



EAA Chapter 100

July 2010 Newsletter

<http://eaa100.org>

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EAA Chapter 100 is a nonprofit association involved in the promotion of aviation through adult and youth education, hands-on training, building and maintenance of experimental aircraft, and through community awareness programs.

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Reader submissions and comments are strongly encouraged.

The July 2010 Board of Directors meeting was held on July 2nd at Dwayne Hora's shop. In attendance were: Dwayne Hora, Tom Hall, Dan Crandal and Dick Fechter.

Flight Breakfast (June 20th 0700-1200):

All went well. We had about 700 to eat 130 lbs of ham plus pancakes and eggs. There will be a complete accounting at the member meeting as we do not make this information public.

B-17 Tour Stop (July 22nd – 25th):

Please contact Dwayne Hora at President@eaa100.org and let him know when you can volunteer for this great event. He will publish the volunteer list and send it out via email. Please make every effort to volunteer for this event!

Again, **we need volunteers** for 3 days – Friday, Saturday and Sunday. We expect the CAP will help us by doing car parking and security, so this will help a lot.

The B-17 will leave KRST for Appleton and AirVenture about 1800 on Sunday the 25th. Again, members who have worked the event will get first dibs on the ride to the next destination. So, if you want to ride the B-17 to Appleton, come work the event but also figure out how to get home as this is a one-way ride. You might consider having your AirVenture buddy pick you up at Appleton and going direct to AirVenture.

Bus Trip to AirVenture (July 28th – or maybe July 31st):

There are only four people signed up for the bus. Discussion at the BoD meeting questioned if the low response was because it is scheduled for a Wednesday (normal workday). We also discussed that AirVenture leaders are attempting to keep people at AirVenture through the weekend by delaying the aircraft awards program and programming other events later in the week and during the weekend. Dan Crandal is going to check with the bus company and see if it can change to Saturday July 31. If so, he is going to run an ad in the paper about the trip.

More Fun, Less Business for Member Meetings

There was discussion –again- about not doing enough education, training and fun stuff at member meetings. Even though we now have a Board of Directors (BoD) meeting to accomplish the business, our member meetings still degrade to mostly business. Instead of reviewing what all happened at BoD meetings, we are only going to have a treasurer's report, discuss only items that can only be decided by the entire membership and ask if anyone has any comments about what is published in this newsletter concerning what was discussed or decided at the BoD meeting. .

Audio Visual Equipment Needed

We are looking for someone with expertise about audio visual equipment. For our member meetings to provide education and fun, we need to be able to project videos and slide programs. We have not programmed money for this yet as we would first like to make an educated decision on the best equipment for our needs. We "think" a projector, screen, sound system and portable table would be a great investment, but we need the proper specifications before shopping. If anyone is knowledgeable in this area, or know someone who is, please contact help@eaa100.org. Anyone?

Member Meeting (July 9th):

The July member meeting will be at [Dwayne Hora's shop](#) which is 5 miles north of Byron on County 5. Start time is 1930 on July 9th. The program will include Dwayne's story about his Velocity and showing Jewel Ness' fly-in DVD.

The hosts for November and December are still open. If you would like to volunteer, please contact Dwayne Hora.

Volunteerism - The following positions need new leaders:

Secretary/Treasurer
Pancake Breakfast Officer
Safety Officer
Public Relations Officer
Newsletter / Website Officer
Program Director

Dues:

If you have not already, please send your \$10, 2010 dues to: Randy Bornhorst at: 4236 Arboretum Dr. NW, Rochester, MN 55901.

Published Author, Joe Connell

Joe Connell has several published articles in flying-type magazines. A couple can be downloaded from our website.

- "[Old Pilots and Old Memories](#)"
- "[Tweet Memories](#)"

Jewel Ness Fly-in

Jewel Ness has a Fly-in every year on the last Sunday in August (August 29, 2010). We will show a DVD about this fly-in at the member meeting. [Location details are on our website](#)

AOPA Warns: Re-Registration Coming, Fee Possible

A rule proposed in 2008 to remove invalid listings from the aircraft registry would require chronic aircraft re-registration with a proposed chronic fee of \$5, yet to be confirmed in the final rule expected this fall. The FAA estimates that about 104,000 of the 343,000 aircraft currently on its aircraft registry are invalid. The rule would address that problem by transitioning the registry from its current non-expiring registrations to registrations that would expire every three years. Owners would have to take action within a three-month window to re-register their aircraft, according to AOPA. The costs associated with the FAA's measure won't be known until the rule is published in the Federal Register this fall, but the FAA has proposed application of the current \$5 registration fee to re-registrations and all subsequent renewals. AOPA supports the FAA's intent to improve the registry's accuracy, but proposed an alternative method.

AOPA's alternative avoided registration expirations, and fees, and would have allowed owners to verify their registration information online or through the Triennial Aircraft Registration Report already used by the FAA. It "would not have canceled N numbers for aircraft owners who did not re-register their aircraft on time," according to AOPA, but would require verification for all aircraft in the FAA Aircraft Registry within 36 months." AOPA believes this would allow more flexibility for owners of aircraft that remain unflown for extended periods of time like those that undergo long-term maintenance or restoration.

Swift Fuel: A Tilt Toward Natural Gas

Although it was introduced three years ago as primarily a renewable biofuel based on cellulosic technology, Swift's 100SF avgas replacement will also be competitive if made from more conventional petroleum sources, according to the company's David Perme. In a podcast interview, Perme said that Swift's best numbers at the moment suggest a retail price between \$5 and \$6 per gallon and if the fuel is made from petroleum sources -- most likely natural gas -- little or no capital will be required. He believes at least some refiners will be able to reconfigure minimally to make the fuel using accepted refining processes.

Swift is a so-called binary fuel made from acetone that is then converted into a blend of isopentane and mesitylene to make the final fuel. Although Swift's initial patents suggested the acetone would be derived from biomass, Perme says the process can actually use acetone feedstock from either bio or petroleum sources. Most acetone is made from the propylene (also known as propene) that's found in natural gas, but it can also be refined from liquid petroleum or even coal. Acetone is a common solvent used as a precursor of methyl methacrylate, a resin used in paints and plastics. When we asked if Swift now believes the fuel will be more competitive if refined from petroleum sources, Perme

declined to say as much, replying instead that having two feedstock streams gives 100SF flexibility that other fuels can't match. Just this week, Swift began formal application for approval under ASTM, which the FAA says is necessary before any fuel can be approved for widespread use.

Solar Storms Brewing Trouble for GPS Signal

A scientist at the National Oceanographic and Aeronautics Administration (NOAA) said recently increased solar storm activity could pose serious problems for GPS signals. The satellite transmissions that power the GPS system are relatively weak in strength and vulnerable to interference from instability on the surface of the sun. NOAA scientist Joe Kunches and other scientists at NASA's heliophysics division told Internet aviation news service *AvWeb* that solar storms have shut down GPS in the past, and can do it again — for days at a time. And predicting when and where that might happen is considered a serious challenge by solar experts. With increased reliance on GPS for critical phases of flight — and the coming transition to ADS-B for air traffic control functions, the prospects of a GPS shutdown are severe.

What Would You Have Done?

http://asrs.arc.nasa.gov/publications/callback/cb_366.html

Explicit Runway Crossing Procedure Change

Beginning June 30, 2010, controllers will be required to issue explicit instructions to cross or hold short of each runway that intersects a taxi route.

"Taxi to" will no longer be used when issuing taxi instructions to an assigned take-off runway.

Instructions to cross a runway will be issued one at a time. Instructions to cross multiple runways will not be issued. An aircraft or vehicle must have crossed the previous runway before another runway crossing is issued.

This applies to any runway including inactive or closed runways.

Changes will also be made to the AIM and AIP to reflect the new procedures.

Never cross a hold line without explicit ATC instructions. If in doubt ASK!

Reminder: You may not enter a runway unless you have been: instructed to cross that specific runway; cleared to take off from that runway; or instructed to position and hold on that specific runway.

For more information on the change, refer to FAA Order N JO 7110.528, which can be found at: <http://www.faa.gov/documentLibrary/media/Notice/N7110.528.pdf>.

For additional information, go to <http://www.faa.gov/go/runwaysafety>

FCC BANS 121.5 ELTS: By AOPA ePublishing staff

There's still hope for your 121.5 MHz ELT. The FCC on June 15 [released notice of a rule](#) that would prohibit the certification, manufacture, importation, sale, or continued use of 121.5 MHz ELTs, but AOPA reached out to the FCC, FAA, and several other affected organizations immediately to oppose the rule.

The rule has not been published in the Federal Register (which would formalize the rule and set a deadline for equipage), and AOPA is working to keep it that way. AOPA continued its work with a recent meeting with the Small Business Administration's office of advocacy, which has highlighted concerns regarding the lack of an assessment on the impact to small businesses; the association has also been working with the FAA flight standards office and communicating its concerns to the FCC.

"We continue to emphasize to all agencies involved the potential economic and operational impact of this rule," said AOPA Vice President of Regulatory Affairs Rob Hackman. "It's important to recognize that no deadline has been set for equipage. This has not yet been published in the Federal Register, and indications are that it will not in the near future, if at all."



The Battle of Palmdale

On the morning of 16 August 1956, Navy personnel at Point Mugu prepared an F6F-5K for its final mission. The aircraft had been painted overall high-visibility red. Red and yellow camera pods were mounted on the wingtips. Radio remote control systems were checked, and the Hellcat took off at 11:34 a.m., climbing out over the Pacific Ocean. As ground controllers attempted to maneuver the drone toward the target area, it became apparent that it was not responding to radio commands. They had a runaway.

Ahead of the unguided drone lay thousands of square miles of ocean into which it could crash. Instead, the old Hellcat made a graceful climbing turn to the southeast, toward the city of Los Angeles. With the threat of a runaway aircraft approaching a major metropolitan area, the Navy called for help.

Five miles north of NAS Point Mugu, two F-89D Scorpion twin-jet interceptors of the 437th Fighter Interceptor Squadron were scrambled from Oxnard Air Force Base. The crews were ordered to shoot down the rogue drone before it could cause any harm. Armed with wingtip-mounted rocket pods and no cannon, the Scorpion was typical of the Cold War approach to countering the "Red Menace." Each pod contained 52 Mighty Mouse 2.75-inch rockets. Salvo-launched, the Mighty Mouse did not have to have precision guidance. Large numbers of rockets would be fired into approaching Soviet bomber formations to overwhelm them with sheer numbers. Today, they would be used against a different kind of red menace.

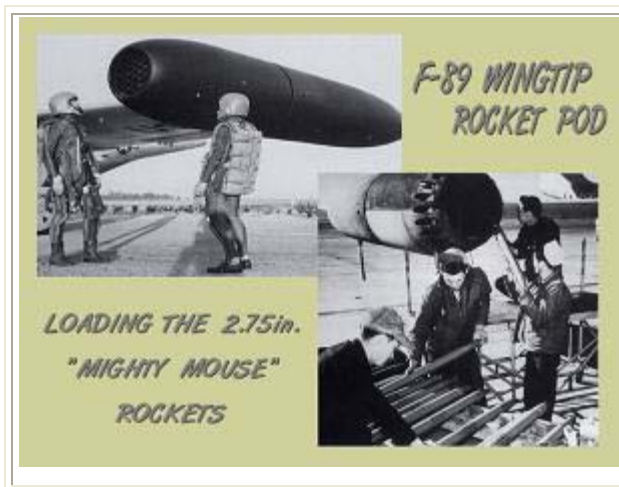
At Oxnard AFB, 1Lt. Hans Einstein and his radar observer, 1Lt. C. D. Murray, leapt into their sleek F-89D. Simultaneously, 1Lt. Richard Hurliman and 1Lt. Walter Hale climbed into a second aircraft. The interceptors roared south after their target. The hunt was on.



Einstein and Hurliman caught up with the Hellcat at 30,000 feet, northeast of Los Angeles. It turned southwest, crossing over the city, then headed northwest. As the Hellcat circled lazily over Santa Paula, the interceptor crews waited impatiently. As soon as it passed over an unpopulated area, they would fire their rockets.

The interceptor crews discussed their options. There were two methods of attack using the fire control system, from a wings level attitude or while in a turn. Since the drone was almost continuously turning, they selected the second mode of attack. In repeated attempts, the rockets failed to fire during these maneuvers. This was later traced to a design fault.

The drone turned northeast, passing Fillmore and Frazier Park. It appeared to be heading toward the sparsely populated western end of the Antelope Valley. Suddenly, it turned southeast toward Los Angeles again. Time seemed to be running out. Einstein and Hurliman decided to abandon the automatic modes, and fire manually. Although the aircraft had been delivered with gun sights, they had been removed a month earlier. After all, why would a pilot need a gun sight to fire



unguided rockets with an automatic fire control system?

The interceptors made their first attack run as the Hellcat crossed the mountains near Castaic. Murray and Hale set their intervalometers to "ripple fire" the rockets in three salvos. The first crew lined up their target and fired, missing their target completely. The second interceptor unleashed a salvo that passed just below the drone. Rockets blazed through the sky and then plunged earthward to spark brush fires seven miles north of Castaic. They decimated 150 acres above the old Ridge Route near Bouquet Canyon.

A second salvo from the two jets also missed the drone, raining rockets near the town of Newhall. One bounced across the ground, leaving a string of fires in its wake between the Oak of the Golden Dream Park and the Placerita Canyon oilfield. The fires ignited several oil sumps and burned 100 acres of brush. For a while the blazes raged out of control, threatening the nearby Bermite Powder Company explosives plant. The rockets also ignited a fire in the vicinity of Soledad Canyon, west of Mt. Gleason, burning over 350 acres of heavy brush.

Meanwhile, the errant drone meandered north toward Palmdale. The Scorpion crews readjusted their intervalometers and each fired a final salvo, expending their remaining rockets. Again, the obsolete, unpowered, unguided, unarmed, propeller-driven drone evaded the state-of-the-art jet interceptors. In all, the jet crews fired 208 rockets without scoring a single hit.



F-89 SCORPION FIRES A SALVO OF MIGHTY MOUSE ROCKETS FROM ITS WINGTIP PODS

The afternoon calm was shattered as Mighty Mouse rockets fell on downtown Palmdale. Edna Carlson was at home with her six-year-old son William when a chunk of shrapnel burst through her front window, bounced off the ceiling, pierced a wall, and finally came to rest in a pantry cupboard. Another fragment passed through J. R. Hingle's garage and home, nearly hitting Mrs. Lilly Willingham as she sat on the couch. A Leona Valley teenager, Larry Kempton, was driving west on Palmdale Boulevard with his mother in the passenger seat when a rocket exploded on the street in front of him. Fragments blew out his left front tire, and put numerous holes in the radiator, hood, windshield, and even the firewall. Miraculously, no one was injured by any of the falling rockets. Explosive Ordnance Disposal teams later recovered 13 duds in the vicinity of Palmdale. It took 500 firefighters two days to bring the brushfires under control.

Oblivious to the destruction in its wake, the drone passed over the town. Its engine sputtered and died as the fuel supply dwindled. The red Hellcat descended in a loose spiral toward an unpopulated patch of desert eight miles east of Palmdale Airport. Just before impact, the drone sliced through a set of three Southern California Edison power lines along an unpaved section of Avenue P. The camera pod on the airplane's right wingtip dug into the sand while the Hellcat cart-wheeled and disintegrated. There was no fire.

Osprey Returning to AirVenture



For the second time in three years, the CV-22 "Osprey" – one of the most unique aircraft flown by the U.S. military – is scheduled to appear at EAA AirVenture. The CV-22, an Air Force-modified version of the U.S.

Marine Corps MV-22 Osprey, is the world's first production tiltrotor aircraft. It is able to serve effectively on missions that had previously been covered by either helicopters or twin turboprop aircraft. The CV-22 is designed to conduct long-range infiltration, exfiltration and resupply missions for special operations forces. The versatility of the Osprey allows it to take off and land similar to a helicopter, then turn its rotors 90 degrees to serve as a high-speed turboprop airplane.

The Osprey, which made its AirVenture debut in 2008, is scheduled to arrive on Friday, July 30, and depart on Sunday, August 1. The appearance will feature both flight demonstrations and ground displays of the aircraft, which is based at Kirtland Air Force Base in New Mexico.

"The Osprey was an extremely popular attraction when it debuted at AirVenture in 2008," said Tom Poberezny, EAA chairman/president and AirVenture chairman. "We are delighted to be bringing back the Osprey for thousands of aviation enthusiasts, as well give those who missed out in 2008 another opportunity to take in this impressive, unique aircraft."

The CV-22, which achieved initial operating capability in 2009, is the latest addition to the large and diverse gathering of current military that flies to EAA AirVenture each year. Those aircraft provide flying demonstrations and ground exhibits for AirVenture attendees, and helps make the wide spectrum of aircraft that gather for public display at Oshkosh unmatched anywhere else in the world.

