



# FLYING MACHINES

FROM PILOT'S WATCHES TO PLANES, THE NAME BREGUET  
FLIES HIGH IN AVIATION CIRCLES

**ONBOARD THE *USS INTREPID*** in New York City last summer, Breguet unveiled an exhibition paying tribute to a century-long Breguet legacy in the field of aviation. “Breguet: Watchmaker, Aviator, Innovator” toured the United States for the following two months showcasing 26 Breguet pilot’s watches—from the first 1954 Type XX to 2010’s Type XXII, featuring Breguet’s high-frequency 10 Hz technology. Many watch brands tout extensive histories in manufacturing precision timepieces for aviators, but Breguet’s connection to the field of flight is unique because the Breguet name is famous not only in horological circles but in aviation circles as well.

Abraham-Louis Breguet was not the only engineering genius in the family. His great-great-grandson, Louis-Charles Breguet, inherited his ancestor’s visionary gifts and applied them to advancing technologies in the emerging field of aviation at the turn of the 20th century. Louis-Charles’ 1907 gyroplane, an aircraft with a huge propeller on its roof, is considered to be the precursor of the helicopter. He completed the *Breguet 1*, his first biplane, in 1909, and, a few years later, he founded Louis Breguet Aircraft Manufacturing Company, which later became Breguet Aviation. The *Breguet 14*, a light bomber, was credited with contributing to the Allied victory

BY LAURIE KAHLE



4465 Flight  
Chronograph

Breguet bomber illustration ©Design Pics/Newscom





in WWI and played a starring role as the *Aéropostale* plane in Antoine Saint-Exupéry's novel "The Little Prince." A lightweight, fuel-efficient *Breguet 19* made the first non-stop flight from Paris to New York City in 1930, further securing Breguet's pioneering status in the annals of aviation history. From 1913 until 1973, Breguet planes were the primary aircraft used by the French Naval Air Arm, the *Aéronavale*.

Just as the development of the marine chronometer dramatically improved navi-

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gation at sea in A.-L. Breguet's day, high-precision timekeeping instruments were essential for safe and efficient air navigation in the 20th century. Before the advent of computer technology, pilots needed to make vital calculations, and an accurate timepiece, particularly a chronograph, was

indispensable flight equipment. In 1918, the Breguet watch company recognized the growing timekeeping needs of aviators and began producing its first pilot's watches as well as chronograph mechanisms used in the cockpits of Breguet planes.

"Louis Breguet was not involved in watch-making," explains his grandson Emmanuel Breguet, an aviation-obsessed historian and curator of the Breguet Museum and Archives, who recently wrote a book about the life and work of his trailblazing grandfather. "He was an advisor for the Breguet watch company, and he explained to them about the kinds of watches that pilots needed." Emmanuel, who never had the chance to meet his grandfather, collects Breguet aviation memorabilia, including old photographs of Breguet airplanes, technical documents, advertisements, and even plane parts such as propellers. Among his most treasured artifacts are an electric car made by Breguet Aviation during World War II, the leather helmet his grandfather wore when he piloted his first planes, and his grandfather's pilot's watch, which he never

wears so it can be preserved for generations to come.

Breguet had been producing pilot's watches and instruments for decades before the French Ministry of War approached the company in the mid-1950s to produce a reliable and accurate chronograph wristwatch for its pilots. "The code name for the project was Type 20," explains Genki Sakamoto, Antiquorum's watch expert in Tokyo. "Subsequently, Breguet became the official timepiece supplier for the French Air Force, the French Navy, and CEV (Centre d'Essai en Vol). The Breguet Type 20 has become one of the most popular aviation watches ever produced."

Based on Breguet's 1930s-era chronographs, the original Type 20 is hailed as one of the first wristwatches with a flyback function that allowed the pilot to start, stop and reset the chronograph with the push of a single button. Powered by reliable Valjoux movements with Breguet's famous overcoil, the early Type 20s offered user-friendly features such as large fluted crowns that could be operated while wearing gloves and dials designed for heightened legibility.

Type 20 watches were military-issue equipment exclusively reserved for French pilots until the 1960s, which makes the

limited production models highly sought after in the collector market. The most famous Type 20s were commissioned in 1958 by the *Aéronavale*, which ordered 500 numbered pieces with a 15-minute chronograph counter, referencing the amount of time required for a pre-flight check. Two years later, Breguet delivered the watches, which were inscribed with the words "Breguet Marine Nationale Aeronautique Navale." According to Antiquorum's

Sakamoto, "The most coveted Type 20 from a collector's perspective is undoubtedly the example supplied to the French Naval Air Arm (*Aéronavale*). A very limited quantity was produced, all bearing a specially engraved caseback."

In the 1960s, Breguet updated the Type 20 with a thicker bezel made of black Bakelite, larger lugs and the addition of a minutes counter. The brand also changed the name to Type XX and began selling



Louis-Charles Breguet ©akg-images/Newscom



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the watches to the public. This marked the birth of the second generation Type XX. As quartz technology took over the market, Type XXs became obsolete as far as professional use was concerned. But in 1995, Breguet resurrected the collection for consumers by launching the third generation Type XX (Ref. 3800) powered by the Breguet 582 movement, which is based on the Lemania 1350 with a flyback modification. The model was dubbed *Aéronavale* in a tribute to that legendary limited edition model that remained in service until 1980. A few years later, a date function was added at 6 to create another Type XX line named *Transatlantic* (Ref. 3820), which also introduced ladies models.

Type XX's evolution didn't stop there. For the 50th anniversary of the original commission in 2004, Breguet introduced the Type XXI (Ref. 3810), an automatic

flyback chronograph with a central minutes counter and a 24-hour hand, designed for easier legibility along with large luminous hands and numbers on a black rhodium dial. "The Ref. 3800 has not been changed since being introduced to the market," says Sakamoto. "To me, this is a testament to its popularity and the design being well accepted in the market. Therefore, Breguet has changed the name of the Type XX novelties to Type XXI or Type XXII to differentiate from the sought-after original."

Perhaps the most groundbreaking pilot's piece in the Breguet lineup is 2010's Type XXII, the first chronograph with a high-frequency 10 Hz (72,000 vibrations

per hour) movement equipped with a flat balance spring and state-of-the-art silicon escapement technology that is lightweight, non-magnetic and eliminates the need for lubrication. This high-tech, contemporary incarnation of the original Type XX carries on Breguet's longstanding legacy of innovation—from the wild blue yonder to the wrist.

[breguet.com](http://breguet.com)



Type XXI,  
Ref. 3810

Type XXII,  
Ref. 3880ST