

Daher - Heading for Switzerland

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How Italy provides air policing
in the Baltic States with F-35



Interview with Bern
Airport Director Urs Ryt



A TBM 910 and two TBM 930s in front of the Mecanair hangar on October 2 in Grenchen, the service center for the fast turboprops from France.

The world's oldest aircraft manufacturer presents the new TBM 940

Daher - Heading for Switzerland

Thanks to the orange button in the cockpit, the new TBM 940 automatically lands at the next to the nearest airfield - if the pilot fails for any reason.

The French aircraft manufacturer Daher, notably the world's oldest, presented the new turboprop to the Swiss TBM community on October 2 in Grenchen.

Photo report Hansjörg Bürgi

Sight on the Swiss market

Like Pilatus, the French aircraft manufacturer Daher has also seen increased demand for fast turboprops during the pandemic. With many airports having no scheduled flight connections at all or only poor ones, compact, business aircraft are playing an important role in Europe. Not only they do fly to the smallest airfields closer to a business traveller's destination, but they can also be flexibly deployed according to their owners' needs. Compared to the PC-12, the TBM is a distinct pilot-owner aircraft, which is largely piloted by the owners themselves.

With Marc Duchesne and his company Swissfly Aero LLC in Winkel (Zurich), Daher 2021 has established a representation for Switzerland and Liechtenstein. Marc Duchesne wants to expand the fleet of currently ten TBMs in Switzerland. For this reason, he organised an event on 2 October with the service partner Mecanair SA in Grenchen. Daher flew over from France with their latest TBM 940, which is equipped with the revolutionary "Homesafe" rescue system. Various TBM pilots & owners took the opportunity to perform test flight with the latest product over the Jura mountains and to get to know each other.

Organiser Marc Duchesne was very pleased with the response, with more than 60 per cent of all of all Swiss TBM owners came to Grenchen. And he also knows that the best sellers are those owners who rave about their TBM.

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The Swiss representation for Daher, Swissfly Aero LLC, organised the meeting for the TBM community in Switzerland with the service center partner Mecnair in Grenchen.



The Garmin 3000 cockpit of the TBM 940 with the orange "Homesafe" button in the middle.

Daher calls the TBM 940 a "game changer". It features the most advanced Garmin 3000 cockpit with touchscreen and the latest autothrottle system. It is the world's first turboprop with a fully integrated autopilot. The "Homesafe" system is especially appreciated by the pilots' partners, as some TBM pilots are already of advanced age. If the red button in the cockpit is pressed (by a passenger, for example), the autopilot uses airport and weather data to select the next suitable airfield and steers the aircraft there and lands it automatically without any input from the pilot. Passengers on board can contact air traffic control via a touchscreen. The "Homesafe" system gives them precise instructions. Furthermore, the new E-Copilot system in the TBM 940 also supports the pilot a lot in normal flight operation with various features such as "Underspeed Protection", "Surface Watch" for the airport environment, an "Emergency Descent Mode" and all instrument and visual approach procedures. With standard equipment, the TBM 940 currently costs less than 4.4 million US dollars.

The oldest aircraft manufacturer in the world

The French aircraft manufacturer Daher celebrates its 110th birthday in 2021. Today, 87.5 per cent of the company is still owned by the Daher family, the other 12.5 per cent is held by BPI France, a French public investment bank. The company was founded by Daher in 1863 as a ship transport company, at a time when there were no flying machines. In 1880, it offered a service from Marseille to San Francisco, which made it possible to cross the ocean in 100 days.



Daher demonstrator TBM 940 F-HECK flew to Grenchen, where it was used for test flights all day.

Why these three Swiss pilots fly TBMs

FIND OUT MORE

A new Swiss TBM pilot previously flew a twin-engine Aerostar and has owned a TBM 910 for a few months. Compared to similar turboprops, such as the Piper Meridian, the TBM scored with the **greater seating comfort** in the passenger cabin, which is especially appreciated by older people, he says. That's why he chose the TBM 910. The higher speed was not a decisive factor. However, he is thrilled with the performance of the 910: "I fly a lot to Portugal, in the past I always had to calculate exactly, now with the TBM this is no longer an issue, the reserve is almost enough for the return flight." Compared to a twin-engine piston aircraft, he says, it is **extremely easy to operate**, and the Garmin G1000 is a great help, which he appreciates as a pilot who often flies alone. He calculates at Flight Level 280/290 with 320 knots of knots of true airspeed, which is a speed you have to get used to. "At FL310, it climbs in 18 minutes, which is remarkable." Final approach speed is 85 knots, and the Rotational Speed at 80 knots. As a small improvement he would like to see an electronic oil level indicator. the oil still has to be checked physically at the engine.

One TBM 930 owner has already flown over 1000 - and he emphasizes - "happy hours" on the TBM. He switched from an Extra 500 to the TBM. His main route is Switzerland-Sweden, but he can often be found in France, Italy and Greece. He also flies alone, usually accompanied by his wife. He would like to fly even faster and higher. A lot of experience he gained on a trouble-free flight with the TBM 930 **around the world** and in 2020 to South America.

The next TBM pilot can look back on around 400 hours of experience. who switched from a Piper Meridian to a TBM 930. He also looked at a Citationjet, but says the take-off performance of the TBM **is better than that of the jet**. In addition, he can fly to Portugal fully loaded with five passengers. He also pilots the TBM as a single pilot. On October 1, for example, he flew nonstop in six hours from the Canary Islands to La Chaux-de-Fonds in six hours. What could be improved on the TBM? "I would appreciate a wing heater, which would reduce the fuel in the tanks doesn't cool down so much. On more than two-hour flights, you have to manually add a special liquid to the kerosene to keep it from freezing."

>>> Daher produces most of the TBM itself, apart from the turbine and cockpit. The metal parts are all manufactured in Tarbes.

Daher ventured into the skies in 1911 with the founding of the legendary French aircraft manufacturer Morane-Saulnier. With the "Type L." they built a first fighter aircraft during the First World War. During World War II, Morane-Saulnier produced over 1000 MS.406 fighters, which were manufactured under license in Switzerland as the D-3800/3801. The HB-RCF is the only one of these legends still flying today. In 1954, Morane-Saulnier caused a sensation with the world's first business jet, when the MS 760 took off for the first time in Paris.

Since the late 1980s, Daher has also been working closely with Airbus. Today, for example, all landing gear doors for the A350 are manufactured by Daher in Tarbes. For Dassault, Daher manufactures the upper fuselage section of the Falcon 7X and 8X. Plastic parts & components are also produced for Gulfstream and Embraer at the Daher plant at the foot of the Pyrenees. Daher has several large autoclaves there (the largest is four meters wide and twelve meters long) in which these parts are manufactured.

Since 2013, Daher has also been involved in the production of components for Airbus Helicopters. For example, the entire tails of H160s, including Fenestron mountings, are manufactured by Daher. Boeing, ATR, Bombardier, Pratt & Whitney Canada and Safran are also among its customers. Daher's extensive experience in the production of metal and composite parts is a great help here.

More than 30 years of TBM development

First flown on July 14, 1988, the six-seat Socata TBM 700 entered service in 1990 as the first single-engine turboprop with a pressurized cabin. The French Air Force still uses these fast turboprops today for liaison flights. From the original TBM 700A, the 700B was developed with a larger door that allowed easier boarding and loading. The TBM 700 was produced between 1990 and 2006, powered by a PT6A-64 with about 710 hp.



The cockpit sections of the TBM are built in a vertical position.



In Tarbes, Daher manufactures all metal components for the TBM itself.



Philippe de Ségovia, Director TBM Marketing, is pleased with TBM's success.



The following numbers of the individual versions have been delivered: 121 TBM 700A, 99 TBM 700B and 103 TBM 700C. The next version, the TBM 850, flew in February 2005 and was first delivered in 2007. Compared to the 700, it offers a Garmin GMX 200 or a Garmin G1000 cockpit and a PT6A-66D turbine with 850 hp. In 2009, EADS sold Socata to Daher, and since then TBM turboprops have been marketed as Daher TBMs. To date, 338 TBM 850s have left the Tarbes workshops. The TBM 900 replaced the 850 while retaining the fuselage shape, pressurized cabin, weather radar and other characteristics.

The turbine is the same, but winglets and the five-blade propeller give it a better range. 114 TBM 900s have been produced so far. On offer today are versions 910 (72 deliveries), TBM 930 (96 deliveries up to the end of September 2021) and the TBM 940 (105 delivered as of delivered at the end of September). According to Philippe de Ségovia, Director TBM Marketing, 23 TBM 940s and two 910s were 940 and two 910 were on order. A total of September 2021, a total of around 1050 TBMs had been manufactured. The largest market is the United States. They are still the fastest single-engine turboprops with six seats.

Today, Daher produces one TBM per week 910/940 in Tarbes. An increase in the production rate is planned for 2022. If a TBM is ordered in November, when can it be delivered? "When you order the aircraft with the interior you want and your favourite colour, then it will take until June 2022. If there is a rush, we can also bring forward a dealer's aircraft that has already been specified" answers Philippe de Ségovia. Daher largely produces the TBM itself, apart from the turbine and cockpit. The metal parts are all manufactured in Tarbes, while the carbon winglets and cowlings come from the Daher factories in Nantes or Saint Julien de Chédon, depending on production capacity utilization.



A TBM 940 near Miami Beach.

Foto Daher



One TBM leaves the Tarbes plant per week; production to be increased in 2022.

In 2020, the Daher Group generated 1.1 billion euros in sales. It employs 9500 people worldwide, including 1500 in Tarbes.

In June 2019, Daher acquired the American Quest Aircraft, which manufactures the Quest Aircraft Kodiak single-engine turboprop. Since then, this working aircraft for bush operations, parachute drop flights and all other operations from short, unpaved runways complements the Daher offer.



www.swissflyaero.com

DAHER TBM 940

Maximum take-off weight	3354 kg
Maximum payload with full tanks	404 kg
Maximum payload	636 kg
Wing span	12.83 m
Height	4,35 m
Length	10,74 m
Cabin width	1.21 m
Cabin length	4,05 m
Cabin height	1,22 m
PT6A-66D turboprop	850 hp
Fuel tank capacity	1106 l
Maximum cruise speed	330 kts/611 km/h
Maximum cruise altitude	FL310/9449 m
Maximum range	1730 nm/3204 km
Take-off distance	726 m
Landing distance	741 m