPM RISE. BECAUSE THE ENGINE STARTED NORMALLY AND SEEMED TO COME OFF THE LOCKS IT IS ASSUMED THAT THE ENGINE CONTROL CABLE BROKE AFTER STARTUP. THE SITUATION WAS DISCUSSED WITH MX AND THEY AGREED THAT IT WAS A BROKEN CABLE. MX REPLACED THE BROKEN CABLE AND RETURNED THE ACFT TO SERVICE. NO FORWARNING OF THE CABLE BREAKING WAS NOTICED IN THE RECENT MX HISTORY (I.E ENGINE ADJUSTMENTS OR PROBLEMS). THE TOAL TIME ON THE CABLES IS UNKNOWN AND ARE MAINTAINED ON CONDITION IAW THE ACFT MFG DATA. BROKEN CABLES OF THIS TYPE ARE NOT A REGULAR OCCURENCE BUT HAVE HAPPENED IN THE PAST. CABLES ARE BETWEEN 25,000 TO 30,000 USD IAW CABLE AND ARE NOT EASY TO PROCURE. (ACFT MFG) HAS APPARENTLY BEGAN DEVELOPMENT OF A NEW IMPROVED CABLE DESIGN TO ELIMINATE FAILURES. NONE HAVE BEEN MADE AVAILABLE AS OF THIS DATE.

CA090727008	SWRNGN	GARRTT	REGULATOR VALVE	LEAKING
7/23/2009	SA226TC	TPE33110UA	39290811	BLEED SYSTEM

(CAN) ON DEPARTURE, AFTER COMPLETED TAKE OFF CHECKS AND WERE CLIMBING THROUGH ABOUT 5500FT 20-25NM TO THE EAST, WING OVER HEAT LIGHT CAME ON. FOLLOWED THE DRILL, HIT THE TIMER FOR 3 MIN. REQUESTED IMMEDIATE 180 BACK TO DEPARTURE AND WERE CLEARED CONTACT APP. WERE VISUAL THROUGH 3000 FT AND WENT DIRECT THE THRESHOLD. AFTER 3 MIN THE WING OVER HEAT LIGHT WAS STILL ON. DECISION WAS MADE TO SHUT ENGINE DOWN AS WE WERE CLOSE TO THE AIRPORT AND MAKING FIELD WAS ASSURED. UPON LANDING NO SMOKE WAS NOTED, CLEARED THE RUNWAY ON TAXI WAY BRAVO AND SHUT DOWN ON BRAVO AT APRON. WING OVER HEAT LIGHT STAYED ON THROUGH OUT FLIGHT AND AFTER LANDING ON TAXI IN. MX FOUND THE RT BLEED AIR REGULATING VALVE LEAKING AT THE AIR CONTROL PLUNGER SHAFT/HSG. AIR NORMALLY IS SEALED FROM THIS AREA DURING VALVE OPERATION. WHEN THE VALVE WAS OPERATING, BLEED AIR WAS ALLOWED TO LEAK FROM THE VALVE AND ONTO A NEARBY WING OVERHEAT SENSOR INSTALLED IN THE IMMEDIATE AREA DUE TO THE INSTALLATION OF THIS VALVE. COMPANY HAS REPLACED VALVE AND WILL SEND THIS VALE FOR A FULL TEAR DOWN REPORT AND O/H OF VALVE. FOLLOWUP WILL BE COMPLETED WHEN TEAR DOWN REPORT IS RECEIVED. TT ON THE VALVE IS UNKNOWN AS IT IS INSTALLED ON CONDITION. VALVE HAS BEEN IN SERVICE SINCE BEFORE 2003.

CA090811004	SWRNGN	GARRTT	SWITCH	FAILED
8/9/2009	SA226TC	TPE33110UA	1EN516	MLG

ON COMPLETION OF A TEST FLIGHT, COMING IN TO LAND, CREW DID NOT GET 3 GREEN DOWN AND LOCKED. RT MAIN DID NOT INDICATE DOWN AND LOCKED. GEAR WAS RECYCLED 3 TIMES. ON THIRD ATTEMPT, AFTER ABOUT 20 SECONDS THE RT MAIN WENT GREEN. CREW THEN ELECTED TO DO A LOW AND OVER FOR TOWER TO VISUALLY INSPECT THAT IT WAS DOWN, AND PROCEEDED TO DO THE EMERGENCY GEAR EXTENSION. ACFT LANDED WITHOUT INCIDENT. MX REPLACED INTERMITTENT RT INBD MAIN GEAR DOWN LOCK MICROSWITCH, AS THE SWITCH WHEN ACTIVATED WOULD CAUSE BOTH LIGHTS, ONLY ONE LIGHT OR NO LIGHTS TO ILLUMINATE WHEN DEPRESSED FULLY. THIS IS A COMMON FAILURE MODE OF THESE SWITCHES. IT APPEARS TO BE FAILURE OR BREAKDOWN OF THE SWITCH CONTACTS. PROBLEM HAS NOT REOCCURED.

CA090728014	SWRNGN	GARRTT	SKIN	CRACKED
7/27/2009	SA226TC	TPE33110UA	2731000798	RT WING LE

WHILE CARRYING OUT AD 2009-11-16 AND A SCHEDULED PHASE 3 INSP A LARGE CRACK AND SEVERAL SMALL CRACKS WERE DISCOVERED IN THE RT L/E, BEHIND NACELLE SKIN. AREA IS VERY DIFFICULT TO INSPECT AND WAS FOUND BY LOOKING FROM THE LANDING GEAR WELL. CRACK IS EMANATING FROM A HOLE THAT IS CUT IN THE L/E TO ALLOW PASSAGE OF ELECTRICAL CABLE, WIRE HARNESSSES AND ENGINE CONTROL CABLES. THIS ACFT HAD EXTENSIVE STRUCTURAL WORK IN THIS AREA APPROX 12 YEARS AGO IN USA. IT APPEARS THAT HOLES WERE ENLARGED OR ROUGH CUT AND THIS IS WHAT CAUSED THE CRACKS. DOUBLER ON TOP OF THE L/E WAS ALSO CRACKED. THERE IS NO APPROVED REPAIR FOR THIS AREA, SECTION OF SKIN HAD TO BE REPLACED WHICH WAS AN EXTENSIVE JOB.

CA090702009	SWRNGN	GARRTT	LINE	CRACKED
6/28/2009	SA226TC	TPE33110UA	2781006307	HYDRAULIC SYS

(CAN) MEDIVAC TRIP , 14 MINUTES AFTER TAKEOFF RT HYD LOW PRESSURE WARNING LIGHT ILLUMINATED. VECTORS BACK TO AIRPORT WERE OBTAINED AND EMERGENCY CHECKLIST WAS CONSULTED. 24 MINUTES AFTER TAKEOFF LT HYD LOW PRESSURE WARNING LIGHT ILLUMINATED AND PRESSURE GUAGE WAS FLUCTUATING FROM 0 TO 500 PSI . ATC WAS MADE AWARE OF THIS AND EMERGENCY WAS DECLARED. LANDING GEAR WAS MANUALLY DEPLOYED. UNEVENTFUL LANDING AND TAXI IN TO THE RAMP. MX REPLACED THE 27-81006-307 HYD LINE AND PERFORMED A LOSS OF HYD INSP. THE LINE FOUND WAS SPLIT AT THE BEND RADIUS NEAR THE B-NUT. THIS LINE IS LOCATED IN THE RT ENG NACELLE BETWEEN THE INNER AND OUTER SKINS AT THE HYD SHUTOFF VALVE. THE LINE IS DIFFICULT TO SEE THROUGH THE INSP PANELS PROVIDED. NO DAMAGE TO THE LINE IS APPARENT WHERE THE SPLIT OCCURED. THE LINE IS LOCATED ON OUTPUT SIDE OF THE HYD PUMP AND UPSTREAM OF THE HYD SHUTOFF AND THEREFORE MOVEMENT OF THE HYD SHUTOFF VALVE TO THE CLOSED POSITION WOULD NOT HAVE PREVENTED A FULL LOSS OF HYD. MX REPLACED THE LINE AND RETURNED THE ACFT TO SERVICE.

CA090813011	SWRNGN	GARRTT	SKIN	CRACKED
8/7/2009	SA226TC	TPE33110UA	2741000103	VERTICAL STAB

DURING A ROUTINE TAIL INSP, THE 27-41000-103 VERTICAL STABILIZER SKIN WAS FOUND CRACKED APPROX 4-5 INCHES AT HORIZ STAB CUTOUT. CUTOUT IS DESIGNED TO ALLOW MOVEMENT OF THE HORIZONTAL STABILIZER. SKIN WAS REPAIRED IAW THE SRM. IT WAS DISCOVERED THE SKIN WAS CORRODED IN THE AREA OF THE CRACK. THE CORROSION WAS VERY DEFINED AS IF A PREVIOUS REPAIR HAD BEEN INSTALLED IN THE AREA CAUSING DISIMILAR METAL CORROSION. NO OTHER REASON FOR THE CORROSION OF THIS NATURE COULD BE DETERMINED AS THE SURROUNDING AREA EXIBITED NO SIGNS OF SIMILAR CORROSION. MOVEMENT OF THE STABILIZER MAY HAVE CAUSED FURTHER DAMAGE HAD IT CAUGHT THE CRACKED POTION OF THE SKIN.

CA090821006	SWRNGN	GARRTT	POTENTIOMETER	FAILED
8/16/2009	SA226TC	TPE33110UA	78SF2B502	NLG STEERING

AFTER APPLYING PWR ON THE TAKEOFF ROLL ON RWY 31, ACFT BECAME DIFFICULT TO CONTROL ON THE TAKEOFF ROLL. NOSE STEERING WAS BEHAVING AS IF IT WAS STILL IN FULL `PARK` MODE, WITHOUT THE PARK BUTTON BEING DEPRESSED, AND STEERING WAS VERY SENSITIVE AND ALMOST IMPOSSIBLE TO KEEP STRAIGHT. AROUND 60 KNOTS, DECISION WAS MADE TO ABORT THE TAKEOFF. EXIT WAS MADE ONTO TAXIWAY VICTOR, AND FLIGHT WAS RETURNED TO THE APRON. NOSE STEER FAIL LIGHT FAILED TO COME ON DURING THE EVENT. DURING THE TAXI BACK, THE ACFT WAS STILL DIFFICULT TO CONTROL. MX TROUBLESHOT AND FOUND THE NOSE WHEEL STEERING FOLLOWUP POTENTIOMETER LOCATED ON NOSE GEAR, HAD FAILED. THE SHAFT WHICH IS SECURED TO THE 27-82529-041 NWS BRACKET WAS FOUND BROKEN OFF AND SEPARATED FROM THE POTENTIOMETER HSG. MX REPLACED THE BROKEN POTENTIOMETER, TESTED THE SYS AND RETURNED ACFT

TO SERVICE WITH NO FURTHER FAULTS. THE NWS STEERING SYS DID NOT PROVIDE AN ANNUNCIATOR WARNING TO THE CREW OF THE FAILURE OR THE DISCREPANCY BETWEEN THE COMMAND POTENTIOMETERS ON THE RUDDER PEDALS AND THE FOLLOWUP POTENTIOMETER ON THE NOSE GEAR. IF THIS WERE TO HAVE OCCURED DURING THE LANDING PHASE OF FLIGHT, THIS FAULT MAY HAVE RESULTED IN THE ACFT DEPARTING THE RUNWAY.

CA090629007	SWRNGN	GARRTT	ACTUATOR	LEAKING
6/24/2009	SA227*	TPE33112UHR	2736053003	LT WING TE FLAPS

HYD FLUID FOUND LEAKING FROM LT FLAP ACTUATOR AREA DURING INSP. OUTER CASING FOUND CRACKED AT THE OPPOSITE SIDE OF RAM-END CAP.

CA090619013	SWRNGN	GARRTT	RETAINER	CRACKED
6/10/2009	SA227AC	TPE331*	3102573	PROP SHAFT SEAL

DURING ROUTINE PHASE INSP OF THE PROP MX, FOUND THAT THE LT ENG PROP SHAFT SEAL RETAINER HAD MULTIPLE CRACKS COMING OUT FROM UNDER EACH OF THE ATTACHMENT STUDS. PART REMOVED AND REPLACED. ACFT RETURNED TO SERVICE.

CA090825006	SWRNGN	GARRTT	IMPELLER	CRACKED
8/12/2009	SA227AC	TPE331*	31081822	COMPRESSOR

UPON ENG TESTING DURING INSTALLATION OF ENG ON THE LT SIDE OF ACFT, A LOUD HOOTING AND WHISTLING WAS HEARD BY MX. UPON FURTHER INVESTIGATION WHICH INCLUDED A CLOSE LOOK AT 1ST STAGE IMPELLER THROUGH ENG INTAKE, SEVERAL CRACKS WERE FOUND ON IMPELLER. ENG HAD PREVIOUSLY BEEN REPAIRED WHERE A COMPRESSOR REFURB REPAIR AND HOT SECTION INSP WAS ACCOMPLISHED. DURING THIS REPAIR A DETAILED VISUAL INSP AND FPI INSP WAS CARRIED OUT WITH NO DEFECTS FOUND. AT THAT TIME IMPELLER HAD 9,284 TOTAL CYCLES SINCE NEW WITH 20716 CYCLES REMAINING. IMPELLER IS POST SB 72-0976 WHICH IS LATEST CONFIGURATION. 5 CRACKS COULD BE SEEN BY NAKED EYE DURING VISUAL INSP. CRACKS ARE APPROX HALF AN INCH LONG AND RUN IN A RADIAL DIRECTION INWARD FROM CONTOURED EDGE APPROX 3/4 OF AN INCH BACK FROM L/E. ALL OF THEM APPEAR TO BE IN SAME AREA OF AFFECTED VANE AND ARE EVENLY DISTRIBUTED AROUND DIAMETER OF IMPELLER. DURING ENG TEARDOWN INSP COMPRESSOR BRG WAS FOUND WITH A LARGE AMOUNT OF RADIAL PLAY AND WAS ROUGH TO TURN OVER BY HAND. ANTI-FRICTION ROLLING ELEMENTS WERE ALSO POUNDING. OUTER RACEWAY WAS FOUND WITH UNUSUAL MARKS PERPINDICULAR TO RACEWAY. THESE APPEARED AS STRIATIONS IN PARENT MATERIAL WHEN VISUALLY CHECKED USING A 10X MAGNIFICATION LOOP. COMPRESSOR BRG WAS REJECTED AS SCRAP. DEFECT FOUND WAS CONSISTENT WITH DAMAGE THAT MAY HAVE CAUSED A HIGH RUNNING VIBARTION THAT SERVED TO RUB THE COMPRESSOR IMPELLERS CAUSING CRACKING AS FOUND.

CA090806006	SWRNGN	GARRTT	ACM	SEIZED
7/30/2009	SA227AC	TPE331*	20475546	LEFT

UPON LANDING AT AIRPORT THE CREW REPORTED THAT AFT CABIN FILLED WITH SMOKE. UPON TROUBLESHOOTING BY MX WITH THE LT ENGINE RUNNING AND LT BLEED HEAT ON THE CABIN DID FILL UP WITH SMOKE. FOUND THE LT COOLING TURBINE SEIZED - REPLACED LT COOLING TURBINE AND RUN COMPLETED SERVICEABLE. ACFT RELEASED TO SERVICE.

CA090806007	SWRNGN	GARRTT	CONTROL VALVE	STICKING
7/21/2009	SA227AC	TPE331*	246005	MLG

LANDING GEAR WOULD NOT COME DOWN AND PILOT CARRIED OUT EMERGENCY GEAR EXTENSION PROCEDURE. LANDING WAS COMPLETED WITHOUT INCIDENT. MX REPLACED THE LANDING GEAR CONTROL VALVE WITH NO FURTHER PROBLEMS. 3 DAYS PRIOR PILOT HAD REPORTED THAT GEAR WAS SLOWER THAN NORMAL TO EXTEND. NUMEROUS GEAR SWINGS CARRIED OUT BY MX AND CHECKED SERVICEABLE. ACFT RELEASED TO SERVICE.

CA090828003	SWRNGN	GARRTT	IGNITION SWITCH	CRACKED
8/27/2009	SA227AC	TPE331*	31057463	RT ENGINE

OIL LEAKING OUT OF AUTO IGNITION SWITCH - SWITCH REPLACED AND ACFT RETURNED TO SERVICE.

CA090828005	SWRNGN	GARRTT	LINE	CRACKED
8/26/2009	SA227AC	TPE331*	2781006019	HYDRAULIC SYSTEM
HYD LEAK FOUND IN LT GEAR WELL. LINE FABRICATED AND REPLACED - GEAR SWINGS CARRIED OUT AND ACFT RETURNED TO SERVICE.				
CA090813013	SWRNGN	GARRTT	BEARING	FAILED
8/13/2009	SA227AC	TPE33111U	M2040AC2	STARTER GEN
GENERATOR WOULD NOT COME ONLINE. STARTER-GEN DISASSEMBLED. ARMATURE AND STATOR RUBBED. DRIVE END BRG HAS FAILED AND HAS ONLY 2 BALLS LEFT.				
CA090715001	SWRNGN	GARRTT	WIRE	BURNED
7/12/2009	SA227AC	TPE33111U	19002716S	IGNITION EXCITER
(CAN) UPON ENGINE START ON GROUND CB'S POPPED UPON 10 PERCENT ENGINE SPEED WHEN AUTO IGNITION CUT IN. THE WIRING AT THE STARTER WAS INSPECTED SERVICABLE. WIRING IN THE LT WING UNDER THE FAIRING HAD MULTIPLE BURNED WIRING. COMPANY IS NOW WORKING WITH M7 FOR OTHER POSSIBLE INCIDENTS. WIRING WAS REPAIRED AND ACFT RETURNED TO SERVICE.				
CA090619012	SWRNGN	GARRTT	SHUTOFF VALVE	INOPERATIVE
6/14/2009	SA227AC	TPE3311U	394423091	FUEL SYSTEM
ON DESCENT INTO AIRPORT, ACFT LOST PWR ON RT ENG AND FLIGHT CREW SHUT DOWN AND FEATHERED ENGINE. MX WAS CONTACTED AFTER LANDING WITHOUT INCIDENT. MX TROUBLESHOOTING WAS CARRIED OUT, FOUND THE FUEL SHUTOFF NOT OPERATING CORRECTLY. FUEL SHUTOFF WAS REPLACED AND ACFT RETURNED TO SERVICE.				
CA090702007	UROCOP	TMECA	ELECTRICAL SYS	MALFUNCTIONED
7/1/2009	EC120B	ARRIU2F		CAROUSEL SWITCH
INVESTIGATION REVEALED THAT THE CAROUSEL RELAY PROVIDES AN UNANTICIPATED 6 TO 9 VOLTS VDC TO PIN C OF THE UTILITY CONNECTION ON THE BELLY OF THE AIRFRAME WHEN IT SHOULD ONLY BE SUPPLYING 28 VDC TO PIN E OF THE CONNECTION. THIS ERRANT VOLTAGE ISN'T ENOUGH TO OPEN A WATER BUCKET BUT IT HAS BEEN DEMONSTRATED TO OPEN A REMOTE HOOK. AN EMERGENCY NOTICE HAS BEEN SENT TO ALL COMPANY PILOTS INSTRUCTING THEM TO USE EXTREME CAUTION TO AVOID ACTIVATION OF THE CAROUSEL SWITCH. MFG HAS BEEN INFORMED OF THIS SITUATION.				
CA090702005	UROCOP	TMECA	ELECTRICAL SYS	MALFUNCTIONED
7/1/2009	EC120B	ARRIU2F		CAROUSEL SWITCH
(CAN) INVESTIGATION REVEALED THAT THE CAROUSEL RELAY PROVIDES AN UNANTICIPATED 6 TO 9 VOLTS VDC TO PIN C OF THE UTILITY CONNECTION ON THE BELLY OF THE AIRFRAME WHEN IT SHOULD ONLY BE SUPPLYING 28 VDC TO PIN E OF THE CONNECTION. THIS ERRANT VOLTAGE ISN'T ENOUGH TO OPEN A WATER BUCKET BUT IT HAS BEEN DEMONSTRATED TO OPEN A REMOTE HOOK. AN EMERGENCY NOTICE HAS BEEN SENT TO ALL COMPANY PILOTS INSTRUCTING THEM TO USE EXTREME CAUTION TO AVOID ACTIVATION OF THE CAROUSEL SWITCH. MFG HAS BEEN INFORMED OF THIS SITUATION.				
CA090623007	UROCOP	TMECA	BOLT	BROKEN
6/18/2009	EC120B	ARRIU2F	DHS4111012118	SCISSOR LINK
(CAN) DURING A 100 HOUR INSPECTION ROTATIONAL PLAY WAS NOTED IN THE ROTATING SWASHPLATE. THE DRIVE LINK WAS DISASSEMBLED IAW THE 100 HOUR INSPECTION AND SB 05-009. THE BOLT IN ATTACHING THE DRIVE LINK TO THE MAST WAS FOUND SEIZED IN THE ASSEMBLY. IN ADDITION TO BEING SEIZED THE BOLT WAS ALSO SHEARED. ONCE THE BUSHINGS BECAME SEIZED THE BOLT WAS EXPOSED TO A SHEARED LOAD AND BROKE UNDER THE STRAIN. IF THIS HAD OCCURRED ON THE OTHER SIDE OF THE ASSEMBLY THE DRIVE LINK WOULD HAVE BEEN LOST, RESULTING IN THE LOSS OF CONTROL OF THE HELICOPTER. THE ASSEMBLY HAD BEEN IN SERVICE FOR 113 HOURS SINCE NEW. THE ASSEMBLY HAD BEEN INSTALLED WITH THE WRONG BUSHINGS P/N 7050A3623027 WHICH WERE PROVIDED BY THE MANUFACTURE, IN PLACE ON THE REQUIRED MM2599973. (TC# 20090623007)				

[CA090812008](#) UROCOP TMECA SERVO CONTROL MALFUNCTIONED
7/25/2009 EC120B ARRIU2F SC50911

(CAN) DURING PRE FLIGHT TEST OF HYDRAULIC SYSTEM, THE PILOT OPERATED THE TEST SWITCH ON COLLECTIVE CONTROL AND THE CYCLIC CONTROL EXPERIENCED HARD OVER TO THE LEFT. TEST WAS REPEATED WITH SAME RESULT. AIRCRAFT GROUNDED AT 2330 FOR TROUBLESHOOTING IN THE MORNING. SUSPECTED SERVO (LEFT AFT) REPLACED WITH OVERHAULED UNIT S/N 1227 GROUND RUN AND SERVO TEST COMPLETED SUCCESSFULLY AIRCRAFT RELEASED FOR SERVICE. (TC# 20090812008)

[CA090918001](#) UROCOP TMECA SMM VALVE STICKING
9/15/2009 EC120B ARRIU2F EVP310 SERVO CONTROL

(CAN) SERVO CONTROL ISSUES HAVE BEEN RECURRING ON ALL THREE EC120S IN OUR FLEET. THE MOST COMMON PROBLEM OCCURS AFTER INITIAL START UP OF THE DAY WHEN THE PILOT DOES THE HYDRAULIC CUT OFF CHECK (THE SWITCH ON THE COLLECTIVE STICK). THE CYCLIC GOES HARD TO THE LEFT OR RIGHT, DEPENDING ON WHICH SERVO MALFUNCTIONS. WE SUSPECT IT'S A STICKY SOLENOID VALVE ON ONE OF THE LATERAL SERVOS. IT ALSO HAPPENS ON THE FWD SERVO, IN WHICH CASE, THE FORE AND AFT MOVEMENT DOES NOT GET STIFF (AS IT SHOULD) BECAUSE THE SOLENOID VALVE DOES NOT CUT OFF ITS HYDRAULIC PRESSURE. IN ALMOST ALL CASES, ALL THE PILOT HAS TO DO IS LET THE AIRCRAFT WARM UP FOR 10-15 MIN AND CYCLE THE SWITCH A DOZEN TIMES UNTIL THE SYSTEM IS BACK TO NORMAL. ON THE 15 SEPT. 2009, THE PILOT COMPLAINED THAT THE CYCLIC WAS GOING HARD LEFT DURING THE "CUT OFF CHECK". THE "SWITCH CYCLING" TECHNIQUE WOULDN'T WORK SO THE HELICOPTER WAS GROUNDED UNTIL AN ENGINEER COULD BE DISPATCHED TO ASSESS THE SITUATION. ONE OF THE SERVO SOLENOID VALVES WAS REPLACED WITH NO CHANGE IN SYMPTOMS (DIDN'T KNOW IF IT WAS THE LEFT OR RIGHT SO HE JUST PICKED ONE). WHILE THE AIRCRAFT WAS STILL RUNNING, HE TAPPED THE SOLENOID VALVES AND THE SYSTEM IMMEDIATELY STARTED TO FUNCTION PROPERLY. THE SYSTEM WAS TESTED NUMEROUS TIMES AFTERWARD AND FUNCTIONED PROPERLY. (TC# 20090918001)

[CA090630007](#) UROCOP TMECA PRESSURE SWITCH LEAKING
6/29/2009 EC120B ARRIUS2F PS1101 HYDRAULIC SYS

(CAN) AFTER LANDING, NOTICED A BIT OF OIL ON THE SIDE OF THE ACFT. OPENED THE COWL TO FIND A LOT OF HYD FLUID ON THE DECK. THIS WAS THE SECOND FLIGHT OF THE DAY AND HAD CHECKED ALL THE OILS AND THE DECK WAS DRY BEFORE THE FLIGHT. THE FLIGHT WAS 2.2 HOURS.

[CA090716004](#) UROCOP TMECA CLAMP FRACTURED
7/16/2009 EC130B4 ARRIEL2B1 ASNA0033097 MLG SKID

CLAMP THAT ATTACHED REAR CROSS TUBE FAIRING FRACTURED ALLOWING FAIRING END PLATE TO WEAR A GROOVE INTO THE REAR CROSS TUBE. 6 OTHER UPPER FAIRING ATTACHMENT RIBS ALSO CRACKED.

[CA090716005](#) UROCOP TMECA ELEC CONNECTOR OUT OF LIMITS
7/16/2009 EC130B4 ARRIEL2B1 E0052R14B19SNF WIRE HARNESS

NR INDICATOR FAILURE AND NR OVER LIMIT DETECTED BY VEMD. 5 PREVIOUS INCIDENTS OF NR OVER-LIMIT OR NO INTERMITTENT LOW ROTOR AUDIBLE TONE.

[CA090702006](#) UROCOP TMECA ELECTRICAL SYS MALFUNCTIONED
7/1/2009 EC130B4 ARRIUS2B1 CAROUSEL SWITCH

INVESTIGATION REVEALED THAT THE CAROUSEL RELAY PROVIDES AN UNANTICIPATED 6 TO 9 VOLTS VDC TO PIN C OF THE UTILITY CONNECTION ON THE BELLY OF THE AIRFRAME WHEN IT SHOULD ONLY BE SUPPLYING 28 VDC TO PIN E OF THE CONNECTION. THIS ERRANT VOLTAGE ISN'T ENOUGH TO OPEN A WATER BUCKET BUT IT HAS BEEN DEMONSTRATED TO OPEN A REMOTE HOOK. AN EMERGENCY NOTICE HAS BEEN SENT TO ALL COMPANY PILOTS INSTRUCTING THEM TO USE EXTREME CAUTION TO AVOID ACTIVATION OF THE CAROUSEL SWITCH. MFG HAS BEEN INFORMED OF THIS SITUATION.

[U0GA2009101683479](#) UROCOP FUEL ODOR

10/16/2009 EC225LP CABIN

SLIGHT ODOR OF FUEL IN THE CABIN DURING FLIGHT.

CA090807001	ZLIN	LYC	CONTROL CABLE	FRAYED
8/4/2009	Z242L	AEIO360A1B6	Z14242260100	RUDDER

THE RT RUDDER CABLE WAS OBSERVED TO HAVE BROKEN STRANDS IN THE AREA AROUND A PULLEY DURING A 500 HOUR INSP. THE STRANDS WERE NOT OBSERVED AS BROKEN UNTIL THE CABLE TENSION WAS RELEASED AND THE CABLE DISASSEMBLED FROM THE AIRFRAME.

CA090916006	ZLIN	LYC	CAMSHAFT	MAKING METAL
9/3/2009	Z242L	AEIO360A1B6		ENGINE

(CAN) DURING THE ANNUAL INSPECTION DEBRIS WAS FOUND IN THE ENGINE OIL SCREEN. FURTHER INVESTIGATION FOUND ADDITIONAL DEBRIS IN THE OIL FILTER. #3 CYLINDER WAS REMOVED AND INTERNAL COMPONENTS OF THE ENGINE INSPECTED. DEBRIS SOURCE WAS IDENTIFIED TO BE A CAM SHAFT LOB AND LIFTER. ENGINE WAS REMOVED AND SENT TO AN OVERHAUL FACILITY FOR REPAIR. TEAR DOWN REPORTS HAVE INDICATED CAM FAILURE AND MAIN JOURNAL BEARINGS AS THE SOURCE OF THE ENGINE OIL SYSTEM CONTAMINATES. PROPELLER, INVERTED OIL SYSTEM, PRIMARY GOVERNOR REMOVED AND SET FOR CONTAMINATION CLEANING/OVERHAUL. ENGINE IS PRESENTLY UNDERGOING AN OVERHAUL. (TC# 20090916006)
