

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN24LA146

POWERPLANTS

Group Chairman's Factual Report

October 20, 2025

TABLE OF CONTENTS

A	ACCIDENT	3
B	POWERPLANTS GROUP	3
C	SUMMARY	3
D	DETAILS OF THE INVESTIGATION	4
1.0	ENGINE INFORMATION	4
1.1	Engine Description	4
1.2	Engine Operating History and Maintenance.....	5
2.0	PT6-15AG, ESN PCE-14007, EXAMINATION AND TEARDOWN	6
2.1	Visual Examination.....	6
2.2	Power Turbine	12
2.3	Compressor Turbine	14
2.4	Combustor.....	16
2.5	Compressor	17
2.6	Accessory Gearbox and Reduction Gearbox.....	19
3.0	ENGINE ACCESSORIES DISASSEMBLY AND TESTING	22
3.1	Fuel Pump and Fuel Control	22
3.2	Propeller Governor and Overspeed Governor.....	25
3.2.1	Propeller Governor.....	26
3.2.2	Overspeed Governor	29
4.0	MATERIALS ANALYSIS	30
5.0	ADDITIONAL INFORMATION.....	33
5.1	Power Section.....	33
5.2	Compressor Turbine Vane.....	34
E	LIST OF ATTACHMENTS	34

A ACCIDENT

Location: Kaplan, Louisiana
Date: April 2, 2024
Time: 1310 Central Daylight Time (CDT)
1810 Coordinated Universal Time (UTC)
Airplane: Schweizer G-164B, N75099

B POWERPLANTS GROUP

Group Chair: Robert Hunsberger
National Transportation Safety Board
Washington, DC

Technical Advisor Alexandre Gauthier
(Canada) Pratt & Whitney Canada
St. Hubert, Québec, Canada

Technical Advisor Jean-Marc Limoges
(Canada) Pratt & Whitney Canada
St. Hubert, Québec, Canada

C SUMMARY

On April 2, 2024, about 1310 central daylight time, a Schweizer G-164B airplane, N75099, was substantially damaged during an accident near Kaplan, Louisiana. The pilot was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* (CFR) Part 137 aerial-application flight.

The pilot reported that the flight departed a private airstrip with the engine torque at 50 pounds per square inch gauge (psig) and the propeller speed at 2,200 rpm. After an uneventful takeoff, the pilot reduced engine torque to 40 psig with the propeller speed at 2,000 rpm and continued north toward the field to be seeded with rice. About 1 mile from the intended field, the engine had a partial loss of engine power. The pilot was unable to increase/regain engine power to maintain altitude, which resulted in a forced landing in a nearby crawfish pond. The airplane came to rest inverted in the crawfish pond. The fuselage, upper wings, and the empennage were substantially damaged during the forced landing.

The engine was shipped to Pratt & Whitney Canada (P&WC) in St. Hubert, Québec, Canada for teardown examination. Party members from P&WC Canada and

the National Transportation Safety Board completed the examination on September 17-18, 2024. The engine propeller governor and overspeed governor were shipped to Woodward in Loves Park, Illinois for component testing. Investigation party members from Woodward and the National Transportation Safety Board completed testing on July 10, 2025.

D DETAILS OF THE INVESTIGATION

1.0 Engine Information

1.1 Engine Description

The P&WC PT6A-15AG is a reverse flow turboprop engine featuring a three-stage axial and single-stage centrifugal compressor, a single-stage compressor turbine (CT), and a single-stage free power turbine (PT). The power turbine is coupled to a reduction gearbox (RGB) to drive the propeller. The engine has an annular combustor and a hydromechanical fuel control unit (FCU). The Ng spool is comprised of the axial compressor, centrifugal compressor, and CT and is referred to as the gas generator speed. The Nf spool refers to the power turbine (free turbine) speed. According to the Federal Aviation Administration (FAA) type certificate data sheet E4EA, Revision 30, June 16, 2021, the engine has a maximum continuous and takeoff (5 minute) sea level ratings of 680 shaft horsepower (SHP)¹. An engine cross section is shown below in **Figure 1**.

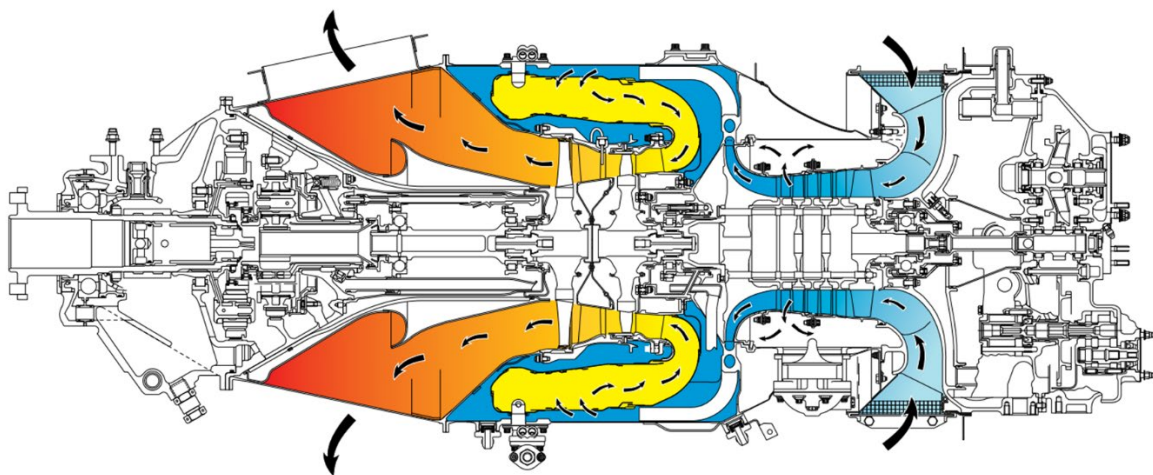


Figure 1- Pratt & Whitney Canada PT6A-15AG Engine Cross Section

¹ The engine ratings are based on static sea level condition 29.92 in Hg pressure, compressor intake screen installed, no external accessory loads and no air bleed.

1.2 Engine Operating History and Maintenance

According to the maintenance logbooks and airplane Hobbs meter, engine serial number (ESN) PCE-14007 had accumulated 12,718.3 hours time since new (TSN) and 3,718.8 hours time since overhaul (TSO) at the time of the accident.

The engine was originally installed on the accident airplane, N75099, on January 13, 2023. The last engine related maintenance entry in the logbook was performed on March 15, 2024, and included the removal and replacement of the compressor bleed valve assembly. In May 2023, the engine experienced a propeller strike and was removed from the airplane. The power section was replaced with a power section from a PT6A-27, ESN PCE-41336, that had recently undergone repair for possible metal contamination. The repair included the replacement of the RGB sun gear, high speed gearset, and ring gear, interturbine temperature (T5) harness, and No. 3 bearing cover. The maintenance logbook entries are shown below (**Photo 1 and Photo 2**).

3/15/2024	Removed Compressor Bleed Valve Assy (P/N 3100829, S/N TACH 2320-0 AHX015667) ; Installed Compressor Bleed Valve Assy (P/N 3100829, S/N 21A469) ; Sealed I/A/W P/WC MA 75-30-00 Rev 73. All work done in accordance with P/WC M.M.
3/15/2024	Removed Compressor Bleed Valve Assy (P/N 3100829, S/N 21A469) ; Installed Sealed Compressor Bleed Valve Assy (P/N 3100829, S/N AHX015667). All work done in accordance with P/WC M.M.

Photo 1- Engine Logbook Entry- March 15, 2024

5-8-2023	Removed Tower section for inspection
Hobbs 12374.3	due to prop strike
5-9-2023	Installed Power Section from PT6A-27 (PCE 41336); Installed O/H Prop Governor (P/N 8210-002-01 S/N 11902330); Installed O/H Overspeed Governor (P/N A210507 S/N 2174603); Rigged & Trimmed All work done in accordance with P&WC manuals; Ground run OK; Leak test O.K.
	Hobbs: 2522.3

Airborne Turbines - Hot Springs, AR					
N#:		HM:		WO#	T2103-006
MAKE:	P&W	MODEL:	PT6A-27	DATE:	5/9/2023
ACTT:		S/N:	PCE-41336		
This entry is a permanent part of the Engine Records					
1	Received Engine off wing for possible metal contamination				Printed Name and Certificate #
	Replaced High Speed Sungear p/n 3024765 s/n 22A511, Set B715				Signature
	High Speed Gearset p/n 3101532-01, 3024471 s/n 21A642, 21A628, 21A577.				
	High Speed Ring Gear p/n 3031266 s/n 9E268				
	Spline Adapter p/n 3023252				
	T5 Harness p/n 3117924-01				
	#3 Bearing Cover 3104278-01				
	All work done in accordance with P&WC manuals.				
	Engine assembled and safetied for return to customer				

Photo 2- Engine Logbook Entries- May 2023

2.0 PT6-15AG, ESN PCE-14007, Examination and Teardown

2.1 Visual Examination

The engine was secured in a wood shipping crate in the P&WC Plant 5, Service Investigation Quarantine Area when the NTSB arrived (**Photo 3**). The engine was shipped with the 3 o'clock position facing down and was held in place with banding to prevent movement. Multiple airframe components were shipped with the engine including a section of the engine mounting structure, fuel hoses, and sections of engine harness. When the engine was lifted by overhead hoist, clear fluid drained from the engine that looked and smelled consistent with water. The airframe components were removed to facilitate installation in the engine work stand (**Photos 4, 5, and 6**).



Photo 3- ESN PCE-14007 Shipping Container, as Received



Photo 4- Left Side of Engine, as Received

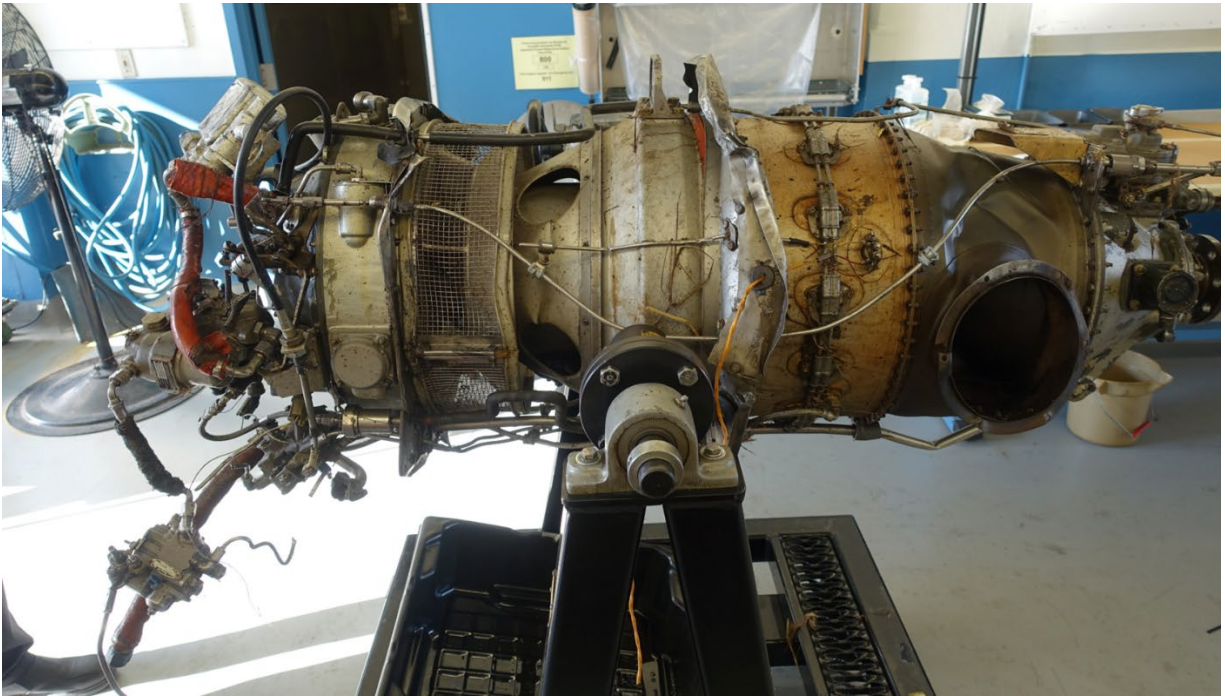


Photo 5- Right Side of Engine, as Received



Photo 6- Engine Data Plate

All engine surfaces were covered with dirt and pond debris. There was no evidence of undercowl fire or radial uncontainment through the engine cases. The fuel pump and FCU exhibited impact damage and were separated from the accessory gearbox (AGB) mount pad and the flange connecting the two components was fractured. The start controller had impact deformation and was partially separated from the engine. The oil cooler and ignition exciter box had crushing damage and were displaced. The starter generator, No. 3 and 4 bearing scavenge pump, and RGB oil scavenge pump were not shipped with the engine, but their respective AGB mount pads were damaged consistent with separation during the impact sequence (**Photo 7**). The exhaust case had impact damage 360 degrees around the engine and clear liquid was pooled at the 6 o'clock position. The power turbine blades visible through the exhaust were all full length and in good condition. The propeller governor remained attached to the engine, but the speed lever assembly was impact damaged and the lever was rotated past the maximum stop (**Photo 8**). The beta valve plunger was manually opened and closed, and it moved smoothly across the stroke travel length. Beta components including the beta arm, retaining pin, and carbon block were deformed and/or out of normal position. The Ng and Nf spools were both seized and could not be rotated. The P3 and Py² line b-nuts connections were lockwired and torqued.

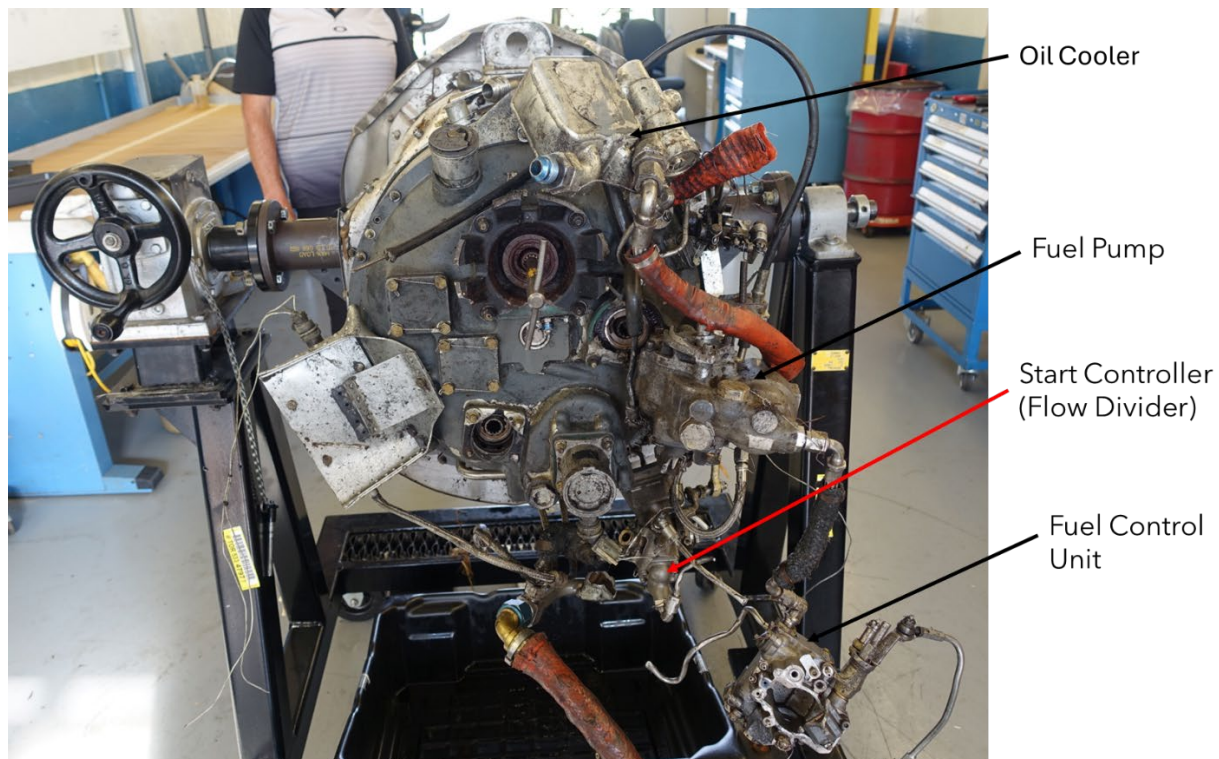


Photo 7- Accessory Gearbox Components, Impact Damage

² Px is modified P3 air (compressor discharge) after a restrictor and Py is modified Px air after a restrictor. Px and Py are used as a fuel control input.

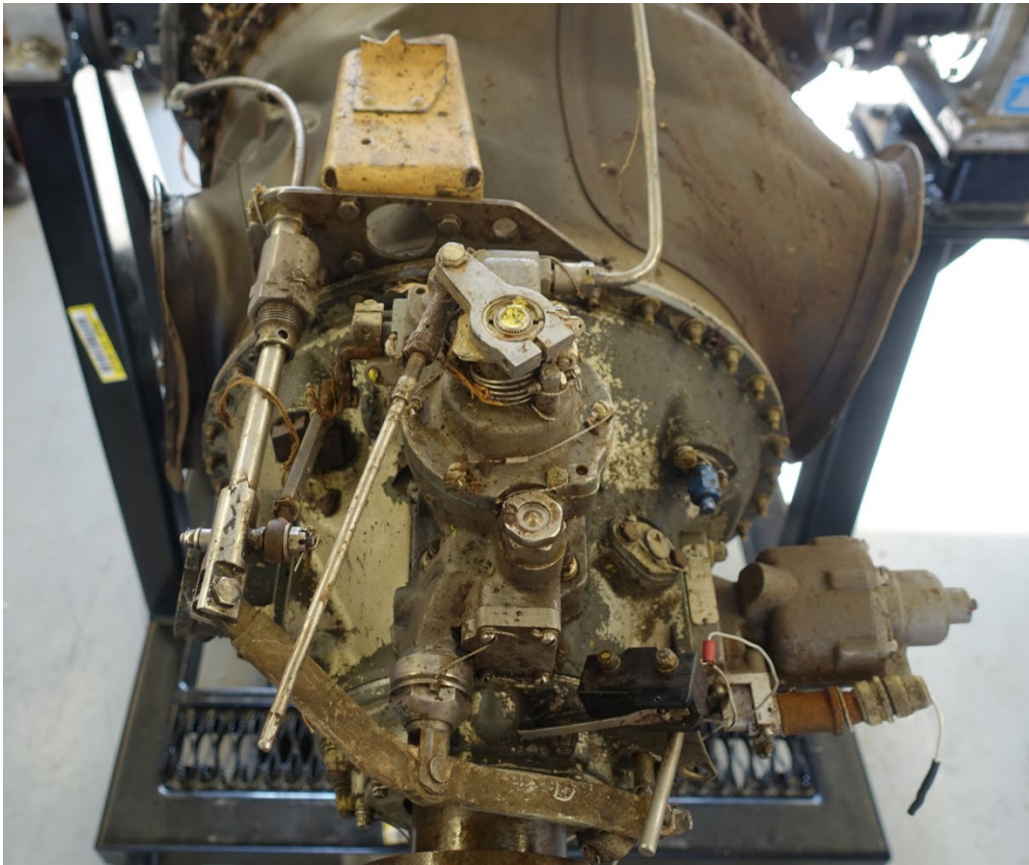


Photo 8- Propeller Governor and Beta Components

The RGB magnetic chip detector³ (MCD) plug had one metal chip attached to one of the poles that did not bridge the gap between the poles (**Photo 9**). The oil and fuel filters had no visible obstructions between the filter pleats and appeared in good condition (**Photo 10**). The P3 air filter bowl and filter were filled with clear liquid (**Photo 11**).

³ Some PT6 models are outfitted with RGB and AGB magnetic chip detector plugs. The accident engine only had an RGB plug.



Photo 9- RGB MCD Chip



Photo 10- (L) Oil Filter, (R) Fuel Filter



Photo 11- P3 Filter

2.2 Power Turbine

The PT blades were all complete with no leading or trailing edge impact damage (**Photo 12**). A 180 degree section of the blades were discolored with a debris that could be easily wiped off by hand, consistent with water submersion. The PT blade fir trees on the leading edge side of the disk had 360 degree rub damage with coincident circumferential rub on the aft/trailing edge side of the PT vane baffle. The PT vane baffle circumferential rub was deepest from the 10 to 6 o'clock positions and static impact marks were also present from the 4 to 10 o'clock positions (**Photo 13**). The PT blade outer platform had 360 degree rub damage with coincident rub on the PT blade shroud and aft surface of the PT outer diameter vane ring (**Photo 14**). The PT shaft was in good condition and unremarkable. The No. 3 roller bearing and No. 4 thrust (ball) bearing elements were intact and rotated smoothly (**Photo 15**).



Photo 12- PT Blades, Fir Tree Circumferential Rub

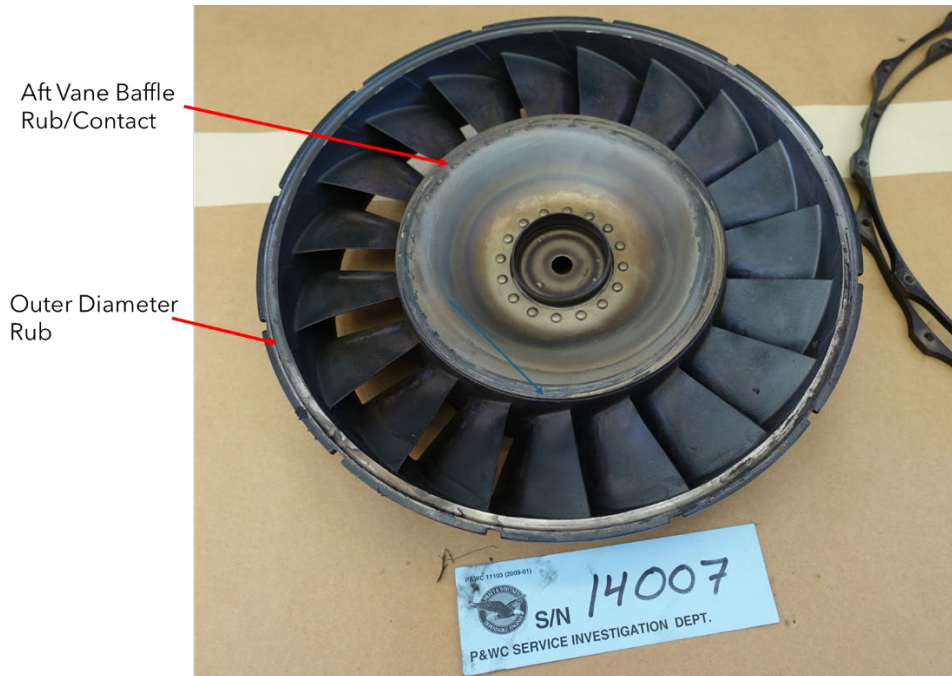


Photo 13- PT Vanes, Aft/Suction Side



Photo 14- PT Blade Outer Platform Rub



Photo 15- (L) No. 3 Bearing, (R) No. 4 Bearing

During disassembly, it was noted that three bolts were missing from the power turbine containment ring (**Photo 16**). The remaining bolts were not lockwired, as called out in the engine maintenance manual.

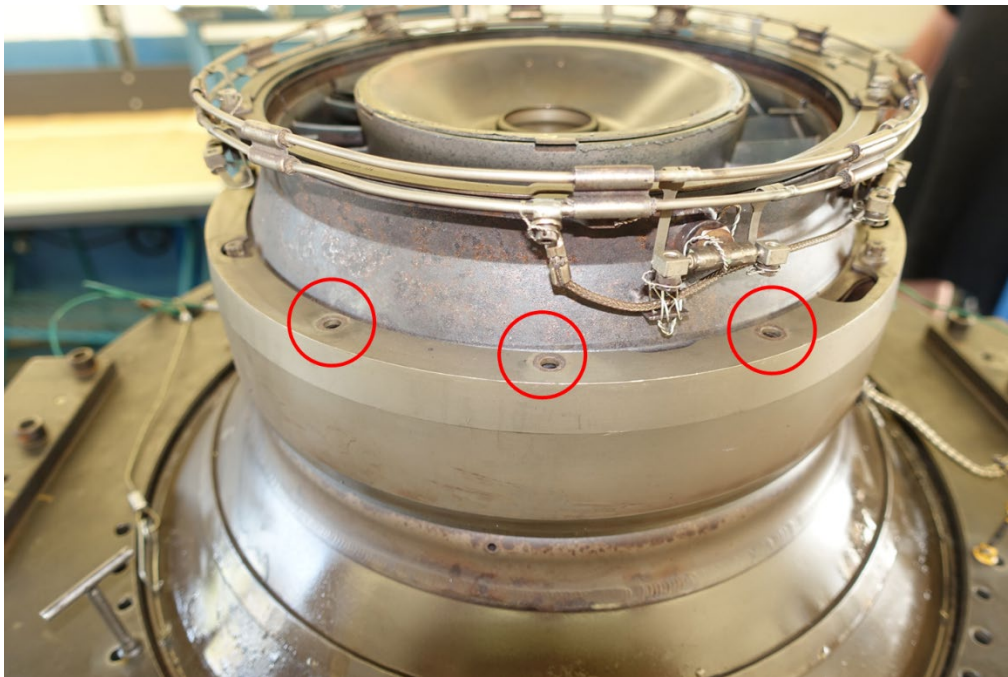


Photo 16- Power Turbine Containment Ring, Bolts Missing

2.3 Compressor Turbine

The CT blades were all complete and in good condition. Both the leading and trailing edge surfaces had dark discoloration that could be wiped off with a rag. The trailing edge CT blade platforms had 360 degree rub with coincident rub on the

forward side of the PT vane baffle (**Photo 17**). There was light tip rub on the CT blade tips and CT blade shroud.

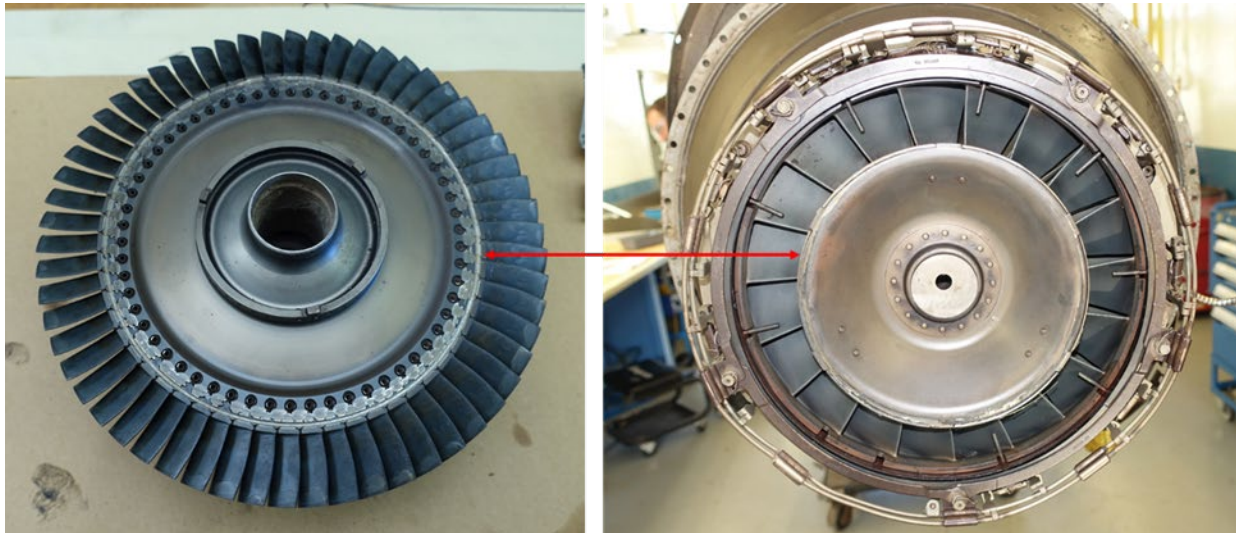


Photo 17- (L) CT Disk Trailing Edge, (R) PT Vane Baffle and Vanes

One CT nozzle vane at approximately the 8 o'clock position was missing material at the trailing edge/suction side midspan with shiny metal adhered along the full vane chord in line with where the vane material was missing (**Photo 18**). The adjacent, succeeding vane also had metal deposited on the trailing edge. One vane at approximately the 2 o'clock position had a crack at the outer platform that was visible on both the pressure and suction sides of the vane. The vane adjacent to the cracked vane also had metal deposits adhered to the trailing edge. The CT vane ring was sent to the P&WC Materials Laboratory to analyze the deposited material.

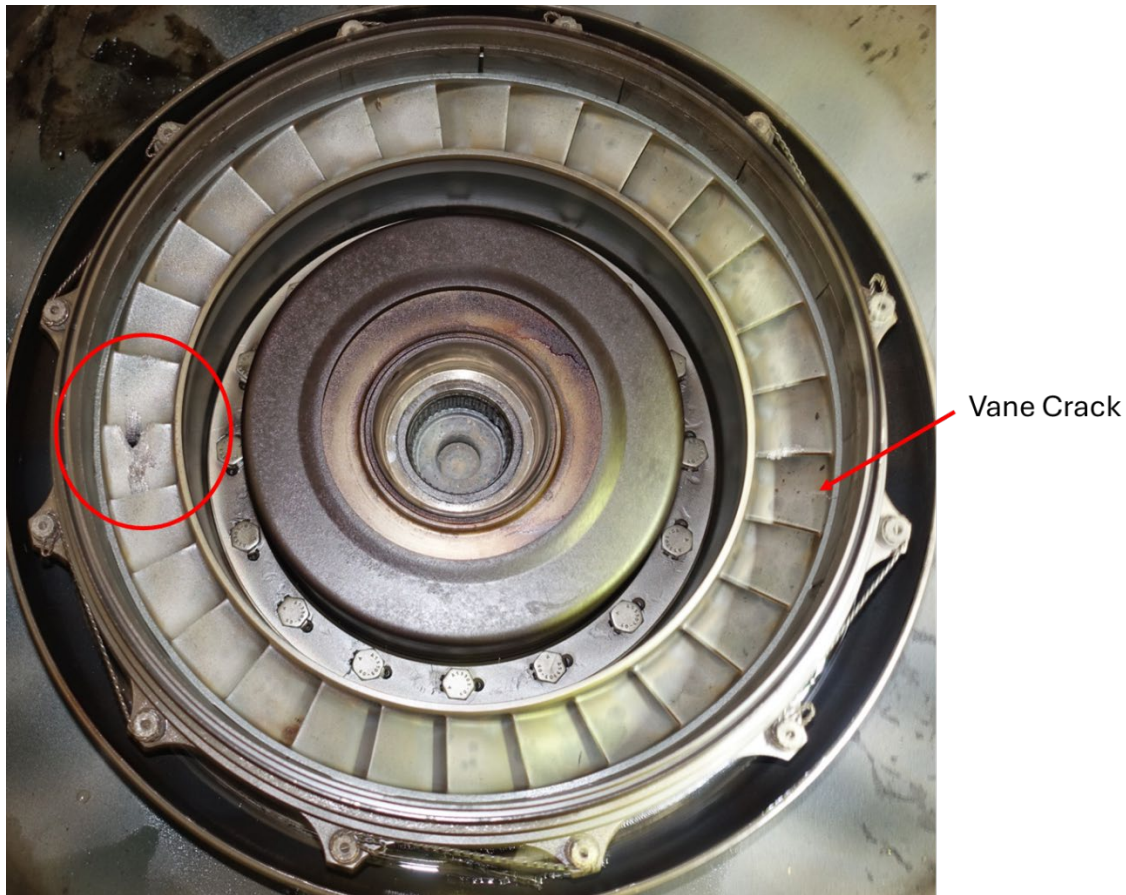


Photo 18- CT Vane Damage, Missing Material, Metal Deposits

2.4 Combustor

The combustion liner was intact and in good condition with no evidence of uneven wear, localized discoloration, or burn through. The fuel nozzles were all secure and did not have indications of carbon buildup or obstructions on the nozzle tips. Three loose bolts were recovered in the combustor large exit duct that appeared consistent with the missing power turbine containment ring bolts (**Photo 19**). The threads were stripped from one of the recovered bolts and the bolt shank and head appeared oxidized and deformed. The other two bolts also exhibited indications of discoloration and oxidation. The bolts were retained for materials analysis.



Photo 19- (L) Combustion Liner, (R) Loose Bolts in Large Exit Duct

2.5 Compressor

The inlet screen had minor dirt and pond debris buildup. Three of the six inlet case struts had transverse fractures consistent with impact (**Photo 20**). The fractured struts were located on the top half of the compressor case.

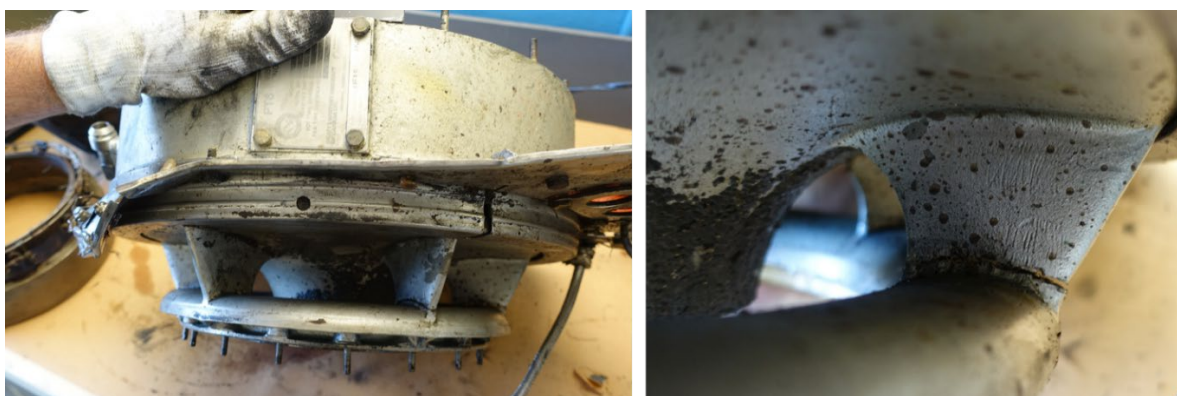


Photo 20- Inlet Case Strut Fractures

The compressor module was discolored and had a scum-like buildup at multiple locations. The 1st stage blades had leading edge erosion (**Photo 21**). The 1st stage stator vanes, 2nd stage blades, 2nd stage stator vanes, and 3rd stage blades had hard body impact damage, most concentrated along the outer half of the blade/stator vane span (**Photo 22**). The compressor impeller vanes were all intact and in good condition with light 360 degree vane tip rub. There was coincident 360 degree rub on the compressor impeller shroud (**Photo 23**). The No. 1 thrust, and No. 2 roller bearings were intact and rotated smoothly⁴ (**Photo 24**). The compressor

⁴ All four engine bearings had minimal oil wetting. The bearings were submerged in water following the accident.

bleed valve manually opened and closed smoothly with no indications of binding or internal damage.



Photo 21- 1st Stage Compressor Blades



Photo 22- (L) 2nd Stage Compressor Rotor Blade Damage, (R) 3rd Stage Compressor Rotor



Photo 23- (L) Compressor Impeller, (R) Impeller Shroud



Photo 24- (L) No. 1 Bearing, (R) No. 2 Bearing

2.6 Accessory Gearbox and Reduction Gearbox

The AGB housing cover had a penetration and surrounding deformation at approximately the 6 o'clock position that prevented the AGB breather gear from rotating (**Photo 25**). All other internal gears were intact (**Photo 26**). The oil pressure supply and scavenge pumps rotated with light resistance but following disassembly, all gears were intact.



Photo 25- AGB Case Impact Damage, 6 o'clock Position

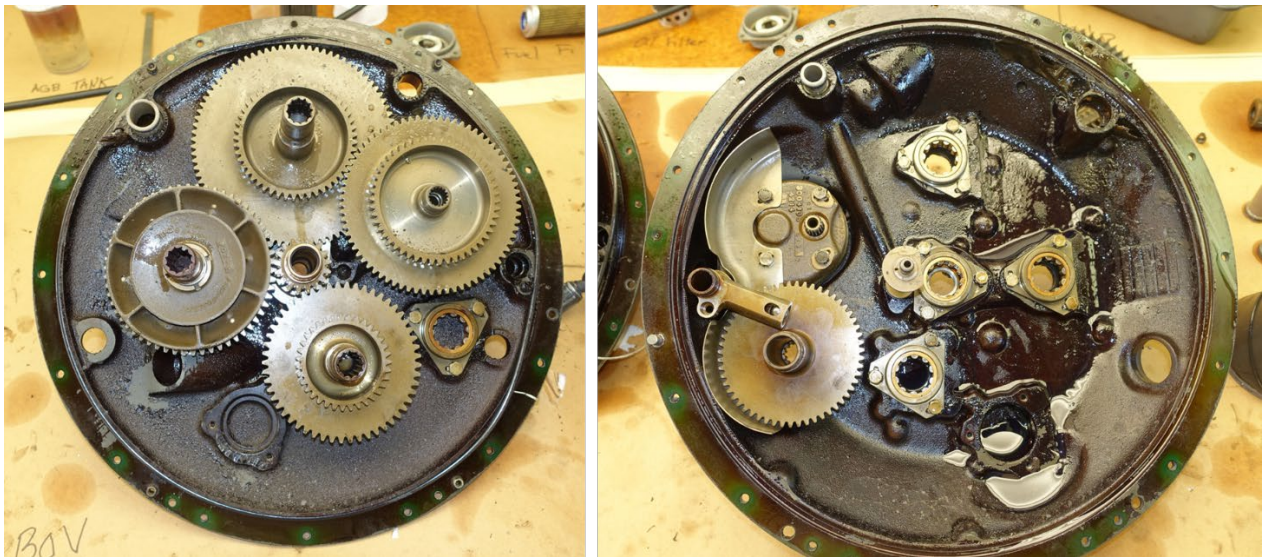


Photo 26- AGB Gears

The RGB was disassembled, and the sun gear and high speed gears (planet gears) were intact and rotated smoothly (**Photo 27**). The RGB MCD strainer had slimy residue adhered to the screen. The RGB oil strainer had minor dark debris buildup, but the screen was not obstructed (**Photo 28**).

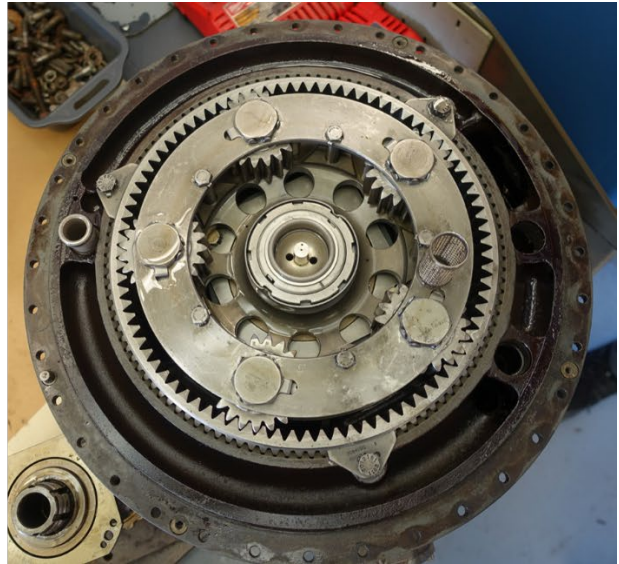


Photo 27- RGB Gears



Photo 28- RGB Strainer Screens, (Top) MCD Strainer, (Bottom) Oil Strainer

3.0 Engine Accessories Disassembly and Testing

The engine FCU and fuel pump were examined at P&WC following the engine teardown examination. The propeller governor and overspeed governor were later boxed up and shipped to Woodward in Loves Park, Illinois for examination and testing.

3.1 Fuel Pump and Fuel Control

The fuel pump remained attached to the AGB, but the FCU was fractured at the drive body and separated from the fuel pump. The exterior surfaces of both components were coated in dark earthen debris. The fuel pump-to-FCU nylon coupling shaft was intact and there was continuity between the two components⁵ (**Photo 29**).

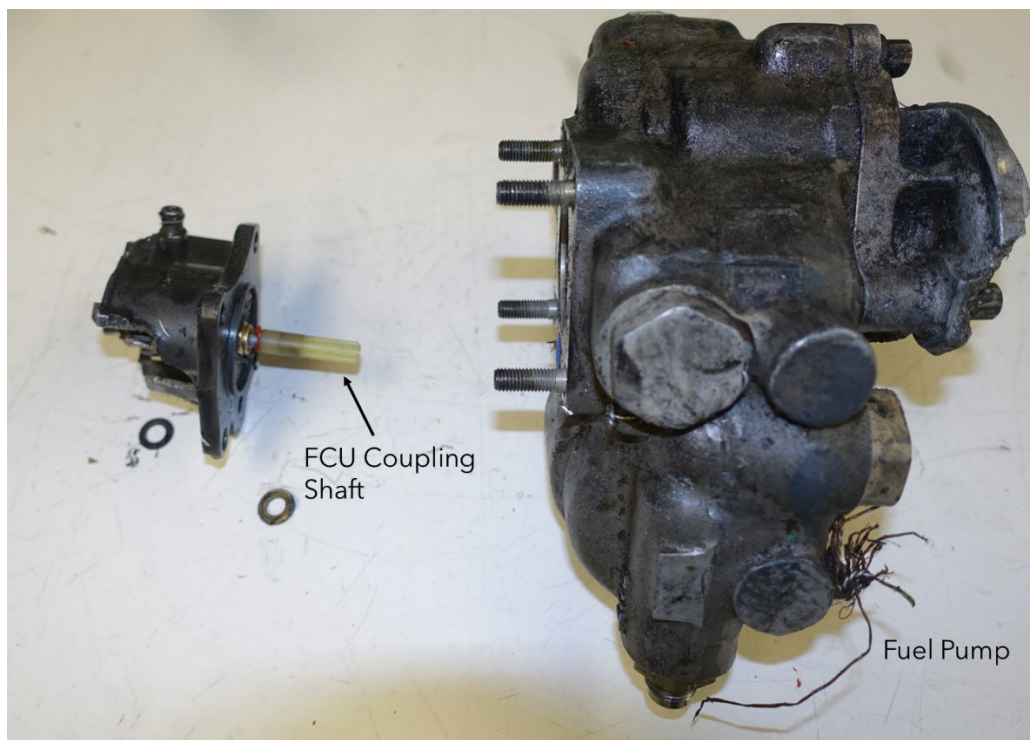


Photo 29- FCU-to-Fuel Pump Coupling Shaft

The fuel pump mounting flange was fractured and all three mounting points were separated and missing. The fuel pump drive shaft was fractured and the spline that mates with the AGB was separated and missing. What remained of the drive shaft was bent and could not be rotated by hand but could be rotated with vise grip pliers. The FCU governor lever assembly and the cam follower lever were separated and

⁵ According to P&WC, the fuel pump to FCU coupling will often experience a torsional failure when there is a sudden engine stoppage at high power due to impact.

missing. The FCU air inlet adapter Px and Py fittings both had dark debris accumulation, with more significant buildup on the Px fitting. The air inlet adapter Px and Py orifices both had dark discoloration but neither the Px and Py orifices were obstructed (**Photos 30**). The Px and Py inlet adapter fittings and FCU air inlet adapter were retained for additional lab analysis. The FCU bellows had impact damage at the FCU case nut that deformed the threaded portion of the acceleration bellows. The acceleration bellows were intact, and the bellows measurement was within allowable component manual limits (**Photo 32**). A pressure leak check was performed on the FCU governor bellows that confirmed that there was no air leakage. The FCU metering valve was intact and undamaged. The metering valve slid smoothly in the valve sleeve. The FCU torque arm was intact and passed a pressure leak check. The FCU bypass valve diaphragm was intact and in good condition. The FCU data plate back face was marked "OH 7/08/2021", indicating that the unit was overhauled on July 8, 2021. The partially disassembled FCU is shown below in **Photo 33**.

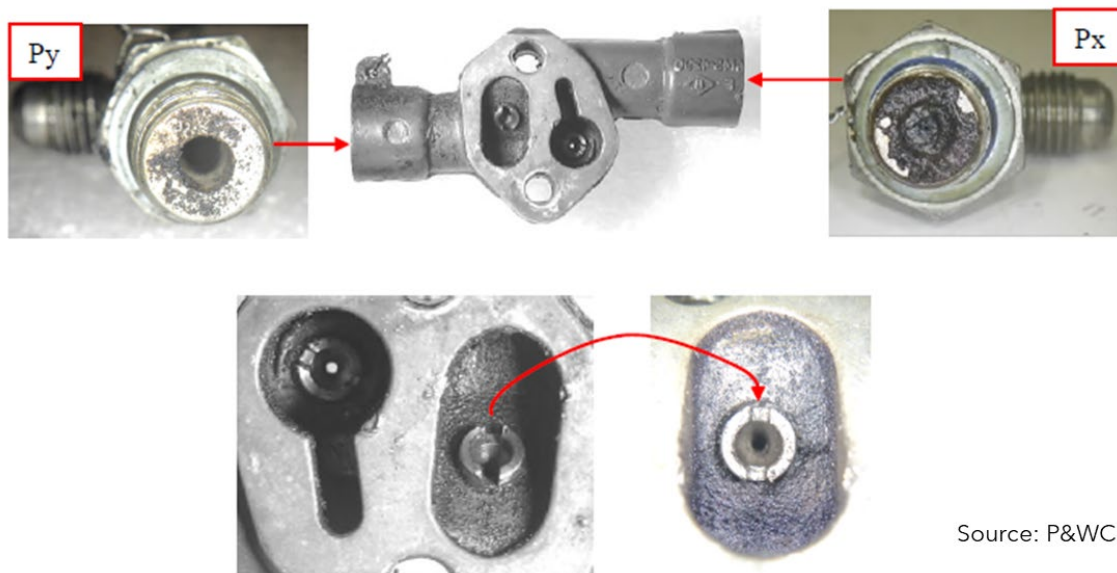


Photo 30- FCU Air Inlet Adapter, Px and Py Fittings, Px and Py Orifices



Photo 31- FCU Air Inlet Adapter, Px Fitting Obstruction



Photo 32- FCU Bellows



Photo 33- FCU, Partially Disassembled

3.2 Propeller Governor and Overspeed Governor

The accident engine propeller governor and overspeed governor were secured in cardboard shipping boxes in a Woodward conference room when the investigation team arrived (**Photo 34**). Both boxes were in good condition and sealed.



Photo 34- Shipping Boxes, as Received

3.2.1 Propeller Governor

The propeller governor, part number (PN) 8210-002-01, serial number (SN) 11902330, was shipped new from Woodward on 11/5/1996 and had not been returned to Woodward for repair or overhaul since delivery (**Photo 35**). The data plate marking indicated the governor was overhauled on February 7, 2023 (**Photo 36**). According to the engine logbook, it was installed on the accident engine on May 9, 2023.

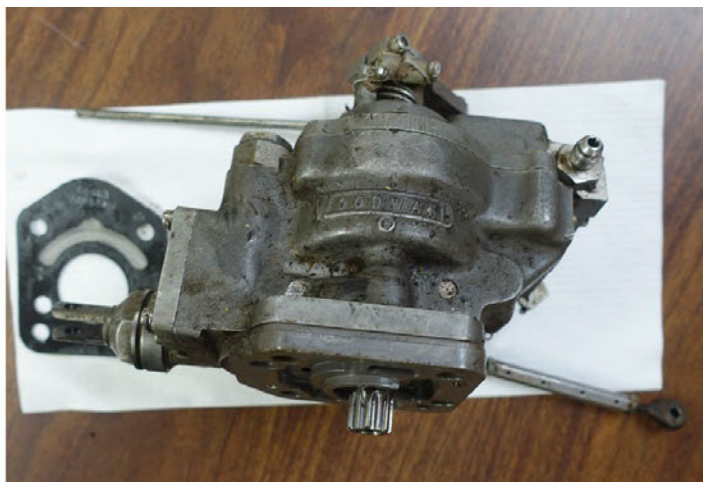


Photo 35- Propeller Governor, as Received

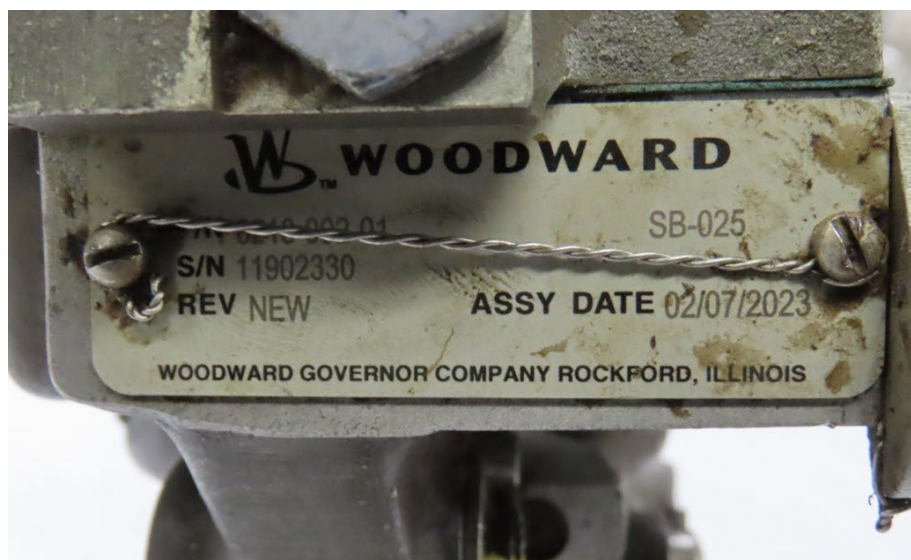


Photo 36- Propeller Governor Data Plate

The propeller governor was intact with grass and dirt debris on external surfaces. The customer installed hardware and speed setting lever had impact deformation, and the lever stop was displaced beyond the high speed stop. The reset lever rotated along the full length of travel, but the mechanic stated that the rotation felt "a little sticky." The driveshaft rotated normally. The lockwire, seals, and torque sealant were non-Woodward parts. The propeller governor was installed on the test bench in the as-received condition (**Photo 37**). The governor was tested in accordance with test specification procedure (TSP)-810, revision AH. Multiple test points were outside of specification due to the speed setting lever deformation (**Photo 38**). The customer installed hardware attached to the speed lever was removed, which restored normal rotation of the speed setting lever. The bench test procedure was run again, and all test points were consistent with similar service run

units according to Woodward. Minor deviations from the specification were typical of customer adjustment. The TSP run sheets are included as Attachment 1.

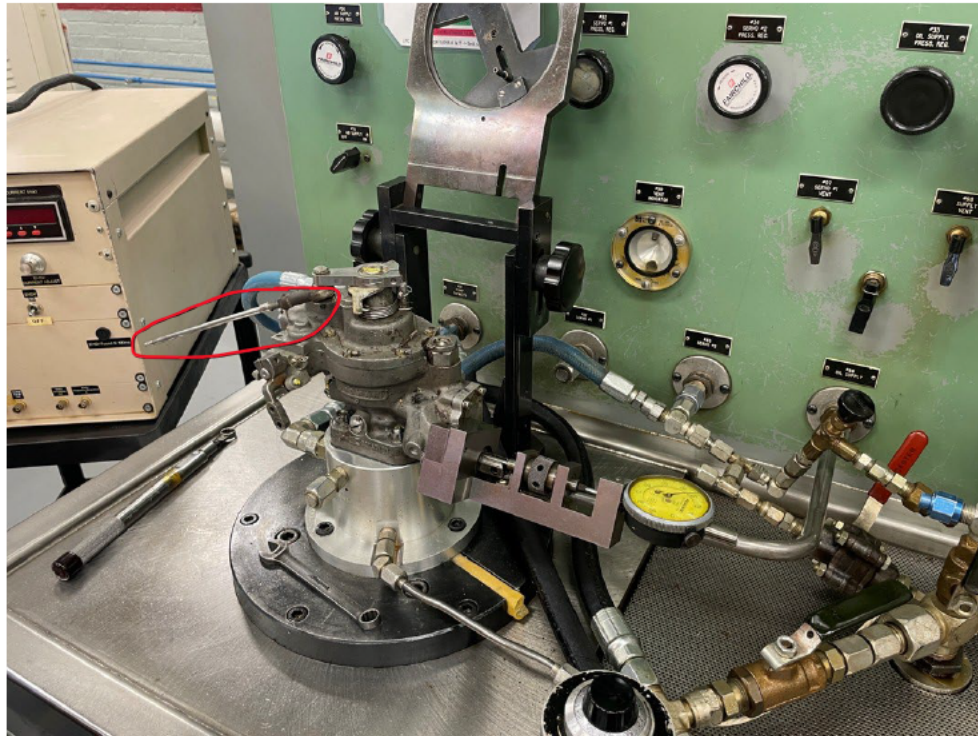


Photo 37- Propeller Governor on Test Bench



Photo 38- Propeller Governor, Speed Setting Lever Stop Damage

3.2.2 Overspeed Governor

The overspeed governor, PN A210507, SN 2174603, was shipped new from Woodward June 21, 1989, and was never returned to Woodward for repair or overhaul. The data plate marking indicated the governor was repaired/overhauled on December 10, 2019. According to the engine logbook, the overspeed governor was installed on the accident engine on May 9, 2023.

The overspeed governor was intact with grass and dirt debris on external surfaces (**Photo 39**). The receptacle was bent but the wiring appeared to remain connected. The mechanic noted non-Woodward lockwire, seals, and torque sealant. The input driveshaft rotated normally. The overspeed governor was installed on the test bench and tested in accordance with TSP-847, revision AC (**Photo 40**). The maximum speed was recorded above specification. According to Woodward, the recorded value was typical of customer field adjustment. All other test points were within TSP specification.

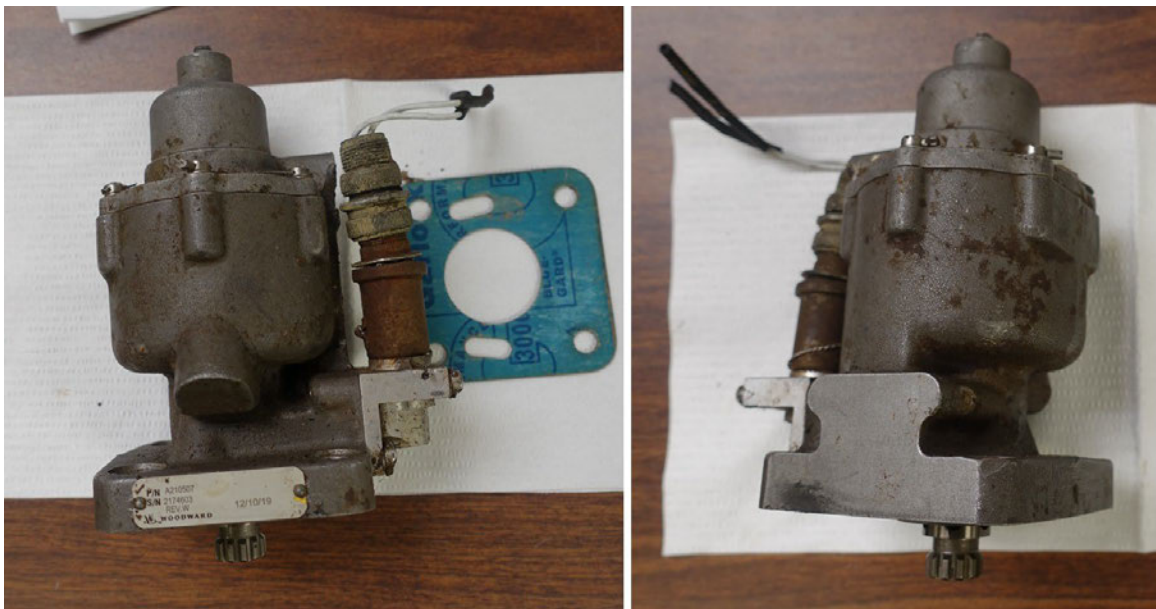


Photo 39- Overspeed Governor, as Received

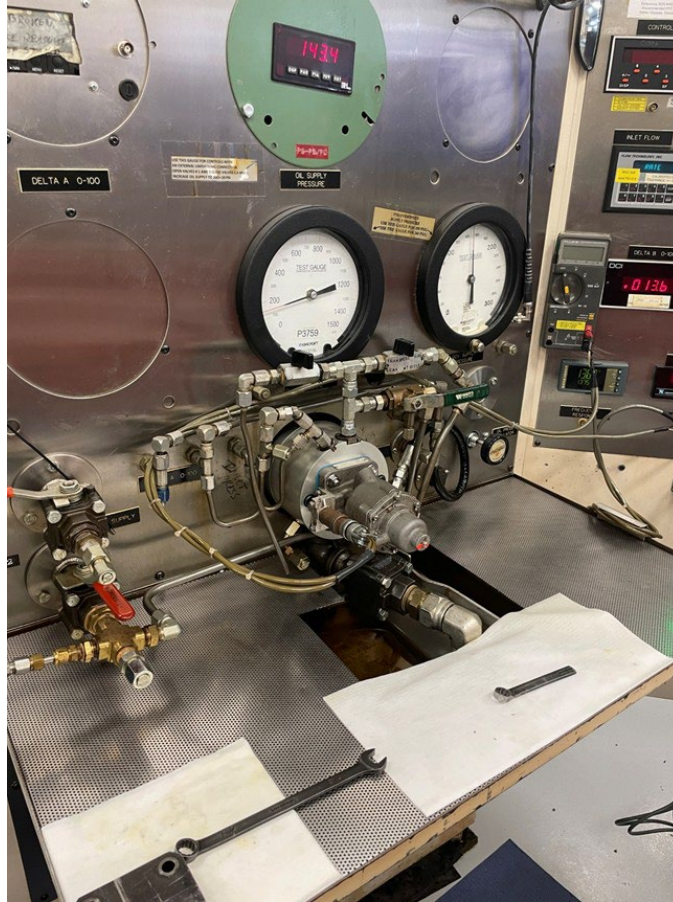


Photo 40- Overspeed Governor on Test Bench

4.0 Materials Analysis

The P&WC Materials Laboratory in Longueuil, Québec, Canada were sent the three loose bolts recovered from the combustor large exit duct, all 2nd stage compressor blades, a sample of foreign material that was removed from the CT vanes, the FCU air inlet adapter, and the Px and Py air inlet adapter fittings for analysis.

The three loose bolts recovered from the large exit duct were arbitrarily identified as Bolt #1, Bolt #2, and Bolt #3 (**Photo 41**). The bolt dimensions were consistent with the missing PT containment ring bolts that were documented during the engine teardown. The markings on all three bolts were no longer visible and each exhibited oxidation and varying degrees of material loss. Bolt #1 showed no evidence of remaining silver plating. All Bolt #1 threads were eroded, and the head and washer section were worn and deformed. Bolt #2 also had no remaining silver plating. Bolts threads were still present and the thread diameter at the bolt tip was measured at 0.177 inch, which met minimum drawing specification. A second bolt thread diameter measurement at mid-length was 0.161 inch, indicating a progressive diameter

reduction along the bolt length. A magnified visual examination of the remaining threads did not show evidence that the threads had been stripped. Scanning Electron Microscopy- Energy Dispersive X-Ray Spectroscopy (SEM-EDS) identified iron, molybdenum, chromium, and manganese as the primary elements present on the bolt surface. These elements are not consistent with the bolt base material composition. The high oxygen content on the surface was consistent with corrosion. A cross section of Bolt #2 was taken to perform microstructure analysis. The bolt microstructure consisted of grains typical of solution aged stainless steel with no anomalies observed. Microhardness measurements at the threaded section were consistent with the bolt being exposed to temperatures exceeding 1325°F. The Bolt #3 thread diameter met drawing specification without evidence of diameter reduction along the bolt length. SEM-EDS analysis of the bolt surface identified corrosion products and remnants of silver plating. There was also a high amount of nitrogen, silicon, and carbon which were consistent with foreign debris.

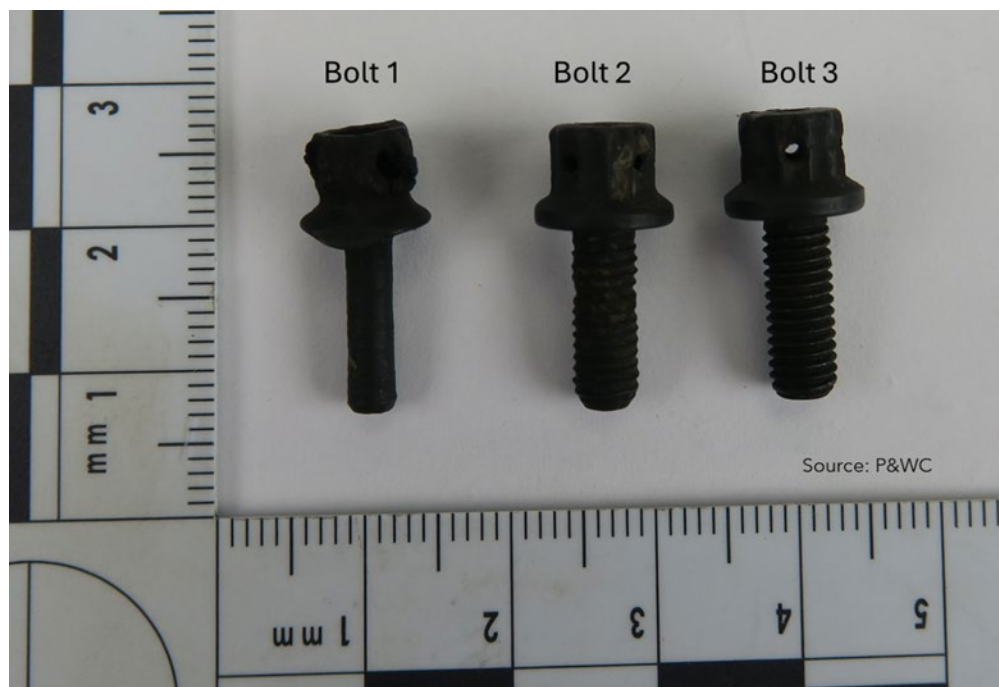
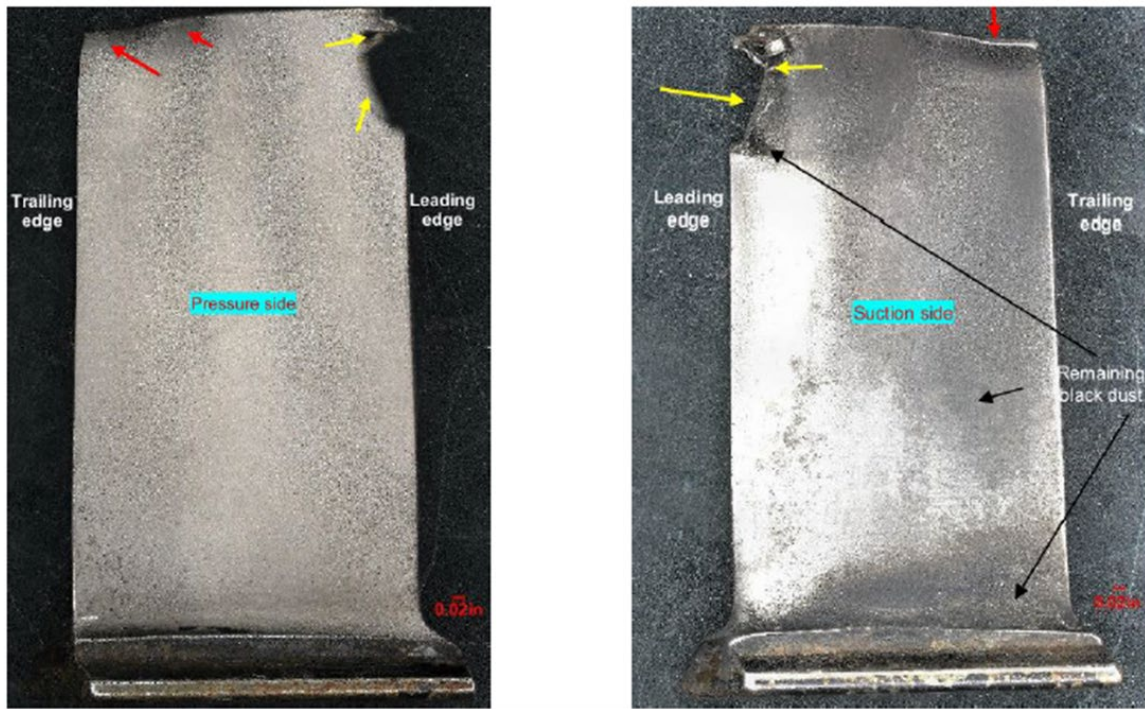


Photo 41- Loose Bolts Recovered from Combustor Large Exit Duct.

All 32 2nd stage compressor blades were received at the lab and arbitrarily identified from 1-32. Blades #5 and #26 had the most significant damage and were selected for analysis. Both blades (5 and #26) showed evidence of impact deformation along the blade tip and leading edge (**Photo 42**). The direction of deformation was from the pressure side toward the section side. SEM analysis of the metal at the blade tip identified aluminum content consistent with transferred material. The source of the transferred aluminum could not be determined. According to P&WC, there are no components in the engine gaspath upstream of the 2nd stage compressor blades with similar material composition. The remaining foreign

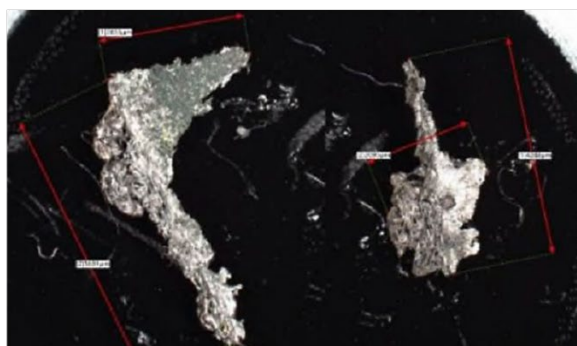
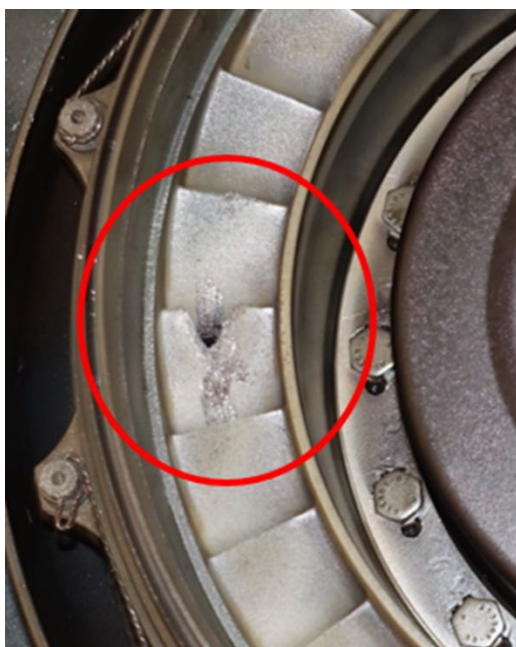
materials detected on the examined blades were consistent with airborne contaminants. The blade base material met drawing specification, and no other material anomalies were identified.



Source: P&WC

Photo 42- 2nd Stage Compressor Blade #5 Damage

The foreign material removed from the CT vanes was analyzed by SEM-EDS and identified as nickel alloy in presence of aluminum, titanium, chromium, niobium, and molybdenum (**Photo 43**). The source of the alloy could not be determined.



Source: P&WC

Photo 43- Material Removed from CT Vane

Debris samples were collected from multiple locations on the FCU air inlet adapter and Px and Py fittings with a tungsten needle. The samples were analyzed by Fourier Transform Infrared Spectroscopy (FTIR) and SEM-EDS. All samples collected contained an ester based compound as well as silicon, aluminum⁶, and carbon. Particles of silicon, oxygen, and carbon were present in all samples, and suggested silicates/silicon carbide present in the environment. The P&WC materials lab analyzed the Px and Py orifices under magnification and confirmed neither orifice was obstructed by debris.

The P&WC Materials Investigation Report is available as Powerplants Attachment #2 in the docket.

5.0 Additional Information

5.1 Power Section

The maintenance section of this report included a May 2023 logbook entry stating that a PT6A-27 power section was installed on the incident engine. According to P&WC, there are no P&WC Service Bulletins that support mating a PT6A-15AG Gas Generator with a PT6A-27 Power Section. The configuration did not meet PT6A-15AG instructions for continuing airworthiness (ICA). The PT6A-27 power section is mechanically and thermodynamically identical to the PT6A-15AG power section. The PT6A-15AG features corrosion protection hardware and special design features for

⁶ The air inlet adaptor is made of an aluminum casting.

agricultural operations.

5.2 Compressor Turbine Vane

The compressor turbine vane ring was marked STI W/O No. 0941R09 STI 72-50-3017 Rev. 02. According to P&WC, the markings indicated that the CT vane ring underwent a non-P&WC approved repair. The CT vane repair was performed by an FAA approved repair station.



Photo 44- CT Vane Ring Markings

E LIST OF ATTACHMENTS

Appendix #1- Woodward Propeller Governor and Overspeed Governor Run Sheets

Attachment #2- Pratt & Whitney Canada Materials Investigation Report

Submitted by:

Robert Hunsberger
Aerospace Engineer- Powerplants