

The Lippisch Letter



Experimental Aircraft Association Chapter 33

October 2000

The Lippisch Letter

is the monthly publication of the Dr. Alexander M. Lippisch Chapter (33) of the Experimental Aircraft Association, Cedar Rapids, Iowa.

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Adventures of an EZ Pilot

By Terry Scherman

This year I was going to fly my Long-Ez up to Oshkosh. I had done all of the preparation for the flight and I took Friday the 4th of August off to fly up. I got up early on Friday to checking the weather and found that it would be good to go up to about Madison WI, but was bad from there on. I kept checking the weather every hour but it only got marginally good enough to go about noon which was really too late. In this case marginally good was four miles visibility and just barely 1000 feet. I decided to wait and go on Saturday since the weather was supposed to clear out on Saturday. I should not have been surprised that the weather was the inverse of the day before. The weather was good around here but bad up at Oshkosh. So after wasting another day checking the weather I decided that I would not go this year.

Instead I decided to go out and do what experimenters do and tear into my airplane. Over the last few years I have wanted to make some changes to my airplane to make it a little more efficient. When I originally built the airplane I was a little disappointed in the speed of it. I initially could only get 176 mph out of it. This was done by running at full throttle at 1500' MSL and correcting to TAS. The first major mod I made was to build my own set of wheel pants. This gave me an additional speed of 9 MPH bringing me up to 184MPH the published cruise speed for a Long-Ez with an O-235 engine. I was still disappointed because I have an O-290 and it should be making a little more horsepower than an O-235. The next thing I added was a ram air intake. This was installed in my NACA intake which may not be the best place for it but it looks clean and I did not have to make any changes to the cowl. This gave me an additional 9 MPH which brings me up to 192 MPH. This is closer to what the plane should be doing with the engine that I have. I still thought that I could do better, I would like to get it up to 200MPH. .

One of the things that is supposed to make a difference is a boat tail type cowl. This was the change that I decided to do. If you have seen my cowl after this mod you would notice that the only part of the lower cowl

that is original is the out side edges where it bolts to the airplane along with the very bottom of it. My goal was to get more speed but not hurt my cooling. My initial testing showed me that I had lost some cooling capability when climbing up to 7500'. My oil temp would climb up to 225 degrees instead of the 220 degrees that it used to climb up to. My testing showed me that I had not gained anything down low but at 7500 feet it looks like I had gained about 5-6 MPH, a significant change. I then made a change to add a nose bowl to where the prop comes out thinking that the large exit area was being detrimental to the airflow. This change turned out to be ineffective in speed change and it also tended to trap a lot of heat in the cowl after shutdown. I decided to modify the cowl again to put in a reversed NACA outlet for the oil cooler exiting out on the right side of the boat tail cowl. I spend 3 days over labor day weekend, making a nice ramp for the exit and make parts so that it was baffled properly. This mod proved to be a very bad idea since my oil temperature climbed up to 240

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degrees during my climb up to 7500'. Worse yet is the fact that the temp would not come down after leveling off for 15 minutes. I tried some other things but this NACA outlet would not work and I changed it back. I also took out the nose bowl to eliminate the heat buildup that it had given me.

I was asked last weekend at the Whiteside County fly-in, why I wanted to go to all this work for such a small gain. My answer was that in my opinion this is what being in the EAA and building an airplane is all about – trying to learn something. Sometimes it is a lot of work and more often than not it does not work the way you thought that it would, but I like tinkering and will continue to make changes to my airplane. THE ADVENTURE CONTINUES.

Last Meeting

By Tom Olson

The September meeting featured a fly-in and ride share at Green Castle airport with a hot dog lunch provided by the chapter. Special thanks go to Don Nelson and the Green Castle Aero Club for hosting our event and providing the grill, tables, and chairs. If you haven't been to Green Castle, please look it up sometime. It is a beautiful back to the grass roots airport and home to the Green Castle Aero club with a diverse range of several airplanes available to their members. We had a beautiful day for the event with some impromptu fly bys and rides after the meeting. Unfortunately, the early sunset cut the time for rides short. If you haven't gotten that long awaited ride yet you will have to arrange for it separately or wait until next summer's fly in meetings.

President's Column

By Tom Olson

A committee was appointed at the September meeting to nominate officers for next year. The committee consists of Tom Meeker, John Baner, and Greg Zimmerman. The committee will report progress to the chapter at the October meeting and the candidates will be listed in the November newsletter. The election will be held at the November meeting. Please feel free to contact anyone on the nominating committee if you are interested in running for an office or would like to make an input on the process.

Our excellent news letter editor, Tim Busch, has been accepted into an Executive MBA program through Rockwell and will not be able to continue publishing the newsletter next year. If you are interested in assuming this role please contact the nominating committee.

We also discussed the need for a 501C3 chairman or officer's position. I believe the chapter should create a permanent office position to manage the 501c3 pursuit and required yearly tax filing. If you are willing to hold such a position or participate in this activity please contact the President and or the nominating committee.



gle fly the plane while I shot a few pictures. I was very impressed with his flying and told him so. I even offered to bring him along for future photo sessions. They all had fun, but he was bursting with pride, knowing he had a real talent for flying. The hook has been set. I think I will see him flying on his own some day.

Next Meeting

By Tom Olson

The October Meeting will be held on Sunday October 8 at 2:00PM in John Baner's Workshop in Fairfax, Iowa. Take Hwy 151 South of Cedar Rapids, then North on Cemetery Road (just after HandiMart).

This meeting will provide the opportunity for members to try their hand at welding steel components, cutting/drilling/riveting Aluminum, and a presentation on fiberglass work. Thanks for providing the facility and welding equipment John!



Get 'em Flying!

By Tim Busch

Some great fall flying weather is coming. How close are you to reaching EAA's goal of 10 Young Eagles per member this year? A few short?

I have found a great method of generating a stream of Young Eagles. School PTAs are always looking for prizes for carnivals, fund raisers, and rewards for students. Give them a call and you will be surprised to find your "prize" as one of the bigger and more sought after prizes by students and parents.

I just gave a ride last weekend to two Young Eagles and their Mother. Since I was asked to take a few aerial pictures for my brother-in-law, I brought a camera along and had my 14 year old Young Ea-

Greencastle Chapter Meeting

By Steve Ciha

One of the best things about flying is the people that I meet. Our last Chapter meeting was at Greencastle airport. The wind was blowing quite a bit, so the number of planes was somewhat limited. The paper plates had a way of scooting off of the tables, so I know that I am not exaggerating too much. The hot dogs and fellowship were still quite good, and several members showed up that hadn't been to meetings for quite a while. It was nice to see them again.

One man was standing near my plane and looking it over, so I struck up a conversation with him. He was nearing retirement and interesting building an RV. We talked about the usual stuff. About the kits, and what it takes to build it. I asked him if he had ever had a ride in an RV and he said no. I offered him a ride, but explained that it would have to be quick, because darkness was about 30 minutes away and I don't fly after dark.

He had come with a friend and his friend offered to pick him up at the Cedar Rapids airport. So it was a done deal. We would blast off Greencastle and do a quick circuit and then land at Cedar Rapids. He climbed in and I helped him get belted up. As we started to taxi away I asked him if he was a pilot. There are lots of people that build airplanes that aren't pilots, so I wanted to know who I was dealing with. He replied that yes, he was a pilot. As I back-taxed the runway, I asked him what he flew. His reply: MD-80s. This man was an ATP with probably 100 times as many flight hours as I have. Intimidation came over me

like a blanket. I think I said something like, "if I had known that, I never would have asked you to fly with me." But it was too late for that, his friend had left, and we were done with the runup and it was time to go.

After the take-off, we circled the field and came down the runway at red-line speed, a gentle bank to the left, dialed in CR ATIS and then contacted approach. One of the bad things about Greencastle is that it is so close to the big airport. A big jet and I were going to arrive at about the same time. I was going to runway 13 and he was going to 09. The jet was about 3 miles west of me and very easy to see after approach called it out. I reported the traffic in sight, and as soon as I did that, approach told me to turn west and approach runway 13 from behind the jet, and we were heading in opposite directions. He was on final for 09 and I was on a heading of 270. He explained to me that the jet's TCAS was sounding an alarm to alert them to an aircraft that was closer than 3 miles. He further explained that our small planes are nearly impossible to see by the big jets. This is especially true if we are "in the weeds" as he put it which meant that we were below the jet. He is certainly right about that. Traffic below is much harder to see than traffic above.

Approach told me to "turn right 360 degrees", and as we flew northward behind the big jet, we could see that he had taken some evasive action as he was well to the north of the runway centerline. We then listened in to a conversation between tower and the jet that was not very friendly. I read some articles on Avweb about separation, and found that the 3 mile limit can be changed by ATC under certain circumstances. If I report visual contact with the traffic, which I did, then ATC can reduce separation.

We were never closer than one mile, but the captain of the big jet didn't know that. And I wouldn't have known any better if I hadn't had the ATP pilot riding with me.

I can't say that I greased it onto runway 13 but at least I didn't embarrass myself this time. I don't remember the man's name, and perhaps that is a good thing. We hung around the hangar, four or five of us, and talked about flying. Us with the little planes that we so enjoy flying and them with the "big iron" that they fly for a living. I learned something new that day. I do just about every time that I fly. And I also met another nice person. I do just about every time that I fly.

B-17 Ground School November 4th - 6th

This Ground School, to be held in Oshkosh, Wisconsin, is an excellent opportunity for any B-17, warbird or aviation enthusiast to learn more extensively about the famous WWII "Flying Fortress." EAA Staff and ALUMINUM OVERCAST pilots and crew will put participants through a real B-17 pilot ground school. This special weekend includes a flight in and debriefing on the EAA Aviation Foundation's B-17, ALUMINUM OVERCAST. Participant does not need to be a pilot to go through this "one-of-a-kind" experience. Registration fee is \$650 for EAA Members and \$750 for Non-EAA Members. Fee includes B-17 flight, all materials, and room & board at the EAA Air Academy Lodge. For more information go to: http://www.eaa.org/education/adult_programs.html or call 920-426-6815.

Editor's Soapbox

By Tim Busch



History didn't do much for me when I was in high school. Toby and I were sophomores in history class where we often discussed flying. I thought helicopters were the coolest things in the world. Toby wanted to parachute. He said it was more likely that he would parachute than me flying helicopters, because they were so expensive.

When the other kids were looking at the Charles Atlas ads in the back of magazines, I stared at the Rotorway Scorpion Too advertisements. Just think, I could BUILD a helicopter! Then it wouldn't be so expensive! I scraped together \$10 for the information package that included a floppy plastic record with recordings of the sounds of the Scorpion and interviews with the designers, B.J. Schramm and Robert Everts. I was so excited to receive the package. Well, just like the mail order toy disappointment, here was a real helicopter alright; for only \$6000 at a time when you could get a pretty nice car for \$2000. Ouch. Oh well. I figured someday I would get to it.

So, years later I fly fixed wing airplanes. I still think sometimes that helicopters would be a cool thing and that the Scorpion, now the Exec, would be the ultimate homebuilt. I still have that original information package on the Scorpion. I even met B.J. once at Oshkosh. My brother,

Fly-Iowa 2001

By Jill Fishbaugh

Fly-Iowa 2001 (the state's annual fly-in) is planned for August 25-26, 2001 in Iowa City. The theme is aviation education and we were hoping to have all the state's local EAA chapters represented. The reason I am writing to you so early is that as you begin planning your activities for the coming year, this event is included as an activity on your schedule.

A thought was to have each chapter display at the exhibit booth area have hands-on activities for youth participation (such as wing rib building like was done at the Waterloo fly-in in June). Or if a booth isn't your thing, perhaps you'd like to fly some Young Eagles or coordinate a chapter fly-in as part of the activities. We would be happy to consider any other ideas you may have. A BBQ and hangar dance are planned as well as some popular airshow performances, F-18s, warbirds and possibly visits from NASA and the Smithsonian Air & Space Museum folks. I'd like to send a brochure of the activities planned to each of you to share with your chapter. Would you please let me know your postal address?

This is the 10th anniversary for the Fly-Iowa fly-in event. We appreciate the state's support and look forward to your involvement as we celebrate this landmark for Iowa aviation. Please let me know if you need any other information.

Happy flying,
Jill

after receiving a couple airplanes feel like I have gotten a long way toward that old goal. I wonder how Toby's parachuting is coming along?

Treasurer's Report

By Terry Scherman

As of 9/20/00 our account has \$4682. This does not include the last couple months of newsletter printing costs.

Fly Market

Send your buy and sell items for publication here to the address on the back of the newsletter or:
t.busch@www.mebbs.com.

FOR SALE:

Sport Aviation Magazines for sale, 1959-1999. Some issues missing/damaged, call for details.
\$100 O.B.O.

Mark Navratil, Cedar Rapids
393-4234.

Nearly completed RV-8 empennage, and most of the tools needed to complete your RV project. Over \$3000.00 invested. Call for complete list. Will consider any reasonable offer.

Jim 298-9068

FOR SALE:

Jeff Boyd can be contacted if you are interested in a flying Cozy aircraft. It is based at the Cedar Rapids Municipal airport.

Lancair 320 Kit for Sale

All the details are on my website. I am asking \$20K firm. Most uncompleted Lancair kits are selling for around \$22K.
<http://members.aol.com/psifactor/index.html>

EAA Chapter 33 Application & Questionnaire

Name: _____

EAA #: _____

Address: _____

City: _____ State: _____ Zip: _____

Daytime Phone: _____ Evening Phone: _____

Email Address: _____

Copilot's Name: _____

Pilot Ratings: _____

Aircraft Owned & Flying:

Aircraft Under Construction: _____

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**Dues are \$15/year. Make check payable to:
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In The October 2000 Issue...

Adventures of an EZ Pilot

Chapter 33 Calendar

October 8—2:00pm Chapter 33 Meeting John Bane's Workshop	Long Beach, CA October 20 Newsletter Deadline
October 12-14 NBAA Annual Meeting and Convention New Orleans, LA	November 3—7:00pm Chapter 33 Meeting North Liberty Bank Elections!
October 20-22 AOPA Expo 2000	

A Lufthansa 747 was holding short of runway 18 at Frankfurt Airport. Behind it was a USAF C-130.

C-130: "Lufthansa 747 that is number one for one eight, this is the Herky behind you, can you come up on 131.31?"

747: "Lufthansa pilots are professional pilots. We do not use unauthorized frequencies!"

(pause) **C-130:** "Frankfurt Tower, Herky One-Three. Can you please tell the professional pilot in the Lufthansa heavy, in front of us, that his landing gear pins are still in!"

