



AERONAUTIC ADVENTURES

◀ STRAP UP AND TAKE OFF. ▶

Here are five ways to fly and indulge
the bond between aviation and timepieces

BY JAN TEGLER

The dawn of aviation and the appearance of the first wristwatches roughly coincide. Wristlets, as they were called, began to be seen at the beginning of the 20th century, just as the historic flights of the Wright Brothers in 1903, Albert Santos Dumont in 1906, and Glenn Curtiss and Henry Farman in 1908, were bringing aviation to the public.

In a sense, the two grew up together, following similar technological trajectories with links, both technical and cultural, that made them indispensable tools for modern life. But neither the airplane nor the wristwatch was commonplace at first. It took warfare to advance each scientifically and earn them acceptance. By the end of World War I both mechanical devices had been refined and utilized



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so extensively that they were no longer completely novel.

Aviation and wristwatches evolved rapidly thereafter, converging at several points. Airmen used watches for everything from navigation to timing ordnance drops and pilot's watches became standard issue in air forces around the world. So critical was timing to military and civilian aviation that aircraft instrument panels soon featured prominent, highly readable clocks. In turn, watchmakers inspired by the design of the clocks and other instruments, began producing watches which mimicked the look of aircraft gauges.

As aircraft design advanced, so too did the design of wristwatches. With the space age came rugged mechanical movements that could withstand the extreme temperature

variations and vibrations associated with space flight. Several went into orbit with American and Russian astronauts through the 1960s. Five months after the Apollo 11 astronauts landed on the moon in July 1969, Seiko offered the first ever production quartz watch, the 35 SQ Astron.

In recent decades progress has continued with ever more exotic materials and power sources. Today, a variety of watches and aircraft share titanium construction, while solar-powered watches presage cutting-edge Unmanned Aerial Vehicles that also employ the same solar technology.

Own genre

More than simple tools, pilot's watches now represent a timepiece genre, enjoyed by pilots

and non-pilots alike. Aviation too remains accessible, perhaps more so than many realize. With new aircraft comes the promise that aviation can be enjoyed by anyone, and there are as many great opportunities to be had as there are watches to inspire them. Come fly with us as we pair some of the best aviation timepieces with aeronautic adventures.

Icon A5

In an effort to make aviation more accessible, the FAA has created two complimentary classifications for aircraft and pilots in 2004; the Light Sport Aircraft (LSA) category and the Sport Pilot License (SPL). LSA allows new and existing manufacturers to produce fresh, simple-to-fly aircraft under less onerous and costly Federal



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regulations. Simultaneously, SPL allows student pilots to learn to fly light aircraft in roughly half the time (twenty hours of instruction) for half the cost (approximately \$2,000) of obtaining a traditional private pilot's license. The goal is to promote recreational flying.

Enter the Icon A5, a new airplane crafted with the LSA category and sport pilots in firmly in mind. Designed by Los Angeles, California-based Icon Aircraft (www.iconaircraft.com), the A5 is intended not only to attract people to flying but also to change the way recreational flying is perceived.

"What that means for us is they are trying to create a truly recreational category in aviation," says Steen Strand, the co-founder and COO of Icon. "To some, that may sound odd because many people talk about recreation with regard to LSA aircraft. But when we talk about it we're equating it to other recreational categories. We're asking how does it compare to the world of sports cars or mo-

torcycles or jet skis?"

Strand explains that the A5 is about more than just flying. Think of it as you might think of a powerboat. Imagine a lovely summer weekend before you. An advanced, lightweight aircraft with folding wings and overall dimensions small enough to fit into your garage sits on a boat-sized trailer ready for fun.

You hitch it to your SUV, drive to a gas station, fill it up with premium unleaded and head for the nearest body of water. Ease the A5 down a boat slip and into the water, climb in with a friend and takeoff to enjoy a beautiful afternoon of flying.

"It's a recreational vehicle that puts the freedom of flight, within reach," Strand asserts. "That's the thinking behind the Icon, from the time you see the airplane to getting in and flying it, to what you might be wearing. What does that experience look like? And how can we make that as exciting and accessible as possible?"

Making the experience of flying accessible starts with an all new design for the A5. Constructed of high-strength, lightweight, non-corrosive carbon fiber, this high-wing two-seater is powered by a liquid-cooled, flat-four cylinder engine capable of producing 100 hp with fuel economy of approximately eighteen mpg. Takeoffs and landings can be executed in as little as 750 feet. With a maximum speed close to 120 mph and a cruise speed of 100 mph, the A5 has a range of about 300 miles.

Optimized for aerodynamic and hydrodynamic efficiency, the airframe's styling is clean with the kind of sporty looks one associates with high performance sports cars. Troy Lee Designs, a leader in motorsports design applied the graphics and aesthetic touches. A "Seawing" platform astride the aircraft's fuselage yields hydrodynamic stability and provides for easy docking and entry to the A5's sporting interior.

Step inside and you'll find



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more car-like elements. That's because Icon's engineering team worked with automotive designers from BMW, Porsche, Rolls-Royce and others to deliver a cockpit with excellent ergonomics.

"The auto industry puts a lot of time and effort into optimizing ergonomics. If you look in most airplanes you have a common six-pack [of instruments]. Do all of those six instruments require an equal amount of your attention? No. We've taken the instruments you look at most and made them more prominent."

Well-known pilots have flown the A5 already and attest to its user-friendly design. Celebrities are also weighing in, some with praise for the aircraft's broad appeal, others with their wallets, putting down deposits. In fact, more than 380 Icon A5s were on order as of this writing. Priced at \$139,000, deliveries are expected to begin in 2010. Because the A5 is an American aircraft with the potential of drawing a new audi-

ence to aviation while simultaneously appealing to existing pilots, we've paired it with two timepieces that reflect its design.

Sleek, modern design is a hallmark of Glycine's pilot's watches. Imagine slipping into the A5's attractive cockpit wearing an equally sleek Airman 7 or Airman 7 Plaza Mayor in stainless steel, gold or titanium. Or, perhaps the more traditional will favor a pilot's watch from the same country that produces the A5. Lancaster, Pennsylvania-based RGM's Professional Pilot Series offers some great possibilities. We like the Grande Pilot's Model #150.

Robinson Helicopters

While the Icon A5 brings fresh energy to the cause of making flying accessible, Robinson Helicopters have been doing something similar for rotary-wing aviation for almost forty years.

Founded in 1973 by aeronautical engineer Frank Robinson, Robinson Helicopters ([\[insonheli.com\]\(http://insonheli.com\)\) is the most prolific helicopter manufacturer in the world with annual sales and overall numbers produced \(almost 9,000 to date\) far exceeding those of any other manufacturer. Robinson has had a passion for helicopters since childhood and for years harbored a dream of designing and producing helicopters for a mass-market.](http://www.rob-</p></div><div data-bbox=)

"I worked for six different helicopter manufacturers over a period of sixteen years and tried hard to get any of them interested in building a small, personal-type helicopter," Robinson remembers. "I couldn't do it. So finally in 1973 I was 43 years old and I had read somewhere that if you hadn't started your life's work by 40, you weren't going to do it. I was already 43. So I decided, 'what the hell, I'll do it. I'll try to start a company and design my own helicopter.'"

That's just what Frank Robinson did—initially in his own garage. The result was a two-person, piston-engine helicopter called the R22. It first flew in 1975 and re-



ceived FAA certification in 1979, going on sale the same year for just \$40,000. Refined and improved over the next decade, the R22 set records and by the early 1990s more than 2,000 had been sold.

“I wanted it to be a personal helicopter that could be operated by an individual,” says Robinson. “It had to be simple and reliable with simple maintenance requirements. I concentrated on keeping the design as straightforward as I could. I achieved that and I was also able to keep the price down.”

Sales came slowly at first, but as word of the R22’s reliability and honest handling spread, business picked up. An entry-level helicopter with low acquisition and operating costs and solid engineering, the R22 made rotary-wing aviation more accessible than ever. More than 3,600 have now been delivered to pilots in over sixty countries.

Training certainly wasn’t the only use for the R22. As Frank

Robinson had first envisioned, many R22s were purchased for personal use by a wide variety of individuals. Recognizing that many R22 operators were looking to move on to larger, higher performance helicopters, Robinson produced the four-place R44 as a cost effective alternative to more expensive turbine helicopters like the Bell 206 Jet Ranger and McDonnell Douglas MD 500.

Today, the R44 is the top-selling helicopter in the world.

“The R22 and R44 have been used for so many things,” says Robinson. “Big cattle ranchers in Australia found the R22 made an excellent machine for herding their cattle during their round-ups. They’re also used flying off of tuna boats to spot schools of tuna and direct the boats to them. The R44 has become very popular with news crews and a police helicopter version using similar equipment is also popular.”

The Beta II is the latest model

R22. With a cruise speed of 110 mph and maximum range of over 200 miles at an average fuel consumption of just eight to ten gallons-per-hour, the R22 remains a very cost efficient helicopter. Available with a wide range of options, the R22 Beta II is priced at \$243,000.

The Raven II, the newest, most powerful R44, is available in five versions. The \$404,000 four-seater can be configured conventionally or as an IFR (instrument flight rules) Trainer, Newscopter, Police Helicopter or Clipper II (equipped with floats) amphibious helo. Cruising at up to 135 mph



with a 400-mile range, the R44 features greater capability than its sibling and similarly low operating costs. In the near future Robinson Helicopters will offer their first turbine-powered model.

Because helicopters are complex aircraft we think pilot's watches that are technically advanced and creative would pair well with the R22 and R44. Bell & Ross' impressive limited edition BR 01 Tourbillon would be a show-stealer. With carbon fiber mainplates and black gold tourbillon carriage, the BR 01's tourbillon movement has a technical complication similar to the intricate engine-gearbox-rotor combination found in helicopters.

On the other hand, a piece with American heritage from a maker such as Hamilton would do nicely. The Khaki X-Copter would look great with an R44.

Air Combat USA

"We're for people who wonder what fighter pilots do. We're for all the people who've ever imagined air combat, the people who have 'Top Gun' in their minds."

Jim "Nails" Neubauer knows whereof he speaks. The former U.S. Navy fighter pilot has been a pilot/instructor with Air Com-

bat USA (ACUSA) for a decade and has become supremely skilled in the art of dogfighting for a living. Ironically, Nails and his fellow ACUSA pilot/instructors are on hand not to dogfight among themselves, they're there to show you—pilots and non-pilots alike—how to fly and fight.

That's because Air Combat USA (www.aircombatusa.com) was created in 1988 as a civilian dogfighting school, a place where the public can get intimate with aerial combat. The emphasis is two-fold; give novices a view into a world most can only dream of and, even more importantly, have fun.

First-timers usually choose one of ACUSA's Basic Training Programs like the Basic Air Combat Maneuvers program. It's an introductory experience (price:



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PHOTOS: Air Combat USA.



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\$1,395/ person), but don't be deceived, you'll be flying and fighting the first time you go aloft. The program length is usually nearly three hours, during which time participants fly a mission comprised of five to six dogfights.

"We brief just like it's done in the military," Nails explains. "We'll talk about formation flying and then coach customers through it in-flight. We'll also coach them through a tail chase

and then do upwards of six dogfights. When we call 'Fight's On!'—you're flying! You're pulling and pushing and we're coaching you. When you get a shot at a guy in your gun camera, you simply pull the trigger. Nothing's more fun than that!"

Excitement builds when it's time to step to the flight line. There, a fleet of SIAI Marchetti SF-260s await. The Italian-built SF-260 is a fully aerobatic, high performance single-engine military/civilian design, first constructed in the mid-1960s as an aerobatic/military trainer and light attack aircraft. Still in use with the Italian Air Force and other air forces, the SF-260 was very successfully exported, serving with a number of NATO and non-NATO countries.

ACUSA is accessible to everyone from trained pilots and aeronautical engineers to legal and medical professionals, business people and housewives. Frequently, people partake of the ad-

venture in pairs or groups.

"We've flown with all kinds, Nails recalls. "From ten years old to people in their mid-80s."

Customers can have fun year-round whether flying from ACUSA's headquarters in Fullerton, California, or one of thirty-six cities on both coasts and in the Midwest to which the company deploys its aircraft. Check their schedule for the location nearest you.

There are a wide range of watches one could imagine dogfighting with. The SF-260's success with NATO nations brings to mind Tutima's excellent Military NATO Chronographs in steel or titanium. For that matter, the company's entire Classic Line would be eminently suitable.

Or, if squaring off in aerial combat fires your historical imagination, why not choose a British or German pilot's watch? Perhaps one of the models from Graham's excellent Chronofighter Collection, say the Overlord Mark III with its nifty Royal Air Force



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roundel chronograph dial. Pit it against a piece from German maker Sinn. The new Model 900 Series “Big” Aviator Chronograph is a great-looking pilots watch.

Including American-style or Russian pilot’s watches would seem fitting. Again, Hamilton has terrific options in its Khaki Aviation collection , while Russian manufacturer Volmax’s Aviator line has many good candidates.

Stallion 51

If it’s hard to conceive that dog-fighting is within reach of the average aviation enthusiast, then it might also surprise you to learn that flying what is arguably the greatest fighter plane the world has ever seen doesn’t have to be a dream.

Kissimmee, Florida-based Stallion 51 (www.stallion51.com) makes that dream a reality everyday. Founded in 1987, the company is an FAA-certified organization specializing in flight training, operations, aircraft man-

agement and aeromedical support, dedicated primarily to the famed North American P-51 Mustang. Designed originally to satisfy RAF requirements for an advanced fighter aircraft shortly after World War II began, the Mustang first flew in October, 1940. Successively upgraded models improved the basic design, giving it performance, range and weapons load that made it the best all around fighter of the war.

Thousands of P-51s were built, serving primarily with the US Army Air Force in World War Two. Today, upwards of 150 Mustangs are still airworthy. The definitive model, the P-51D, was powered by the well-known Packard V-1650 supercharged V-12, producing between 1,500 and 1,700 horsepower in stock configuration. Maximum speed is approximately 437 mph at 25,000 feet and the Mustang can climb at an impressive 3,200 feet/minute to a ceiling of almost 42,000 feet. Those numbers along with its

excellent maneuverability place it among the best performing aircraft around, even seventy years after its first flight.

Lee Lauderback joined Stallion 51 shortly after its formation and serves as the company’s chief instructor and demonstration pilot. Well known in the world of historic fighter aircraft, Lauderback began flying in the 1960s and went on to serve as chief pilot for legendary golfer and businessman, Arnold Palmer, for sixteen years. He has an amazing 7,500 hours total time in the Mustang.

Stallion 51 is similarly well known and serves the Mustang community as a professional center for P-51 flight training. The company also continues a mission it began when it was formed; providing training to student test pilots from the US Navy’s Test Pilot School through a program called qualitative evaluation which allows test pilots to fly dissimilar and challenging aircraft to hone their testing and evaluation skills.



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It all adds up to an unparalleled opportunity for pilots and non-pilots. Via Stallion 51's Orientation Flights program you actually fly a P-51 Mustang.

"It's a hands-on process," says Lee Lauderback. "Even with little or no experience, a person can come down and fly the Mustang for the majority of the flight with our extremely qualified instructor pilots. You'll be able to fly it about as aggressively as you are having fun doing."

The day begins with a 45-minute briefing in which Orientation Flight participants discuss the flight and what they would like to do during the hour-long sortie. This is followed by a walk around the aircraft and discussion of its systems, emergency egress and the full dual cockpit. Then it's time to strap in and taxi for takeoff.

The P-51's Rolls-Royce-designed Merlin V12 is one of the most famous aircraft engines. Renowned for its performance,

it's just as well known for its melodious sound. "Power delivery is so smooth it almost feels like jet thrust," says Lauderback.

Once airborne you'll turn south for airspace normally reserved for and controlled by the military. With no traffic to speak of, it's the perfect place to put a Mustang through its paces. That's just what you'll do for the hour flight, combining a mixture of maneuvers tailored to your preference, getting stick time in an icon. And as you fly, three cameras installed on the aircraft record your flight. It's a priceless chronicle of the adventure that is used for debrief post-flight and is yours when you depart.

When it comes time to return to Kissimmee, rear-seaters actually get to fly the aircraft into the landing break and even land the airplane under the supervision of the instructor. The whole experience is magnificent and there is no safer, more professional organi-

zation to fly with than Stallion 51. The cost for the hour-long Orientation Flight is \$3,050.

What would you pair with a classic like the P-51? Well, at least two classics come to mind.

Breitling makes perhaps the most well known pilot's watches today, admired inside and outside the aviation community. The firm is also an ardent supporter of aviation, sponsoring many events and organizations and even creating limited runs of its aviation watches with special dials for military aviators and other clients. Lee Lauderback wears a special Breitling chronometer. Moreover, the P-51 features prominently in Breitling advertising. A distinctive Chronomat, the Navitimer 125e Anniversaire or a model from the Professional collection, almost any Breitling is appropriate.

Likewise, IWC's well-known pilot's watches are classics. In fact, the firm's Pilot Watches Classics collection has timepieces that



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would benefit any Mustang pilot. And it wouldn't be a total stretch to strap on an IWC Spitfire model—the bulk of the Supermarine Spitfire aircraft are powered by the same Rolls-Royce V12 used in the P-51.

Collings Foundation

As surprising as it is to learn of the

accessible aviation adventures we've discussed so far, it may astonish you equally that the possibility exists to fly modern jet fighters - whether you have a pilot's license or just an abiding interest.

The Collings Foundation (www.collingsfoundation.org) of Stow, Massachusetts, is a non-profit educational foundation founded in 1979 to organize and support "living history" events. Hunter Chaney, the Foundation's director of marketing, explains that the educational goals of the organization are served best by bringing history alive.

"We think Americans can better understand their heritage through direct participation. With our national programs and tours we offer a truly tactile lesson in history. It's a fantastic way to teach. When you put people inside a B-17 and fly them around, that's a pretty darn moving experience."

The Collings Foundation's

many Flight Experience programs are available to the public every year from spring through fall and include the organization's well known "National Wings of Freedom Tour" composed of their B-17G Flying Fortress, B-24J Liberator, B-25J Mitchell and P-51C Mustang. All tour the country and all are available for Flight Experiences.

But it's the foundation's military jets we're focusing on. Believe it or not, the Collings Foundation offers Flight experiences in its Houston, Texas-based TA-4J Skyhawk and F-4D Phantom—two of the most potent aircraft of the Vietnam era. In addition, it offers one of the rarest, most infamous German aircraft of World War II, the ME-262.

The TA-4J Skyhawk, based on the McDonnell A-4 Skyhawk (the aircraft Senator John McCain flew) fighter/attack jet, was in service as the U.S. Navy's advanced jet trainer until 2003 when it was replaced with the Boeing T-

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45C. Renowned for its agility and nimble maneuvering, the two-seat TA-4J packed a 670 mph top speed and the ability to fly on and off aircraft carriers into a small, lightweight airframe. It made an outstanding jet trainer and offers performance only eclipsed by the most advanced modern fighters. The Foundation's Skyhawk was delivered to the USN in 1967, serving until 1994 when it was retired from the Naval test Pilot School inventory.

The F-4 Phantom II is legendary, a Cold War fighter emblematic of the Vietnam conflict where it racked up kills against North Vietnamese MiG fighters despite its size, comparatively restricted agility and initial lack of a gun.

Designed by McDonnell Douglas, the Phantom II first en-

tered service with the USN in 1960. Service with the USAF followed in 1963 and the F-4 went on to serve as a frontline fighter into the late 1980s. Special reconnaissance and SAM suppression versions served into the 1990s and some Phantoms still serve the USAF today as target drones. The Foundation's F-4D was delivered to the USAF in 1966 and served in Europe before returning to the U.S. to finish its career in the Air National Guard.

The Mach II Phantom is the second most produced western jet fighter of all time and has served in air forces around the world, continuing in operation today with a variety of European and Asian militaries. With over 35,000 pounds of thrust available from its twin, afterburning J79 engines, the



Phantom can break the sound barrier climbing vertically, good for a maximum climb rate of 41,300 feet/minute. Capable of Mach 2.23 or 1,472 mph, it's a fighter with breathtaking performance.

And yes, as with the TA-4J, you can fly one.

"We completely immerse participants in the operation of these aircraft," Chaney explains. "We're trying to give people a true picture of the aircrafts' flight characteristics and what their duties were."

Flights at Ellington Field near Houston are customized for each individual and can include low

The Mach II Phantom is a fighter with breathtaking performance. And you can fly one.



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altitude, aggressive maneuvers or a climb off the runway to 30,000 feet in four seconds.

“We can simulate SAM alerts and perform attack maneuvering, ACM, it’s a customizable package. We’re trying to illustrate the real strengths of these amazing aircraft,” Chaney notes.

The word “amazing” is understatement in describing another opportunity offered by the Collings Foundation. In April a reproduction two-seat ME-262, one of only two examples flying in the world (just ten survive in museums), will become a part of the Wings of Freedom Tour. The only jet fighter to serve during World War II, the ME-262 became a legend of aviation. Built as an exact replica, the Foundation’s aircraft is so accurately reproduced that it carries a continuation of the original Messerschmidt work numbers

under which ME-262 were built.

ME-262 flight training features a similar program as that undertaken for the other jet fighters and costs \$3,400 for a 45-minute flight. Skyhawk flights are priced at \$7,800 for the two-day course and Phantom flights are \$12,500 for the two-day syllabus.

If you can remember to think about the watch on your wrist while flying any of these aircraft, you’re a cool customer. So choose ahead of time. For a Skyhawk flight, why not choose the very popular Citizen Eco-Drive Skyhawk A-T, a watch named for this aircraft. We see lots of these on the wrists of military aviators.

If you’re going up in the ME-262 you can choose a timepiece named for it. German maker Aristo has created the ME-262S Automatic, a fitting addition to its extensive pilot’s watch line. The



dial features an ME-262 silhouette and “Messerschmidt 262” label.

For the F-4D, the sky’s the limit. IWC’s Top Gun Edition double chronograph and automatic seem apt for a Top Gun type fighter. More modest alternatives might include Torgoen Swiss’ instrument style T13 series pilot’s watches. ☺