

# THE POWER OF METALLURGICAL SCIENCE



PRATT & WHITNEY CANADA

## PT6A-67P ENGINE UPGRADE

FOR THE LEGACY PILATUS PC-12

WEIGH  
YOUR CHOICES

*Carefully*

*Design is how it works.*

STEVE JOBS

TO OVERHAUL THE OLD OR  
GO WITH NEW

- INCREASED HORSEPOWER
- INCREASED SPEED
- FASTER CLIMB
- INCREASED ELECTRICAL POWER



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**Pratt & Whitney Canada**  
A United Technologies Company

The PC-12 fleet is now eligible to upgrade to the Pratt & Whitney Canada PT6A-67P Engine.



# IT'S ALL ABOUT POWER

## WHAT DOES THIS MEAN TO YOU?

### Performance = Safety

<b>Takeoff</b>	<b>1,200 Shaft Horsepower.</b>
<b>Climb</b>	<ol style="list-style-type: none"><li>1. The <b>PT6A-67P is flat rated to 1200 SHP limit in climb</b> as compared to the PT6A-67B which is flat rated to 1000 SHP limit.</li><li>2. Enjoy <b>FASTER DIRECT CLIMB to 30,000'</b> at any weight and temperature combination.</li></ol>
<b>Cruise</b>	<b>Cruise speed increase</b> based on altitude and OAT.
<b>Warranty</b>	Normal 5-Year Pratt & Whitney, + Additional 2-Year Warranty if purchased by Dec. 31, 2017, or 2500 hours, whichever comes first.

### Design

The new P engine incorporates the use of the latest metallurgical science, producing a new generation of engine with greater thermodynamic efficiency.

- **Improved metallurgy allows for higher maximum temperatures.**  
The nickel superalloy single-crystal turbine blades incorporate metals with very beneficial properties for the engine. One property of the new alloy is the increased creep resistance, meaning the engine is more resistant to power loss over time.

The PT6A-67P engine can maintain mechanical power to higher altitudes due to **higher thermodynamic power** and **higher pressure ratio**.

Developed and offered by Finnoff Aviation Products.\*



## Safety

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The increased maximum continuous shaft horsepower of the P engine of 1,200 is a 20% increase over the 1,000 continuous of the B engine. ATC willing, you'll be granted that unrestricted climb.

The higher thermodynamic efficiency increases the maximum ITT to 850°C takeoff power and 820°C maximum continuous. This materially enhances the aircraft's climb rate and cruise performance, creating more peace of mind from the left seat when climbing out of unsavory weather with the separator open.

- **A more efficient compressor section**

Pratt & Whitney's PT6A-67A high altitude program successfully certified a turboprop engine to operate at a service ceiling of 41,000 feet! This program generated improvements to the compressor section of the engine which increases efficiency of the gas generator and improves the engine's performance at altitude.

These improvements have been incorporated into the P engine in the form of a new compressor section – an improvement over the B engine.

- **New Inlet Casing Reduces Corrosion**

Aluminum is more corrosion-resistant than the original magnesium inlet.

## Electrical

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Boasts a re-designed accessory gearcase, with a second, gear-driven 300-amp generator.

A total generating capacity of 600 amps, providing substantial capacity for

- Primary generator failure scenarios
- Reserve Electrical Power to meet Part 135 rule: 14CFR 135.163 Part F
- Special payloads such as
  - air ambulance
  - mapping
  - surveillance

\* Pilatus serial number 888 and below. This upgrade is certified by the FAA under STC #SA02266LA.



## STILL HAVE TIME LEFT ON YOUR B ENGINE?

Pratt & Whitney Canada will pay you for time remaining on your existing engine to offset the purchase price of the new P engine.

- Receive a cash payment equal to \$95 for each hour your existing engine has before 3,500 hours total time since overhaul, up to a maximum of 2,800 credit hours.

### On the Pratt & Whitney Canada ESP plan?

- Receive a significant portion of that reserve balance as a credit toward the purchase of the new P engine, subject to certain conditions.

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## PT6A-67P TURBOPROP ENGINE SPECIFICATION

### DESCRIPTION AND DIMENSIONS

Type – A free turbine turboprop propulsion engine incorporating a multi-stage compressor driven by a single stage turbine and a two-stage free turbine driving the propeller shaft through planetary reduction gearing.

<b>Propeller Shaft Design Speed</b>		1700 RPM
<b>Propeller Shaft Rotation</b>	Viewed from rear of engine	Clockwise
<b>Engine Diameter</b>		19 in. approx.
<b>Engine Length</b>		76.0 in. approx.
<b>Fuel</b>	Conforming to:	CPW 204 or SB 14004
<b>Oil</b>	P&WC Approved Oils Conforming to:	SB 14001
<b>Warranty</b>	Normal 5-Year Pratt & Whitney, + Additional 2-Year Warranty if purchased by Dec. 31, 2017, or 2500 hours, whichever comes first.	



For more information, contact Finnoff Aviation Products

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