

Multiple PteroDynamics Transwing UAS Soar from the Deck of the USS Curtis Wilbur During Rim of the Pacific Exercise

Autonomous Transwing VTOL Aircraft Conduct Simultaneous Flight Operations During World's Largest International Maritime Exercise

COLORADO SPRINGS, CO, UNITED STATES, September 18, 2024 /EINPresswire.com/ -- PteroDynamics Inc., an innovator in autonomous vertical takeoff and landing (VTOL) aircraft systems, today announced the successful demonstration of the operational capabilities of the company's autonomous <u>Transwing</u>[®] vertical takeoff and landing (VTOL) unmanned aerial system (UAS) during Trident Warrior 2024, the Fleet experimentation arm of the 29th biennial Rim of the Pacific (<u>RIMPAC</u>) Exercise. Multiple Transwing aircraft



simulated long-range ship-to-ship and ship-to-shore logistics and critical maritime resupply missions from the deck of the U.S. Navy guided-missile destroyer USS Curtis Wilbur (DDG 54) while the ship was underway. Over the course of five days, three Transwing VTOL UAS conducted 12 autonomous flights carrying payloads up to 15 pounds with relative winds exceeding 20 knots during takeoff and landing. Additionally, PteroDynamics conducted simultaneous operations of two Transwing UAS by a single operator. The successful operations demonstrated the unique capabilities of Transwing aircraft and the integration of UAS operations into the fleet for autonomous maritime logistics missions.

RIMPAC 2024 is the world's largest international maritime exercise, with 40 surface ships, three submarines, 150 aircraft, 14 national land forces, and more than 25,000 personnel from 29 countries participating in the exercise in and around the Hawaiian Islands. RIMPAC combines force capabilities in a dynamic maritime environment to demonstrate interoperability across the

full spectrum of military operations. **RIMPAC 2024 featured Fleet** experiment initiatives under the umbrella of Trident Warrior 2024, sponsored by Naval Information Warfare Systems Command (NAVWAR), including UAS aircraft embarked aboard the USS Curtis WIlbur in support of Just In Time Delivery (IITD) logistics. PteroDynamics' participation at RIMPAC follows successful demonstration flights from the USNS Burlington during the U.S. Naval Forces Southern Command/U.S. 4th Fleet Hybrid Fleet Campaign Event (HFCE) in October of last year.

"Operating multiple Transwing aircraft in real-world conditions at sea during RIMPAC 2024 allowed PteroDynamics to demonstrate the capabilities that make the Transwing UAS so unique, and I'm excited we met and exceeded all planned test objectives with minimal disruption to ship operations," said Tim Whitehand, PteroDynamics vice president of engineering. "This is the first time PteroDynamics had the opportunity to operate in these realworld conditions, and I couldn't be



happier with the results. We demonstrated that the aircraft's transition between VTOL and conventional cruise flight is unmatched in speed of execution, control, and diversity of inbound and outbound profiles, putting the Transwing in a class of its own. The performance data we collected is invaluable, bringing us one step closer to providing reliable, flexible, and low-cost ship-to-ship and ship-to-shore delivery capabilities to the fleet. We are thankful for this opportunity and the support of the Naval Air Warfare Center Aircraft Division (NAWCAD), Naval Air Systems Command (NAVAIR), NAVWAR, and the leadership of the U.S. 3rd Fleet (COMTHIRDFLEET)."

Transwing VTOL Aircraft System

PteroDynamics' Transwing is a revolutionary VTOL aircraft system that overcomes the limitations inherent in other VTOL designs by marrying the speed, range, and endurance of fixed-wing

aircraft with superior VTOL performance in an efficient, highly automated platform. The Transwing's folded wing configuration enables a high degree of controllability in hover and transition, providing excellent gust tolerance and the ability to take off and land in turbulent winds and higher sea states. The aircraft folds its wings to transition seamlessly between vertical and winged horizontal flight, eliminating the extra weight and drag of multiple additional propulsors and their support structures.

The successful exercise demonstrated the advanced capabilities of the Transwing platform and its viability for maritime resupply and logistics support:

 Simultaneous autonomous flight operations of two Transwing aircraft by a single operator

- Autonomous operations from takeoff to landing
- Rapid flight readiness less than 20 minutes from a crated aircraft to launch

□ Minimal disruption to ship

<image>



operations, with no heading or course limitations, including takeoff and landing in tailwind conditions allowing the USS Curtis Wilbur to stay on course

I Flights conducted with the USS Curtiss Wilbur underway with winds exceeding 20 knots during takeoff and landing

□ Ship speeds up to and including 20 knots during takeoff and landing

About PteroDynamics

PteroDynamics Inc. is an innovation leader in autonomous vertical takeoff and landing (VTOL) aircraft systems. PteroDynamics' Transwing[®] aircraft combine the speed, range, and endurance of fixed-wing aircraft with advanced VTOL capabilities in a highly efficient unmanned aerial system (UAS) platform, overcoming the speed, distance, and payload limitations of other VTOL systems. Transwing's unique capabilities are ideal for automating time-sensitive delivery of

critical high-value payloads to hard-to-reach locations with no runways and in austere conditions, including maritime logistics support, payload delivery to remote locations without airstrips, and reconnaissance and surveillance. For more information, please visit <u>www.pterodynamics.com</u>.

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