

## 4. TBM Series: Proven History, Proven Performance



### TBM History

In 1990, DAHER-SOCATA certified with the FAA and French DGAC (now EASA) the first, fully-pressurized, single-engine, turboprop aircraft in the world, the TBM 700A. The TBM 700 airframe design incorporated a variety of aluminum and steel alloys, including titanium, as well as advanced composite materials that come together in an airframe of unmatched structural strength and durability at the lowest possible weight at an affordable cost. Our design engineers employed fail-safe design techniques on the TBM airframe including the use of multiple load paths, a crack-stopper band and a minimum number of smaller access panels to maximize structural life and sub-system reliability, as well as to minimize repair-cycle times.

In 1992, to replace the obsolete Morane MS 760 Paris Jet, DAHER-SOCATA began an on-schedule and on-budget delivery of TBM 700A model aircraft to the French Air Force and French Army Aviation. According to feedback from French military pilots, the TBM is, "simple to master, a dream to fly and superior performance characteristics across the entire flight envelope". The French Armed forces has accumulated up to 600 flight hours per year per aircraft in accomplishing a wide range of VIP-passenger and light-cargo missions in varied operating environments, including operations in combat zones. DAHER-SOCATA has also delivered one TBM 700A model aircraft to the French national flight test center (CEV) and three aircraft to the Indonesian government for their use in calibrating airfield navigation aids throughout their country.

Certified in 1999, the TBM 700B model added a larger cargo door and an optional pilot entry door. While its commercial success was growing in the US, the French Army Aviation took delivery of three B model aircraft, bringing the total military aircraft to 28 TBM 700 in 2002. With the addition of a gaseous backup oxygen system (with EROS quick donning

masks) the service ceiling of the TBM 700B was raised to 31,000 ft.

In 2003, the TBM 700C2 was certified with an increased Max Take-off Weight (7394 lbs), allowing an increased payload of 865 lbs with full fuel. This modification included re-enforced airframe, reinforced landing gear, crashworthy seats certified to 20 G, new interior and new rear external luggage compartment.

The TBM 700C2 was also certified at 31,000 ft thanks to the gaseous oxygen system.

In 2006 DAHER-SOCATA introduced the TBM 850. Strictly identical to the airframe of the TBM 700, the TBM 850 aircraft is also powered by the Pratt & Whitney PT6A turboprop engine. The new PT6A-66D powerplant produces 1825 eshp flat rated to 850 shaft horsepower and gives the TBM 850 jet-like performance with turboprop efficiency and economical operation.

During the last 20 years, DAHER-SOCATA has delivered more than 500 TBM aircraft and accumulated more than 600,000 flying hours of reliable and safe operations without a single structural airframe failure. DAHER-SOCATA's TBM 850 defines a new class of airplane, the Very Fast Turboprop (VFT), breaking new record of speed against its predecessor, the legendary TBM700.