

Aloft & Afloat

Today's aviation and maritime watches are not just high-tech Miami mod. They are functional, precise instruments that push the limits of human endurance and, in extreme cases, even save lives.

By Roberta Naas Photography by Kenji Toma

Miamians love diver's watches due to the lifestyle the sunny South offers," says Robin Levinson, co-owner of Levinson Jewelers in Fort Lauderdale. "Even if you are not a deep-sea diver, you can still feel safe with a diver's watch while in the pool or the ocean." Safety is a key component to any divers' timepiece. In 1997, the crew of the *Mata-Rangi* expedition, on a reed boat en route from Chile to Polynesia, encountered a storm, was without radio contact, and was sinking. The crew was equipped with Breitling Emergency watches (with a transmitter built in that broadcasts a distress signal to rescuers), and all were saved thanks to this highly technical timepiece.

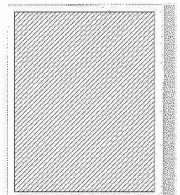
Like their aviation counterparts, dive watches are rugged timepieces meant to withstand extremes. The first truly water-resistant watch surfaced in 1927, when Mercedes Gleitze swam the English Channel wearing a timepiece by Rolex. Both emerged unscathed. More than three decades later, another Rolex was strapped to the hull of the bathyscaphe submersible *Trieste*, and descended 35,800 feet into the deepest accessible point on Earth—the Atlantic Ocean's Mariana Trench. Again, the watch emerged intact and functional. Over the years, top brands have created watches for elite corps. Panerai supplied the Royal Italian Navy. Tutima

worked with NATO to create a special dive watch, and both Jaeger-LeCoultre and Luminox have worked with the Navy SEALs program. The Luminox Navy SEAL watch was introduced in 1994, in fact. More recently, in fall 2011, Luminox released its Scott Cassell watch (named for the counter-terrorism operative and undersea explorer). For its part, Jaeger-LeCoultre's Master Compressor Geographic Navy SEALs watch went on important underwater expeditions just last year.

Of late, the practice of free diving (done without equipment or artificial air) has entered into the world of horology. Austrian Herbert Nitsch broke a world record by diving to 700 feet off the Greek island of Spetses in 2007 while wearing a Breitling. This June, he plans to set the "Breitling Extreme 800 record"—a free dive to 800 feet.

The history of horology has seen houses such as **IWC**, Oris, Hublot, and Alpina support underwater exploration and other causes to benefit the seas. IWC, which introduced its first Aquatimer watch in 1967, sponsors the Charles Darwin Foundation, while Omega has joined forces with environmental activist and photographer Yann Arthus-Bertrand in the making of *Planet Ocean*, an exploration documentary debuting this June. "It is essential that we, as responsible watch brands, not only equip the divers of the world with the right timepiece

CLOCKWISE FROM TOP LEFT: From **IWC**, this Aquatimer chronograph (\$5,600) is crafted in stainless steel on a blue rubber strap. It houses a mechanical chronograph movement and features an external rotating bezel for diving, as well as luminescent accents for underwater reading. It is water-resistant to 120 meters. *Levinson Jewelers, 888 E. Las Olas Blvd., Fort Lauderdale, 954-462-8880; iwc.com*. From **Luminox**, this Scott Cassell Limited Edition Deep Dive Automatic 1525 watch (\$2,000) is water-resistant to 500 meters. The piece houses a Swiss automatic movement and offers a helium release valve, always-visible Luminox Light Technology, and a patent-pending Luminox Bezel Locking System for diving. *Claudia N, 639 Lincoln Road, Miami Beach, 305-534-5986; luminox.com*. The **Omega** Seamaster Ploprof 1200M watch (\$9,700) is created in stainless steel and is water-resistant to 1,200 meters (4,000 feet). It houses the Omega CoAxial 8500 caliber and comes equipped with a helium escape valve. *Aventura Mall, 19501 Biscayne Blvd., 305-931-8788; omegawatches.com*. **Rolex's** Oyster Perpetual Submariner Date watch (\$34,000) is crafted in 18k white gold. The 40mm watch is equipped with a rotating blue ceramic bezel and blue dial, and is waterproof up to 300 meters (1,000 feet). It is equipped with the Oyster Glidelock bracelet. *Mayors, 1000 Lincoln Road, Miami Beach, 305-672-1662; rolex.com*







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Rolex Oyster Perpetual Submariner Date watch

instruments for their exploration, but also ensure that there continue to be clean oceans to dive in," says Stephen Urquhart, president of Omega.

The best dive watches are defined by certain important characteristics. A watch for serious diving must be water-resistant to at least a diver's International Organization for Standardization (ISO) rating of 200 meters, as well as offer additional underwater functions. Furthermore, most dive watches feature illuminated hands and markers for underwater reading, as well as antiglare crystals on the face. Watchmakers also provide features that render these pieces ultra-water-resistant and diver-friendly, including double- or triple-locked winding crowns, additional gaskets, helium escape valves, silicone O rings, extra-large crowns, graduated one-way rotating bezels that measure elapsed time underwater, and double-locked bracelet clasps.

Some dive watches indicate bottom time, measure elapsed time, feature an alarm function that can be sensed underwater, or come crafted with interchangeable bracelets or extensions allowing them to be worn over a wet suit. Color, actually, also plays a key role. Red and orange light particles disperse first, turning to gray at a depth of about 30 feet. Yellow lasts longer, and blue remains visible the longest—to depths of up to 300 feet. The right luminescence, therefore, is key. Finally, to withstand extreme conditions, most dive watches are built of rugged materials such as steel, titanium, or gold, while some watchmakers also use high-tech composites including engineering ceramic for cases. In short, when looking for a dive watch, one thing is certain: Function trumps form.

These are rugged instruments housing many necessary emblematic functions.

In April 1970, America held its breath, waiting to see if the lives of the astronauts aboard the crippled Apollo 13 spacecraft would be spared. Mission Commander James Lovell used his Omega Speedmaster Professional wristwatch to time to 1/10th of a second the firing of the secondary rockets that would take the ship out of lunar orbit and bring it safely back to Earth, earning Omega NASA's highest distinction: the Snoopy Award.

Since Orville Wright navigated a biplane over the Kitty Hawk sand dunes in 1903, precision timepieces have played a vital role in flight. In 1904, Louis Cartier created a wristwatch for his friend Alberto Santos-Dumont, who needed something easier than a pocket watch while flying his dirigibles around the Eiffel Tower. In the late 1920s, after his celebrated

solo transatlantic flight, Charles Lindbergh worked with Longines to create the Hour-Angle watch as a navigational tool, and in 1932, Amelia Earhart wore an Omega wrist chronograph tachymeter on her journey as the first solo woman to cross the North Atlantic by air.

In 1955, IWC developed a method to overcome the effects of magnetic fields by housing the automatic watch movement inside a soft-iron inner case. Other key developments came in the 1940s and '50s with the introduction of watches such as Breitling's Navitimer (launched in 1952), which featured a slide-rule bezel used to calculate fuel. Today, several well-known watchmakers are involved in aviation advancements both in space and here on Earth. Tutima sponsors the Tutima Academy of Aviation Safety, while Bremont uses certain of its watches during ejection-seat testing. Breitling sponsors aerobatic aviation, while Omega participates in testing of the Solar Impulse plane. Hamilton, meanwhile, worked with Air Zermatt rescue in Switzerland to create a watch that tracked flights and landings. And the list goes on.

So what exactly constitutes a pilot's watch? These are rugged instruments housing many necessary emblematic functions, such as COSC-certified chronometry. Examined by the Swiss observatory Contrôle Officiel Suisse des Chronomètres, these pieces undergo rigorous testing involving such conditions as extreme temperature and changes in gravitational force. In addition to chronometric precision, pilot's watches are usually antimagnetic, shock-resistant, and offer functions such as compass abilities, slide-rule bezels, and multiple time-zone (or GMT) indication. The most important factor in a pilot's watch is undoubtedly readability—an issue IWC takes very seriously. For its new TOP GUN Big Pilot and TOP GUN Chronograph watches, the brand optimizes second- and minute-hand visibility, which is especially useful in aviation.

While the concept of synchronizing crew watches to the navigator's timepiece may have taken a backseat to current cockpit instrumentation, the look and quality of a true pilot's watch remain steadfast today. **OD**

FROM LEFT: From Breitling, this titanium Aerospace (\$3,340) with an Air Force-blue dial houses a SuperQuartz movement and offers timing of the chronograph to 1/100th of a second. It also features countdown functions, second time zone and alarm, and is tested by pilots. The caseback provides metric conversions. Aventura Mall, 19501 Biscayne Blvd., 305-935-9350; breitling.com. The Alpina StarTimer Pilot watch (\$2,395) houses the AL-950 automatic caliber along with 25 jewels. It offers 42 hours of power reserve, and indicates hours, minutes, seconds, and date on a highly legible dial. It is based on a vintage model, and made of stainless steel with a sapphire crystal caseback. The 44mm watch is built in a limited edition of 8,888 pieces, and is presented in a gift box with a Private Jet model. King Jewelers, 18265 Biscayne Blvd., Aventura, 305-935-4900; alpina-watches.com. Hamilton's Khaki Flight Timer (\$1,495) offers digital and analog displays and was designed in cooperation with Air Zermatt, Switzerland's prestigious helicopter rescue service. The watch incorporates a pilot's logbook for recording details of up to 20 flights, with 99 landings per flight. Tourneau, Aventura Mall, 305-792-2298; hamiltonwatch.com. The Tutima Grand Classic Black Chronograph (\$3,700) is crafted in hardened stainless steel with PVD coating. It houses the mechanical Automatic Valjoux 7750 caliber with 25 jewels and 42 hours of power reserve. It is shock-resistant and has a sapphire crystal caseback for viewing the internal movement. Carrazza Jewelers, Bahia Mar Beach Resort and Yachting Center, 801 Seabreeze Blvd., Fort Lauderdale, 954-523-5237; tutima.com