

Chapter 33 The Lippisch Letter

July 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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Skyler Turns Five

By Mark Navratil

Skyler's Fifth birthday was on June 17th and we celebrated with lots of airplane-related activities. We started out the morning by strapping into N2D and flying to Cassville, WI for their annual fly-in breakfast. Cassville is one of the more fun, scenic places to fly from eastern Iowa. The runway is sandwiched between the Mississippi River and a tall bluff, unlike your average airstrip-in-a-cornfield which is the norm here in the Midwest.

The breakfast was very good, only about half a dozen airplanes were there but lots of the local townsfolk came out and they were all very friendly. We got interviewed and photographed for the local paper and some old lady gave Skyler a train whistle.

One of the highlights for Skyler was seeing a good-sized turtle crawling around in the grass near the runway. It was probably about 20" long not including head and tail. A local pilot said the turtles are common there during the summer and they call them "speed bumps." He advised that it's a good idea to check the runway care-



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it started to weathervane into the wind. Just at the moment of touchdown I realized I had full rudder in and it still wasn't straightening it out, so I gave it full throttle and went around for another try. This time I used half flaps and a bit more speed and landed uneventfully.

After parking the airplane we spent some time renewing old acquaintances and answering questions from interested builders. Cleveland Aircraft Tools is located in Boone and there's also a hangar on the airport with half a dozen RV projects under way. A great place to build an RV with lots of expert assistance available!

After looking around at other airplanes we joined the rest of the crowd for lunch. Then we decided to head for home as showers and thunderstorms were forecast to move into the area. We decided to fly back to KCID as a flight of three with Tom Olson and Steve Ciha. RV builder and Chapter 33 member John Roberts and his son Luke were passengers in Tom and Steve's airplanes.

fully before landing. I can imagine it would do a lot of damage to my airplane to hit one of those things at high speed.

After eating our fill of pancakes, we walked back through the crowd surrounding N2D, did a careful preflight and run-up, checked the runway for speed bumps and took off uneventfully. Next stop was Manchester for "cheap" gas (\$3.15/gal). Then we punched KBNW into the GPS and headed west for Boone, Iowa, where there was an RV fly-in going on.

Thirty minutes later we got to Boone and there was a stiff, gusting crosswind on the main runway. Boone has a shorter grass strip that was better aligned with the wind, but I am hesitant to land on grass strips if I don't know anything about them (the RV will handle a smooth grass strip with no problem, but doesn't do well with rough strips, gopher holes, etc). As I came into land I had my crosswind correction nailed, until I got into the flare when I could feel a strong gust hit the airplane and



Shortly after takeoff we started encountering some rain showers and decided to deviate a bit to the south. We were able to pick our way around them and stay VFR-legal without any problem and were soon back home safe and sound.

Saturday evening was the annual scholarship fundraiser concert at Greencastle airport. The weather cooperated and our family enjoyed a nice evening with good food and great music. Those of you who haven't gone to this event should try it next year and see what you've been missing...the musicians are professionals and there's quite a bit of variety. If you really don't



like music, you can always enjoy the food or just walk around and look at airplanes.

Last but not least, for Skyler's birthday party he said he wanted an airplane cake. So mommy baked a good chocolate cake and daddy cut it up and assembled it into an Long EZ. How many kids get to have a birthday like that?



B-17 Flight

by Ron and Connie White

During "Aluminum Overcast's" visit we learned that it's next stop was Ankeny and there were 6 seats available to Chapter members. To decide who got those seats, all the volunteers who worked during the B-17 visit and the Young Eagles event entered into a drawing. The winners of the drawing were; Ron White, Keegan Millard, John Tvedte, Brad Cunningham, Carl Carson and John Anderson. Carl gave his ticket to Connie and Brad gave his seat to John Banes.



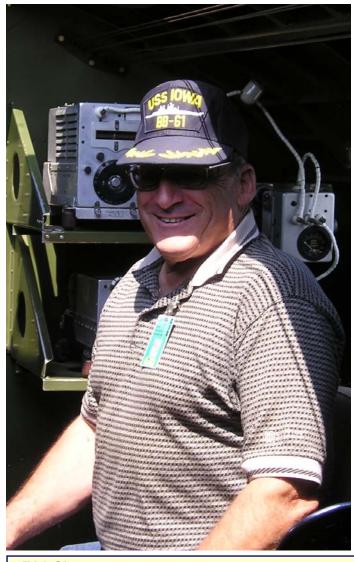
The flight from Cedar Rapids to Ankeny started out about 10:20. When John Anderson, John Tvedte, John Banes, Keegan Millard, Ron and Connie White boarded the aircraft with two pilots and two crew members. We taxied to the end of runway 9 and did the run up. When the tower gave us permission to take off the beautiful B-17 began to roll for take off. It wasn't long and we were off the ground heading east past the tower. At about 3 to 400 feet the pilot put the B-17 into about a 45 degree bank until he rolled out on a heading of 265 degrees. As soon as the airplane wings were level again we were told we could remove the seat belts and move around the aircraft



at will. The trip took from 30 to 40 minutes at 2500 feet and165 MPH. It didn't seen like the trip took that long because of the moving from station to station.

When we got to Ankeny the pilot again went from left base to a heading of about 160 degrees, back to about 200 degrees, and back to 180 degrees with no reduction in power as we went down the runway. We then pulled up and rolled left to enter a left down wind, Base, and final. At the end of the runway we entered the taxi way which lead us to the ramp where there was several people waiting with the press. I think the pilots enjoyed the approach too because they were smiling as we departed the plane. The weather was great and great fun was had by all.







Buzzing Tail

Tom Meeker

A couple weeks ago I was at a Young Eagles event in Iowa City giving rides to kids in my Mustang II, "My Patience." It was a large fly-in breakfast and Big Boys Toy Show, so there were lots of aircraft in the vicinity. A couple of times just for fun, I made high speed low passes down the cross wind runway diving in at close to 190 knots. What was interesting was, as I came in on the first approach, I thought I heard another aircraft coming in right on me. It was loud enough that I knew if it was another airplane he had to be right next to me and on a collision course. I started looking all around for the traffic but saw no one and figured no one was going to be under me at 190 knots. The sound was consistent all the way down the runway until I pulled up at the other end. It sounded all the world like someone was on my tail trying to chew me up with their propeller. This happened twice. I finally concluded it must have been the sound of my own engine reflecting off of the pavement. No, I wasn't THAT low, but I had no other explanation. Turned out I was wrong.

Memorial day morning I took off with a friend for Lone Rock, WI. from Cedar Rapids, IA.. We were just flying up for breakfast at the Picadilly Lilly restaurant there on the airport. There was a group of us in the EAA chapter going but I left somewhat earlier than the rest because my rider needed to be back earlier. As I lifted off, I noted that same noise again. Sounded like another plane out there chasing me. It wasn't as loud this time but there it was. Now it had my attention, but it wasn't bad, and all seemed normal other than that, so I just kept my thoughts to myself. The visibility was hazy but the ride was smooth. I figured we were in for another wonderful morning of flying, friends and food. I had just turned the controls over to my passenger to give her her first shot at flying. Then everything changed.

About 20 minutes into the flight at 5500 feet and 180 knots we suddenly got a LOUD buzz coming from the tail cone. It's amazing how quickly your mind becomes focused when things like that happen. I immediately went into emergency mode and started analyzing the situation. I came back smoothly on the throttle to slow things down. I could physically feel my mind reaching out to the extremities of the aircraft to try to sense anything I could. There were no sensations in the controls that I could tell, but my first suspicion was some sort of flutter, and I suspected the rudder trim tab. My next thought was, Monticello Airport is just off to my right rear quarter. I can put down there quickly if I need to. But as the airspeed bled off below 119 knots indicated, the buzz subsided.

My suspicion was the rudder trim tab. It always did have more play in it than I wanted. The rudder trim was not part of the kit design. This was something I added myself which also meant it wasn't proven. However, I had about 95 hours on the aircraft with no issues up to this point. The problem was that the hole in the tab control horn was just slightly too large, which allowed the tab to wiggle just a bit. The trailing edge of the tab probably only moved 1/8" at the most but that was enough to concern me. I kept telling myself, "I need to fix that someday." And it seemed like the play was getter ever so slightly more as time went on until finally it gave just enough play to allow the flutter. At least, that was what I suspected.

Well, we canceled the trip and limped back to Cedar Rapids keeping it under 119 knots. I found as long as I kept it slow there was no buzz, but as soon as I got above that you could hear the buzz coming in. We made it all the way back and landed without incident. I looked everything over but could see no damage anywhere and no clear cause of flutter in any part except possibly the trim tab which did seem to have just a bit more play than before. So, with no breakfast, I said good-bye to my friend and proceeded to tear apart the rudder bottom and replace the control horn on the tab. I redrilled the clevis hole as tight as I could make it. But I noted that the clevis pin had also worn slightly in the middle so that the hole wasn't as tight when the pin was pushed through to the middle. I didn't have a replacement handy so I used tiny washers to re-adjust the position of the pin versus the control horn (made of .040 aluminum). This kept things nice and snug.

I wasn't able to test fly the bird until just last night. To my relief, everything worked great. I dove the plane to red line (196 knots or 230mph) without any hint of buzz. Problem proved and solved. Moral of the story? Next time you hear yourself saying, "I need to fix that someday." do it now. Don't wait until it gives you and your rider an adrenaline rush you hadn't expected.



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Read Back – "Jimmy Doolittle"

By Jim Mead

LTG Jimmy Doolittle will be forever famous for leading the carrier-based B-25 raid on Japan in 1942. His autobiography, I Could Never Be So Lucky Again, A Bantam Book, 1991, reminds us that Doolittle was an aviation pioneer before WWII and that after the raid he went on to lead America's great 15th and 8th Air Forces in the European and Pacific Theaters.

Jimmy is first to admit that he was brash, cocky and even reckless. We who fly today will be astounded at some of the things he did in airplanes. I mean foolish things. He wrecked more airplanes than some of us have flown. When you read his book you will conclude that if he were flying today he would have had his ticket pulled by the FAA for life several times over. How times have changes, and we wonder if it is always for the better.

The book opens with a chapter devoted to the Tokyo raid. Then we get a flashback to his pre-war life and conclude with his wartime and post-war careers. The book is heavy on aviation and light on his personal side, but there is enough discussion of him and his family to make it an intimate read.

Jimmy was a scrapper who did very well in the boxing ring as a young man. That characteristic stayed with him all his life. He managed to alienate some important people by intemperate or ill-considered remarks, among them Generals Eisenhower and MacArthur. Nevertheless, he was a leader who made a major contribution to the war effort. One of his decisions was to change fighter duties from bomber escort to air supremacy. He turned the fighters loose to destroy the Luftwaffe. Even his supporters agreed his leadership qualities were better than his administrative abilities, and he admits that he had to work on that aspect of his command responsibilities.

The book was written with the help of a ghost rider, Carroll Glines. It is done in an informal, easy to read style. Doolittle freely admits his errors and is generous to nearly all who opposed him, although there is one weatherman whom he loathes with great satisfaction. When we read of the exploits of aviators, we often don't think enough of what is behind them. Doolittle reminds us that in addition to being a leader and an advocate, he did his homework in the classroom. He got a Master's Degree and doctorate from MIT in two years. His aviation experiments were well considered and documented. He is well known as a pioneer in instrument flying.

During the war, Doolittle flew on many combat missions both in bombers and in escort fighters. He writes casually of flying P-38's, P-47's and P-51's as well as one of his favorites, the P-40 Curtiss. After he got briefed on the Ultra project, he was barred from flight over the continent.

To demonstrate that the B-26 was not a widow-maker, Doolittle feathered an engine on takeoff, continued flight, did a loop on one engine and restarted it at the bottom of the loop. Those of you who are mutlit-engine rated will appreciate the adverse yaw that he must have encountered as he climbed up the loop.

If you like aviation, this is a good book to read. It has a nice mixture of drama and daring, plenty of instances where you will hold your breath and a few times when you just shake your head. Doolittle writes like he was telling hangar stories. It's light but satisfying reading that holds your interest.

I think this is a book you will like to have on your aviation book shelf. It's available at a low price in paperback. It's fun, educational and inspiring. Recommended.

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B-17 Visit & Young Eagles

We don't have the final figures back yet but we filled up 11 B-17 flights with a lot of very happy people. I don't remember seeing anyone step off the plane without a big grin on their faces. We also gave ground tours to may hundreds of people. It was also satisfying to see the number of young people who were in awe of the aircraft and what it stood for. Most of all it was a joy to meet and talk with the veterans who had flown in B-17's during the war. And any time the veterans were on the ramp they were followed by a crowd eager to hear their stories which were told as if they had happened yesterday. Mike Wilson was also there with his Ryan PT-22, telling stories and shaking hands.

During this event we also flew 128 Young Eagles, many of which had just come from the B-17 tour.

Many thanks to all the volunteers to helped out to make this event a success and also to PSair and Alpha Omega Aircrafters who helped to sponsor the event. This event was a great success for our Chapter and also for our aviation community. I am sure that many people now have a much better aspiration of the things that go on "behind the fences" at our airports.





RMRFI, Leadville and Beyond

By David Koelzer

As I have done for the last four years I once again flew to the Rocky Mountain Regional Fly-in. I keep making new friends there and I once again had no shortage of places to stay and things to do. I flew out early Thursday and after a couple of gas stops I got to Meadow Lake airport near Colorado Springs just before a huge storm came over the mountain and bore down on the airport. I had just pulled my plane into a friend's hangar when it all broke loose. There were even a couple of twisters reported near the Air Force Academy. The next day a couple of friends and I decide to fly up to Leadville, 9927'. I had been trying fly there for several years but never made it. That morning the weather was perfect and we flew uneventfully through the passes and landed at Leadville. We took a few pictures, got our certificate, and then took off again for the flight home. The takeoff roll, of course, was much longer than I was uses to but I was soon climbing to make our altitude to clear the passes. The scenery was spectacular. Saturday I meant to fly to Front Range to the show but high winds and low clouds kept me on the ground even though every where else in Colorado seemed calm and sunny. The winds died down and the skies cleared just in time to keep me from heading to RMRFI before the airspace closed so I headed to Greeley to visit a Sonex builder friend. I got to Greeley just as three storms flanked the airport. I pulled my Sonex into Dennis' hangar and we went to dinner. After dinner the skies had cleared so we went flying a little and then I headed back to Meadow Lake. There were storms that had passed over Denver so I headed to the VFR corridor on the west side of Denver. It was getting dark as I came to Meadow Lake and I had dialed in the wrong Unicom frequency so I could not key the runway lights on. However my friend heard me in the pattern and switched on the lights for me. I landed a little shaken up but happy to get a beer that evening. Sunday I did manage to get to the show and had a fun day. That afternoon though after the show we had to divert to Kelly Airpark to wait out a storm over Meadow Lake. Once the storm had passed we continued to home base and flew over a patch of ground that was covered with so much hail it looked as if it has snowed. Monday I flew back to lowa uneventfully just in time to see the B-17 pulling up to PSair.



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Last Meeting - Flight Designs Fly Market CTSW at MXO

For our June meeting, Armin Jacobs, invited us to the Monticello Airport to view a few planes and projects. It turned out to be a rainy, cloudy day so no one flew in but the Naylors did have their CTSW up flying the pattern before the meeting. Despite the cold and rain Armin had setup a very welcome lunch of brats, burgers, baked beans and brownies and everyone enjoyed a good meal. After lunch we visited one of the large new hangars at MXO and looked over the Naylors' new Flight Designs CTSW. It is a composite Sport Plane designed and manufactured in Europe and newly imported into the US. It is powered by a Rotax 912 engine and is surprisingly roomy for a Light Sport plane. We also got to see Armin's RV-9a and compare the differences between the RV-9 and RV-6/7 series.



Next Meeting - Green Castle

On Saturday July 8th at 12 noon we are going to meet at the Green Castle airport. Mark Navratil, & Dave Leedom will be grilling up the usual fly-in fare and we will have the chance to enjoy a nice summer day at the airport. I am sure there will be many people flying in with just about every kind of airplane there is. So don't be shy about asking for a ride in something you have never flown in before or something you would just like to fly in again. See you all there.

FOR SALE Veterman crossover exhaust system. Stainless steel with very low time. Fits LYC. O-320 or IO-360 with narrow cowls. 1/2 price call Jack Rezabek at 319-362-4384

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 3 1 9 - 3 6 4 - 5 0 1 8 loewen@sierralima.com

FOR RENT Eastern Iowa Airport, Hanger 51 is now (starting April 1st) being rented by AlphaOmega 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. \$60/month David Koelzer david.koelzer@mchsi.com 319-310-3641

Chapter 33 Calendar

July 2 Fly In Breakfast, Airplane and Helicopter Rides, Marion, Iowa

July 2 9am Fly In / Open House Matthews Memorial Airport Tipton, Iowa

July 4 Flight Breakfast, Helicopter & Airplane rides, PIC's & children under 5 eat free Iowa Falls, Iowa

July 8 12pm Chapter meeting, burger, brats & ride shares, Green Castle Airport.

July 8 5pm BBQ Beef Supper, Hot Air Balloons, Zaanger Vintage Airpark, Larchwood, Iowa

Aug 26 11am 6th Annual Abel Island Fly-in, Potluck BBQ. (grills provided) Abel Island Airpark, Guttenberg, Iowa, Gary Fisher 319-480-0913 or FlyinEyeDr@aol.com



I wan'na be a PT-22 when I grown up!

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