

Pratt & Whitney marks 100 years of innovation, eyes future of flight

- A Monitor Desk Report

Date: 23 July, 2025



Dhaka: A century after introducing its revolutionary R-1340 Wasp radial engine, Pratt & Whitney celebrated 100 years of shaping the global aviation industry on July 22. Now a key division of the RTX aerospace group, the iconic engine manufacturer supports more than 90,000 engines operating across a diverse fleet of aircraft around the world.

The company's origins trace back to 1925, when aviation pioneer Frederick Rentschler persuaded the original Pratt & Whitney Machine Tool Company to fund his vision for lighter, more efficient aircraft engines. Having gained experience inspecting Hispano-Suiza engines during World War I and later serving as president of Wright Aeronautical, Rentschler set out to break conventional barriers in propulsion technology.

Just a year later, in 1926, the U.S. Navy ordered 200 of the 425-

horsepower Wasp engines, marking a major milestone in early naval aviation. Throughout the following decades, Pratt & Whitney continually evolved the Wasp family of engines, scaling up power outputs to meet the demands of combat aircraft—especially during World War II, when production ramped up dramatically to support the Allied war effort.

As the jet age dawned, the company shifted its focus to turbine engine technology, earning global recognition with engines like the J57 and JT3C, which powered aircraft such as the Boeing B-52 Stratofortress, 707, and Douglas DC-8.

Pioneering next generation

In the 21st century, Pratt & Whitney has maintained its leadership with cutting-edge products like the Geared Turbofan (GTF) engine, which currently powers popular commercial jets including the Airbus A320neo, A220, and Embraer's E2 series. On the military front, the high-performance F135 engine propels the F-35 Lightning II fighter jet.

The company also plays a major role in business aviation. Its PW800 engines—sharing core technology with the GTF—equip aircraft like the Gulfstream G500/G600 and Dassault Falcon 6X, offering thrust ratings between 11,000 and 16,000 pounds. Meanwhile, the smaller PW600 series powers very light jets such as the Eclipse 500, Citation Mustang, and Phenom 100, with thrust outputs between 900 and 3,000 pounds.

Larger turbofan families like the PW300 and PW500 support a wide variety of mid-size business jets, including models from Cessna, Embraer, and Dassault.

Eyes on future

As the aerospace industry shifts toward sustainability, Pratt & Whitney is actively developing next-gen propulsion systems. President Shane Eddy emphasized the company's forward-looking strategy, noting advancements such as the PW127XT and GTF Advantage, as well as development efforts on the F135 Engine Core Upgrade.

“We’re investing heavily in the technologies that will define the future of aviation,” Eddy said. “From hybrid-electric systems and hydrogen-powered engines to rotating detonation and adaptive propulsion, our team continues to innovate at every altitude.”

With its centennial now marked, Pratt & Whitney is setting its sights on the next hundred years—committed to driving cleaner, smarter, and more efficient propulsion solutions for both commercial and defense sectors.

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