The Tale of an Extraordinary Gipsy

Swiss de Havilland DH-60G Gipsy Moth HB-AFO still going strong

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PHOTOGRAPHS BY EDWIN BORREMANS
For almost 70 years, de Havilland’s DH-82 Tiger Moth biplane family has gained its well-deserved place in the aviation world’s “hall of fame” as a dedicated World War II pilot training aircraft for countless numbers of Allied aviators. In the postwar years, the Moth soon became obsolete as a military pilot training asset. But this de Havilland Moth family descendant quickly gained international success around the globe as a leisure aircraft, due to its low price, easy maintainability, and abundance of airframes, spare parts, and engines. Lesser known by many biplane owners and aviation enthusiasts around the world is DH-82’s predecessor, the de Havilland DH-60 Gipsy Moth, developed in the early ’30s as elementary (military and civilian) training aircraft. With various examples of the DH-82 Tiger Moth still flying nowadays in almost all western European nations, the population of “active” DH-60 Gipsy Moths is far more numerous. One of the key representatives of this majestic Gipsy in Europe is Switzerland-based DH-60G HB-AFO, nowadays based at the rural airstrip of Biel-Kappelen in western Switzerland.

Switzerland’s Gipsy Moth Survivor  

de Havilland DH-60G Gipsy I Moth c/n 1878 was constructed at DH’s facility at Stag Lane Airport in Edgeware (Middlesex, United Kingdom) in 1931. Its Certificate of Air-

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All external control cables are inspected visually during the pre-flight walk-around and inspected in detail during periodic 50-hour inspections.

Flown by the pilot from the back seat, the front seat cockpit is deprived from all flying instruments but still retains the control stick.

DH-60G HB-AFO is now owned by Willy Kampfer, a retired Swissair B747 captain. As a teenager, Willy serviced the aircraft in 1960 as an aircraft mechanic apprentice.
The Segelfluggruppe Oberaargau used the DH-60G HB-AFO as a towing tug for its gliders. In 1961, the aircraft was grounded and stored in a garage, its registration canceled and its future highly uncertain.

Moth HB-AFO is based nowadays at Biel-Kappelen aerodrome in northwestern Switzerland near the well-known Lac de Bienne.
worthiness Nr. 3231 was issued by the British Air Ministry on October 16, 1931. Registered CH-325 some two weeks later, the aircraft was based at Dubendorf aerodrome, east of Zurich. Its initial flying career in Switzerland proved to be rather disastrous, being badly damaged while attempting an emergency landing in 1932, as it hit trees in the landing pattern. Almost immediately after having been repaired in 1933 the aircraft hit power cables and was grounded. DH-60G CH-325 was one of 10 Gipsy Moths to be entered in the Swiss civilian registers since the aircraft was popular with various sections of the Aeroclub de Suisse, scattered around the various Swiss aerodromes all over the country. Used for initial pilot training, the Swiss Gipsy Moth armada was frequently hit by accidents, enforcing frequent rebuilds and cannibalization of crashed aircraft.

After storage for almost five years, CH-325, becoming HB-AFO after a reorganization of the Swiss civilian register, was repaired at the Fliegerlager Grenchen (southwest of Basel) and sold to the Aeroclub of Suisse section at the nearby Langenthal aerodrome. This Segelfluggruppe Oberaargau used the DH-60G as a towing tug for its gliders, unfortunately not without any accidents. And finally, in 1961, the aircraft was grounded and stored in a garage, its registration canceled and its future highly uncertain. Some three decades later, in 1992, British architect Chris Tucker, living in Switzerland, purchased the airframe and started an in-depth restoration of the worn-out Gipsy Moth. Assisted by the Airla Flugzeug Service overhaul/maintenance company at Langenthal-Bleienbach

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aerodrome, the aircraft was restored to pristine and airworthy condition in 2003. The “newborn” HB-AFO, wearing striking marine-blue and silver colors, made its maiden flight on December 17, 2003, at the same time commemorating a century of powered flight by the Wright brothers at Kitty Hawk, North Carolina, exactly 100 years earlier. The de Havilland Gipsy I engine with four upright cylinders and a 5-liter total displacement provides 85 hp. Built as well in 1931, the engine was completely restored to zero hours in 1997. Consuming around 30 liters per flight hour (about 8 gph), it offers its pilot a range of 300 kilometers! The Gipsy I engine is “fed” by simple gravity from the overhead fuel tank built in between the two upper wings above the front seat, containing 19 gallons (86 liters).

Change of Ownership

On April 27, 2007, the aircraft was sold by Chris Tucker to its present owner, Willy Kampfer, a retired and very experienced Swissair B747 captain and a lifelong DH Gipsy fanatic. Although his purchase of his own de Havilland was his first, Willy’s connection and affection for HB-AFO started well before: In the early ‘60s, when he was a 17-year-old mechanic apprentice under the supervision of a licensed aircraft mechanic at Langenthal. He was responsible for the servicing of this biplane. During a simulated take-off run in September 1960 on the empty Langenthal aerodrome, he revved the engine too high and HB-AFO unintentionally became airborne. Fortunately, he was able to correctly put the aircraft down within seconds, and Willy discovered his love for flying. He started lessons in 1964 at the age of 24, beginning his airline flying career by entering the Schweizerische Luftverkehrsschule Hausen am Albis, south of Zurich. Initial flight training was instructed on the Bucker Jungmann and Jungmeister (for aerobatics) taildraggers, giving him the tailwheel experience needed decades later to master the DH-60G Gipsy Moth. Having successfully completed initial training, all students were instructed on the Piaggio P-149 and DC-3, also used for instrument rating. Finally Willy started his Swissair flying career in December 1965, flying as a copilot on a piston-engined Convair Metropolitan with 44 passengers from Zurich to Geneva. His last line flight as a captain of B747-300 HB-IGE was flown to Boston-Logan airport as SR126, carrying around 250 passengers. The SR127 Boston-Zurich return leg was his farewell flight, marking the end of a long commercial airline pilot career on December 28/29, 1996.

His first post-rebuilt flight on the HB-AFO was nearly as eventful as his 1960 experience; while transferring the airplane to its new home base, good weather conditions in Langenthal (altitude 480 meters) were prevailing with a light easterly wind, temperature minus 5°C, and the grass runway surface frozen. After three flights with landings in Langenthal and a final adjustment of the carburetor, he then transferred the plane to Motiers (altitude 732 meters) in the Val-de-Travers near Neuchatel—only to find the local airfield covered by a layer of 10 inches of powder snow. Although the landing was uneventful, the pilot was almost frozen!

With a landing and takeoff run of some 120 meters, the aircraft is easy to fly and has no documented wind speed limitations. However, Willy Kampfer selected 25 knots in runway direction and 10 knots crosswind as his personal limits while flying HB-AFO. The leading edge slats, mounted on the upper wing, deploy by aerodynamic force around 55 mph (88 kilometers/hour) by floating softly from retracted to fully deployed position, and vice versa.

The aircraft has flown some 1,300 hours, including 67 post-restoration hours in the aircraft’s second life. Hampered by the small range of the aircraft, HB-AFO is until now very rarely seen outside Switzerland. However, Willy is hoping to show the marine-blue Gipsy Moth to aviation enthusiasts around Western Europe in the near future.