experimental aircraft association

THE LEADING EDGE

NEWSLETTER OF MUROC EAA CHAPTER 1000

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

President	*Gary Aldrich*	*661-609-0942*
Vice-President	*Hellmuth Steinlin*	*760-963-5445*
Secretary	*Kent Troxel*	*661-947-2647*
Treasurer	*George Gennuso*	*661-265-0333*
Newsletter Editor	*Russ Erb*	*661-754-0524*

http://www.eaa1000.av.org *July 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:

HOMEBUILDER'S DOWN DAY

You
Tuesday, 18 July 2017
Whenever
Your Workshop

By order of the **Kommandant** and your **Board of Directors**, the ***Project Police*** of EAA Chapter 1000 are hereby directed to meet individually in groups for the regularly scheduled meeting/gathering/event on the third Tuesday of the month. Yes, you are empowered to figure out for yourself how to entertain yourself from 1700 to 1900 on 18 July 2017. The **Vice Kommandant** is expected to be on his way to Wittman Airfield in Oshkosh WI. The **Kommandant** is expected to be loading the **Fightin' Skywagon** for an important mission to transport **JDIII** to Oshkosh for the 75th Anniversary celebration of the **Doolittle Raid** on Japan. **Opie** will probably already be in Oshkosh, and **Stormy** will be on the way with his betrothed, not that either of them would show up for our meeting anyway. Since it is summer, many of you have already made plans to be somewhere else on that day, so we're not bothering to put together a program for you to miss.

Homework: The **Kommandant** has assigned you tasks for the time you are not at the chapter meeting. If you have a current airplane project, put in a couple of hours of building time on your project. If your airplane is in need of maintenance or upgrades, spend a couple of hours working on that. If you don't fit in either of those categories, then step to your computer or device and go to http://www.eaavideo.org. Type "Chapter Video Magazine" in the "Search All Videos" box and click "Search". Pick one of the month's magazine and watch it. Alternatively, watch Mike Busch's latest webinar "Borescope Ascendancy". **Evil Editor Zurg** will be watching your Internet traffic, so we will know if you have completed your assignment.

For bonus points, write a short article about what you did on your project/airplane or what you learned watching a magazine and submit it for publication to eez@pobox.com.

- Erbman
Subbing for the **Vice Kommandant**

Last Month's Meeting

EAA Chapter 1000
USAF Test Pilot School
Scobee Auditorium
Edwards AFB, CA
20 June 2017
Gary Aldrich, Presiding

Just under 10 members and guests gathered in the Test Pilot School Rick Husband Lounge for pre-program schmoozing. **Schmoozemistress Tuki** provided the usual fare of drinks, chips, and dips. However, the usual chocolate chip cookies were missing, replaced by popcorn, which was a harbinger of things to come.

Our visiting guest at this meeting was **Rory Butterfield**. He was invited by **Randy "Kanard" Kelly**, who had found out that he was an EAA member who only seemed to find out about local EAA events after they had happened. This time he was told in advance and made good on his promise to show up.

Shortly after 1730 the **Kommandant** directed everyone into the newly refurbished Scobee Auditorium, our meeting venue for the first time since 2016. Many were wondering who the guest speaker was, since other

than **Rory** everyone who was there was a regular attendee. After all, the meeting announcement said that there would be a presentation on "Early Developments for Flying in Adverse Weather". While many inferred that there would be a guest speaker, careful study of the announcement would reveal that no such assertion was ever made.

After assembling in Scobee Auditorium, **Vice Kommandant Hellmuth** told us the story of how after fitting the doors to his airplane, he decided it was finally time to remove the masking paper from the transparencies. However, after much pain and anguish, he had only managed to remove a square inch or two (6.45 to 12.90 square centimeters) of the paper. A few phone calls managed to track down "Inspector **" at a subcontractor who had produced the doors. He readily acknowledged that they had used an improper masking paper on Hellmuth's doors and the remedy would be that they would immediately fabricate and ship replacement doors to him.

At this time **Erbman** revealed the ruse. The program for the night was to view the 1936 movie *Ceiling Zero* with James Cagney and Pat O'Brien. The movie indeed centered around the problems of flying in adverse weather, as promised. It seems that **Evil Editor Zurg** carefully constructed the ruse for fear that some people might choose not to come if they knew we were "just watching a movie". Apparently it worked, and nobody complained.

The movie was a digital transfer of a VHS recording, which wasn't great quality, but was the best we could get, since the movie has never been released on DVD or Bluray. The **Kommandant** selected this movie because it is the only known case of the **Quiet Birdmen** being mentioned in a movie. If it is supposed to be a secret society that everyone knows about, then why was it mentioned in the movie?

The movie was watched on the big screen with full-on *Mystery Science Theater 3000* rules in effect. Everyone was held in suspense, including the **Kommandant**, who, for some reason, had never bothered to watch the movie past the mention of the QBs. You can read the plot for yourself by searching "Ceiling Zero" on Wikipedia, so we won't repeat it here.

Of interest to us was that in the final dramatic scene, James Cagney is flying the airplane with the new deicing equipment in icing conditions. Like a good test pilot, he radios back a complete report of what he observes and how they are working. He even makes specific recommendations on how to improve the system.

After the movie, the **Kommandant** asked the question that nobody could answer, "What exactly was Tommy's job at the airline?" As best we could tell, she was only there so there could be a love interest in the plot, since, as we know, by Code all movies must have some sort of love interest.

Following the flick, we retired to the **BK Dead Kow Emporium** to further discuss the flick and anything else aviation related or not that we could think of.

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

(*At press time, the **Kommandant** was busy entertaining family and preparing for a major celebration of 45 years of wedded bliss with **Mrs. Kommandant**. As he failed to take advantage of the opportunity to submit his writings in advance (as any of us would have done), realizing that waiting for him to make his required submittal would have delayed this newsletter by days or weeks, **Evil Editor Zurg** gave the **Kommandant** a "pass" on this month's submittal, with the stern rebuke to not get used to this, as it won't happen again!*

*If he had written this month's column, he probably would have told you about the upcoming events. For instance, he would tell you to enjoy your Homebuilder's Down Day this month and to complete your assignment. He would then tell you that the August meeting would be our traditional chapter trip to the "The Hangar" for a night of Jethawks baseball action. The actual date has yet to be announced (**Cobra**—get on that!). Then he would tell you that he is excited about his chance to tell you all about his Oshkosh adventures at September's meeting, along with **JDIII** and **Hellmuth**. October's meeting is still open. In November we will host the cadets for a cookout again as is our wont. Finally, in December expect the usual Festivus party at the Kommandant's Kwarters.*

*This month's tales and lessons from flying adventures will be provided by **Erbman**.*

Finally, at about this point he would say…)

Fly safe and Check 6!

- Gary Aldrich
Kommanding

Random Thoughts From This Month's Flying

The following is not so much my usual coherent story about a flying adventure (or misadventure), but more of a random collection of thoughts and ideas that happened before or during the trip that seemed significant. We will finish up with the story of the misadventures that abruptly brought all of the flying to a halt one day earlier than I had expected.

Our non-story begins with a major surge of activity at work, which made me think that I needed a mini-vacation. I'm still not going to Oshkosh this year because **Emmy** is at a stage where she will fuss in the airplane because she wants something, but she still isn't talking so she can't tell

us what she wants. **Tuki**, her designated flight attendant, isn't really interested in playing "wrong rock", not for a 1 hour flight, and certainly not for 30 hours. I'm not interested in flying solo all of the way to Oshkosh and back, but I could do it for a shorter trip. Thus I started thinking about what I could do closer to home.

I wanted to go at least as far as a two-hopper, since I had not been more than one tank of gas from the home 'drome since 2013. I had wanted to ride the Durango and Silverton Scenic Railroad and the Cumbres and Toltec Scenic Railroad since 1988. I did ride the Durango and Silverton with **Tuki** in 2011, so this seemed like a good time to ride the Cumbres and Toltec. Through some skillful negotiations, I managed to secure a kitchen pass for this 2.5-day trip (1 out, 1 to ride the train, 0.5 to get back). Of course, it involved agreeing to be in charge of **Emmy** while **Tuki** got one whole day to herself later.

As you will certainly remember from the August 2016 edition of ***The Leading Edge***, no less an aviation authority than the **Kommandant** pointed out that the nearest good public-use airport to the Cumbres and Toltec Scenic Railroad in Chama NM is at Pagosa Springs CO.

One of the big planning factors for this trip was that the weather would be the typical summer pattern: reasonably okay in the morning, getting hot and windy as the day went on. I could address the heat somewhat by taking my B-Kool ice air conditioner (September 2015 ***The Leading Edge***), but the only mitigation for the winds was to haul my a** out of bed early in the morning.

Because I would be flying at pressure altitudes between 9,500 feet and 11,500 feet, it was time to drag the old oxygen bottle out, which had not seen use since 2013. Yes, the FAA says you don't need to use supplemental oxygen below 12,500 feet, but that rule is actually more based on operational requirements for DC-3s than any extensive tests of physiological data. The **Kommandant** and I have determined through our own informal tests that using oxygen at these lower altitudes has a significant effect on reducing fatigue during long flights.

The smaller problem was that it only had 500 psi of oxygen in it (2000 psi is full). The bigger problem was that I bought the bottle in 2009. Because it is an aluminum bottle, the law stipulates that it must have a hydrostatic pressure test every 5 years, which was due in 2014. Since I hadn't needed the bottle, I hadn't gotten the test done. **Tuki** insisted that I would take it with me, so I got the bottle down to Fire Ace in Lancaster for a "hydro test". They don't refill the bottle, so I then took it to Bob Browne in Tehachapi who refilled it.

I also took **Tuki's** pulse oximeter along to monitor my breathing.

The night before departure, I loaded the airplane as much as I could and completed the preflight inspection. On Monday 26 June, I hauled myself out of bed at 0500 and was rolling down the runway by 0630. I climbed to my cruising altitude of 9,500 feet, and was surprised to find out that I had a 51 knot tailwind! Not quite the 70 knot tailwind the **Kommandant** and I had in 1999 going to Sun n' Fun, but welcome nonetheless. That should help make this day shorter. Of course, I was also hoping that the winds would die down by Wednesday when I was coming back!

A 51 knot tailwind at 123 KTAS…

…leads to a ground speed of 170 knots!

The tailwind would continue, but was down to about 25 knots at Kingman, and then to mostly crosswind at Pagosa Springs.

Surface winds at Kingman were about 20 knots as promised, but were at least aligned with one runway. Landing was not a problem, but taxiing and refueling were more challenging with all of that wind.

I stopped in Kingman not because the fuel was the cheapest in the general area, but because it is in a good location and at a reasonably high elevation to minimize descending and climbing. (Laughlin/Bullhead Intl is close by, but at 2742 feet lower elevation and generally higher fuel prices, it was a non-starter.) Additionally, a big benefit of Kingman was that I had been there multiple times before and knew my way around the airport.

I knew that eating breakfast early, at some point during the second leg of the flight my stomach clock would be expecting lunch. Because of the rush to get to the destination before the heat and winds got out of hand, I

had chosen not to stop to eat lunch on the ground. Instead I employed a technique from my days in C-130s back in the early 1990s—bagels. I would propose that the humble bagel is about the perfect cockpit food. Personally I prefer the cinnamon and raisin variety. The bagel is very dense, so by eating just one I usually feel like I have eaten a whole meal. The bagel is not crumbly, so it doesn't make a mess in the cockpit. The bagel doesn't require special handling, such as refrigeration. Finally, the bagel is moist enough that it can be eaten without supplementary water or drink, which is good both for logistics and for physiological range.

Departing Kingman, I first climbed to 9,500 feet, which would be okay for ground clearance, but only 800 feet above pattern altitude at the destination. After a brief period, I started to notice more bumps at 9,500 feet, so I slowly climbed to 11,500 feet in hopes of smoother air. Rather than do a maximum rate climb (I had more than enough time), I just left the airplane in the cruise configuration and pulled the nose up slightly to lose a few knots. Additionally, like any good glider pilot, I allowed the lift that was causing the turbulence to help me climb as well.

On reaching 11,500 feet, I saw yet another benefit of the big engine that **Opie** talked me into all those years ago. The true airspeed is the same, but the indicated airspeed is less, and the cruise drag is less. With a little bit of a tailwind and a fuel flow of nominally 9.1 gallons per hour, I was getting a specific range (mileage) of up to 15 nautical miles per gallon at 122 knots true airspeed.

The leg from Kingman to Pagosa Springs was about as long as I dare try in my Bearhawk. At 355 nm, with a planning fuel flow of 11.0 gph (a reasonable number at low altitudes), the leg should take 3.3 hours and leave me with 16.1 gallons remaining (about 1.5 hours). With the favorable winds and low fuel flows at altitude, this leg took 3.1 hours and 22.4 gallons remaining.

11,500 feet MSL and 13,910 feet density altitude

The picture that showed 15.0 MPG was fuzzy

Flying into high altitude airports can be a mind-bending experience. Cruising at 11,500 feet seems like it should be really high, but when the pattern altitude is 8,663 feet, that descent is only 2,837 feet. That's less descent than I do flying from Mountain Valley or Tehachapi to Rosamond.

I arrived at 1218, and as you can see in the picture the clouds were already starting to form. The afternoon rains are a real thing in Colorado summer afternoons, though it didn't actually rain this day.

Parked at KPSO

The rental car service was prompt and right to the airplane. It may sound obvious, but the best way I have found to deal with rental cars is to call the FBO first. I have known some FBOs that actually act as the rental car agent. If not, ask them if there are any agencies that they regularly work with. In this case, Enterprise brought the car to the airport, and allowed me to just leave it at the airport when I was done.

Here is just one picture to show why I flew to Colorado/New Mexico.

The forecast for Wednesday was the same—getting hot and windy as the day progressed. Once again, I was up at 0500 local to beat feet out of there. I was concerned about being able to make it all the way from Pagosa Springs to Kingman if there were high headwinds. Thus, I formed a plan to divert into Valle (40G), south of Grand Canyon and about 50 minutes short of Kingman, if it looked like I was going to arrive at Kingman with less than 10 gallons remaining.

After rapidly gathering up my stuff, eating a bagel, and loading the airplane, I was off about 0705. With the big engine and relatively lightly loaded, takeoff and climb performance were not an issue. Again, climbing to 10,500 feet sounds like it should take a long time, but since it was less than 3000 feet up it didn't take long at all.

I did have a weird noise in the intercom that isn't usually there. After testing various possible problems and coming up with nothing, I posited that the problem was with the plugs into the audio mixer. Unfortunately, that is buried inaccessibly behind the instrument panel. In desperation, I reached under the panel and rapped on the aluminum sheet that the mixer sits on. Instantly the noise went away. Maybe that Fonzarelli kid was on to something.

In actuality, the winds were only 15 to 25 knots headwind, and the projected fuel remaining at Kingman wandered around 16 to 18 gallons remaining.

The price you pay for tailwinds outbound—25 knots headwind

Ground Speed is a little lower at 97 knots

On the way out, I kept a record of which frequencies I talked to ATC on for flight following and the rough locations where frequency changes were made. Sure enough, on the way back I just proceeded back up the frequency list. It was much nicer being able to anticipate the frequency I would be given rather than just being surprised by it.

While flying back I noticed a seemingly weird response of the aircraft while flying on autopilot. Normally it works really well, but every now and then the nose would start pitching up, airspeed would drop, the ball would go way out to the right, and the airplane would bank about 10 to 15 degrees to the right. It did this several times before I realized what was going on. The airplane would fly into sink. The autopilot would respond to the loss of altitude by pulling the nose up to climb, which caused the loss of airspeed. With the nose pitched up, the flow through the propeller caused P-factor, which tried to swing the nose to the left. Trying to maintain a ground track, the autopilot would bank to the right, resulting in the ball moving way to the right. The solution was simply to disconnect the autopilot, ride out the sink, and when the lift brought me back up to altitude, re-engage the autopilot.

I finally reached Kingman in 3.7 hours, one of my longest flights in the Bearhawk, with 16.8 gallons remaining. Once again, the winds were about 20 knots down a runway.

Another non-eventful leg put me back at Rosamond at about 1215 local, but as I feared, the winds were sort of down the runway at about 24 knots. After fighting the winds down to the runway, with about seven wheel touches before they both remained on the ground, I re-confirmed why I don't fly in winds like that just for fun!

On 3 July **Tuki** was having new flooring put in the day care room, so she wasn't available for any family adventures. Therefore, I had arranged with recent TPS graduate **Phillip "Joker" Jackson** to make good on an offer to take him flying in the Bearhawk. As a bonus, he brought his 6 year old son **Joel** along who is certified plane crazy. The flight out to L77 went as planned, as did our visit to the Patton museum and lunch. Again using the B-Kool air conditioner to beat the heat, we set out to return to

L00. That flight went as planned, right up until the last moments, when it didn't.

We arrived at L00 around 1400, expecting to land, refuel, and put the airplane away in the hangar. The winds were a left cross at about 10-15 knots. While not fun, I expected no problems because I have successfully landed before with left crosswinds of greater magnitude. I was working with a higher than usual gain on the stick, and managed to softly touch down the left wheel, followed by the right, and was actively working to maintain directional control as the airplane slowed to taxi speed. With the tail wheel on the ground, all was going well until I felt a "thump, thump, thump" on the right side. My first thought was back to 2008, when on the Second First Flight (the one that ended in a ground loop) a similar crosswind blew me off the right side of the runway. Did the right tire fall off the pavement on the right side of the runway? Is my directional control that bad? I looked at the left wheel and it was right on the centerline. The next thought was that the tire had popped, which seemed odd since I hadn't felt any ridiculous side loads on the landing. Application of higher than normal power for taxi accomplished nothing. "When it takes full power to taxi, put the gear handle down." But Sir! I don't have a gear handle! **Joker** bailed out of the right door and confirmed that the tire was flat.

Combat Bearhawk with stubbed toe stuck on the runway

Same picture, zoomed in. Arrow shows start of skid mark where the wheel pant touched the runway. The skid mark is only about 130 feet long.

At this point I knew I had an airplane stuck on an active runway, and the first priority was to get it off. I wondered who I could call to come give assistance. Before I could get an answer, I looked to the taxiway at my left and saw a blue pickup truck, with **Randy "Kanard" Kelly** walking toward me. At that point, I knew we were going to be okay. Turns out **Kanard** had been sitting there in his truck and had watched the whole landing, right up to the part where it didn't go as planned!

I shut down the airplane, then hopped out to observe the carnage myself. It was clear that I would need to remove the wheel pant because it covers any and all possible jacking points. I pulled out the tool kit that I carry under the pilot's seat and started removing screws.

It seems that an airplane on or near a runway with the prop stopped draws a lot of attention. Soon **Roger Hensley** drove his truck out and offered assistance. He had a furniture dolly and a large floor jack. Thinking the jack was too big, Kanard took me to my hangar where I picked up the small floor jack that I normally use for this sort of thing. While we were gone, **Fuzzy Zellar** noticed the excitement and joined in. He brought in a car dolly, which we ultimately used.

Wheel pant removed. Tire is sad.

When I got back to the airplane, I remembered that my jack only really works if I remove the brake caliper first. Before I could think about that, Roger found a way to make his jack work, and we were able to get the stubbed toe up high enough to get the car dolly under it.

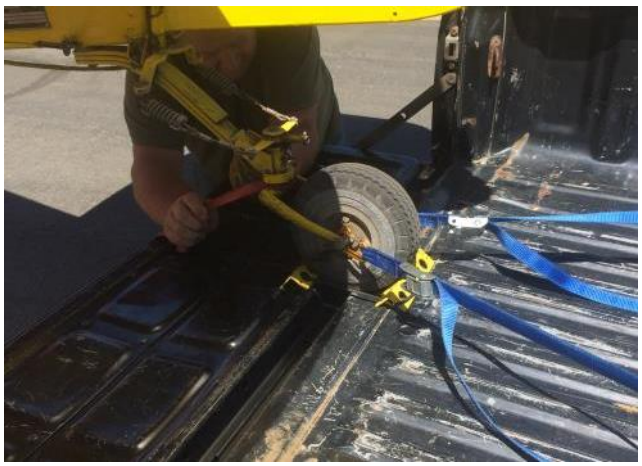
Bearhawk foot lifted up onto car dolly

Wanting to minimize the possibility of further damage to the plane, we started with me, Kanard, and Joker pushing the airplane off of the runway. We got about 800 feet when it became painfully apparent that the rolling friction of the car dolly was so high that we would need multiple rest breaks along the way.

Again, the airport community comes together when there is a disabled airplane. Another lady stopped by and offered to get us some drinking water.

Fuzzy suggested again that we could raise the tailwheel up onto the bed of his pickup, strap it in place securely, and use the truck to pull it back to the hangar. After some discussion and risk mitigation, this is what we did. After getting the airplane to the pad in front of the hangar, we winched in up into the hangar using the normal procedures.

Tail wheel lifted into bed of truck



Tailwheel chocked and strapped into position three ways

I had previously offered to take a prospective Bearhawk builder flying the next day, but in light of the condition of the airplane I had to reduce the offer to fly to an offer to inspect the airplane.

So what happened to cause this excitement? We'll never know for sure, but here is my best attempt at an NTSB probable cause investigation. Returning the next

Back in front of the hangar

day, I removed the offending tire and tube and took the innertube home. I placed the inflated innertube in a bathtub full of water. At first nothing spectacular happened, but then I pushed down on the tube to increase its pressure. Air started bubbling quickly out of a hole in the side of the tube, but upon inspection the hole looked like a small chunk of rubber had been ripped out, which I assessed to be damage caused by pinching the tube during the landing. That is, a result of the flat tire, not the cause.

At the same time, I noticed a very small puncture leak in the tread area. It was so small I could not see the actual hole. Based on that, I suspect that during ground operations at L77 I rolled over something that punctured the tire, probably during departure. While flying back at the reduced pressures at altitude, the tire slowly lost pressure. Upon landing, the tire was able to hold some of the load of the airplane, until either the vertical load or side load on the tire caused the tire to be pushed off the bead, unsupported by the low pressure in the tube. At this point, the tire collapsed and the wheel pant touched the runway, supporting most of the aircraft weight, and most likely preventing further damage to the wheel.

Wheel pant damage. Post-it points to a small break and a crack. Bottom side shows a little wear

There was surprisingly little damage to the wheel pant. Master composites fabricator **George "Knife" Gennuso** credits that to a mod we made to the pants a few years ago. While addressing some damage to one pant right behind the tire, we had added some significant reinforcing fiberglass to this area in both pants. Knife thinks that this additional reinforcing gave the strength to

support the airplane. Knife has already made repairs to the tear in the side of the pant, and I decided not to build up the part that was worn down because it is in a location that is very difficult to see, and I already had ground clearance issues with wheel chocks anyway. A spray of paint and it was considered "repaired".

Several people have commented that I was lucky I didn't ground loop. I never gave it a thought. I think this was avoided because I was already pretty slow when the tire failed, and because of the crosswind I was already hyper-focused on maintaining directional control.

Oddly enough, this wasn't really much of an impact on my flying plans. For two or three weeks I had been seriously considering replacing both tires, because they had worn to be so out of balance that they shook violently on takeoff from about 40 to 60 KIAS—so bad I couldn't focus on the instruments. This just means I replaced the tires about two weeks earlier than I was planning to.

In anticipation of changing the tires, I had designed and fabricated a bead breaker to get the tire off of the wheel. I could have just bought one at Harbor Freight for $50, but I thought I would challenge myself to design one capable of working on any tire from a tail wheel tire up to the **Kommandant's** 8.00-6. I was successful in my quest, having built a bead breaker at a cost of $0. How? Everything in it was made from materials in stock. I've tried the bead breaker and it works even better than I had hoped. If you need to change some tires, just give me a call and you can borrow it.

Since I'm changing the tires, by my own procedures that means it is time to repack the wheel bearings. At the last condition inspection I noticed that the brake pads were getting near their minimum thickness, but I figured they would probably last for another year. However, since the brake calipers have to be removed to remove the wheels, I decided to go ahead and install the new brake pads now.

Using the shop crane and a cable to lift the sore foot off of the car dolly

The new bead breaker in action

One problem with removing the brake caliper is that there is nothing to keep the pistons from working their way out. This is especially a problem when the pads are worn, so the pistons are already farther out. If the pistons come out far enough you will have a big mess o' brake fluid all over the floor. Here a big wrench and a C-clamp take care of the problem.

- Russ "Erbman" Erb

Report From EAA 1000 Det 5

I had a dream - a very vivid dream in which I received an email (or text) from **EEZ** or perhaps his minion. I can't be sure. In that email, **Zurg** accused me of being a slacker, making no appreciable progress on the RV-8B Astroblaster. He enticed me to offer evidence to the contrary in the form of a report for ***The Leading Edge***. It's taken me a few days to wrap my head around this. Could it be true? The empirical evidence certainly points in that direction. But, I have made some progress. I can address this. So, I went looking for that email. I know I would have kept such a thing. I have a folder just for correspondence with EAA Chapter 1000. Alas, it is not to be found. That is when I started to wonder if I merely dreamt of it. I talked to **Mary**, and she recalls I mentioned it to her. But, it is not to be found. Was it a text on my phone? (*Actually, yes it was – EEZ*) My Motorola suffered a catastrophic failure a week ago, and I replaced it with an iPhone. But, in the process, I lost most of my contacts and text messages. So, it may have been a text on the dead Motorola, or it could have been just a horribly vivid dream. Nevertheless, in response, I will attempt to wax loquacious and offer an appropriate dissertation on my homebuilding efforts. I will send you a report on the design, fabrication, and installation of the wing tie down lights I made.

In other news, I recall someone pointing out the clash of colors with the pink license plate frames on the yellow and black Tonka (Jeep Renegade that replaced Flame). Thinking that they would be an appropriate addition to a vehicle sporting any "Hello Kitty" memorabilia, I sent them to the House of Erb in February. I also included a check to the EAA Chapter with More Zeros Than Any Other Chapter for my annual dues. I am in the process of changing banks, and I note that my check dated 17 Feb 17 has not cleared. So, I must ask, did you receive the plate frames and the check? (*Yes*) If so, did you pass my check to the treasurer? (*Yes*) I want to close that account but I will wait until **EEZ** and company have gotten their rightly obtained $20.

But, about the **Astroblaster**, I can explain. I can't call it the "**Glacier Girl**" because that name is already taken, but it would be an apt description. I am still fussing with closing up wings. I finished the drawings for the electrical systems in the wings. That was necessary to assign all the wire numbers. I printed those wire numbers and applied them under clear heat shrink. But, I rethought my landing light installation. There are three lights in each wing tip. And, they are bright enough that I plan to turn them on in stages. I have a four position rotary switch that will turn on the lights in three banks, starting with the outboard lights. The lights draw more current than my rotary switch can handle. So, I designed a circuit that controls the lights using Darlington transistor pairs. So, the rotary switch is only passing the switching current. Some diodes between the banks of circuitry are responsible for keeping the outboard lights on when the switch is moved to the next position. I also have LED flood lights that will fit in the wing tips and serve handily as taxi lights.

As you may know, **Mom** passed away in August. Since then, I have been preoccupied with resolving the issues associated with her passing. **I also presented Mary with a marriage proposal at Disney World in November, which she graciously accepted.** We have been somewhat preoccupied planning our wedding and reception. The theme is based on the Monopoly game. We are designing invitations and decorations. We have chosen 14 October 17 (*to celebrate the 70th anniversary of supersonic flight?*).

I can also report that I made the trek to Van's Aircraft in late December to get the fuselage kit. I succeeded in bringing the kit to Texas, but the **BWF** was Alpha 3 in Ogden, Utah. Ironically, I had it towed to the dealership where I purchased it fifteen years earlier, while working at Hill AFB. Mary and I flew out and drove it home after it was repaired in January. Since then, I have been at the beck and call of the HOA and working on the requisite projects for the local United Methodist Church. If you can get here for the wedding, you will get to see the LifePoint UMC where Mary and I met. Get there early enough and you can have one of the "Free Parking" designated spaces. When you start thinking about a Monopoly themed wedding, there are just all sorts of silly stuff you can do.

I hope all is well with you and yours. I look forward to hearing that you received my check along with the very pink license plate frames.

- Scott M. "Stormy" Weathers
EAA Chapter 1000, Det 5, on the Texas frontier
DCMA/AJEE

Young Eagles Report

All,

Thanks to some terrific volunteers we had a successful series of Young Eagle mini rallies on Saturday the 10th, Thursday the 15th and Saturday the 24th of June.

The Young Eagle flights were accomplished in a Piper Cherokee, an RV-10 and a Cessna 180, staging out of the Fox Field terminal building lobby.

The weather was accommodating even though we had to fight the heat and strong surface winds.

A total of 14 Young Eagles were flown; some getting more than one flight.

The total Young Eagle sortie count was:

YE's	YE flights	YE sorties
14	13	19

Our EAA Chapter 1000 volunteer pilots have been doing their best to accommodate the very enthusiastic Young Eagles from the local AFJROTC, CAP, Young Marines, and Aviation Explorers.

We will continue to accommodate these young aviators through invitation-only Young Eagle events as our volunteer pilot resources allow.

Our next Young Eagle event will be 9 September at Tehachapi Airport, courtesy of the terrific volunteers at the Tehachapi Society of Pilots, and the Women in Aviation International (WAI) .

This will be open to the public; first come first serve.

Reference the Young Eagle schedule for this event and others in the SoCal area:

https://www.eaa.org/en/eaa/events

Thanks!

- Tom "Duke" Wayne
EAA Chapter 1000 Young Eagle Coordinator
661-733-8825; twfox2@sbcglobal.net
3833 Sourdough Road, Acton, CA 93510

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

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

Jul 18: CNX ~~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

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

Dec 19: EAA Chapter 1000 Festivus Etc Celebration, 6:00 p.m., Kommandant's Kwarters, 42370 61st Street West, Quartz Hill 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.

Contact our officers by e-mail:
President/Flight Advisor Gary Aldrich: gary.aldrich@pobox.com
Vice President Hellmuth Steinlin: hellmuthsteinlin@hotmail.com
Secretary Kent Troxel: kenttroxel@sbcglobal.net
Treasurer George Gennuso: pulsar1@sbcglobal.net

EAA Chapter 1000 Technical Assistants

Composite Construction		
George Gennuso	pulsar1@sbcglobal.net	661-265-0333
Brian Martinez	brianmmartinez@aol.com	661-943-5379
Wood Construction		
Bob Waldmiller	bob@waldmiller.com	661-816-7224
Aluminum Sheet Metal Construction		
Bill Irvine	wgirvine@yahoo.com	661-948-9310
Russ Erb	erbman@pobox.com	661-256-3806
Welding/Welded Steel Tube Construction		
Russ Erb	erbman@pobox.com	661-256-3806
Engine Installation		
Russ Erb	erbman@pobox.com	661-256-3806
Electrical Systems		
Russ Erb	erbman@pobox.com	661-256-3806
Instrumentation and avionics requirements for VFR/IFR		
Gary Aldrich	gary.aldrich@pobox.com	661-609-0942

Inputs for the newsletter or any comments can be sent to Russ Erb, 661-256-3806, by e-mail to erbman@pobox.com

*From the **Project Police** legal section: As you probably suspected, contents of The Leading Edge are the viewpoints of the authors. No claim is made and no liability is assumed, expressed or implied as to the technical accuracy or safety of the material presented. The viewpoints expressed are not necessarily those of Chapter 1000 or the Experimental Aircraft Association. **Project Police** reports are printed as they are received, with no attempt made to determine if they contain the minimum daily allowance of truth. So there!*

THE LEADING EDGE
MUROC EAA CHAPTER 1000 NEWSLETTER
C/O Russ Erb
3435 Desert Cloud Ave
Rosamond CA 93560-7692
http://www.eaa1000.av.org

ADDRESS SERVICE REQUESTED

THIS MONTH'S HIGHLIGHTS:
NO REGULAR MEETING THIS MONTH
EVIL EDITOR ZURG SPOOFS PROJECT POLICE
HAPPY 45TH ANNIVERSARY MR. AND MRS. KOMMANDANT
RANDOM THOUGHTS FROM ERBMAN'S FLYING

EAA™
THE SPIRIT OF AVIATION