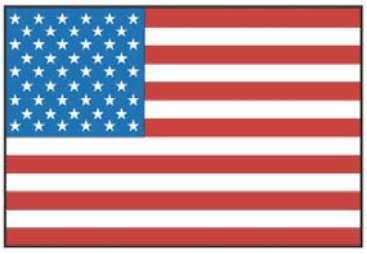
U.S. Department of Transportation
Federal Aviation Administration

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



ALERT NUMBER 357

APRIL 2008

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

AVIATION MAINTENANCE ALERTS

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

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

AIRPLANES

BEECH

Beech: B55; Disintegrating Fuel Cell Foam; ATA 2810

"The right wing leading edge fuel cell was removed because of a fuel leak," states a submitting technician. "A replacement cell was ordered from a well known, leading supplier. Prior to the installation of the new (overhauled) cell, it was inspected and found to contain a large quantity of sawdust-like particles. On further inspection, the fuel cell *(was found to still have)* the foam-filled fuel reservoir inside. This foam was breaking down. After discussions with Raytheon's tech support it was concluded that AD 68-26-06 had been complied with at some point in time—which required the installation of fuel reservoirs to prevent engine power loss during steep turns and on takeoff. These reservoirs had a foam insert which was compatible with 100/130 fuel. The use of 100LL, however, causes the foam to break down into fine particles that get trapped in filters and screens—potentially clogging them. This problem is addressed in service bulletin *(SB)* number 2109 which replaces the old style foam *(P/N 369200157)* with a product that is suitable for use with 100LL. We feel the SB should be an Airworthiness Directive—alerting other maintainers (who may not be aware) of this problem and its SB. Both fuel cell reservoirs *(on this aircraft)* now have had the foam replaced and the fuel filters, strainers, and injectors cleaned IAW SB NO. 2109."

(Truncating the part number's last digit finds this same defect in the FAA Service Difficulty Reporting System data base on two additional Beech aircraft: one in 1994 and the other in 1996.)

Part Total Time: 2,616.0 hours.

BEECHJET

Beechjet: 400A; Cracked Horizontal Stabilizer Ribs; ATA 5511

A submitter from a repair station writes, “The horizontal stabilizer leading edge inboard ribs are cracked at the roller bracket attachment points. *(I have included applicable pages of the...)* Raytheon Safety Communiqué and photographs *(of our aircraft’s cracked parts.)* Safety Communiqué number 70 is the only published criteria concerning this problem.”

(If you enter the base part number—sans last three digits, in the FAA Service Difficulty Reporting System data base, you will receive 45 of these entries, the first this month 2005.)

ALL MODELS – HORIZONTAL STABILIZER RIB INSPECTION

RAC has recently received reports of cracks in the ribs underneath the horizontal stabilizer roller brackets as well as in the adjacent underlying structure. Although Chapter 5 of the MU-300 and 400/400A Maintenance Manuals requires an inspection of roller bracket assemblies and the vertical stabilizer guide rail, no requirement to inspect the structure behind the roller bracket currently exists. RAC therefore recommends expanding the scope of the published rail/bracket inspections to include the ribs and structure mentioned above. Utilization of a borescope will be necessary to perform a thorough inspection behind the ribs. Figure 1 illustrates the area of the inspection.

If the expanded inspection reveals a crack in a rib or associated part, that item may be replaced individually or as part of an assembly. The part numbers for the rib assemblies are detailed in the chart below. These rib assemblies include the brackets and ribs shown in figure 2.

RAC Technical Support would also like to stress the importance of a proper gap between each roller and the vertical stabilizer rail. A gap beyond the dimension specified in chapter 27-40-00 of the 400/400A Maintenance Manual could contribute to damage of the vertical stabilizer rails, the horizontal stabilizer rib, and/or the rib's underlying structure.

NOTE: ALL DASH NUMBERS LISTED ARE APPROPRIATE SPARES BUT MAY REQUIRE MODIFICATION AS DESCRIBED IN THE NOTES COLUMN

RIB ASSEMBLY PART NUMBERS	NOTES
45A21104-011 (LH) 45A21104-012 (RH)	“Plug” rivet should be removed to install ground stud required by installation of tail deice kit 128-4014 or 128-4016. Ref. SB 30-2600
45A21104-631 (LH) 45A21104-632 (RH)	Includes ground stud mentioned above but does not include ground stud decal. (860AS-GS411 LH & 860AS-GS412 RH) Ref. SB 30-3198
45A21104-641 (LH) 45A21104-642 (RH)	Includes ground stud and decal.

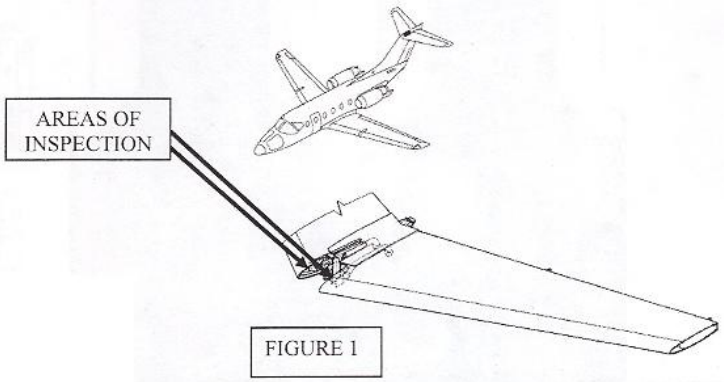

FIGURE 1

Communiqué No. 70 Page 5 of 6

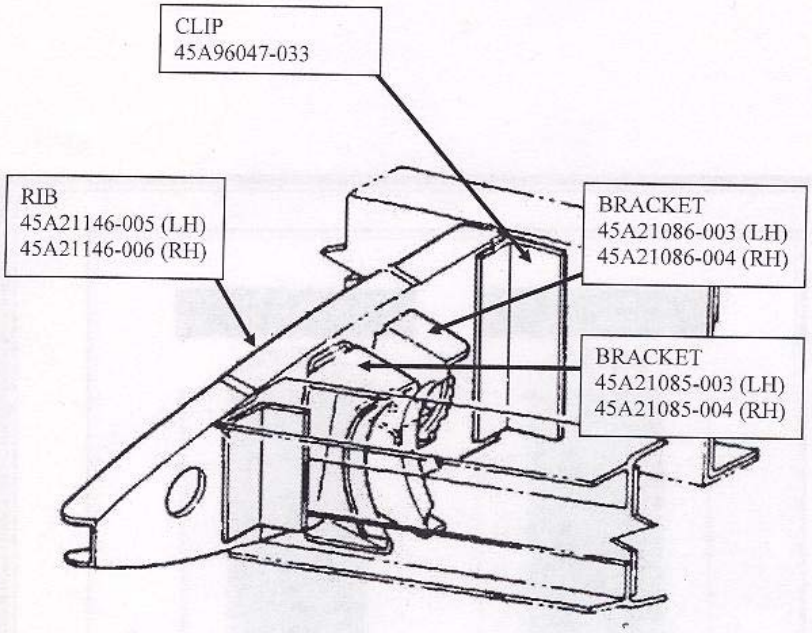

FIGURE 2

OTHER MATERIALS:

P/N	NOMENCLATURE	NOTES
NAS1097D4-*	RIVET, SOLID, FLUSH HEAD**	Rivets installed through horizontal stabilizer skin to retain the 45A21085/45A21086 brackets and 45A21146 rib.
MS20470D5-*	RIVET, SOLID, UNIVERSAL HEAD**	Rivets installed through 45A21146 rib and 45A96047 clip.

* Length determined at installation
** Reference Structural Repair Manual for alternate blind fasteners if required

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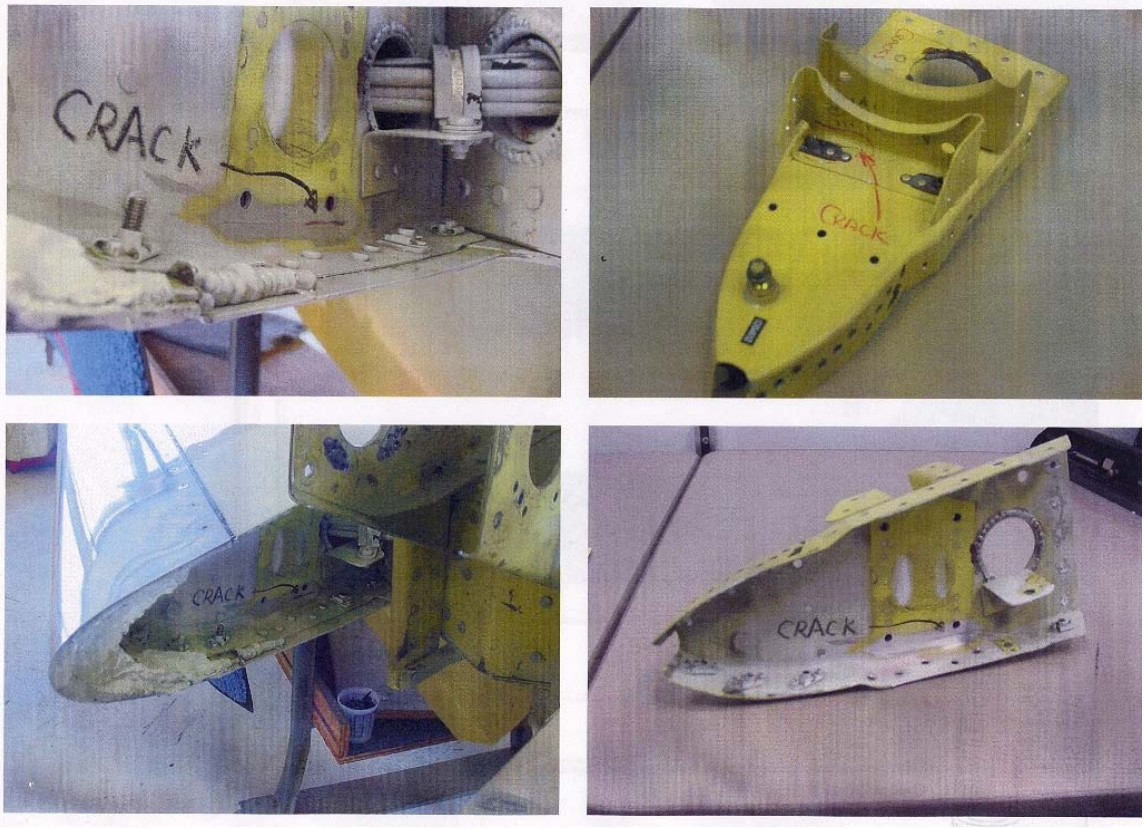
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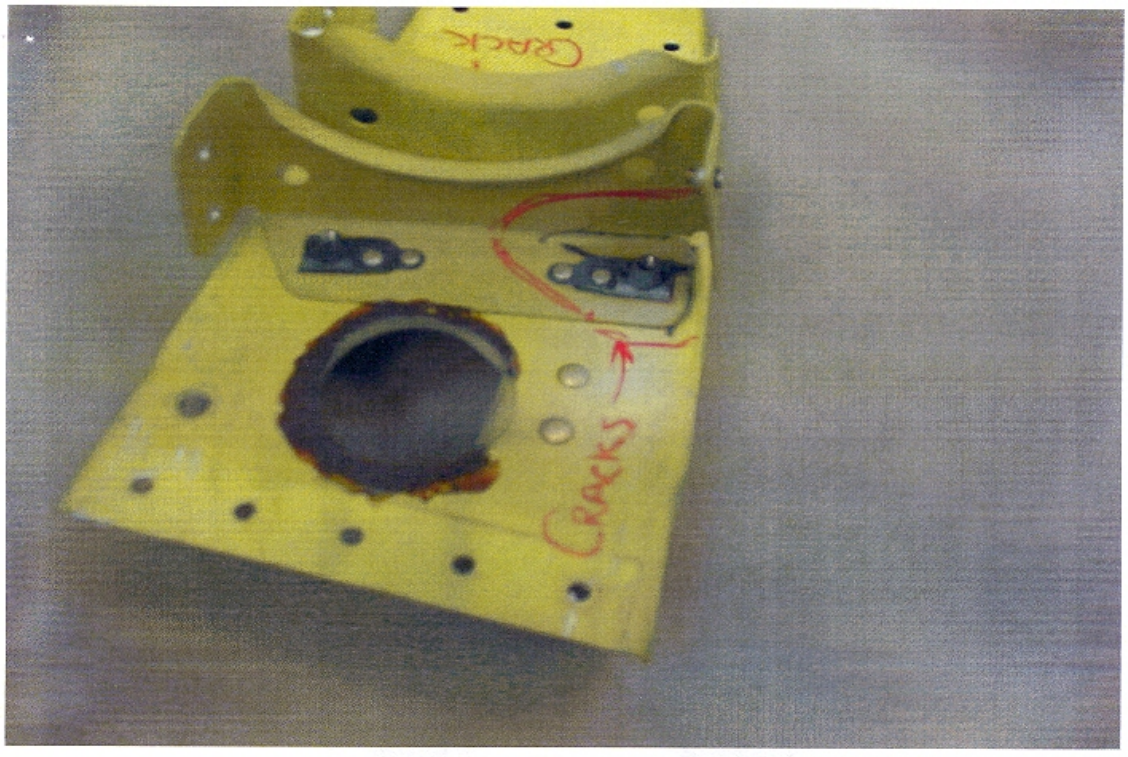
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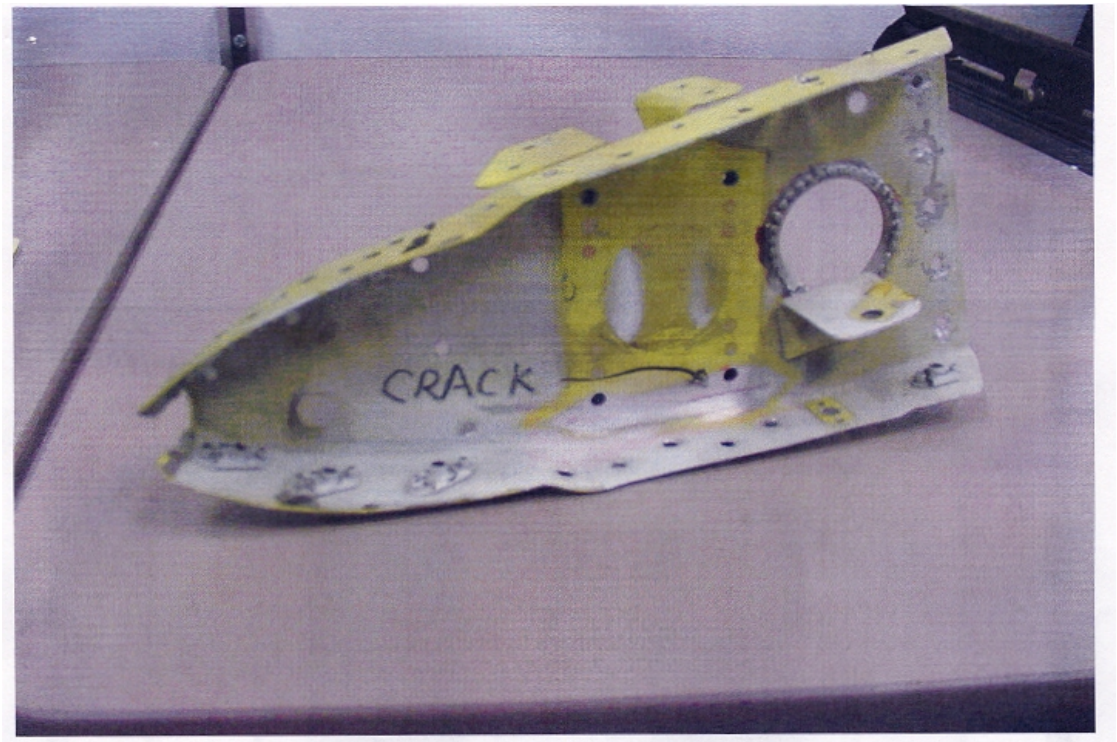
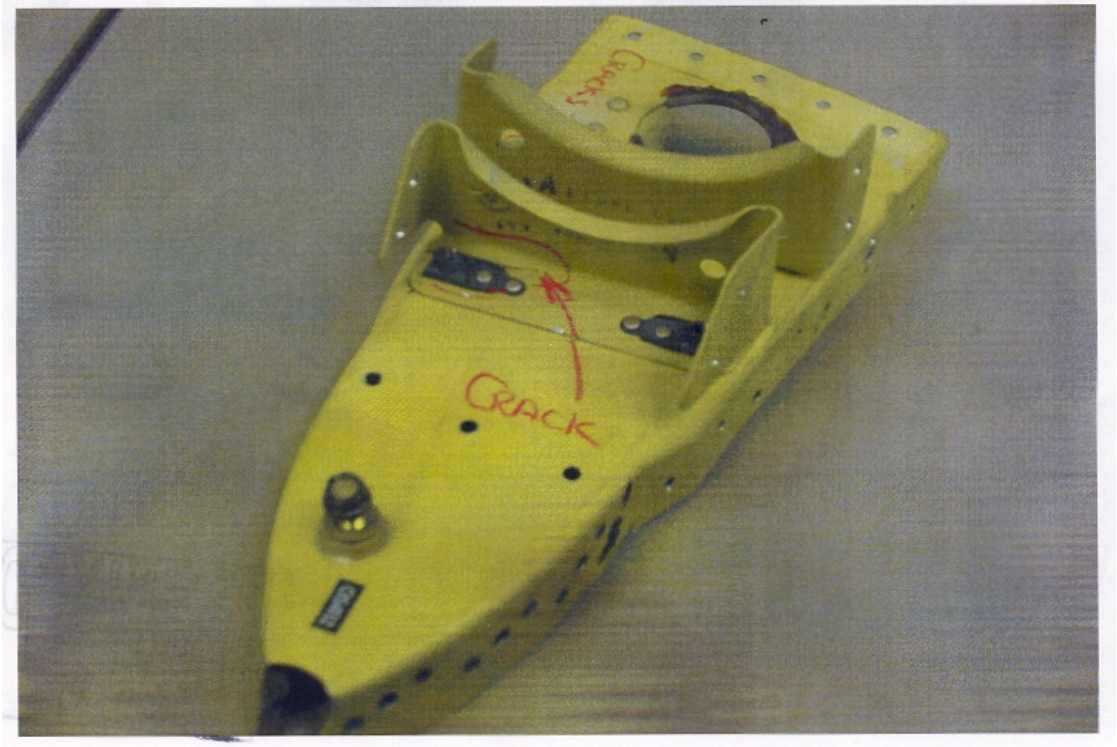




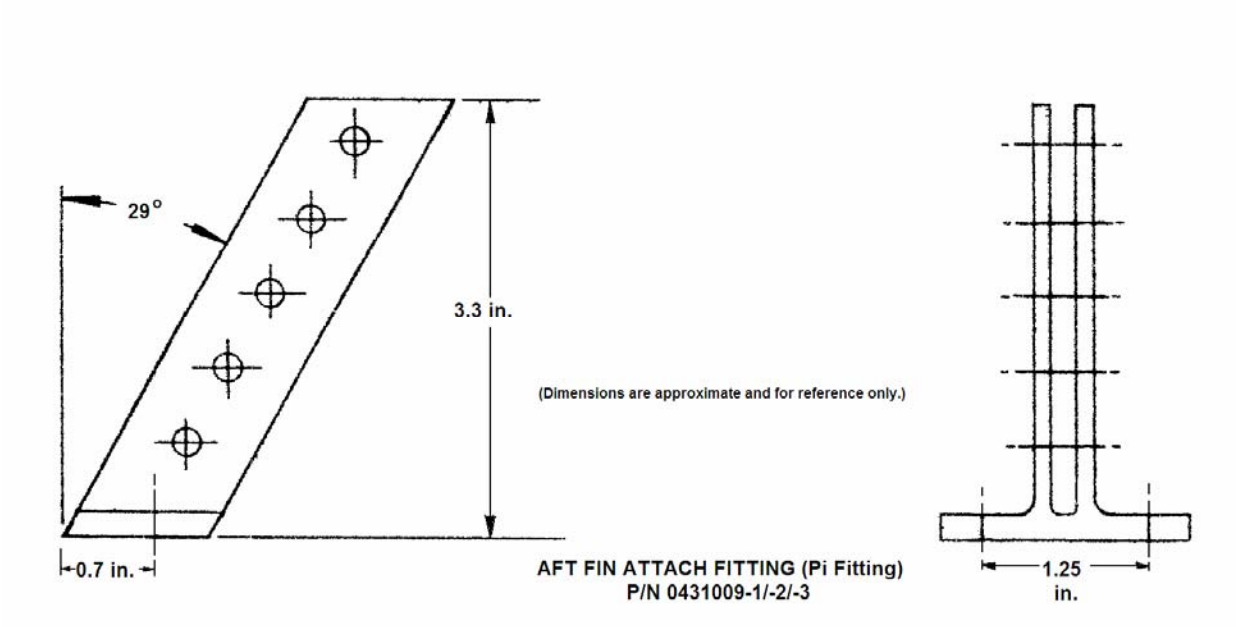
Part Total Time: 4,500.0 hours.

CESSNA

Cessna: 150/152; Cracked Aft Fin Attach Fittings; ATA 5530

(The following safety article is published as received from the Wichita Aircraft Certification Office. Contact information can be found below the attached mechanical drawing.)

"The FAA has received reports of cracks on the two vertical tail attach fittings on Cessna 150/152 airplanes. The aft fin attach fitting is part number (p/n) 0431009. There are three dash numbers: -1, -2, and -3. Most of the 41 reports found in the FAA Service Difficulty Report (SDR) database have been the -3 part. The SDR's are for cracked, broken or corroded attach fittings. A statistical analysis of the SDR data indicates that the problem was getting worse from 1976 through 1991. Since 1992, these analyses indicate improvement, with SDR's reported less frequently, due to the awareness of maintenance technicians to this problem. However, the FAA wants to keep the technicians, owners and operators aware of this problem because of the way these airplanes are used. That is, the Cessna 150/152 airplanes are used for training, aerobatics and spins. These uses put additional air loads on the vertical tail surface. So, a failure of this attach fitting could be catastrophic. Past failures have occurred in the transition from the vertical straps to the lower plate portion of the fitting. Cracks tend to form in the outboard portion of the fitting, with the outboard strap failing before the inboard strap."

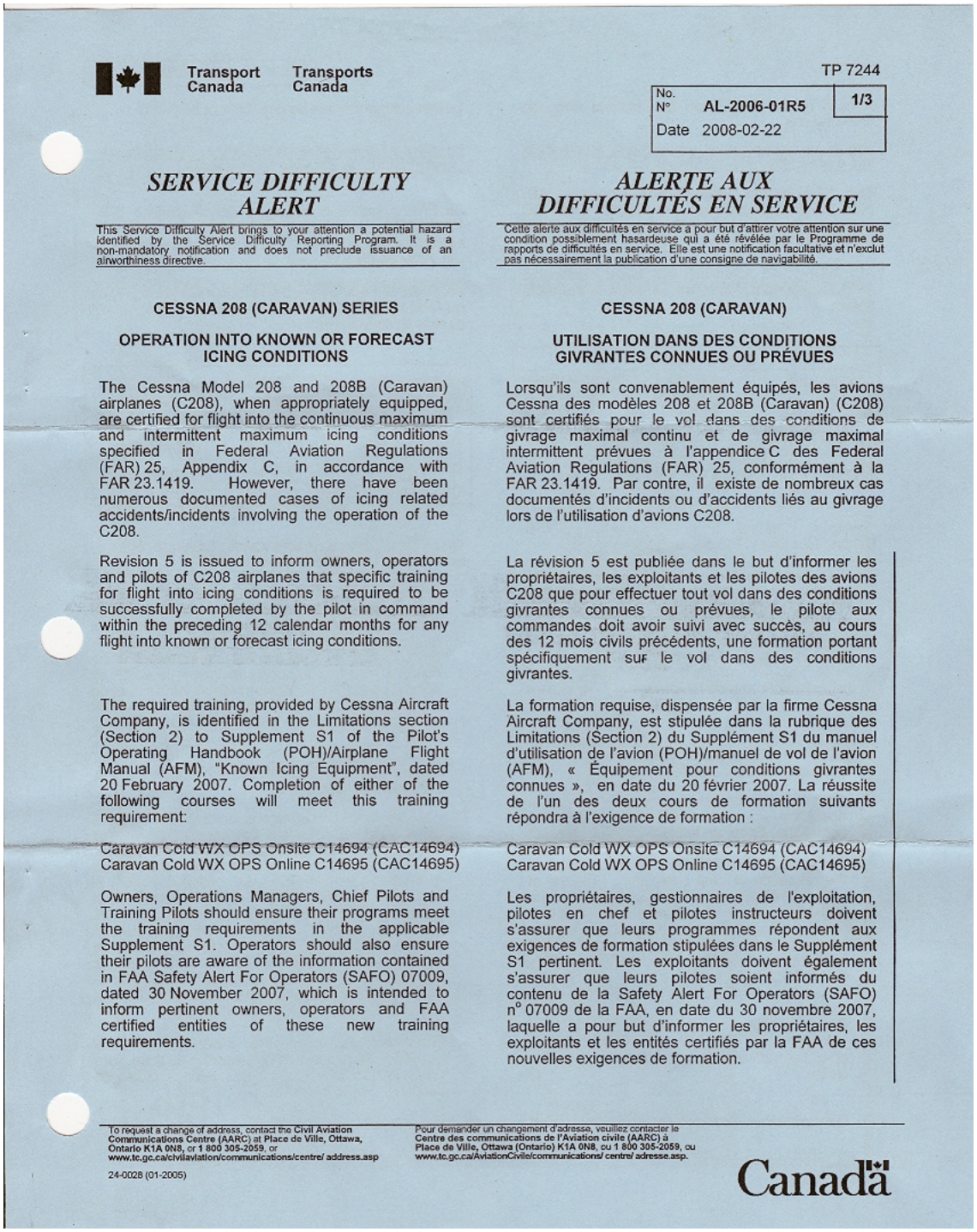


(For more information, contact Aerospace Engineer Gary Parks, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas, 67209-1985. Phone 316-946-4123.)

Part Total Time: (n/a).

Cessna: 208 Series; Flight Ops. Into Icing Conditions; ATA (n/a)

(The following advisory from Transport Canada is reprinted here for enhanced dissemination.)



Transport Canada Transports Canada

TP 7244

No. N° AL-2006-01R5 1/3

Date 2008-02-22

SERVICE DIFFICULTY ALERT

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

CESSNA 208 (CARAVAN) SERIES

OPERATION INTO KNOWN OR FORECAST ICING CONDITIONS

The Cessna Model 208 and 208B (Caravan) airplanes (C208), when appropriately equipped, are certified for flight into the continuous maximum and intermittent maximum icing conditions specified in Federal Aviation Regulations (FAR) 25, Appendix C, in accordance with FAR 23.1419. However, there have been numerous documented cases of icing related accidents/incidents involving the operation of the C208.

Revision 5 is issued to inform owners, operators and pilots of C208 airplanes that specific training for flight into icing conditions is required to be successfully completed by the pilot in command within the preceding 12 calendar months for any flight into known or forecast icing conditions.

The required training, provided by Cessna Aircraft Company, is identified in the Limitations section (Section 2) to Supplement S1 of the Pilot's Operating Handbook (POH)/Airplane Flight Manual (AFM), "Known Icing Equipment", dated 20 February 2007. Completion of either of the following courses will meet this training requirement:

Caravan Cold WX OPS Onsite C14694 (CAC14694)
Caravan Cold WX OPS Online C14695 (CAC14695)

Owners, Operations Managers, Chief Pilots and Training Pilots should ensure their programs meet the training requirements in the applicable Supplement S1. Operators should also ensure their pilots are aware of the information contained in FAA Safety Alert For Operators (SAFO) 07009, dated 30 November 2007, which is intended to inform pertinent owners, operators and FAA certified entities of these new training requirements.

ALERTE AUX DIFFICULTÉS EN SERVICE

Cette alerte aux difficultés en service a pour but d'attirer votre attention sur une condition possiblement hasardeuse qui a été révélée par le Programme de rapports de difficultés en service. Elle est une notification facultative et n'exclut pas nécessairement la publication d'une consigne de navigabilité.

CESSNA 208 (CARAVAN)

UTILISATION DANS DES CONDITIONS GIVRANTES CONNUES OU PRÉVUES

Lorsqu'ils sont convenablement équipés, les avions Cessna des modèles 208 et 208B (Caravan) (C208) sont certifiés pour le vol dans des conditions de givrage maximal continu et de givrage maximal intermittent prévues à l'appendice C des Federal Aviation Regulations (FAR) 25, conformément à la FAR 23.1419. Par contre, il existe de nombreux cas documentés d'incidents ou d'accidents liés au givrage lors de l'utilisation d'avions C208.

La révision 5 est publiée dans le but d'informer les propriétaires, les exploitants et les pilotes des avions C208 que pour effectuer tout vol dans des conditions givrantes connues ou prévues, le pilote aux commandes doit avoir suivi avec succès, au cours des 12 mois civils précédents, une formation portant spécifiquement sur le vol dans des conditions givrantes.

La formation requise, dispensée par la firme Cessna Aircraft Company, est stipulée dans la rubrique des Limitations (Section 2) du Supplément S1 du manuel d'utilisation de l'avion (POH)/manuel de vol de l'avion (AFM), « Équipement pour conditions givrantes connues », en date du 20 février 2007. La réussite de l'un des deux cours de formation suivants répondra à l'exigence de formation :

Caravan Cold WX OPS Onsite C14694 (CAC14694)
Caravan Cold WX OPS Online C14695 (CAC14695)

Les propriétaires, gestionnaires de l'exploitation, pilotes en chef et pilotes instructeurs doivent s'assurer que leurs programmes répondent aux exigences de formation stipulées dans le Supplément S1 pertinent. Les exploitants doivent également s'assurer que leurs pilotes soient informés du contenu de la Safety Alert For Operators (SAFO) n° 07009 de la FAA, en date du 30 novembre 2007, laquelle a pour but d'informer les propriétaires, les exploitants et les entités certifiés par la FAA de ces nouvelles exigences de formation.

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

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

24-0028 (01-2005)

Canada

No. N°	AL-2006-01R5	2/3

A copy of the SAFO can be obtained from the following link:

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo/all_safos/

The FAA issued Airworthiness Directive (AD) 2007-10-15, amendment 39-15056. This AD became effective 21 June 2007, and superseded AD 2006-06-06.

AD 2007-10-15 identifies the latest Applicable AFM Supplement document as listed in the table below:

Supplement S1		
Document	Aircraft	Revision Date
D1307-S1-09	208 ~ 600 SHP	20 February 2007
D1352-S1-10	208 ~ 675 SHP	20 February 2007
D1309-S1-10	208B ~ 600 SHP	20 February 2007
D1329-S1-10	208B ~ 675 SHP	20 February 2007

Transport Canada further recommends that Cessna Caravan C208 operators:

1) Develop Standard Operating Procedures (SOPs) for the C208 in conjunction with the C208 AFM, Supplements, and all ADs issued to date, and to ensure that flight crews understand the complexity of operating the C208 in icing conditions in accordance with the AFM, Supplements and ADs. The following link will aid in the development of Single Crew SOP:

   http://www.tc.gc.ca/CivilAviation/commerce/manuals/singlecrewSOP/menu.htm

2) Exercise caution when dispatching into, or operating in forecast or known icing conditions along an intended route. Use all available resources (weather forecast, Air Traffic Services, PIREPS, etc.) to ascertain the presence of icing conditions. Reports of icing conditions should be considered to be prohibitive where those conditions meet or exceed the definition of moderate or greater icing conditions for the Cessna Caravan C208 airplanes as defined in applicable ADs, AFMs and AMOCs.

3) Consider delaying departure when icing conditions will be encountered immediately after take-off and for a prolonged period in cruise.

4) Develop and review exit strategies to be used

Le lien suivant permet de consulter cette SAFO :

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo/all_safos/

La FAA a publié la consigne de navigabilité (CN) 2007-10-15, modification 39-15056, laquelle est entrée en vigueur le 21 juin 2007 et a remplacé la CN 2006-06-06.

LA CN 2007-10-15 précise le document Supplément au AFM pertinent le plus récent, comme on peut le voir dans le tableau suivant :

Supplément S1		
Document	Aéronef	Date de révision
D1307-S1-09	208 ~ 600 SHP	20 février 2007
D1352-S1-10	208 ~ 675 SHP	20 février 2007
D1309-S1-10	208B ~ 600 SHP	20 février 2007
D1329-S1-10	208B ~ 675 SHP	20 février 2007

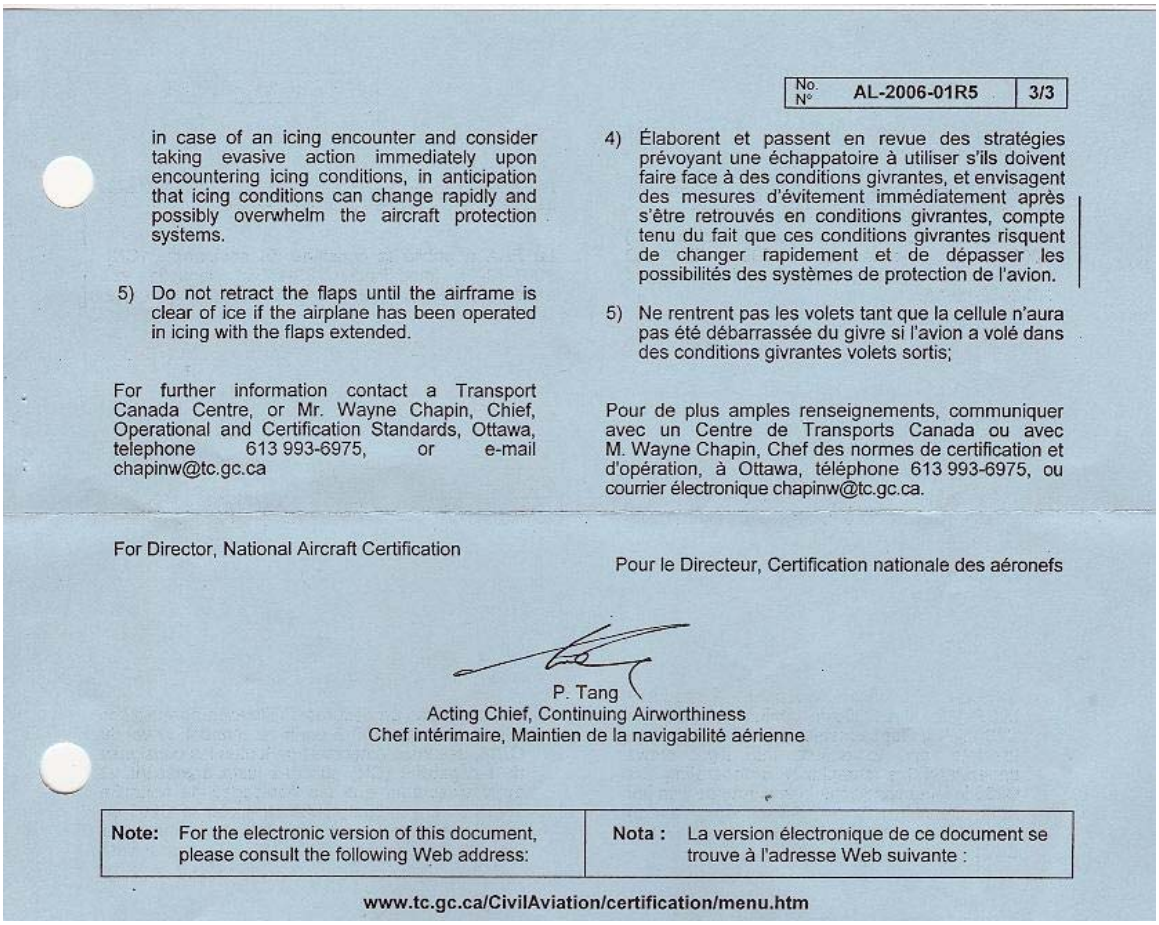
Transports Canada recommande en outre que les exploitants de Cessna Caravan C208 :

1) Élaborent des procédures d'utilisation normalisées (SOP) pour le C208 à partir du manuel de vol du C208, des suppléments et de toutes les consignes de navigabilité (CN) publiées jusqu'à présent, et qu'ils s'assurent que les équipages de conduite comprennent la complexité de piloter le C208 en conditions givrantes, conformément au manuel de vol, aux suppléments et aux CN. Le lien suivant aidera à l'élaboration d'une SOP pour un seul pilote:

   http://www.tc.gc.ca/aviationcivile/commerce/manuels/monopilote/menu.htm

2) Fassent preuve de prudence lorsqu'on fait partir un avion ou qu'on vole dans des conditions givrantes connues ou prévues le long d'une route prévue. Utiliser toutes les ressources accessibles (prévisions météorologiques, services de la circulation aérienne, PIREP, etc.) pour confirmer la présence de conditions givrantes. Les rapports de conditions givrantes doivent être considérés comme interdisant tout vol si les conditions sont égales ou supérieures à la définition de conditions givrantes modérées ou supérieures pour les avions Cessna Caravan C208, comme l'indiquent les CN, les manuels de vol et les AMOC pertinents;

3) Envisagent de retarder le départ lorsque des conditions givrantes seront présentes tout de suite après le décollage et pour une période prolongée pendant le vol en croisière.



No. N° AL-2006-01R5 | 3/3

in case of an icing encounter and consider taking evasive action immediately upon encountering icing conditions, in anticipation that icing conditions can change rapidly and possibly overwhelm the aircraft protection systems.

5) Do not retract the flaps until the airframe is clear of ice if the airplane has been operated in icing with the flaps extended.

For further information contact a Transport Canada Centre, or Mr. Wayne Chapin, Chief, Operational and Certification Standards, Ottawa, telephone 613 993-6975, or e-mail chapinw@tc.gc.ca

4) Élaborent et passent en revue des stratégies prévoyant une échappatoire à utiliser s'ils doivent faire face à des conditions givrantes, et envisagent des mesures d'évitement immédiatement après s'être retrouvés en conditions givrantes, compte tenu du fait que ces conditions givrantes risquent de changer rapidement et de dépasser les possibilités des systèmes de protection de l'avion.

5) Ne rentrent pas les volets tant que la cellule n'aura pas été débarrassée du givre si l'avion a volé dans des conditions givrantes volets sortis;

Pour de plus amples renseignements, communiquer avec un Centre de Transports Canada ou avec M. Wayne Chapin, Chef des normes de certification et d'opération, à Ottawa, téléphone 613 993-6975, ou courrier électronique chapinw@tc.gc.ca.

For Director, National Aircraft Certification

Pour le Directeur, Certification nationale des aéronefs

P. Tang
Acting Chief, Continuing Airworthiness
Chef intérimaire, Maintien de la navigabilité aérienne

Note: For the electronic version of this document, please consult the following Web address:

Nota : La version électronique de ce document se trouve à l'adresse Web suivante :

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

Part Total Time: (n/a).

DIAMOND

Diamond: DA20-C1: Fuel Pump Contamination; ATA 7314

(The following advisory from Transport Canada is reprinted here as received for enhanced dissemination. Readers should note the relevant IO-240 engine defect report in this issue of the Alerts.)

Transport Canada Transports Canada

TP 7394

No. AV-2008-02 1/2
Date 2008-02-22

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.

DIAMOND DA20-C1

IO-240 FUEL SYSTEM CONTAMINATION

There have been a number of rough running/unstable engine events and engine shutdowns occurring on Diamond Aircraft (DA) model DA20-C1 powered by the Teledyne Continental Motors (TCM) IO-240-B series engine.

Uncommanded engine shutdowns have occurred during various phases of training flights (stalls, spins and sideslips). Engine idle instability and sputtering at low power have also occurred during the critical approach phase and after landing. Engine fuel related problems have occurred both on the IO-240-B13/B17 equipped with the altitude (aneroid) compensating fuel system and the IO-240-B3 engine with the manual leaning fuel pump.

Subsequent to these events, TCM and DA have conducted a detailed examination and analysis of the fuel system components (engine mechanical fuel pump, throttle valve/fuel metering unit, fuel manifold flow divider and injector nozzles). Mild to severe foreign contaminants were discovered in some of the failed components. As in all fuel injected TCM engines; if the fuel flow is interrupted or sufficiently reduced by contaminants the engine will run lean and may even shutdown.

Some fuel system components have very small passages and tolerances; therefore any time that a fuel system is "opened" for maintenance action, there is a significant opportunity for contamination to be introduced. Maintenance personnel should take every precaution to minimize this hazard especially during "fuel set-up" procedures or fuel system component changes. It is also possible that contaminants are being introduced to fuel system components during "flushing" procedures or any time that fuel system maintenance is performed.

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.

DIAMOND DA20-C1

CONTAMINATION DU CIRCUIT CARBURANT IO-240

Un certain nombre d'avions Diamond (DA) de modèle DA20-C1 propulsés par des moteurs Teledyne Continental (TCM) de la série IO-240-B ont connu des problèmes de fonctionnement irrégulier ou instable du moteur et même des arrêts du moteur.

Des arrêts du moteur non commandés se sont produits pendants diverses phases de vols d'entraînement (décrochages, vrilles et glissades). Il y également eu des cas d'instabilité et de ratés du moteur au ralenti et à faible puissance pendant une phase d'approche critique et après l'atterrissage. Des problèmes reliés au circuit carburant du moteur se sont produits tant sur le moteur IO-240-B13/B17 équipé d'un circuit carburant à correction altimétrique (anéroïde) que sur le moteur IO-240-B3 à pompe à carburant à dispositif d'appauvrissement manuel.

À la suite de ces événements, TCM et DA ont effectué un examen et une analyse approfondis des composants du circuit carburant (pompe à carburant moteur mécanique, papillon/doseur de carburant, vanne de répartition de tubulure d'alimentation en carburant et injecteurs). On a découvert de la contamination de moyenne à grave dans certains des composants défectueux. Comme pour tous les moteurs TCM à injection, si le débit du carburant est interrompu ou considérablement réduit par des contaminants, le moteur fonctionnera avec un mélange air/carburant trop pauvre et il peut même s'arrêter.

Les orifices de certains composants du circuit carburant sont très petits et leurs tolérances sont très faibles; par conséquent, à chaque fois que l'on «ouvre» un circuit carburant pour fins d'entretien, le risque d'y introduire des contaminants est élevé. Le personnel de maintenance doit prendre toutes les précautions nécessaires pour réduire au minimum le risque de contamination, surtout pendant les procédures de réglage complet du circuit carburant ou pendant le remplacement de composants. Il est également possible d'introduire des contaminants pendant les procédures de «rinçage» des composants du circuit carburant ou pendant toute autre procédure de maintenance du circuit.

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

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

24-0028 (01-2005)

Canada

No. N°	AV-2008-02	2/2

In an effort to minimize fuel system/engine instability, TCM have very recently issued Service Bulletin SB07-9 titled "IO240B Inline Fuel Filter Reorientation". In conjunction with SB07-9, TCM have also issued Service Information Directive SID07-10 titled "IO240B Fuel System Component Installation" to further minimize the possibility of fuel system contamination.

In order to address in-flight shutdowns and/or engine instability on aircraft equipped with the altitude compensating fuel system, Diamond Aircraft Company has recently issued Mandatory Service Bulletin (MSB) DAC1-73-05 Rev 1; titled "Operating Limitations with Altitude Compensating Fuel Systems" dated December 14, 2007. Furthermore, Transport Canada Civil Aviation (TCCA) has issued AD CF-2007-27R1 mandating the above MSB and also specified changes now listed in Revision 23 of the DA20-C1 Aircraft Flight Manual.

TCCA recommends that owners, operators, maintainers and other responsible persons comply with all maintenance related information provided by the respective Type Certificate Holders. Additionally, it is recommended that all owners, operators and maintenance facilities ensure that their work environment is kept to the highest level of cleanliness. Good housekeeping practices need to be an inherent part of the workplace culture. Even tiny airborne particles can contaminate an open fuel system or fuel system components.

Malfunctions, defects and failures occurring on aeronautical products should be reported to TCCA, Continuing Airworthiness via the Service Difficulty Reporting (SDR) Program. Should you have any questions, please do not hesitate to contact Mr. Barry Caldwell at telephone 613-952-4358 or caldweb@tc.gc.ca

For Director, National Aircraft Certification

Dans le but de réduire au minimum les cas d'instabilité du circuit carburant/moteur, TCM a très récemment publié le bulletin de service SB07-9 intitulé «Réorientation du filtre carburant en ligne du moteur IO240B». De concert avec le bulletin de service SB07-9, TCM a également publié la consigne d'information d'entretien SID07-10 intitulée «Installation de composants du circuit carburant du moteur IO240B» afin de réduire encore plus le risque de contamination du circuit carburant.

Afin de régler le problème des arrêts en vol et/ou de l'instabilité du moteur des avions équipés d'un circuit carburant à correction altimétrique, Diamond Aircraft Company a récemment publié le bulletin de service obligatoire (MSB) DAC1-73-05, Rév. 1; intitulé «Limites d'exploitation avec les circuits carburant à correction altimétrique», en date du 14 décembre 2007. De plus, Transports Canada, Aviation civile (TCAC) a publié la CN CF-2007-27R1 qui rend obligatoire le MSB susmentionné et qui stipule également les modifications maintenant mentionnées dans la Révision 23 du manuel de vol de DA20-C1.

TCAC recommande que les propriétaires, les exploitants, les spécialistes de la maintenances et autres personnes responsables se conforment à tous les renseignements reliés à la maintenance fournis par les titulaires de certificat de type respectifs. TCAC recommande également que les propriétaires, les exploitants et les installations de maintenance veillent à ce que leur environnement de travail respecte les normes de propreté les plus strictes. La culture du milieu de travail doit comprendre le maintien de la propreté des lieux. Toute poussière en suspension dans l'air peut contaminer un circuit carburant ouvert ou ses composants.

Les défectuosités, les défauts et les défaillances affligeant les produits aéronautiques doivent être signalés à TCAC, Maintien de la navigabilité aérienne, par l'intermédiaire du programme de rapports de difficultés en service (RDS). Pour de plus amples renseignements, veuillez contacter M. Barry Caldwell par téléphone au 613-952-4358 ou courriel électronique caldweb@tc.gc.ca

Pour le Directeur, Certification nationale des aéronefs

Philip Tang
Acting Chief, Continuing Airworthiness
Chef intérimaire, Maintien de la navigabilité aérienne

Note: For the electronic version of this document, please consult the following Web address:	**Nota :** La version électronique de ce document se trouve à l'adresse Web suivante :

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

(The FAA Service Difficulty Reporting System data base reveals 14 related defect reports under "Diamond"—as DIAMON—and the 7314 fuel pump JASC code. Clip this number to "73" for the general code heading of "Engine Fuel and Control" and the data base kicks out 29 very similar reports, beginning December of 1995.)

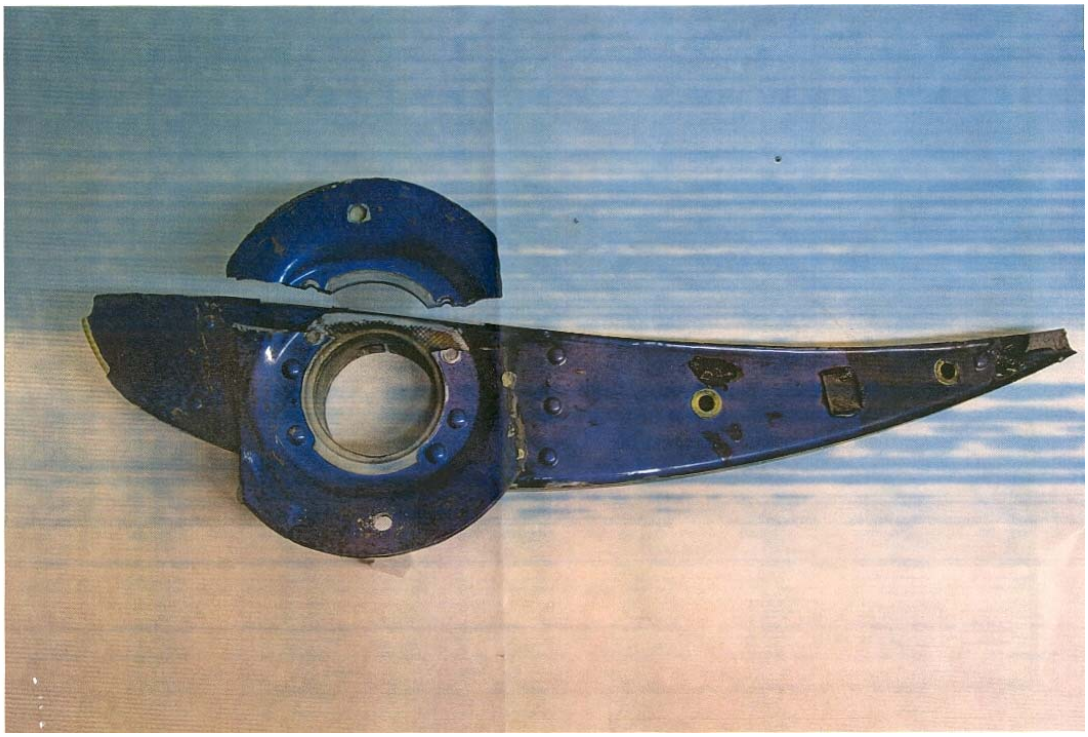
Part Total Time: (n/a).

HELICOPTERS

BELL

Bell: 206B; Cracked Horizontal Stabilizer Rib; ATA 5511

"During the course of a scheduled inspection," writes a mechanic, "the R/H horizontal stabilizer was removed to troubleshoot a problem with an auxiliary strobe light that is attached to the stabilizer. During removal, the flange on the inboard rib that attaches the stabilizer to the tail boom was found cracked and separated into two pieces. Due to the location of the crack *(this defect)* was not visible with the stabilizer installed." *(Rib and fitting assembly P/N 206-020-123-048)*



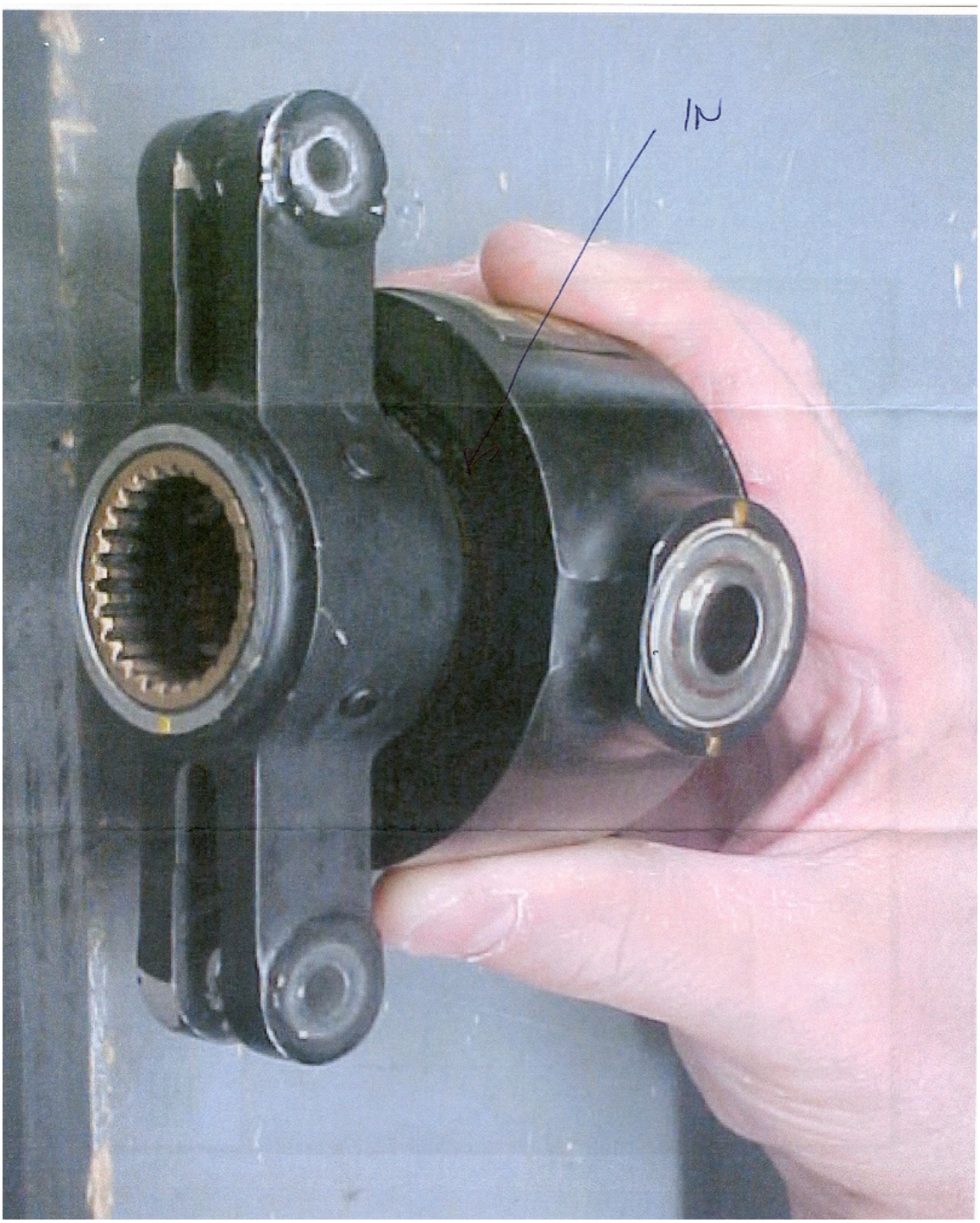
Part Total Time: 2,705.3 hours.

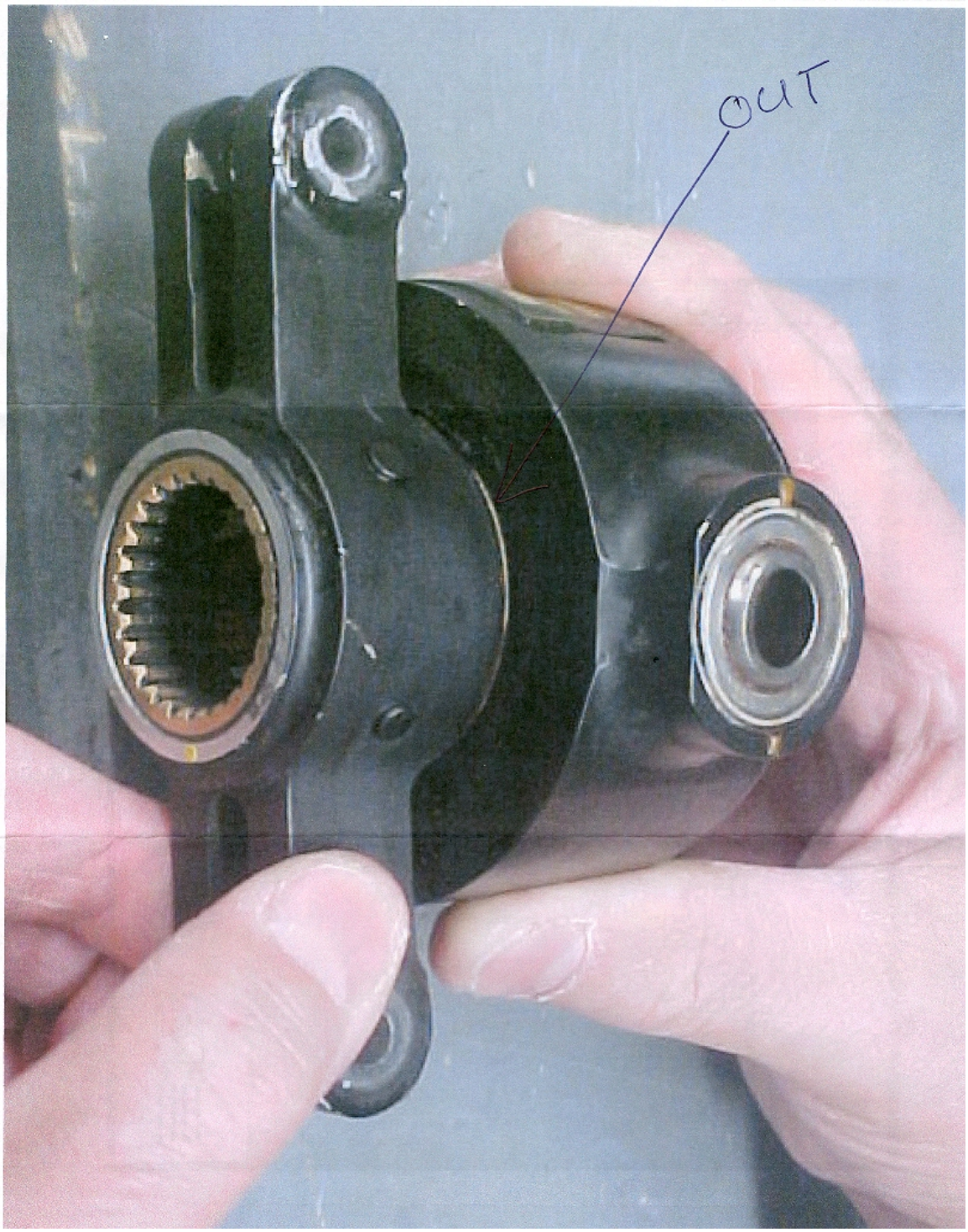
MD

MD: 369D; Dry—Pitch Control Bearing; ATA 6720

A repair station technician states, “During a 100 hour inspection, ‘play’ was noticed between the rotating and non-rotating swash-plates of the tail rotor pitch control *(P/N 369D21800-501)*. After removal it was noted the bearing was dry and rough—records indicate *(this unit was lubricated)* in December of 2006.

(The FAA Service Difficulty Reporting System data base reveals this part number/defect ten times since 1995.)





(Wow! Very careful pictures. I almost missed it—even with the big arrows. Thanks—Ed.)

Part Total Time: 1,131.0 hours (time since overhaul).

POWERPLANTS

CONTINENTAL

Continental: O-200A; "Uncontained" Rocker Shafts; ATA 8530

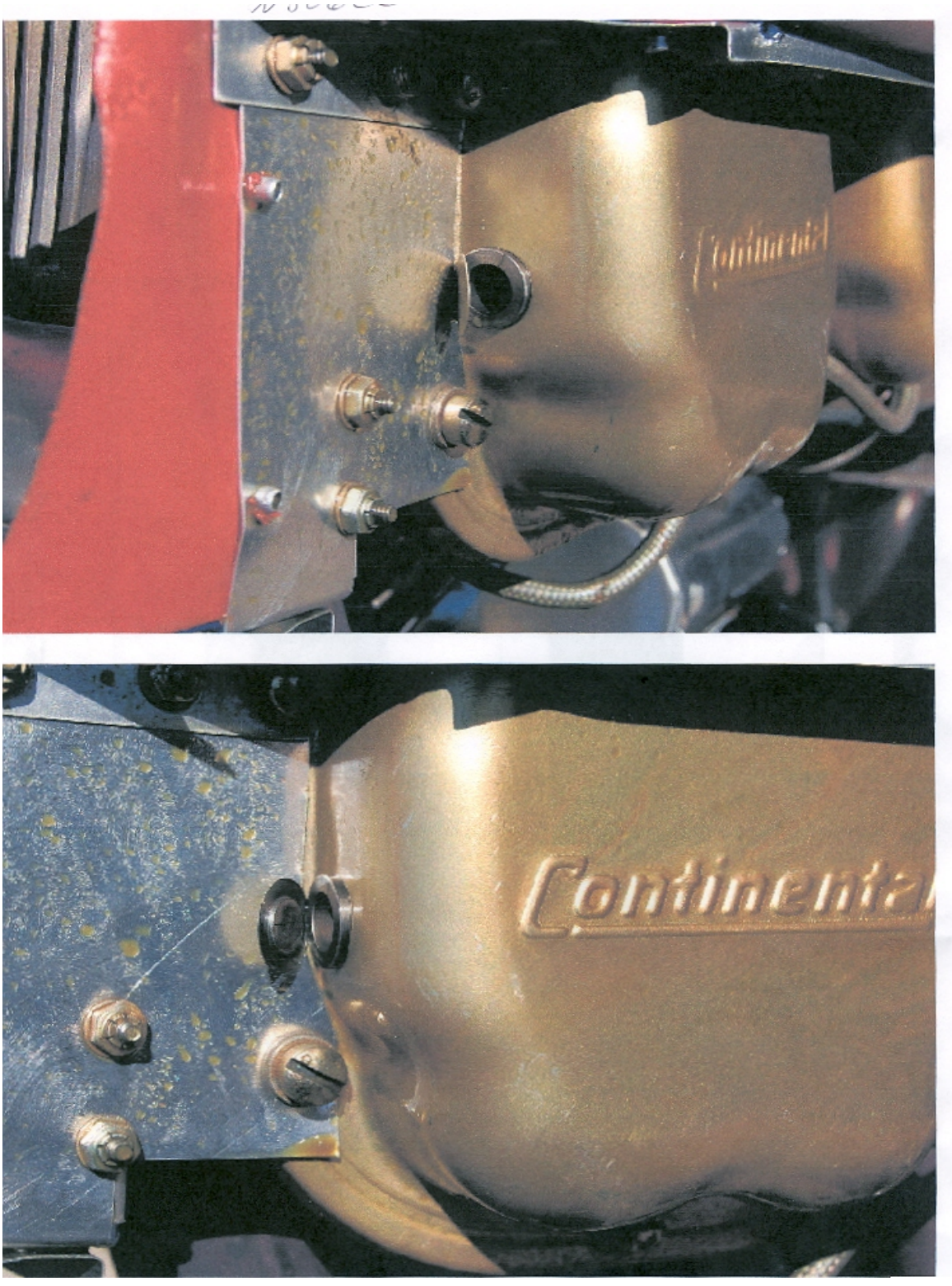
(The following defect report combines two submissions from the same source concerning the same problem found on two different O200 engines and their Cub Crafters/Piper aircraft. Permission has been extended for contact information, found at the end of this discussion.)

(First Engine)

A mechanic/operator of *Smokey Mountain Aviation* writes in this first of two reports, "An owner found oil dripping from the cowl of the aircraft. On inspection *(I found)* the rocker shaft on cylinder number four had cut a hole through the rocker cover. (Note: the new O-200A engines have a 'flat' cut into the rocker shaft and a set screw in the center boss to retain the shaft. This shaft is sharp on its ends (unlike the old style) and has a cut mark across the end of the shaft—used in aligning the 'flat' for the set screw. This engine was removed and sent to TCM for warranty repair. It was then reinstalled on the aircraft. TCM told the owner they are working on a revised cylinder due to this problem. At some later date TCM will send us four new modified cylinders to install on this engine.

"Problem: the set screw is *(P/N)* MS51963-64: it uses no 'Locktite' or mechanical type lock. *(Additionally,)* the flat in the rocker shaft is not deep enough to provide adequate locking." *(An attached letter from this submitter provides additional descriptions. He continues here, in part:)* "As you can see in the pictures provided with this report, the rocker shaft on cylinder number four has a hole cut in the rocker cover. TCM told us not to open the covers as they wanted to be able to see exactly the problem *(and its cause).* After working on the *(other aircraft...see next)* there is no doubt the Allen screws backed out, allowing the shaft to float free. The sharp edge of the shaft cut through the cover."

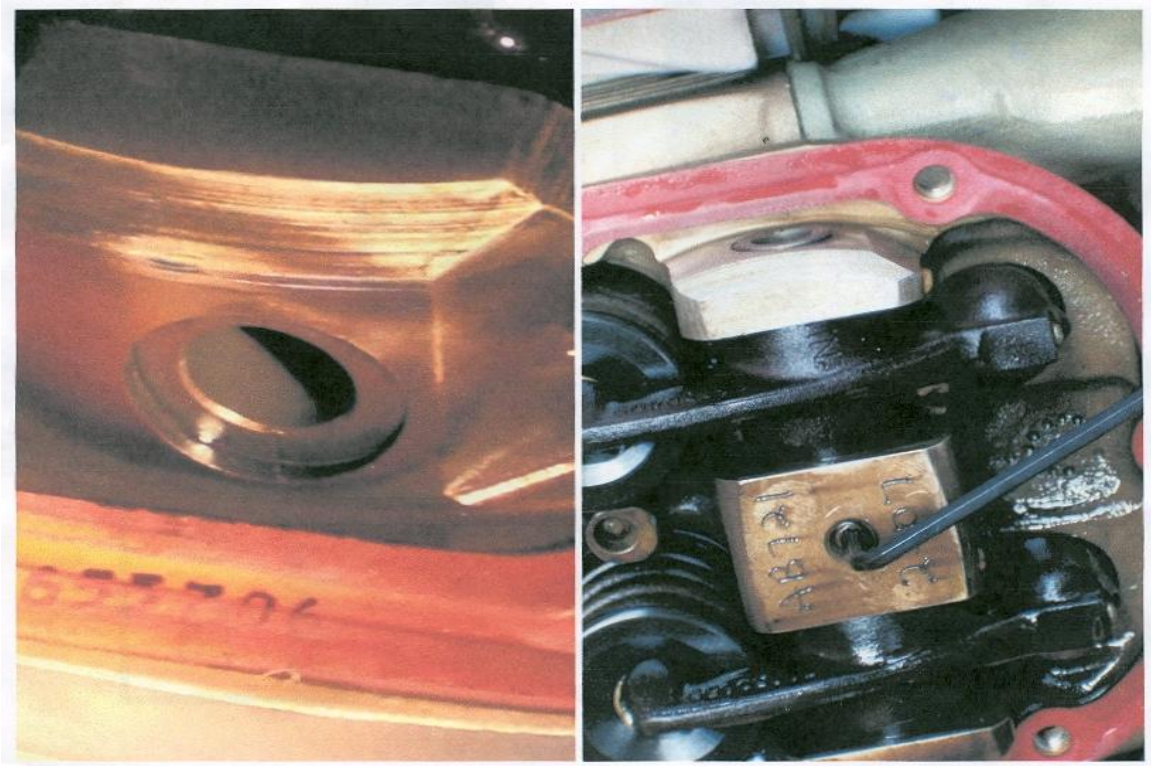
"Recommendation: The shaft should have the flat cut deeper, and the boss should have a small pilot hole drilled into it to accept a mechanical lock tab with a bolt installed (instead of the set screw). *(Another proposed solution would be...)* to remove the *(new style)* shaft (P/N 654375) and set screw (P/N MS51963-64) and discard *(both).* Install the old style shaft (P/N 21153) that has worked with no problems for sixty years." *(Part time on this particular engine: 66.2 hours.)*

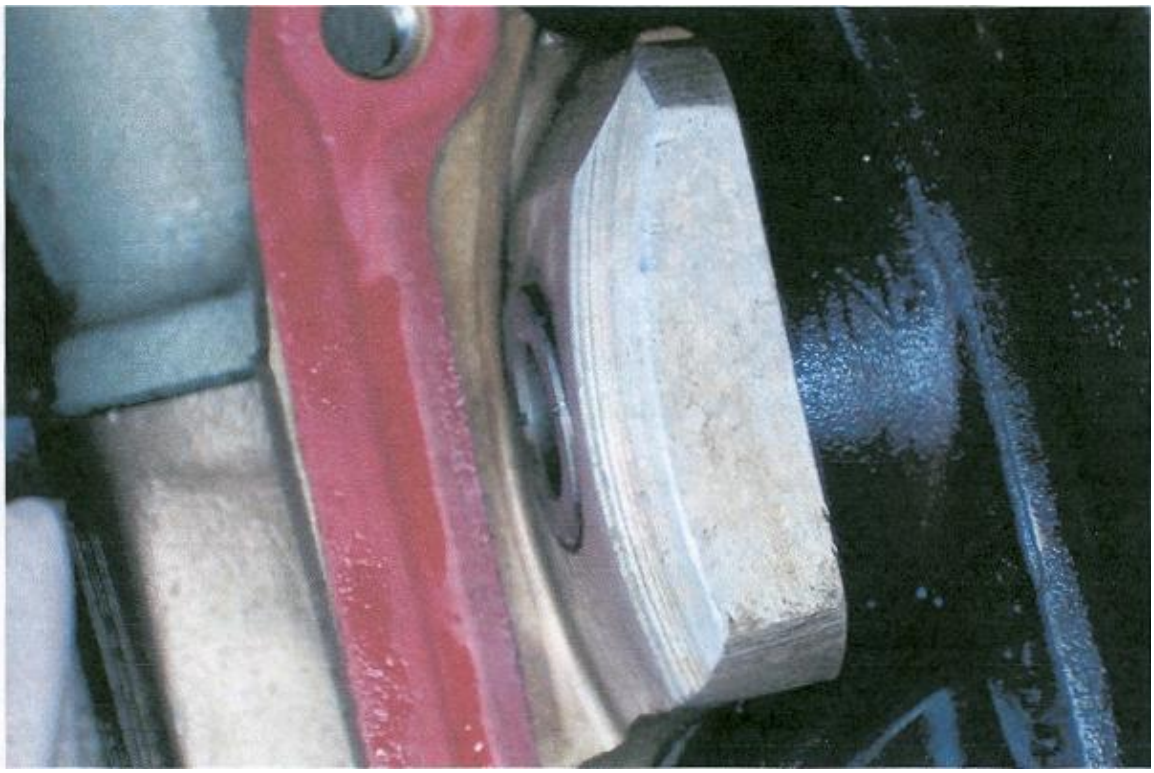

Continental

(Second Engine 3 months later)

“As per the owner’s request I removed all four rocker covers to inspect the rocker shaft and set screws. I found all four set screws loose, and all four shafts moved towards the intake side of the bosses. None have cut the rocker covers yet *(but I estimate this would have happened with another 20 hours of operation.)*"

“As you can see in the pictures provided with this report, the screw shown with the Allen wrench was found loose. This allowed the shaft to move towards the intake side of the cylinder. You can see clearly...the shaft is not centered in the bosses.” *(Part total time on this second engine: 38.08 hours.)*





(Lots of "thanks" to our submitter for his photo and reporting efforts. Interested parties may contact Mr. Denton Brown of Smokey Mountain Aviation, 1235 Airport Road, Sevierville, TN 37862. Phone 865-774-6724. Website: smokeymountainaviation@msn.com*).*

Part Total Times: 66.20 and 38.08 (respectively).

Continental: IO-240-B17B; Jammed Fuel Pump Shaft; ATA 7314

(A mechanic describes this engine defect found on a Diamond DA-20 aircraft. Readers should note the relevant Diamond DA20 aircraft defect report in this issue of the Alerts.)

"The mixture control shaft on the engine driven fuel pump froze up at half-travel, between full rich and idle cut-off. This created a lean mixture which starved the engine for fuel. The mixture control was *(first)* disconnected from the fuel pump, then the fuel pump control shaft had to be freed up. The mixture cable was completely free (with no binding) once disconnected from the fuel pump. This fuel pump *(P/N 649368-49A1)* was replaced and sent back to the factory."

(The FAA Service Difficulty Reporting System data base reveals 4 entries for the fuel pump part number. Truncate the last four digits and the list expands to 16—including Cessna and Piper pumps/parts—all in the 7314 JASC code.)

Part Total Time: 380.4 hours.

P&W

P&W: PT6A; Starter/Generator Discharge Damage; ATA 2435

(The following advisory from Transport Canada is reprinted here for enhanced dissemination. The FAA Service Difficulty Reporting System data base finds 73 defect reports since 1993 for this manufacturer and JASC/ATA code.)

Transport Canada Transports Canada

TP 7394

No. AV-2007-05 1/2

Date 2007-10-29

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.

All PT6A ENGINES (#1 BEARING)

ELECTRICAL DISCHARGE DAMAGE (EDD)

Electrical discharge damage (EDD) occurs when high electrical current inadvertently passes through the engine accessory gear train creating spark (arcing) damage to the gears, bearing(s) and bearing elements. EDD can lead to in-flight shutdowns, a reduced margin of safety and replacement of expensive components.

In the PT6A engine, EDD occurrences have caused failure of the No.1 bearing. Electrical current travels from the defective starter generator (SG) spline shaft, thru the engine accessory drive train to the engine No.1 bearing. This current may cause bearing damage such as pitting, grooves or craters. The extent of bearing damage and therefore the time before failure, is dependant on various factors such as the electrical current, exposure time, bearing load and rotational speed.

The most common and preventable cause of EDD, is from SG armature leakage occurring as a result of an accumulation of brush dust. This dust can provide an electrical discharge path between the commutator and the shaft. Secondly, a breakdown of the SG commutator insulation and/or the lamination slots can cause an electrical short. Periodic field cleaning and resistance checks may provide an indication of armature insulation breakdown. Close visual inspection of the starter Generator spline shaft for arc damage anytime the SG is removed is an excellent indicator of possible EDD.

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.

TOUS LES MOTEURS PT6A (ROULEMENT N° 1)

DOMMAGES DUS À UNE DÉCHARGE ÉLECTRIQUE

Des dommages dus à une décharge électrique se produisent lorsqu'un courant électrique élevé traverse de façon intempestive le train d'engrenages des accessoires du moteur, les étincelles (amorces d'arc) provoquant des dommages aux engrenages, aux roulements et aux éléments des roulements. De tels dommages peuvent mener à des arrêts moteur en vol, à une réduction de la marge de sécurité ou au remplacement de composants coûteux.

Dans le moteur PT6A, des cas de dommages dus à une décharge électrique ont causé la défaillance du roulement n° 1. Un courant électrique provenant de l'arbre cannelé de la génératrice de démarrage défectueuse traverse le train d'engrenages des accessoires du moteur et atteint le roulement n° 1 du moteur. Ce courant pourrait provoqué des dommages comme des piqûres, des rainures ou des cratères. Le niveau des dommages subis par le roulement et, par conséquent, le temps restant avant la défaillance, sont fonction de divers facteurs comme le courant électrique, la durée d'exposition, la charge du roulement et la vitesse de rotation.

La cause la plus commune et la plus prévisible des dommages dus à une décharge électrique tient à une fuite de l'armature de la génératrice de démarrage qui se produit à la suite d'une accumulation de poudre des balais. Celle-ci peut créer une voie de passage à une décharge électrique entre le commutateur et l'arbre. Deuxièmement, un contournement de l'isolant du commutateur de la génératrice de démarrage et/ou des bandes stratifiées peut provoquer un court-circuit. Un nettoyage régulier ainsi que des vérifications de la résistance peuvent indiquer s'il y a contournement de l'isolant de l'armature. À chaque dépose de la génératrice de démarrage, une inspection visuelle détaillée de son arbre cannelé à la recherche de dommages causés par un arc électrique est un excellent indicateur d'éventuels dommages causés par une décharge électrique.

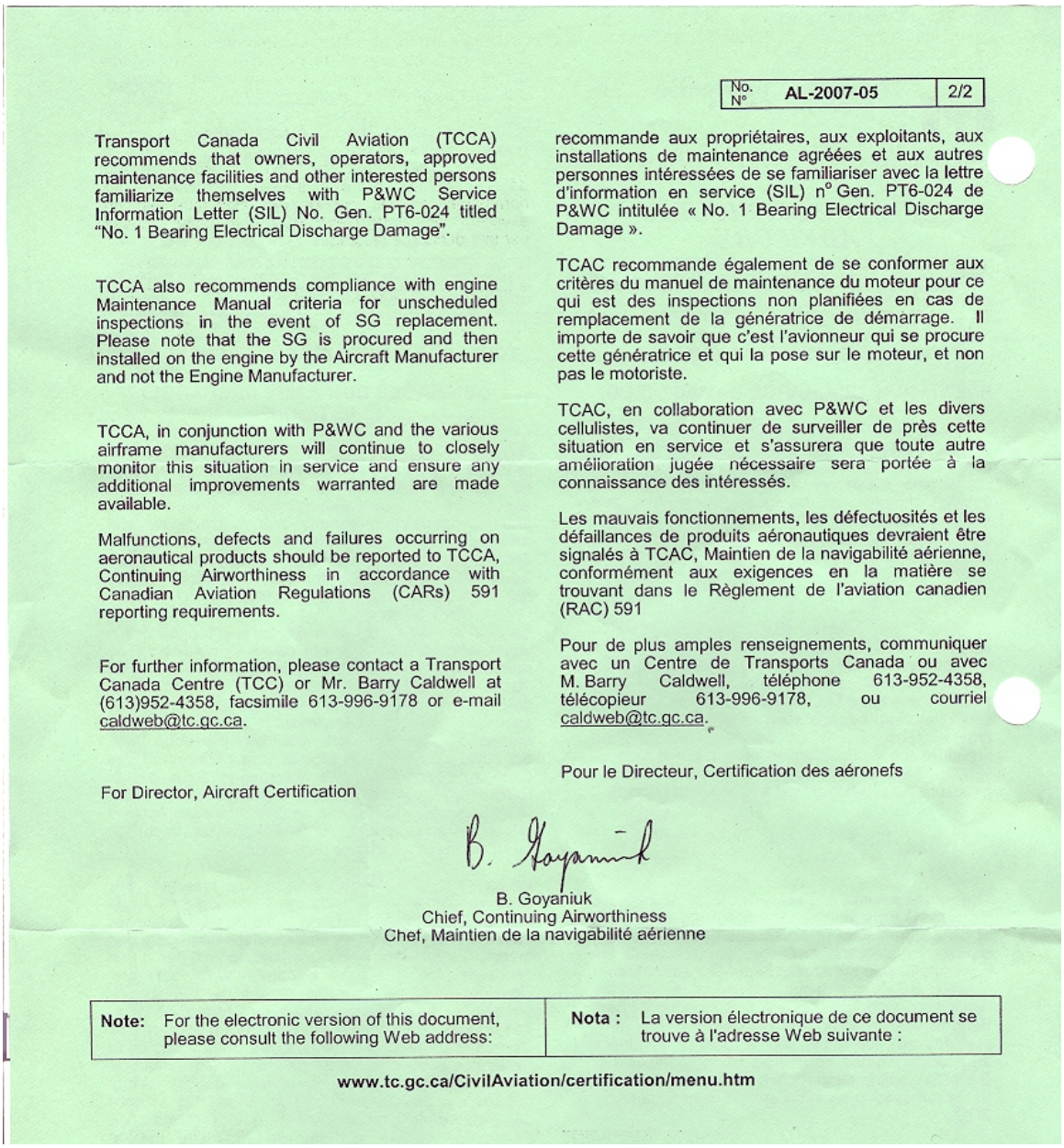
Transports Canada Aviation civile (TCAC)

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

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

24-0028 (01-2005)

Canada



No. N° AL-2007-05 2/2

Transport Canada Civil Aviation (TCCA) recommends that owners, operators, approved maintenance facilities and other interested persons familiarize themselves with P&WC Service Information Letter (SIL) No. Gen. PT6-024 titled "No. 1 Bearing Electrical Discharge Damage".

TCCA also recommends compliance with engine Maintenance Manual criteria for unscheduled inspections in the event of SG replacement. Please note that the SG is procured and then installed on the engine by the Aircraft Manufacturer and not the Engine Manufacturer.

TCCA, in conjunction with P&WC and the various airframe manufacturers will continue to closely monitor this situation in service and ensure any additional improvements warranted are made available.

Malfunctions, defects and failures occurring on aeronautical products should be reported to TCCA, Continuing Airworthiness in accordance with Canadian Aviation Regulations (CARs) 591 reporting requirements.

For further information, please contact a Transport Canada Centre (TCC) or Mr. Barry Caldwell at (613)952-4358, facsimile 613-996-9178 or e-mail caldweb@tc.gc.ca.

For Director, Aircraft Certification

recommande aux propriétaires, aux exploitants, aux installations de maintenance agréées et aux autres personnes intéressées de se familiariser avec la lettre d'information en service (SIL) n° Gen. PT6-024 de P&WC intitulée « No. 1 Bearing Electrical Discharge Damage ».

TCAC recommande également de se conformer aux critères du manuel de maintenance du moteur pour ce qui est des inspections non planifiées en cas de remplacement de la génératrice de démarrage. Il importe de savoir que c'est l'avionneur qui se procure cette génératrice et qui la pose sur le moteur, et non pas le motoriste.

TCAC, en collaboration avec P&WC et les divers cellulistes, va continuer de surveiller de près cette situation en service et s'assurera que toute autre amélioration jugée nécessaire sera portée à la connaissance des intéressés.

Les mauvais fonctionnements, les défectuosités et les défaillances de produits aéronautiques devraient être signalés à TCAC, Maintien de la navigabilité aérienne, conformément aux exigences en la matière se trouvant dans le Règlement de l'aviation canadien (RAC) 591

Pour de plus amples renseignements, communiquer avec un Centre de Transports Canada ou avec M. Barry Caldwell, téléphone 613-952-4358, télécopieur 613-996-9178, ou courriel caldweb@tc.gc.ca.

Pour le Directeur, Certification des aéronefs

B. Goyaniuk
Chief, Continuing Airworthiness
Chef, Maintien de la navigabilité aérienne

Note: For the electronic version of this document, please consult the following Web address:

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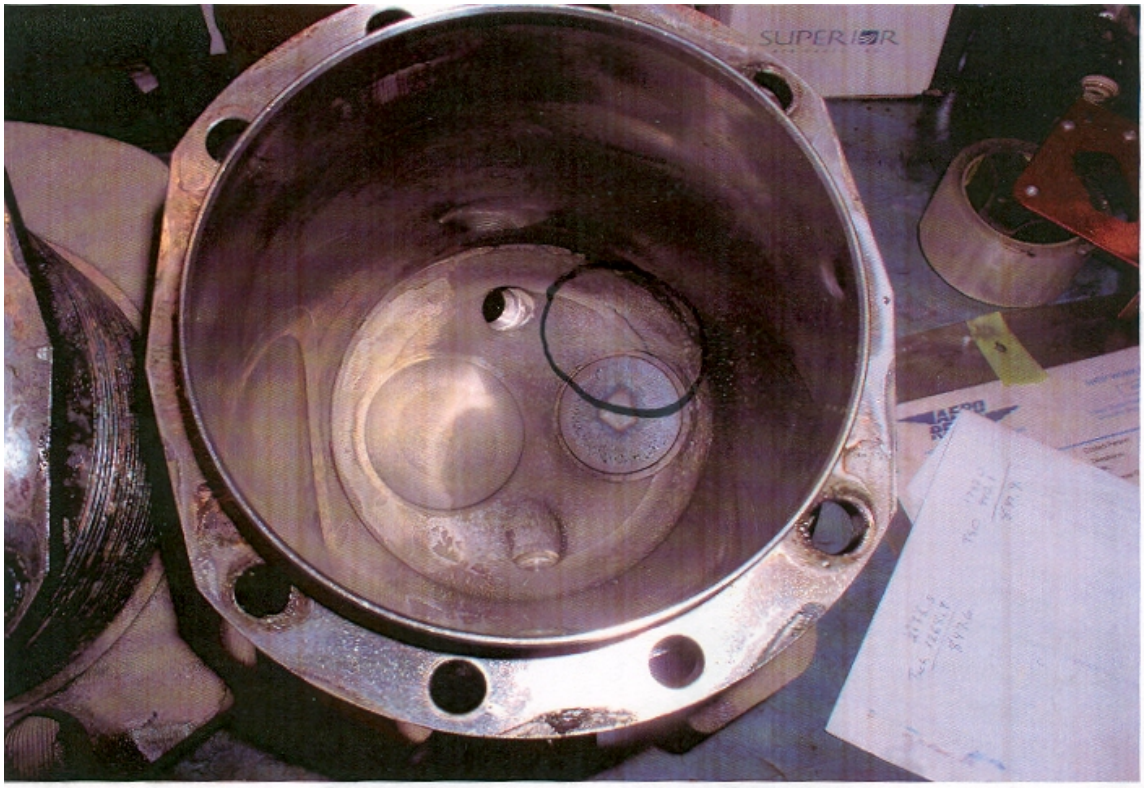
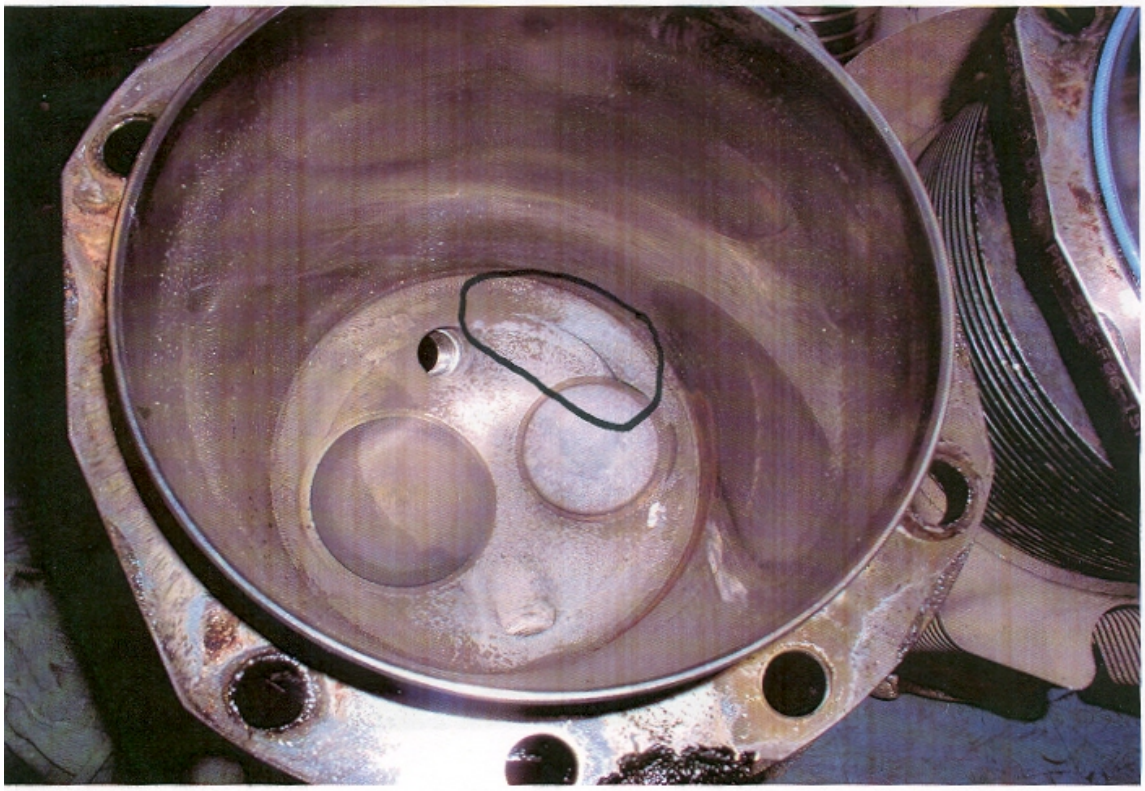
www.tc.gc.ca/CivilAviation/certification/menu.htm

SUPERIOR

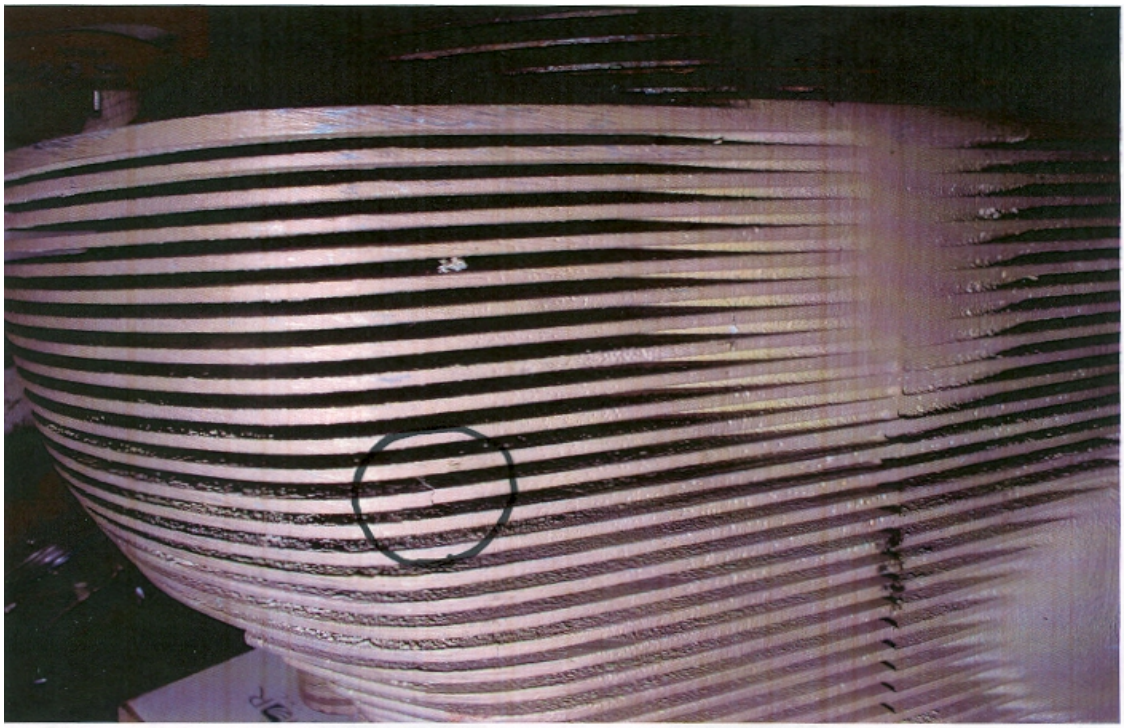
Superior: P/N SA52006-A20P; Cracked Cylinder; ATA 8530

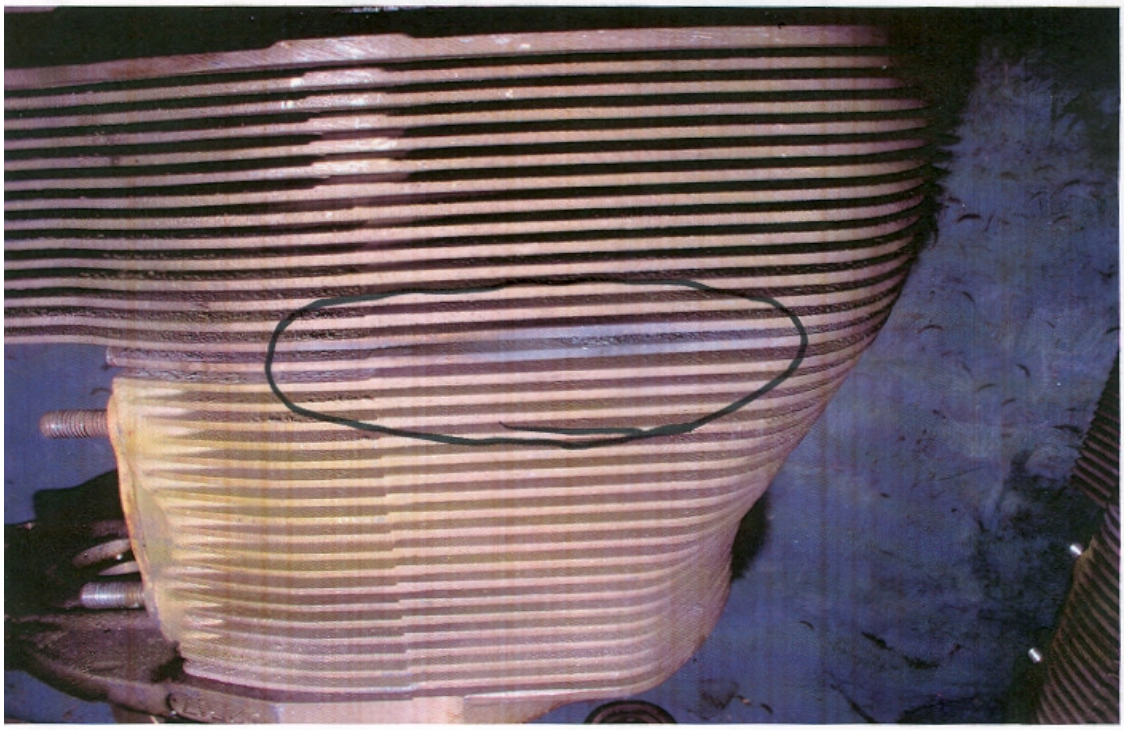
An unidentified submitter writes, "Both cylinders *(numbers 3 and 4)* have visible cracks originating at the exhaust valve seat." *(The engine is listed as a Continental IO-520-F hanging on a Cessna U206F.)*


SUPERIOR



(Note the tell-tales on the outside of the cylinder: next picture.)





(...and one more cylinder: see next report.)

Part Total Time: 847.9 hours.

Superior: P/N SA52006-A20P; Cracked Cylinder; ATA 8530

(The previous submitter again finds the same defect on the same type engine and airplane. As indicated, the cylinder manufacturer and part number are also the same. Part number SA52006-A20P finds four additional 8530 defect entries in the FAA Service Difficulty Reporting System data base since 2006. The seven digit base number provides 47 entries since 1998. How large would this number be if everyone reported their cracked cylinders?)

"The cylinder head has a crack beginning at the intake port and extending to the upper spark plug hole."

(The enclosed black and white photos were similar to the previous entry. Thanks for the pictures—very ...painful to see—Ed.)

Part Total Time: 1,790.9 hours.

AIR NOTES

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

The Federal Aviation Administration (FAA) Internet Service Difficulty Reporting (iSDR) web site is the front-end for the Service Difficulty Reporting System (SDRS) data base that is maintained by the Aviation Data Systems Branch, AFS-620, in Oklahoma City, Oklahoma. The iSDR web site supports the Flight Standards Service (AFS), Service Difficulty Program by providing the aviation community with a voluntary and electronic means to conveniently submit in-service reports of failures, malfunctions, or defects on aeronautical products. The objective of the Service Difficulty Program is to achieve prompt correction of conditions adversely affecting continued airworthiness of aeronautical products. To accomplish this, 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/isdr/.

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

The SDRS and iSDR web site point of contact is:

Pennie Thompson
Service Difficulty Reporting System, Program Manager
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125
Telephone: (405) 954-1150
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 data base. This is not an all-inclusive listing of Service Difficulty Reports. For more information, contact the FAA, Regulatory Support Division, Aviation Data Systems Branch, AFS-620, located in Oklahoma City, Oklahoma. The mailing address is:

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

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

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

Federal Aviation Administration

Service Difficulty Report Data

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

Control Number	Aircraft Make	Engine Make	Component Make	Part Name	Part Condition
Difficulty Date	Aircraft Model	Engine Model	Component Model	Part Number	Part Location
2008FA0000092				LIFE RAFT	UNWANTED DEPLOY
1/11/2008				100102303	CABIN
LIFE RAFT STARTED TO INFLATE WHILE PLACING ON AIRCRAFT WITH NORMAL HANDLING. LIFE RAFT WAS IMMEDIATELY REMOVED AND HELD FOR VENDOR PICK-UP. NOTE: LIFE RAFT WAS A LOANER , OVERHAULED ON 7/26/07. LIFE RAFT WAS RECEIVED AND INSPECTED ON 1/11/2008 WITH NO DAMAGE NOTED. (K)					
2008FA0000103		LYC		MAGNETO	WORN
10/30/2007		IO540E1B5		6393	ENGINE
ENGINE WAS GETTING HARD TO START, CHECKED MAG TIMING AND FOUND LT MAG TIMING, OUT OF LIMITS. DISASSEMBLED MAG AND FOUND THE CAM WORN OUT . 58.7 HRS SINCE NEW.					
CA080206014		LYC		CYLINDER HEAD	CRACKED
1/4/2008		O320E2D		SL32006WA21P	ENGINE
(CAN) CYLINDER HEAD FOUND CRACKED AT OIL RETURN LINE BOSS, AT PIPE-THREADED FITTING HOLE. (TC NR 20080206014)					
CA071017003		LYC	CONT	IMPULSE COUPLING	CRACKED
10/12/2007		O320H2AD		104001667	MAGNETO
(CAN) IMPULSE CAM ASSEMBLY FOUND CRACKED AT KEY WAY AREA. REPLACED WITH NEW ASSY. (TC NR 20071017003)					
CA080204005		PWA		TURBINE WHEEL	CORRODED
2/4/2008		PT6A135		3024211	ENGINE
(CAN) THE CT DISK WAS FOUND WITH (4) VISUAL CRACKS AT (3) OF THE FIRTREES. THE CRACKS ARE LOCATED AT THE EDGE OF THE TOP SERRATION RADIUS WITH THE FIRTREE FACE. THE CRACKS ARE BELIEVED TO BE RELATED TO CORROSION, THEY ARE QUITE OPEN WITH SIGN OF OXIDATION. CRACKS WERE NOTICED VISUALLY AFTER THE REMOVAL OF CORROSION AT THE EDGE ON THE FIRTREE FACE SIDE. THE FPI TEST BEFORE AND AFTER THE REMOVAL OF CORROSION COULD NOT DETECT THE CRACKS. INVESTIGATION IS ON-GOING FURTHER RESULT WILL FOLLOW. (TC NR 20080204005)					
CA080111005		PWA		SPARK PLUG	CRACKED
1/11/2008		R985AN14B		UREM38S	ENGINE
(CAN) (2) SEPARATE OCCASIONS NEW UREM38S SPARK PLUGS WERE REMOVED FROM THE PACKAGE AND FOUND TO HAVE CRACKED CERAMIC INSULATORS. TO VERIFY THE PLUGS WERE TESTED AND FOUND TO BE MISFIRING. THE CRACKING IN THE CERAMIC DOES NOT APPEAR TO BE SHIPPING OR MISHANDLING DAMAGE AS THERE IS EVIDENCE OF TRACKING IN THE CRACKS. (TC NR 20080111005)					
CA080207011	AEROSP	PWA		PROP BRAKE	SEIZED
1/31/2008	ATR42300	PW120		312089001	NR 2
(CAN) AFTER ARRIVAL AT DESTINATION, THE AC TAXIED TO THE TERMINAL. PRIOR TO PASSENGER DEPLANING, THE CREW OBSERVED A MASTER WARNING (PROP UNLOCK). THE F/O REPORTED THAT THE NR 2 ENG WAS ON FIRE AND THE NR 2 CONDITION LEVER WAS SELECTED TO SHUTOFF POSITION. THE F/O OBSERVED THAT THE					

FIRE CONDITION WAS STILL EVIDENT AND THUS THE GROUND ENGINE FIRE CHECK LIST WAS CARRIED OUT. NO FIRE INDICATION WAS OBSERVED ON THE FLIGHT DECK AND INSPECTION OF THE ENG AND NACELLE BY MAINT FOUND NO INDICATION OF FIRE. THE PROP BRAKE REPLACEMENT PROCEDURE WAS COMPLETED, SYS CHECKED SERVICEABLE AND THE AC RETURNED TO SERVICE. (TC NR 20080207011)

CA080116004	AEROSP	PWA	ENGINE	MAKING METAL
12/20/2007	ATR42500	PW127		

(CAN) VIBRATION WAS FELT ACCOMPANIED BY 3 LOUD NOISES AND FIRE WARNING. ENGINE WAS SHUTDOWN AND AC RETURNED TO POINT OF DEPARTURE. POST FLIGHT INSPECTION REVEALED NO EVIDENCE OF FIRE, HOWEVER PROPELLER COULD NOT BE ROTATED AND THE TURBOMACHINE CHIP DETECTOR WAS FOUND TO BE HEAVILY CONTAMINATED WITH METALIC DEBRIS. MFG WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED (TC NR 20080116004)

CA080116005	AEROSP	PWA	ENGINE	SHUTDOWN
12/12/2007	ATR42500	PW127		

(CAN) CREW ELECTED TO SHUTDOWN ENGINE DURING FLIGHT DUE TO LOW/NO OIL PRESSURE INDICATION. ENGINE WAS SUBMITTED TO REPAIR SHOP FOR INVESTIGATION AND REPAIR. MFG WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED (TC NR 20080116005)

CA080116013	AEROSP	PWA	OIL SYSTEM	LOW PRESSURE
12/30/2007	ATR72	PW127		ENGINE

(CAN) DURING CRUISE, THE ENGINE OIL PRESSURE FLUCTUATED INTERMITTENTLY, THEN DROPPED DURING DESCENT. THE CREW ELECTED TO SHUTDOWN THE ENGINE. ENGINE IS TO BE INVESTIGATED BY MFG, UPDATES TO FOLLOW. (TC NR 20080116013)

CA080116008	AGUSTA	PWC	FITTING	CONTAMINATED
12/20/2007	A109E	PW206C		P3

(CAN) DURING CRUISE, THE ENGINE POWER DECREASED UNCOMMANDED TO IDLE SETTING, FOLLOWED BY LOSS OF OIL PRESSURE. THE CREW ELECTED TO SHUTDOWN THE ENGINE AND RETURN TO BASE. INVESTIGATION FOUND THE P3 FITTING TO BE CONTAMINATED WITH FOREIGN DEBRIS. FITTING AND SYS WAS CLEANED AND THE AC RETURNED TO SERVICE. (TC NR 20080116008)

CA080213001	AIRBUS	GE	HONEYWELL	GENERATOR	CRACKED
2/8/2008	A310	CF680C2A5		729722C	APU

(CAN) DURING TROUBLESHOOTING FOR HIGH OIL CONSUMPTION ON THE APU, FOUND A 7 INCHES CRACK ON THE GENERATOR HOUSING. THE IDG WAS REPLACED AND THE UNIT WAS SENT TO THE VENDOR FOR INVESTIGATION. (TC NR 20080213001)

2008FA0000126	AIRBUS	CFMINT	CFMINT	SUPPORT	UNSERVICEABLE
1/11/2008	A320*	CFM565B4P		1808M15G03	HPT NOZZLE

DURING DISASSY OF THE CORE MAJOR MODULE, REMOVED FROM ESN 779408, REMOVAL OF THE COMBUSTION LINER MODULE EXPOSED THE FWD INNER NOZZLE SUPPORT (FINS). IT WAS NOTED THAT THE FINS HAD 1-OFF AREA OF LOCALIZED EROSION WHICH HAD RESULTED IN PENETRATION OF THE COMPONENT. THE EROSION WAS LOCATED ON THE SUPPORT BODY SECTION OF THE COMPONENT, JUST AFT OF THE FWD (CLOCKWISE). THE CAUSE OF THE EROSION IS UNKNOWN. CIRCUMFERENTIAL EROSION TO THE SUPPORT BODY OF THE FINS IS COMMON BUT LOCALIZED EROSION, AS SEEN IN THIS INSTANCE HAS NOT BEEN SEEN, PREVIOUSLY. ALL AFFECTED PARTS ARE SCHEDULED FOR RETURN TO MFG FOR FAILURE ANALYSIS. (K)

CA080114002	AIRBUS	CFMINT	SWITCH	INOPERATIVE
1/11/2008	A320211	CFM565A1	342B030000AM	TEMP CONTROL

(CAN) NR 1 BLEED OVERHEAD SHOWED ON ECAM AIR ENG 1 BLD FAULT COMPLETED ECAM ACTION SHORTLY AFTERWARD AIR ENG 2 BLD FAULT COMPLETED ECAM. BOTH FAN AIR VALVES CHECKED IAW AMM 36-11-54-720-001 NFF. BOTH TCT`S REPLACED (ENG 1 AND 2) IAW AMM 36-11-43. ENG RUNS CARRIED OUT PACKS OPERATED NORMAL. (TC NR 20080114002)

DJSR20080226	AMD	GARRTT	MECHANISM	ICED
2/26/2008	FALCON	TFE731*		NLG DOOR

NOSE GEAR DOOR WOULD NOT CLOSE IN FLIGHT.

DJSR20080205	AMD	GARRTT	WINDSHIELD	CRAZED
2/5/2008	FALCON20	TFE731*	MY20268109	COCKPIT

F/O`S WINDSHIELD OUTER PANE CRAZED OBSTRUCTING F/O`S VISION. (K)

CA070523004	AMD	PWC	SHUTOFF VALVE	OPEN
4/10/2007	FALCON2000	PW308C	69254518	APU

(CAN) WHILE PREPARING FOR A DEPARTURE. APU FAILED TO START. APU NEVER ACCEL`D PAST 13 PERCENT ON FIRST ATTEMPT AND LARGE AMOUNT OF FUEL VAPOR EMITTED FROM EXHAUST. NEAR THE END OF START ATTEMPT, BRIEF FLAME AND SMOKE EVIDENT AT EXHAUST PIPE EXIT. AFTER ALLOWING TIME FOR TRAPPED FUEL TO DRAIN, 2ND START ATTEMPTED. THIS TIME NO ACCEL PAST APPROX 10 PERCENT AND FIRE AND SMOKE EMITTING FROM TAILPIPE AND TAILCONE UPPER AIRSCOOPS. FIRE SELF EXTINGUISHED PRIOR TO DISCHARGE OF FIRE BOTTLES. INITIAL INDICATIONS FALSELY LED US TO TROUBLESHOOT POSSIBLE A/C ELECTRICAL PROBLEM DUE TO ABNORMALLY HIGH START AMPERAGES AND VOLTAGE INDICATIONS. BOTH AIRFRAME AND APU MFG TECH REPS INVOLVED IN THE (4) DAY TROUBLESHOOTING PROCESS. THERE WERE SEVERAL ATTEMPTS TO START THE APU EACH RESULTING IN AN ABORTED START. REMOVED IGNITORS TO INSPECT FOR DAMAGE AND LARGE QUANTIY OF TRAPPED FUEL FLOWED FROM IGNITER MOUNTING BOSS HOLE. DUE TO A OIL VAPOR EJECTOR MOD TO THIS APU, THE PLENUM DRAIN , THAT WOULD NORMALLY ALLOW RAW FUEL TO DRAIN OVERBOARD IS USED TO OPERATE A VENTURI-TYPE EJECTOR. THE CAUSE OF THE NON-START WAS FUEL BYPASSING THE PARTIALLY FAILED FUEL SHUTOFF VLV (WE FOUND AN O-RING SECTION STUCK IN PLUNGER ASSY), CAUSING A FLOOD START ON THE APU. THE HIGH ELECTRICAL LOADS AND LOW ACCEL SPEEDS WERE THE DIRECT RESULT OF THE UNUSED FUEL FILLING UP THE THE COMBUSTION PLENUM (COMBUSTION TURBINE WAS TRYING TO COMPRESS LIQUID FUEL DURING START CYCLE DRAGGING DOWN THE STARTER/GEN).THERE WERE NUMEROUS ERRORS FOUND THE MAINT INSTRUCTIONS AND OPERATING DESCRIPTIONS. (TC NR 20070523004)

DJSR20080125	AMD	GARRTT	PRESSURE VALVE	MALFUNCTIONED
1/25/2008	FALCON20C5	TFE731*	32156321	BLEED AIR SYS

NR 1 BLEED OVERHEAT LIGHT ILLUMINATED PASSING 15,000 WITH CORRESPONDING CABIN PRESSURE FLUCTUATIONS.

2008FA0000127	AMD	GARRTT	WIRE	DAMAGED
2/6/2008	FALCON900	TFE731*		ELECTRICAL

WHILE TROUBLESHOOTING AC ELECTRICAL OUTLETS FOR BEING INOPERATIVE. REMOVED FLOOR PANEL TO ACCESS AC INVERTER AND DETECTED BURNING PLASTIC. FOUND SYSTEM HAD SELF RESETTING CIRCUIT BREAKERS INSTALLED THAT HAD BEEN AND WERE CONTINUING TO RESET AND ALLOWING THE KAPTON WIRE INSULATION AND SPIRAL WRAP TO BURN. ONE OF THE AREAS THAT BURNED WAS ONLY 3 INCHES BELOW A CARBON FLIGHT CONTROL ROD. THIS HAPPENED ON A VERY LONG FLIGHT, THE OUTCOME COULD HAVE BEEN VERY TRAGIC. REPLACING THES C/B`S WITH NON SELF RESETTING CB WOULD PREVENT THE DAMAGE FROM PROGRESSING TO THE POINT IN WHICH IT DID IN THIS INSTANCE. (K)

CA080207006	BAC	LYC	LINE	MISINSTALLED
1/29/2008	146200A	ALF502R5	230360801	FUEL SYSTEM

(CAN) THE ENGINE FUEL LINES WERE FOUND NOT TO BE CORRECTLY INSTALLED IAW AMM 73-10-08-401. TUBES , FUEL SYS, REMOVAL / INSTALLATION. AFFECTIVITY: ON AC ALL - DATE: EEP 01/02 (P). THIS HAS RESULTED IN (3) OF THE (4) ENGINES FUEL LINES TO CHAFE WITH THE ENG INLET ANTI-ICE AIR SUPPLY TUBE. ONE OF THE ENGINE FUEL LINES WAS CHAFED THROUGH AND WAS ALLOWING FUEL TO LEAK OUT. (TC NR 20080207006)

CA071210003	BAG		SELECTOR VALVE	UNSERVICEABLE
12/6/2007	JETSTM3212		AIR860020	NLG STEERING

(CAN) ON TAXI, PILOT FOUND THAT HE HAD REDUCED STEERING CONTROL OF THE AC USING THE NOSE WHEEL

STEERING SYS. PILOT RETURNED TO BLOCKS, UNABLE TO CONTINUE HIS FLIGHT. UPON TROUBLESHOOTING, IT WAS FOUND THAT THE STEERING SELECTOR WAS NOT OPERATING PROPERLY, CAUSING A STEERING SYS FAILURE. THE STEERING SELECTOR WAS INSTALLED 03/10/2007 AND HAS ACCUMULATED 513 CYCLES SINCE O/H AND 38.2 WEEKS IN SERVICE. THE O/H INTERVAL FOR THIS PART IS 10 000 CYCLES OR 72 MONTHS. THE STEERING SELECTOR WAS REMOVED AND AN O/H UNIT WAS INSTALLED AND THE NOSE WHEEL STEERING SYS FUNCTION CHECKED WITH NO FAULTS FOUND. AC RETURNED TO SERVICE. THIS STEERING SELECTOR WAS PURCHASED THROUGH TURBINE ENGINE CONSULTANTS INCORPORATED AFTER HAVING BEEN O/H BY AMO 55-00, AVIATION REPRESENTATIVES INC. ON WO W34923, RELEASE DATE 01/24/2007. THE UNSERVICEABLE STEERING SELECTOR VALVE WAS SENT TO TECI AS A CORE FOR AN EXCHANGE ON SWANBERG AIR INC. PO NR3525. IF ANY FURTHER INFORMATION IS REQUIRED, PLEASE CONTACT QA MANAGER.

CA070907003	BBAVIA	LYC	ATTACH FITTING	FAULTY
9/6/2007	7ECA	O235K2C	31692	WING

(CAN) AD 96-18-02 AND THE AIRWORTHINESS LIMITATIONS FOR THIS AC REQUIRE THAT THE WING SPAR/STRUT ATTACH FITTINGS BE REMOVED AND NDI WITH FLUORESCENT DYE PENETRANT EVERY 1000 HOURS. NDI DISCLOSED A FLAW WITHIN THE METAL, APPARENTLY EXISTING WITHIN THE RAW STOCK WHEN MFG, AND THE AMOUNT OF DYE THAT BLED OUT INDICATES THAT THE FLAW EXTENDS DEEPLY INTO THE METAL. IT IS NEAR THE TOP BOLT HOLE WHERE THE STRESSES ARE MINIMAL, AND NO CRACKING WAS NOTED BETWEEN THE FLAW AND THE HOLE. (TC NR 20070907003)

CA080111003	BBAVIA	LYC	HINGE	CRACKED
1/2/2008	8GCBC	O360C2E	21993	AILERON

(CAN) CRACK FOUND DURING SIRP INSP (TC NR 20080111003)

CA070725003	BEECH	PWA	FLEX DRIVE	DAMAGED
7/17/2007	100BEECH	PT6A28	3X5K8563A44172	TE FLAP CONTROL

(CAN) AN ATTEMPT TO LOWER THE FLAPS TO APPROACH SETTING FROM ZERO DEGREES RESULTED IN THE RT IB FLAP NOT MOVING AND THE (3) OTHERS MOVING TO FULL DOWN. THE PILOT LANDED WITHOUT INCIDENT AND A FERRY PERMIT WAS GRANTED FOR A FLIGHT WITH THE FLAPS UP AND LOCKED. UPON DISASSEMBLY OF THE SYSTEM IT WAS FOUND THAT THE RT FLAP FLEX DRIVE WAS DAMAGED AND BINDING UP OPERATION OF THE ACTUATOR. (TC NR 20070725003)

CA070824004	BEECH	PWA	TORQUE TUBE	WORN
8/10/2007	100BEECH	PT6A28	115610010325	ELEVATOR

(CAN) ON INSPECTION, THE ELEVATOR WAS FOUND TO HAVE .75 INCH PLAY AT T/E. THE ELEVATOR WAS REMOVED AN THE TORQUE TUBE WAS INSPECTED. ALL 4 TAPER PINS WERE FOUND LOOSE, AND FOUND INSTALLED TO MAXIMUM ALLOWED PENETRATION. UPON DISASSEMBLY THE HOLES WERE FOUND OVERSIZED AND FILLED WITH PAINT FROM MFG. NEW TORQUE TUBE WAS INSTALLED AND AIRCRAFT RETURNED TO SERVICE. (TC NR 20070824004)

CA080211006	BEECH	PWA	LINE	CRACKED
2/8/2008	100BEECH	PT6A28	3011849	FUEL SYSTEM

(CAN) PILOT REPORTED HEAVY GAS ODOR IN COCKPIT AFTER TAKEOFF, ACCOMPANIED BY A MIST. MAINT ENGINEER FOUND A CRACKED FUEL LINE IN THE NR 2 ENGINE NACELLE THAT CONNECTS THE START CONTROL UNIT TO THE FUEL CONTROL UNIT CAUSING A FUEL LEAK THAT WAS SUBSEQUENTLY SUCKED INTO THE ENGINE COMPRESSOR SECTION AND THEN TRANSMITTED TO THE CABIN OF THE AC THROUGH THE BLEED AIR SYS. (TC NR 20080211006)

CA080211018	BEECH	PWA	ACTUATOR	FAILED
2/6/2008	100BEECH	PT6A28	508202085	NLG

(CAN) DURING DESCENT INTO INTENDED AIRPORT THE NLG INDICATOR INTRANSIT LIGHT STAYED ILLUMINATED WHEN LANDING GEAR EXTENDED. MAIN GEAR DOWN AND LOCKED LIGHT WERE GREEN. A FLY-BY WAS CARRIED OUT WITH GROUND MAINT VERIFYING THAT THE NLG WAS INDEED ONLY HALF WAY DOWN WITH MAINS FULLY DOWN. AN EMERGENCY EXTENSION WAS ATTEMPTED AND FAILED TO EXTEND THE NLG. THE CREW DECLARED AND EMERGENCY. A LANDING WAS CARRIED OUT WITH ENGINES SHUTDOWN AND PROPS FEATHERED. THE AC

WAS LANDED WITH A TOTAL NLG COLLAPSE. THE AC WAS REMOVED FROM RUNWAY. (TC NR 20080211018)

CA080208001	BEECH	PWA	WINDOW	DEPARTED
2/6/2008	1900C	PT6A65B	50420066317	LT COCKPIT

(CAN) DURING CLIMBOUT AT APPROX 3PSI DIFFERENTIAL, THE LT COCKPIT SIDE WINDOW BLEW OUT OF AIRCRAFT. IT IS DIFFICULT TO DETERMINE THE CAUSE AS THERE IS VERY LITTLE REMAINING OF THE ORIGINAL WINDOW. (TC NR 20080208001)

CA070921002	BEECH	PWA	RIB	CRACKED
9/19/2007	1900C	PT6A65B	10164000033	VERTICAL STAB

(CAN) CRACK FOUND IN VERTICAL STABILIZER AT RIB CSS 11.500. CRACK REPAIRED IAW SRM 51-70-17-001. CRACKED RIB REPAIR (NON-PRESSURIZED AREA). (TC NR 20070921002)

CA080116007	BEECH	PWA	LINE	CHAFED
1/12/2008	1900C	PT6A65B	3032791	LT NACELLE

(CAN) FUEL FLOW INDICATION LINE FOUND CHAFED AND LEAKING. NEW LINE INSTALLED. (TC NR 20080116007)

CA080214005	BEECH	PWA	DRIVE SHAFT	SEIZED
2/14/2008	1900D	PT6A65B	1013800005	FLAP DRIVE

(CAN) FLAPS WOULD NOT RETRACT AFTER TAKEOFF AND CIRCUIT BREAKER OPENED. AIRCRAFT RETURNED TO AIRFIELD. FLAP DRIVE SHAFT WAS FOUND SEIZED AND BOUND UP NEAR MOTOR. MOTOR AND DRIVE SHAFT WERE REPLACED. (TC NR20080214005)

CA080116009	BEECH	PWA	BELLCRANK	CRACKED
1/8/2008	1900D	PT6A67D	11452411411	POWER LEVER

(CAN) THE RT POWER LEVER BELLCRANK LOCATED IN THE BOTTOM OF THE PEDESTAL WAS REPLACED DUE TO WEAR. AFTER REMOVAL THE PART WAS FOUND TO BE CRACKED. (TC NR 20080116009)

CA080116010	BEECH	PWA	ENGINE	MALFUNCTIONED
12/21/2007	1900D	PT6A67D		

(CAN) DURING CRUISE, THE MASTER CAUTION ILLUMINATED AND ENGINE SURGES WERE NOTED FOLLOWED BY LOSS OF POWER AND OIL HAZE IN THE CABIN. THE CREW ELECTED TO SHUT THE ENGINE DOWN. THE ENGINE IS TO BE RETURNED TO MFG FOR INVESTIGATION, UPDATES TO FOLLOW. (TC NR 20080116010)

CA070906007	BEECH	PWA	GEARBOX	WORN
9/4/2007	1900D	PT6A67D	1005240741	TE FLAPS

(CAN) FLAPS WOULD NOT RETRACT AFTER LANDING. GEARBOX FOUND EXCESSIVELY WORN. (TC NR 20070906007)

CA070912007	BEECH	PWA	FLEX DRIVE	SEIZED
9/8/2007	1900D	PT6A67D	1013800002	TE FLAP

(CAN) ABOUT 2 MINUTES INTO A FLIGHT THE CREW DETECTED AN ELECTRICAL ODOR. THE PILOTS TURNED OFF THE VENT BLOWER SYS WHICH HELPED FOR A BIT BUT NOT LONG. NO SMOKE WAS NOTICED, JUST THE ODOR. ALL OTHER NON-ESSENTIAL ELECTRICS WERE TURNED OFF. THE SMELL STAYED SO AN EMERGENCY WAS DECLARED AND THE AC PREPARED TO LAND AT ITS INTENDED AIRPORT. WHEN THE AC WAS PREPARING TO LAND 17 DEGREES OF FLAP WAS SELECTED, THE AC INDICATOR SHOWED THAT THEY ONLY MADE IT TO 12 DEGREES. THE FLAPS WERE TRIED AGAIN AND DEEMED FAILED. THE GEAR WAS SELECTED DOWN AND THE LANDING WAS COMPLETED WITHOUT FURTHER INCIDENT. AFTER MAINT ARRIVED AND ASSESSED THE SITUATION IT WAS FOUND THAT THE LT INNER FLAP DRIVE CABLE HAD SLOWLY BOUND UP AND SEIZED IN ITS HSG DUE TO CORROSION. THE RT INNER CABLE WAS SNAPPED OFF AT THE ACTUATOR END, DO NOT KNOW WHY. THE DRIVE MOTOR WHICH HAD TO WORK HARDER THEN NORMAL CAUSED THE ELECTRICAL SMELL. THE DRIVE SHAFTS WERE REPLACED AS WELL AS THE FLAP DRIVE MOTOR AND TRANSMISSION. THE AC WAS RETURNED TO SERVICE WITH NO FURTHER DIFFICULTIES. (TC NR 20070912007)

CA071010002	BEECH	PWA		HOSE	CRACKED
10/8/2007	1900D	PT6A67D		12991003315	BLEED AIR

(CAN) BLEED AIR FAIL LIGHT CAME ON DURING THE TAKEOFF PROCESS. THE AC CAME AROUND AND LANDED. MAINTENANCE WAS CALLED. IT WAS DISCOVERED THAT A BLEED AIR LINE WAS CRACKED AT THE FLANGE. LINE REPLACED AND THE AIRCRAFT WAS RETURNED TO SERVICE. (TC NR 20071010002)

CA080206008	BEECH	PWA		COUPLING	WORN
1/17/2008	200BEECH	PT642A			FUEL SYSTEM

(CAN) DURING CRUISE, THE ENGINE PARAMETERS WERE OBSERVED TO INCREASE REACHING NEAR MAXIMUM LIMITS. THE PILOT ELECTED TO SHUTDOWN THE ENGINE AND PERFORM A SINGLE ENGINE LANDING. POST FLIGHT INVESTIGATION REVEALED A WORN COUPLING BETWEEN THE FUEL PUMP AND FUEL CONTROL. (TC NR 20080206008)

CA070821006	BEECH	PWA	BEECH	INTAKE	CRACKED
8/20/2007	200BEECH	PT6A41		101910016651	COWL

(CAN) COWL ASSY LOWER FWD P/N 101-910024-1 WAS ONCE MODIFIED. (TC NR 20070821006)

CA070115017	BEECH	PWA	STIFFENER	CRACKED
1/12/2007	200BEECH	PT6A41	97440019101	BULKHEAD

(CAN) SPECIAL INSP NR53 WAS COMPLETED IAW MM 5-20-05, WHICH INVOLVES THE FOLLOWING: AFT FUSELAGE AREA AND REAR PRESSURE BULKHEAD. INSPECT THE ENTIRE FWD AND AFT SIDE OF THE REAR PRESSURE BULKHEAD FOR CRACKS AND LOOSE OR MISSING RIVETS. CHECKED OXYGEN BOTTLE MOUNTING BRACKETS FOR CRACKS AND LOOSE OR MISSING RIVETS. CHECKED OUTFLOW AND SAFETY VALVE BOX FOR CRACKS AND LOOSE OR MISSING RIVETS. THE INSP INTERVAL IS INITIALLY 10,000 CYCLES AND AT 500 CYCLES THERE AFTER. DURING THIS INSP OF THE REAR PRESSURE BULKHEAD (F.S. 347.75) THE AFT ZEE STIFFENER (P/N:97-440019-101) WAS FOUND CRACKED. THE CRACK WAS LOCATED AT THE LOWER ATTACH POINT OF THE OXYGEN BOTTLE SUPPORT (P/N: 50-560019-13) WHICH ATTACHES TO THE ZEE STIFFENER. THE CRACK EXTENDED IN (2) DIRECTIONS (1) FROM THE SUPPORT ATTACH POINT - AFT TO THE EDGE OF THE ZEE STIFFENER FLANGE AND (2) FROM THE SUPPORT ATTACH POINT FORWARD TO THE ZEE STIFFENER LIGHTNING HOLE. THE CRACK MEASURED 2.7 IN TOTAL LENGTH. THE CRACK APPEARS TO HAVE STARTED FROM AN INCORRECTLY DRILLED HOLE FOR THE OXYGEN BOTTLE SUPPORT ATTACHMENT. THE CRACK IN THE ZEE STIFFENER IS IN PROCESS OF BEING REPAIRED IAW ENGINEERING REPAIR DESIGN. (TC NR 20070115017)

CA070504003	BEECH	PWA	TURBINE WHEEL	CRACKED
5/2/2007	200BEECH	PT6A41	3024711	ENGINE

(CAN) DURING A HOT SECTION INSPECTION, A CRACK WAS DISCOVERED ON THE CT HUB FROM ONE UNUSED BALANCE HOLE, AROUND THE FLANGE AND BACK TO THE SAME BALANCE HOLE.THE CRACK WAS ADJACENT TO (1) OF THE (3) PROTRUDING LOCK LUGS. (TC NR 20070504003)

CA070725005	BEECH	PWA	BLADE	CRACKED
7/11/2007	200BEECH	PT6A41	3027301	COMPRESSOR

(CAN) DURING A ROUTINE COMPRESSOR TURBINE BLADE (STRETCH) INSP, ONE CT BLADE WAS FOUND CRACKED DURING THE NDT PROCESS. THE CRACK WAS ACROSS THE BLADE FACE AND BACK. THIS TYPE OF CRACK SCRAPS THE BLADE AND THE SET IT WAS INSTALLED WITH. THIS SET OF BLADES HAD A TSN OF 9299.1 HOURS. THE BLADES WERE REPLACED AND THE AC RETURNED TO SERVICE. (TC NR 20070725005)

CA070913008	BEECH	PWA	ENGINE	OVERHEATED
9/11/2007	200BEECH	PT6A41		

(CAN) SHORTLY AFTER LANDING, THE PILOT NOTICED AN UNUSUALLY HIGH ITT INDICATION FOLLOWED BY SPARKS EXITING THE RT ENGINE. THE PILOT SHUTDOWN THE ENGINE AND CONTINUED TAXING WITHOUT FURTHER INCIDENT. FURTHER REPORT TO FOLLOW PENDING TEARDOWN REPORT. (TC NR 20070913008)

CA070918004	BEECH	PWA	BRACKET	BROKEN
9/14/2007	300BEECH	PT6A60A	1018200363	NLG WW

(CAN) THE AC WAS ON A RETURN LEG . UPON SELECTING THE LANDING GEAR TO THE DOWN POSITION, THERE WAS NO INDICATION OF A DOWN AND LOCKED NOSE AS WELL AS THE (IN TRANSIT LIGHT) REMAINED ON IN THE GEAR HANDLE. THE CREW CARRIED OUT AN EMERGENCY LOWERING AND STILL NO DOWN AND LOCKED INDICATION FOR THE NOSE. AT THIS TIME A (FLY BY) THE TOWER CONFIRMED THE NOSE GEAR HAD EXTENDED. AN EMERGENCY LANDING WAS CARRIED OUT WITHOUT INCIDENT. MAINTENANCE DISCOVERED THAT THE BRACKET P/N 101-820036-3, WHICH HOLDS THE NOSE LANDING GEAR DOWN, MICROSWITCH HAD BROKEN AND CAUSED THE PROBLEM. THE BRACKET WAS REPLACED WITH A SERVICEABLE UNIT AND THE MICROSWITCH ADJUSTED. SEVERAL GEAR SWINGS WERE CARRIED OUT THE SYSTEM CHECKED SERVICEABLE. THE BRACKET WAS ORIGINAL EQUIPMENT AND METAL FATIGUE IS SUSPECTED. (TC NR 20070918004)

CA080211001	BEECH	PWA	TRANSDUCER	FAILED
2/7/2008	300BEECH	PT6A60A	1303800033	RUDDER BOOST

(CAN) THE AC WAS DISPATCHED ON A MEDIVAC FLIGHT AND UPON STARTING THE TAKEOFF ROLL AN UNCOMMANDED RUDDER INPUT WAS FELT BY THE PILOTS. THE AC RETURNED TO THE HANGER WHERE MAINT BEGAN TO TROUBLESHOOT THE PROBLEM. IT WAS DISCOVERED THAT THE LT RUDDER BOOST TRANSDUCER (P/N130-380003-3) FAILED WHICH SIMULATED ENGINE FAILURE AND CAUSED THE RUDDER BOOST SYS TO ACTIVATE. THE TRANSDUCER WAS REPLACED AND THE AC RETURNED TO SERVICE. (TC NR 20080211001)

2008FA0000090	BEECH	PWA	WIRE	CHAFED
11/12/2007	400A	JT15D5	C352B20	PITCH TRIM

PITCH TRIM INOPERATIVE REMOVED RT FWD GALLEY AND RT FWD PARTITION. FOUND WIRE BUNDLE CHAFED BEHIND PARTITION. REPAIRED (3) WIRES THAT WERE CHAFED THROUGH TO THE CONDUCTORS. PROVIDED CLEARANCE BETWEEN WIRE BUNDLE AND PARTITION. INSTALLED ANTI-CHAFE MATERIAL ON PARTITION. AT THE TIME OF THE REPAIR NO OTHER COMPONENTS HAD MALFUNCTIONED FRO THE OTHER (2) CHAFED WIRES. (K)

CA070801001	BEECH	CONT	FUEL CELL	DETERIORATED
7/27/2007	95B55	IO470L	369200157	RT WING

(CAN) THE RT WING LEADING EDGE FUEL CELL WAS REMOVED BECAUSE OF A FUEL LEAK. A REPLACEMENT FUEL CELL WAS ORDERED. PRIOR TO INSTALLATION OF THE NEW (OVERHAULED) CELL, IT WAS INSPECTED AND FOUND TO CONTAIN A LARGE QUANTITY OF SAWDUST-LIKE PARTICLES. ON FURTHER INSPECTION, THE FUEL CELL STILL HAD THE FOAM FILLED FUEL RESERVOIR INSIDE. THIS FOAM WAS BREAKING DOWN. AFTER DISCUSSIONS WITH MFG TECH SUPPORT IT WAS CONCLUDED THAT AD68-26-06 HAD BEEN COMPLIED WITH AT SOME POINT OF TIME WHICH REQUIRED THE INSTALLATION OF FUEL RESERVOIRS TO PREVENT ENGINE POWER LOSS DURING STEEP TURNS ON TAKEOFF. THESE RESERVOIRS HAD A FOAM INSERT WHICH WAS COMPATIBLE WITH 100/130 FUEL. THE USE OF 100LL HOWEVER CAUSES THE FOAM TO BREAK DOWN INTO FINE PARTICLES THAT GET TRAPPED IN FILTERS AND SCREENS, AND POTENTIALLY CLOGGING THEM. THIS PROBLEM IS ADDRESSED IN SB NR 2109 WHICH REPLACES THE OLD STYLE FOAM WITH A PRODUCT THAT IS SUITABLE FOR USE WITH 100LL. SB SHOULD BE AN AD TO ALERT OTHER MAINTAINERS OF THIS PROBLEM WHO MAY NOT BE AWARE OF THE SB. BOTH FUEL CELL RESERVOIRS NOW HAVE THE FOAM REPLACED AND FUEL FILTERS, STRAINERS AND INJECTORS CLEANED IAW SB NR 2109.

CA080117007	BEECH	PWA	ENGINE	FAILED
1/15/2008	99	PT6A20		LEFT

(CAN) WHILE DOING PILOT TRAINING, THE LT OIL PRESSURE WARNING LIGHT CAME ON. PILOTS LOOKED DOWN AT OIL PRESSURE GAUGE, THE PRESSURE WAS DROPPING SO THEY SHUTDOWN THE ENGINE AND FEATHERED THE PROP. THEY RETURN TO BASE. ENGINE REMOVED FOR FURTHER INSPECTION. (TC NR 20080117007)

CA080201001	BEECH	PWA	CHAIN	BENT
1/30/2008	99	PT6A20	C6189CL	NLG

(CAN) DURING CLIMB, A LOUD NOISE WAS HEARD AND THE GEAR FAILED TO RETRACT (3) GREEN INDICATION DURING INSP THE AFT NOSE GEAR CHAIN WAS BROKEN AND THE REMOTE CIRCUIT BREAKER WAS FOUND POPPED NOSE CHAIN AND MASTER LINK REPLACED AND SYS INSPECTED 5 GEAR CYCLES C/O AND NO FAULTS FOUND RECORDS INSPECTED FOR COMPLIANCE WITH AD 72-10-04 PART A FOUND CARRIED OUT AT INTERVALS NOT EXCEEDING 100 HOURS (TC NR 20080201001)

CA070911008	BEECH	PWA	ACTUATOR	STRIPPED

9/7/2007	99	PT6A20	99810057652	MLG

(CAN) AFTER TAKEOFF GEAR SELECTED UP RT GEAR DID NOT COME UP. GEAR SELECTED DOWN, (3) GREEN INDICATIONS OBSERVED AC LANDED. AC BROUGHT INTO HANGER AND PUT ON JACKS RT MLG ACTUATOR REMOVED. FOUND THAT NUT, ACTUATOR P/N 115-810029-24 HAD NO TREADS IN IT. PART SENT OUT FOR TEARDOWN REPORT (TC NR 20070911008)

CA080117008	BEECH	PWA	SPROCKET	WORN
1/14/2008	99	PT6A28	1158200381	MLG

(CAN) DURING INSP OF THE NLG RETRACT MECHANISM CHAIN FOR TENSION AND LUBRICATION, MAINT NOTED THE DUAL LINK CHAIN WAS ONLY RUNNING ON ONE LENGTH OF CHAIN RATHER THAN (2). AC WAS INSPECTED MORE CLOSLEY AND THE BRAZE/SPROCKET ASSY WHICH IS INTERMEDIATE BETWEEN LANDING GEAR MOTOR AND RETRACT ACTUATOR FOR THE NOSE GEAR WAS FOUND MISALIGNED AND DISPLACED. UPON REMOVAL OF THE SPROCKET AND IT`S HOUSING IT WAS NOTED THE UNDERLYING AC STRUCTURE WAS CRACKED AND NOT PROVIDING ADEQUATE SUPPORT TO THE SPROCKET ASSY FOR PROPER OPERATION AND ALIGNMENT. THE LACK OF ALIGNMENT BETWEEN THE CHAIN AND SPROCKET CAUSED THE DUAL LINK CHAIN TO SKIP OVER ONE SPROCKET AND ONLY UTILIZE HALF OF THE CHAIN FOR GEAR RETRACTION AND EXTENSION. IT ALSO CAUSED EXCESSIVE WEAR TO THE REMAINING SPROCKET TO THE POINT OF NEAR FAILURE. SIDE WEAR ON THE SPROCKET WOULD BE ABOUT 80-90 PERCENT. AC STRUCTURE HAS BEEN REPAIRED AND A NEW SPROCKET INSTALLED. IT NEEDS TO BE NOTED THAT THE LOCATION OF THE SPROCKET IS UNDER THE HEATER IN THE NOSE OF THE AC AND IS DIFFICULT TO INSPECT. NORMALLY A FLASHLIGHT WITH A MIRROR IS NEEDED BUT EVEN THIS MAY NOT BE TOTALLY ADEQUATE FOR PROPER INSP. REGULAR INP OF THE SPROCKET IS MANDATED BY THE MFR OF THE AC. (TC NR 20080117008)

CA070906002	BEECH	PWA	TORQUE TUBE	LOOSE
9/5/2007	A100	PT6A28	115610010325	ELEVATOR

(CAN) DURING A ROUTINE INSPECTION THE LT ELEVATOR TORQUE TUBE WAS FOUND TO HAVE AN EXCESSIVE AMOUNT OF PLAY AT THE TAPER PINS ON BOTH COLLARS. THE TORQUE TUBE WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. THIS TORQUE TUBE ONLY HAD 209.2 HOUR SINCE NEW AND IT IS ONLY REQUIRED TO BE INSPECTED EVERY 1000 HOUR. (TC NR 20070906002)

CA070608001	BEECH	PWA	STRUCTURE	CRACKED
6/6/2007	A100	PT6A28	115620010101	HORIZONTAL STAB

(CAN) CRACK FOUND IN STRUCTURE OF HORIZONTAL STAB. CRACK LOCATED AT TRAILING EDGE UPPER SURFACE AT CENTER OF HORIZONTAL STAB. CRACK LENGTH 0.600, CRACK REPAIRED IAW REPAIR DWG SUPPLIED BY MFG AND AIRCRAFT RETURNED TO SERVICE. (TC NR 20070608001)

CA070723001	BEECH	PWA	ROD	CORRODED
7/19/2007	A100	PT6A28	50820035	NLG STEERING

(CAN) DURING THE REPLACEMENT OF RODEND P/N F4-19 ON THE NOSE LANDING GEAR STEERING BARREL ASSY. P/N 50820042-601 WAS DISASSEMBLED TO FACILITATE THE REMOVAL OF THE RODEND FROM THE ROD ASSY P/N 50-820035 (ITEM 21). AFTER DISASSY IT WAS NOTICED THAT THE ROD ASSY WAS HEAVILY CORRODED. THE CORROSION SEEMED TO START FROM INSIDE THE ROD ASSEMBLY AND WORKED ITS WAY OUT, CAUSING THE HARD CHROME TO FLAKE OFF IN 4 SPOTS ALL NEAR THE CARTER OF THE HOLLOW TUBE REVEALING A HOLES IN THE PARENT METAL COMPLETELY THROUGH THE WALL OF THE TUBE. THE ROD ASSEMBLY WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. THERE IS NO CURRENT REQUIREMENT TO DISASSEMBLE THIS PART FOR INSPECTION AND THE CORRODED AREA IS NOT VISIBLE WITH THE PART ASSEMBLED. SEE ATTACHED PICTURES. (TC# 20070723001)

CA070201007	BEECH		TIRE	SCORED
1/23/2007	B200		0283353	SIDEWALL

(CAN) DURING MAINT WALK AROUND INSP, IT WAS NOTED THAT ALL (4) MLG LOCATIONS RECEIVED SIDE WALL DAMAGE ON FIRST 20 HRS OF FLIGHT ON A FACTORY NEW AC DUE TO INTERFERENCE FIT. AC HAS (2) STC'S INCLUDED IN THE MLG. THEY ARE AS FOLLOWS: AC EQUIPPED WITH (P/N:028-335-3) (WILDERNESS TIRES): STC SA00184LA. AC ALSO EQUIPPED WITH WHEEL AND BRAKE CONVERSION KIT: STC SA757GL BY STC HOLDER - MFG WAS CONTACTED AND STATED THAT THEY WERE AWARE OF THE PROBLEM SOME SIX MONTHS AGO. I'M TOLD

THE PROBLEM HAS ARISEN WITH THE (19.5X6.75-8/10/190 P/N:028335-3) WHEN MFG OUTSOURCED ITS MANUFACTURE TO FROM THE EXISTING USA FACILITY. THE OUT OF COUNTRY MFG TIRES ARE BUILT TO A WIDER TOLERANCE FOR SOME REASON. NOTE: ALL AFFECTED TIRES WERE MFG OUT OF COUNTRY. STC HOLDER HAS AUTHORIZED US TO USE AN ALTERNATE TIRE (P/N:196K08-9) AS A REPLACEMENT ON THE SAME STC. THE TIRES ARE CONSIDERABLY NARROWER AND THEREFORE HAVE NO INTERFERENCE ISSUES ASSOCIATED WITH ITS INSTALLATION. (TC NR 20070201007)

CA070831002	BEECH	PWA	BEECH	DRIVE ASSY	MISMANUFACTURED
8/30/2007	B200	PT642A		503801535	FLAP ACTUATOR

(CAN) ON LANDING, WHEN FLAPS SELECTED FROM 40 PERCENT TO 100 PERCENT, FLAPS STOPPED AT APPROXIMATELY 60 PERCENT, LT OB FLAP WAS SPLIT APPROXIMATELY 10 PERCENT. FLAP WOULD NOT EXTEND OR RETRACT. LT OB FLAP ACTUATOR FOUND TO HAVE COME APART AT THE 90 DEGREE DRIVE ASSY ATTACH POINT. CLOSER VISUAL EXAMINATION REVEALED THAT IT HAD NOT BEEN PROPERLY ASSEMBLED DURING AC AND/OR PART MFG. RETAINING KEYWAY HAD DAMAGED THE SLOTTED COLLAR BY NOT BEING FULLY ENGAGED WHEN RETAINING NUT WAS TIGHTENED. THIS SHOULD HAVE BEEN EVIDENT WHEN PART WAS ASSEMBLED AS THE RETAINING NUT WOULD NOT HAVE BEEN IN SAFETY AFTER BEING TIGHTENED. ALSO THE RETAINING KEYWAY WOULD NOT HAVE BEEN RECESSED (APPROX .1250 INCH ON PROPERLY ASSEMBLED PART) AND THIS SHOULD HAVE BEEN EVIDENT DURING ASSY. OTHER NEW AC IN FLEET HAVE BEEN EXAMINED FOR THIS CONDITION AND WERE FOUND TO BE CORRECTLY ASSEMBLED. (TC NR 20070831002)

2008FA0000122	BEECH		WIRE HARNESS	MISINSTALLED
2/6/2008	C90A			A/C START CONT

AIR CONDITIONER NOT COOLING. FOUND WIRING FOR AC START CONTROL PANEL AS WELL AS COMPRESSOR CLUTCH NOT IN PROPER CONFIGURATION IAW WIRING PRINT. AFTER PROPER INSTALLATION OF WIRING AND SUBSEQUENT OPS CHECK, THE MOTOR AND SYS, THE AIR CONDITIONER WOULD CYCLE IN AND OUT OF ITS SOFT START CYCLE. THIS IN TURN CREATED EXCESSIVE HEAT IN THE LOAD RESISTOR CIRCUIT. THIS CYCLING CONTINUED UNTIL AT SOME POINT THE SOFT START CIRCUIT FAILED, WHICH CAUSED THE LOAD RESISTOR TO OVERHEAT AND MELT THE PHENOLIC BLOCK SHIELDS WHICH CAUGHT FIRE AND DAMAGED THE IMMEDIATE SURROUNDING STRUCTURE OF THE NOSE COMPARTMENT. PROBABLE CAUSE WOULD INDICATE FAILURE OF THE AC START CONTROL PANEL CIRCUITRY THAT SUBSEQUENTLY LEAD TO A NOSE COMPARTMENT FIRE. RECOMMENDATION: ROUTINE INSPECTION AND OPERATION CHECK OF THE AC SYS, TO INCLUDE THE START CONTROL PANEL SOFT START SYS. (K)

CA080116022	BEECH	LYC	MOUNT	MISMANUFACTURED
1/9/2008	D95A	IO360B1B		GOVERNOR

(CAN) AFTER ENGINE REPLACEMENT FOR OVERHAUL A PRELIMINARY GROUND RUN WAS CARRIED OUT. IT WAS FOUND THAT THE PROPELLER WOULD NOT FEATHER WHEN PERFORMING A GOVERNOR CHECK. THE PROBLEM WAS TRACED TO THE GOVERNOR MOUNT PAD WHICH HAD NOT HAD AN OIL GALLERY COMPLETELY DRILLED PREVENTING PROPELLER CONTROL. MAINT REPLACED THE GOVERNOR PAD AND THE AC PROPELLER CONTROL SYS FUNCTIONED NORMALLY (TC NR 20080116022)

2008FA0000082	BEECH	PWA	CAPACITOR	BURNED
2/18/2008	E90	PT6*		CABIN LIGHTS

AT CRUISE FL 150, CREW NOTICED SMOKE AND ELECTRICAL ODOR COMING FROM SIDEWALL UNDERNEATH EMERGENCY EXIT. PIC DECLARED EMERGENCY AND LANDED AC WITHOUT FURTHER INCIDENT. UPON INSP OF SIDEWALL UNDER EMERGENCY EXIT, IT WAS NOTICED THAT A SMALL HOLE WHICH APPEARED TO LOOK LIKE A CIGARETTE BURN AT FIRST HAD PENETRATED THROUGH HONEYCOMB MATERIAL AND THE ULTRA SUEDE LINER THAT COVERS THE SIDEWALL. UPON CLOSER INSP BEHIND SIDEWALL, NO ELECTRICAL COMPONENTS OR WIRING ARE LOCATED BEHIND THE AREA WHERE THE HOLE IS LOCATED. AFTER REMOVING THE VALANCE PANEL ON THE EMERGENCY EXIT WINDOW, IT WAS NOTICED THAT THE CAPACITOR AND THE DIODE FOR THE INDIRECT LIGHTING POWER SUPPLY WAS BURNED.

0000H2484	BEECH	CONT	LINE	CHAFED
3/18/2008	V35	IO550B		FUEL SYSTEM

FUEL LINE MOUNTED ON FIREWALL FABRICATED PER STC SA8676SW WAS CHAFING THE ENGINE TAILPIPE.

CA071010005	BELL	LYC		BLADE	CRACKED
8/28/2007	204B	T5311B		204011250001	MAIN ROTOR

(CAN) ON TUESDAY THE 28TH OF AUGUST 2007, AT APPROX 19:00, LANDED AT THE STAGING AREA. THE PILOT COMMENTED THAT THERE WAS A VIOLENT LATERAL VIBRATION. AT THIS TIME THE TRANSMISSION WAS OBSERVED SHAKING EXCESSIVELY AND IT WAS DECIDED TO SHUT THE AIRCRAFT DOWN WHERE IT SAT. AS THE MAIN ROTOR BLADES SPOOLED DOWN THE PILOT OBSERVED A LARGE CRACK IN ONE OF THE BLADES. FURTHER INSPECTION REVEALED A CRACK THROUGH THE ENTIRE THICKNESS OF THE BLADE. BOTH THE TOP AND BOTTOM SKIN ARE BROKEN. THE CRACK/BREAK IS LOCATED 98 INCHES FROM THE ROOT OF THE BLADE AND RUNS FROM THE T/E TO 6 INCHES FROM THE L/E (ASCENDING, THE LEADING EDGE SPAR). AT THE START OF THE CRACK (THE TRAILING EDGE) THE SKIN HAS SPREAD APPROXIMATELY .1250 INCH. I INSPECTED THE CRACK WITH A 10X MAGNIFYING GLASS AND FOUND NO SIGN OF WEAR, CORROSION OR SIGN OF EARLIER DAMAGE. (TC NR 20071010005)

CA070727003	BELL	LYC	BELL	O-RING	FAILED
7/25/2007	205A1	T5313B		MS28775212	ACCUMULATOR

(CAN) LOST OF HYDRAULIC IN FLIGHT, EMERGENCY LANDING, FAULT FOUND IN THE ACCUMULATOR, O-RING P/N MS28775-212 REPLACED A/C GROUND RUN AND LEAK CHECK COMPLETED AND RELEASED TO SERVICE. (TC NR 20070727003)

CA080204006	BELL	LYC		WIRE	SHORTED
6/14/2007	205A1	T5313B			COCKPIT

(CAN) PILOT REPORTED SPARKS AND A SMALL AMOUNT OF SMOKE FROM THE OVERHEAD CONSOL. UPON INVESTIGATION IT WAS FOUND THAT THE LT OVERHEAD CONSOL PANEL HAD CHAFED THROUGH SEVERAL WIRES COMING UP THE CENTER POST OF THE WINDSHIELD CAUSING THE WIRES TO SHORT TO GROUND. AFFECTED WIRES REPLACED AND THE WIRING BUNDLE REPOSITIONED. (TC NR 20080204006)

CA080117002	BELL	LYC	BELL	BEARING	UNSERVICEABLE
1/17/2008	205A1	T5317A			T/R HUB

(CAN) FOUND TAIL ROTOR HUB ASSY OB BEARING CAGE INSERT OUT OF IS SOCKET. ASSY SEND FOR O/H. (TC NR 20080117002)

CA070720007	BELL	LYC	BELL	BEARING	SPALLED
7/10/2007	205A1	T5317BLYC		212040136001	MAST

(CAN) THIS PN BEARING IS A (ON CONDITION) PART. THE MAST WAS LAST OVERHAULED 2210.4 HOURS AGO. THE ENGINEER FOUND FERROUS METAL IN THE TRANSMISSION INTERNAL AND EXTERNAL FILTERS. A POWDER OR PASTE WAS FOUND ON THE TRANSMISSION CHIP DETECTOR, NOT ENOUGH TO ACTIVATE A CHIP LIGHT. (TC NR 20070720007)

CA080111004	BELL	LYC	BELL	BLADE	DELAMINATED
1/9/2008	205A1	T5317BLYC		212010750105	TAIL ROTOR

(CAN) PILOT HEARD A MUFFED LOW POP SOUND, WITH NO UNUSUAL GAUGE, WARNING LIGHTS, OR VIBRATIONS. UPON DEPARTING FOR ANOTHER SKI RUN THE PILOT AGAIN NOTED AN UNUSUAL NOISE. AC WAS LANDED, AN EXTERIOR INSP WAS CONDUCTED. IT WAS THEN THAT THE DELAMINATING OF T/R BLADE WAS NOTED. AC REMAINED GROUNDED UNTIL ANOTHER SET OF T/R BLADES WERE INSTALLED. UPON INVESTIGATION OF THE T/R BLADE IT APPEARS THE DELAMINATING STARTED FROM A PREVIOUS REPAIR ALBEIT ON THE OTHER SIDE OF THE BLADE ACCORDING TO THE COMPONENT LOG CARD. THE AIR FLOW STARTED TO PEEL BACK THE SKIN AT THIS SPOT, AS THE PEELING PROGRESSED SKIN REMAINED INTACT UNTIL THE ADHESIVE STRENGTH OF THE GLUE WAS EXCEEDED AND WE SEE THE SECONDARY PEELING IB AND OB WHERE THE TIP BECAME DELAMINATED AND FOLDED BACK. THE COMPONENT CARD INDICATES A REPAIR ON THE NON ID SIDE OF THE BLADE AT STA 43, AND 8 INCHES FROM THE T/E. THE DENT MEASURED .012 AND THE STATEMENT CARRIES ON TO SAY IT WAS REFINISHED, PAINTED AND STATIC BALANCED. (2) DAYS PREVIOUS WASHED THE AC WITH NO DENTS NOTED ON THE T/R BLADES. HELICOPTER IS NOT HANGERED, UNLESS FOR MAINT AND IS SUBJECT TO THE ELEMENTS AT THE BASE. THERE IS ALSO A POSSIBILITY OF DIFFERENTIAL TEMPERATURES CAUSING A FREEZE THAW ACTION IN THE REPAIR, UNKNOWN TO THE ENGINEERS. THESE T/R BLADES ARE COIN TAPPED TESTED EVERY 25 HRS

AND CHECKED DAILY FOR VOIDS, SCRATCHES AND DENTS. BOTH BLADES WERE AGAIN TAP TESTED FOR POSSIBLE IMPACT CAUSING DELAMINATION TO BOTH BLADES AT HANGER. NO DEFECTS WERE NOTED. BLADES ARE AVAILABLE FOR INSPECTION. (TC NR 20080111004)

CA071023008	BELL	ALLSN	MECHANISM	WORN
10/22/2007	206B	250C20	206010743013	PITCH CHANGE

(CAN) DURING THE TAIL ROTOR PITCH CHANGE MECHANISM PORTION OF THE 100 HOUR INSP, THE PITCH CONTROL TUBE BUSHING AND/OR BEARING WERE FOUND WORN BEYOND LIMITS ON THE CONTROL TUBE ASSY. AN EXHAUSTIVE CHECK OF PAPER WORK WAS CARRIED OUT FOR THE TSN AND TSO, THESE COULD NOT BE CONFIRMED. THE PITCH CHANGE MECHANISM HAS PASSED INSPECTION ON THE LAST (2) 600 HOUR INSPECTIONS. (TC NR 20071023008)

CA070720011	BELL	ALLSN	BOLT	CRACKED
7/10/2007	206B	250C20	206011260103	MAIN ROTOR

(CAN) MAIN ROTOR PARTS SENT TO NDT FOR INSPECTION AND ON MAGNAFLUX INSPECTIION FOUND STRAP BOLT CRACKED ON SHANK ABOUT ONE QUARTER WAY AROUND. PART SENT TO BELL HELICOPTER LAB FOR FURTHER INVESTIGATION. BOLT WAS PURCHASED NEW ON MARCH 14,2005 (TC NR 20070720011)

CA080118001	BELL	ALLSN	FREEWHEEL UNIT	LEAKING
1/5/2008	206B	250C20	206040230019	MAIN ROTOR

(CAN) AFTER FLIGHT THE FREEWHEEL ASSY WAS DISCOVERED LEAKING FROM THE FWD HSG CAP. FREEWHEEL ASSY CHANGED, LEAK CHECK CARRIED OUT SERVICEABLE. (TC NR 20080118001)

CA071010003	BELL	ALLSN	COMBUSTION CASE	CRACKED
10/9/2007	206B	250C20	6870992	ENGINE

(CAN) PILOT RETURNING TO BASE REPORTED HIGHER THAN NORMAL ENGINE TEMP. INSP OF THE ENG INDICATION SYS FOUND SERVICEABLE. INSP OF THE ENGINE FOUND A CRACK IN THE COMBUSTION CASE. COMBUSTION CASE REPLACED. AC GROUND RUN AND FOUND SERVICEABLE AND RETURNED TO SERVICE. (TC NR 20071010003)

CA070821005	BELL	ALLSN	B-NUT	LOOSE
8/20/2007	206B	250C20B		BLEED AIR

(CAN) THE ROTORCRAFT DEPARTED AT LANDING AREA AT APPROX 4500 FT WITH ALL NORMAL PARAMETERS. AT APPROX 4300 FT THE PILOT NOTICED A DIFFERENCE IN ENGINE NOISE LEVELS. THE DIFFERENCE IN NOISE LEVELS WERE ACCOMPANIED BY ACTIVATION OF THE ENGINE AUTO RE-LIGHT SYS AND A DROP IN NG TO GROUND IDLE. THE PILOT ELECTED TO ENTER INTO AUTOROTATION AND LANDED WITH NO DAMAGE TO THE AC. THE CAUSE WAS DETERMINED TO BE AN AIR LEAK TO THE GOVERNOR FROM A LOOSE B-NUT. (TC NR 20070821005)

CA070823008	BELL	ALLSN	TANK	FAILED
8/18/2007	206B	250C20B	EA4703587	FUEL SYSTEM

(CAN) TANK UNIT WAS INSTALLED FOR AN INACCURATE FUEL INDICATION. AFTER INSTALLATION OF THE REPAIRED TANK UNIT WE APPLIED GROUND POWER FOR THE FUEL CALIBRATION AND FOUND THE GAUGE TO BE INOPERATIVE. AFTER TROUBLESHOOTING IT WAS DETERMINED THAT THE TANK UNIT WAS FAULTY. THE TANK UNIT WAS REMOVED AND A RESISTANCE CHECK WAS PERFORMED IAW THE MM, THE TANK UNIT FAILED THE TEST. (TC NR 20070823008)

CA071024002	BELL	ALLSN	BELL	CLUTCH	CRACKED
10/19/2007	206B	250C20B		CL422501	FREEWHEEL UNIT

(CAN) THE A/C HAD A FREEWHEEL CHIP LIGHT AND LANDED AT MAIN BASE, AFTER DOING THE 2 MINUTE COOLDOWN THE ENGINE WAS SHUTDOWN. WHILE SPOOLING DOWN A NOISE WAS NOTICED THAT WAS NOT NORMAL. THE FREEWHEEL WAS REMOVED AND DISASSEMBLED. THE CLUTCH CAGE WAS FOUND CRACKED ON ONE SIDE AND THE INNER SHAFT HAD BRINNELLING MARKS. THESE ITEMS HAVE BEEN SCRAPPED. (TC NR 20071024002)

CA071023001	BELL	ALLSN		OIL SYSTEM	LOW PRESSURE
10/22/2007	206B	250C20B			ENGINE

(CAN) LOSS OF ENGINE OIL PRESSURE IN FLIGHT. ENGINE WILL BE REMOVED AND SENT FOR INVESTIGATION. (TC NR 20071023001)

CA071001010	BELL	ALLSN	BELL	BEARING RACE	CRACKED
9/22/2007	206L1	250C28B		206310105101	T/R BLADE

(CAN) PILOT REPORTED AN INCREASE OF FORCE REQUIRED TO PUSH THE T/R PEDALS AT 100 PERCENT RPM WHICH EXCEEDED THE OPERATIONAL LIMITS. HOWEVER, AT ZERO RPM THE FORCE WAS NORMAL. IT WAS DETERMINED THAT THE CAUSE WAS ASSOCIATED WITH THE T/R FEATHERING BEARINGS. INSPECTION SHOWED THAT THE BEARINGS ALTHOUGH SOMEWHAT WORN DID NOT HAVE EXCESSIVE WEAR. FURTHER INSPECTION FOUND THAT ONE OF THE IB BEARINGS HAD A CRACKED INNER RACE RUNNING FULL LENGTH PARALLEL TO IT`S AXIS. THE BEARING IS THE ORIGINAL BEARING INSTALLED BY THE MFG. INSTALLATION OF NEW T/R BLADES RECTIFIED THE EXCESSIVE T/R FORCE AT 100 PERCENT RPM DEFECT. (TC NR 20071001010)

CA070822006	BELL	ALLSN	TRANSMISSION	MAKING METAL
8/20/2007	206L1	250C28B	206040004	MAIN ROTOR

(CAN) SHORTLY AFTER TAKEOFF THE PILOT RECEIVED A CHIP LIGHT ON THE TRANSMISSION. LANDED THE AIRCRAFT. METAL WAS DISCOVERED ON THE SENSOR. THE AIRCRAFT WAS REMOVED FROM SERVICE AND THE TRANSMISSION WAS REPLACED WITH A SERVICEABLE UNIT. AIRCRAFT RETURNED TO SERVICE (TC NR 20070822006)

CA070926002	BELL	ALLSN	INDICATOR	FLUCTUATES
7/26/2007	206L1	250C28B	206075187003	ENG OIL PRESS

(CAN) THE AC WAS DEPARTING FROM BASE WHEN IT WAS NOTICED THAT THE ENGINE OIL PRESSURE INDICATOR WAS FLUCTUATING. THE PILOT RADIO A PAN TO ATC AND DID A PRECAUTIONARY LANDING. NO INCIDENT ON LANDING. THE ENGINEER WAS DISPATCHED TO THE LANDING SITE AND IT WAS DETERMINED THAT THE INDICATOR WAS AT FAULT. REPLACED INDICATOR (TC NR 20070926002)

CA070719008	BELL	ALLSN	TUBE	CRACKED
7/19/2007	206L1	250C30P	206040581001	XMSN OIL

(CAN) OIL LINE CRACKED IN BEND JUST FWD TO FLARED FITTING. SUSPECT FATIGUE FROM IMPROPER TIGHTENING AT SOME POINT THROUGHOUT THE LIFE OF THE LINE. SUSPECT THIS TUBE WAS ORIGINAL EQUIPMENT. UNABLE TO DETECT LEAK ON GROUNG RUN LEAK CHECK AS THE MAINROTOR TRANSMISSION WOULDN`T BE WARM ENOUGH TO BE SENDING OIL TO THE OIL COOLER. (TC NR 20070719008)

CA080211017	BELL		PUMP	DAMAGED
2/8/2008	206L3		206076030101	HYDRAULIC SYS

(CAN) DURING FLIGHT, AC LOST HYDRAULICS. AC LANDED SAFELY. MAINT FOUND HYDRAULICS PUMP SPLINE ROUNDED OFF. TACH GENERATOR SPLINES WORN AS WELL. (TC NR 20080211017)

CA071001002	BELL		TUBE	LEAKING
7/12/2007	206L4		206063607101	FUEL SYSTEM

(CAN) HELICOPTER DEVELOPED FUEL LEAK SITTING IN HANGER. BONDING MATERIAL BETWEEN ALUMINUM FLANGE AND RUBBER TUBE IS ALMOST NON-EXISTENT. THE RUBBER ALSO SEEMS TO HAVE SWELLED. (TC NR 20071001002)

2008FA0000124	BELL	BELDEN	GREASE FITTING	BLOCKED
1/14/2008	212		NAS5161A	M/R HUB

DURING LUBRICATION OF A MAIN ROTOR HUB, WE DISCOVERED THAT THE SPRING IN THE GREASE FITTING (NAS516-1A) WAS PRESSED OUT FROM THE FITTING AND BLOCKED THE GREASE PASSAGE. THIS HAPPENED (3) TIMES. WE FOUND THE SPRINGS AFTER EVERY ATTEMPT. THIS COULD RESULT IN A LOOSE SPRING IN A ROTATING BEARING. (K)

CA080116019	BELL	ALLSN	ALLSN	IMPELLER	SATURATED
12/30/2007	407	250C47B		23064613	COMPRESSOR

(CAN) AFTER UNEVENTFUL AND NORMAL SHUTDOWN, PILOT NOTICED A POOL OF OIL UNDER THE AC AND OIL ALL OVER THE ENGINE COWLS AS WELL AS SOAKING THE IB .2500 OF THE MAIN ROTOR BLADES. THERE WERE NO OIL TEMP OR PRESSURE CAUTION WARNINGS OR ENGINE CHIP LIGHT INDICATIONS. TO THE PILOT SHUTDOWN WAS NORMAL AND PLANNED, EXCEPT FOR A NOTICEABLE ODOR IN THE COCKPIT. SUBSEQUENT INSP SHOWED OIL EMANATING FROM COMPRESSOR FRONT SUPPORT AREA WITH OIL DISCHARGING FROM BLEED VALVE (VENTED INTO EXHAUST COLLECTOR) AND COMPRESSOR VENT. INITIALLY SUSPECTED NR1 BEARING OIL SEAL FAILURE OR CRACK IN THE COMPRESSOR FRONT SUPPORT OIL PRESSURE/RETURN STRUT. ENGINE SERVICE TECH WAS CALLED IN TO DISASSEMBLE AND REPLACE THE FRONT SUPPORT OR SEAL. REMOVAL OF THE FRONT SUPPORT REVEALED THAT THE NR1 BEARING HAD FAILED, AND THE IMPELLER SHAFT WAS TWISTED OFF. WE DO NOT KNOW IF THE SHAFT FAILED FIRST OR THE BEARING FAILED FIRST. THE ENGINE WAS THEN COMPLETELY REMOVED AND SHIPPED FOR INVESTIGATION IN CONJUNCTION WITH MFG. (TC NR 20080116019)

2008FA0000099	BELL	ALLSN	SCROLL	BROKEN
1/31/2008	407	250C47B	23074076	COMPRESSOR

COMPRESSOR (PN 23065593 SN CAC45245) WAS RECEIVED INTO THE SHOP FOR REMOVAL AND REPLACEMENT OF THE SCROLL (PN 23074076(B) SN 40353) FOR A VISIBLE OPEN HOLE OR BROKEN OFF HEX EXTERNAL BOSS LOCATING PIN AT THE TURNING VANE LOCATION ON THE SCROLL. THE OPERATOR CONDUCTS PATROLLING OR POLICE ACTIVITY USING THE AC AND FOUND THE DEFECT WHILE PERFORMING A 100 HR MAINT TASK. THE AFFECTED COMPRESSOR SCROLL WAS COATED WITH SERVETEL WHICH IS AN OEM APPROVED COATING FOR PROTECTION AGAINST CORROSION AND AS INDIDCATED IN THE LOG BOOKS, THIS IS THE 2ND SCROLL TO HAVE BEEN REPLACED. (K)

CA080116015	BELL	PWA	TURBINE BLADES	FRACTURED
1/4/2008	412	PT6T3		ENGINE

(CAN) DURING HOVER THE CREW NOTED VIBRATION FOLLOWED BY CHIP DETECTOR LIGHT ILLUMINATION AND LOSS OF POWER. POST FLIGHT INSPECTION REVEALED FRACTURED POWER TURBINE BLADES AND ASSOCIATED DAMAGE. IT WAS REPORTED THAT THE PILOT HAD DIFFICULTY STARTING THE ENGINE PRIOR TO THIS FLIGHT. MFG WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED (TC NR 20080116015)

CA070719001	BELL		MOUNT	INTERFERENCE
7/16/2007	412EP		212060722001	THROTTLE

(CAN) DURING A SCHEDULED INSPECTION, AN AREA OF INTERFERENCE BETWEEN THE A THROTTLE JACKSHAFT MOUNT ASSY AND THE LT AIR INLET DUCT WAS IDENTIFIED.

CA080205004	BELL		SUPPORT	CRACKED
2/1/2008	427		427034851103	T/R GEARBOX

(CAN) T/R GEARBOX SUPPORT CAST SURFACE FOUND CRACKED AT LWR FWD LEG, ATTACHMENT POINT FOR THE VERTICAL FIN. (TC NR 20080205004)

CA080211016	BOEING	PWA	DOWNLOCK SWITCH	FAILED
2/24/2007	727243	JT8D9A	H10101534	MLG

(CAN) DURING APPROACH INTO AIRPORT, THE LANDING GEAR WAS EXTENDED AT WHICH TIME THE NOSE GEAR UNSAFE LIGHT REMAINED ILLUMINATED AND THE DOWN AND LOCKED LIGHT REMAINED EXTINGUISHED. THE GEAR WAS RECYCLED WITH THE SAME RESULT AND SOON AFTERWARD, THE UNSAFE LIGHT EXTINGUISHED AND THE DOWN AND LOCKED LIGHT ILLUMINATED AND THE AC LANDED WITHOUT FURTHER INCIDENT. THE GEAR UNSAFE AND DOWN AND LOCKED SWITCHES WERE REPLACED AND THE AC WAS RETURNED TO SERVICE. (TC NR 20080211016)

CA080115007	BOEING	PWA	PCU	FROZEN
1/15/2008	727247	JT8D15	129307	AILERON

(CAN) THE AC ARRIVED AT DESTINATION AND WAS ON A TURN-AROUND WHEN THE CREW NOTICED ON TAXI OUT, THAT THE AILERONS HAD FROZEN UP. THE AC RETURNED TO THE RAMP WHERE MAINT INSPECTED THE SYS. IT WAS DETERMINED THAT THE AILERON POWER CONTROL UNIT HAD FROZEN UP. HEAT WAS PLACED ON THE PCU AND THE CONTROLS FREED UP. THE CONTROL UNIT WAS FLUSHED OF ALL WATER CONTAMINATES AND LUBRICATED. HEAT WAS APPLIED TO THE PCU FOR APPROX (4) HOURS. IT HAD BEEN NOTED BY FLIGHT CREW THAT THE AC HAD BEEN IN A RAINY ENVIRONMENT EARLIER IN THE DAY. THE AC WAS COLD SOAKED FOR (4) HOURS IN -10 DEGREES AND A 50KPH WIND. NO FURTHER FAULTS FOUND. (TC NR 20080115007)

CA080121003	BOEING	PWA	WIRE	INOPERATIVE
1/2/2008	737217	JT8D17A		TAWS COMPUTER

(CAN) TAIL 523 ON JAN 2ND APPROACH BACK COURSE ON RWY 15 YELLOWKNIFE 1040FT ASL 350FT AGL LEVEL FLIGHT 140K IN THIS CASE THE FLIGHT CREW EXPERIENCED A TAWS GENERATED A PICTORIAL DISPLAYED IMPACT WARNING. THE CREW WAS IN VISUAL CONDITIONS AND SAW NO DANGER OF IMPACT. THE AC LANDING WITHOUT FURTHER INCIDENT. IN THE FOLLOWING WEEKS, AC EQUIPPED WITH THE UNIVERSAL TAWS COMPUTER (STC ST10622SC) EXPERIENCED SIMILAR ANOMALIES. UNIVERSAL AVIONICS WAS CONTACTED CONCERNING THE ISSUE. THIS NORTH REGION AIRPORT DATA BASE WAS ALREADY UNDER REVIEW DUE TO OTHER OPERATOR COMPLAINTS. A NEW DATA BASE WAS RELEASED AND FORWARDED. ATTEMPTS TO LOAD THE NEW DATA BASE INTO THE TAWS UNITS FAILED DUE TO A COMMUNICATION PROBLEM BETWEEN THE DATA LOADER AND THE TAWS COMPUTER. UNIVERSAL AVIONICS WAS CONTACTED AGAIN ON THIS LATEST ISSUE. TROUBLESHOOTING REVEALED A WIRING DIAGRAM ERROR IN THE ORIGINAL INSTALL E.O. PRODUCED BY THE INTEGRATOR ASM. WIRING IS IN THE PROCESS OF BEING REWORKED IAW A ENGINEERING CHANGE NOTIFICATION AND THE DATA BASE IS BE LOADED ONTO THE AC THAT HAVE BEEN REWIRED. WILL MONITOR THIS NEW DATA BASE FOR ANOMALIES. (TC NR 20080121003)

CA080208006	BOEING	PWA	NOSE BULLET	SEPARATED
12/30/2007	737275	JT8D17	658536912	ENGINE

(CAN) FOLLOWING DEPARTURE, THE CREW REPORTED COMPRESSOR STALLING OF THE NR 1 ENG AT CLIMB PWR. THE ENGINE PWR WAS REDUCED AND COMPRESSOR STALLS STOPPED. THE AC RETURNED TO DEPARTURE WITH NO FURTHER INCIDENT. INSP OF THE ENGINE IDENTIFIED THAT THE NR 1 ENGINE NOSE DOME HAD SEPARATED FROM THE ENGINE DURING FLIGHT AND MINOR DAMAGE TO THE INTAKE ACOUSTIC LINER AND FIRST STAGE COMPRESSOR BLADES. A BOROSCOPE INSP SHOWED NO INTERNAL ENGINE DAMAGE. THE FIRST STAGE COMPRESSOR BLADES WERE BLENDED, ENGINE INTAKE WAS REPLACED ALONG WITH THE NOSE DOME AND THE A/C WAS RETURNED TO SERVICE. (TC NR 20080208006)

CA080117004	BOEING		SKIN	DAMAGED
1/15/2008	737800*		143A321220	BS 480 S21L

(CAN) UNDERGOING MAINT, LIGHTNING STRIKE ON RIVET AT BS 480,1.3INCHES BELOW STRINGER 21, LT SIDE. REPAIRED IAW EA 5330-02286.

CA080116018	BOEING	PWC	STARTER	FAILED
12/25/2007	747400			APU ACC G/B

(CAN) WHILE DEPLANING PASSENGERS, AN OIL SMELL WAS NOTED IN THE CABIN ACCOMPANIED BY A FIRE WARNING. THE FIRE BOTTLES WERE DISCHARGED. THE ENGINE WAS REMOVED AND SENT FOR INVESTIGATION. INITIAL INSP INDICATES A MALFUNCTION OF THE STARTER MOTOR LEADING TO ACCESSORY GEARBOX DISTRESS. UPDATES WILL BE PROVIDED AS AVAILABLE. (TC NR 20080116018)

CA071128005	BOEING	PWC	TURBINE BLADES	SEPARATED
10/20/2007	747400			APU ENGINE

(CAN) DURING AC B-CHECK, AIRFRAME APU COMPARTMENT IMPACT DAMAGE WAS OBSERVED CAUSED BY APPARENT TURBINE BLADE LIBERATION AND CASE FLANGE SEPARATION. THE APU HAD BEEN DECLARED INOPERATIVE BY THE OPERATOR SINCE OCTOBER 20 2007. MFG WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED (TC NR 20071128005)

CA071012003	BOMBDR	HONEYWELL	HMU	MALFUNCTIONED
10/9/2007	BD1001A10		442324	ENGINE

(CAN) PILOT REPORTED, THEY LINED UP FOR TAKEOFF WITH PASSENGERS ON BOARD. WHEN HE ADVANCED THE THROTTLES FOR TAKEOFF, THE RT ENGINE DID NOT COME OUT OF IDLE. NO CAS MESSAGES. NO CURRENT FAULTS. NO CURRENT SERVICE MESSAGES. ONCE BACK AT THE FBO PASSENGERS DEPLANED. THE PILOT STILL HAD THE RT ENG RUNNING. HE ADVANCED THE RT THROTTLE. AGAIN, NOTHING HAPPENED. SYS PARAMETERS SHOWED THE CORRECT TQA TLA. HE HIT THE EVENT BUTTON. REMOVED RT ENGINE HMU AND INSTALLED A REPLACEMENT. OPS CHECK GOOD (TC NR 20071012003)

CA070925001	BOMBDR	HNYWL	CONE	CORRODED
9/22/2007	BD1001A10	AS90711A	138892629	NLG BEARING

(CAN) TO COMPLY WITH SB 100-32-10 (NLG REPLACEMENT OF THE LOCKING SEGMENT WITH A LOCKING COLLAR) BOTH NOSE WHEEL ASSY. WERE REMOVED TO GAIN ACCESS, CORROSION WAS FOUND ON ALL BRG CONES AND ON ALL BEARING CUPS. THE AXLE WAS ALSO FOUND TO HAVE CORROSION AND WAS REMOVED AND REPLACED. (2) SERVICEABLE NOSE WHEEL WERE ALSO INSTALLED. SINCE NO CAUSE WAS FOUND TO BE THE ROOT OF THE PROBLEM, THE OTHER CHALLENGER 300 SN 20107 303.3 TTSN FROM OUR FLEET WAS ALSO INSPECTED FOR CORROSION. THE LT NOSE WHEEL ASSY. WAS FOUND TO HAVE HEAVY BRG CONE AND CUP CORROSION. THE BRG CONE HAD TO BE DESTROYED TO REMOVE IT FROM THE AXLE. THE AXLE WAS INSPECTED AND FOUND SERVICEABLE. NO NOSE WHEEL ASSY HAD BEEN REPLACED SINCE BOTH AC HAD BEEN DELIVERED NEW FROM THE MFG. (TC NR 20070925001)

CA080114001	BOMBDR	PWC	SEQUENCE VALVE	FAILED
1/9/2008	DHC8400	PW150A	483025	LT MLG

(CAN) AFTER TAKEOFF, LT MLG DOOR AMBER LIGHT REMAINED ON (FA CONFIRMED LT MLG DOOR OPEN). GEAR EXTENDED THEN L DOOR AMBER LIGHT, LT RED, AND GEAR HANDLE LIGHT REMAINED ON (FA CONFIRMED THE GEAR WAS PARTIALLY EXTENDED). AFTER ABOUT 5 MINS, LT GREEN LIGHT ILLUMINATED AND LT MLG DOOR CLOSED. AIR RETURN TO BASE FOR LANDING. MAINT REPLACED LT MLG SOLENOID SEQUENCE VALVE. (TC NR 20080114001)

CA080115001	BOMBDR	PWC	LATCH	BROKEN
1/12/2008	DHC8400	PW150A	AR2674	MLG DOOR

(CAN) NOSE LANDING GEAR ALTERNATE RELEASE DOOR FAILS TO OPEN DURING PRE FLIGHT CHECK. ALTERNATE EXTENSION DOOR LATCH BROKEN CAUSING DOOR TO STICK IN CLOSED POSITION. REPLACED LATCH ALL CHECKS OK. (TC NR 20080115001)

CA080115002	BOMBDR	PWC	PUMP	FAILED
1/13/2008	DHC8400	PW150A	6617303	HYD SYSTEM

(CAN) DURING TAXI OUT THE NR 2 HYD PUMP CAUTION LIGHT ILLUMINATED. PTU WAS SELECTED ON AT THE TIME. SHUT OFF PTU AND ALL NR 2 HYD SYS CAUTIONS ILLUMINATED AND CONFIRMED NO PRESSURE ON NR 2 SYS. FLUID QTY WAS LOW. RETURNED TO TERMINAL WHERE MAINTENANCE FOUND FLUID COMING FROM ENGINE DRIVEN PUMP DRAIN. REMOVED EDP PUMP AND FOUND DRIVESHAFT SHEARED. PUMP REPLACED AND SYSTEM FLUSHED. AIRCRAFT RETURNED TO SERVICE. (TC NR 20080115002)

2008FA0000125	CASA	GARRTT	GEAR	BROKEN
2/12/2008	C212CC	TPE33110R	8937396	GEAR BOX

ENGINE RECEIVED WITH BROKEN FEATHER VALVE, NOSE CONE NUTS LOOSE, ROTATION OF ENGINE ROTATING COMPONENTS FOUND CLUNKY AND SEIZED. MAGNETIC PLUG CONTAMINATED WITH FINE METAL PARTICLES. NOSE CONE AND DIAPHRAGM REMOVED TO INVESTIGATE CAUSE OF FAILURE. WHEN DIAPHRAGM ASSY WAS REMOVED BIG CHUNKS OF METAL NOTICED AT THE GEARBOX CAVITY IDENTIFIED AS BULL GEAR PIECES. HIGH SPEED PINION GEAR HELICAL TEETH BROKEN OFF AND CRUNCHED. SEVERAL BULL GEAR TEETH BROKEN OFF. BIG PIECE (2-3 INCH) OF GEAR RIM MISSING AND FOUND TRAPPED BETWEEN DIAPHRAGM HOUSING AND SCAVENGE PUMP CAUSING A RUPTURE OF THE PUMP HOUSING. THE PRELIMINARY REASON FOR THE GEAR BOX FAILURE IS BELIEVED TO BE CAUSE BY BULL GEAR FAILURE. THE SEPARATION OF THE BULL GEAR RIM HAS CAUSED A SUDDEN STOPPAGE OF THE GEAR TRAIN TO THE PROPELLER RESULTING IN THE DAMAGE OF THE HSP HELICAL GEAR. MFG HAS BEEN CONTACTED AND FURTHER INVESTIGATION WILL BE REQUIRED TO CONFIRM PRELIMINARY CONCLUSION. (K)

CA080206007	CASA	PWA	PROPELLER	MALFUNCTIONED

12/17/2007 C212CC PW127

(CAN) DURING APPROACH, CREW REPORTED TORQUE AND PROP SPEED REDUCTION. THE PROPELLER FEATHERED AND AC LANDED. TROUBLESHOOTING IS FOCUSING ON AUTOFEATHER UNIT. MFG WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED. INSTALLATION IS CASA 295M. FLEET PRESENTLY GROUNDED AND TROUBLESHOOTING ON HOLD DUE TO CRASH OF SISTER AC. (TC NR 20080206007)

CA071002004 CESSNA LYC CYLINDER CONTAMINATED

9/30/2007 152 O235L2C 16A23033 NR 3

(CAN) ENG COMPRESSION CHECK WAS COMPLETED DUE TO REPORTED ROUGH RUNNING ENG. CYL NR 3 FOUND TO HAVE NO COMPRESSION AND WAS BOROSCOPED. DURING BOROSCOPE, A PIECE OF WIRE WAS FOUND TO BE HUNG UP BETWEEN THE INTAKE VALVE AND THE EXHAUST VALVE. CYLINDER WAS REMOVED. BOTH VALVES WERE REMOVED FROM THE CYL AND THE WIRE THAT WAS NOTICED DURING BOROSCOPING FELL OUT. UPON INVESTIGATION OF THE WIRE, IT WAS DETERMINED THAT THIS WIRE WAS FROM A SCAT HOSE WHICH WAS ATTACHED TO THE CARBURATOR AIR BOX. THE WIRE WAS APPROX 3 INCHES LONG AND WAS SUCKED UP THROUGH THE AIR BOX, CARBURATOR, INDUCTION SYS AND RT INTO THE CYL. DURING CLOSE INSP OF THE WIRE, CHAF MARKS WERE NOTICED ON THE WIRE WHERE IT HAD BEEN RUBBING ON THE EDGE OF THE DUCT OF THE AIRBOX. PROCEDURES WHEN INSTALLING SCAT HOSES SHOULD ENSURE THAT THE WIRE IS EXTERNAL OF THE DUCT BEING ATTACHED TO, SO THE WIRE CAN BE CLAMPED DOWN BY THE CLAMP SECURING THE SCAT HOSE. (TC NR 20071002004)

CA071002003 CESSNA LYC WIRE FAILED

9/25/2007 152 O235L2C LANDING LIGHT

(CAN) DURING TAKEOFF, ODOR NOTICED IN COCKPIT. FLIGHT CONTINUED. SMOKE AND SPARKS NOTICED FROM BEHIND AREA WHERE LANDING LIGHT SWITCH IS LOCATED. MASTER TUNRED OFF AND AC RETURNED TO FIELD. DURING THIS TIME, A FIRE HAD STARTED RIGHT BEHIND THE LANDING LIGHT SWITCH AND WAS EXTINGUISHED USING THE ONBOARD FIRE EXTINGUISHER. AC LANDED WITHOUT FURTHER INCIDENT. UPON INVESTIGATION, FOUND WIRES FROM BEHIND LANDING LIGHT HAD FALLEN OFF DUE TO LANDING LIGHT SWITCH OVER HEATING AND TERMINALS FROM THE SWITCH FALLING OFF. THIS ALLOWED THE SUPPLY WIRE FOR THE LANDING LIGHT SWITCH TO CONTACT GROUND AND START ARCING WHICH STARTED THE FIRE. THE CIRCUIT BREAKER WAS FOUND IN THE CLOSED POSITION INDICATING IT DID NOT OPEN DURING THE ARCING. (TC NR 20071002003)

FAA021208001 CESSNA FUEL CAP DAMAGED

2/12/2008 172

LEFT FUEL GAUGE INDICATED 10 GAL. IN TANK AT ALL FUEL LEVELS. THE TANK WAS DRAINED AND ACCESS COVER REMOVED. THE FUEL CAP RETAINING CHAIN WAS FOUND TO HAVE COME LOOSE ON THE TANK END "S" HOOK AND WRAPPED AROUND THE ARM ON THE FUEL LEVEL SENDING UNIT LOCKING IT AT A 10 GAL. INDICATION.

CA070216004 CESSNA LYC SPACER SHEARED

2/9/2007 172E IO360A1A 829 ENGINE MOUNT

(CAN) A RATTLE NOISE WAS HEARD AT ENGINE START. CLOSE INSP OF THE ENGINE MOUNT ASSY REVEALED ALL 4 MOUNT SPACERS, P/N 829, HAD SHEARED THEIR ATTACHMENT RIVET HEADS. THIS AC WAS MODIFIED IN THE PAST WITH 180HP CONVERSION. DISASSEMBLY REVEALED THE USE OF VERY SOFT ALUMINUM ALLOY RIVETS TO ATTACH THE ALUMINUM SPACERS TO THE STEEL TUBE MOUNT STRUCTURE, PN 17201-1, WEAR DAMAGE PREVENTED POSITIVE VISUAL ID OF THE RIVET TYPE. IT IS UNKNOWN IF THESE RIVETS ARE A FACTORY OR A FIELD INSTALLATION. FAILURE OF THESE RIVETS ALLOW SPACER TO OSCILLATE LATERALLY ON THEIR MOUNTING PADS. SUBMITTER RECOMMENDS TO EXAMINE THIS ENGINE MOUNT SPACER CLOSELY FOR SMOKING OR LOOSE RIVET HEADS AT INSP. (TC NR 20070216004)

2008FA0000123 CESSNA CONT BULKHEAD CRACKED

1/14/2008 172H O300* 05502366 PROP SPINNER

PROP SPINNER FWD, BULKHEAD CRACKED NEAR MOUNT BOLTS. PART PROBABLY NOT STURDY. RECOMMEND PART BE MADE OF THICKER METAL DOUBLER INSTALLED. ALSO, IT APPEARED THAT MOUNT BOLT HOLES MAY BE TOO LARGE. (K)

CA080207010	CESSNA	LYC		CARBURETOR	LOOSE
2/4/2008	172M	O320E2D		105217	ENGINE

(CAN) CARB HEAT SEEMED TO HAVE A SLIGHTLY EXCESSIVE DROP AT HIGHER RPM. (TC NR 20080207010)

CA070913002	CESSNA	LYC		BRUSHES	CONTAMINATED
9/13/2007	172M	O320E2D		ES4118	ALTERNATOR

(CAN) EXCESSIVE GREASE WAS APPLIED TO THE REAR ROTOR BEARING DURING OVERHAUL. SOME OF IT ESCAPED AND WAS FLUNG ONTO THE BRUSHES AND SLIP RINGS, FOULING THEM AND CAUSING A BUILDUP OF GREASE AND CARBON ON THE SLIP RINGS AND BRUSH FACES. THE ELECTRICAL RESISTANCE INCREASED AND THE FIELD CURRENT WAS REDUCED TO THE POINT THAT THE ALTERNATOR WAS UNABLE TO KEEP UP WITH THE AIRCRAFT`S REQUIREMENTS. (TC NR 20070913002)

CA061123005	CESSNA	LYC	CESSNA	FLAPPER VALVE	WORN
11/21/2006	172N	O320H2AD		055211313	CARB HEAT BOX

(CAN) DURING PROGRESSIVE CARE OPERATION NR 2, INSP OF THE CARBURETOR HEAT BOX (P/N 05521644) REVEALED THAT THE 2 ALUMINUM RIVETS THAT HOLD THE FLAPPER DOOR TO THE ACTUATOR SHAFT WERE VERY CLOSE TO SHEARING OFF. IF THE ALUMINUM RIVETS DID SHEAR, AND THE AC WAS FLYING IN CARBURETOR ICING CONDITIONS, ENGINE FAILURE COULD OCCUR. THERE IS ALSO THE CONCERN OF PIECES OF RIVETS BEING INGESTED INTO THE ENGINE. THE CARB AIR BOX WAS PURCHASED NEW FROM MFG, INSTALLED 16 MONTHS AGO AND IN SERVICE ON THIS ENGINE FOR 704.7 HRS. NOT SO LONG AGO, MFG USED STEEL RIVETS INSTEAD OF ALUMINUM. THIS DID NOT SEEM TO BE A PROBLEM IN THE PAST WITH STEEL RIVETS. (TC NR 20061123005)

CA070517004	CESSNA	LYC		PUMP	FAILED
9/18/2006	172P	O320D2J		211CW	VACUUM SYS

(CAN) LOSS OF VACUUM DURING START-UP. (TC NR 20070517004)

CA071003008	CESSNA	LYC		BRACKET	WORN
9/14/2007	172P	O320D2J		0510128	RUDDER

(CAN) ON A 100 HOUR INSPECTION, MAINT DISCOVERED THE RUDDER PEDAL TORQUE TUBE SPRING ATTACHMENT BRACKET HOLE WAS WORN MORE THAN HALF THRU. THIS IS A HARD TO INSPECT AREA AT THE FWD TUNNEL CENTER SECTION UNDER THE DASH. THE BRACKET WAS REPLACED AND RUDDER RE-RIGGED AS REQUIRED. (TC NR 20071003008)

2008FA0000091	CESSNA	LYC		TUBE	FAILED
1/22/2008	172R	IO360A1A			LANDING GEAR

FROM SEPT 7 TO PRESENT, AC HAS EXPERIENCED (3) LANDING GEAR TIRE TUBE FAILURES. FAILURES ALL OCCURRED IN THE SIDEWALL OF THE TUBES. THERE WAS NO EVIDENCE OF THE TUBES BEING PINCHED OR OTHERWISE DAMAGED DURING INSTALLATION. DAMAGE RANGED FROM SMALL (.1250 INCH) SPLITS TO A LARGE (.5 INCH) SPLIT. EXAMINATION OF THE TUBE SIDEWALLS EVIDENCED WHAT APPEAR TO BE SOME FORM OF (WEATHER CHECKING) THAT NORMALLY APPEARS ON OLD RUBBER COMPONENTS. ALL TUBES WERE OF RECENT MANUFACTURE. ONE FAILURE OCCURRED ON A G15/6.00/6 TUBE (PN 302-246-401) WITH TT OF 123 HOURS. (2) FAILURES OCCURRED ON 5.00 X 5 TUBES (PN 302-013-400 AT 125 HOURS AND 112 HOUR RESPECTIVELY. TUBES WERE FORWARDED TO MFG FOR EVALUATION. EVALUATION IS CURRENTLY IN PROGRESS. NOTE: AT EACH TUBE FAILURE, NEW TIRES WERE INSTALLED. REMOVED TIRES SHOWED NO EVIDENCE OF DEFECTS THAT MAY HAVE CAUSED FAILURES. (K)

PAI52008S4877	CESSNA			SUPPORT FITTING	BROKEN
2/9/2008	182T			07436062	NLG

PILOT COMPLAINED OF NOSE WHEEL SHIMMY. INSPECTION FOUND RIGHT-HAND SIDE OF NOSE GEAR LOWER SUPPORT FITTING BROKEN.

CA080116021	CESSNA	PWA		ENGINE	POWER LOSS
1/9/2008	208B	PT6A114A			

(CAN) CLIMBING THROUGH 4000 FT, ENGINE PWR WAS LOST. ACTIVATION OF THE EMERGENCY POWER LEVER HAD NO EFFECT. THE ENG WAS SECURED AND THE AC WAS ABLE TO RETURN TO POINT OF DEPARTURE. INITIAL INVESTIGATION REVEALS AN EXTERNAL OIL LEAK AND A SEIZED PROP SHAFT ROTOR. THE ENGINE HAS BEEN IMPOUNDED BY THE AUTHORITIES AND WILL BE INVESTIGATED IN THE MFG FACILITY. UPDATES WILL BE PROVIDED IN DUE COURSE. (TC NR 20080116021)

CA070607002	CESSNA	CONT	MOTORCRAFT	RETAINING NUT	MISSING
6/6/2007	210R	IO520L		359553S8	ALTERNATOR SHAFT

(CAN) PILOT HAD CALLED AND REPORTED THAT THE ALTERNATOR THAT WE HAD REPLACED THE NIGHT BEFORE HAD GONE OFFLINE .7 HRS AND A SLIGHT ODOR OF BURNING RUBBER NOTED INTO HIS FIRST LEG OF FLIGHT. UPON LANDING INVESTIGATION HAD REVEALED THAT THE ALTERNATOR SHAFT FAN RETAINING NUT HAD COME LOOSE AND EXITED THE AC. FAN HAD ROTATED ON SHAFT AND DRIVE BELT HAD COME OFF. NO DAMAGE TO ANYTHING IN ENG COMPARTMENT EXCEPT TO ALTERNATOR COMPONENTS. THIS ALTERNATOR HAD BEEN REPAIRED AND TESTED BY A COMPANY, WHICH I WILL NOT NAME THAT THIS HAS HAPPENED BEFORE. THE FAN HAD ALSO COME OFF THE SHAFT, POSSIBLY DUE TO INSUFFICENT TORQUE ON RETAINING NUT OR SELF LOCKING ABILITY OF NUT WAS NOT SUFFICENT. SERVICEABLE ALTERNATOR INSTALLED AND AC BACK IN SERVICE. (TC NR 20070607002)

2008FA0000095	CESSNA	CONT	MCAULY	HUB	CRACKED
2/4/2008	402B	TSIO520*			PROPELLER

RELEVENT INDICATION (CRACKED 2 PLACES). (K)

CA070510004	CESSNA	CONT	CYLINDER	BROKEN
4/20/2007	421C	GTSIO520L	TISN73OCA221	NR 2

(CAN) WHEN DOING 100 HRS INSP, FOUND DAMAGE ON COVER VALVE ROCKER CYLINDER NR 4, COVER (PN : 631834) REMOVED AND FOUND RETAINER ROCKER SHAFT (PN: 646032) BROKEN. NEW CYLINDER WAS INSTALLED IN POSITION NR 4. ALSO FOUND CYLINDER NR 2 WITH LOW COMPRESSION (50 PSID), THE CYLINDER WAS REPLACED BY NEW ONE. (TC NR 20070510004)

2008FA0000106	CESSNA		BRACKET	CORRODED
2/11/2008	550			VOLT REGULATOR

LT GENERATOR VOLTAGE REGULATOR MOUNT BRACKET FOUND TO HAVE CORROSION AT MOUNT SURFACE. ELECTRICAL GROUND PATH AFFECTED. CORROSION REMOVED ALLOWING GOOD GROUND AND ABLE TO ADJUST VOLTAGE REGULATOR, TO SPEC.

CA080206012	CESSNA	PWA	ENGINE	MAKING METAL
1/24/2008	550	JT15D4		

(CAN) THE CREW NOTED A LOW OIL PRESSURE WARNING DURING CRUISE AND ELECTED TO SHUTDOWN THE ENGINE. POST FLIGHT INSPECTION REVEALED OIL RESIDUE IN THE TAIL PIPE AND METAL PARTICLES ON THE OIL FILTER. THE ENGINE WAS REMOVED FOR INVESTIGATION. MFG WILL CONTINUE TO INVESTIGATE THE EVENT AND REPORT FINDINGS ONCE ROOT CAUSE IS ESTABLISHED. (TC NR 20080206012)

CA080206013	CESSNA	PWA	OIL CAP	LOOSE
1/29/2008	550	JT15D4		ENGINE

(CAN) DURING CLIMB AT FL150, THE LOW OIL PRESSURE WARNING ANNUNCIATED AND PRESSURE WAS OBSERVED TO DROP TO 35 PSIG. THE ENGINE WAS SHUTDOWN BY THE CREW WHEN THE PRESSURE REDUCED TO 20 PSIG AND THE AC RETURNED TO BASE. POST FLIGHT INVESTIGATION INDICATES THAT THE OIL FILLER CAP MAY NOT HAVE BEEN PROPERLY SECURED PRIOR TO THE FLIGHT. (TC NR 20080206013)

CA080116014	CESSNA	PWA	FUEL SYS	LOW PRESSURE
1/6/2008	550	JT15D4		ENGINE

(CAN) DURING PRE TAKEOFF ACTIVITES, THE LOW FUEL PRESSURE WARNING ILLUMINATED. AS THE AC TAXIED BACK TO THE RAMP, THE ENGINE SHUT ITSELF DOWN. ENGINE RESTARTS WERE UNSUCCESSFUL. THE FUEL FLOW DIVIDER WAS REPLACED AND THE AC RETURNED TO SERVICE. (TC NR 20080116014)

CA080116011	CESSNA	PWA		FUEL CONTROL	INOPERATIVE
12/26/2007	560CESSNA	JT15D5			ENGINE

(CAN) DURING APPROACH, THE ENGINE DID NOT RESPOND TO THRUST LEVER INPUTS AND REMAINED AT IDLE. AFTER LANDING GROUND TESTS INDICATED THAT THE ENGINE WOULD NOT ACCELERATE ABOVE 46 PERCENT, N2. THE FUEL CONTROL WAS REPLACED AND AIRCRAFT RETURNED TO SERVICE. (TC NR 20080116011)

CA070528012	CESSNA	PWA		STARTER GEN	UNSERVICEABLE
5/24/2007	560CESSNA	PW535A		300SGC12902	RIGHT

(CAN) RT ENGINE GENERATOR FAILED WHICH ILLUMINATED THE GENERATOR FAIL LIGHT. AC RETURNED TO BASE. (TC NR 20070528012)

CA080116012	CESSNA	PWA		FUEL CONTROL	MALFUNCTIONED
12/31/2007	560XL	PW545A			ENGINE

(CAN) DURING APPROACH AT 3000 FEET, THE LOW FUEL FLOW WARNING CAME ON, FOLLOWED BY ENGINE SHUTDOWN. THE FUEL CONTROL HAS BEEN REMOVED AND SUBMITTED FOR INVESTIGATION. UPDATES WILL BE PROVIDED WHEN AVAILABLE. (TC NR 20080116012)

CA080206009	CESSNA	PWC		OIL SYSTEM	EMPTY
1/22/2008	560XL	PW545B			ENGINE

(CAN) DURING CLIMB AT APPROX FL190, THE CREW RECEIVED A LOW OIL PRESSURE WARNING AND PERFORMED A COMMANDED SHUTDOWN OF THE ENGINE. THE AC WAS DIVERTED TO AN ALTERNATE LANDING SITE. POST FLIGHT INSP REVEALED NO INDICATION OF OIL ON THE SIGHT GLASS. NO SIGNS OF EXTERNAL LEAKAGE. THE ENGINE HAS BEEN REMOVED AND RETURNED TO MFG FOR INVESTIGATION. UPDATES WILL BE PROVIDED TO TC WHEN AVAILABLE. (TC NR 20080206009)

2008FA0000093	CESSNA	CONT		HUB	CRACKED
2/4/2008	A188B	IO520D			PROPELLER

PROPELLER HUB CRACKED. (K)

2008FA0000094	CESSNA	CONT	MCAULY	HUB	CRACKED
2/4/2008	M337B	IO360D			PROPELLER

RELEVENT INDICATION (CRACKED). (K)

2008FA0000107	CESSNA	CONT		POWERPACK	WORN
2/9/2008	T210N	TSIO520*		98811241	HYD SYSTEM

SMOKE IN COCKPIT, GEAR NOT FULLY RETRACTED, EXTENDED OK. FOUND HYDRAULIC POWERPACK MOTOR (ORIGINAL) WORNOUT. REMOVED AND REPLACED WITH O/H UNIT. OPS, OK.

CA061117002	CESSNA	CONT		CONTROLLER	FAILED
9/21/2006	TU206A	TSIO520C		4707829003R	OIL PRESSURE

(CAN) ERRATIC MANIFOLD PRESSURE DUE TO CONTROLLER FAILURE TO REGULATE OIL PRESSURE FROM WASTEGATE (TC NR 20061117002)

CA071017002	CNDAIR	PWA		FUEL CELL	LEAKING
10/17/2007	CL2156B11215	PW123		21564002	

(CAN) FUEL LEAK ON BOTTOM OF FUEL CELL NR 5 LT. (TC NR 20071017002)

CA071011006	CNDAIR			FCU	MALFUNCTIONED
10/9/2007	CL600*			6047T74P13	ENGINE

(CAN) WHILE ENROUTE AND AT FL 400, THE NR 1 ENGINE FLAMED OUT. AC DESCENDED TO FL200 AND RESTARTED IAW AFM. AC ARRIVED SAFELY. MFG REP IS ON SITE AND RECOMMENDED THAT THE FUEL CONTROL UNIT BE REPLACED. (TC NR 20071011006)

CA080115011	CNDAIR	GE	LINE	RUPTURED
12/17/2007	CL6002B16	CF343A1	AE4186G0210000	HYDRAULIC SYS

(CAN) PRESSURE LINE ON NR 3A PUMP RUPTURED AND SYS FLUID WAS LOST. GEAR WAS ALTERNATELY EXTENDED AND LANDED WITHOUT INCIDENT. THE HOSE WAS REPLACED AND THE AC WAS FERRIED. THE GEAR WAS SWUNG AND THE HYDRAULICS BLED, TESTED SERVICEABLE. THERE ARE CURRENTLY NO LIFE LIMIT ON THESE LINES. (TC NR 20080115011)

CA080105001	CNDAIR	GE	RELAY	FAILED
12/24/2007	CL6002B19	CF343A1	VS643	ELECTRICAL PWR

(CAN) UPON ARRIVAL, GROUND PWR APPLIED TO AC BUT SHUTOFF IMMEDIATELY. GROUND PWR RESTARTED AND AFTER ABOUT A MINUTE CREW NOTED NUMEROUS CIRCUIT BREAKERS POPPED, HEARD A LOUD BANG FROM THE NOSE SECTION AND A LIGHT SMELL OF SMOKE IN THE COCKPIT. CIRCUIT BREAKERS POPPED INCLUDED CENT TRU 1, NAV LIGHTS, TRU 1, TRU2, STCU, TRU SERVICE, SENSOR TOILET, CEILING LIGHTS, SIDEWALL LIGHTS AND STAB CHAN HSTCU. MAINT TROUBLESHOOTING, TRACED FAULT TO AN AC SERVICE BUS FAULT. PWR SENSE RELAY K5XD (P/N VS-643) IN JB6 REPLACED (SHORTED WIRING ALSO REPAIRED). NUMEROUS OTHER PARTS REPLACED DUE TO DOWN LINE FAILURES. (HSTCU P/N 7060-10, S/N 213.) LT AND RT WINDSHIELD HEAT CONTROLLERS P/N 601R59006-5, S/N'S 5131 & 3475(SOME BURNED CONNECTOR PINS P/N M83723-75R20256 ALSO REPLACED). (LT AND RT BOARD ASSY COMPONENT FILTER P/N'S 601R5138-11/01 AND /02. - FUSE P/N FM01A125V1-1-2A FOR PILOT`S SIDE CONSOLE INTEGRAL LIGHTING POWER SUPPLY/DIMMING UNIT. (RT IB NAV LIGHT P/N 9203.) UPPER TAIL NAV LIGHT P/N 1683. (STAB MOTOR CONTROL UNIT P/N 7062, S/N 367. - NR 2 LOGO LIGHT P/N 4626. (TC NR 20080105001)

CA080106001	CNDAIR	GE	ACM	SMOKE
1/4/2008	CL6002B19	CF343B1	78279015	NR 1

(CAN) SMOKE IN COCKPIT AND CABIN ON T/O ROLL. DURING T/O ROLL, SMOKE APPEARS IN THE COCKPIT AND CABIN FIRSTS ROWS. ABORTED T/O, RETURN TO BLOCKS. ACM NR1 DETERMINED TO BE THE SOURCE OF THE SMOKE. ACM NR1 DEFERRED IAW MMEL 21-51-1. (TC NR 20080106001)

CA080104004	CNDAIR	GE	BPSU	FAILED
1/1/2008	CL6002B19	CF343B1	855D1009	TE FLAPS

(CAN) DURING PUSH BACK CREW SELECTED FLAPS TO 20 DEGREES AND RECEIVED A FLAP FAIL CAUTION MESSAGE. MAINT TROUBLESHOOTING LED TO REPLACEMENT OF RT BRAKE POSITION SENSOR UNIT (BPSU) AND RIGGING OF LT AND RT BPSU'S. OF NOTE THE FIRST NEWLY INSTALLED RT BPSU (S/N 172, TSN 17175, TSO 4879, CYCLES 3697) HAD TO BE REPLACED AS IT FAILED THE ELECTRICAL RIGGING. (TC NR 20080104004)

CA080106003	CNDAIR	GE	BPSU	INOPERATIVE
1/3/2008	CL6002B19	CF343B1	855D1009	TE FLAPS

(CAN) FLAP FAIL MESSAGE DISPLAYED WHILE AC PARKED AT THE GATE. TROUBLESHOOTING REVEALED BRAKE AND POSITION SENSOR UNIT (BPSU) RT AND LT OUT OF LIMITS. MAINTENANCE RIGGED LT BPSU AND REPLACED RT BPSU. (TC NR 20080106003)

CA080108001	CNDAIR	GE	SUMP	LEAKING
12/18/2007	CL6002B19	CF343B1		NR 1 ENGINE

(CAN) SMOKE CARGO MESSAGE SHORTLY AFTER T/O AND ODOR OF SMOKE ON FLIGHT DECK. LANDED, & TAXI TO PARKING AND DEBARKING OF PAX, CABIN INSPECTED BY FIRE BRIGADE. CABIN CREW REPORTED NO SMOKE IN CABIN AND TOILET DURING FLT AND TAXI BACK. DURING TROUBLESHOOTING, FOUND A-SUMP OIL LEAK ON ENGINE NR 1. A-SUMP CARBON SEAL NR 1 AND NR 3 ON ENGINE NR 1 ON WING ACC. SEI 756 SPECIAL PROCEDURE 41 REPLACED. INSP AND ENGINE RUNS SATISFACTORY. NO MORE SMOKE OBSERVED. REF OS WO 5524048. AIRCRAFT RELEASED TO SERVICE.

CA080110006	CNDAIR	GE	FCU	FAULTED
1/5/2008	CL6002B19	CF343B1	860D10018	TE FLAPS

(CAN) THE CREW RECEIVED A FLAP FAIL .5 HR INTO THE FLIGHT CLIMBING BETWEEN 25000 TO 27000 FT. THE AC RETURNED WITHOUT INCIDENT. MAINT T/S WAS CARRIED OUT AND THE LT AND RT BPSU'S WERE SWAPPED FOR

T/S. SUSPECTED FAULTY FECU, FECU REPLACED, FUNCTION CHECK C/O AND TEST FLIGHT C/O SATISFACTORY. (TC NR 20080110006)

CA080112001	CNDAIR	GE	ADG	UNWANTED DEPLOY
1/10/2008	CL6002B19	CF343B1	600591435	

(CAN) A/C RETURNED DUE TO ADG UNCOMMANDED DEPLOYMENT ON T/O. PRESENTLY THE AUTO DEPLOYMENT SYS IS UNDER MEL UNTIL MAINT PERMITS. UPDATE FURTHER WHEN T/S HAS BEEN C/O. (TC NR 20080112001)

CA080115010	CNDAIR	GE	LATCH	STUCK
1/13/2008	CL6002B19	CF343B1		LAVATORY DOOR

(CAN) ON SHORT FINAL A PASSENGER GOT STUCK INTO LAVATORY COMPARTMENT. THE F/A TRIED TO UNLOCK THE DOOR LATCH BUT THE PASSENGER ELECTED TO KICK THE DOOR OFF. IMPORTANT DAMAGES WERE DONE TO THE DOOR HINGE AND LOCKING MECHANISM. AT THIS TIME, INVESTIGATION COULD NOT IDENTIFY THE CAUSE OF THE INCIDENT. (TC NR 20080115010)

CA080117001	CNDAIR	GE	ENGINE	FLAMED OUT
1/10/2008	CL6002B19	CF343B1		LEFT

(CAN) FLIGHT,IN CRUISE, LT ENGINE FLAMED OUT WITH NO PREVIOUS WARNINGS. FLIGHT CREW TRIED TO RESTART LT WITHOUT SUCCESS. AC LANDED. NO ENGINE EXCEEDANCES FOUND. NO EVIDENCE OF WATER CONTAMINATION IN MAIN FUEL TANKS AND FUEL FILTER HOUSING. PERFORMED A VISUAL EXTERNAL AC INSP AND NO EVIDENCE OF LIGHTNING STRIKE. CHECKED ENGINE THROTTLE RIGGING, FOUND OK. CHECKED FEEDBACK CABLE, FOUND OK. DURING T/S THE ENGINE STARTS NORMALLY, AND ALL ENGINE PARAMETERS ARE STABLES AND NORMAL. POWER ASSURANCE CHECK PERFORMED AND ALL ENGINE PARAMETERS ARE WITHIN SERVICEABLE LIMITS.

CA071024001	CNDAIR	GE	BPSU	INOPERATIVE
10/21/2007	CL6002B19	CF343B1	855D10011	TE FLAPS

(CAN) THE AC SUFFERED FROM (2) SIMILAR FLAP PROBLEMS IN A SHORT PERIOD OF TIME. THE 1ST OCCURRENCE HAPPENED ON OCTOBER 20TH 2007. THE CREW REPORTED A FLAP FAIL CAUTION MESSAGE AFTER TAKEOFF WHEN FLAPS WERE SELECTED UP. THE AC TURNED BACK AND LANDED SAFELY. THE CREW COMPLETED A VISUAL INSP OF THE FLAPS, THE SYS WAS RESET AND SEVERAL CYCLES COMPLETED. UPON DESTINATION, THE FAULT CODES WERE DOWNLOADED AND THE SYS CHECKED SERVICEABLE BY MAINT. ON OCTOBER 21ST, CREW REPORTED A FLAP FAIL CAUTION MESSAGE AFTER TAKEOFF. THE EICAS SECONDARY DISPLAY FLIGHT CONTROLS PAGE WAS INDICATING LT FLAP POSITION AT 6 DEGREES AND RT AT 8 DEGREES. THE FLIGHT CREW ELECTED TO CONTINUE THE FLIGHT AND LANDED WITHOUT INCIDENT AT DESTINATION. THE FLAP ELECTRONIC CONTROL UNIT (FECU) P/N 601R93050-7 AND THE RT BRAKE AND POSITION SENSOR UNIT (BPSU) P/N 855D100-11 WERE REPLACED AND ADJUSTED. THE AC WAS RELEASED AND A SUCCESSFUL TEST FLIGHT WAS COMPLETED. (TC NR 20071024001)

CA080110003	CNDAIR	GE	CONNECTOR	FAILED
1/10/2008	CL6002C10	CF348C5		TE FLAPS

(CAN) FLAP FAIL MESSAGE ON POWER UP. CODES READ AND BPSU NR 2 WIRING FAILED. MEL 27-51-02-1 APPLIED. WILL PROVIDE UPDATE WHEN MORE INFO BECOMES AVAILABLE (TC NR 20080110003)

CA080106004	CNDAIR	GE	PROXIMITY SENSOR	MALFUNCTIONED
1/2/2008	CL6002C10	CF348C5	895001	NLG

(CAN) AFTER TAKEOFF, A LANDING GEAR DISAGREE WARNING MESSAGE WAS DISPLAYED. CREW CYCLED THE GEAR UNTIL SELECTED DOWN AND GEAR LOCKED DOWN INDICATION (3 GREEN LIGHTS). AC PERFORMED A TURNBACK AND LANDED UNEVENTFULLY (AFTER FUEL DUMPING FOR NOT LANDING OVERWEIGHT). TROUBLESHOOTING PINPOINTED TO THE WEIGHT OFF WHEELS NR 2 SENSOR (PX 11), BEING OFF RIGGING LIMITS. MAINT PERFORMED RE-RIGGING FOLLOWED BY A SUCCESSFUL GROUND TESTS AND AC RETURNED TO SERVICE. AIRFRAME HOURS=7855:04. CYCLES=3748. (TC NR 20080106004)

CA080106002	CNDAIR	GE	ACTUATOR	FOD
12/28/2007	CL6002D24	CF348C5B1	501177003	STICK PUSHER

(CAN) THE CABLE RUNS HAVE BEEN INSPECTED IN THE FWD ELECTRONICS BAY AND THE FWD QUADRANTS HAVE BEEN INSPECTED AND NO DEFECTS NOTED. THE FWD PULLEYS AND CABLES WERE LUBED AND AC SENT FOR A TEST FLIGHT. IN ALL OTHER MODES OF FLIGHT THE AC OPERATES NORMALLY. ONLY ON LANDING WHEN THE PILOTS HAVE FLARED THE NOSE UP AND THE MLG HITS THE GROUND DOES IT SEEM TO LOCK UP PREVENTING THE PILOTS FROM PRESSING THE NOSE DOWN TO LAND. WITH THE AC ON THE GROUND AND THE PITCH DISCONNECTED YOU CAN FEEL WHAT IS DESCRIBED AS A ROUGH SPOT IN THE FO'S YOKE AS YOU MOVE HALF WAY FROM FULLY AFT TO CTR AND HALF WAY FROM CENTER POSITION TO FULLY FWD POSITION. PROBLEM WAS SOLVED BY REPLACING THE STICK PUSHER ASSY. STICK PUSHER WAS OPENED UP AND FOD WAS DISCOVERED IN THE UNIT. (TC NR 20080106002)

CA071022001	CNDAIR	GE	TUBE	CRACKED
10/19/2007	CL6013A	CF343A2	22852402115	FUEL

(CAN) DURING POWER PLANT BUILD UP, FOUND LINE P/N 228-52402-115 FOR PYLON STATIC PRESSURE TO FCU CRACKED AT MIDDLE. THE CRACK WAS HIDDEN BY A LINE IDENTIFICATION DECAL. LINE WAS REMOVED AND REPLACED AIRCRAFT WILL BE RETURNED TO SERVICE. (TC NR 20071022001)

CA080116024	CNDAIR	GE	MESSIER	PROXIMITY SWITCH	MISINSTALLED
1/13/2008	CL604	CF343B		16868101	NLG

(CAN) DURING APPROACH, GEAR WAS SELECTED DOWN AND NLG INDICATED AMBER. NO GEAR DISAGREE MESSAGE POSTED. GEAR WAS RAISED NORMALLY AND MISSED APPROACH WAS EXECUTED. AT THAT MOMENT QRH ACTIONS WERE CARRIED OUT FOR GEAR MALFUNCTION. NOSE GEAR INDICATION BECAME RED. TROUBLESHOOTING WAS CARRIED OUT VIA RADIO WITH ENGINEERING NOSE GEAR WOULD NOT INDICATE DOWN. A LOW APPROACH WAS CONDUCTED AT AIRPORT TO VISUALLY CHECK NOSE GEAR POSITION. GEAR APPEARED DOWN. EMERGENCY DECLARED. FOLLOWED BY AN UNEVENTFUL LANDING. THE AC WAS PUT IN QUARANTINE FOR TEST ON GROUND AND FINDING OF THE ROOT CAUSE. AFTER DEPLOYMENT TEST ON LANDING GEAR AND FUNCTIONAL TEST ON PSEU THE PROBLEM WAS DISCOVERED. THE PROBLEM WAS AN INAPPROPRIATE GAP BETWEEN PROXIMITY SENSOR NOSE GEAR DOWNLOCK, NR 2, PN 16868-101 AND THE TARGET GAP SHOULD BE 0.060 TO 0.070 INCHES AND GAP WAS 0.091. PROBLEM FIXED, AC RETURN IN SERVICE. FLIGHT CARRIED OUT WITHOUT ANY PROBLEM REGARDING LANDING GEAR. (TC NR 20080116024)

CA080116016	DHAV	PWA	TURBINE BLADES	FRACTURED
11/26/2007	DHC6300	PT6A27		ENGINE

(CAN) DURING TAKEOFF ROLL, THE ENGINE LOST POWER. TAKEOFF WAS ABORTED AND AC RETURNED TO THE RAMP. INVESTIGATION BY MFG REVEALED FRACTURED COMPRESSOR TURBINE BLADES AND A FRACTURED FUEL BYPASS LINE. (TC NR 20080116016)

CA080212004	DHAV	PWA	ADAPTER	CRACKED
1/29/2008	DHC6300	PT6A27	C6WM10271	SPAR

(CAN) UPON COMPLIANCE WITH SB 6/540 (WING-FRONT SPAR ADAPTER ASSY (P/N C6WM1027-1) INSP FOR CRACKS) A CRACK WAS FOUND ON THE RT FRONT SPAR ADAPTER. REPLACED RT FRONT SPAR ADAPTER ASSY PN C6WM1027-1 WITH PN C6WM1027-3 IAW SB NO 61542. ALSO REPLACED WEB SUB ASSY SPAR P/N C6W1030-S102 AND WEB NOSE SPAR C6W1056-62 SRM PSM 1-6-3, CHAPTER 51-10-00 AND 51-30-00. (TC NR 20080212004)

CA080212001	DHAV	PWA	ADAPTER	CRACKED
2/12/2008	DHC6300	PT6A34	C6WM10271	SPAR

(CAN) UPON COMPLIANCE WITH SB 6/540 (WING-FRONT SPAR ADAPTER ASSEMBLY (P/N C6WM1027-1) INSPECTION FOR CRACKS) A CRACK WAS FOUND ON THE LT FRONT SPAR ADAPTER. REPLACED LT FRONT SPAR ADAPTER ASSY PN C6WM1027-1 WITH PN C6WM1027-3 IAW SB NR 61542. (TC NR 20080212001)

CA080116017	DHAV	PWA	HOUSING	CRACKED
1/15/2008	DHC7102	PT6A50	15101103	STRUT

(CAN) DURING A 6 YEAR CORROSION INSPECTION, A CRACK WAS FOUND ON THE LT MLG OUTER HOUSING. THE CRACK IS LOCATED ON THE FWD SIDE AT ABOUT THE ONE O'CLOCK POSITION JUST WERE THE HOUSING TAPERS DOWN. EDDY CURRENT WAS USED ON THE CRACK, IT WAS DEEPER THAN THE 0.040. THE LANDING GEAR HAS A 60 000 LANDING LIFE LIMIT AND A 10 000 LANDING INSPECTION REQUIREMENT, THIS GEAR HAD 44 528

LANDINGS SINCE NEW AND 5925 LANDINGS SINCE INSPECTION. THE HOUSING WILL BE REPLACED. (TC NR 20080116017)

CA080115004	DHAV	PWA	LIGHT	SHORTED
1/12/2008	DHC8102	PW120A	30180B23D1683	CARGO BAY

(CAN) DURING FLIGHT, THE CREW REPORTED (TO MOC) THAT THEY HAD THE (SMOKE) WARNING ILLUMINATED. THEY WERE TOLD TO DO A TURNBACK AND RETURN TO AIRPORT WHERE MAINT STAFF MET THE AIRCRAFT. DURING THE INVESTIGATION, MAINT PERSONNEL FOUND THE SIDEWALL BAGGAGE DOOR LIGHT WIRE HAD COME OFF INTERNALLY AND WAS ARCING ON ITS CASE. LIGHT ASSY REPLACED AND ENGINE RUNS CARRIED OUT. (TC NR 20080115004)

CA080114003	DHAV	PWA	LUCAS	SENSOR	OPEN
1/10/2008	DHC8102	PW120A	31708001A		NR 2 A/C GEN

(CAN) HAD A FAILURE OF THE NR 2 AC GEN THE PREVIOUS WEEK, THE AC GEN WAS REPLACED WITH AN O/H UNIT. THE AC TOOKOFF AND AT 7000 FEET HAD A NR 2 AC GENERATOR FAIL, THE AC RETURNED TO THE AIRPORT. INVESTIGATION WAS C/O AND FOUND THAT THE SPEED SENSOR WAS OPEN. THE UNIT SENT BACK TO THE SHOP REPLACED THE SPEED SENSOR, UNIT REINSTALLED ON THE A/C AND FOUND SERVICEABLE. A/C DEPARTED ON JAN 14-2008 AND NO OTHER REPORT REPORTED. (TC NR 20080114003)

CA080211007	DHAV	PWA	MESSIER	ROLLER	SEIZED
2/7/2008	DHC8102	PW120A		101683	STRUT

(CAN) AFTER SELECTING LANDING GEAR DOWN THE LT MAIN GEAR REMAINED UP, THE LANDING GEAR WAS CYCLED UP AND DOWN AGAIN, THE LT GEAR CAME DOWN NORMALLY, (3) GREENS. THE AC WAS FERRIED BACK TO BASE, GEAR DOWN, FOR MAINT. AFTER CARRYING OUT (2) GEAR SWINGS ON JACKS THE LT GEAR REMAINED UP ON THE 2ND DOWN SELECTION, APPROX (1) MINUTE LATER THE LT GEAR RELEASED AND EXTENDED TO DOWN AND LOCKED. IT WAS DISCOVERED THAT THE UPLOCK ROLLER ON THE SHOCK STRUT ASSY WAS SEIZED, THE ROLLER WAS REMOVED LUBRICATED AND RE-INSTALLED. FURTHER RETRACTIONS AND EXTENSIONS WERE CARRIED OUT WITHOUT ANY PROBLEMS, AC RETURNED TO SERVICE. (TC NR 20080211007)

CA080213003	DHAV	PWA	WINDSHIELD	CRACKED
1/20/2008	DHC8102	PW120A	070303	COCKPIT

(CAN) WHILE IN CRUISE FLIGHT, THE F/O HEATED WINDSHIELD SHATTERED WITH NO APPARENT WARNING. THE CREW DEPRESSURIZED THE CABIN AND DESCENDED IAW THEIR CHECKLISTS AND CONTINUED THE FLIGHT TO THEIR DESTINATION. THE AC WAS ON A NON REVENUE FLIGHT TO A MAINT FACILITY FOR THE COMPLETION OF A C-CHECK. THE WINDOW HAS BEEN REPLACED AND NO DEFINITIVE REASON FOR THE FAILURE HAS BEEN DETERMINED. THE TT ON THE WINDOW CAN NOT BE ACCURATELY DETERMINED BUT THE WINDOW HAS A MANUFACTURE DATE OF JAN 20, 2000. (TC NR 20080213003)

CA080204004	DHAV	PWA	ACTUATOR	UNSERVICEABLE
1/31/2008	DHC8102	PW120A	8290018013	RT MLG DOOR

(CAN) RT MAIN GEAR DOOR CAUTION LIGHT AFTER T/O. GEAR CYCLED WITH NO CHANGE, FLIGHT RETURNED TO BASE. MAINT SUSPECTS THE FWD DOOR ACTUATOR TO BE AT FAULT. THE ACTUATOR WAS REPLACED AND FUNCTION CHECKS WERE C/O SERVICEABLE. THE ACTUATOR WAS REPAIRED 166 HOURS AGO, I HAVE REQUESTED A TEARDOWN REPORT AND WILL UPDATE FURTHER WHEN THE INFORMATION IS AVAILABLE. CURRENT A/C HOURS: 43033:33 CYCLES: 47150 (TC NR 20080204004)

CA080213006	DHAV	PWA	WHEEL	CRACKED
1/22/2008	DHC8106	PW121	314353	LT MLG

(CAN) DURING THE DAILY INSP, IT WAS NOTED THAT THE LT MAIN WHEEL WAS LOOSING AIR ON A DAILY BASIS. THE WHEEL ASSY WAS REMOVED AND SENT FOR INSP. INSP REVEALED THAT THE INNER RIM HALF WAS CRACKED AT THE FUSE PLUG AND FURTHER INSP REVEALED CRACKING AT THE BRG RACE. THIS WHEEL WAS REMOVED FOR THE FIRST TIME OFF OF A RECENTLY PURCHASED AC AND TOTAL TIME ON THIS PART IS UNDETERMINED. (TC NT20080213006)

CA080206010	DHAV	PWA	OIL SYSTEM	LEAKING

1/23/2008	DHC8201	PW123		ENGINE

(CAN) THE CREW RECEIVED A LOW OIL PRESSURE WARNING AND ELECTED TO SHUTDOWN THE ENGINE. SIGNS OF EXTERNAL LEAKAGE WERE FOUND AT POST FLIGHT INSP. THE ENG HAS BEEN REMOVED FOR INVESTIGATION AND REPAIR. MFG WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED. (TC NR 20080206010)

CA070911014	DIAMON	ROTAX	RUDDER PEDAL	WORN
8/16/2007	DA20A1	ROTAX912F3	2027220100	

(CAN) THE LT PILOT SIDE RUDDER CABLE PASSES THROUGH A TUBE ON THE PILOT RUDDER PEDAL. THIS TUBE WEARS AWAY DUE TO CHAFING AND IS UNDETECTABLE UNTIL THE CABLE HAS TOTALLY WORN THROUGH RESULTING IN BOTH PEDAL ASSY AND CABLE DAMAGE. (TC NR 20070911014)

CA080214001	DIAMON	CONT	RUDDER PEDAL	CORRODED
2/12/2008	DA20C1	IO240B	2227271400	COCKPIT

(CAN) IT HAS BEEN NOTICED THAT ALTHOUGH THIS AREA IS LUBRICATED IAW THE MFG MAINT SCHEDULE WITH LPS2, THIS AREA CONTINUOUSLY CORRODES TO THE POINT THAT IT AFFECTS THE POSITIONING OF THE RUDDER PEDALS. (TC NR 20080214001)

2008FA0000128	DIAMON	LYC	PUMP	INOPERATIVE
2/15/2008	DA40	O360A4M	51000020	FUEL SYS

AFTER A PREVIOUS FLIGHT, AND BEFORE THE NEXT STUDENTS FLIGHT, THE ELECTRIC FUEL PUMP WAS FOUND TO BE INOPERATIVE. INADEQUATE COOLING IS WHAT WE BELIEVE TO BE THE SOURCE OF THE MALFUNCTIONS. PROVIDE RAM AIR FOR PROPER COOLING OF FUEL PUMP AND MOTOR. (K)

2008FA0000131	DIAMON	LYC	PUMP	INOPERATIVE
3/7/2008	DA40	O360A4M	51000020	FUEL SYS

AFTER A PREVIOUS FLIGHT, AND BEFORE THE NEXT STUDENTS FLIGHT, THE ELECTRIC FUEL PUMP WAS FOUND TO BE INOPERATIVE. INADEQUATE COOLING IS WHAT WE BELIEVE TO BE THE SOURCE OF THE MALFUNCTIONS. PROVIDE RAM AIR FOR PROPER COOLING OF FUEL PUMP AND MOTOR. (K)

2008FA0000132	DIAMON	LYC	PUMP	INOPERATIVE
2/27/2008	DA40	O360A4M	51000020	FUEL SYS

AFTER A PREVIOUS FLIGHT AND BEFORE THE NEXT STUDENTS FLIGHT, THE ELECTRIC FUEL PUMP WAS FOUND TO BE INOPERATIVE. INADEQUATE COOLING IS WHAT WE BELIEVE TO BE THE SOURCE OF THE MALFUNCTIONS. PROVIDE RAM AIR FOR PROPER COOLING OF FUEL PUMP AND MOTOR. (K)

2008FA0000134	DIAMON	LYC	PUMP	INOPERATIVE
7/27/2007	DA40	O360A4M	51000020	FUEL SYS

AFTER A PREVIOUS FLIGHT AND BEFORE THE NEXT STUDENTS FLIGHT, THE ELECTRIC FUEL PUMP WAS FOUND TO BE INOPERATIVE. INADEQUATE COOLING IS WHAT WE BELIEVE TO BE THE SOURCE OF THE MALFUNCTIONS. PROVIDE RAM AIR PROPER COOLING OF THE FUEL PUMP AND MOTOR. (K)

2008FA0000136	DIAMON	LYC	PUMP	INOPERATIVE
2/21/2007	DA40	O360A4M	51000020	FUEL SYSTEM

AFTER A PREVIOUS FLIGHT, AND BEFORE THE NEXT STUDENTS FLIGHT, THE ELECTRIC FUEL PUMP WAS FOUND TO BE INOPERATIVE. INADEQUATE COOLING IS WHAT WE BELIEVE TO BE THE SOURCE OF THE MALFUNCTIONS. PROVIDE RAM AIR FOR PROPER COOLING OF FUEL PUMP AND MOTOR. (K)

2008FA0000120	DIAMON	LYC	CONTROL ARM	BROKEN
2/6/2008	DA40	O360A4M		CARB HEAT

CARBURETOR HEAT CONTROL ARM BROKE OFF OF CARB AIR BOX CAUSING UNCONTROLLED SELECTION OF CARB HEAT VS RAM (COLD) AIR INTAKE. RECOMMEND INSTALLIING THICKER MATERIAL ON CARB HEAT CONTROL ARM LEVER, DIFFERENT WELDING/HEAT TREATING PROCESS, OR DIFFERENT ATTACHMENT PROVISION

ALTOGETHER. (K)

2008FA0000121	DIAMON	LYC	CONTROL ARM	BROKEN
2/6/2008	DA40	O360A4M	D4F732612001	CARB HEAT

CARBURETOR HEAT CONTROL ARM BROKE OFF OF CARB AIR BOX CAUSING UNCONTROLLED SELECTION OF CARB HEAT VS RAM (COLD) AIR INTAKE. RECOMMEND INSTALLING THICKER MATERIAL ON CARB HEAT CONTROL ARM LEVER, DIFFERENT WELDING/HEAT TREATING PROCESS, OR DIFFERENT ATTACHMENT PROVISION ALTOGETHER. (K)

CA080115003	DIAMON	THIELT	ROD END	BENT
1/7/2008	DA42	TAE12501	KA6D8X50	AT AILERON

(CAN) WHILE RIGGING THE AILERON SYS FOLLOWING MAINT, NOTICED BOTH THE LT AND RT AILERON CONTROL ROD END FITTINGS WERE BENT WHERE THE CONTROL ROD IS ATTACHED TO THE BELLCRANK AT THE MOST OB POINT. NEW STRAIGHT FITTINGS WERE INSTALLED BUT THIS CAUSED THE AILERON SYS TO BIND. THERE IS NO REFERENCE IN THE IPC OR MM REFERENCING BENT ROD ENDS AS BOTH ROD ENDS ON THE CONTROL ROD HAVE THE SAME PN. (TC NR 20080115003)

CA080115006	DIAMON	THIELT	PUSHROD	BENT
1/14/2008	DA42	TAE12501	DSPR116X058	AILERON

(CAN) AFTER RECEIVING A REPORT OF AN ANOMALY WITH THE CONTROL ROD FROM ANOTHER OPERATOR, WE INSPECTED THE ROD ENDS ON OUR AC. WE ALSO FOUND THE ROD ENDS ON BOTH LT AND RT AILERONS BENT. THE ROD ENDS APPEAR TO HAVE BEEN BENT TO ACCOMODATE THE MOVEMENT OF THE AILERON BUT WE CANNOT FIND A DESCRIPTION OF THIS PROCESSS IN THE MAINTENANCE MANUAL. (TC NR 20080115006)

CA080115008	DIAMON	THIELT	CONTROL ROD	BENT
1/14/2008	DA42	TAE12501	DSPR116X058	AILERON

(CAN) AFTER RECEIVING A REPORT OF AN ANOMALY WITH THE CONTROL ROD FROM ANOTHER OPERATOR, WE INSPECTED THE ROD ENDS ON OUR AC. ALSO FOUND THE ROD ENDS ON BOTH LT AND RT AILERONS BENT. THE ROD ENDS APPEAR TO HAVE BEEN BENT TO ACCOMODATE THE MOVEMENT OF THE AILERON BUT WE CANNOT FIND A DESCRIPTION OF THIS PROCESSS IN THE MM. (TC NR 20080115008)

CA080115005	DIAMON	THIELT	PUSHROD	BENT
1/14/2008	DA42	TAE12502114	DSPR116X058	AILERON

(CAN) AFTER RECEIVING A REPORT OF AN ANOMALY WITH THE CONTROL ROD FROM ANOTHER OPERATOR, INSPECTED THE ROD ENDS ON OUR AC. ALSO FOUND THE ROD ENDS ON BOTH LT AND RT AILERONS BENT. THE ROD ENDS APPEAR TO HAVE BEEN BENT TO ACCOMODATE THE MOVEMENT OF THE AILERON BUT WE CANNOT FIND A DESCRIPTION OF THIS PROCESSS IN THE MM. (TC NR 20080115005)

CA071220002	DIAMON	THIELT	THIELT	ECU	MALFUNCTIONED
11/8/2007	DA42	TAE12502114		057610E000201	FADEC

(CAN) DURING FLIGHT TRAINING MANEUVERS, SIMULATED SINGLE ENG OPS AT 5000 FT ASL, THE LT ENGINE WAS THROTTLED BACK TO FLIGHT IDLE (5 PERCENT PWR, THROTTLE RETARDED). UPON RETURN TO NORMAL PWR OPS THE LT ENG BEGAN TO SURGE FROM 20-100 PERCENT PWR, REGARDLESS OF THROTTLE POSITION, ENG WAS UNCONTROLLABLE. THE LT ENGINE FADEC WAS SELECTED FROM ECU A TO ECU B AND CONTROL OF LT ENGINE WAS REGAINED. THE AC RETURNED TO DEPARTURE AND LANDED WITHOUT FURTHER INCIDENT. MAINT ACTIONS: DISCREPANCY COULD NOT BE DUPLICATED DURING GROUND TESTS. LT ENGINE OPERATED NORMALLY ON BOTH ECU A AND ECU B OF THE LT FADEC. LT HAD FADEC REPLACED AND AC RELEASED FOR TEST FLIGHT. NO FURTHER ENG SURGING NOTED. (TC NR 20071220002)

CO1Y200800001	DOUG		SUPPORT FITTING	CORRODED
3/7/2008	MD11F		ARB71701	MLG DOOR

AT LT MLG AND DOORS, FOUND BOLTS LOWER AND UPPER WITH PLI LOOSE ON LT FRAME SUPPORT.

CA071019004	EMB	PWA	TURBINE BLADES	FRACTURED

7/12/2007	EMB120	PW118		ENGINE

(CAN) ENGINE FLAMEOUT OUT IN CLIMB. RELIGHT ATTEMPT WAS UNSUCCESSFUL. SUBSEQUENT INSPECTION REVEALED FRACTURED TOWERSHAFT AND DAMAGED POWER TURBINE BLADES. (TC NR 20071019004)

CA071101003	EMB	GE	BEARING	SEIZED
10/29/2007	ERJ190100IGW	CF3410E5A1		NR 4 WHEEL

(CAN) THE A/C LANDED NORMALLY, TAXIED TO THE GATE AND STOPPED SHORT OF ITS FINAL POSITION. THE CREW REPORTED 60 PERCENT N1 REQUIRED (SINGLE ENG TAXI) TO MOVE THE AC FROM A HOLD SHORT OF THE GATE. THE GROUND CREW ARRIVING THE AC HEARD A LOT OF NOISE FROM THE RT GEAR AS IT MOVED TO THE GATE. NO OTHER FAULT INDICATIONS IN THE COCKPIT. UPON INSP OF THE RT LANDING GEAR IT WAS IDENTIFIED THAT THE (NR 4 WHEEL WAS DRAGGING AND INTERFERING WITH BRAKE CARRIER). FURTHER INSP FOUND THE WHEEL BRG SEIZED ON THE GEAR AXLE, WITH NR 4 TIRE AND THE BRAKE DAMAGED. DECOLONIZATION OF THE AXLE WAS NOTED DUE TO EXCESSIVE HEAT BUILD UP. THE RT LANDING GEAR ASSY, BRAKE AND TIRE WAS REPLACED IAW AMM. INVESTIGATION CONTINUES TO IDENTIFY THE ROOT CAUSE OF THE PROBLEM AND COMPONENT STRIP SHOP REPORTS ARE REQUESTED. (TC NR 20071101003)

2008FA0000111	ENSTRM	LYC	BEARING	SEIZED
3/4/2008	280FX	HIO360F1AD	ECD00213	TAIL ROTOR

THE THRUST BEARINGS IN THE TAIL ROTOR BLADE GRIPS ARE OF MATCHED SETS. THESE SETS HAVE A SPECIFIC INSTALLATION ORIENTATION. ORIENTATION OF THESE BEARINGS ARE MARKED WITH A (V). THE (V) IS TO BE ORIENTED TOWARD THE CENTER OF THE TAIL ROTOR SPINDLE HUB. ON THESE SPECIFIC BEARINGS THE (V) WAS MARKED POINTING THE WRONG DIRECTION LEADING TO A REVERSED INSTALLATION CAUSING A SEIZURE OF THE BEARINGS. ALL BEARINGS WERE INSTALLED IN ACCORDANCE WITH ENSTROM SERVICE LETTER 133 DATED JUNE 8, 1987 , SERVICE LETTER 153 DATED FEBRUARY 15, 2002 AND ENSTROM F SERIES MAINTENANCE MANUALS REVISION 1 DATED 4-3-86 AND REVISION 2 DATED 11-18-88.

CA080206011	FOKKER	PWA	TUBE	PUNCTURED
1/24/2008	F27MK50	PW125B	3035989	FUEL SYSTEM

(CAN) DURING CLIMB, AN ANTI-ICE WARNING FAULT WAS NOTED. 20 MINUTES LATER, AN ENGINE FIRE WARNING ANNUNCIATED. THE CREW FIRED ONE EXTINGUISHER BOTTLE AND SHUTDOWN THE ENGINE AND AN EMERGENCY WAS DECLARED. POST LANDING INVESTIGATION REVEALED THAT AN ENGINE SUPPLIED FUEL TUBE (PN 3035989) HAD BEEN PUNCTURED BY APPARENT FRETTING AND ABRASION AGAINST AN AIRFRAME SUPPLIED WIRING HARNESS. THE SUSPECTED TUBE WILL BE RETURNED TO MFG FOR INVESTIGATION. UPDATES WILL BE FURNISHED AS AVAILABLE. (TC NR 20080206011)

CA071001008	FRCHLD	GARRTT	GPS	FAILED
9/19/2007	SA227DC	TPE33112UHR	GPS430WX2	COCKPIT

(CAN) ON APPROACH, THE GPS430W UNITS INDICATED A DISTANCE OF 30 MILES WHICH THEN, SUDDENLY CHANGED TO AN INDICATED DISTANCE OF (2) TO (3) MILES CAUSING A LOSS OF CREW SITUATION AWARENESS. THE APPROACH WAS ABORTED. MFG WAS CONTACTED AND INFORMED OF THE PROBLEM. MFG REPLIED, STATING THE ERROR WAS CAUSED BY THE SOFTWARE VERSION IN USE WHICH WOULD BE CORRECTED ASAP. A COPY OF THE PILOT`S REPORT IS ENCLOSED. (TC NR 20071001008)

CA080114004	GROB		WIRE	CHAFED
12/12/2007	G120A			ALTERNATOR

(CAN) ALTERNATOR CB POPPED IN FLIGHT WITH MINOR SMELL OF SMOKE. AC RETURNED TO BASE WITHOUT FURTHER INCIDENT. MAINT FOUND THE ALTERNATOR PWR WIRE HAD CHAFED THROUGH THE OIL COOLER HSG AND GROUNDING CONTACT WAS MADE THROUGH CARBON FIBER LOWER COWLING AND HARDWARE ATTACH POINTS SEVERING THE GROUND CABLE FROM THE ALTERNATOR. THIS WAS THE THIRD INCIDENT (FOR FLEET) INVOLVING THE ALTERNATOR WIRES MAKING CONTACT WITH THE OIL COOLER SHROUD. MFG ADDRESSED THE PROBLEM BY ISSUING SB 1121-093, WHERE THE ALTERNATOR WIRES WERE SHORTENED AND SECURED AWAY FROM THE OIL COOLER SHROUD. (TC NR 20080114004)

CA070220006	GULSTM	PWC	ACTUATOR	LEAKING
2/16/2007	200	PW306A	31B525501	IGV

(CAN) AC PERFORMED NORMALLY FOR THE TAKEOFF AND INITIAL CLIMB TO 5000 FEET. APPROX (2) MINUTES INTO THE FLIGHT AFTER CLEARANCE TO 17000 FT WITH CLIMB PWR REAPPLIED TO COMMENCE THE CLIMB, THE RT ENG EXPERIENCED A COMPRESSOR STALL. AFTER (2) OR (3) SURGES THE ENGINE ROLLED BACK TO AROUND 50 PERCENT, N1 WITH FLUCTUATING RPM AND ITT. ROLLBACK WAS FOLLOWED BY A FADEC MAJOR FAIL FAULT LIGHT. THE PILOT REDUCED POWER ON THE RT ENGINE AND THE N1 STABILIZED AT FLIGHT IDLE. CHECKLIST WAS CALLED FOR AND THE RT ENG WAS SHUTDOWN IAW MFG CHECKLIST. FUEL DUMP WAS COMPLETED WITH CLEARANCE FROM THE DEPARTURE CONTROLLER AND THE AC WAS REDUCED TO LANDING WEIGHT AND RETURNED FOR LANDING AT AIRPORT WITH NO FURTHER INCIDENT. THE AC WAS TAKEN TO MFG FOR TROUBLESHOOTING. THE RT ENGINE FAULT CODE ON THE EDU WAS AH AND AF. MFG TECH SUPPORT INSTRUCTED TO REPLACE THE IGV LINEAR ACTUATOR. ACTUATOR WAS REPLACED AND CARRIED OUT GROUND RUNS, LEAK CHECK AND FULL PWR CHECKS SERVICEABLE. THE AC WAS RETURNED TO SERVICE AND DEPARTED WITHOUT FURTHER INCIDENTS OR OCCURRENCES. (TC NR 20070220006)

CA071207004	GULSTM	LYC	ENGINE	POWER LOSS
11/30/2007	500B	IO540B1A5		

(CAN) AFTER 45 MINUTE FLIGHT BOTH ENGINES BEGAN LOSING PWR WITH NO FUEL FLOW INDICATIONS OR FUEL PRESSURE INDICATIONS. ENGINES WOULD ONLY DEVELOP IDLE PWR. PILOT MADE A FORCED LANDING WITH MINOR INJURIES. FOLLOW UP INVESTIGATION TO FOLLOW. FOLLOW UP REPORT ON FINDING TO FOLLOW. (TC NR 20071207004)

CA080205008	GULSTM	GARRTT	POWER CABLE	FROZEN
2/4/2008	690A	TPE3315251K	540122519	POWER LEVER

(CAN) DURING A TEST FLIGHT, THE LT POWER LEVER CABLE FROZE AND WOULD NOT RESPOND TO INPUTS. THE OAT AT THE TIME WAS -28 DEG C. THE POWER SETTING WAS AT MAX ITT FOR TEST PURPOSES. SINCE THE PILOT COULD NOT REDUCE POWER, THE ENGINE WAS SHUTDOWN AND THE PROPELLER WAS FEATHERED. THE AC RETURNED TO THE AIRPORT AND LANDED WITHOUT INCIDENT. UPON INVESTIGATION, MOISTURE WAS FOUND IN THE POWER LEVER CABLE. THE MOISTURE WAS REMOVED FROM THE CABLE AND THE CABLE WAS INSPECTED SERVICEABLE. THE AC WAS RETURNED TO SERVICE. (TC NR 20080205008)

CA070918007	GULSTM	GARRTT	AEROCD	BULKHEAD	CRACKED
9/17/2007	695A	TPE33110		26009121	NACELLE

(CAN) DURING WINTER MAINTENANCE, REAR NACELLE BULKHEAD FOUND CRACKED IN THE RADIUS. BULKHEAD TO BE REPLACED. (TC NR 20070918007)

115301	GULSTM	DUCT	CRACKED
2/18/2008	GIV	1159AC30551103	APU INLET

A 9 INCH CRACK IN THE APU INLET DUCK (TITANIUM).

115302	GULSTM	DUCT	CRACKED
2/18/2008	GIV	1159AC30551103	APU INLET

A 9 INCH CRACK IN THE APU INLET DUCK (TITANIUM).

218081153	GULSTM	DUCT	CRACKED
2/18/2008	GIV	1159AC30551103	APU INLET

A 9 INCH CRACK IN THE APU INLET DUCK (TITANIUM).

21808	GULSTM	DUCT	CRACKED
2/18/2008	GIV	1159AC30551103	APU INLET

A 9 INCH CRACK IN THE APU INLET DUCK (TITANIUM).

DAL26220220	GULSTM	DUCT	CRACKED
2/18/2008	GIV	1159AC30551103	APU INLET

A 9 INCH CRACK IN THE APU INLET DUCK (TITANIUM).

CA080212005	HUGHES	LYC	BENDIX	LINK	DISCONNECTED
2/8/2008	269C	HIO360D1A			FUEL INJECTOR

(CAN) THE COTTER PIN SECURING THE IDLE MIXTURE LINK BLOCK TO THE MIXTURE CONTROL ARM BECAME DISLODGED. THIS ALLOWED THE MIXTURE LINK BLOCK TO BECOME DISCONNECTED FROM THE MIXTURE CONTROL ARM. RESULTING A LOSS OF CONTROL OVER FUEL FLOW TO THE ENGINE AND THE ENGINE RETURNED TO GROUND IDLE POWER. (TC NR 20080212005)

CA070928004	HUGHES	ALLSN	BELT	WORN
9/25/2007	369D	250C20B	369D25623	OIL COOLER

(CAN) ON LANDING, THE PILOT FELT A STRANGE VIBRATION. AFTER LANDING, THE AC WAS GROUNDED PENDING MAINTENANCE TROUBLESHOOTING. A CLOSE INSP WAS COMPLETED AND DETERMINED TO BE A LOOSE COOLER BELT CAUSING EXCESSIVE VIBRATION AT 100 PERCENT. THE BELT WAS REPLACED SHIMED PROPERLY AND GROUND RUN AND FLIGHT TEST COMPLETED. (TC NR 20070928004)

2008FA0000110	ISRAEL	ANTENNA	GOUGED
2/15/2008	ASTRASPX		VHF SYSTEM

FOLLOWING REMOVAL OF SATCOM ANTENNA FROM UPPER FUSELAGE FOR INSPECTION, NOTICED FOOTPRINT OF PREVIOUSLY REMOVED NR 1 VHF ANTENNA. UPON INSPECTION OF VHF ANTENNA FOOTPRINT, FOUND NUMEROUS APPARENT MECHANIC INDUCED GOUGES ON FUSELAGE OUTER SKIN. DAMAGE WAS APPARENTLY CAUSED BY IMPROPER REMOVAL OF PREVIOUSLY INSTALLED VHF ANTENNA. REPAIR WAS TO BLEND OUT GOUGES IAW DER EVALUATION. (K)

2008FA0000101	LEAR	YAW DAMPER	FAULTY
1/8/2008	24	238006679	

THIS PART FAILED TO OPERATE DURING FIRST FLIGHT, AFTER INSTALLATION, AT CRUISE.

CA071010004	LEAR	BRUSHES	BURNED
9/26/2007	31		MOTOR

(CAN) BRUSH ASSEMBLIES BURNED. (TC NR 20071010004)

CA071004003	LEAR	GARRTT	ARM	CRACKED
10/1/2007	35LEAR	TFE73122B	231127416	PAX DOOR

(CAN) DURING ROUTINE DAILY INSP, FOUND LOWER DOOR AFT LATCH ARM CRACKED ALL THE WAY THROUGH DUE TO CORROSION FATIGUE. (TC NR 20071004003)

2008FA0000089	LEAR	GARRTT	PRESSURE SWITCH	FAILED
1/29/2008	45LEAR	TFE731*	7629001004001	HYDRAULIC SYS

LT HYDRAULIC PRESSURE SWITCH (S9) FAILED IN FLIGHT, RESULTING IN LOSS OF HYDRAULIC FLUID AND FAILURE OF BOTH LT AND RT HYDRAULIC PUMPS. NECESSITATED A FLIGHT DIVERSION TO AN ALTERNATE AIRPORT WITH AN EMERGENCY DECLARATION. (K)

2008FA0000100	LEAR	GARRTT	PRESSURE SWITCH	FAILED
2/5/2008	45LEAR	TFE7312	7629001004001	HYDRAULIC SYSTEM

APPROXIMATELY 40 MIN IN TO PLANNED FLIGHT, WHILE AT FL410, IN FINAL CRUISE CONDITION, A WHITE ADVISORY CAS MESSAGE APPEARED INDICATING (MAIN HYD QTY LOW). FLIGHT CREW OPENED THE APPROPRIATE CREW CHECKLIST AND FLIGHT MANUAL AND REFERENCED THE CHECKLIST WHICH SAID (MAIN HYDRAULIC QUANTITY IS LOW), WITH NO ACTION REQUIRED. THE PF DIRECTED THE PNF TO REFER TO ANY ABNORMAL PROCEDURES OR ANY EMERGENCY CHECKLIST PAGE PROCEDURES AS A PRECAUTION FOR LOSS OF HYDRAULIC QUANTITY OR PRESSURE. THE CREW REVIEWED THESE PROCEDURES AND CONTINUED IN CRUISE. APPROX 15 MIN LATER, DURING DESCENT, A WHITE (L HYD PUMP LO) CAS MESSAGE BEGAN TO APPEAR INTERMITTENTLY, AND HYD PRESSURE FLUCTUATIONS WERE NOTED ON THE PRESSURE INDICATION. APPROXIMATELY 10 MIN LATER, A DROP IN MAIN HYD PRESSURE TO 70 PSI AND ILLUMINATION OF AMBER (MAIN HYD PRESS) AND (SPOILER FAIL) CAS MESSAGES WAS NOTED. THE CREW DIVERTED, COMPLETED ABNORMAL

CHECKLIST PROCEDURES, DECLARED AN EMERGENCY, AND EXECUTED A SAFE LANDING. INSP OF THE AC REVEALED THAT THE LT MAIN HYD PRESS SWITCH (S9) HAD FAILED, ALLOWING THE HYD FLUID TO ESCAPE UNDER PUMP PRESSURE UNTIL SUFFICIENT QUANTITY WAS LOST WHICH RESULTED IN CAVITATIONS OF BOTH LT AND RT HYD PUMPS. THIS CAVITATIONS APPARENTLY CAUSED PRESSURE SPIKES OF SUFFICIENT FORCE THAT BOTH PUMP PRESSURE OUTPUT FLEXIBLE HOSES WERE RUPTURED. THIS CAUSED THE FAILURE OF BOTH PUMPS, SUSPECTED TO HAVE CAUSED THE LANDING GEAR CONTROL VALVE TO FAIL AS WELL. THIS VALVE WAS FOUND INOPERATIVE DURING POS-REPAIR FUNCTIONAL CHECKS. THE LANDING GEAR FAILED TO RETRACT WHEN SELECTED UP WHILE THE AC WAS ON JACKS WITH A HYD POWER UNIT PROVIDING PRESSURE. BASED ON THE DAMAGE THAT WAS FOUND ON THE PRESSURE SWITCH (S9), THE PROBABLE CAUSE OF SWITCH FAILURE STEMS FROM PRESSURE SPIKES WITHIN THE HYDRAULIC SYS, OR INADEQUATE DESIGN OF THE SWITCH ASSY. MFG TECH SERVICES WAS NOTIFIED OF THE ISSUE AND ADVISED THAT THEY ARE AWARE OF OTHER SWITCH FAILURES. RECOMMEND THAT A REVIEW OF THE HYD SYS BE CONDUCTED TO DETERMINE IF PRESSURE SPIKES ARE EVIDENT, ESPECIALLY DURING HIGH FLOW/HIGH PRESSURE SITUATIONS. I WOULD ALSO STRONGLY URGE THAT MFG INSTALL HYD FUSES IN THE SUPPLY LINES TO THE 2 PRESSURE SWITCHES (S8 AND S9). IF A FUSE HAD BEEN INSTALLED, THIS SWITCH FAILURE WOULD HAVE RESULTED IN ONLY A VERY SMALL LOSS OF HYDRAULIC FLUID, AND THE CREW WOULD HAVE MANAGED THE INDICATED CAS MESSAGE AS A POSSIBLE SWITCH FAILURE, SINCE PRESSURE INDICATIONS FROM A SEPARATE TRANSDUCER WOULD HAVE INDICATED NORMAL PUMP OUTPUT. THIS FAILURE RESULTED IN A REPAIR THAT EXCEEDED $36,000.00 AND AN AC OUT OF SERVICE FOR 5 DAYS. IF A HYDRAULIC FUSE HAD BEEN INSTALLED AND FUNCTIONED CORRECTLY, THE REPAIR COST WOULD HAVE BEEN $2,000.00 WITH 1-2 DAYS OUT OF SERVICE. (K)

CA080208005	MAULE	LYC		PUSHROD	DEFECTIVE
1/29/2008	M5235C	O540J1A5		734352	ENGINE

(CAN) THE INTAKE AND EXHAUST PUSHRODS LOCATED AT THE NR1 CYL POSITION WERE NOT DRILLED THROUGH ON ONE END. THIS WOULD NOT ALLOW OIL TO TRAVEL UP THE PUSHROD TO THE ROCKER. (TC NR 20080208005)

2008FA0000115	MAULE	LYC	SNSNCH	BULKHEAD	CRACKED
1/18/2008	MXT7160	O320*		C2365	PROP SPINNER

THE FORWARD BULKHEAD CRACKED THROUGH THE MOUNT MOLT HOLES. THIS HAS OCCURED SEVERAL TIMES, WARRANTS ACTION. (K)

2008FA0000116	MAULE	LYC	SNSNCH	BULKHEAD	CRACKED
1/18/2008	MXT7180A	O360C4F		C2367	PROP SPINNER

THE FORWARD BULKHEAD CRACKED THROUGH THE MOUNT BOLT HOLES. THIS HAS OCCURED SEVERAL TIMES, WARRANTS ACTION. (K)

2008FA0000117	MAULE	LYC	SNSNCH	BULKHEAD	CRACKED
1/18/2008	MXT7180A	O360C4F		C2367	PROP SPINNER

THE FWD BULKHEAD CRACKED THROUGH THE MOUNT BOLT HOLES. THIS HAS OCCURED SEVERAL TIMES, WARRANTS ACTION. (K)

2008FA0000118	MAULE	LYC		BULKHEAD	CRACKED
1/18/2008	MXT7180A	O360C4F		C2367	FWD SPINNER

THE FWD BULKHEAD CRACKED THROUGHT THE MOUNT BOLT HOLES. THIS HAS OCCURED SEVERAL TIMES, WARRANTS ACTION. (K)

2008FA0000119	MAULE	LYC	SNSNCH	BULKHEAD	CRACKED
1/18/2008	MXT7180A	O360C4F		C2367	PROP SPINNER

THE FORWARD BULKHEAD CRACKED THROUGH THE MOUNT BOLT HOLES. THIS HAS OCCURED SEVERAL TIMES, WARRANTS ACTION. (K)

2008FA0000108	MOONEY	LYC		GAUGE	INACCURATE
2/27/2008	M20D	O360A1D		5643860	FUEL SYSTEM

FUEL GAUGE INDICATION IS APPROX 2.5 TO 3 GAL HIGHER THAN WHAT IS IN THE TANK. (K)

CA071128012	NAMER	PWA	BATTERY	SHORTED
11/23/2007	HARVARDMK4	R1340*	GE50C	MASTER

(CAN) AC SUFFERED ALMOST AN ENTIRE ELECTRICAL FAILURE DURING CLIMBOUT. AFTER SUBSEQUENT UNSCHEDULED LANDING, IT WAS DETERMINED THAT THE BATTERY HAD ACQUIRED AN INTERNAL SHORT, WHICH DEPLETED THE GENERATOR OUTPUT AND CAUSED THE AVIONICS TO MALFUNCTION. BATTERY REPLACED WITH A SERVICEABLE SPARE, AND AC ELECTRICAL SYS CONFIRMED OPERATIONAL. (TC NR 20071128012)

CA070817003	NAMER	PWA	PIN	SHEARED
8/16/2007	HARVARDMK4	R1340*	8834040	TAIL WHEEL

(CAN) DURING 50 HOUR INSP, EXCESSIVE ROTATIONAL MOVEMENT WAS NOTED ON THE TAIL WHEEL KNUCKLE (FORK), WITH THE TAIL WHEEL CONTROL LOCK ON. TAIL WHEEL MAST WAS DISMANTLED AND PIN HOLDING THE UPPER AND LOWER EXTENSION PIECES TOGETHER WAS FOUND SHEARED. THIS COULD HAVE RESULTED IN THE LOSS OF THE ENTIRE TAIL WHEEL, OR POTENTIALLY IN THE LOSS OF CONTROL ON THE GROUND. UNIT WAS REPAIRED AND RETURNED TO SERVICE. THIS PIN COULD HAVE BEEN DAMAGED BY IMPROPER GROUND HANDLING OF THE AIRCRAFT IE: PUSHING AC IN REVERSE WITH THE CONTROL LOCKS OFF. (TC NR 20070817003)

CA071005003	PILATS	PWA	PILATS	RING	SWOLLEN
9/28/2007	PC1245	PT6A67B		5321012193	SHOCK ABSORBER

(CAN) DURING ANNUAL INSPECTION IT WAS FOUND THAT STRUTS WERE STIFF, NOT EXTENDING ALL THE WAY. FOUND MICARTA GUIDE RINGS TOO TIGHT. SANDED MICARTA GUIDE RINGS SAME WAY AS MOD TO NOSE OLEO. SERVICED STRUTS WITH FLUID AND NITROGEN. RETURNED TO SERVICE. (TC NR 20071005003)

2008FA0000105	PIPER	LYC	FITTING	BROKEN
12/4/2007	PA18	O360A1A	31661STCSA4618NM	RT MLG

PILOT STATED THAT HE PERFORMED AN OFF AIRPORT LANDING ALONG A BEACH WHILE HUNTING. UPON LANDING, THE UPPER RT MLG CABANE FITTING BROKE. THE LANDING GEAR SAFETY CABLES PREVENTED A TOTAL GEAR COLLAPSE. (K)

2008FA0000098	PIPER	LYC	MOUNT	CRACKED
12/26/2007	PA22150	O320*	1303400	NLG

FOUND NOSE GEAR MOUNT CORRODED THIN IN SPOTS ON THE LOWER TUBES FROM THE INSIDE. ORIGINAL THICKNESS .049 INCH AND IN THE THIN SPOTS THE THICKNESS WAS LESS THAN .020 INCH. THE MOUNT HAD BEEN REPAIRED BY WELDING AND ONE WELD WAS A COLD WELD THAT CRACKED AND ALLOWED MOISTURE INTO THE INSIDE OF THE TUBING. ANNUAL INSP 35 HOURS BEFORE FAILURE. THE MOUNT FAILED ON A SOFT FIELD LANDING AND CAUSED SUBSTANTIAL DAMAGE AFTER AN ENGINE FAILURE. IN MY OPINION THE THIN WALL FROM THE CORROSION IS WHY THE MOUNT FAILED. RECOMMENDATIONS TO PREVENT SUCH RECURRENCES ARE TO INSPECT ALL WELDS FOR CRACKS, ESPECIALLY FIELD REPAIRS. THESE FIELD REPAIR WELDS NEED TO BE EXAMINED FOR THE QUALITY OF THE WELD, CRACKS AND PIN HOLES EACH ANNUAL INSPECT8IO OR 100 HOUR INSPECTION. ANY WELDS OR REPAIRS IN QUESTION SHOULD BE REDONE, ALSO THE TUBING SHOULD BE PUNCH TESTED EACH ANNUAL INSPECTION. THE PUNCH TEST INFORMATION IN SB NR 528D AND AD 99-01-05 LATEST REVISION ON WING STRUT CAN BE USED AND ADOPTED TO DETERMINE IF MOUNT NEEDS REPLACEMENT OR REPAIR DUE TO CORROSION FRO THE INSIDE CAUSING THIN WALL THICKNESS. (K)

CA070918005	PIPER	LYC	PISTON RING	DAMAGED
9/7/2007	PA23250	TIO540C1A	ST203	CYLINDER ASSY

(CAN) THE PROBLEM STARTED WITH HIGH OIL TEMP ON LT ENG, NEAR THE RED LINE IN TURBOBOOST AND WITH SMALL SPLIT OF MANIFOLD PRESS BETWEEN BOTH ENGINES. WE TROUBLESHOOT ALL SYS REGARDING HIGH OIL TEMP AND MANIFOLD PRESS UNTIL REPLACEMENT OF TURBO BY ITSELF BUT WITH NO CHANGE. ONLY WHAT WE FOUND WAS (2) CYLINDER WITH 65,67 OVER 80 PSID. MAKE THE DECISION TO REMOVED THOSE (2) CYLINDER ASSY. FOUND THE COMPRESSOR RING UNPLATING AT DIFFERENT LOCATIONS. THE ENG TSO IS 864.5 AND ALL THE CYLINDERS WAS OVERHAUL AT 568.5 FOR THE SAME SITUATION, RING UNPLATING. SO WE TOOK THE DECISION TO REMOVED THE OTHER 4 CYLINDER LT ON THE ENGINE AND WE FOUND RING UNPLATING ALSO. WE REINSTALLED 6 O/H CYL ASSY ON LT ENGINE AND EVERY THING RETURN TO NORMAL. SN OF THE 6 CYL ASSY ARE:10457-3 , 10513-22, 10513-23, 10513-26 10513-27 & 10513-29. (TC NR 20070918005)

CA071010007	PIPER	LYC	RHEOSTAT	MALFUNCTIONED
9/6/2007	PA24250	O540A1C5	2124800	MLG INDICATOR

(CAN) PILOT SELECTED GEAR DOWN AND DID NOT SEE THE GREEN LIGHT, FOR THE GEAR DOWN POSITION. PILOT THEN STARTED EMERGENCY GEAR DOWN PROCEDURES. IT JAMMED WITH THE GREAR IN NEUTRAL POSITION, BECAUSE THE ELECTRIC SWITCH WAS NOT IN NEUTRAL. THE PILOT LANDED WITH THE GEAR UP. AFTER THE AIRPLANE WAS PUT ON THE JACKS AND THE GEAR WAS LOCKED. THE RHEOSTAT WAS TURNED TO THE DAYLIGHT RUNNING POSITION AND THE GREEN LIGHT, FOR THE GEAR DOWN LOCK POSITION CAME ON. (TC NR 20071010007)

2008FA0000109	PIPER	LYC	TORQUE LINK	SEPARATED
12/21/2007	PA28140	O320*	6569100	MLG

TORQUE LINK SEPARATED ON ABORTED LANDING ALLOWING WHEEL AND AXLE ASSY TO SEPARATED FROM AC. SAFE LANDING ON UPPER CASTING ASSY WAS MADE WITH DAMAGE TO CASTING AND FLAP. AD 72-08-06 OR THIS LINK CALLED FOR 500 HR INSP. INTERVAL PAR 203.8 HR PRIOR. WOULD SUGGEST THAT AD SHOULD BE CHARGED TO RETIRE THESE PARTS AT 5000 HR. (K)

CA080215003	PIPER	LYC	MUFFLER	DAMAGED
2/14/2008	PA28140	O320E3D	9948200	ENGINE

(CAN)FOUND OVER THE PAST YEAR THAT USING PRESSURE TESTING VS VISUAL HAS CAUGHT MANY PIN HOLE LEAKS IN THE MUFFLER. IN THE PAST WE WERE FINDING LARGE CRACKS IN BEHIND WHEN WE PRESSURE TESTED EVERY 200 HOURS WHICH YOU COULD NOT SEE VISUALLY SO WE BEGAN PRESSURE TESTING ALL THE TIME VERSUS VISUAL. ALSO FOUND THAT AFTER INSTALLATION OF NEW EXHAUST, PIN HOLES BEGAN TO SHOW BETWEEN 800-1000 HOURS LATER AND THEN PIN HOLES WOULD BEGIN TO SHOW EVERY 100 HOURS AFTER THAT. REALIZED THAT IF WE HAD NOT PRESSURE TESTED THE SYS, WOULD NOT FIND THE PIN HOLES AND WE WOULD END UP WITH A MAJOR REPAIR 100 HOURS LATER. SO WE NOW PRESSURE TEST THE EXHAUST SYS EVERY 100 HRS COMMERCIAL AND ANNUALLY WITH PRIVATES. THIS HAS LOWER THE OVERALL REPAIR COST AND ALSO CREATED A SAFER ENVIRONMENT. (TC NR 20080215003)

CA070913005	PIPER	LYC	FITTING	CORRODED
7/5/2007	PA28161	O320D3G	6244802	WING

(CAN) ON A SCHEDULED 100 HOUR INSPECTION, BOTH THE LT AND RT LOWER COCKPIT FITTINGS THAT THE REAR WING SPARS ATTACH TO WERE FOUND TO BE HEAVILY CORRODED. THE PARTS WERE REMOVED, THE AREA DECORRODED AS REQUIRED AND NEW FITTINGS INSTALLED. LT P/N 62448-02 AND RT P/N 62448-03. (TC NR 20070913005)

CA071023007	PIPER	LYC	PUMP	INOPERATIVE
10/22/2007	PA31	TIO540A2C	441CC7	VACUUM SYS

(CAN) WHILE PERFORMING AN COMPRESSION TEST, THE ENGINEER HEARD A SQUEAKING AS THE PROP WAS BEING ROTATED. THE SOURCE WAS INDENTIFED COMING FROM THE VACUUM PUMP. PUMP WAS REPLACED AND NO FURTHER ISSUES WERE NOTED. (TC NR 20071023007)

CA080215007	PIPER	LYC	BOLT	BROKEN
2/9/2008	PA31	TIO540A2C	486104	ELEVATOR STOP

(CAN) DURING A ROUTINE INSP OF THE ELEVATOR STOPS. WHEN THE DOWN STOP WAS PHYSICALLY TEST FOR SECURITY THE BOLT HEAD POPPED OFF. UPON CLOSER INSP THE BOLT WAS CRACKED AND WAS BEING HELD IN PLACE BY THE NORMAL ELEVATOR DOWN PRESSURE. NO OTHER DAMAGE WAS NOTED, BOLT REPLACED AC RETURNED TO SERVICE. (TC NR 20080215007)

CA080116023	PIPER	LYC	CRANKCASE	CRACKED
1/11/2008	PA31350	TIO540J2BD	7106403	NR 1 ENGINE

(CAN) DURING SCHEDULED NR 1 EVENT INSPECTION, AME FOUND LT ENGINE, NR 5 CYL DIFFERENTIAL PRESSURE TEST VERY LOW. NR 5 CYL REMOVED FOR DETAILED INSP AND POSSIBLE REPLACEMENT. UPON FURTHER INSP MAINT FOUND AN APPROX 4 INCH CRACK, STARTING FROM NR 5 CYL LOWER FWD MOUNT STUD BASE, ALONG CYL. BASE INTO RT CASE EXTENDING APPROX 3.5 INCH TOWARD NR 5 CYL COVER OIL DRAIN PORT

IN THE CASE. LT ENGINE REPLACEMENT UNDERWAY. (TC NR 20080116023)

CA071022002	PIPER	LYC		IDLER GEAR	WORN
10/9/2007	PA31350	TIO540J2BD		LW10292	GEAR SHAFT

(CAN) DURING A SCHEDULED INSP OF THE ENGINE, THE OIL FILTER WAS REMOVED AND DISASSEMBLED. IT WAS NOTED THAT THE FILTER MEDIA CONTAINED AN ABNORMAL AMOUNT OF METAL. THE AIRCRAFT WAS FLOWN AN ADDITIONAL 10 HRS AND THE FILTER WAS AGAIN INSPECTED. UPON INSPECTION THE FILTER CONTAINED AN ABNORMAL AMOUNT OF METAL AND AS A RESULT THE ENGINE WAS REMOVED AND SENT TO AN OVERHAUL FACILITY. THE OVERHAUL FACILITY FOUND THE CRANKSHAFT IDLER GEAR HAD EXCESSIVE PLAY AND WAS CAUSING WEAR ON THE IDLER GEAR BUSHING. THE BUSHING GEAR WAS REPLACED AND ENGINE REASSEMBLED. (TC NR 20071022002)

CA071004008	PIPER	LYC	LYC	SEAL	UNSECURE
10/1/2007	PA31350	TIO540J2BD		LW15628	CRANKCASE

(CAN) OIL FOUND IN COWLING ON LT ENGINE NEAR FRONT, FWD CRANKCASE OIL SEAL FOUND TO HAVE POPPED OUT OVERHAUL INFORMED THIS COMPANY THAT THEY WERE HAVING PROBLEMS WITH THE ADHESIVE THAT THEY USE TO SECURE THIS SEAL (TC NR 20071004008)

CA071003005	PIPER	LYC	PIPER	ROD END	STIFF
9/20/2007	PA31350	TIO540J2BD		74087002	MAIN GEAR DOOR

(CAN) ON SEPT 12, THE DOWNLOCK HOOK ON THE RT GEAR DID NOT COMPLETELY LOCK TO ACTIVATE THE DOWNLOCK SWITCH. THE RETRACTION SYS WAS TROUBLESHOT AND FOUND THE ROD END ON THE DOWNLOCK CABLE ASSY WAS STIFF AND THE SWITCH WAS STICKING. THE GEAR WAS CLEANED AND LUBRICATED. RETRACTION TESTS CARRIED OUT AND AC RETURNED TO SERVICE. ON THE SEPT 20, THE SAME SNAG HAPPENED. THE ROD END HAD STIFFENED UP AGAIN. THE ROD END WAS CHANGED AND NO MORE PROBLEM. THE ROD END AT FAULT WAS LUBRICATED AND FOUND TO MOVE FREELY BUT AFTER BEING LEFT ON THE BENCH FOR A FEW DAYS SEIZED UP AGAIN. (TC NR 20071003005)

CA070918006	PIPER	LYC		CONTROL CABLE	CRACKED
8/22/2007	PA31350	TIO540J2BD		41234028	ELEVATOR TRIM

(CAN) DURING AN INSPECTION OF THE ELEVATOR TRIM SYSTEM, A CRACK WAS FOUND IN THE SWAGED END OF THE TRIM CABLE. THE SWAGED BARREL WAS CRACKED ALL THE WAY THROUGH TO THE CABLE ON ONE SIDE AND SHOWED INDICATIONS OF A CRACK ON THE OPPOSITE SIDE. THE CRACK IS APPROXIMATELY 3 INCHES LONG AND PRETTY WELL RUNS THE LENGTH OF THE SWAGE. (TC NR 20070918006)

CA071001009	PIPER	LYC		BRACE	BROKEN
9/7/2007	PA31350	TIO540J2BD		4028400	MLG

(CAN) ON LANDING THE LT MLG COLLAPSED. UPON INSPECTION IT WAS DETERMINED THAT THE MLG LOWER SIDE BRACE LINK ASSY HAD FAILED AT THE AFT HOLE CONTAINING MLG LOCK PIN. THE LOCK PIN WAS GONE AND UNABLE TO LOCATE. MLG SIDE BRACE PN 40284-00 MLG P/N 40376-00 (TC NR 20071001009)

CA070822008	PIPER	LYC		FILTER HOUSING	CRACKED
8/21/2007	PA31350	TIO540J2BD		AN62341	HYD SYSTEM

(CAN) ON THE 21ST OF AUGUST 2007, MAINTENANCE RECEIVED A CALL THAT AN AC HAD A HYDR FLUID LEAK. A RESCUE MISSION WAS DISPATCHED TO THE AC. UPON INVESTIGATION ONCE MAINT ARRIVED AT LOCATION IT WAS FOUND THAT THE NR 1 ENG HYDR FILTER HSG WAS LEAKING. AFTER DISASSEMBLY, IT WAS NOTED THAT THERE WAS A CRACK IN THE TREADS RUNNING .5 AROUND THE DIAMETER. THE HYDR FILTER WAS ISOLATED FROM THE SYS, THE SYS TOPPED UP WITH FLUID, AND A LEAK RUN PERFORMED BEFORE RETURNING TO DEPARTURE WITHOUT PASSENGERS. IT HAS BEEN DETERMINED THROUGH AN INVESTIGATION THAT THE FAILURE WAS A DIRECT RESULT OF THE USAGE OF THE WRONG PN O-RING. THE O-RING THAT WAS FOUND INSTALLED ON THE FILTER HOUSING IS OF THE SAME OUTER DIAMETER AS THE PROPER ONE (P/N MS28778-16) CALLED FOR IN THE IPC, BUT TWICE THE THICKNESS. THIS CAUSED THE FILTER HOUSING TO REACH ITS RATED TORQUE VALUE BEFORE IT WAS COMPLETELY SEATED, THIS IN TURN RESULTED IN A MAINT PERSON OVERTORQUING THE HSG IN AN ATTEMPT TO SEAT IT PROPERLY. IT APPEARS THAT THE PERSON WHO CHANGED IT OUT DID SO WITHOUT RESEARCHING FOR THE PROPER PN IN THE IPC. A COMPANY MAINT ALERT

HAS BEEN RAISED ON THE REQUIREMENT TO ONLY USE PN IDENTIFIED IN THE SPECIFIC AIRCRAFTS IPC OR CMM.

CA070614002	PIPER	LYC	EXHAUST STACK	SEPARATED
6/4/2007	PA31350	TIO540J2BD	LW15849	RT ENGINE

(CAN) PRIOR TO DEPARTURE, ENGINE RUN-UP PILOT REPORTED THAT RT ENGINE RUNNING ROUGH. ENGINE ONLY PRODUCING 30" MP AND MAX 2250 RPM, AT GPH FF. RT MAG DROP WAS EXCESSIVE. MAINT INVESTIGATION FOUND ENGINE RT EXHAUST SEGMENT P/N LW-15849 SEPARATED FROM NR 5 EXHAUST STACK PIPE PN LW-10161 AT THE SLIP JOINT. NEW EXHAUST SEGMENTS INSTALLED AND ENGINE OPERATION CHECKED SERVICEABLE. NO VISIBLE HEAT DAMAGE NOTED TO AREA WIRING OR COMPONENTS. SLIGHT DISTORTION NOTED TO SOME AREA HOSE SUPPORT WRAPPING. NOTE: THIS ENG WAS RECENTLY INSTALLED AND HAD ACCUMULATED 2.2 HRS SINCE INSTALLATION. THE ORIGINAL EXHAUST SEGMENTS FROM THE REMOVED ENGINE WERE INSTALLED. NO DEFINITIVE CAUSE FOR THE SEPARATION HAS BEEN DETERMINED. SUSPECT MISALIGNMENT OF SEGMENTS DURING INSTALLATION. (TC NR 20070614002)

CA071011008	PIPER	PWA	INLET SCREEN	CRACKED
10/5/2007	PA31T	PT6A28	50363007	

(CAN) DURING A ROUTINE EVENT INSPECTION, A SMALL 1.5 INCH CRACK WAS NOTED IN THE INLET ICE SCREEN. DURING THE NEXT EVENT INSPECTION IT WAS NOTED THAT THE CRACK HAD SPREAD SIGNIFICANTLY AND CAUSED SEPARATION FROM THE ASSEMBLY. THE STAINLESS STEEL AIR INLET WAS ALSO CRACKED AND NEEDED REPAIRS. THE SCREEN WAS REPLACED WITH A NEW UNIT. (TC NR 20071011008)

2008FA0000096	PIPER	LYC	SPAR	CRACKED
1/28/2008	PA44180	O360*	86282010	NLG

THE SPAR ASSY WAS CRACKED AT THE LT SIDE NOSE GEAR SUPPORT FITTING. THE CRACK RADIATED OUT FROM THE AFT LOWER BOLT ATTACHMENT (AS VIEWED FROM BELOW THE NOSE STRUCTURE FLOORING) ONCE THE A-FRAME SUPPORT WAS REMOVED, THERE WAS A (2 INCH) CRACK IN THE SPAR WEB (NOT VISIBLE UNTIL THE SUPPORT WAS REMOVED). THE LOWER EXTRUSION HAS BEEN REPLACED WITH NEW AT SOME POINT IN THE AIRPLANES HISTORY (NOT AT THIS SHOP). THE EXTRUSION CRACKING WAS THE REASON FOR DISASSEMBLY AT THIS TIME. THIS IS ADDRESSED IN AD 81-10-01 BUT THE AD IS NOT APPLICABLE TO THIS SERIAL NUMBER AIRCRAFT. SB NR 1143 COVERS THE LATER SN AC. (K)

CA070823013	PIPER	LYC	CONNECTOR	BROKEN
8/10/2007	PA44180	O360E1A6D		DOWNLOCK

(CAN) WIRE FOUND BROKEN ON DOWNLIMIT SWITCH CONNECTOR. (TC NR 20070823013)

2008FA0000097	PIPER	CONT	CRANKSHAFT	BROKEN
12/26/2007	PA46310P	TSIO550C	649900	ENGINE

CRANKSHAFT BROKE JUST AFT OF PROPELLER MOUNTNG FLANGE. (K)

CA080116020	PIPER	PWA	ENGINE	MALFUNCTIONED
1/9/2008	PA46350P	PT6*		

(CAN) PILOT REPORTED ENGINE TROUBLE AND ATTEMPTED TO RETURN TO BASE. ENGINE WAS SHUTDOWN BY THE PILOT, AND AC LANDED SHORT OF THE RUNWAY CAUSING SUBSTANTIAL DAMAGE TO THE AIRFRAME. INITIAL INVESTIGATION INDICATES NO OBVIOUS GAS PATH OR TURBINE BLADE DAMAGE, HOWEVER NO OIL WAS VISIBLE ON THE DIPSTICK. MFG WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED (TC NR 20080116020)

CA070919006	ROBSIN	LYC	POINTER	ANTENNA	MISSING
9/17/2007	R44	O540F1B5		200610	ELT

(CAN) DURING A POST FLIGHT CHECK THE ELT ANTENNA CONNECTOR WAS FOUND BROKEN OFF THE ELT CASE. UPON FURTHER INVESTIGATION IT WAS ALSO NOTED THAT THE PORTABLE ANTENNA WAS MISSING. A THOROUGH SEARCH WAS CARRIED OUT FOR THE MISSING PARTS WITHIN THE AREA. NO PARTS WERE FOUND, THE ELT WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. (TC NR 20070919006)

CA071019003	ROBSIN	LYC	PUMP	FAILED
10/13/2007	R44RAVENII	IO540AE1A5	C8187B	AUX FUEL

(CAN) DURING AN ATTEMPTED START UP THE AIRCRAFT FAILED TO START. IT WAS FOUND THAT THE AUXILIARY FUEL PUMP HAD FAILED. PUMP WAS REPLACED AND NO FURTHER ISSUES WERE NOTED. (TC NR 20071019003)

CA071022003	ROBSIN	LYC	STARTER	CRACKED
9/30/2007	R44RAVENII	IO540AE1A5	14924HTH	ENGINE

(CAN) REMOVED DUE TO CRACKED BASE. (TC NR 20071022003)

CA080119001	ROBSIN	LYC	PUMP	LEAKING
1/18/2008	R44RAVENII	IO540AE1A5	15473	FUEL SYS

(CAN) FUEL PUMP LEAKING OIL FROM DRAIN LINE. PUMP REMOVED AND NEW PUMP INSTALLED. DEFECT RECTIFIED. (TC NR 20080119001)

CA070528014	SAAB	GE	MOUNT	CRACKED
5/27/2007	SF340A	CT75A	7254120511	ENGINE

(CAN) THE AFT ENGINE MOUNT BRACKET WAS DISCOVERED TO BE CRACKED DURING A SCHEDULED ENGINE CHANGE. THE AFFECTED BRACKET WAS REPLACED WITH A SERVICEABLE UNIT. NO FURTHER ACTION NOTED. (TC NR 20070528014)

901CHI0208	SKRSKY	PWA	DOOR	DEPARTED
2/21/2008	S58T	PT6T6	S16206327957	

DURING POSTFLIGHT INSPECTION, AFTER LANDING, MAINT DISCOVERED CABIN DOOR WAS MISSING. INSP OF AC FOUND NO DAMAGE OR MISSING COMPONENTS OTHER THAN DOOR. REPLACEMENT DOOR WAS INSTALLED AND OPS CHECKED WITH NO DISCREPANCIES NOTED TO AIRFRAME, DOOR MOUNTING, STRUCTURE, AND DOOR OPERATION. AIRCRAFT WAS RETURNED TO SERVICE.

9010208	SKRSKY	PWA	DOOR	DEPARTED
2/17/2008	S58T	PT6T6	S16206327957	ZONE 800

DURING POSTFLIGHT INSPECTION, AFTER LANDING, MAINT DISCOVERED CABIN DOOR WAS MISSING. INSPECTION OF AIRCRAFT FOUND NO DAMAGE OR MISSING COMPONENTS OTHER THAN DOOR. REPLACEMENT DOOR WAS INSTALLED AND OPS CHECKED WITH NO DISCREPANCIES NOTED TO AIRFRAME, DOOR MOUNTING, STRUCTURE AND DOOR OPERATION. AIRCRAFT WAS RETURNED TO SERVICE.

CA070709003	SKRSKY	GE	MANIFOLD	FRACTURED
7/5/2007	S61N	CT581401	5018T64G02	LT FUEL

(CAN) THE PILOTS NOTICED A WARM SEMI SMOKE SMELL, AND OBSERVED A T5 RISE IN NR 1 ENGINE. THE FIRE LIGHT ACTIVATED ON NR 1 ENGINE. THE ENGINE WAS SHUT DOWN AS WELL AS A THE FIRE BOTTLES WERE ACTIVATED. THE AC LANDED WITH ONE ENGINE WITH NO INCIDENT. THE ENGINE WAS REPLACED. ENGINE TSN 23764.8, TSO 2373.5, (TC NR 20070709003)

CA080117006	SKRSKY	ALLSN	THERMOSTAT	UNSERVICEABLE
1/16/2008	S76A	250C30S	28E252	NR1 POSITION

(CAN) THERMOSTAT STUCK AND ENGINE OIL TEMP BEGAN TO RISE TO LIMIT. (TC NR 20080117006)

CA070823002	SKRSKY	TMECA	JETTISON SYSTEM	FAILED
8/21/2007	S76C	ARRIEL2S2		LIFE RAFT

(CAN) EXTERNAL LIFERAFT JETTISON SYS FAILED TO OPERATE. WHEN LEVER ACTUATED, CABLE BROKE AND PULLEY BRACKET ON LT SIDE OF CENTER PEDESTAL DETACHED. (2) BRACKETS UNDER FLOOR FOUND TO BE LOCATED INCORRECTLY. INSTALLATION WAS CARRIED OUT IAW ASI-500-100 REV.G. (TC NR 20070823002)

CA080207005	SKRSKY	GE	BEARING	DEBONDED

1/8/2008	S92A	CT78A	SB7306102	T/R BLADE

(CAN) UPON A SCHEDULED 50HR INSP, A BOROSCOPING OF THE TAIL ROTOR BLADES HAD BEEN CARRIED OUT, TO CHECK PIVOT BEARINGS FOR DEBONDING FROM TAIL ROTOR SPARE. ON ONE TAIL ROTOR BLADE A BEARING WAS SUSPECTED TO BE DEBONDED. UPON FURTHER INSPECTION WITH REMOVAL OF THE BEARING FROM THE TAIL ROTOR BLADE, IT WAS CONFIRMED THAT THE INNER PLATE OF THE PIVOT BEARING WAS TOTALLY SEPARATED FROM THE BLADE SPAR. AFTER LOOKING AT THE BEARING PLATE IT WAS CLEARLY VISIBLE THAT THE ADHESIVE MATERIAL USED TO BOND THE PLATE TO THE SPAR HAD ONLY ADHERED TO THE PLATE OF THE BEARING AND NOT TO THE SPAR. (TC NR 20080207005)

CA070427001	SNIAS	TMECA	DOOR	SEPARATED
4/16/2007	AS332L	MAKILA1A	332A2213010006	MAIN PAX

(CAN) AFTER TAKING OFF FROM AN OFFSHORE RIG AT 300 FT, 70 KNOTS, CREW HEARD A STRONG NOISE AND ONE OF THE PASSENGERS ADVISED THAT DOOR WAS MISSING. P/C NOTICED NO CAUTION LIGHTS. AC RETURNED TO THE RIG AND LANDED WITHOUT FURTHER INCIDENT. AC SUBSEQUENTLY RETURNED TO CHC`S OPS MAIN BASE WITHOUT PASSENGERS AND IS PRESENTLY QUARANTINED AWAITING INVESTIGATION TEAM. CAPTAIN`S STATEMENT: FIRST FLIGHT OF THE DAY. BEFORE TAKEOFF DOOR CAUTION LIGHT FLICKERING. P/C CHECKED MEL AND ALL DOORS LOCKED. ENGINEER ON DUTY INFORMED, HE INSPECTED DOORS LOCKERS. SECOND FLIGHT. BEFORE TAKEOFF FROM (OFFSHORE RIG), DOORS WERE CONFIRMED LOCKED AND NO CAUTION LIGHTS. PASSING 00 FT AFTER TAKEOFF STRONG NOISE, PAX ADVISE DOOR MISSING, P/C NOTICED NO CAUTION LIGHT. WE RETURNED TO SAME OFFSHORE RIG WITHOUT INCIDENT. PAX ADVISED. 16 APRIL 2007. REPORT CONTINUED. (TC NR 20070427001)

CA080115009	SNIAS	LYC	GROUND WIRE	FAILED
1/10/2008	AS350B	LTS101600A3		HYD SERVO

(CAN) IN THE PROCESS OF DOING RECURRENT TRAINING FLIGHT. AFTER SEVERAL SIMULATED HYD FAILURES IN AND OUT OF GROUD EFFECT HOVER, PROCEEDED TO PRACTICE THE SIMULATED HYD FAILURE. THE SIMULATED PROCEDURE WAS INITIATED FROM 100 FOOT HOVER WITH A VERBAL WARNING THAT WE NOW HAVE A LOSS OF HYD. AT NO TIME WAS THE HYD ACCUMULATOR TEST BUTTON USED TO SIMULATE, HYD FAILURE, IE. HORN AND LIGHT. FROM THE HOVER THEY ACCELERATED TO 60 KNOTS, AT WHICH TIME THE HYD ON/OFF SWITCH ON THE COLLECTIVE WAS SELECTED TO THE HYD OFF POSITION, AND THEY MAINTAINED 60 KNOTS THROUGHOUT THE CIRCUIT. ON DOWNWIND FOR EAST LIMA TAXIWAY AT 500 FEET ABOVE GROUND. THE PILOT IN COMMAND WAS INFORMED TO WIDEN OUT HIS CIRCUIT SO THAT HE WOULD NOT HAVE TO USE ANY STEEP TURNS ON BASE AND FINAL. AT THIS TIME HE INITIATED A 10 DEGREE BANK TURN TO THE LT WITH THE HYD OFF AND AT 60 KNOTS. THE AC IMMEDIATELY ROLLED 90 DEGREES TO THE RT, AND THEN THE CYCLIC MOVED HARD TO THE LT CAUSING THE AC TO RIGHT ITSELF BACK TO A LEVEL ATTITUDE. THE TRAINING PILOT IMMEDIATELY TURNED ON THE COLLECTIVE HYD SWITCH AND RESTORED THE HYD TO NORMAL, AND THE AC FLEW COMPLETELY NORMAL THE FLIGHT WAS TERMINATED. THE ROLL TO THE RT AND BACK TO THE LT LASTED 2 TO 3 SECONDS AT THE MOST. PRIOR TO THE FLIGHT, THE FLIGHT CONTROLS AND HYD ACCUMULATORS WERE CHECKED FOR PROPER OPERATION, THE HYD TEST BUTTON ON THE COLLECTIVE WAS FUNCTION TESTED AND FOUND TO WORK CORRECTLY. WHEN THE HYD TEST BUTTON WAS RESET TO ON, IT REQUIRED 3 TO 5 SECONDS FOR THE HYDRALIC LIGHT AND THE HORN TO GO OUT IAW NORMAL. NO EMERGENCY WAS DECLARED AND THE AC WAS LANDED WITH OUT DAMAGE OR INJURY TO PERSONS OR PROPERTY. (TC NR 20080115009)

CA071203007	SNIAS	TMECA	FCU	LEAKING
12/1/2007	AS350B2	ARRIEL1D1	01645487201	ENGINE

(CAN) THE PILOT WAS DESCENDING WHEN ALL OF A SUDDEN THE CABIN AREA FILLED UP WITH A MIST ORIGINATING FROM THE THE DEFROST VENTS. THE MIST WAS SO STRONG THAT THE PILOT HELD HIS BREATH AND OPENED THE FUSELAGE DOOR SO THE MIST COULD EXIT THE AC. AFTER A FEW SECONDS THE MIST DISSIPATED SO THE PILOT COULD BREATH NORMALLY. THE PILOT LANDED AT STAGING SITE AND THE AC WAS GROUNDED. THE ENGINEER WAS CALLED TO TROUBLESHOOT THE PROBLEM. WE BELIEVE IT IS THE FUEL CONTROL THAT CAUSED THIS FUEL MIST IN THE CABIN. THE FUEL CONTROL HAS ABOUT 1400 HOURS SINCE LAST OVERHAUL THE TECH. (3000 HOUR O/H BY MFG) (TC NR 20071203007)

CA080205005	SNIAS	TMECA	BALL JOINT	WORN
1/21/2008	AS350B2	ARRIEL1D1	350A57105721	THROTTLE LINK

(CAN) WHEN THROTTLE WAS RETARDED DURING ENGINE START, T4 CONTINUED TO INCREASE. EMERGENCY

SHUTOFF PULLED AND ENGINE MOTORED AS T4 REACHED 900C FOR 2 SECONDS. INVESTIGATION FOUND THE THROTTLE LINK DISCONNECTED BUT THE LOCKING PIN WAS PROPERLY ENGAGED AND IN THE PROPER POSITION. INCIDENT WAS DUPLICATED 2 OUT OF 3 TIME ON TESTING. PARTS INSPECTED AND FOUND, END EQUIPPED AND BALL JOINT BOTH WORN. (TC NR 20080205005)

2008FA0000147	SNIAS	TMECA	COVER	LOOSE
6/15/2007	AS350B3	ARRIEL1D1		COLLECTIVE STICK

COLLECTIVE MOUNTED HOIST EMERGENCY RELEASE (JETT) SWITCH COVER SECURITY. IF THE BASE OF THE COVER IS LOOSE AND TURNED 180 DEGREES, AS WAS THE CASE HERE, THE COVER OPENS FORWARD AND EXTENDS OFF OF THE END OF THE COLLECTIVE. IN THIS CONDITION WHEN THE COLLECTIVE IS FULLY LOWERED, THE PUSHBUTTON COVER JAMS AGAINST THE GENEVA MODIFIED CENTER CONSOLE UNTIL THE PILOT PUSHES THE COLLECTIVE THROUGH THE BINDING, AND THE HINGED COVER POPS UP AND OUT OF THE WAY. IN THIS CONDITION, WITH THE COLLECTIVE JETT SWITCH OPEN COVER WEDGED AGAINST THE CENTER CONSOLE, A PILOT MAY FEEL THAT THE COLLECTIVE IS FULLY DOWN WHEN IT IS NOT.

CA080208003	SNIAS	TMECA	REDUCTION GB	MAKING METAL
2/4/2008	AS350B3	ARRIEL2B	70BM052000	

(CAN) DURING DAILY INSPECTION SMALL FLAKES WERE FOUND ON THE NON-MAGNETIC CHIP PLUG ON (MODULE) MO 5. ENGINE OIL WAS CHANGED OIL FILTER WAS CHANGED ALL MAG PLUGS INSPECTED AND CLEANED. A/C FLEW FOR 11.1 HRS AND SMALL FLAKES WERE FOUND ON SAME PLUG. A/C WAS GROUNDED AT THIS TIME AND MFG WAS INFORMED. A OIL SAMPLE WAS SENT FOR EVALUATION AND CAME BACK AS NORMAL. MFG HAS DECIDED TO REPLACE THE MO 5. (TC NR 20080208003)

CA071206008	SNIAS	TMECA	MODULE	DAMAGED
11/29/2007	AS350B3	ARRIEL2B	70BM032010	ENGINE FUEL

(CAN) IN A CRUISE FLIGHT OR CLIMB POWER, THE AC ENGINE WOULD SURGE. THE AC WAS REMOVED FROM SERVICE FOR INSP. A CLOSE INSPECTION OF THE COVER THAT IS LOCATED OVER THE COMPRESSOR IMPELLOR, REVEALED A HOLE APPX. 4-5MM IN DIAMETER. THE MODULE 3 WAS REMOVED AND REPLACED WITH A DIFFERENT MODULE AND THE AIRCRAFT WAS RE CERTIFIED.

CA080115012	SNIAS	TMECA	COMBUST CHAMBER	FOD
1/11/2008	AS350B3	ARRIEL2B		ENGINE

(CAN) DURING A 600 HR ENGINE INSPECTION, A BORESCOPE INSPECTION WAS CONDUCTED IN THE COMBUSTION CHAMBER AREA(INTERNAL) AN OBJECT WAS DISCOVERED HANGING OUT INTO THE FLAME PATH JUST UPSTREAM OF THE POWER TURBINE. THE OBJECT WAS PROTRUDING FROM AN INNER COOLING HOLE IN THE COMBUSTION CHAMBER. AFTER DISCUSSION WITH MFG, THE AC WAS REMOVED AND AN ENGINE TEARDOWN WAS CONDUCTED. THE ITEMS REMOVED AND ENGINE REASSEMBLED AND TESTED ON THE A/C. THE OBJECT COULD NOT BE IDENTIFIED AT THIS LEVEL AND WAS TAKEN BY THE MFG SERVICE REP FOR TESTING. HAVE A FEW BORESCOPE IMAGES AVAILABLE IF REQUIRED. (TC NR 20080115012)

CA080117003	SNIAS	LYC	BYPASS VALVE	CRACKED
1/11/2008	AS350BA	LTS101600A2	571712A	FUEL SYSTEM

(CAN) THE AC LANDED AFTER FLYING SEVERAL HOURS ON A SEISMIC JOB. WHILE DOING A QUICK DI, THE ENGINEERS NOTICED FUEL ON THE TRANSMISSION DECK. IT WAS DISCOVERED THAT THE FUEL FILTER BYPASS INDICATOR PLASTIC HOUSING ON THE BYPASS VALVE ASSY (PN 57171-2A) WAS CRACKED AND WAS LEAKING FUEL ON THE TRANSMISSION DECK. IT IS NOT KNOW HOW MANY HOURS THE AC FLEW THAT DAY WITH THIS FUEL LEAK. THE VALVE ASSY WAS REPLACED AND THE AC RETURNED TO SERVICE. (TC NR 20080117003)

CA071208001	SNIAS	TMECA	FCU	SURGES
12/5/2007	AS350BA	ARRIEL1B	01644448430	ENGINE

(CAN) FCU WAS SURGING DURING A GROUND RUN LEAK CHECK, BLEED VALVE TACH BOX HAD BEEN CHANGED FOR TROUBLESHOOTING, SURGING CONTINUED. FCU CHANGED OUT AND SURGING PROBLEM WAS RESOLVED. AC RETURN TO SERVICE. (TC NR 20071208001)

CA080117005	SWRNGN	GARRTT	ADAPTER	CRACKED

1/11/2008	SA226TC	TPE33110UA		8941171	ENG OIL FILTER

(CAN) DURING THE DAILY INSPECTION IT WAS NOTICED THAT THERE WAS OIL IN THE BOTTOM OF THE COWLING. FURTHER INSP REVEALED THAT THE (3) OF THE (4) TANGS FOR THE STUDS WHICH HOLD DOWN THE OIL FILTER ADAPTER WERE CRACKED. TOTAL TIME ON THIS PART IS UNDETERMINED BECAUSE IT IS ON CONDITION.

CA070615006	SWRNGN	GARRTT		AUDIO CONTROL	STICKING
6/13/2007	SA227AC	TPE331*		M1035CHKFJLJ2	COCKPIT

(CAN) BUTTONS HAVE TO BE PRESSED NUMEROUS TIMES BEFORE THEY ENGAGE, REPLACED UNIT (TC NR 20070615006)

CA070220001	SWRNGN	GARRTT	VICKERS	SPLINE	STRIPPED
2/15/2007	SA227AC	TPE33111U		297037	HYD PUMP

(CAN) LT HYD LIGHT ILLUMINATED BEFORE LANDING. THE DRIVE SPLINE ON THE PUMP WAS FOUND TO BE STRIPPED. IT IS MADE OF SOFTER MATERIAL AND MADE TO WEAR INSTEAD OF THE ENGINE. PUMP ASSY WAS REPLACED AND AC RETURNED TO SERVICE. THIS IS THE 3RD SPLINE REPLACED. ONE IN OCT- 06, ONE IN DC-06 AND NOW THIS ONE FEB-07. (TC NR 20070220001)

2008FA0000078	UROCOP			HYDRAULIC SYSTEM	CONTAMINATED
1/25/2008	EC120B			GCH1004	

HYD POWER PACK PRE-CLOGGING INDICATOR IS DISPLAYED BEFORE FLIGHT.

CA080118002	UROCOP	TMECA		BATTERY BOX	BROKEN
1/18/2008	EC120B	ARRIU2F			FUSELAGE

(CAN) DURING DAILY INSPECTION FOUND (2) BROKEN HEAD OF RIVETS ON BATTERY TRAY. RIVETS REPLACED AND AIRCRAFT, SERVICEABLE (TC NR 20080118002)

CA070717006	UROCOP	TMECA		WIRE HARNESS	BURNED
7/5/2007	EC120B	ARRIU2F			

(CAN) DURING CRUISE FLIGHT, PILOT NOTED THE V/A INDICATION ON THE VEMD WAS OSCILLATING INTERMITTENTLY BETWEEN PARAMETERS, AS WELL, THE LOW ROTOR AURAL WARNING WAS INTERMITTENTLY SOUNDING AND AT TIMES WAS ON STEADY. AT NO TIME WERE ANY ANOMOLIES NOTICED IN THE COCKPIT ENGINE INDICATIONS OR ENGINE PERFORMANCE. UPON LANDING, THE PILOT NOTED THE VEMD CIRCUIT BREAKER ON THE COCKPIT PANEL WAS TRIPPED. AFTER SUBSEQUENT TROUBLESHOOTING, IT WAS FOUND THAT THE WIRE HARNESS LEADING UP TO THE VEMD WAS PINCHED BETWEEN THE TOP AFT LT CORNER OF THE VEMD (VIEWED LOOKING FORWARD WITH VEMD INSTALLED AND GLARESHIELD REMOVED) AND THE GLARESHIELD ITSELF. SEVERAL WIRES WERE FOUND CHAFED THROUGH AND/OR BURNED THROUGH ALTOGETHER. UPON REPAIR, A SUCCESSFUL FLIGHT TEST WAS CARRIED WITH NO FURTHER ACTION REQUIRED OR TAKEN. SEE ATTACHED WIRING DIAGRAM FOR DETAILS OF WIRES EFFECTED. (TC NR 20070717006)

CA071005002	UROCOP	TMECA		SERVO CONTROL	UNLOCKED
10/3/2007	EC120B	ARRIU2F		7050A4673006	ROTOR

(CAN) PILOT REPORTED, WHEN PREFLIGHT HYDRAULIC TEST ACTIVATED, CYCLIC MOTORED RT. CYCLIC SHOULD STAY CENTERED DURING HYD TEST. SERVO REPLACED WITH O/H UNIT. GROUND TESTED, SERVICEABLE. AFTER REMOVAL OF SERVO, NOTICED THAT INPUT LEVER WAS SLIGHTLY LOOSE. AFTER MOVING THE INPUT LEVER A FEW TIMES, LEVER APPEARED TO LOCK, AS REQUIRED. SUSPECT STICKY INTERNAL LOCK PIN. (TC NR 20071005002)

2008FA0000148	UROCOP	TMECA		HOUSING	WORN
3/27/2008	EC120B	ARRIU2F		C632A2103101	GEARBOX

INPUT BOX HOUSING BEARING WORN. (SHOULDER)

CA070307011	UROCOP	TMECA		CYCLIC CONTROL	MALFUNCTIONED
3/7/2007	EC120B	ARRIU2F			MAIN ROTOR

(CAN) CYCLIC CONTROLS JAMMED IN NEUTRAL POSITION, CYCLIC WAS ABLE TO MOVE AFT, FWD, AND LT BUT WAS UNABLE TO MOVE CYCLIC TO THE RT DURING LEVEL CRUISE AT 2500 FT AGL. REDUCED AIRSPEED TO 65 KNOTS AND CONTROLS BROKE FREE AND OPERATED NORMALLY. THEN FLEW BACK TO THE HANGER AT AN AIRSPEED OF 65 KNOTS AND CONTROLS FELT NORMAL UNTIL AT ABOUT 200 FT AGL AND AIRSPEED AT ABOUT 40 KNOTS WITH 300 FT IAW MINUTE DESCENT RATE THE CYCLIC JAMMED ON THE RT SIDE AGAIN. THE AC SLOWLY STARTED A BANK AND AN OVERSHOOT AND PROCEEDED TO THE RUNWAY. DURING THE OVERSHOOT, BROUGHT AIRSPEED BACK UP TO AROUND 65 KNOTS AND JOINED A RT DOWNWIND FOR RUNWAY 13. ON A BASE LEG, SHUTOFF HYD AND PERFORMED A NORMAL HYD FAILURE APPROACH. CONTROLS OPERATED NORMALLY UNTIL 3 FT, JUST BEFORE TOUCHDOWN AT ABOUT 12 MILES PER HOUR. THEN THE CYCLIC JAMMED ON THE RT SIDE AGAIN AND THE HELICOPTER BEGAN TO BANK TO THE LT. WAS UNABLE TO STOP THE BANK SO, INCREASED COLLECTIVE AND FWD CYCLIC TO GAIN AIRSPEED AS THE HELICOPTER WAS STILL BANKING TO THE LT. THE HELICOPTER BANKED A GRADUAL 180 DEGREES HEADING NOW DOWN RUNWAY 31. THE HELICOPTER STRAIGHTENED OUT INTO A LEVEL ATTITUDE SO I TOUCHED DOWN PERFORMING A RUN ON LANDING WITH AIRSPEED ESTIMATED AROUND TWENTY TO THIRTY KNOTS. AFTER THE HELICOPTER CAME TO A STOP STILL RT SIDE UP, SHUTDOWN ENG THEN LOCKED THE COLLECTIVE. VISUALLY INSPECTED FLIGHT DECKS AND NO FOREIGN OBJECTS WERE FOUND AS WELL AS NO HYD FLUID WAS FOUND LEAKING AND RESERVOIR WAS STILL FULL.

2008FA0000114	UROCOP	TMECA	STARTER GEN	FAILED
1/29/2008	EC120B	ARRIUS2F	160SG140Q1XL	ENGINE

STARTER/GENERATOR FAILED TO ENERGIZE.

END OF REPORTS