

# First Aviation Services Inc."



The recognized world leader in the maintenance and overhaul of propellers and helicopter rotor blades for the commercial, regional, military, corporate and general aviation sectors.

# **Company Overview** & Product Line



OA-OQ. NextGen

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WWW.Q400.com

## LETTER FROM OUR GENERAL MANAGER

#### To our current and prospective business partners,

It is my distinct pleasure to share an overview of our company with you. Piedmont Propulsion Systems, LLC is blessed with a **wonderful history and an exciting future**. For more than 70 years, the people of PPS have dedicated their efforts to providing our customers with industry leading service, superior technology and exceptional quality.

PPS possesses full capability to repair and overhaul nearly all aircraft propellers and propeller governors serving commercial, regional, military, corporate and general aviation worldwide from our state-of-the-art facility in North Carolina, USA. PPS is certified by the United States FAA, EASA and many other foreign Civil Aviation Authorities to repair and overhaul all of the following Class 1 and Class 2 propeller systems:

- UTC Aerospace Systems / Hamilton Sundstrand Propellers
- GE Aviation / Dowty (Rotol) Propellers
- Hartzell Propellers
- McCauley Propellers
- Sikorsky Rotor Blades
- Woodward Propeller Governors

PPS recognizes that **the people, the processes, and the highest standards of an organization are key** to the quality, cost and speed of the maintenance, repair and overhaul cycle. PPS invests the resources and values of our organization into every repair transaction we process. PPS's continued investment in capability has seen us break into the Rotor Blade market over the past 3 years, with the logical transition into repairing composite blades for the Sikorsky UH-60 and S-76 as well as multiple dynamic components for the UH-60 platform.

PPS always strives to improve time on wing and lower operating costs for our customers, by running an efficient, technology focused propeller MRO operation.

We pride ourselves on being the only propeller maintenance facility in the world to support all legacy and next-gen regional turbo-prop maintenance requirements, including the ATR 42/72-600, Bombardier Dash 8, Q400, Saab 340 and 2000, and the Lockheed C-130J. We are also excited to see what the future brings as we look to grow our footprint in the Rotor Craft marketplace.

Thank you for taking the time to learn more about our extensive capabilities.

Paul Bolton General Manager





First Aviation Services Inc.\*

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# **PPS PRODUCT LINES**

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#### COMPANY OVERVIEW | FIRST AVIATION SERVICES





#### First Aviation Services Inc.\*

15 Riverside Avenue Westport, CT 06880 | USA +1 203.291.3300 firstaviation.com

#### FACILITIES:



Evolution AEROSPACE, INC. evolutionpma.com

PIEDMONT PROPULSION SYSTEMS, LLC piedmontpropulsion.com

AVIATION BLADE SERVICES, INC. absblade.com

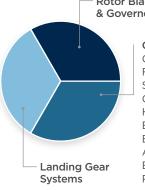
HELIBLADE INTERNATIONAL, LLC helicopterbladerepair.com

MASTER SUPPORT, INC.

#### Summary

- Aircraft Component MRO Specialist
- FAA, EASA & other foreign Civil Aviation Authorities
- Five Part 145 Repair Station Facilities
  - 1. Winston-Salem, NC
  - 2. Wichita, KS
  - 3. Dallas/Addison, TX
  - 4. Kissimmee, FL
  - 5. Anderson, CA
- Three Facilities with
- FAA Production Approval -
  - 1. Winston-Salem, NC
  - 2. Wichita, KS
  - 3. Kissimmee, FL
- AS9110C Certification
- 200 Employees Qualifies as a Small Business for Government Contracts
- U.S. Army & U.S. Navy Repair Source Approvals
- Engineering Services
  - » Parts Manufacturing Approval (PMA)
  - » Designated Engineering Representative (DER) repairs
  - » Supplemental Type Certificates (STC)
  - » Department of Defense Source Approvals (SAR)
  - » Diminishing Manufacturing Sources & Materiel Shortages (DMSMS) solutions

#### **Repair & Overhaul Services**



Rotor Blades, Propellers & Governors



#### Locations



#### COMPANY OVERVIEW | FIRST AVIATION SERVICES



#### MILITARY & GOVERNMENT:



#### CORPORATE & GENERAL AVIATION:





# First Aviation Services Inc."

## **PRODUCT TYPES**

Advanced Metal Repairs/Arc Spray Batteries Beacons



Blow Down Bottles Brakes Composite Bottles Composite Repair Electro-mechanical Actuators



Electronics Fire Bottles Fire Extinguishers Flight Control Actuators Flight Control Surfaces Gearboxes



Hydraulic Actuators Hydrostatic Testing Prestolite Power Packs

Landing Gear PMA Parts Landing Lights Lighting Units Motors Shimmy Dampers Navigation Lights Oxygen Bottles



Oxygen Masks Oxygen Regulators & Valves Pneumatic Reservoirs Power Supplies Propellers Rotor Blades



Propeller Blades Overspeed Governors Rotor Hubs Propeller Hubs Strobe Lights Tach Generators Voltage Regulators Wheels



#### PIEDMONT PROPULSION SYSTEMS, LLC



# **PIEDMONT PROPULSION SYSTEMS, LLC**

**Piedmont Propulsion Systems, LLC (PPS) is the recognized world leader in the maintenance and overhaul** of propellers for the commercial, regional, military, corporate and general aviation sectors. The company has over 70 years of experience in propeller maintenance and is a FAA and EASA Part 145 Repair Station. In addition it holds approvals from several other countries' national airworthiness authorities. PPS is also a Hartzell authorized service center, and now supports Rotorblade repair for the UH-60/S-70 and S-76 as well as various rotorhead components.

#### Paul Bolton

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General Manager, Piedmont Propulsion Systems, LLC **pbolton@piedmontpropulsion.com** 

#### Todd Hudson

Customer Relations Manager, Piedmont Propulsion Systems, LLC thudson@piedmontpropulsion.com

#### Michael McPhaul

Quality Manager, Piedmont Propulsion Systems, LLC mmphaul@piedmontpropulsion.com PPS possesses complete in-house repair capability at our state of the art AS9110C facility in North Carolina, USA, and all of our skilled technicians are trained to the highest standards.

As a proud member of the First Aviation Services Inc. family of companies, PPS is complemented by our sister companies Aerospace Turbine Rotables, Inc. and Evōlution Aerospace, Inc. in Wichita, KS, Aviation Blade Services, Inc. in Kissimmee, FL and Heliblade, LLC in Anderson, CA. All the companies enjoy their own rich legacy, an exciting future, and the same unwavering commitment to customer satisfaction. Our parent company First Aviation Services Inc. is committed to investing in the future of its subsidiaries and enabling the development of solutions which bring positive impact to this incredible industry.

#### PIEDMONT PROPULSION SYSTEMS, LLC



# **PROPELLER CAPABILITY LIST**

# **ROTORCRAFT CAPABILITY LIST**

| Manufacturer            | Make/Model  | Aircraft Types   | Make/Model  | Part #  | Description                                   |
|-------------------------|---|--|---|---|---|
| Hartzell*               | All Models  |  | Sikorsky<br>UH-60/S-70<br>Sikorsky<br>S-76<br>S-76A<br>S-76A<br>S-76B<br>S-76C<br>S-76D | 70150 00100 041   |   |
| McCauley*               | All Models  |  |   | 70150-09100-041<br>70150-09100-043  | Main Rotor Blade                              |
| Hamilton<br>Sundstrand* | 14SF All Series   | Dash 8-100, -200, -300,<br>ATR-42, -72                                   |   | 70150-09207-041   | Tip Cap, Composite                            |
|                         | 14RF All Series   | EMB 120, CASA 235,<br>Saab 340   |   | 70103-08112-047<br>70103-08112-051  | Rotary Hub Assembly                           |
|                         | 568F All Series   | ATR42-400, -500,<br>-600, ATR72-210A,<br>-500, -600, CASA-295,           |   | 70103-08010-048<br>70103-08010-050<br>70103-08103-041   | Damper Bracket Assembly<br>Hub Pressure Plate |
|                         | 247F All Series   | ILYUSHIN IL-114<br>ATR72-210, YUN-7,                                     |   |   |   |
|                         | 247F All Series   | MA60   |   | 70103-08103-045   | Eye Rotating Bracket                          |
| Dowty<br>Aerospace*     | (C) R321/4-82-F/Series  | Metro/Merlin   |   | 70351-08186-047<br>70351-08186-043  | Main Extension Assembly                       |
|                         | (C) R324/4-82-F/Series<br>(C) R333/4-82-F/Series  | Metro/Merlin<br>Jetstream  |   | 70107-08400-046   | Main Rotor Head Bifilar<br>Assembly           |
|                         | (C) R333/4-82-F/Series  | CASA 212   |   | 70104-08000-060   | Swashplate Assembly                           |
|                         | (C) R339/4-123-F/Series   | Cheyenne 400   |   | 70104-08001-044<br>70104-08001-045<br>70104-08001-052   | Rotating Swashplate<br>Assembly               |
|                         | R352/6-123-F/Series   | Fokker F-50  |   |   |   |
|                         | R354/4-123-F/Series<br>R375/4-123-F/Series  | Saab 340<br>Saab 340   |   | 70104-08010-044   | Stationary Swashplate                         |
|                         | , ,   |  |   | 70104-08010-054   | Assembly                                      |
|                         | R381/6-123- F/Series<br>R389/4-123-F/Series<br>R390/4-123-F/Series<br>R391/6-132-F/Series<br>R408/6-123-F/Series<br>R410/6-123-F/Series | Saab 2000<br>Saab 340<br>C-130J, C-27J<br>Bombardier Q400<br>Fokker F-50 |   | 76150-09000-045<br>76150-09000-046<br>76150-09000-047<br>76150-09000-049<br>76150-09000-049<br>76150-09100-041<br>76150-09100-041<br>76150-09100-043<br>76150-09100-043<br>76150-09100-048<br>76150-09100-049<br>76150-09100-050<br>76150-09100-051<br>76150-09100-052<br>76150-09100-053 | Main Rotor Blade                              |

## FAA Certified Repair Station #3PSR595B

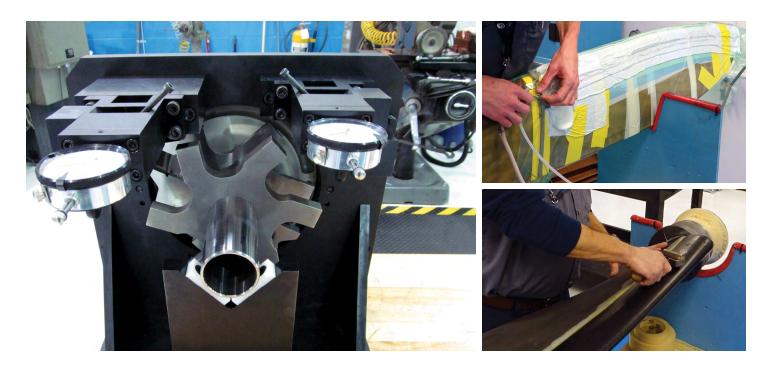


# Product Line by Piedmont Propulsion Systems, LLC

+1 336.776.6260 | piedmontpropulsion.com



# Hamilton Sundstrand Propellers



#### EXPERIENCE

PPS overhauled its first Hamilton propeller in 1948, and performed one of world's first overhauls of the composite model 14SF propeller assembly in the late 1980s.

#### **QUALITY**

The world's largest ATR & DHC-8 operators including FedEx Express, Amazon Air, Aeromar and Lion Air Group all choose PPS for high quality, best value propeller MRO support.

#### **EXCHANGE/LOAN POOL**

PPS holds a large pool of R408, 14SF and 568F propeller components available for exchange or lease, in order to service our customers.

#### **MODERN FACILITIES**

PPS's modern 66,000+ square foot (6,000+ square meters) headquarters is the world's only repair station certified to overhaul the next-generation propellers installed on the ATR42/72-600, Bombardier Q400 and Lockheed Martin C-130J.











# HAMILTON SUNDSTRAND CONT.

#### **IN-HOUSE CAPABILITIES**

PPS's facility includes state-of-the-art, temperature- and humidity-controlled composite repair shops, modern non-destructive test and inspection capabilities, multiple paint booths and ovens, all with numerous health, safety and environmental protections.



#### **DER/ENGINEERING**

PPS's in-house engineering department has developed a large portfolio of proprietary FAA-certified parts and repairs that further reduce the turnaround time (TAT) and cost of both 14SF and 568F overhauls, while increasing time-on-wing and service life. PPS's engineered solutions save operators an additional 15% to 50% on repairs and reduce BER events. PPS is also the exclusive source for FAA PMA deice boots manufactured by B/E Aerospace for the 568F.

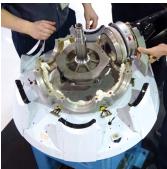


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# **Dowty Propellers**







#### **EXPERIENCE**

PPS has over sixty (60) years of experience overhauling Dowty/Rotol propellers, including continuous support of legacy Fokker 27 and YS-11 aircraft, while also expanding to support more modern Saab, Fokker 50, Bombardier Q400 and C-130J systems.

#### QUALITY

Leading airlines and MROs worldwide such as WestJet Encore, LOT Polish Airlines and Lufthansa Technik, choose PPS for high quality, best value Dowty propeller repairs.





#### **EXCHANGE/LOAN POOL**

PPS owns one of the world's largest pools of Q400 propeller blades available for lease and exchange.

#### **MODERN FACILITIES**

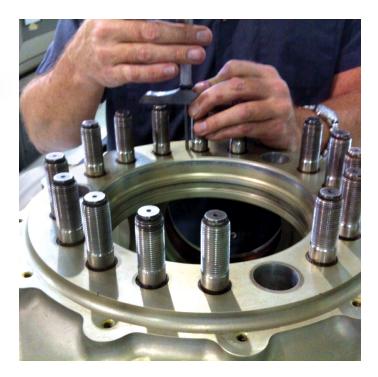
PPS's modern 66,000+ square foot (6.000+ square meters) headquarters is the world's only repair station certified to overhaul the next-generation propellers installed on the ATR42/72-600, Bombardier Q400 and Lockheed Martin C-130J.



# DOWTY PROPELLERS CONT.

#### **IN-HOUSE CAPABILITIES**

PPS offers the world's only alternative to OEM support in the Bombardier Q400 market, while providing a full range of legacy Dowty/Rotol repair and overhaul services. Our team has vast experience in dealing with composite propeller blades, including in-house ultra sound analysis.



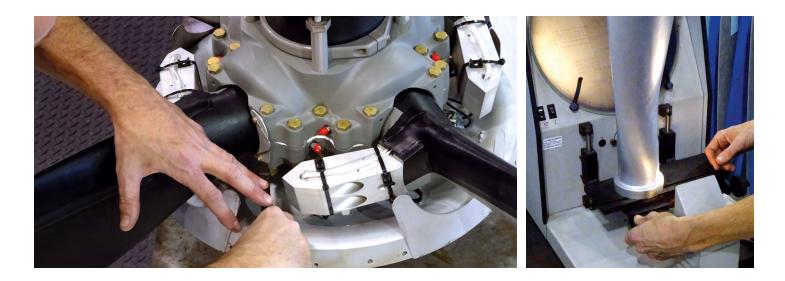
#### DER/ENGINEERING

PPS's in-house engineering department has developed a large portfolio of proprietary FAA-certified parts and repairs that reduce the risk of supply chain disruptions, reduce TAT and reduce costs. PPS is also the exclusive source for FAA PMA deicer / overshoes for the Bombardier Q400 propeller.





# **General Aviation** & Accessories



## **GENERAL & BUSINESS AVIATION, MILITARY & PARAMILITARY**

- Hartzell Recommended Service Facility (RSF)
- Complete McCauley Model Support
- Support for both single aircraft and extensive fleets
- Contractor to the United States Government for hundreds of military and paramilitary aircraft:







**United States Coast Guard** (HC-144A/CASA 235)



**United States** Air Force (E-9A/DHC-8 & T-6)



**United States** Federal Aviation Administration (King Airs)



Navy (T-44/King Air, T-34 & T-6)



**United States National Oceanic & Atmospheric** Administration (Twin Otters & Aero Commanders)











## ACCESSORIES

- PPS provides in-house overhaul, testing and repair capabilities for numerous propeller governor and PCU models.
- Current capabilities include Woodward Governors, DHC-8 Classic overspeed governors, SAAB 340 governors, and various paramilitary aircraft.



# UH-60/S-70 Component Repair Capabilities





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In support of the First Aviation group, PPS has become a **Sikorsky Rotorcraft MRO provider with a reputation for world-class customer service, quality and value.** We've evolved our in-depth knowledge of composite repair technology to support repair of the UH-60 main and tail rotor blade and expanded our capabilities to include additional complimentary components such as the UH-60/ S-70 Main Hub Assembly. Our mission is to enable our customers to effectively optimize both reliability and cost of operations. Our customer support and engineering teams are instrumental in developing solutions that support our customers' key requirements.

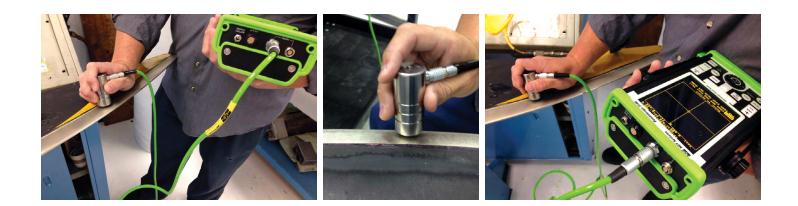
Contact us today with your UH-60/S-70 component MRO requirements as we continue to grow our capabilities.

- Main Rotor Blade
- Tail Rotor Blade
- Main Rotor Hub Assembly
- Main Extension Assembly
- Eye Rotating Bracket
- Hub Pressure Plate
- Damper Bracket Assembly
- Bifilar Assembly





# Specialized Services & Engineering



## SPECIALIZED SERVICES

- In the MRO environment, robust NDI capabilities are critical to the longevity of our products. PPS performs Magnetic Particle Inspection (ASTME 1444), Liquid Penetrant Inspection (ASTME1417), Eddy Current Inspection, and the latest ultra-sound composite analysis techniques.
- **PPS is FAA approved to manufacture specialized tooling and test equipment.** From drawings to finished product, our engineering and manufacturing resources work together to ensure that tooling meets the required specifications and design it to provide precision performance and optimum service life.







## ENGINEERING

- PPS holds all of the required delegations, certifications and approvals from the FAA to design, develop, certify and manufacture engineered solutions. PPS employs a RS-DER capable of reviewing and approving major repairs, alterations and repair processes in conjunction with the local FAA. The RS-DER delegation is extremely rare, allowing PPS to write and approve Component Overhaul Manuals on behalf of the FAA / FSDO Flight Standards District Office (FSDO).
- PPS is an FAA-certified Production Approval Holder (PAH). As such, PPS can control the design, manufacture, supply chain and quality of parts produced using Parts Manufacturing Authority (PMA) authorization from the FAA.
- PPS, acting under the authority of its PAH certification, certifies, audits and manages a large pool of qualified vendors in order to ensure high quality, short lead times, and competitive costs.



## **ENGINEERING CONT.**

PPS engineers have developed the following types of value-added engineered solutions:

#### ALTERNATIVE/REPLACEMENT PARTS

• Design and produce a part to directly replace a material due to reliability issues, DMSMS issues, high cost, or lead time.

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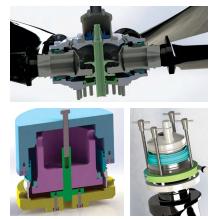
#### **REPAIR SCHEME**

• Develop and certify a repair scheme, including the required technical data and/or maintenance manuals, to repair serviceable material in order to avoid scrap/replacement or to extend time on wing.

#### PARTS MANUFACTURING AUTHORITY (PMA)

• Look to PPS for your PMA FAA approved parts requirements. We have significant experience designing PMA replacement/ alternate part for third parties.







### FAA-APPROVED MAJOR REPAIRS OR ALTERATIONS VIA A DESIGNATED ENGINEERING REPRESENTATIVE (DER & RS-DER)

- PPS develops DERs to avoid costly "beyond economic repair."
- DER is a delegate of the FAA administrator, who can review and recommend approval of major repairs or alterations to aircraft and components.



• A RS-DER is a DER who can also approve Repair Processes (including Maintenance Manuals) to allow multiple uses of a developed repair scheme or alteration.

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# **EXPERIENCE** YOU CAN TURN TO

With over 70 years of experience, Piedmont Propulsion Systems has earned a reputation across the industry for "EXPERIENCE YOU CAN TURN TO." Our values have remained consistently focused on the quality of our components, our ability to deliver in accordance with customer commitments and our prevailing attitude of customer satisfaction. Today our company and its employees are more committed than ever to the pursuit of excellence in the products and services we provide.



Experience why thousands of our customers from all over the world, have made us their MRO provider of choice. **Contact Sales at 336.776.6260 or sales@piedmontpropulsion.com today!** 



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