

WIND IN THE WIRES



The Newsletter of Chapter 26, Experimental Aircraft Association ❖ Seattle, Washington ❖ Volume XIX No. 1 ❖ Jan. 2011

NEXT MEETING:

2nd Thursday of the Month
Jan. 13, 2010
7:30 PM

LOCATION

Opportunity
Skyway Bldg.
6524 Warsaw St.
S. (N.W. Corner of
Boeing Field)

Chapter Web Page

www.eaa26.org

JANUARY MEETING

Program for January

Arnold Ebnetter, who just set the world nonstop distance record in the F.A.I. class for airplanes under 500 kilograms, will present our program this month. He designed and built his own completely original airplane, the E-1, for this record. This month's issue of *Sport Aviation* has a great article about Arnold, his airplane and his record-setting flight, which has been widely reported in the aviation press. This is our chance to meet Arnold and hear his story directly from him.



FUTURE EVENTS

<http://www.eaa.org/calendar>

Museum of Flight calendar:
<http://www.museumofflight.org/calendar>

U.S. Sport Aviation Expo, set for January 20-23 at Florida's Sebring Regional Airport.

February 10 – EAA Chapter 26 Meeting.



December 16, 2010 —Lynol Amero, EAA 805445, of Lake Tapps, Washington, may have tapped into a new way for wannabe skywriters to enjoy a new flying activity. In a post this past week on Oshkosh365, he wrote, “I wanted to share with you a flying activity that I recently accomplished, that I haven’t seen published anywhere else.” The activity? Cyber-skywriting using a “breadcrumbs” (GPS data track files) approach that, when plotted out on a computer screen, show an entire flight path. The example he used to introduce this activity is the traditional holiday greeting “Merry Christmas.”

Amero, who works at Boeing in Flight Test Ground Operations for the 787 Dreamliner, was inspired to pursue skywriting after reading the story in the February 2010 edition of *Sport Aviation*, “[Skywriting...You Can Do it Too](#),” by Marvin Homsley. “This sounded like a fun activity to do with an airplane, and the desire to accomplish this remains in the back of my mind, but I had reservations of how I could accomplish it,” he explained. After all, he owns a low-performance airplane (Ercoupe), lacks a smoke generation system, and flies in Seattle’s Class B airspace.

So Amero, a 250-hour private pilot with an instrument rating, thought about it and came up with the GPS idea. Using a portable system, one could save a flight path and convert the file for use on Google Earth using an online program like GPSvisualizer.com, or upload the file to EveryTrail.com. This method also allows pilots to see their own skywriting and share it with friends via computer screen. Plus, there are no built-in limits on characters, they won’t drift about from the wind, and, maybe best of all, it gives you another good reason to go flying.

This works for any airplane, without any mods, and as low as 1,000 feet AGL to avoid Class B airspace issues.

The only trade-off, it seems, is a person on the ground can’t see the end-product as in traditional skywriting.

Coming up with a something to write was the first step, he said, deciding on “Merry Christmas.” Next he penned it out on paper “as frilly and loopy as I thought I could fly it.” It had to be big enough so he could make some quick turns, but doable at lower speeds in the Ercoupe. He also had to make sure not to make the flight so big as to take him into the nearby mountains.

Amero started out creating a flight plan using waypoints in the AvMap GPS to spell out the letters. “I kept the spacing far enough apart that I thought it would work,” he said. “I just added waypoints at the major points of the letters to give me an idea of when to turn.” He also brought along a friend, who rode along to serve as an extra pair of eyes to spot traffic, and the two took off on December 9.

The GPS lags a little bit, he said, which is why some of the letters appear a little larger than the others. He noted that the “C” goes a little bit flat near the base of the letter when he adjusted the flight path for approaching traffic, which turned out not to be the case. (See the “Merry Christmas” GPS skywriting track [here](#).)

Without realizing it, Amero plotted the base of the letters along a road, which made it much easier to anticipate the turns. He plans to do work that into future flight plans. In hindsight, Amero said he would have plotted “Christmas” backward “so I wouldn’t have to always write left to right.” “Dotting the ‘i’ was a blast,” Amero said, referring to the nice, steep turn, which made for a fun maneuver before heading back to the airport. In the future, Amero wants to attempt continuous line drawings, such as faces or pictures of aircraft.

“This was the first attempt, and it turned out pretty neat, so I thought I would share it with you, too,” he said.

Contributed by **Tom Osmundson**:

Here’s the you tube link of

Dave’s Falco is seen briefly at the beginning, and also starting around 4:45 racing two cars down the runway 15.

<http://www.youtube.com/watch?v=rwll0k2bSpM>

From **Frank Bryant**:

<http://www.airportappraisals.com/>

you see the cockpit layout of Lindbergh’s plane The Spirit of St. Louis with Part 3 in the window. Don’t click on it. Click instead on CONTACT and select Part 1. After viewing Part 1 click again on CONTACT, then select Part 2. Do the same for Part 3.

U-2 Landings:

<http://www.youtube.com/watch?v=eamnTyfkUBY>

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PRESIDENT'S MESSAGE...

Ron Borovec's column for January 2011

Over the long Christmas break I watched a DVD: Kitty Hawk, the Wright Brothers Journey of Invention, a PBS documentary. The Wright brothers are, of course, an amazing story. At this distance it seems so easy to get blasé about those early breakthroughs.

As one who enjoys the history of technology and of flight, I was reminded again how powerful were Wilbur and Orville's achievements. As aircraft homebuilders, we don't pioneer on such a vast scale, even if we do as much work. But we do engage in similar activities of experimentation, making mistakes, learning and accomplishment.

I was reminded that a significant component of their success was defining just what they needed to know for powered, heavier than air flight. It seems that part of their genius was doing exactly what was necessary to fly, and nothing extra. No multifunction flying machine, just enough to do the job. From memory I know their necessary accomplishments included: Learning how to quantify lift and drag and how much wing and power they needed. Learning how to design a controllable airplane. Learning how to design and build a not great but good enough engine. And learning how to design efficient low power propellers. They also had to determine that each one of those was actually a problem they needed to solve. And while they were doing that they also did all their own test flying and taught themselves to fly without killing themselves.

After those brilliant technical successes, they then had a lot of trouble on the business of profiting from airplanes. That is much more akin to the normal business of aviation today.

I just finished reading a book which reminded me of the Wright brothers. About a technology which centuries before started another technological revolution. The book is The Most Powerful Idea in the World, a story of steam, industry and invention, by William Rosen. He meant the title literally, the most powerful idea, and backed it up. A slow methodical read, very detailed, but engrossing. The story of how steam power was gradually invented and developed in England. The implementation of steam power and related inventions kept expanding. The start of the Industrial Revolution. It took root in the English-speaking world, Britain, later the United States and then Europe. The power of ideas to force economic, political and social change. The ability to harness more than animal, human or water power, the power of steam, started the whole process we now call the Industrial Age. Which created the world we live in today.

I really enjoy technology. The power of ideas is exciting.

Ron Borovec

3/4-Scale de Havilland Mosquito Project to Fly Soon

Photos courtesy Michel Bogaert.

December 2, 2010 —There is another effort to build and fly a de Havilland Mosquito fighter-bomber, this time in Luçon, France (near the Atlantic coast), where a team of retired aviators is building a 3/4-scale reproduction of the Mosquito with hopes to fly it in the next three months. The Mosquito 75 project was started by members of the RRAA (Reconstructions & Répliques Avions Anciens), whose mission is to safeguard the heritage of aviation models of historical interest through reproductions and restorations. The group also uses its activities to preserve and pass on the aviation knowledge of retired aviators and technicians.

Michel Bogaert, along with the late Christian Nicholas, conceived the project in 1988, but it wasn't until 1995 that construction began. As the years and the construction moved forward, some members of the team died and others have joined. Today, at least seven members of the team are putting the finishing touches on the 3/4-scale reproduction that has a wingspan of 39 feet and a length of 29 feet.

So far, Bogaert says that at least 30,000 hours have been spent on the project, which left the workshop in early October 2010 in several pieces for a trip to the nearby Fontenay-Le Comte Airfield. Michel reports that the engines (Continental geared turbo-supercharged fuel-injected horizontally opposed 520C, d-rated to 300 hp) and propellers are mounted with engine runs scheduled for as early as January. Bogaert hopes the first flight will happen in the next three months.

[The RRAA](#) is a French-language site



The Mosquito is reassembled at Fontenay-Le Comte Airfield after transport from the workshop.



In early December we told you of an effort to build a 3/4-scale reproduction of a de Havilland Mosquito fighter in France. Just prior to the holiday, **Reconstructions & Répliques Avions Anciens** team leader Michel Bogaert reported that both engines were successfully run, which evoked visions of preparing for a war mission. In the next weeks they will continue to tweak the engines before proceeding with more ground testing, including taxi runs.

From **Frank Bryant**:

Brian Shul, Retired SR-71 Pilot via Plane and Pilot Magazine

As a former SR-71 pilot, and a professional keynote speaker, the question I'm most often asked is "How fast would that SR-71 fly?" I can be assured of hearing that question several times at any event I attend. It's an interesting question, given the aircraft's proclivity for speed, but there really isn't one number to give, as the jet would always give you a little more speed if you wanted it to. It was common to see 35 miles a minute.

Because we flew a programmed Mach number on most missions, and never wanted to harm the plane in any way, we never let it run out to any limits of temperature or speed. Thus, each SR-71 pilot had his own individual "high" speed that he saw at some point on some mission. I saw it over Libya when Khadafy fired two missiles my way, and max power was in order. Let's just say that the plane truly loved speed and effortlessly took us to Mach numbers we hadn't previously seen.

So it was with great surprise, when at the end of one of my presentations, someone asked, "what was the slowest you ever flew the Blackbird?" This was a first. After giving it some thought, I was reminded of a story that I had never shared before, and relayed the following.

I was flying the SR-71 out of RAF Mildenhall, England, with my back-seater, Walt Watson; we were returning from a mission over Europe and the Iron Curtain when we received a radio transmission from home base. As we scooted across Denmark in three minutes, we learned that a small RAF base in the English countryside had requested an SR-71 fly-past. The air cadet commander there was a former Blackbird pilot, and thought it would be a motivating moment for the young lads to see the mighty SR-71 perform a low approach. No problem, we were happy to do it. After a quick aerial refueling over the North Sea, we proceeded to find the small airfield.

Walter had a myriad of sophisticated navigation equipment in the back seat, and began to vector me toward the field. Descending to subsonic speeds, we found ourselves over a densely wooded area in a slight haze. Like most former WWII British airfields, the one we were looking for had a small tower and little surrounding infrastructure. Walter told me we were close and that I should be able to see the field, but I saw nothing.

Nothing but trees as far as I could see in the haze. We got a little lower, and I pulled the throttles back from 325 knots we were at. With the gear up, anything under 275 was just uncomfortable. Walt said we were practically over the field—yet; there was nothing in my windscreen. I banked the jet and started a gentle circling maneuver in hopes of picking up anything that looked like a field. Meanwhile, below, the cadet commander had taken the cadets up on the catwalk of the tower in order to get a prime view of the fly-past. It was a quiet, still day with no wind and partial gray overcast.

Walter continued to give me indications that the field should be below us but in the overcast and haze, I couldn't see it. The longer we continued to peer out the window and circle, the slower we got. With our power back, the awaiting cadets heard nothing. I must have had good instructors in my flying career, as something told me I better cross-check the gauges. As I noticed the airspeed indicator slide below 160 knots, my heart stopped and my adrenalin-filled left hand pushed two throttles full forward. At this point we weren't really flying, but were falling in a slight bank. Just at the moment that both afterburners lit with a thunderous roar of flame (and what a joyous feeling that was) the aircraft fell into full view of the shocked observers on the tower. Shattering the still quiet of that morning, they now had 107 feet of fire-breathing titanium in their face as the plane leveled and accelerated, in full burner, on the tower side of the infield, closer than expected, maintaining what could only be described as some sort of ultimate knife-edge pass. Quickly reaching the field boundary, we proceeded back to Mildenhall without incident. We didn't say a word for those next 14 minutes.

After landing, our commander greeted us, and we were both certain he was reaching for our wings. Instead, he heartily shook our hands and said the commander had told him it was the greatest SR-71 fly-past he had ever seen, especially how we had surprised them with such a precise maneuver that could only be described as breathtaking. He said that some of the cadet's hats were blown off and the sight of the plan form of the plane in full afterburner dropping right in front of them was unbelievable. Walt and I both understood the concept of "breathtaking" very well that morning, and sheepishly replied that they were just excited to see our low approach.

As we retired to the equipment room to change from space suits to flight suits, we just sat there—we hadn't spoken a word since "the pass." Finally, Walter looked at me and said, "One hundred fifty-six knots.

What did you see?" Trying to find my voice, I stammered, "One hundred fifty-two." We sat in silence for a moment. Then Walt said, "Don't ever do that to me again!" And I never did..

A year later, Walter and I were having lunch in the Mildenhall Officer's club, and overheard an officer talking to some cadets about an SR-71 fly-past that he had seen one day. Of course, by now the story included kids falling off the tower and screaming as the heat of the jet singed their eyebrows. Noticing our HABU patches, as we stood there with lunch trays in our hands, he asked us to verify to the cadets that such a thing had occurred. Walt just shook his head and said, "It was probably just a routine low approach; they're pretty impressive in that plane." Impressive indeed.

Little did I realize after relaying this experience to my audience that day that it would become one of the most popular and most requested stories. It's ironic that people are interested in how slow the world's fastest jet can fly. Regardless of your speed, however, it's always a good idea to keep that cross-check up...and keep your Mach up, too.

On the Wreckord, contributed by Ron Wanttaja **Accidents from the NTSB Web Page**

Fisher Dakota Hawk – Montana: The pilot was departing on a local flight when the engine lost power; the pilot force-landed the airplane in a field. Post accident examination of the engine showed that the bolts securing the crankshaft gear cluster to the crankshaft were sheared. Examination of the bolts showed that all four bolts had sheared between the crankshaft gear cluster and the attach point to the crankshaft. Two bolt heads, including a portion of the bolts' lengths, were missing. The other portions of these bolts remained threaded to the crankshaft attach points. The two remaining bolt heads were still safety-wired and in place; however, they had sheared from the crankshaft. The lower threaded portions of all four bolts remained threaded at the crankshaft attach points. No pieces of the missing bolt heads or bolt portions were identified in the accessory case or the oil sump.

RV-6 – North Carolina: The non-instrument-rated pilot was on a visual-flight-rules flight when he contacted air traffic control and stated that he was "in the thick of the weather." Air traffic control subsequently observed the airplane on radar at 1,500 feet, circling, before being lost off of radar. A witness reported that it was raining heavily when he noticed an airplane spinning out of the clouds toward the ground. One fatal.

Kitfox – Michigan: The pilot stated that immediately after liftoff he was unable to move the control stick to the left of the center (neutral) position, although he was able to move the control stick to the right, forward, and aft without restriction. The pilot returned for landing; however, "at about 30 [feet] altitude the aircraft began to stall." The airplane subsequently landed hard, separating the main landing gear. Both wings and the fuselage structure were substantially damaged during the event. The pilot stated that the accident occurred during the third flight of the day. A post accident inspection was unable to confirm a restriction at the control stick. Continuity between the cockpit controls and the flight control surfaces was confirmed.

Pietenpol- Ohio: The pilot reported that he was conducting takeoffs and landings in the traffic pattern at the time of the accident. He added that he had been dealing with "moderate turbulence from thermals and the shifting winds" during the flight. The pilot stated that the airplane drifted left of the runway centerline during the landing flare. He reported that, as the left main wheel touched down, a gust of wind from the right caused the airplane to depart the left side of the runway. He was "only able to maintain enough control to prevent a ground loop but not sufficient to avoid clipping the runway light with the horizontal stabilizer."

Christen Eagle – Kentucky: The pilot stated that during takeoff from the turf runway, he became airborne at "lower than normal" airspeed. The pilot lowered the airplane's nose to gain airspeed, and the airplane's main landing gear contacted the ground. He reported hearing a "metallic sound" and "suspected damage to the right wheel pant." The pilot proceeded with the takeoff, and chose to circle the airport and land to inspect the damage. According to the pilot, the approach to landing was normal and the touchdown was "firm but within normal range." Upon touchdown, both left and right main gear collapsed, and the airplane sustained substantial damage to the fuselage and wings.

KR-2 – Arizona: The pilot reported that immediately after takeoff on the aircraft's first flight, at approximately 300 feet above ground level, the airspeed began to decrease. He lowered the airplane's nose to maintain airspeed when he then noticed that the engine's rpm was also decreasing. He performed a forced landing straight ahead, and during the roll out, the airplane impacted a berm. Both wings were displaced aft and the bottom of the fuselage was broken. The owner/builder of the airplane reported that the airplane's fuel tank was located between the firewall and the instrument panel. The fuel tank's vent line passed through the firewall into the engine compartment and terminated near the bottom of the aircraft. This was the same location that the engine's cooling air flow exited the engine compartment. The builder believed that the exiting airflow may have created a negative pressure in the fuel tank, which would have reduced the fuel flow to the engine during flight.

Sonex – Texas: The pilot radioed that he was experiencing a loss of engine power and was attempting a forced landing. During the forced landing attempt, the nose of airplane dropped and the airplane subsequently impacted terrain in a nose-low attitude. An examination of the engine and fuel system revealed a white substance inside the main fuel tank which had clogged the fuel screen. Laboratory examination of this substance revealed that it was polyurethane. The sealant used to seal the fuel tank contained polyurethane designed to be used to bond the sealant to a metal tank. The airframe builder added this sealant to the accident airplane's plastic (polyethylene) tank when he encountered a leak within the fuel system at the fuel fitting.

Marketplace

AIRCRAFT 1983 Thorp T-18, N583C, Home built, w/rebuilt Lycoming 0-290 _____ \$25,000.00

AIRCRAFT 1954 Story Experimental #2, N2338N, Continental A65 _____ \$9,000.00 (Sale!)

Flying Club Membership for sale or make offer for purchase of aircraft.

ENGINE Lycoming 0-290 no accessories _____ \$1000.00

1984 Flatbed Single Axle Trailer, wood bed w/raised fender wells, constructed for moving aircraft. 25 feet X 95 inches; weight 1540 pounds \$600.00* (Sale!)

MOTOR HOME 1991 Gulf Stream 27 feet long, good condition _____ \$10,000.00

ASHFORD, WA Lot at 31316 Mt. Tahoma Canyon Rd. E. unimproved w/drive \$15,000.00*

Contact: cefann@peoplepc.com Please use "EAA" in subject line of E-mail

Thorp T-18. 0-290-D2 135 hp, In annual, First Flight 1993, Cruise speed 160 mph Stall speed 62 mph 2 place, Empty weight 920 lb, Gross weight 1500 lb, Electrical System \$25,000 Ed Ullrich his phone number is 206 878-3062. The aircraft is hangared at Auburn.

Misc building materials for sale. Johnny Therrell is clearing out some building materials. Free: One set of Alaska cedar/mahogany wing ribs and Alaska Cedar main and rear spars for a long wing Whitman Tailwind.

For sale soon: Various woodworking tools, prices TBD. Contact jltherrell@comcast.net, phone (425) 746-6295 Address: 16112 SE 42nd Place, Bellevue, WA

Metal Hangar for sale: Pierce County Airport (Thun Field). 45x50, 45x14 electric bifold door. Heated and insulated, has separate bathroom. \$155k. Contact Gene Endsley, 206-300-1197

RV-10 Tail Section for sale: 95% complete). Skip Feher 425 677-5335

Condo T-Hangar at Olympia Regional Airport, Washington for sale. Hangar Number I-5, 1620 Sq. Ft., 44 ft 4" wide door opening - electrically operated bifold door. Two years old with epoxy sealed floor. 110/ 240 volt , 60 amp electrical service on separate meter. \$89,500. Mike and Arlene Dougherty, 253-880-6690.

Zenair 601 HDS Project for sale: Firewall back, including fairings, LR fuel tanks, and lights. Price negotiable. Terry Wilson, 206 522-4006.

Former EAA member Keith Klinck recently passed away and his wife Helen has his Smyth Sidewinder project up for sale. This is a 1960's vintage design, all metal, tricycle gear configuration somewhat similar to an RV-6. The project has a completed fuselage and many other component parts and aluminum sheet. For more information call Ron Klinck at 425.739.0715.

For sale: Tires – 15/6.00-5, 6ply, 2 tires, 2 tubes. Brand new, unused, with yellow tag. These are retread tires that are heavier duty than standard – With deeper treads and harder rubber they'll last longer than new. \$125 for the set. Ross Mahon 206.550.9526 or Rossair@aol.com

*Wanted: Partner(s) in building Experimental Twin * Looking for 1 or 2 partners for building a one of a kind, partially complete, experimental light twin - Wickham Model F. Similar to Partenavia P68. Aluminum, 6 place, est 2100 empty, 3600 gross, fixed mains, retractable nose wheel. Engines could be 150 to 180 hp. Evolution of Wickham Model B twin based at Paine. No small project, if seriously interested, contact Tom Osmundson, 253-239-6175

dieselfume@dieselfume.com

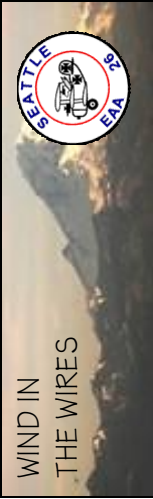
Chap.326 member Don Hatler is moving to TX, having finished his Glstar; now he has a bunch of parts he doesn't need. Items are available for inspection at hanger 94 at Thun Field. Contact John Brick (253) 230-8516 for hangar access. Contact Don Hatler at reddstang@hotmail.com about prices.(253)569-5386.

NEWSLETTER



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The Newsletter of EAA Chapter 26

