

#### November 2005

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

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EAA Chapter 33

# The Lippisch Letter

Experimental Aircraft Association Chapter 33

### N175TJ Takes to the Skies

By Tom Caruthers

On the afternoon of Tuesday, October 25, 2005, my 4+ year project ceased to be an expensive flower planter and became an airplane. I took off in my Van's RV-7A and circled south of the Cedar Rapids airport for about a half an hour. The flight and landing were uneventful as was hoped. Its amazing to realize that I was 4,000 feet above the ground in an airplane I built in my basement and garage. I now have 40 hours of flight testing to complete until I can leave the area and experience its cross country performance.

As I look back on the experience, there is one memory that stands out. After getting my license in the early 90's, building an airplane became my dream. I spent countless hours mulling over the many choices for my homebuilt. After I finally made the decision and figured out the money, I ordered my empennage kit in the fall of 2001. When Van's Aircraft let me know it had shipped, I followed the package online with UPS. On the day it was to be delivered, I was so excited. I made sure my wife would be home so it could be delivered. During that morning, I was walking around on a cloud at work when I began to hear people talking about an airplane that had crashed into the World Trade Center. Yes, it was September 11, 2001. It did not



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take long for the delivery of my tail kit to become insignificant. I went home, looked at the boxes, and watched the news for the rest of the evening. Building an airplane did not seem to matter any more.

Many thanks to Tom Olson for his continued support and inspections, Steve Ciha for answering countless questions, and to the other members of EAA Chapter 33 for their help and encouragement. Transition training with Mike Seager in Oregon was instrumental in giving me a good feel for the flying characteristics of an RV. Flights with Tom and Steve were also great confidence boosters.

Finally, this would not have been possible without the loving support and understanding of my wife Julie.





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## Read Back: Airplane Flying Handbook

By Jim Meade

Who would think that the government could publish a well-written book about aviation? Well, they have, and it belongs on every pilot's airplane bookshelf. *Airplane Flying Handbook* FAA-H-8083-3A 2<sup>nd</sup> edition published in 2004 is about 5/8 of an inch of useful flying information. I'd tell you how many pages were in it, but the FAA numbers it by pages within chapters, so all I can say is it includes 16 chapters, a glossary and index.

The front cover hints at how comprehensive the book is. There is a collage of pictures of a pair of taildraggers, a complex single, a twin and a small bizjet. The first 10 chapters cover the introduction to and explanation of flight maneuvers. Chapters 11-15 treat complex, multiengine, tailwheel, turboprop and jet powered aircraft. Chapter 16 is devoted to emergency operations. There is something for everyone in this compendium.

For those of us who like visuals, many points are illustrated with multi-color diagram and drawings. For example, the radius of turn as it is affected by differing angles of bank and differing airspeeds is graphically portrayed by the flight paths in Figure 3-9. The aerodynamics over the wings during a spin are shown in Figure 4-10. These graphics help us visualize concepts that are complex. From the point of view of graphics, *Airplane Flying Handbook* is as good as commercial instructional material.

The text is well written, as well. The presentation is simple and clear. Complicated concepts are broken down into discrete elements that are clearly explained and simplified where possible. All of the aerodynamics are discussed in detail.

The book is great for going back and refreshing ourselves on basic concepts we've learned and applied since our first flight. It's also fun to read ahead and gain an understanding and appreciation of more sophisticated systems than we only dream of now. We can learn that ground boosting, sometimes called turbo-normalizing, uses a turbocharger that "will maintain maximum allowable sea level manifold pressure (normally 29-30 inches Hg) up to a certain altitude". On the other hand, altitude turbocharging can increase pressure to 45 inches or even more. It goes on to explain, "Engine power is not determined just by manifold pressure and r.p.m." To see the role of induction air temperature, read page 11-8.

If you're thinking of adding a tail-wheel endorsement to your ticket, Chapter 13, "Transition to Tailwheel Airplanes" is a must-read. As you'd expect, there are useful comments on wheel landings, weather-vaning and ground loops. The writer not only describes the physics in layman's language, but also tells you how to fly the airplane to avoid or correct the situation.

You can buy this book from many online sellers and it is available in many FOBs for about \$20.00. That is money well spent for a book that is not only education but also relaxing and even fun to read. Brush up your book learning with this 2004 2<sup>nd</sup> edition of an old standby document. This book makes a great gift for you or stocking stuffer for your pilot friends and family. It belongs on every pilot's bookshelf, preferably with dog-eared pages, underlining, and notes in the margin and other indications that you have used, thought about and applied it. Very highly recommended.

#### **Officer Elections**

By Tim Busch

It's that time of year to start thinking about electing new officers. In 2002 we went to a split rotation where in even years we elect a Treasurer and Secretary/Newsletter editor. In odd years we elect the President and Vice President. The Board members who are not officers are elected on an annual basis. So this November we will be electing a President, Vice President, and 3 Board Members.

A nominating committee of 3 regular members will be responsible for canvassing the Chapter for officer and board candidates. The committee will present the nominations in the November newsletter with the election taking place at the November meeting. Open nominations will also be accepted at that time. Those who wish to vote, but are unable to attend the meeting can contact the Secretary with their absentee ballot (no hanging chads please).

If you are interested in being on the nominating committee or running for an office, (it is a great way to meet a lot of people and help the Chapter grow stronger), please give me a call or email. Thanks!

#### Last Meeting - The Crazy Czech Pilot

If you missed the October meeting then you missed a great one. Our own Snooks Bouska performed his "Crazy Czech Pilot" routine in full crazy Czech pilot dress uniform. Snooks regaled us with his may tales of death defying antics during his long career in the Navy and dusting crops (and anything else that might have gotten in the way). Snooks also filled us in on his soon to be flying project; a Grumman AgCat converted to a two seat sport plane. Looks for Snooks in the skies this November if you dare. Many thanks for Snooks, Dave Leedom, Marv Hoppenworth, and the crew of P & N Flight Service for hosing our meeting and serving us a fine dinner.

#### Next Meeting - Steve Determan's RV6A project

For our November Meeting Steve Determan will show off his RV6A project. Steve has the wings and empennage done, and the fuselage in the jig.

This will be great chance for all the new builders to see up close a project in the works.

We will meet at Steve's house, 3098 2nd Street, Marion. Wed PM 7:00 Nov 9. Bring a lawn chair, Steve has a large shop for our meeting.



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## Editor's Rant

By David Koelzer

Being Midwesterners, we probably rarely have reason or desire to fly our planes to or around Washington D.C., which is a good thing since for the last few years the air space around our Nation's capital has been designated a temporary Air Defense Identification Zone and off limits to General Aviation. Soon the FAA will make this temporary ADIZ into a permanent ADIZ and forever lock out private aircraft from flying in a large chunk of sky around Virginia & Maryland. This is not only disruptive to business and pleasure fliers but has devastated FBO's, flight schools and airport operators in the area.

Now you may think; "Who cares. I'll never fly to Washington DC." That may be so, but the FAA has plans to implement other ADIZ's all over the country. Chicago, Minneapolis, Kansas City, St. Louis and other current Class B airspace may soon be permanent ADIZ's and off limits to General Aviation as well. What will happen to aviation when no one around a major city will be able to take flying lessons or get proficiency training or even go out for a hundred dollar hamburger? You think airplanes and aircraft parts are expensive now, just wait until all airplanes are museum pieces and see how expensive things get then.

If you want the skies of America to remain free, you should start writing to the FAA and to your Congressmen and let them know that permanent ADIZ are a bad idea.



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#### Chapter 33 Calendar

**Nov 9 7PM** Chapter Meeting, RV6A project, Steve Determan's house.

**Nov 2-3** Iowa Aviation Conference Sheraton Hotel, University Park, Des Moines, IA

**Dec 10** Chapter Christmas Party & gift exchange, location TBD

**Feb 3-4** 15th Annual Midwest Aviation Maintenance Symposium and Trade Show, Sponsored by: Iowa Chapter of PAMA, Hotel at the Gateway Center Ames, Iowa

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

June 10-11 Fly Iowa 2006 Spencer Iowa



## **PULL!!!**

In The November 2005 Issue... N175TJ Takes to the Skies, Read Back-Airplane Flying Handbook



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