

April 2006

Experimental Aircraft Association Chapter 33

A monthly publication of the Dr. Alexander M. Lippisch Chapter of the Experimental Aircraft Association, Cedar Rapids, Iowa.

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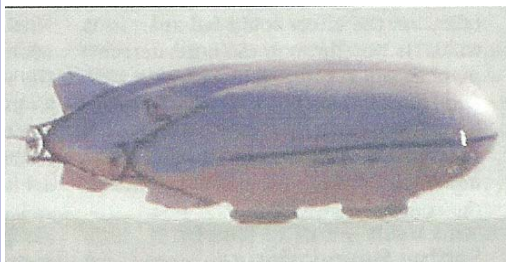
Visiting the Skunk Works

By Jack Rezabek

I just returned from a warm up trip to Palmdale CA. We spent some time with my son Rick who works on the Joint Strike Fighter and my other son Mike who works on the F22. We did some flying in Rick's Stinson Reliant and Mike's L2 Taylorcraft.



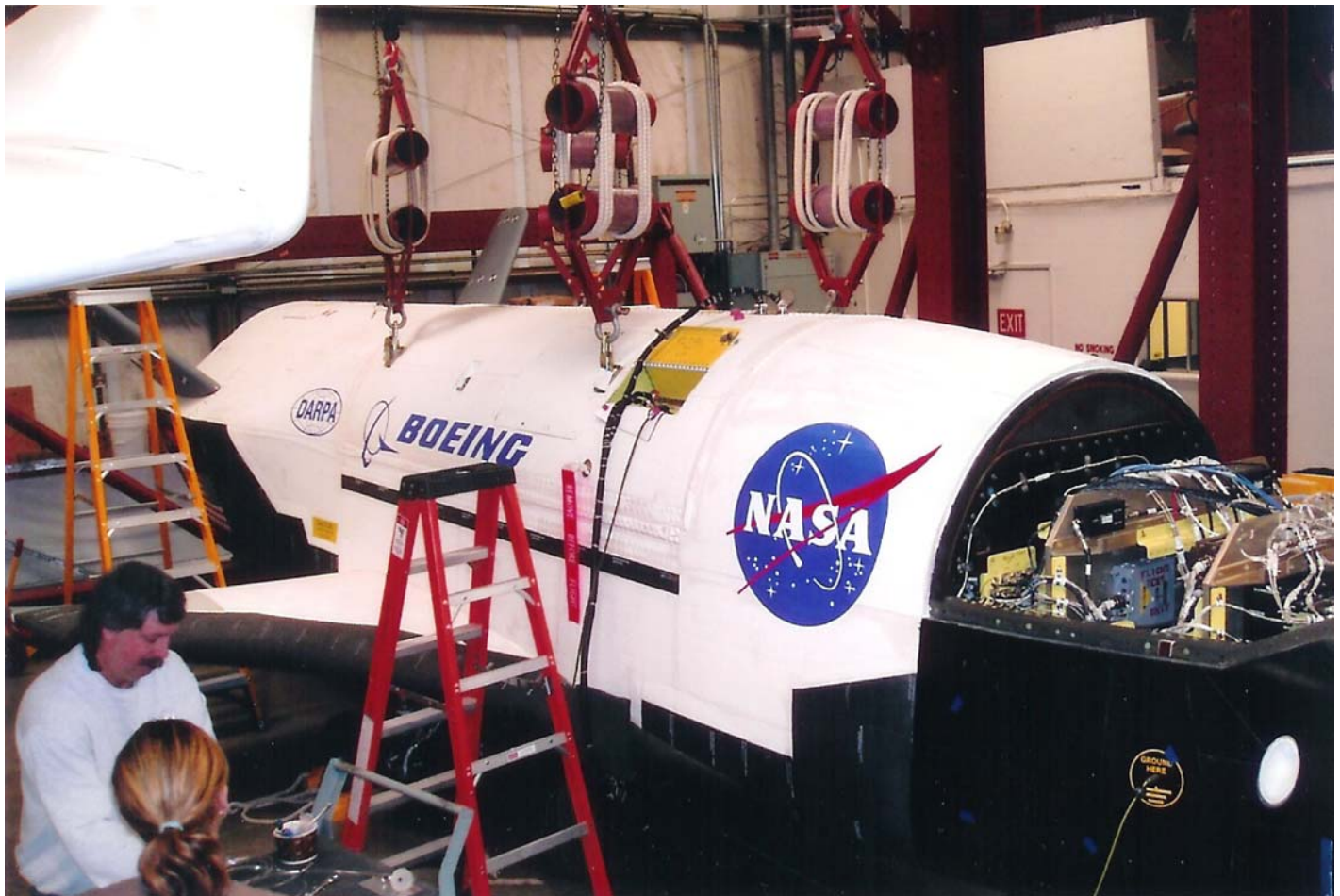
Mike and I parked at the Palmdale airport one morning to watch them test fly the Skunk Works' latest creation; the P-791. It is a hybrid heavy load airship. It is a helium filled airship but is still



heavier than air and gets the last 20% of its lift from flying through the air. It is being developed as a heavy lift long loitering platform that could be a radar or communications center. However, it certainly won't break any speed records.



We also got some time in the Scaled Composites hangar to check out the White Knight. They are going to use the WK to take the new Boeing X37 up for a drop test from 35,000 feet. There are no engines on the X37 but lots and lot of sensors and other black boxes. No one would say what exactly they were testing for but It is believed that the X37 is a test bed for developing the next generation of space shuttle.



T210 checkout

By Jim Meade

On one leg of a recent ferry trip to pick up a G1000 equipped C172SP, I had my first left-seat time in a 1978 Cessna Centurion, otherwise known as a turbo 210. This six-seater is quite a load carrier. There is plenty of legroom in the second row of seats even for a full sized six-footer like me. I've flown most of the other Cessna singles and the 210 showed me why it is the top of the class.

My leg of the trip was from Clinton, MO to Iowa City. We filed for 5,000 and flew through a cloud layer that started at about 2500 feet and went to over 4,000. We were above the clouds until the Iowa-Missouri lines, where they climbed to our altitude so we had to punch through a few tops before breaking out to VFR the rest of the trip home.

Using the recommended 10 degrees of flaps let us easily rotate at about 60 knots lightly loaded. I kept the manifold pressure under the yellow on takeoff and pulled power back to 30" for cruise climb. Gear up, flaps up and cowl flaps closed cleaned us up for the climb and we ducked into the clouds for a few minutes. The flight director made flying the filed course very simple.

The prop came back to about 2450 RPM and fuel was leaned to about 1550 on the EGT and about 20 gallons per hour or 110 pound per hour flow rate. Avgas doesn't always weight exactly 6.0 pounds per gallon even though we like to use that for planning purposes.

We tried at about 160 knots and set the autopilot. With a course of 023 degrees we had to head about 018 to account for the 10 knot per hour wind from 330 degrees. The GPS calculated all that so we didn't have to employ the E6B to solve the winds aloft question.

After leaving the clouds behind, we ran in a little light chop nearly to Iowa City. We were showing about 160 knots and if the ruts had been any deeper we'd have pulled back some speed to get closer to V_a , but the chop never got much more than noticeable. I was wondering how the lighter C172 behind us was fairing.

The weight of the 210 helped cushion the bumps but is definitely noticeable also in the pattern and during ground handling. I didn't have any difficulty in slowing the 210 down. 10 degrees of flaps can come out at 150 knots and gear comes down at 140 or below. The rest of the flaps can come down at the top of the white. This plane had speed brakes but we didn't deploy them this trip.

Where the weight showed up was in the elevator response. Trim is definitely in order. You do not muscle the 210 for too long because you will find it tiring. Thankfully, the trim was responsive and precise. I've heard all the stories of the 210 being nose-heavy on landing so I was thinking about it in the flare. I didn't find it all that hard to keep the nose up, but I was generous with the trim and not shy about putting some muscle in the flare.

All in all, this airplane impressed me as a really good point-to-point load hauler. It's not designed to fly to pancake breakfasts, although if you wanted to do that you could put a good sized family in the plane. I hope to get some more time in the 210 soon and further explore it's flight envelope.



First impressions of the G1000

By Jim Meade

On St. Patrick's Day, I had a chance to fly to the Cessna factory in Independence, KS and ferry back a new C172SP with a G1000 panel to Jet Air in Iowa City, where it joined the training fleet. My ride back was part of my orientation so I can give instruction on the G1000. Brian Wattenbarger, chief instructor at Jet Air, flew right seat and gave me an initial checkout while I flew left seat. It was a busy flight for me, the more so because we had to file IFR and flew IMC for part of the trip, although we didn't have to shoot a full approach.

I've flown some of Prof. Tom Schnell's simulators so altitude and speed tapes were not new to me, but the G1000 still seems like wizardry at first. I'm not even going to try to give you a detailed review of this package. I expect to do that in a later report. This time, I'll only give impressions.

There are two large square panels, one in front of each flight station. Some of the information can be moved back and forth from one panel to the other. For example, before starting much of the engine and other annunciators and system information is in front of the pilot. Later, you can move that to the right panel where it is still easily seen, while clearing the pilot's panel for flight information. Much of the system information is displayed in both digital and analog form. For instance, engine RPM is shown as a number and as a virtual dial with needle and redline. There are only three "steam" gauges on the panel, an airspeed indicator, altimeter and heading indicator, and they are low in the middle of the panel.

While flying, you look at an attitude indicator that acts somewhat like a flight director. Beneath it is a course indicator that functions somewhat like an HSI. On the left side of these graphics is a speed tape and on the right is an altitude tape. Under the altitude tape is the altimeter setting readout. Both the tapes are in a vertical format. You can set a bug for desired altitude just as you set a heading bug. When you fly with autopilot engaged the G1000 will acquire and level off at the altitude you selected. You can also set climb and descent rates which the autopilot will execute as long as they are within the plane's capabilities.

There are dual navcoms with displays and controls on both panels. The navigation inputs can be displayed as arrows on the HSI.

I was so fascinated with the pilot's station that at first I didn't pay much attention to what was shown on the right panel, but as my workload lessened Brian showed me the many navigational and systems displays available. Much of the information is familiar to those who have a high-end GPS, but with the huge panel it is displayed in a very readable form on the G1000.

The Nexrad displays from weather satellite radio are impressive and useful.

I flew the G1000 plane for a little over 2 hours. By the end of that time I felt comfortable with the display but of course have quite a bit to learn to be able to get full value from the system. It is exciting to have so much information so readily available.

I'll give a fuller report on the G1000 as I get some more time in it. In the meantime, let me leave you with the notion that whatever kind of music you like, you can find it on this system. That is, if you have the time and interest left over after being immersed in the operation of the two panels. Oh, by the way, don't forget to look outside the airplane once in a while! As wonderful as the G1000 is, we don't want to become so mesmerized by it that we neglect a good scan of what is going on outside the cockpit.

Last Meeting - Alpha Omega Aircrafters



We had a good turn out for March's meeting. We got to see lots of new faces and meet some new builders and potential builders. We hope those new faces become regular faces. We met at Alpha Omega Aircrafters' new location at the Eastern Iowa Airport. Randy showed us around his facility and showed off several aircraft under construction there. The aircraft were at various stages of construction,



some nearly complete with engines hung and wiring being run. It is always fun to "compare notes" with other builder and see other construction techniques and tricks.

Next Meeting - Spring Banquet

By John Anderson

For our Spring Banquet this year we have arranged for a very special speaker. In 2003 CarolAnn Garratt flew around the world in a Mooney M20J to raise awareness for ALS (Lou Gehrig's disease) after losing her mother to the disease. Carol Ann will be discussing the logistics of the trip including all the paper work that must be filed to travel between countries and negotiations including "expedition fees" (aka bribes) that are occasionally required, the modifications to the plane necessary to have the required endurance, her physical and mental preparation to have the biological endurance, communication, and the reaction to a plane from the USA in certain countries, and the unexpected support she received along the way. She will be taking about her background including her connection to ALS which was the main reason for making this trip. She is a very energetic person and a terrific speaker. If anyone falls asleep they should be examined for a sleep disorder. Carol Ann made this trip at her own expense in a plane that is reasonably within reach of lots of individuals. All this makes her story an interesting one but being presented from a woman's perspective makes it even more unique. At the end of the presentation members would have an opportunity to purchase a book that details her trip with all the proceeds going to fund ALS research.

Our banquet will be April 14 6:00 pm at the Ox Yoke Inn, Main Amana. The cost for the dinner will be \$20.00 for a three meat choice meal including pie, drink, tip, and tax. We need to let the Ox Yoke Inn know how many people to expect so we ask everyone RSVP as soon a possible. Please contact John Anderson email: JoAnderson@unitedfiregroup.com or Janet Blackledge phone 319 362 2625.

Up Coming Young Eagles Events

By Connie White

We have a big spring planned with several YE events so I hope everybody is ready to fly lots and lots of kids. Our first event will be in conjunction the Big Kids toy Show May 20 11am to 3pm. Then just two weeks later we will fly YE Saturday June 3 at Vinton's Open house and again Sunday June 4 at Washington Iowa. Then for the B-17 visit we also be flying YE June 27th and 28th 4-7pm. We will also fly Young Eagles at Marion on Sept. 16. As always we need ground crew as well as pilots so please contact Connie White longez38ar@juno.com or 319-393-6484 if you can attend any or all of these events.

President's Corner Fly Market

By Randy Hartman

As I approached doing this newsletter this week I was wondering what to write about. I thought I would look at the Chapter 33 website to try and get some insight. I was looking at the 2005 calendar on the website and I noticed that last April the meeting was cancelled due to the untimely death of two of our members; Steve Redman and Dave Culbertson. This gave me cause to pause – and yes, reflect.

Dave was one of my closest friends and it has been very hard on me every time I think about him. It took me almost 10 months to finally delete him from my list of contacts in Outlook. I have his memorial service program under the glass on my desk so I see his face everyday. In addition, this week I am putting a new tail wheel on a Christen Eagle for a new customer, which reminds me of the airplane Dave and Steve died in. I guess I am supposed to garner something from all this.

Maybe so, maybe not but what I am thinking about is safety. Safety should be the most important idea that permeates everything we do with our airplanes. Whether it is in building, performing maintenance, doing flight planning, or flying, we all need to do everything we can to make this hobby of ours as safe as is humanly possible and this is the time to be thinking about it. The days are getting warmer and longer and flying will begin to take a larger part of our scheduled free time. Let's all be extra careful to think about safety so we aren't going to anymore painful funerals of friends who have died in an airplane.

FOR SALE I have the empennage and wing kits for an RV-8/RV-8A. The empennage comes with electric trim. The wing kit is standard, but it is missing a few parts. There are some unformed aluminum pieces missing (used to create brackets, etc.) and the top skin of the left flap was dented and is now being used for scrap aluminum. I have not completed any work on the empennage kit, but the guy I bought it from did a little work - put the vertical stab spar together I think. For the wing kit, the left wing spar, ribs, and skins have been drilled together. I have them taken apart to prime the ribs and drill holes for wiring. Both flaps have been drilled and clecoed, with the exception of the top skin of the left flap. I have started drilling the holes attaching the stiffeners to the ailerons. Asking \$1400 for the empennage and \$4500 for the wing kit, or best offer. Scott Loewen 319-364-5018 loewen@sierralima.com

FOR RENT Eastern Iowa Airport, Hanger 51 is now (starting April 1st) being rented by Alpha Omega Aircrafters. It is a 60 x 60 hanger in the first row of hangers over by the National Guard Armory - East Tees. I have one Cessna 414 renting some space and have room for one or two homebuilt types remaining. The going rate is \$87.50 per month per airplane. Anyone still needing some space let me know and we'll make arrangements to get you in.

FOR RENT Half of East T hangar 37 is available for rent. My Sonex takes up only one corner with plenty of space left. If you have a high wing then we won't even need to move planes to get in and out. David Koelzer david.koelzer@mchsi.com 319-310-3641

Wanted: Possible partnership in the construction of a RV-10. I am thinking of one or two individuals that would like to own a RV-10 in partnership. Construction and financial details to be worked out. Steve Ciha, 319-533-4543 or steveciha@earthlink.net

Wanted: M1 Carbine, prefer Winchester or Rockola manufacture. I need a carbine to fill out my U.S. service rifle collection. David Koelzer 319-310-3641 david.koelzer@mchsi.com

Chapter 33 Calendar

April 14 6pm Spring Banquet CarolAnn Garratt, around the world in a Mooney, Ox Yoke Inn, Main Amana please RSVP

April 4-10 Sun 'n Fun Fly-In, The 32nd Annual Spring Celebration of Flight!

April 8 11am - 2pm Annual Chili Fly-in / Drive-in Hosted by: Plane Crazies Fort Dodge, Iowa Regional Airport

May 20-21 2006 Eastern Iowa Big Kids Toy Show, Fly-In Breakfast every morning, Young Eagle Flights, Hangar Dance Saturday night, Iowa City, Iowa Municipal Airport

June 3 Young Eagles, Vinton airport

June 4 Young Eagles, Washington

June 17 Hangar Concert, The Iowa Accordion Club and Charles Wendt's cello, Green Castle Aero Club (IA24)

June 27-28 B-17 Aluminum Overcast rides and tours and Young Eagles



Self portrait of Mark flying next to an extremely steep mountain side.

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