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he multi-role Kodiak is an increasingly common sight in the airborne public safety sector, building on its origins as a "go-anywhere" airplane for challenging humanitarian missions and benefitting from the aircraft product line's revitalization after being purchased by Daher in 2019.

Today, Kodiaks are operated worldwide in a range of public safety applications—from law enforcement, surveillance and air ambulance duties to wildfire suppression, environmental monitoring/protection, search and rescue, and many other missions. The 10-seat aircraft also continues to serve its original purpose, providing airlift for supplies, disaster relief and emergency services to some of the planet's most remote regions.

The turboprop-powered Kodiak meets the definition of a true multi-mission plat-form. In addition to operating from all airport categories, the Kodiak is a short takeoff and landing-capable airplane at home on backcountry strips, semi-prepared landing zones and water (when equipped

with floats). Based on its heritage, the Kodiak has been designed from the start for simplified in-the-field maintenance, high reliability, excellent flight safety and low direct operating costs.

## **Deterrence, Detection, Investigation**

With a focus on airborne law enforcement missions for deterrence, detection and investigation, the Kodiak can carry a full sensor payload and function as a force multiplier. Paul Carelli, Daher's Kodiak chief pilot and director for the commercial and multi-mission sector, knows the aircraft's public safety capabilities from hands-on experience, being both a former police officer and retired U.S. Navy combat jet pilot.

"Another advantage of the Kodiak is its loiter time of up to 10 hours, which is exceptional for both deterrence and detection," said Carelli, whose military callsign, "Fuzzy," was inspired by his time in law enforcement. "The standoff capability at 5,000-10,000 feet is a huge plus in detecting and investigating, keeping the aircraft above and beyond audible and visible range.

Additionally, the Kodiak is a true multi-role aircraft, enabling an agency to deploy a single airplane that is adaptable to surveillance, medical evacuation, logistics, the transportation of personnel, parachuting and other roles."

Unique to the Kodiak is its wing's "discontinuous leading edge" design, giving the aircraft excellent handling qualities throughout all flight regimes and protection against aerodynamic stalls, including at low speeds and while maneuvering. The aircraft's turn rate/radius enables it to maintain a small area of responsibility, similar to that of a helicopter. "This makes the Kodiak a highly forgiving airplane to fly, from the most junior aircrew to the most advanced pilots," Carelli said. "We're now seeing government agencies and others specifying the discontinuous wing leading edge in their requests for proposal for new aircraft acquisitions."

## **Customers and Operators**

The Kodiak's features and capabilities have attracted a varied base of customers and operators, including Bridger



Aerospace, which deploys Kodiak 100s for command and control duties in battling North American wildfires; skydiving companies in North America, Europe and Asia that use the aircraft to rapidly carry civilian and military jumpers to deploy-altitude, followed by a quick return to base for another load; and the U.S. Fish and Wildlife Service, flying a fleet of Kodiak 100s as "tundra-to-tropics workhorses" for monitoring North American wildlife over land and water.

The Kodiak's short takeoff and landing capabilities are also important for the North Carolina Forest Service Aviation Division, which acquired a Kodiak 100 in 2023 as a load aircraft to carry equipment and supplies to locations in support of aerial tankers working wildfire suppression. The performance is beneficial not only for backcountry flying and landing in remote areas: The Kodiak 100 was a deliberate choice for the Arkansas-based Airborne Flying Service to operate from short runways at small regional airports for emergency medical flights.

## **Enhancing the Kodiak**

Daher's acquisition of the Kodiak product line in 2019 marked a major turning point for the airplane, adding it to the portfolio of six-seat TBM turboprop aircraft built by the family-owned French company. Daher's roots date back to 1911, making it the world's oldest aircraft manufacturer still in operation today.

Daher now brings its continual improvement philosophy, successfully applied for years in evolving the TBM airplane series, to the Kodiak product line, ensuring it remains technically up-to-date and competitive. In one of its first steps after acquiring Kodiak from Quest Aircraft, Daher introduced the Series III version of the Kodiak 100 in 2021, incorporating augmented operational capabilities from both unimproved airstrips and water. In 2023, Daher introduced a five-blade composite propeller for the Kodiak 100. In addition to being lighter in weight than the earlier four-blade metal version, the new propeller reduces vibration aboard the aircraft and lowers the Kodiak's flyover noise.

Daher then stepped up its game with the Kodiak 900, a larger, faster version unveiled in 2022. Retaining the Kodiak 100's multi-mission legacy, the 900's new features include a fuselage length extension of 3.9 feet, a cruise speed increase to 210 KTAS and an increased useful load—all while preserving the Kodiak's "long legs," with a maximum cruise range of approximately 1,130 nautical miles. The Kodiak 900's operating economics also have been improved, with a 9 percent reduction in specific fuel consumption.

Both the Kodiak 900 and 100 are in sustained production at Daher's facility in Sandpoint, ID, with the two airplane types taking shape on a common final assembly line. With the continued market demand for both the Kodiak and the TBM airplane family, built in southwestern France, Daher has announced it intends to establish a new final assembly line for the airplanes at the company's aerostructures production site in Stuart, FL.