

THE LEADING EDGE

NEWSLETTER OF MUROC EAA CHAPTER 1000

Voted to Top Ten Newsletters, 1997, 1998 McKillop Award Competition

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<http://www.eaa1000.av.org>

June 2017

Chapter 1000 meets monthly on the third Tuesday of the month in the USAF Test Pilot School Scobee Auditorium, Edwards AFB, CA at 1700 or 5:00 PM, whichever you prefer. Any changes of meeting venue will be announced in the newsletter. Offer void where prohibited. Your mileage may vary. Open to military and civilian alike.

This Month's Meeting:



Early Developments for Flying in Adverse Weather

Tuesday, 20 June 2017
1700 hrs (5:00 PM Civilian Time)
USAF Test Pilot School Auditorium
Edwards AFB, CA

In 2017, we think nothing of launching a properly equipped aircraft with a properly trained and rated crew into the clag, with full confidence of a successful completion of the mission. Some airliners are equipped for CAT III operations, which can land with a Runway Visual Range of only 300 feet, which is essentially not being able to see anything. Imagine driving your car at 100+ miles per hour only able to see to the other end of a football field—not for me, thank you. This equipment can allow landings in conditions so bad that they have to send the “Follow Me” truck out to guide you to the terminal.

But it wasn't always that way. Charles Lindbergh was forced to bail out of his mail plane twice, unable to land because of excessively bad weather. Knute Rockne was killed when the Fokker Trimotor he was on broke up in heavy rain. Icing in adverse weather conditions was another major problem that had to be resolved before flight in all weather conditions could become commonplace.

No less an aviation luminary as **Jimmy Doolittle** set out to find a way to conquer the hazards of flying in what we now call “Instrument Meteorological Conditions.” From Wikipedia:

“Doolittle's most important contribution to aeronautical technology was the development of instrument flying. He was the first to recognize that true operational freedom in the air could not be achieved unless pilots developed the ability to control and navigate aircraft in flight, from takeoff run to landing rollout, regardless of the range of vision from the cockpit. Doolittle was the first to envision that a pilot could be trained to use instruments to fly through fog, clouds, precipitation of all forms, darkness, or any other impediment to visibility; and in spite of the pilot's own possibly convoluted motion sense inputs. Even at this early stage, the ability to control aircraft was getting beyond the motion sense capability of the pilot. That is, as aircraft became faster and more maneuverable, pilots could become seriously disoriented without visual cues from outside the cockpit, because aircraft could move in ways that pilots' senses could not accurately decipher.

Doolittle was also the first to recognize these psychophysiological limitations of the human senses (particularly the motion sense inputs, *i.e.*, up, down, left, right). He initiated the study of the subtle interrelationships between the psychological effects of visual cues and motion senses. His research resulted in programs that trained pilots to read and understand navigational instruments. A pilot learned to “trust his instruments,” not his senses, as visual cues and his motion sense inputs (what he sensed and “felt”) could be incorrect or unreliable.

In 1929, he became the first pilot to take off, fly and land an airplane using instruments alone, without a view outside the cockpit. Having returned to Mitchel Field that September, he assisted in the development of fog flying equipment. He helped develop, and was then the first to test, the now universally used artificial horizon and directional gyroscope. He attracted wide newspaper attention with this feat of “blind” flying and later received the Harmon Trophy for conducting the experiments. These accomplishments made all-weather airline operations practical.”

Doolittle's contributions to flight in adverse weather are well known. This month we go back in history to learn about some of the other, lesser known attempts and contributions toward technology for safely flying in adverse weather and icing conditions and the effects on the airline industry.

As for the immediate post-meeting activity, we will make our traditional trek to the **BK Dead Kow Emporium**

where we can continue our discussion of early instrument flight research.

TAKE NOTE: If you do not normally have base access and depend on having your name on an Entry Authorization List to get past the young airmen with weapons, Contact **Gary Aldrich** to be added to the list. Pay close attention to what he tells you about the procedures to maximize your chances of actually getting through. Note the gate is no longer accepting phone calls to get you in. You have to be on the list. Don't ask questions and don't be late!

Contact **Gary Aldrich** if you need to be added to the Entry Authorization List. Do it now—the day of is several days too late.

- **Erbman**

For the Vice Kommandant

Last Month's Meeting

EAA Chapter 1000

Palm Springs Air Museum

Palm Springs, CA

20 May 2017

Gary Aldrich, Presiding

BEST AIR MUSEUM VISIT EVER!!!

Imagine, if you will, that you set out to visit an air museum. You assumed the day would go something like this: Walk in. Pay your admission fee. Wander around the exhibits, expecting to see a lot of stuff you've seen before, but hoping desperately to learn something new to make the whole trip worthwhile. That's what we do, and it's a wonderful thing.

But instead, much to your surprise, something completely different happened. You are greeted at the door by the museum staff. They are very excited to see you. You are handed a wristband (flashbacks to Oshkosh pass through your mind). The staff then proceeds to give you the VIP tour of the whole facility, introducing you to everyone and treating you like you were the most important visitor the museum had seen for the whole year.

That's exactly what happened!!!

Let's back up a minute and see how that happened.

This trip could be called "The Voyage of the Kommandants". Aircraft 1 was the **Fightin' Skywagon**, launching from its base at Fox Field with **Kommandant Gary Aldrich** and **Jimmy Doolittle III** (former **Commandant** of USAF Test Pilot School). The **Fightin' Skywagon** made an interim stop at Adelanto Airport to pick up **Vice Kommandant Hellmuth Steinlin** and **Debbie Schweitzer**, continuing on to the final objective of Palm Springs International Airport.

Aircraft 2 was the **Combat Bearhawk** launching from its home base of Rosamond Skypark. The crew was Newsletter Editor **Russ Erb** (not exactly a **Kommandant**, but work with me here) and **Mike Pelletier**, **Kommandant** of EAA Chapter 1000 before Gary Aldrich. Yes, it may be hard to believe, but there were a few Kommandants before our current Kommandant. Mike was in town for a couple of weeks for a short course on base and had contacted us asking if anything was going on with the **Project Police**. The **Combat Bearhawk** proceeded semi-directly to Palm Springs International Airport, avoiding the airshow TFR over the Redlands Airport.

The original plan was to land and park at Atlantic Aviation and hoof it by foot the 0.6 miles to the museum, because the museum advertised that it had no transient ramp space. However, the night before the mission, **PPO Doolittle** contacted his **QB** buddy **Gene Ramirez**, who he had found out was a docent at the museum. **JDIII** asked him if he could pull some strings to arrange for us to be able to park at the museum. Approval came through on Saturday morning, but not until a few minutes after the **Combat Bearhawk** had taken off. Thus, the message was not received until after parking at Atlantic Aviation. The **Fightin' Skywagon** parked at the museum. The **Bearhawk** crew walked to the museum as originally planned.

Meanwhile, **Gene Ramirez** mentioned to fellow docent **Bob Lilac** that some **Doolittle** guy and a bunch of his friends were on their way in to visit the museum. Bob immediately jumped on the opportunity to become our amazingly awesome tour guide. It seems that back in the '70s a much younger **Jimmy Doolittle III** was an A-7 pilot at Myrtle Beach Air Force Base. **Bob Lilac** was his squadron commander. He is also a graduate of USAF Test Pilot School in Class 67B, though, as he likes to point out, at the time it was called the Aerospace Research Pilot School (ARPS).

Thus we were greeted at the door on the figurative red carpet.



Much to our surprise, while the museum has a small diorama on the Pearl Harbor attack (closed for renovation), they have a very large exhibit on the Doolittle raid. Since we had our own representative of the Doolittle family, this led to a very interesting discussion. Here we see **JDIII** executing a **Project Police Picture Point** at a model of the

Hornet flight deck filled with B-25 Mitchell bombers. The display was approximately 20 feet long. On the wall behind him was a huge map of the Pacific, which helped to emphasize the huge distances involved.



The Palm Springs Air Museum believes in keeping some of its airplanes in flying condition. Here is a flyable B-25 similar to those used on the Doolittle raid.



And here is a Doolittle similar to the one used on the Doolittle raid. This one is also maintained in flying condition.



This incredibly beautiful mural of a Corsair approaching the USS Essex (CV-9) is incredibly huge. Each of the frames below it are about one foot wide. This amazing mural was painted by Stan Stokes, who is the resident artist for the Palm Springs Air Museum. This was

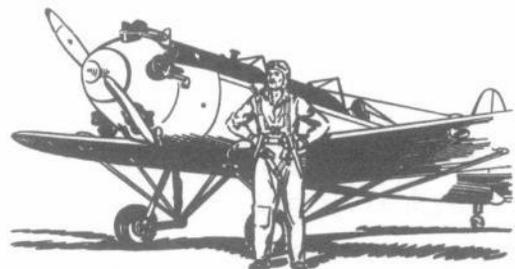
merely one of many amazing paintings around the museum. I was enjoying the paintings so much that I started to feel guilty that I was cheating on our own favorite aviation artist and **PPO Mike Machat**. I sent him an e-mail confessing my guilt to which he replied "No worries - Stan Stokes is considered the most prolific aviation artist of my generation, and his mural of presidential aircraft at the Reagan Library is literally breathtaking."

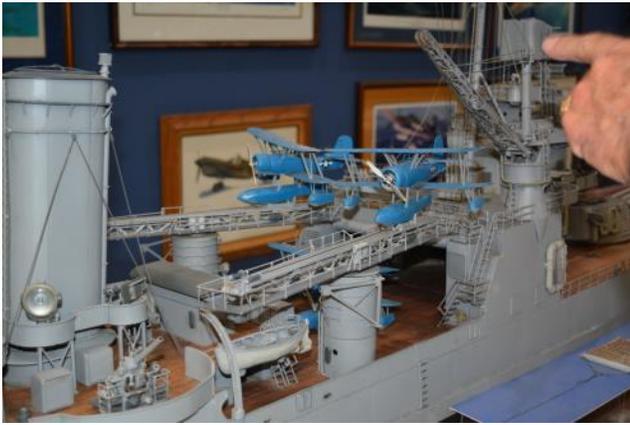


I would like to tell you that I intentionally shot this Corsair, which is marked identical to the one in the mural, from the same angle as shown in the mural. I would like to tell you that, but it would be a lie. It was just dumb luck.

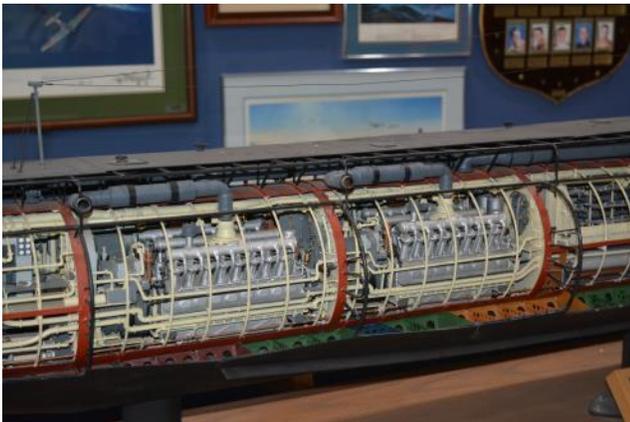


Right below the giant Corsair mural was this Stan Stokes painting of our host, **Bob Lilac**, in his glory days as a fighter pilot. He's smiling, but this would have been when **Doolittle** wasn't in his squadron.





Besides full scale aircraft, the museum hosts many incredibly detailed models, such as this battleship or cruiser which was about 10 feet long. This is probably easier to house in the museum compared to the full sized ship, and easier to transport to Palm Springs. This detail shows the catapaults and observation float planes.



This detail of a submarine shows the two diesel engines that provide power on the surface and charge the batteries.



The Palm Springs Air Museum was founded when **Bob Pond** (of the Pond Racer) was looking for something to do with the various warbirds and airplanes he had collected over the years. This F7F Tigercat was part of his collection and the only twin engine propeller driven fighter type that Grumman produced for the US Navy.



This F8F Bearcat (note: not a "Bearhawk") was another airplane from Bob Pond's collection. Behind it is a stage commemorating the work of Bob Hope with the USO.



This SNJ completed the collection of Navy aircraft. Besides the fact that **PPO Vanhoy's** T-6 was minus a cowling and an annual inspection at the time, we wonder if he was worried that if he parked his T-6 on the museum ramp, the museum would declare it a donation and he wouldn't be able to get home.



The museum also had a large fleet of small model airplanes. Here we see the Messerschmitt Me 323 Gigant surrounded by other Luftwaffe aircraft.



We were allowed into the new jet hangar, even though it didn't officially open for another week. At the door you are greeted with this F-102, beautifully restored from a basket case. This one is painted as one flown by President **George W. Bush** in the Texas National Guard, and is flanked by a display of American Presidents who were veterans. A few recent Presidents were conspicuous by their absence.



This F-84F was on display, with a mushroom cloud logo painted on the side. This symbolizes that this aircraft once had a nuclear mission, which included flinging nuclear weapons a long way and hoping to run away. Fortunately, it never had to try it for real.



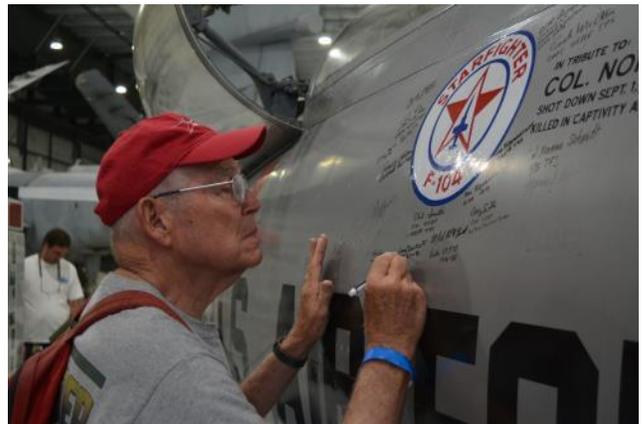
An EA-6B on display. This was the jammer aircraft where the pilot got to fly with three EWOs.



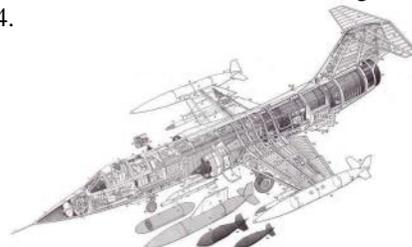
Bob Lilac with the tail end of the EA-6B.



The reason the hangar was open a week before it officially opened was that it was open cockpit day in this F-4B Phantom II. Most of us already had time in the F-4, but **Debbie** decided that she would take a shot at it.



Because **JDIII** had flown F-104s at one point in his career, **Bob Lilac** invited him to sign the side of this F-104.





A young Air Force pilot and his squadron commander. He can smile now because he doesn't have to bail him out of jail or explain it to **Pat**.



An F-100 as part of the Vietnam era display.



In an unusual display, this is the inside of the cockpit of a Fairchild C-119 Flying Boxcar. The unusual part is that the only part of the aircraft that is here is the cockpit and about 10 feet of the forward fuselage.



Part of the VIP contingent. **PPOs Mike Pelletier, Hellmuth Steinlin, (Bob Lilac), Gary Aldrich, and Jimmy Doolittle III.**



Lockheed T-33 with the tail section removed and the engine exposed.



WWII era Schweizer TG-2 glider hanging from the ceiling. **Gary** asked if we could take it down and fly it. The museum said they would love to but their tow plane was currently down for maintenance. I think they were just feeding us a line.



This P-40 Warhawk is also flyable, as seen by the pictures on the web site.



A Supermarine Spitfire Mark XIV with a five bladed propeller. That's one way to use more horsepower without making the propeller diameter bigger.



Yes, three Ercoupes were procured by the Army Air Forces in 1941. One use of this aircraft was as a testbed for developing RATO (or JATO) rockets. Tests were done at March Field in 1941 using a JATO booster with a thrust of 28 pounds. I looked inside the cockpit and confirmed that this is a 2-control model with no rudder pedals, just one brake pedal.



P-47 Thunderbolt with a bent Pitot-static tube. I remember reading about how this was such a “big” airplane. Compared to today’s F-16s and F-22s it seems rather small.

After seeing all of this, we were taken to the café in the museum where we were able to order lunch and sit down as a group with several of the docents. **Mike Pelletier** complained that he had been trying to keep up with the chapter from his home in Oklahoma, but couldn't because he couldn't find anything new on the web site. I was quick to remind him that for merely \$20 a year he could renew his membership and I would guarantee him that he would see what was going on in the chapter every month right in his e-mail. He promptly pulled out a free dues coupon and handed it to the **Kommandant**. (**Knife** – be looking for that)

After lunch we were invited upstairs (Do you want to come upstairs?). No, it wasn't that. Upstairs is the library, where they have a large amount of reference material for research and undisplayed artifacts.



I felt better about my aviation artist fidelity when I saw this Machat displayed inside the library.



Also in the library are several PC-based simulators for the kids to try their hand at flying. These simulators are maintained by some interns. The docents seem really excited about having these high school kids learning about aviation.

Here we see **Kommandant Aldrich** trying his hand at flying the F-22 from Palm Springs International Airport, with **Bob Lilac** and **Jimmy Doolittle** standing by to tell him what he's doing wrong. One thing he did do right was to take off from the correct runway.

There was so much more to see, but it was time to get back out into the afternoon thermals and get bounced around all the way home. Even with our VIP tour, it seems like we only scratched the surface of what was available to see. You really screwed up by not coming with us. The good news is that now we have a better idea of what is available there, and we can plan another outing sometime in the future. Maybe you'll actually come that time!

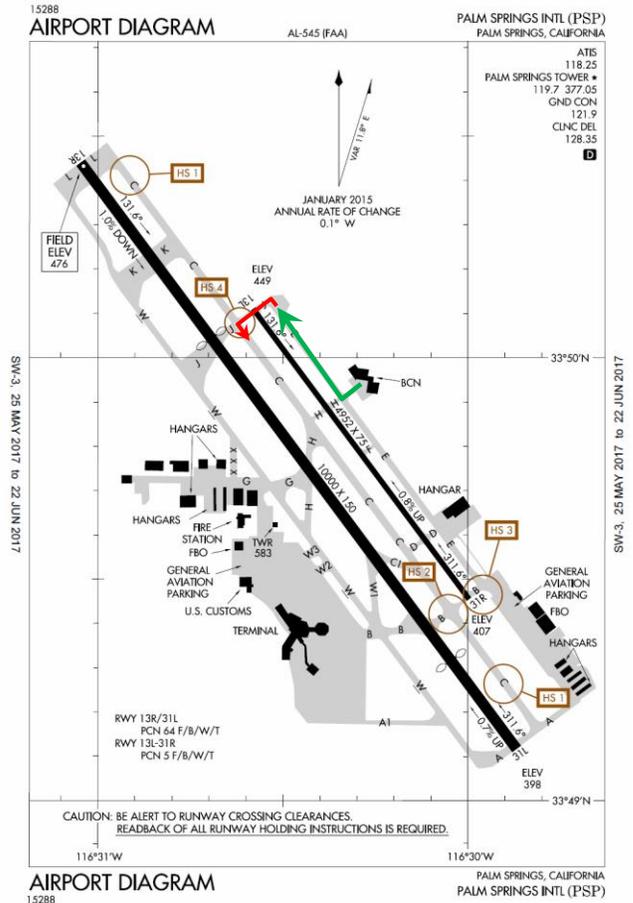
Most of this is true.

- **Russ Erb**

Emergency Backup Minister of Propaganda
Chapter 1000 of the Experimental Aircraft Association of these United States of America and Occupied Territories
"We have more zeroes in our chapter than any other!"

Kommandant's Korner

It's been a quiet month, aviation-wise, for me and the mighty **Fightin' Skywagon**. The only time N2705K has been out of the hangar was for the most excellent adventure to the **Palm Springs Air Museum**. I'm sure there are words and pictures relating to the trip elsewhere in this month's 'Edge so I won't say much about it here except that if you missed it for any reason short of critical illness, nuclear warfare, or cataclysmic natural event you need to re-examine your priorities! Empty seats were flown to PSP despite the excellent advertising our Mission Commander did.



SW-3, 25 MAY 2017 to 22 JUN 2017

SW-3, 25 MAY 2017 to 22 JUN 2017

I will relate one small story related to the trip. {Pause while I assume my Instructor Voice} I'm a bit ashamed to admit that I came very close to being as famous (or infamous) as former **Young Eagles National Chairman** (and itinerant star trader) **Harrison Ford**. It was at the end of our Museum tour and after hearty handshakes and well-wishes were completed. **VK Steinlin, JD3, Hellmuth's** lady friend and I had loaded into the airplane and cranked the powerful O-470. After copying the ATIS information and receiving taxi clearance to runway 13R, with instructions to hold short of runway 13L we taxied out of the Museum ramp down taxiway Echo. After a quick run-up adjacent to 13L I contacted tower and was cleared to cross 13L and cleared for takeoff on runway 13R. Dutifully reading back the instructions, I completed the takeoff configuration checks, crossed 13L and turned left... As I began to bring in the power I felt something was wrong. The "runway" edge lines were yellow...not white... I started to retard the throttle while almost simultaneously receiving an agitated call from the tower directing me not to take off. I also heard **Col Doolittle** make an anxious remark that is lost in my memory as he had also detected my error. The tower controller had barely finished chastising me when I had the airplane turned around and headed for the proper runway. The controller very clearly said "Cleared for takeoff on runway 13R" and I replied with the same verbiage, adding, "...and

not on Harrison Ford's taxiway!" Had I continued my taxiway takeoff I expect the FAA would be asking me some pointed questions about my piloting skills, as they did with our friend Harrison after he landed on that very same taxiway in his Husky a few months ago. Probably wouldn't have made the national news though...

What's the lesson? Attention to detail. It's not enough to make perfect clearance read backs using your airline-captain voice. Correct actions, in accordance with the clearance are also required. What could I have done differently to avoid the potential violation? Well, I was feeling a bit rushed as the high ambient temperature was starting to concern me; both for the sake of the pax and the engine oil. Rushing in aviation almost always leads to less than ideal performance. I had the most experienced aviator in the plane sitting in the back seat with virtually no forward visibility. I still retained the PIC authority and responsibility but a second set of wizened eyes is always better. Finally, I should have verbally noted the presence of the nice, wide, long taxiway Charlie that lies enticingly parallel and between the two active runways. In fact, I had made a snide comment about Mr. Ford's recent buffoonery during our arrival and landing on runway 31R earlier in the morning. Bottom line...nobody hurt, nothing damaged...except my pride. As my father used to say, "Let this be a lesson to you!"

There won't be a lot of aviating in the near future, as I'll be working on the VC-180's annual inspection this month in preparation for our next expedition...this time to **AirVenture 2017**. Look for a report on that trip in a future 'Edge.

Until then,
Fly safe and Check 6!

- Gary Aldrich
Kommanding

RV-6A For Sale

Dear EAA Chapter President,

I have an RV-6A for sale and I was hoping that you might pass around my flyer. The aircraft is located at Reid Hillview Airport in San Jose, CA.

The aircraft is a "Hanger Queen" and unfortunately has not flown since 2005 due to my medical problems. The Airframe itself is in excellent condition but of course the engine will have to be inspected and repaired as necessary. I have priced the aircraft accordingly, leaving a good margin to accommodate the cost of any engine repairs.

This is an excellent opportunity for anyone wanting to get into a Van's RV-6A at a bargain price. Especially anyone with an A&P license!

I was the former President of San Jose Chapter 338 and 62 but moved to Salinas, CA upon my retirement in 2008.

Hanger Fees, Insurance, and Taxes are now exceeding the value of the aircraft so I am a motivated seller.



Installed but not calibrated:
Trio Tech EZ Pilot
Fuel Scan 450 Fuel Flow Meter
Advanced Flight Systems Angle of Attack Indicator
\$38,000 Serious Inquiries only, please.
Thanks in advance for your consideration.

Edward Cole
Salinas, CA
408-838-5512
edwardcole831@comcast.net
RV6A N2169D

Young Eagles Rally 24 June 2017

Duke Wayne is planning a Young Eagles Rally at Fox Field (KWJF) on Saturday, 24 June 2017 0800-1200. Please contact him at twfox2@sbcglobal.net if you can help out, either flying or as a ground volunteer.

Web Site Update



Just a reminder that the EAA Chapter 1000 Web Site is hosted courtesy of Quantum Networking Solutions, Inc. You can find out more about Qnet at

<http://www.qnet.com> or at 661-538-2028.

Chapter 1000 Calendar

Jun 13: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., El Indio Restaurant, Rosamond Skypark, Rosamond CA. (661) 609-0942

Jun 20: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Jul 11: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., El Indio Restaurant, Rosamond Skypark, Rosamond CA. (661) 609-0942

Jul 18: (?) EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Jul 24 - 30: EAA AirVenture. Oshkosh WI.

Aug 8: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., El Indio Restaurant, Rosamond Skypark, Rosamond CA. (661) 609-0942

Aug 15: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Sep 12: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., El Indio Restaurant, Rosamond Skypark, Rosamond CA. (661) 609-0942

Sep 19: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Oct 10: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., El Indio Restaurant, Rosamond Skypark, Rosamond CA. (661) 609-0942

Oct 17: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Oct 10: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., El Indio Restaurant, Rosamond Skypark, Rosamond CA. (661) 609-0942

Oct 17: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Nov 14: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., El Indio Restaurant, Rosamond Skypark, Rosamond CA. (661) 609-0942

Nov 14: EAA Chapter 1000 Monthly Meeting, 6:30 p.m., Flying Dog Ranch, 4400 Knox Ave, Rosamond CA. (661) 609-0942

To join Chapter 1000, send your name, address, EAA number, and \$20 dues to: EAA Chapter 1000, George Gennuso, 3119 Lennox Ct, Palmdale CA 93551. Membership in National EAA (\$40, 1-800-843-3612) is required.

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 Secretary Kent Troxel: kenttroxel@sbcglobal.net
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Inputs for the newsletter or any comments can be sent to Russ Erb, 661-256-3806, by e-mail to erbman@pobox.com

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THE LEADING EDGE
MUROC EAA CHAPTER 1000 NEWSLETTER
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<http://www.eaa1000.av.org>

ADDRESS SERVICE REQUESTED

THIS MONTH'S HIGHLIGHTS:
REGULAR MEETING 20 JUNE @ TPS
LEARN ABOUT ADVERSE WEATHER FLYING
PALM SPRINGS AIR MUSEUM REPORT
KOMMANDANT TRIES TO BE HAN SOLO

