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Earned Wings

A HISTORY OF BREITLING PILOT'S WATCHES

TIMEKEEPING

STYLE

By JAN
TEGLER

on
7.1.14



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Photo Illustrations by Gear Patrol

Step foot on the tarmac at Edwards or the flight deck of the USS Ronald Reagan and you're likely to see a few **Breitling** watches on the pilots' wrists. A Breitling on the wrist is as much a part of standard aviator kit as the ubiquitous and

Breitling began to supply "onboard chronographs" for aircraft in the late 1930s. The Royal Air Force was a customer, tapping Breitling to produce analog cockpit clocks for RAF icons like the Spitfire fighter and Lancaster bomber. During the aviation

eponymous aviator shades. The “terrific wristwatches” with their “two thousand calibrations on them and dials for recording everything” that author Tom Wolfe refers to in *The Right Stuff*, his chronicle of the early days of the jet age, was probably a **Breitling**.

But Breitling’s connection with **pilot’s watches** is more than a historical footnote or a well-branded, **retro-inspired** line of heritage watches. The brand has won pilots’ favor over the decades due to the functionality and rugged build of the watches themselves, which have evolved over time as much as the planes the pilots are flying.

boom following WWII, Breitling continued to produce onboard **chronographs** for manufacturers including Boeing, Lockheed and Douglas. Breitling-Wakmann instrument panel-chronographs (produced in partnership with New York watch/clock importer and distributor Wakmann) became as familiar to **pilots** as Breitling’s wristwatches. Not surprisingly, the two also produced Wakmann-Breitling wristwatches from the 1950s through the 1970s.

By this point Breitling had cemented itself as a pilot watch standard for fliers themselves. But the evolution of their watches can’t be properly considered



without first referencing the renowned “Chronomat”.

Combining Breitling’s pioneering **chronograph** developments (independent push pieces for start/stop and reset functions) with a “circular” slide rule, the

specifically for pilots and dubbed it the “Navitimer” — a contraction of “navigation” and “timer”.

Most researchers concur that the **Navitimer**, released between 1952 and 1954, was developed with the aid of the Aircraft

remains in production today, available in eight versions powered by Breitling’s in-house B01 chronograph movement.

When pilot, engineer and microelectronics specialist Ernst Schneider purchased Breitling in 1979, he recognized that the

Chronomat wasn't designed for aviation applications. In fact, it wasn't even the first slide-rule wristwatch, strictly speaking. Fellow Swiss maker Mimo-Loga is said to have patented its example in the summer of 1940, just a few weeks before Breitling applied for its own patent.

But the utility of the Chronomat — developed for timing and financial calculations with scientists, engineers and mathematicians in mind — was quickly recognized by military men, including pilots, after it went on sale in 1942. Its two-scale slide-rule functionality allowed flyers to calculate time, speed, distance and even fuel consumption.

By 1952 Venus 175/178/184-powered Chronomats were firmly established favorites with aviators. Acknowledging the Chronomat's popularity, Breitling designed a new slide-rule chronograph

Owners and Pilots Association (AOPA) specifically for their members. The earliest models, powered by both Venus and **Valjoux** manual movements, feature AOPA's winged-logo prominently atop their black dials. The Navitimer's three logarithmic scales, including one taken from the "E6B" pilot's circular slide rule, conferred even greater functionality. As such, the Navitimer is referred to as the first flight computer watch and is rightly considered the most iconic pilot's watch.

Later versions included the "**Cosmonaute**", a Navitimer with 24-hour graduation first worn in orbit in 1962 by American astronaut Scott Carpenter; the Navitimer Chronomatic, which was one of the first automatic chronographs; and models supplied to various air forces. Navitimers were even supplied to the Iraqi Air Force in the 1970s and 1980s with IAF wings engraved on the caseback. The Navitimer

nearly 100-year-old brand needed to embrace new technology while respecting its heritage. One of the first fruits of Schneider's future-focused tenure was a completely new Chronomat, designed this time as a dedicated pilot's watch. Powered by the Valjoux 7750, the chronograph debuted in 1984 in conjunction with the manufacture's centennial anniversary.

New features abounded, developed with input from the Italian Air Force aerobatic display team, the Frecce Tricolori. The Chronomat's steel case now featured a larger crown and pushers, and a rotating timing bezel with four "rider tabs" — an innovation Schneider devised in 1982 to allow easier turning of the bezel while wearing flight gloves. Gone was the type 42 slide rule, replaced by a 0-100 decimal-minutes scale useful for a range of computations, and a tachymetre scale for timing involving speed and distance.

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1985
BREITLING AEROSPACE

Just a year after the release of the new Chronomat, Breitling debuted the "Aerospace". The new model, with its distinctive analog-digital dial, represented Breitling's first strictly quartz-powered pilot's watch. Initially available with a titanium case and a multi-function seven-jewel quartz movement based on the ETA 988 calibre, the Aerospace has been continuously updated over its three-decade history. In 2002, it became one of the first Breitling timepieces to incorporate the brand's sophisticated SuperQuartz movement.



1995
BREITLING EMERGENCY

In 1995, Breitling introduced the "Emergency", a ground-breaking quartz-powered pilot's watch that quickly gained popularity. The Emergency was the first watch to contain a built-in emergency micro-transmitter operating on the 121.5MHz air distress frequency. In the event of an accident or emergency, the watch could be triggered to broadcast a distress signal on 121.5 MHz, enabling search and rescue personnel to locate the wearer via the analog signal. It worked in several documented cases.

The new Chronomat also displayed Breitling's now ubiquitous "winged-B" logo, derived from the AOPA wings. A special version with the Freccie Tricolori logo on the dial was issued to members of the Italian aerobatic team, beginning a tradition that continues today with the Chronomat 44 GMT limited edition, which celebrates the 50th anniversary of the Patrouille Suisse, the Swiss Air Force jet display team.

Just a year after the release of the new Chronomat, Breitling debuted the "Aerospace". Originally referred to as the "Navitimer Aerospace", the new model, with its distinctive analog-digital dial, represented Breitling's first strictly **quartz-powered** pilot's watch. Initially available with a titanium case and a multi-function seven-jewel quartz movement based on the **ETA 988** calibre, the Aerospace has been continuously updated over its three-decade history. In 2002, it became one of the first Breitling timepieces to incorporate the brand's sophisticated SuperQuartz movement, which is thermocompensated for resistance to temperature extremes and chronometer certified.

In 1995, Breitling introduced a ground-breaking quartz-powered pilot's watch that quickly gained popularity — the "Emergency". In addition to the functionality conferred by its quartz movement, the **Emergency** was the first watch to contain a built-in emergency micro-transmitter operating on the 121.5MHz air distress frequency. In the event of an **accident or emergency**, the watch could be triggered to broadcast a distress signal on 121.5 MHz, enabling search and rescue personnel to locate the wearer via the analog signal. Breitling's "survival instrument" worked, saving lives in several documented cases where it successfully guided rescuers to victims. However, if the wearer's approximate position was not already known when Emergency's transmitter was engaged, locating them precisely via the 121.5 MHz analog band could be a tricky proposition.

In 2013, Breitling introduced a new version of the Emergency — the "wrist-type dual frequency distress beacon". The new Emergency added the capability to broadcast a distress signal on the 406MHz band, a digital frequency that's part of the

COSPAS-SARSAT international satellite alert system, monitored by low-earth orbit and geostationary satellites. Once the Emergency's wire antennas are deployed from its titanium case, the satellites can fix the wearer's position precisely.

So yes: it turns out Breitling is *just* a maker of watches, as you might have presumed. And yes: almost every watch company now has some sort of pilot's watch in its lineup. But legitimacy and credibility with the badasses who break the speed of sound or ride a rocket into **space**? The competition seems to be missing out on that, in spades. Meanwhile, Breitling hasn't been resting on its well-tended, very cushy laurels — they continue to build practical watches for the modern pilot today.

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points awarded if it looks good riding the sleeve of a flight jacket. This flock hits those marks across a wide spectrum of aeronautic styles and uses.

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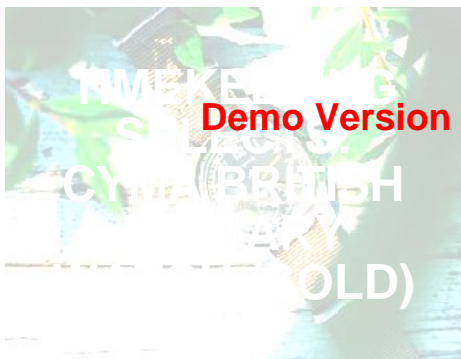
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