

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Aviation Engineering Division
Washington, DC 20594

March 1, 2011

**AIRWORTHINESS GROUP CHAIRMAN'S FACTUAL ADDENDUM
FOR MAINTENANCE RECORDS**

A. **ACCIDENT:** ANC10MA068
 LOCATION: Near Aleknagik, Alaska
 DATE/TIME: August 9, 2010
 AIRCRAFT: DeHavilland Canada DHC-3 "Turbine Otter", N455A

B. GROUP MEMBERS:

Chairman: Robert L. Swaim
 Washington, DC

Member: Victoria Anderson
 Federal Aviation Administration
 Washington, DC

Member: Peter B. Baker
 Honeywell (Engine manufacturer)
 Phoenix, AZ

Member: William C. Behnke
 GCI
 Anchorage, Alaska

Member: Dave Rees
 Viking (Holder of DHC-3 Type Certificate)
 Sidney, British Columbia, Canada

C. SUMMARY:

On August 9, 2010, about 1442 Alaska daylight time (ADT), a single engine, turbinepowered, amphibious float-equipped de Havilland DHC-3T airplane, N455A, impacted

mountainous tree-covered terrain about 10 miles northeast of Aleknagik, Alaska. Of the nine people aboard, the airline transport pilot and four passengers died at the scene, and four passengers sustained serious injuries. The airplane sustained substantial damage. The flight was operated by General Communication, Incorporated (GCI), Anchorage, Alaska, under the provisions of 14 *Code of Federal Regulations* (CFR) Part 91. The flight originated at a GCI-owned remote fishing lodge on the shoreline of Lake Nerka at about 1427 ADT and was en route to a remote sport fishing camp on the banks of the Nushagak River, about 52 miles southeast of the GCI lodge. At the time of the accident, marginal visual meteorological conditions were reported at the Dillingham Airport, about 18 miles south of the accident site; however, the weather conditions at the accident site at that time are not known. No flight plan was filed.

The maintenance records for the airplane were examined by the Federal Aviation Administration and then reviewed by the Airworthiness Group Chairman. This addendum is a summary of those reviews.

D. DETAILS OF THE INVESTIGATION:

The airplane's date of manufacture was January 17, 1957, and it was registered as Canadian registration C-FWYF.¹ The airplane was delivered with registration marking IM-1708 to the India Supply Mission on August 11, 1957, as one of 27 DHC-3 Otter airplanes. The interior was configured with 11 seats, and the engine was a Pratt & Whitney R-1340 piston engine. (See Figure 1)

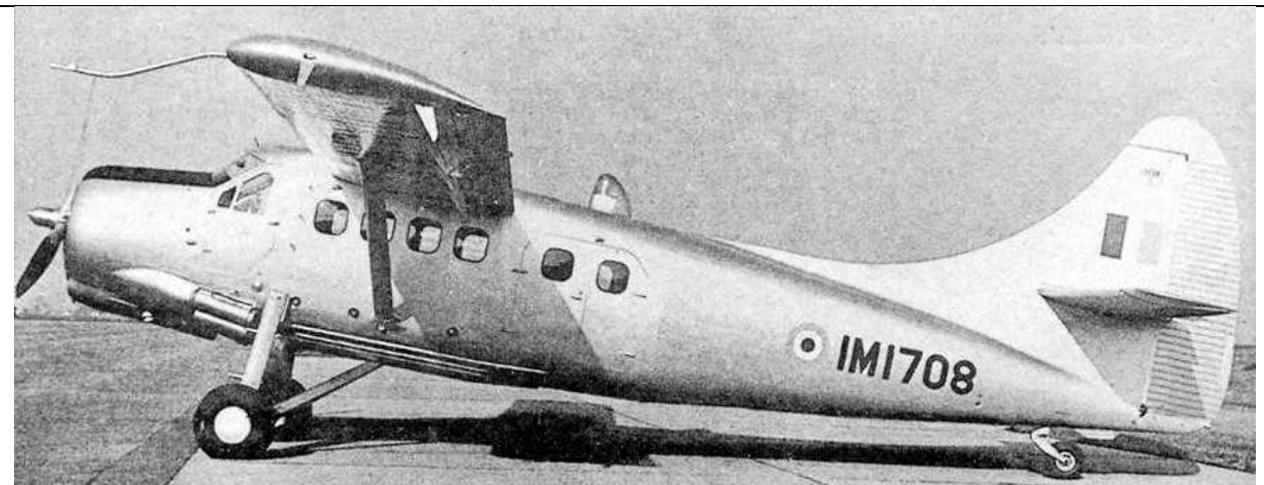


Figure 1. Image of a DHC-3 Otter with registration marking IM1708 in India. The caption states "A DHC-3 Otter [IM1708] lies parked at Palam AFS. Circa late 1950s. These aircraft entered service with the IAF in 1956 and the last of the type was retired in 1991." Source: <http://www.bharatprakshak.com/IAF/Images/Vintage/Transports/Otter/IM1708.jpg>.

The Indian Ministry of Defense sold the airplane on May 31, 1994, as one of a 12

¹ The C-FWYF registration was subsequently re-assigned to a 1971 Beechcraft King Air, Model 100.

airplane group at New Delhi, India. No maintenance records were found for the 39 year period from delivery until a Canadian technical log page of December 7, 1994, that shows the airplane was received disassembled in Ontario, Canada. The entry lists components in the airplane and describes inspections and overhaul, as of that date, referring to the DeHavilland Maintenance Manual. January 4, 1996, was the date on a Canadian Certificate of Airworthiness For Export. From January 6 until February 20, 1996, further repairs were made, along with installation of an interior and avionics at Sault Sainte Marie, Ontario, Canada.

The airplane was purchased by the Wipaire Corporation and moved to a location shown as Inver Grove Heights, Illinois.² An application for a Standard Airworthiness Certificate was submitted to the FAA by Wipaire on March 7, 1996, when the airplane had 6525 total flight hours. The FAA approved the application on March 26, 1996, and this document served as the basis for airworthiness after this time. The application showed that all airworthiness directives had been complied with, with the most recent listing as AD 96-03. An approval was signed for installation of Wipaire Model 8000 amphibious floats on April 4, 1996.

Three weeks later, on May 17, 1996, the airplane was at Wasilla, Alaska, undergoing modifications that included to the water rudder, steering and retraction systems, cowling, and addition of different landing lights. A Special Airworthiness Certificate was granted to permit carriage of externals loads in Alaska (only) of up to 20 sheets of plywood or a 20 foot long boat.

The airplane was flown as part of the Wood River Lodge operation and known as “Big Red,” which was painted on the left cockpit door. (See Figures 2 and 3) Personnel working for GCI related that Wood River Lodge was later purchased by GCI and the airplane was part of the purchase.

² Showing Illinois appears to be a typographic error, as there is no Inver Grove Heights in Illinois. A city by that name is 4 miles from the current Wipaire headquarters address of 1700 Henry Avenue, So. St. Paul, MN 55075.



Photo Copyright © John Olafson

AIRLINERS.NET

Figure 2. A caption states that “This Otter is about to receive the Texas Turbine conversion. It will return to its home base in Alaska.” Source:

<http://www.airliners.net/photo/Wood-River-Lodge/De-Havilland-Canada/0799124/L/&sid=423c1551afd1899bd6ef3027a91cb58e>



JetPhotos.Net - Image Copyright © John Olafson

Figure 3: Photo dated February 13, 2005, captioned “This Otter, named "Big Red" has come to Kal Air Repair to be converted to the Texas Turbine engine, then it will return to Alaska.” Source: <http://jetphotos.net/viewphoto.php?id=436236&nseq=4>

Kal-Air Repair, Ltd, of Vernon, BC, Canada, modified the airplane to replace the original piston engine with a turbine engine. (See Figure 4) The work release was signed April 26, 2005, when the airplane had 7889.9 flight hours. The modification installed a Garrett TPE331 series engine and related propeller, in accordance with a Supplemental Type Certificate (STC SA09866SC) from Texas Turbines. As part of the overhaul, an avionics shop (Sebrof Aviation) in the area replaced the instrument panels, as well as nearly all of the avionics and instruments, using new parts. The Sky Connect flight tracking system and the Garmin GNS-530, Garmin GNS-430, a marine band radio, and the radar altimeter were installed at this time. Kal-Air also completed an extensive list of repairs throughout the airplane, replaced many components, and made lesser modifications, such as adding an aft cargo net and anticollision strobe lights. The annual inspection was signed on July 5, 2005, prior to re-entry into service and this entry notes that the Hobbs meter was replaced with a new part, showing no flight hours.³

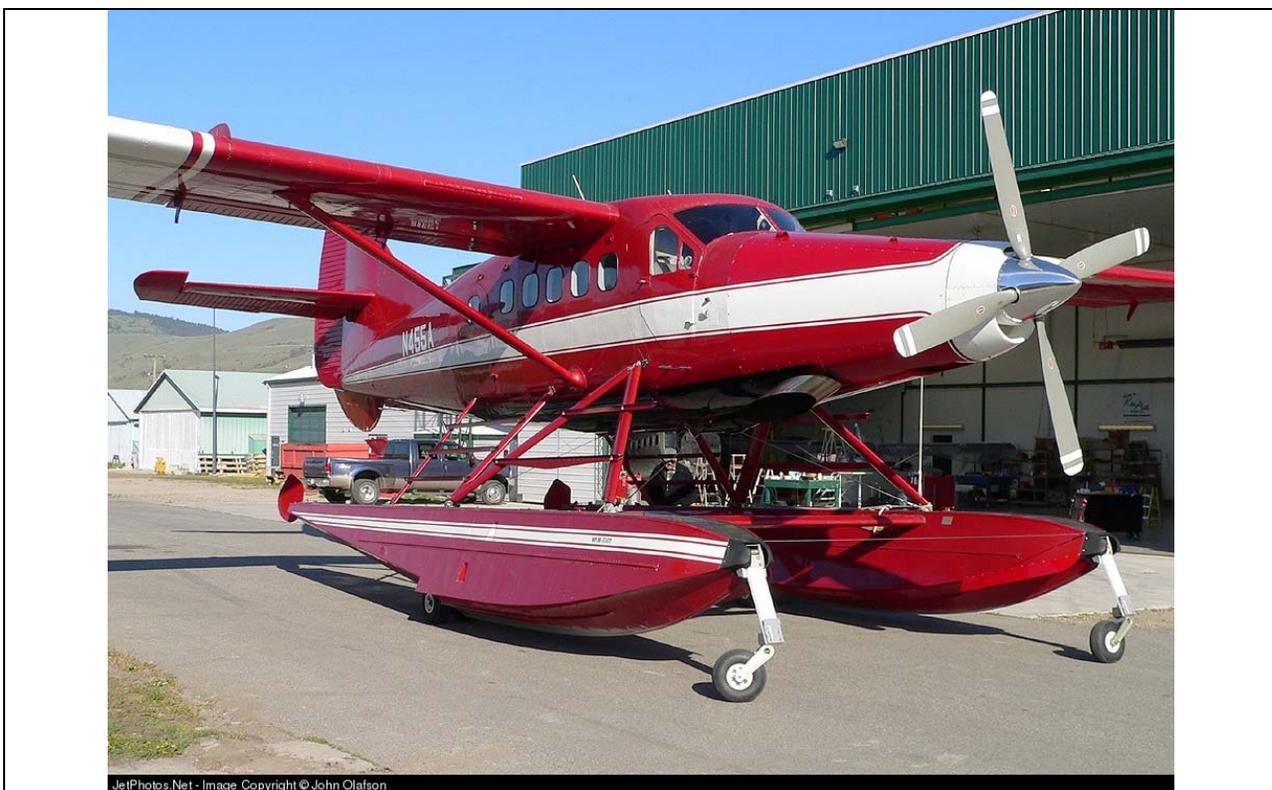


Figure 4: Photo dated April 29, 2005, captioned “s/n 206. The Texas Turbine Conversion has just been completed at Kal Air Repair. Quite a difference in appearance as well as performance.” Source: <http://jetphotos.net/viewphoto.php?id=465705&nseq=2>

The airplane accumulated flight hours and underwent annual and minor inspections until February 20, 2007, when it had 8461 total flight hours (571.3 Hobbs time). At this time, the airplane underwent a six page list of extensive repairs and replacements that required extensive disassembly. Corrosion was found, extensive sheetmetal repairs were made, and the overhaul replaced numerous components, including the flight controls, control

³ The Hobbs meter records elapsed time.

cables, numerous bearings and actuators, etc. The airplane was modified to increase the permissible gross weight to 8,367 pounds, per AOG Corporation STC00438NY.

Following the accident, the maintenance records were burned to a DVD disc. The review noted that a signature was missing by the required recurring inspection date for one airworthiness directive (AD 88-15-8, ref. de Havilland S/B No. 3/42, Rev. A). At intervals of 50 hours, a mechanic or pilot trained in the appropriate procedure was required to attempt to move each seat leg with hand force, attempting to disengage the mounting. If the mounting remained secure, the person should record the action. The pilot who had been flying the airplane (Mr. Hon Kinzie) later was able to supply a signed copy of the compliance page that was missing from the DVD.

Robert Swaim
Airworthiness Group Chairman

ATTACHMENT A

Maintenance Records Review

The following documents a review of the maintenance records that was undertaken by the Airworthiness Group Chairman. This is not a complete list of every entry from every log, provides further detail to the summarized narrative.

Maintenance records for N455A, DHC-3T, registered owner: GCI Communication Corp, 2550 DENALI ST STE 1000, Anchorage, AK 99503

DATE:	TOTAL TIME (HOURS):	HOBBS METER (HOURS):	CYCLES:	ITEM:	BY:	AT:	AD(s) ACTION TAKEN:	STC:	THEME:
17-Jan-57	0			Date of manufacture, registered as Canadian registration C-FWYF					
11-Aug-57	0			Delivered to India Supply Mission with registration IM-1708					
7-Dec-95	6525			The airplane was bought from the Indian Ministry of Defense on May 31, 1994. It was received disassembled and inspected at Ontario, Canada. The log entry lists various part and serial numbers and lists all equipment, along with the basis for inspection from the DHC-3 Maintenance Manual. Numerous parts were replaced at this time.					
4-Jan-96				Canadian Certificate of Airworthiness for Export.		Timmons, Ontario, Canada			
26-Feb-96				Installed Apollo GPS, Argus 3000 moving map, KY96A Comm, intercom, KT76A transponder, Artex ELT 110-4 on rear radio shelf.	Springer Aerospace	Sault Ste. Marie, Ontario			
7-Mar-96	6525			Applied for Standard Airworthiness Certificate. States that foreign airworthiness certification attached.	Wipaire Inc (Owner)	Inver Grove Heights, Illinois	AD 96-03 (Most recent airworthiness directive met)		
26-Mar-96	6525			FAA approval of Standard Airworthiness Certificate					
2-Apr-96				Installed Lake & Air amphibious landing gear position advisory system	Wipaire Inc (Owner)	Inver Grove Heights, Illinois		SA39CH	Gear position indication
4-Apr-96				Installed Wipaire Model 8000 series amphibious floats.	Wipaire Inc (Owner)	Inver Grove Heights, Illinois		SA331CH	Wipaire floats

17-May-97				Major alterations to cowling, install cockpit fan, install dual landing lights. Remove oil dilution valve and install low fuel pressure warning light. Fuel boost pump switch relocated.	Kevin Ferris	Wasilla, AK		SA4005N M	Landing lights
18-May-98				Modified for water rudder steering and retract system.	Kevin Ferris	Wasilla, AK			
19-May-98				Modification approval for installation of Jasco alternator and regulator. Weight and balance revised.	Kevin Ferris	Wasilla, AK			
16-Jun-99				Special Airworthiness Certificate (Restricted) approved for external load in Alaska of a flatbottom boat, structural timbers, or 20 sheets of plywood.					
1-Jun-04				Installed Hamilton Standard propellor	Kevin Ferris	Wasilla, AK		SA336NW	Installed Hamilton Standard propellor
25-Jan-05				Registration date, shows Standard Classification, Normal Category,					
21-Feb-05							AD 97-15-10, 98-12-9, 2002-25-02,		TPE331 engine
26-Apr-05	7889.9			Installed Whelen anticollision strobes	KAL AIR REPAIR	Vernon, BC		SA800EA	Anticollision strobe lights
26-Apr-05	7889.9			Floats had list of minor repairs, forward fuselage strut weld repair, cabin heat ducts and hoses replaced, both windshields replaced, minor sheetmetal repairs listed, fuel pump repair and tested, fuel selector replaced, fuel cells repaired and reinstalled, fuel qty transmitters overhauled, misc minor fuel items completed, extensive cleaning and painting.	KAL AIR REPAIR	Vernon, BC		SA01668 NY	AOG Corp aft cargo restraint net.

				Replaced copilot rudder pedal brackets, pilot brake rod replaced, pilot rudder rod ends replaced, rudder torque tube bellcrank replaced, right elevator servo tab bearing replaced, left and right aileron bearings replaced, rudder cables replaced, fuselage beacon installed, vacuum filter replaced, airplane reweighed, dual inspection of all flight/engine/prop controls. Work per W/O #2785					
26-Apr-05	7889.9			Replaced engine with Honeywell TPE-331 turboprop and Hartzell propellor, per Texas Turbine STC.	KAL AIR REPAIR, Vernon, BC			SA09866 SC	New engine and propellor
27-Apr-05				Nearly all avionics and instruments replaced with new.	SEBROF AVIATION SERVICES				
5-Jul-05	7889.9	0		Annual inspection. Removed and replaced Hobbs meter.		Carey Foster	AD 83-02-01, 83-04-05, 83-08-01r2, 88-15-08		
16-Sep-05	8090.4	200.5		100 hour inspection completed.		Carey Foster	AD 83-04-05, 88-15-08		
1-Apr-06	8172.9	283		Annual inspection.		Carey Foster	AD 83-02-01, 83-04-05, 88-15-08		
6-Jun-06	8272.9	382		100 hour inspection completed.			AD 83-04-05, 88-15-08		
23-Aug-06	8371.9	481		100 hour inspection completed.			AD 83-04-05, 88-15-08		
20-Feb-07	8461	571.3		6 page list of extensive repairs and replacements. Engine sent for carbon seal replacement. Installed wings and Hstab and Vstab and all flight controls. Installed land landing gear. Installed Garmin 430 and radar altimeter. Replaced corroded hardware. Inspected seats and replaced hardware. Annual	One Sky Aviation	Anchorage, AK			

				inspection.					
20-Feb-07				AOG Corp kit to increase gross weight.		Carey Foster		SA00438 NY	AOG Corp kit to increase gross weight.
29-Mar-07				Installed Sky Connect and PS Audio panel.	Peninsula Aero Technology				
1-Mar-08	8756.4	866.5		Removed ARTEX ELT 110-4 and installed ARTEX ME406, p/n 453-6603, s/n 083345 per ARTEX ME406 Installation Manual, document #570-1600, Rev D. All "one time" AD's complied with.		Alan Hawsey	AD 76-08-05 previously complied with or not applicable, 83-02-01 (next due 3/2009), 83-04-05 (next due 8573.5), 86-16-12, 88-15-08 (next due 8523.4), 96-09-04C (previously complied with), 2004-21-06 (no longer applicable because of turbine installation)		
20-Jul-08	8867.7	977.8		100 hour inspection. Installed new RPM indicator		Craig Wilson	AD 83 04 05		Lower control column visual inspection
							AD 88 15 08		Folding seat attachment
4-Aug-08	8618.7	1011.8		Replaced starter/generator		Craig Wilson			
18-Aug-08	8934.7	1044.8		100 hour inspection.		Craig Wilson	AD 83 04 05		Lower control column visual inspection
							AD 88 15 08		Folding seat attachment

15-Apr-09	9048.9	1159		Annual inspection completed. Entry cites list of discrepancies given to owner, as cable tension checks, replace left elevator hinge bolt and bushing, install chafe tape on right flap, loose rivets on right aileron, swing amphib gear, lube doors/hinges/latches, verify AD compliance		Patrick J. Cullinane	General statement of compliance		
15-Apr-09	9048.9	1159		List of discrepancies repaired or accomplished.					
22-Jul-09	9162.4	1272.5		100 hour inspection completed.		Craig Wilson	AD 83 04 05		Lower control column visual inspection
							AD 88 15 08		Folding seat attachment
12-May-10	9372.7			100 hour inspection. Replaced #2 tire, rivets in water rudder, new flap actuator, nose wheels, brake pads, torque gage, boost pump switch, rig/tension rudder & water rudder, new springs, replaced pilot door window.		Russell W. Jones		SA02168 AK	Hobbs meter air pressure
12-May-10	9372.7			Replaced Garmin GNS-530 battery, updated software to 6.04, replaced standby attitude indicator battery.		Brady Mahon			
12-May-10	8745.2	1482.4	2116	Engine 100 hour inspection and SOAP sampling.		Lou Garrett			
15-May-10	8745.2	1482.4	2116	Annual Inspection		Lou Garrett	General statement of compliance		
15-May-10	9372.3	1482.4		Annual Inspection		Lou Garrett	General statement of compliance		
23-Jun-10	9408.3	1518.4		Clean/lube gear, tightened exhaust augments, replaced float seals, replaced elevator bearings, rigged elevator servo tab, re-bushed forward	Northern Aviation, ANC				

ATTACHMENT B

FAA Maintenance Records Review

The following documents a review of the maintenance records that was undertaken by the FAA.

Note: The entry for 11/9/2006 cites a repair made by “Honeywell Phoenix” that should cite “Executive Aircraft Maintenance.”



Federal Aviation Administration

Memorandum

Date: August 16, 2010

From: Charles W. Strange, Principal Maintenance Inspector, Anchorage Flight Standards District (FSDO)

To: Kenneth J. Clarke, Front Line Manager (FLM), Anchorage Flight Standards District (FSDO)

Prepared by: Charles W. Strange, Principal Maintenance Inspector (Airworthiness) and Curtis Martin, Aviation Safety Inspector (Avionics), Anchorage Flight Standards District (FSDO)

Subject: GCI Accident, N455A Maintenance Records Review

Overview:

On August 12, 2010, Principal Maintenance Inspector (PMI) Strange was notified by Principal Operations Inspector (POI) Broomfield that the maintenance records would be available for review at 10:30A (ADT) at the Million Air – Hangar 1 facilities, located at South Air Park, Ted Stevens Airport, Alaska. Also, Mr. Craig Wilson, the recognized Director of Maintenance (DOM for GCI would be available to answer any questions that we may have.

Discussion:

The following is a summary of the significant information noted or observations made during our review of the maintenance records provided by GCI:

ENGINE LOG BOOK REVIEW:

- Airframe Log Book maintenance record entries beginning 12/7/1995 through 06/23/2010 were available for review.
- Engine maintenance record entries beginning at last overhaul dated 2/22/2005 through 5/15/2010 were available for review.

- Propeller maintenance record entries beginning 7/5/2005 through 5/15/2010 were available for review.
- Avionics maintenance record entry dated 4/27/2005 was available for review. All other avionics related maintenance record entries were referenced in the Airframe Log Book.
- Engine Oil “SOAP” Sampling results were not available for review.
- 2/24/2005 - Engine Model TPE-331-10R-511C, P/N 3102170-6, S/N P-37622C was overhauled by Honeywell Phoenix, R/S #ZN3R030M. Ref. to Honeywell W/O #389651.
 - Engine Time since New (ETSN): 7262.8 Hours
 - Engine Time since Overhaul (ETSO): “0” Hours
 - Engine Cycles since New (ECSN): 10082 Cycles
- 4/26/2005 – Engine S/N P-37622C was installed on N455A by Kal-Air Repair Ltd., a Canada Approved Maintenance Organization (AMO) #129-91. Installation was performed in accordance with Texas Turbines Conversions, Inc. STC #SA09866SC.
 - Airframe Total Time since New (AFTTSN):
 - 7889.9 Hours Hobbs Meter: “0”
- 4/26/2005 – New Hartzell Propeller Model HC-B4TN-5NL / LT10890N, S/N CDA5013 was installed.
 - Airframe Total Time (AFTT): 7889.9 Hours
 - Hobbs Meter: “0”
 - Propeller Time since New (PTSN): “0”
- 7/5/2005 – 100 Inspection complied and engine oil SOAP samples taken.
 - Hobbs: 98.7
 - AFTT: 7988.6 Hours (+ 98.7 hours since last inspection)
 - ETSO: 98.7 Hours
 - ETSN: 7361.6 Hours
 - ECSN: 10242 Cycles
- 9/16/2005 - 100 Inspection complied with and engine oil SOAP samples taken.
 - Hobbs: 200.5
 - AFTT: 8090.4 Hours (+ 101.8 hours since last inspection)
 - ETSO: 200.5Hours
 - ETSN: 7463.3 Hours
 - ECSN: 10414 Cycles

Observation: Engine Log Book is showing this entry was made on 7/5/2005. The Airframe Log Book has this maintenance record dated 9/16/2005.
- 4/1/2006 – Annual Inspection complied with. Engine oil SOAP samples taken. Aircraft was returned to Service by Mr. Cory Foster, Certificate # AP [REDACTED] IA.
 - Hobbs: 283
 - AFTT: 8172.9 Hours (+ 82.5 hours since last inspection)

- ETSO: 283 Hours

- ETSN: 7541.5 Hours
- ECSN: 10563 Cycles

• 6/6/2006 - 100 Inspection complied with.

- Hobbs: 382
- AFTT: 8271.9 Hours (+ 99 hours since last inspection)
- ETSO: 382 Hours

Observation: Engine Log Book does not state whether the oil SOAP samples were taken.

• 8/20/2006 – Fuel Nozzles replaced. Engine oil Soap samples taken.

- ETSO: 265 Hours
- ETSN: 7645.8 Hours
- ECSN: 10347 Cycles
- ECSO: 265 Cycles

Observation: The engine log book entry is showing different times and cycles when compared to airframe log book. The Airframe Log Book is showing the HOBBS time was 481 on 8/23/2006. The hours and cycles noted below have been recalculated using the HOBBS time of 481.

- Hobbs: 481
- AFTT: 8370.9 Hours (+ 99 hours since last inspection)
- ETSO: 481 Hours
- ETSN: 7743.8 Hours

• 11/9/2006 – Engine S/N P-37622C was removed due to a propeller strike. A Level 1 Prop Strike Inspection was accomplished by Executive Aircraft Maintenance, FAA Approved Repair Station No. XX6R388Y

- Hobbs: 571.3
- AFTT: 8461.2 Hours (+ 90.3 hours since last inspection)
- ETSO: 571.3 Hours
- ETSN: 7835.1 Hours
- ECSO: 544 Cycles
- ECSN: 10626 Cycles

Observation: The engine and airframe log books do not have a maintenance record entry showing Engine S/N P-37622C was installed after repairs were completed by Honeywell Phoenix.

• 2/26/2007 – Annual Inspection completed. Engine and propeller was reinstalled and tested satisfactory. Aircraft was returned to Service by Mr. Cory Foster, Certificate # AP [REDACTED] IA.

- Hobbs: 571.3 Hours
- AFTT: 8461.2 Hours (+ 90.3 hours since last inspection)
- ETSO: 571.3 Hours
- ETSN: 7835.1.5 Hours
- ECSO: 544 Cycles
- ECSN: 10626 Cycles

- 3/3/2008 – Executive Aircraft Maintenance, FAA Approved Repair Station No. XX6R388Y performed 150, 200, 300, 400, and 800 hour inspection. Replaced fuel nozzles

- Hobbs: 866.5
- AFTT: 8756.4 Hours (+ 90.3 hours since last inspection)
- ETSO: 866.5 Hours (+ 601.5 hours since last fuel nozzle replacement)
- ETSN: 8130.5 Hours
- ECSO: 946 Cycles
- ECSN: 11028 Cycles

Observation: Honeywell S/B 72-0180 requires fuel nozzles to be removed, cleaned, inspected, and repaired every 450 hours.

- 3/3/2008 – Annual Inspection signed off. Aircraft returned to service by Alan J Hawsey, Certificate # AP [REDACTED] IA.

- Hobbs: 866.5
- AFTT: 8756.4 Hours (+ 90.3 hours since last inspection)
- ETSO: 866.5 Hours
- ETSN: 8130.5 Hours
- ECSO: 946 Cycles
- ECSN: 11028 Cycles

- 7/20/2008 - 100 Inspection complied with and engine oil SOAP samples taken.

- Hobbs: 977.8
- AFTT: 8867.8 Hours (+ 111.4 hours since last inspection)
- ETSO: 977.8 Hours
- ETSN: 8240.6 Hours
- ECSO: 1186 Cycles
- ECSN: 11268 Cycles

- 8/18/2008 - 100 Inspection complied with and engine oil SOAP samples taken.

- Hobbs: 1044.8
- AFTT: 8934.7 Hours (+ 66.9 hours since last inspection)
- ETSO: 1044.8 Hours
- ETSN: 8307.6 Hours
- ECSO: 1316 Cycles
- ECSN: 11398 Cycles

- 4/15/2009 - Annual Inspection signed off. Aircraft returned to service by Patrick Cullinane, Certificate # AP [REDACTED] IA.

- Hobbs: 1159
- AFTT: 9048.9 Hours (+ 114.2 hours since last inspection)
- ETSO: 1159 Hours
- ETSN: 8421.8 Hours
- ECSO: 1488 Cycles
- ECSN: 11570 Cycles

- 5/5/2009 - Executive Aircraft Maintenance, FAA Approved Repair Station No. XX6R388Y performed 150, 200, 300, 400, and 800 hour inspection. Replaced fuel nozzles.

- Hobbs: 1159
- AFTT: 9048.9 Hours (+ 114.2 hours since last inspection)
- ETSO: 1159 Hours (+ 292.5 hours since last fuel nozzle replacement)
- ETSN: 8421.8 Hours
- ECSO: 1488 Cycles
- ECSN: 11570 Cycles

- 7/22/2009 - 100 Inspection complied with and engine oil SOAP samples taken.

- Hobbs: 1272.5
- AFTT: 9162.4 Hours (+ 113.5 hours since last inspection)
- ETSO: 1272.5 Hours
- ETSN: 8535.3 Hours
- ECSO: 1316 Cycles
- ECSN: 11398 Cycles

- 4/12/2010 - Executive Aircraft Maintenance, FAA Approved Repair Station No. XX6R388Y replaced fuel nozzles.

- Hobbs: 1482.4 (+ 323.4 hours since last fuel nozzle replacement)
- AFTT: 9372.3 Hours (+ 209.9 hours since last inspection)
- ETSO: 1482.4 Hours
- ETSN: 8745.2 Hours
- ECSO: 2116 Cycles
- ECSN: 12198 Cycles

- 5/12/2010 - 100 Inspection complied with and engine oil SOAP samples taken.

- Hobbs: 1482.4
- AFTT: 9372.3 Hours (+ 209.9 hours since last inspection)
- ETSO: 1482.4 Hours
- ETSN: 8745.2 Hours
- ECSO: 2116 Cycles
- ECSN: 12198 Cycles

Observation: Honeywell S/B 72-0180 specifies required maintenance every 150 hours.

- 5/15/2010 - Annual Inspection signed off. Aircraft returned to service by Loren P. Gerrety, Certificate # AP [REDACTED] IA.

- Hobbs: 1482.4
- AFTT: 9372.3 Hours (+ 209.9 hours since last inspection)
- ETSO: 1482.4 Hours
- ETSN: 8745.2 Hours
- ECSO: 2116 Cycles
- ECSN: 12198 Cycles

AIRFRAME LOG BOOK:

- Information requested by Clint Johnson, NTSB Investigator in charge:
 1. The GNS-530 has the embedded TAWS functionality as well as the moving map capability. Additionally, the current software version for this platform is 6.04, according to Garmin Field Rep. Terry Clair.
 2. New GNS530 software 6.04 upgrade and new battery installed 05/12/2010.

3. The GNS-530 was installed by Murray D. Forbes of "Sebrof Aviation Services LTD." of British Columbia, AMO 84-00.
 4. The ARTEX ELT 110-4 was removed and a ARTEX ME 206, P/N 453-6603, S/N 083345 was installed. Ref. A/F Log Book entry on page 17. ELT Battery expires May 2013.
- No maintenance record entries stating the altimeter certifications in accordance with part 43 Appendix E were complied with.
 - A GTX 327 Transponder was installed 4/27/2005. No maintenance record entries stating the transponder checks in accordance with part 43 Appendix F required every two years have been complied with. Brady Mahon offered no explanation as to why the maintenance records were not showing any record of transponder certification since 2007.
 - The inspection times and the dates of compliance recorded in the airframe log book, unless otherwise noted, matched the entries found in the engine log book.
 - There have been no reported problems with the installed Garmin GNS530 TAWS GPS/NAV/COM System.
 - The aircraft had Annual Inspection within the preceding 12 months as per part 43.409(a) (1) and was returned to service by a person authorized by part 43.7.

Key Attendees/ Individuals of Interest:

Purpose/Goal:

To provide information concerning the maintenance records reviewed for this aircraft.

Political Considerations/ Other Dynamics:

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