

The Lippisch Letter



Experimental Aircraft Association Chapter 33

August 2001

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

Editor: David Koelzer
david.koelzer@home.com

EAA Chapter 33 Officers

President: Tom Olson
319-393-5531
tcolson@cedar-rapids.net

Vice President:

Steve Ciha
319-438-1204

Secretary/Newsletter:

David Koelzer
319-373-3257
david.koelzer@home.com

Treasurer:

Terry Scherman
319-362-8660
t.scherman@worldnet.att.net

Flight Advisor:

Dave Lammers
319-377-1425

Technical Counselors:

Tom Olson
319-393-5531
Ron White
319-393-6484
Marv Hoppenworth
319-396-6283

Young Eagles:

John Anderson
319-362-6159

Directors:

David Yeoman Sr.
John Banes
Ron White
Mark Anderson

FLY IOWA

The biggest annual aviation event in Iowa is scheduled for Saturday and Sunday, August 25 and 26 at the Iowa City Municipal Airport. This year's event marks the tenth annual Fly Iowa event and the first hosted in Iowa City since the inaugural Fly Iowa event in 1991.

The two-day aviation extravaganza is combined with the Iowa City SERTOMA club's Annual Fly-in and Pancake Breakfast which kicks off Sunday's schedule of events. Organizers hope to promote the aviation industry, the science of aviation and provide safety seminars for pilots.

More than 250 pilots are expected to fly in and as many as 8,000 spectators are expected to attend the event. The event is free and the public is invited. The event is organized and co-sponsored by the Iowa Aviation Promotion Group and the City of Iowa City, with corporate sponsorship from Rockwell Collins and the Coca Cola Company.

(Continued on page 2)



(Continued from page 1)

Saturday's schedule includes free airplane rides from 3 p.m. to 5 p.m. for kids ages 8-18. The rides are sponsored by EAA (Experimental Aircraft Association) Young Eagles and require that parents sign permission forms. Kids waiting in line for rides Saturday may be treated to periodic fly-overs by some of the aircraft practicing for the shows on Sunday.

Saturday evening's entertainment will be reminiscent of the 40s for those who lived then, and just plain fun for everyone else, as the DOX big band takes to the stage and entertains the dancing crowd in the first ever hangar dance in Iowa City. The DOX band, largely local professionals with superior musical talent will feature such familiar pieces as New York New York, How High the Moon, and C-Jam Blues.

There will be a hot air balloon lift off just before the start of the Sertoma Club Pancake breakfast on Sunday, at 6:30 a.m. Breakfast will be served from 7 a.m. to noon and will include the traditional pancakes, bacon and sausage fare. Proceeds from the SERTOMA club's pancake breakfast proceeds will benefit the research and treatment of communications disorders. Exhibits and displays will be open all day on Sunday and include static displays of aviation related interest, educational opportunities in aviation science and plenty of aircraft and emergency vehicles. A key element to Fly Iowa has always been education and this year's presentation by Steve Belliveau of "Get Excited About Science" is sure to be enjoyable and educational. Belliveau combines his Bachelor of Science degree with his skill as a magician in a delightful show that captivates students and teachers alike.

Sunday's airshows are scheduled for 10 a.m. and 2 p.m. and are must-see precision flying demonstrations. The shows will feature Chuck Coleman's Aerobatics in his Extra 300 High Performance Plane, the only

(Continued on page 3)



Terry Scherman in his Long-Ez Photo by Todd Millard

(Continued from page 2)

Navy Trojan T28 trainer known to be performing air show aerobatics in North America, the US Airforce A-10 Warthog Demo team, fly-overs by at least two F16s, a B2 Bomber and a B25.

Chapter 33 will start off the weekend with Young Eagle rides on Saturday Afternoon. The advertised start time is at 3:00 but John Anderson is working to get the Lone Tree Students lined up starting at 1:00 or 2:00. Please call John if you can help with the Young Eagles. There will be one food vendor open all Saturday for the Young Eagles, our Chapter meeting, and the hangar dance.

Sunday is when the main activities happen. We are looking for members to assist with parking the Experimental airplanes and keep watch over them during the show when the public is looking at them.

Wes Olson of the Des Moines chapter is planning on coming to set up a rib building activity for the kids. He has all the materials etc., However, Wes needs volunteers to assist with the kids. He has 5 jigs available and it takes the kids about an hour to complete a rib and needs one adult per two jigs. If several sign up, each will need to assist for only a couple of hours.

Volunteers are asked to report to the volunteer center which will be located in the corner office (big glass doors) of the hangar that is just to the left side of the main terminal when facing it from the parking lot out front. We will be calling most of the active members to get them signed up. If we miss you and you can help please call Tom Olson 393-5531. Thanks in advance for your participation.

Pilots flying into Iowa city during Fly Iowa are reminded to call FSS for notams. Some time on Saturday the airport will be closed for a dry run of the A10 air show. This will be about a 1/2 half hour total but the firm schedule is not yet known. It will probably happen late afternoon during our Young Eagle rides. There will also be closings during the Sunday air shows. Sunday there will be a local tower but probably not on Saturday.

Show Events

Saturday

3pm-5pm EAA Young Eagle rides
7pm-10pm Hangar dance
1pm-7pm vendor set up

Sunday

6:30 a.m. Hot Air Balloon Lift Off
7am-12pm SERTOMA pancake breakfast
8am-4pm exhibits and static aircraft displays
9am-9:30am Steve Belleveau, "Get Excited About Science"
10am-11am First Air Show
1pm-1:30pm Steve Belleveau, "Get Excited About Science"
2pm-3pm Second Air Show
3pm-4pm Aircraft and Static Aircraft Departures

Chapter 33 Activities

Saturday

3pm-5pm Young Eagle Pilots and Ground Crew
5pm-6pm Dinner available from food vendor
6pm-7pm Official August Chapter Meeting & visit to Jack Rezabek's new Kolb Firestar project
7pm-10pm Hangar Dance

Sunday

6am-10am Park Experimentals and Warbirds
7am-12am Pancake breakfast(Exhibit your plane all day)
8am-4pm Staff EAA related projects
9am-12pm Airshow and pilot safety seminars
11am-2pm Park Experimentals and Warbirds
2pm-3pm Airshow and safety seminars
3pm-4pm Direct leaving traffic

**ALUMINUM
OVERCAST**

B-17 FLYING FORTRESS

**COMING TO
IOWA CITY &
CEDAR RAPIDS**

This fall's visit by EAA's B-17, "Aluminum Overcast", is on track for October 8-11. I have received the official information packet from the B-17 group at EAA with more details on the visit and I am excited. Just being around the old bomber for a few days and soaking up the smell and sound of those old radial engines will be intoxicating.

The plane will be flying in from Minneapolis, MN on Monday 10/8 about 3:30pm. The 38 ft support trailer and 15 ft merchandise trailer will arrive later that afternoon or evening (obviously their groundspeed doesn't match the B-17's). This is a great opportunity for chapter members to get a free tour of the plane and meet the crew. There may be a press flight that afternoon.

Tuesday and Wednesday will be the primary visit days. The mornings will be dedicated to B-17 Flight Experiences, subject to weather and maintenance schedules. A B-17 Flight Experience is a 30 minute flight with opportunities to visit the cockpit and the nose section (where the bombardier used to sit). The B-17 has 7 seats available on each flight (3 in the aft compartment by the guns, 3 in the radio room, and 1 in the cockpit). Once airborne, you may move around with the exception of restricted areas (tail gunner's area, ball turret, and pilot/co-pilot seats). The nose area is restricted during take-off and landing, but once airborne, it is the best seat in the house. Flight Experi-



(Continued on page 5)

ences are \$325 for EAA members and \$375 for non-members. After the flight, participants may also purchase B-17 flight jackets (L-2 type) with Aluminum Overcast embroidered on the back for \$129 (EAA member) or \$159 (non member). Reservations may be made by calling 1-800-354-6217 or through the website at www.b17.org. Flights are scheduled at: 8:00 am - 8:45 am - 9:30 am - 10:15 am - 11:00 am. At least 6 people are required for each flight as the B-17 burns 200 gallons of 100LL per hour and has significant maintenance costs. EAA members may gather 6 people (members or non members) together on a flight and receive the 7th seat free.

Approximately 4-6 volunteers are needed at all times to assist visitors, provide crowd control, and answer questions. As they generally only shut down number 3 and 4 engines for loading, it is important that we also help secure the area. Once the B-17 is finished flying for the day, it will be parked in the static display area. Ground tours will take place in the afternoon from 2 - 6pm. Tours are \$5 per adult, \$4 student (8-18 yrs old), \$10 per family, and children under 8 yrs old are free when accompanied by an adult. Members of the 398th Bomb Group may also take the ground tour free of charge.

During the ground tours, one of the volunteers will be positioned at the front of the airplane at an admissions table to take tickets and one at the aft to help visitors exit the rear door. Two volunteers will work in the merchandise trailer selling B-17 t-shirts, hats, patches, pins, etc. Additional volunteers are needed for general security, crowd control, and answering questions.

On the last day of the visit, Thursday 10/11, flights will take place in the morning and there may be a shortened session of ground tours in the afternoon. The plane will depart about 2:30 pm for its next stop on its tour, Waukegan, IL which is just north of Chicago. As their way of saying "Thank You", the chapter has 4 seats on the flight to Waukegan that we can use however we want, the only restriction is that we can't make any money on them.



As a chapter, there are some other activities that we may want to consider during the B-17's visit. A static display of planes might be a nice way to attract attention to the chapter and recruit new members. This might be a perfect time to hold a Young Eagles event (although as the visit is during the week, it would have to be a late afternoon event). Food and beverage sales might be another way to raise money.

As you can see, this visit will take a lot of work by our chapter, but should be a fun and exciting event. If you are interested in helping and haven't expressed an interest, please send me (Todd Millard) an email at todd@planetdiscover.com or call at 393-2284.

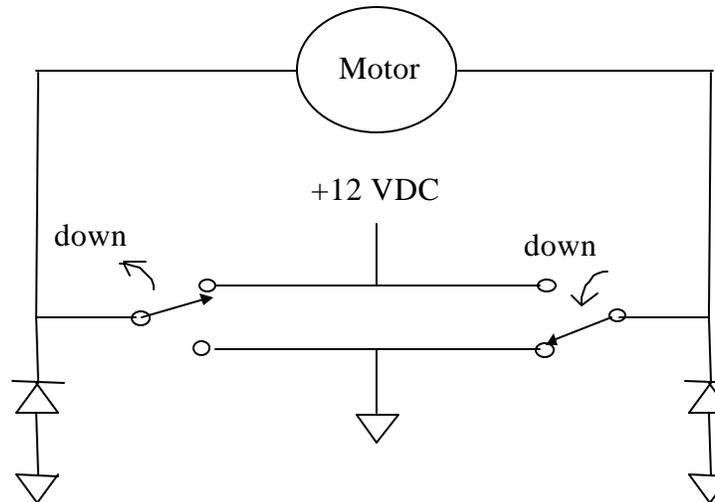
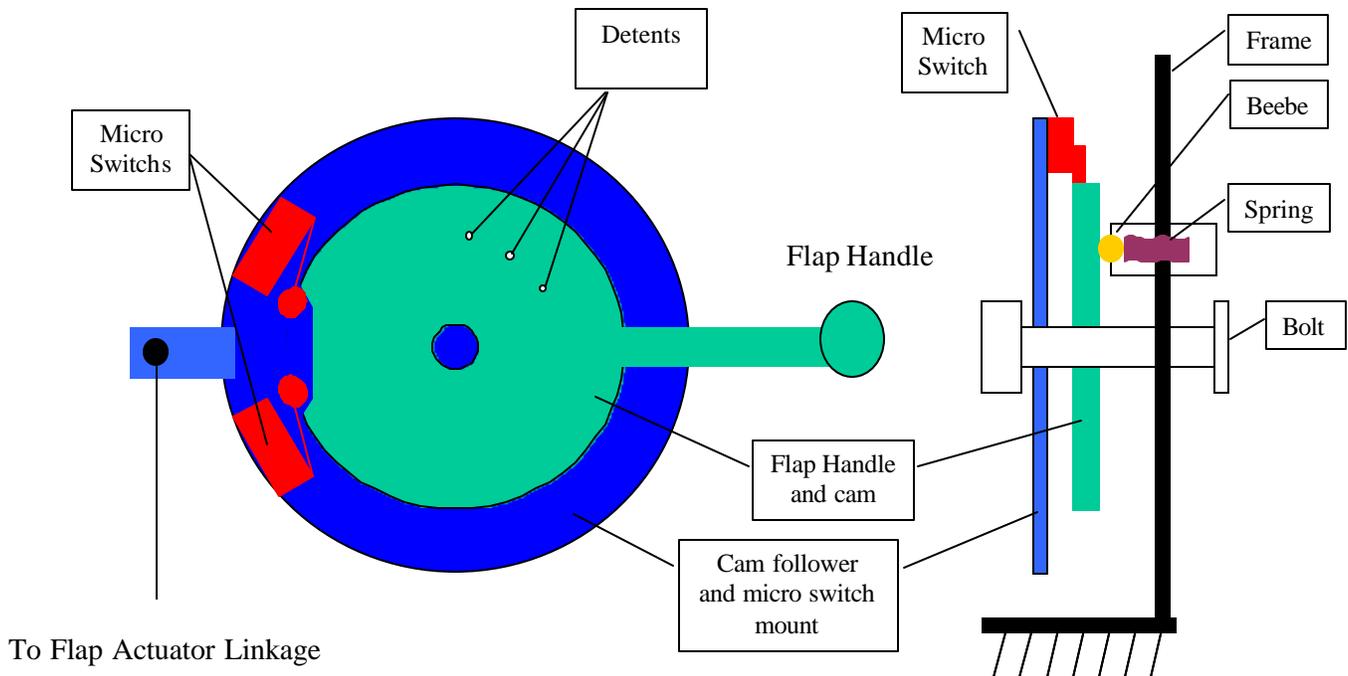


How did they do that?

Automatic Flap Position Switch by Tom Olson

Several people who have flown with me have asked about the flap switch I made for my RV-6A. Rather than a simple hold as you go switch, you only need to drop this flap lever to the desired position and the flaps will lower to that position and stop. The unit consists of two micro switches to control the electrical flow, a cam to trip the switches and a cable attached to the flap arm to determine the flap position.

- 1) The flap handle rotates a cam within a housing with detents for desired flap settings and is made of .063 sheet aluminum. Note the notched out section that forms a cam to drive the motor control switches.
- 2) The cam follower disk rotates about the same pivot as the flap handle and has two micro switches connected to it. They are mounted such that when the flap handle moves one switch is activated. This completes a circuit that applies 12 VDC to the motor to drive in the desired direction.
- 3) The cam follower disk is rotated by connecting it to the flap motor or linkage with a push/pull cable such that it rotates when the flaps move. You need to connect it at the proper radius to get the desired amount of flap motion for the needed cam motion. The slot in the cam disk needs to be as wide as your full range of flap motion.



A pointer can also be connected to the cam follower to display the flap's position as it catches up with the flap handle. The micro switches are wired as shown to the left. Both sides of the motor are normally connected to ground when both switches are centered into the slot on the flap handle. When the handle is moved the appropriate switch terminal is connected to 12 VDC and the motor runs to reposition the switch plate to center it into the flap handle slot. The diodes are used to prevent arcing in the switch when it opens while the motor is running.

More Tips, Tricks and Techniques

Easy Panel Labels by David Koelzer

After getting several compliments about the professional look of my instrument panel labels I want to share my technique. Using a PC based drawing software like Microsoft Visio, I laid out the text and symbols as I would like to have them appear on my panel. I also placed a border around the text to conceal the transition between the label material and the panel background. Even with transparent labels the transition without the border is still visible and looks less professional.

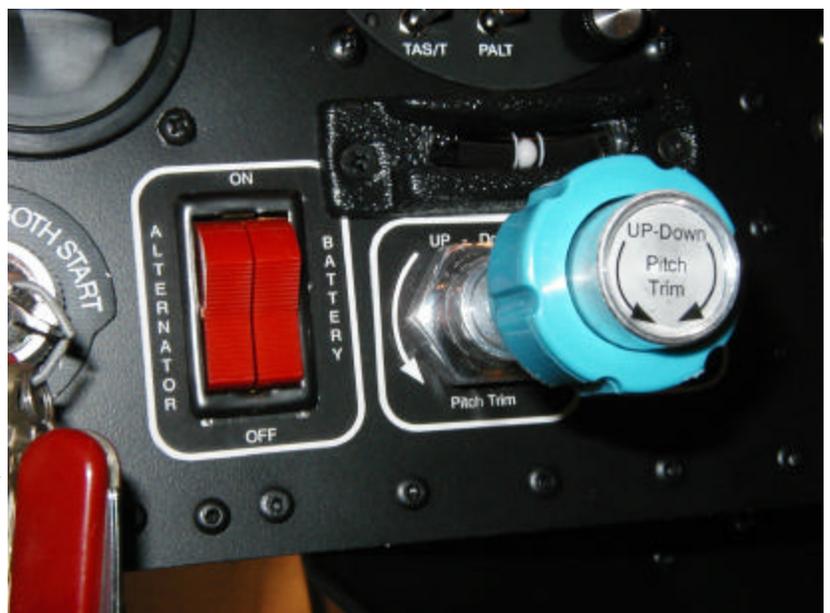


The nice thing about using software like Visio is that you are not limited just to text. Just about anything you can imagine can be drawn with these programs. In my case I drew white letters on a black background just the opposite of how you would normally draw.

The labels I used were transparent full sheet laser printer labels that you can get from any office supply store. In my case I used Avery #8665 labels. These labels can be fed right through your laser printer. I don't recommend using an inkjet printer though. The ink has a tendency to run when it gets wet. Laser printer toner is actually a plastic

powder that is melted onto the label. It is waterproof and very durable. The transparent labels have a satin finish that matches very closely the black satin paint I used on my panel.

Since a laser printer can only print black the "white" areas remain transparent on the labels. To get the bright white color I laminated the transparent labels over a sheet of plain white labels (Avery #5355). Then it was a matter of carefully trimming the laminated to size. After spending two years scratch building my Sonex I have become quite expert with a pair of shears and let me tell you after cutting miles of 6061-T6 aluminum sheet, cutting paper labels is a breeze. The only problem with placing the labels is being careful when tightening retaining nuts against the labels. Be careful not to twist the label causing it to wrinkle.



Last Meeting

By Tom Olson



Photo by Todd Millard

Our last meeting was the annual fly-in and picnic lunch at the Green Castle airport. Wow, what a change in weather from the June meeting. It was very warm and sunny but overall a nice day for a casual fly-in, lunch, and conversation. Arriving pilots were treated to the new runway which was very nice. Todd Millard brought his digital camera so look for some great shots of fly-bys elsewhere in the newsletter. Many thanks go to Dennis Nelson and the Green Castle Aero club for use of the facilities and Grill.

Several copies of the new chapter by-laws were passed out to those present. Please be sure to attend the next meeting and ask around in advance to find a copy or give me a call. In the August meeting, we will vote on approval of the new bylaws which are modeled closely after recent recommendations from Headquarters.



Jim Zangger in his Taylorcraft Photo by Todd

Next Meeting

By Tom Olson

Our next meeting will be Saturday August 25th at the Iowa City airport following the young eagle rides. It will start at 5:00 with food available from one of the Fly Iowa food vendors for those that wish to participate. I am told this particular vendor has a uniquely wide range of tasty items such as tenderloins, corn dogs, and tropical drinks. The meeting will start at 6:00 at Jack Rezabek's hangar, afterwards please feel welcome to stay and attend the Fly Iowa hangar dance which starts at 7:00.

With a little luck we will be treated to the A-10 practice air show in preparation for the Sunday show. The other fun part of the meeting will center on Jack Rezabek's new Kolb Firestar project which is being moved to the hangar as you read this. We will also be right next to the Fishbaugh and Anderson Glas-sair projects so we can check on their progress as well.

Please bring a lawn chair if possible.

New Business

By Tom Olson

Items to be covered in our chapter meeting include a discussion of next day's Fly Iowa activities, the B17 activities which have been delayed one week to October 10 and our election committee. The election committee will have their work cut out for them this year as most of our current officers have been in their position for 2 years or more and new folks will be needed to lead the way. The new Bylaws will also be reviewed and brought up for adoption.

September Meeting

By Tom Olson

Due to the delayed date of this newsletter there won't be another sent out before our September meeting, so please hang on to this one and remember September 7th.

The September meeting will be held at Alan and Lynn Kritzman's house to see their beautiful almost completed RV-8. The meeting will start at 6:30 on Friday evening September 7. They live at 1223 Waldenwood Ln N.E. in Cedar Rapids. Their yard backs up to the North side of Boyson road just 2 blocks East of the Council Street intersection with Boyson Rd North East. Please bring a lawn chair or two if you can. Come hear the stories and see the pictures of the plane that exited through a freshly cut hole in their concrete basement wall and talk with the man that made it all look easy, Steve Ciha. Alan will be interested in any advice you can give him regarding the art and science of painting an airplane.

IMAX "The Magic of Flight"

By Mark Navratil

The movie "The Magic of flight" has come to the Science Station IMAX theater. Soar through the history, science, and technology of flying in this extraordinary film. The Magic of Flight takes audiences into the cockpit, on the wing, and beneath the fuselage of jet aircraft with awesome, never-before attempted viewpoints.

The film, narrated by actor Tom Selleck, explores how planes fly, how jet engines work, and takes you for a ride along with the death-defying maneuvers of the U.S. Navy's Blue Angels. The Magic Of Flight highlights and salutes a variety of modern aircraft, the people who fly them, and the human potential of training and performance.



Chapter 33 will make a night of it September 21st and everyone is invited, spouses, kids, grandkids... We will meet at the theater which is across from the Library in downtown Cedar Rapids, about 6:30pm, purchase our tickets and swap flying stories until the 7pm showing. We won't have reserved seating but you may purchase advanced tickets by calling 363-IMAX.

(Editor: Come on guys, this is your chance to show your sweetheart a night out on the town, and if you are very lucky, your wife won't find out about it. he he he!)

Editor's Rant

By David Koelzer

Hold on to your sunscreen everybody the airshow season isn't over yet. But you won't need to drive for five hours, fight for a camping spot and stand in line for a porto-john to see this airshow. This one is in our own back-yard .. well it would be if you were lucky enough to have a house that backs up to the Iowa City Airport.

We've got two whole days of Chapter activities planned and all YOU need to do is show up. What could be easier. There will be hangar dancing, airplane parking, Young Eagle flying, rib building, pancake eating, magic watching, warbird ogling, popcorn selling, hot air ballooning, ride sharing, project visiting, pilot safety seminar, and if there is enough time left you may be able to see an airshow too. What's that? You say you can't afford to go to such a fantastic event. Well guess what, its FREEEEEEEE! You can't afford NOT to go to this airshow.

Fly Market

FOR SALE: 1946 Luscombe 8A. It is currently hangared at Cedar Rapids Airport. This plane is a three time Oshkosh Award winner, all the original logs, and has always been hangared. It has had a recent annual. TTAF 1867, SMOH 980, top 381. Asking \$18,500. All inquiries should be directed to Phil Conn, 319-393-8543, pj_conn@juno.com

FOR SALE: 25% Share of 1941 Stearman Biplane NC64712 (the Red one) 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.

FOR SALE: 1940 Taylorcraft For our new members who don't already know, one of our dear friends and past chapter presidents, John Giordano, died in an accident last year. John owned 1/2 share in a very nice 1940 BC65 Taylorcraft. Susan Giordano is still looking for someone to take over John's share in this aircraft, please help her get the word out to the local flying public. This aircraft has been in Carl's family for all but 4 years since it was new. The engine was given a major overhaul in 1999 and the prop was replaced the year before that. It was recovered in 1991 and is hangared in a T hangar at McBride Airport. This aircraft has to be one of the most economical ways to get airborne anywhere in the area. Please call Carl Carson (366-4545) if you are interested.



Dave Yeoman in his Cessna 140 Photo by Todd Millard

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: _____

=====

**Dues are \$15/year. Make check payable to:
EAA Chapter 33, c/o Terry Scherman; 1203 16 St SW; Cedar Rapids, IA 52404**



Steve Ciha in his RV-6A Photo by Todd Millard



Experimental Aircraft Association
Alexander M. Lippisch Chapter 33
c/o David Koelzer
2930 Baker Street
Marion, IA 52302
david.koelzer@home.com

In The August 2001 Issue...

Fly Iowa, Aluminum Overcast, Tips, Tricks and Techniques

Chapter 33 Calendar

August 19 8am Monona Pancake Fly-in

August 25-26 Fly Iowa & Chapter Meeting at the Iowa City Airport

Sept. 7 7pm RV-8 project visit Alan Kritzman's home

Sept. 9 8am Fly-in Breakfast Dubuque Regional Airport

Sept. 21 6:30pm "The Magic of flight" IMAX film

Sept. 30 6am Chapter 368 is sponsoring the Elkader (I-27) Fly-in breakfast

October 8-11 "Aluminum Overcast" EAA B-17 visits Cedar Rapids (CID)

The Funnies

by Wayne Flury



Why builders should read all of the manual.