

# The Lippisch Letter



Experimental Aircraft Association Chapter 33

April 2002

**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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## Avionics Engineer Lands Airliner

by Alan Kritzman

No kidding, there I was sitting in the cockpit of an Air Canada CRJ-100 50 seat regional jet heading to Montreal with no able crew members. I was sitting in the right seat, the Captain was just sitting back drooling with an occasional chuckle. Just a reminder, don't eat airline chicken. Anyway, being the avionics engineer on this aircraft for Collins left me as the person most able to put this bird down in one piece. As least I knew where the switches were and how to work the flight management system and the autopilot. Then came the bad news the ILS into Montreal was out, and the only open runway has a 30-knot direct crosswind in blowing snow but at least it was VFR. I went to work plugging a flight plan into the flight management system.



The flight plan put me at 2500 feet, five miles from the end of the runway, from this point it was time to do some of that pilot stuff Maverick. Get the airspeed down to below 170 kts the flap and gear speed, the Captain mumbles something about a 140 knot approach speed so I dial the speed bug to 140 just as a reminder. About three miles out I pick up the VASI light, not good I'm low. Add some power, I'm still low at about 1 mile but I can see I'm going to make the runway. Now I can really see that snow blowing, this is going to be a rough landing. At 50 feet I start the flare. Roll the right wing down into the wind and a lot of rudder gets this beast in line with the runway. Just as I think I've got this thing licked, the left wing drops in the turbulence. Quick recovery and I'm wings level as the mains touch down and the ground spoilers deploy to assist with breaking.



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Wow I was a hero I saved the entire flight, then the lights come on and the door opens and they tell us our time in the simulator is up. OK so it wasn't a real flight but it was an Air Canada full motion simulator. This happened at a recent "working" trip to Toronto to perform a "flight test" to get some new flight management software certified on the CRJ-100 that Air Canada flies along with many others these days. The Captain in the left seat was a Bombardier test pilot and after the required flight test was done he let me fly an approach into Montreal. I did not realize he had programmed the simulator for a crosswind and blowing snow, I guess that's why he kept chuckling under his breath. The simulators outside visual effects are very realistic. They do show the snow blowing across the runway simulate turbulence and has dynamic motion to simulate the different loads you would feel if you were really flying. The good news is the whole thing was video taped and I will bring the tape to the next meeting that we are going to have VCR and TV set up at.



## Kit progress report RV-7A

By Steve Ciha

As some of you know, I am building my second RV series aircraft. Why, you ask? That's a difficult question to answer, but I will try anyway. Primarily, I like to build things. I also would like to go for the instrument rating and rather than re-work the instrument panel on my plane, I decided to start from the ground up and build another one. This way I can build on the bad weather days and fly on the good ones; a best of both worlds situation.

I had heard a lot about the kit improvements that had taken place in the five years since I had completed my plane, so was quite curious to see for myself if they were as good as everyone was saying they were. The big improvement is pre-punching all of the "skins" and pre-punching 95% of the underlying structure. How does that help? Well, nearly all of the layout work is eliminated. Old version kits required the builder to locate where ribs went on spars, where control surface brackets go, where the fuel filler neck goes, you get the idea. If you look at an old set of plans, you would see lots of dimensions on them. New plans have few dimensions on them, sometimes too few. Parts are located by finding the pre-punched holes and clecoing the parts together.



Photo Courtesy Vans Aircraft

Pre-punching also eliminates the need for highly accurate jiggling to control squareness, twist, and alignment. The holes are there, you cleco parts together, and this process pulls the assembly into a square, straight, and aligned condition. Jigs are used more as a device to hold the assembly for riveting rather than to control alignment.

Another kit improvement is the pre fabrication of parts. Old kits just supplied the raw

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materials and a dimensioned plan. You took it from there. A well-equipped shop made this job easier, and if you didn't have the tools it took a long time to make the parts. New kits supply most of the parts fabricated for you. Steel parts are supplied powder coated. The quality is very high.

The tail kit took me 130 hrs. this time and 200 hours on my first plane. I was not that impressed at the end of the tail kit. I had expected to go faster. What really caught my attention was the wing kit. Wings on the 6A took me 500 hrs to build. This time it took me 250 hrs. Van estimates that a complete airplane will take 1400 hrs. Looks like he is right on with that estimate. Fuel tanks are, well, fuel tanks, assembled with a terrible material called pro-seal. That stuff gets almost everywhere. My advice, shave your armpits before starting. Its kind'a like pulling gum out of little brothers' hair sometimes. But as you apply sealant, you think of ways to do it easier.

Tractor Supply sells veterinary syringes and they work very well to apply sealant. Mix the stuff up and take a Popsicle stick and load up the syringe. Then you can squirt the stuff anywhere you want to. My advice, buy your syringes at Tractor Supply. When I tried the medical supply place they asked a lot of questions and looked at me like I was some kind of perverted deviate. Must have been the construction worker clothes I was wearing that day. I evidently fit in better at Tractor Supply. They don't ask any questions at all.

So at the end of five months, the tail and wings are done. The fuselage kit sits waiting in the shop. Hope to have it completed in four months. The engine is on order. Bills are mounting up, and I have to start thinking about selling the 6A. That is gonna be a dark day. I would like to see it stay in the area, but that probably won't happen. Most likely I will fly it to Oshkosh, hang a "for sale" sign on it, and ride a bus back home, crying all the way.

Pre-punching is a good thing. It enables builders to produce higher quality airplanes with not quite so much skill. When people use to ask me if they could build an airplane I would ask them if they had ever built anything before. If they said "no" then my reply was usually negative. With the advent of pre-punching, more people can be included in the building process. We need more airplanes and more people flying them. Politicians are continually looking for ways to take away our right to fly. More pilots and planes mean more power, and for flying that is a good thing.



Photo Courtesy Vans Aircraft

# President's Corner

By Todd Millard

Spring! A time for growth and renewal. Also a time for some cleaning out those closets and hangars that have been neglected over the winter. Let's start with a little Chapter spring cleaning.

**Financials:** Elsewhere in this newsletter is the 2001 financial report. From it you can see that the chapter is reasonable financial shape. We ended the year with close to \$5000 in the bank. Unfortunately our normal operating expenses (newsletter, food, etc.) are exceeding the income from dues by over \$1000 per year. Income from the B-17 visit covered that amount, leaving the Chapter savings intact. But the Chapter Board members and I believe the Chapter should strive to have our operating expenses covered by income from member dues and use our savings for special projects and efforts.

Therefore we have basically two options: raise dues or cut expenses. We would rather avoid raising dues if at all possible, so we need to cut \$1000 from our yearly operating expenses. The obvious target for cuts is in newsletter expenses. Newsletters costs have been creeping up for the past several years as printing and postage costs have increased and the newsletter has grown in size and quality. Last year we spent around \$2000 publishing our newsletter. It costs about \$1.50 per copy to send our newsletter out which with 11 issues a year adds up to a cost per member of about \$16.50. On top of that, we send out 30 courtesy copies out to airports in the area and other EAA Chapters at a cost of \$475 a year.

I have heard countless compliments on the job David is doing with the newsletter and I think we would all hate to cut back on the quality and content of the newsletter. So that leaves cutting printing and distribution costs. The first step is to reduce the cost of courtesy copies. We will continue to send paper newsletters to airports in the area as these are marketing tools for the Chapter, although we will reduce the number of airports to a cover a smaller area. We will also switch to sending electronic newsletters other EAA Chapters. This should save about \$300 per year. The second step is to try to move as many members as possible from paper to electronic newsletters. The cost of an electronic newsletter is essentially nothing versus \$16.50 for the paper version. To save another \$700 per year, we need about half of the members to sign up for electronic newsletters. Unfortunately, unless you have a high speed Internet connection downloading the current electronic newsletter can be difficult and frustrating. David and I will be looking at ways to make the delivery of the electronic version as smooth and painless as possible.

I would like to encourage everyone who is comfortable with computers to please help us reach our goals by switching to the electronic newsletter. If you are not comfortable switching, that is fine too. As the newsletter is so important to bring us all together, we want to ensure that everyone is able to get a copy. Our ultimate goal is to continue to deliver a great newsletter to everyone, but at a cost we can live with.

**Survey Results** Now for some Chapter growth and renewal. We received 29 responses to the survey included in the February newsletter. Of those that responded, 22 (76%) were current pilots who mainly fly for fun. The most common reasons for not flying are too expensive and lost medical. 40% are currently building a plane with almost 1/3 of those being RVs. The most common reasons for attending Chapter meetings are to socializing and educational. The most common reasons for not attending are because of the wrong time/day and too busy.

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Interestingly, while you were much more interested in flying than building (50% higher), as a meeting activity flying was only slightly higher than building (10%). The next highest meeting activities were fly out/ins and project visits. Maybe some of us aren't ready to take on the huge commitment of building a plane, but love to live vicariously through those that are. Not surprisingly then you ranked flying as the most important chapter focus followed by homebuilding education and socializing. Youth and community were ranked significantly lower. As for the utility of various Chapter resources (or possible resources), the only resource that was highly rated was the newsletter. A tool sharing program, book library, and video library were given almost zero support.

Given these results, my goal is to provide a balanced menu of flying, building, and socializing for the chapter. If you didn't answer the survey and would like to share your views, please feel free to call or email me. If you are interested in seeing the complete results, go to the File section of the Chapter's Yahoo group site (<http://groups.yahoo.com/group/eachapter33/files/>) where the results are in an Excel spreadsheet (names and other personal information are not in the results).

**Welcoming Committee** It can be very intimidating for visitors and new members to come to a Chapter meeting. With most of us scattered in little clusters, the newcomer can easily feel left out and uncomfortable. That person may never come to another meeting. Those that stay and become active members typically either knew someone else in the Chapter before they came or were taken under wing by a member. To ensure that every new member and visitor has a positive experience at their first chapter meetings, a Welcoming Committee is being formed. Members of the Welcoming Committee will be responsible for identifying newcomers, introducing them to other members, and just generally making them feel welcome. If you are interested in being a member of this committee, please let me know.

**Name Tags** With the size of our chapter it can be hard to get to know everyone and remember their names. While the round of introductions at the start of our Chapter meetings helps, there are often too many new names to remember. To make it easier, we are creating name tags for everyone in the Chapter to wear at Chapter functions. The name tags will have your name, city, and a line for whatever you would like to put on your tag (plane you are flying/building, interests, office, etc.). When you arrive at the meeting grab your name tag and a holder. At the end of the meeting throw the tag into the bag. If you want to change your tag at all, just write the change on the tag and we will make the changes before the next meeting. Hopefully these tags will help all of us expand and strengthen our social bonds in the Chapter.

**Spirit of St. Louis Visit** The visit by the EAA Aviation Foundation's Spirit of St. Louis replica is officially scheduled for Friday, August 23 through Sunday, August 25, the weekend of the Iowa City Fly-In. Tim Busch and Carl Carson have agreed to co-chair the event. This visit should be a lot of fun and provide great exposure for the Chapter.

**May Meeting: Round Engine Roundup** The May Chapter meeting has been moved back a week to Saturday May 11<sup>th</sup>. The team of John Ockenfels, Mark Navratil, and David Griffiths are pulling together Stearmans, T-6's, and anything else with a radial engine for an educational and fun time down in Iowa City. The meeting will be in Jet Air's large hangar starting at 9:00 am.



## Last Meeting

By Todd Millard

On the day of our Ladies Night Banquet you could just sense the glee in the weathercaster's voices as they were predicting our first real snowstorm of the year. Frankly I assumed they were just getting over-enthusiastic as people were finally tuning in to watch them. With all the beautiful days we had this winter who could blame them for feeling a little under appreciated.

So given the blizzard of dire warnings about the impending storm, I was pleasantly surprised that 105 brave souls ventured out to the Ranch Supper Club for our annual Ladies Night Banquet. The turnout is a credit to the popularity and appeal of our guest speaker, EAA's founder and Chairman, Paul Poberezny.

By the time everyone was through socializing and going through the buffet line, the snow was starting to fall and it looked like the forecaster might have been right after all. But the snow didn't dampen any spirits and Paul gave a very entertaining account of the early years of the EAA and his flying experiences. It is amazing how far the EAA has come over the past 50 years, largely the result of Paul's vision and dedication.

The evening also had a special surprise treat. Thanks to the efforts of Max Dirks and Marv Hoppenworth, five of Chapter 33's original founders were present at the banquet. After his talk, Paul surprised the founders by presenting plaques honoring their contributions to our Chapter and the EAA. The founders present were (pictured to the left, clockwise from top left) Curt Smith, Ken Conrad, John Moffit, Marvin Hoppenworth, and Marshall Turner. The Chapter also presented Tom Olson a plaque thanking him for his efforts as Chapter President the past two years.



Photo by Marshall Turner



Photo by David Koelzer

Following the end of the formal part of the banquet there was another round of socializing and hangar flying. Unfortunately the snow piling up on the cars outside cut the evening short and all too soon everyone started cleaning the cars off and heading for home. Despite the weather forecasters being right this time, the storm thankfully held off long enough for a good time to be had by all.

## Next Meeting - Project Visit

By Todd Millard

While our last four meetings have been fun, 2 parties and 2 meetings at the bank, it will be great to get back to visiting a member's workshop and seeing a work in progress. At the April meeting David Hansen will be graciously opening his shop to us and showing his Fisher Classic biplane he is working on. The meeting is Friday April 5<sup>th</sup> at 7:00 pm at 1282 Skylark Drive in Cedar Rapids. David's house is in Bertram, located in the southeast part of Cedar Rapids. Take Highway 13 to about midway between Mt. Vernon Road and Highway 30. At the Bertram sign turn east and follow the asphalt road into "downtown" Bertram. Turn right on Angle Street and go two blocks. Turn left on Bertram Street and go 1 1/2 blocks. Turn left on Skylark Drive. David's house is on top of the hill.

The Fisher Classic is a small two place open cockpit biplane powered by a Rotax 582 engine. The wings and fuselage are wood and fabric construction. The Classic would be a perfect Light Sport Airplane. Check out these links to learn more about this fun little plane and then come see the real project. <http://www.fisherflying.com/classic.html> or <http://northnet.net/~biplane/>

Also with spring officially here (although it seemed more like spring back in January), I'm sure that everyone will soon be flying a lot more. Formation flying is a great way to share the joy of flying with others. Terry Scherman will be giving some tips on how to have fun flying in formation and doing it safely. Seating is limited, so bring your own lawn chair. I look forward to seeing you there, it should be a great meeting.



## Editor's Rant

By David Koelzer

If the Federal government has its way there soon won't be any airspace left for us to fly our planes in, which is OK because if the Iowa State Legislature has their way we won't have any airports left for our planes to take-off from. Our beloved Legislature had sought to completely cut off aviation funding. Lets face it General Aviation just does not show up on most people's radar screens. When Joe Q. Public thinks of aviation he sees long lines at the x-ray machine, board security guards, stale peanuts, sitting for hours, ten abreast in a long metal tube, paying exorbitant rates for parking a car and the occasional TV images of flaming wreckage. They don't know the giddy thrill of breaking ground just as the rising sun burns off the last of the morning fog and they certainly don't want to pay taxes so us pilots can. The days of Charles Lindbergh, Amelia Earhart, Jimmy Dolittle and Sky King are over. For most people, aviation no longer represents adventure and excitement, its is now just a bus service. If we pilots hope to keep being pilots we can no longer take our airspace, airports and air freedoms for granted. And it won't be enough to fight in the legislatures, we must bring aviation back to Joe Q. Public on a personal level. The people that got to look out the gunners port of the EAA's B-17 last fall, got a small taste of what aviation is really about. We need to keep feeding them.

Join and participate in Chapter 33's email group. Keep current with Chapter events, share your experiences or your expertise, offer advice, ask technical questions, or vent frustrations, To join, send an email to [eachapter33-subscribe@yahoo.com](mailto:eachapter33-subscribe@yahoo.com) or on the web <http://groups.yahoo.com/group/eachapter33/join>

## Young Eagles & Sea Cadets

By Tom Olson



Our Chapter's first Young Eagles Event this year will be with the Iowa chapter of the Sea Cadets. This is young folks organization (ages 11-17) whose chapter meets in Cedar Rapids the second weekend of each Month. They are sponsored by the Navy and established to build character and provide learning opportunities for the members.

The current plan is to have them meet at PS Air for a ground school at 9:00 AM on Saturday April 13. Flights would commence by about 10:30 and finish by noon. There are about 12 members expected to attend. I would like us to get between 4 and 6 aircraft there so we can give the rides before lunch.

I have met with their local leader and explained the program and gave them forms to hand out at their meeting this month so they can be taken home for parental signatures. Please feel free to let folks know about this relatively new organization as it is open to any one and they are happy to have new members. Their web site is <http://www.seacadets.org/>

Please check your dues status on the address label of this newsletter.

**Dues are \$15/year.  
Make check payable to:  
EAA Chapter 33,  
c/o Steve Ciha;  
5290 Sutton Road;**

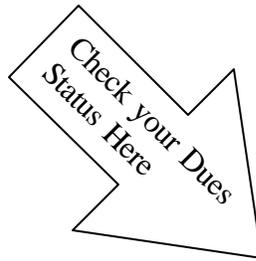
## Fly Market

**FOR SALE:** Senior Aero Sport PJ-260 aerobatic biplane project for sale. Call Mike Townsley 430 B Ave, Walford, IA 52351 319-846-2724 or email [miket@southslope.net](mailto:miket@southslope.net) for info. Asking \$4250.00

**FOR SALE:** 25% Share of 1941 Stearman Biplane NC64712 based in Iowa City. The owner is selling his share because he purchased the major share of a newly restored Stearman that is now kept in the hangar next to this one. 220hp Lycoming, full electrical system, radio, Loran, smoke system. Well maintained, always hangared and flown regularly. \$17,500. John Ockenfels 319-351-3461 evenings or 319-351-2848 daytime.



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In The April 2002 Issue...

Avionics Tech Lands Airliner, RV-7a Project update

## Chapter 33 Calendar

**April 5, 7pm** Chapter Meeting, David Hansen's house. Fisher Classic project.

**April 7-13** Sun 'n Fun, Lakeland, FL  
(Editor: Come on spring.)

**April 13 9am** Young Eagles, PS Air, Cedar Rapids Airport.

**April 13** Chili Fly In Plain Crazyies  
Fort Dodge Regional Airport, IA

**April 21** Decorah's Aviation Day, Displays, R/C Models, Food & Fun

**May 11, 9am** Iowa City Airport, Jet Air hangar, Round Engine Roundup.

**June 8th** Meeting in Monticello, team of Thomas Meeker, Al Wagner & Armin Jacobs

Check out our Chapter's email group on the web:  
<http://groups.yahoo.com/group/eaachapter33/>



Always check the tail logo to be sure you've got the right airline.