Communicator

Chapter 569
Lincoln, Nebraska
May 2005

Meeting Announcement

Date: Tuesday, May 3, 2005
Time: 1930hrs
Place: Duncan Aviation Engine Shop
Classroom
Program: Aircraft Fabric.

Aircraft fabrics have changed since the days of grade A cotton and nitrate dope. Our May meeting program will focus on the contemporary fabric covering systems available for light aircraft. We originally scheduled this program for April but found it necessary to postpone it to this month. The meeting will be held in the classroom at the Duncan Aviation Engine Shop. Enter Airpark from the north or south on NW 48th Street. Turn east on West Cuming Street, go four blocks to NW 44th. The building is on the Southeast corner at 5000 NW 44th. Parking is available west of the building, with additional space across the street to the northwest.

This is the prototype Van's RV9A, Roger Aspegren's aircraft will soon be flying too!

Our May Project of the Month is Roger Aspegren's Eggenfellner Powered RV9A

When young engineer Richard VanGrunsven started building kit parts for his RV3 design as a one-man-in-a-garage venture, few would have guessed that he would build the business into the most successful homebuilt aircraft company ever. After thirty years and a half dozen new models the Van's organization can boast 4138 completed aircraft with new completions coming along at the rate of about one a day. Chapter 569 member Roger Aspegren will soon add one more, an RV9A, to that impressive total.

The RV9A is a two seat, low wing kit built aircraft of riveted aluminum monocoque construction. It is designed to carry engines of 118 to 160 horsepower with fixed or constant speed props. The "A" suffix designates it as the tricycle gear version.

The specification and performance sheets show (for 160 hp Lycoming installations):

Span	28 ft.
Length	20 ft. 5 in.
Wing Area	124 sq.ft.
Empty Weight	1075 lbs.
Gross Weight	1750 lbs
Wing Loading	14.1 lb./sq. ft.
Power Loading	10.9 lb./hp.
Fuel Capacity	36 US gal
Baggage	75 lbs.

Top speed	195 mph
Cruse 75% 8000 ft.	187 mph
Cruise 55% 8000 Ft	167 mph
Stall Speed	50 mph
Takeoff Distance	475 ft.
Landing Distance	450 ft.
Rate of climb gross	1400 fpm
Rate of climb solo	2000fpm
Range 75% 8000 ft.	700 sm
Range 55% 8000 ft.	850 sm

The RV9A looks almost identical to the other RV models with side-by-side seating, however it's larger wing, different airfoils and lighter wing loading give it gentle handling characteristics similar to the common factory built trainers. It is not aerobatic, but as you can see from the above chart the speed doesn't suffer a bit.

A bit outside the norm, Roger's plane will carry an engine by Eggenfellner Aircraft Inc. The power plant is a highly engineered and proven aircraft adaptation of the Subaru Legacy engine. To date the company has provided more than 400 engines for RV and Glasair installations.

The engine is geared to a 1.82:1 ratio and is supplied in a complete "bolt on" package with all components assembled onto a motor mount designed for the specific aircraft installation.

After much study and research Roger decided to go with the Eggenfellner engine for a number of reasons. The size, shape and weight of the four cylinder horizontality opposed unit allow it to fit easily into the cowling designed for traditional aircraft engines. The modern high tech design produces a power plant of unusual smoothness. The ready parts supply makes for quite low overhaul costs and the liquid cooling eliminates shock cooling problems and provides safe and plentiful cabin heat.

The manufacturer has not yet determined a TBO, but there are several installations now running with well over 800 problem free hours.

As the engine will run on auto fuel and has an efficient fuel burn of 6 gallons per hour at normal cruise to as little as 4 gph at economy cruise, the direct operating costs will be far less than the typical Lycoming powered aircraft.

The liquid cooling system will use the NPG+ synthetic "waterless" coolant.

A three blade electric constant speed M-T prop will complete the power package installation.

Roger Aspegren can't remember when he wasn't fascinated with airplanes. As a kid he built models and dreamed of flying. As an adult he decided that, most of all, he wanted to build his own aircraft. Every promising new home built design was investigated for suitability. Like many of us, the hassles of life – making a living, raising a family, etc, - kept getting in the way.

Finally in the 1970s he earned his private certificate at Lincoln Aviation and eventually found a partner to buy a Cessna 172. In 1985 he began work on a Kitfox and spent nine years in construction, finishing it after retirement. Often the chance to get away and spend time in the shop provided the needed "therapy" to cope with the pressures of running two demanding businesses.

The Kitfox flew 400 enjoyable hours in four years and was sold when the RV was well under way. He still maintains it and has an occasional opportunity to fly the aircraft.

Construction on the RV9A began in April of 2001 and is now down to the final stages. The structure is complete. The engine has been installed and tested in its mount. The recently completed wiring is now in a test-and-debug phase.

The final fit of the canopy and the windshield are about all that is left before the aircraft goes to the paint shop. The goal of making Oshkosh this year has already

slipped past, but with luck the first flight will occur this summer.

Roger did not employ the "quick build" option, choosing instead to do all of the assembly himself. This involved the driving of thousands of rivets, a skill which took a little time to master. The canopy installation proved to be the most challenging part of the building process.

Striving for a sound level in the cabin that will allow for normal conversation, much attention is being given to motor mounts, canopy seals, elimination of "oilcanning", strategic use of sound deadening foam, etc.

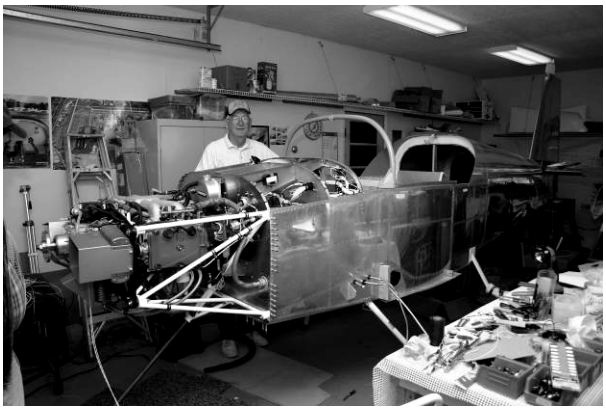
The plane contains an electronic flight instrument installation and an E.I.S. (engine information system) giving a modernistic "glass cockpit" look to the panel. A King com, King transponder, Garmin 196 GPS, and Digitrac Trutrac single axis autopilot round out the equipment package. The plane will not be equipped for IFR operations.

Added features of the aircraft will include fully primed interior surfaces, electric flaps, hot liquid cabin heat, nav lights, landing lights and strobes all around. Upholstery, trim, etc. will be kept to a minimum as a weight saving measure.

The paint will be white with some unique and innovative vinyl trim. The planned trim design should result in an airplane with a very striking and memorable appearance.

Roger is very appreciative of the high level of quality and preciseness of fit found in the parts supplied by Van's Aircraft. The plans have proven to be complete, highly detailed and easy to follow.

Roger and Charlotte Aspegren live in rural Lancaster County just outside the village of Denton. They collectively count six children and eleven grandkids.



Rodger Aspegren is all smiles as he finishes construction on his RV9A.

A New LSA from Van's

On March 9 The Van's Aircraft web site announced that an airplane that meets the criteria of the new light sport aircraft regulations is under development. Very little information is available at this time. More information will be released as available in the Van's news letter *RVator* and at http://www.vansaircraft.com.

The following is taken from the news release: Here are some general criteria that Van's is considering for our LSA design

1. First, we will build a POC aircraft (Proof of Concept). It will be an all new design rather than a re-design or variation of any previous RV.
2. It will not be available for sale in any form until late 2006 or early 2007.
3. It will initially be available only as an experimental category amateur built kit rather than a fly away LSA.
4. The engine will most likely be a Rotax 912S at 80 or 100 hp.
5. It will be a side by side two place.
6. It will be low wing.
7. It will be a tricycle gear configuration.

Minutes of EAA Chapter 569 Meeting on April 5, 2005

The April meeting was held at the Duncan Aviation Engine Shop Classroom with Vice President John Tenipor presiding.

Tom Trumble announced the following Young Eagle events:

1. St Patrick's School May 4, 2005
2. Aerospace Career Exploration Academy. Tentative date is July 15, 2005
3. Civil Air Patrol Open House September 10, 2005

Tom Winter reported that the Young Eagle event held in conjunction with the All Girls Math Camp will be on July 19, 2005.

Roger Aspegren offered a motion for the chapter to contribute $50.00 to the Nebraska Aviation Art Contest. The motion carried on a majority show-of-hands vote.

Emil Berberov will be shutting down the chapter web site in the near future. If anyone would like to take over as Web Master please contact Emil.

Ray Supalla said that Lester David's aircraft has been moved out of the loft and into a tee hanger. He will be contacting people to help with the trial assembly of the airplane.

Roger Aspegren, Norm Sell, Russ Kelsea and Kevin Rock led a discussion on their suggestion for the expansion of our breakfast facilities. This would include the purchase of a trailer, tables, grill and miscellaneous food equipment. Details of their proposal can be found in the Executive committee minutes published in the March 2005 newsletter. A spirited discussion followed with comments ranging from full support, to statements that the money could be better spent on other projects, to objection to the concept of making changes to the monthly breakfast. Roger pointed out that this idea can succeed only with full support and involvement of the membership. This comment was echoed by several others.

Russ called for a show of hands in favor of proceeding with the development of the proposal. A majority of the members present indicated their support, with some against and a few abstaining. A formal proposal will be presented to the membership at a later date.

The presenter of the program on Aircraft Fabric was forced to reschedule so our tech counselors, Doug Hill and Tom Henry, gave a presentation on their recent activities. They invited four individuals to give short reports on the status of their projects.

Included were Dave Zichek, Mustang II; Arnie Weese, Hummel Bird; Roger Aspegren, RV9A; and Rich Boelts, Fisher Avenger.

The presentation was highly informative and very well received by the membership.

An RV8 is flying around the world!

EAAer Bill Randolph is on his way around the globe in his home built RV8. Leaving from Watsonvill, California on March 9 his route has been through Florida, across the Caribbean to Brazil, then over the Atlantic to Senegal. With many stops, the flight went through Italy, the Middle East and India. As this is being written he is stopped in India while awaiting parts (he destroyed his tires with a bad landing). Reading his flight log it is apparent that flying and navigation have been the easy part. Dealing with many different national regulations and the authorities that administer them has proven to present near insurmountable problems. By the time you read this he should be near home. Follow the progress on http://www.eaa119.org.

Things to do

EAA Chapter 569 Meeting
First Tuesday each month

Chapter 569 Breakfast
Third Saturday each month

Chapter 1055 Breakfast
First Saturday each month
York Nebraska

Abilene Aviation Assn. Fly-in
May 7
Abilene, Kansas

Pella Tulip Time Flight Breakfast
May 7
Pella, Iowa

EAA Southwest Regional Fly-In
May 13 to 15
Hondo, Texas

Evelyn Sharp Days at Sharp Field
May 22
Ord, Nebraska

Hanger K breakfast and lunch
May 29
Grand Island, Nebraska

19th Annual Biplane Expo
June 2-4
Bartlesville, Oklahoma

Family Fun Day and Fly-in Breakfast
June 4
Scottsbluff, Nebraska

Fly-in Drive-in breakfast and lunch
Parachute jumps & displays
June 5
Central City Nebraska

Fly-Breakfast
June 12
Tekamah, Nebraska

46th International Paris Air Show
June `13-19
Le Bourget, Paris, France

8 Ball Aviation Club Breakfast
June 19
Harlan, Iowa

Kearney Aviation Extravaganza II
June 25-26
Kearney, Nebraska

Fly-in Breakfast
June 26
Pender, Nebraska

Rocky Mountain EAA Regional Fly-In
July 6 to 10
Watkins, Colorado

EAA AirVenture Oshkosh 2005
July 25 to 31
Oshkosh, Wisconsin

Fly-in Breakfast
Aug 21
Hartington, Nebraska

Reno Air Races
September15-18
Reno, Nevada

Nebraska State Airshow
September 24
Hastings, Nebraska

Rough River 2005
CSA (canard organization)
Fall fly-in
September 30 – October 2
Falls of Rough, Kentucky

Copperstate Regional EAA Fly-In
October 6 to 9
Phoenix, Arizona

Fly-in/Airshow
October 27 to November, 2
Acapulco, Mexico

Nebraska Aviation Symposium 2006
January 25, 26, 27 & 28, 2006
Kearney, Nebraska

Please check your address label – Let us know of any needed corrections.

Wright Flyer Replicas Now on Public Display

Three precisely detailed replicas of the 1903 Wright Flyer were built by *The Wright Experience* for the Centennial of Flight Celebration. These aircraft are considered to be closer to the actual 1903 plane than is the original which hangs in the Smithsonian Air and Space Museum. The original lost some of it's authenticity in a number of disassemblies and restorations preformed over the years.

The EAA's replica, which was displayed at AirVenture 2003 and made the attempt at flight at Kill Devil Hill for the Centennial Celebration, can now be seen at Henry Ford Museum/Greenfield Village in Dearborn, Michigan.

Another replica is at the Wright Brother's National Memorial in Kill Devil Hills, North Carolina.

The third reproduction Flyer will soon be on permanent display at the Museum of Flight in Seattle, Washington.

EAA Chapter 569 Breakfasts

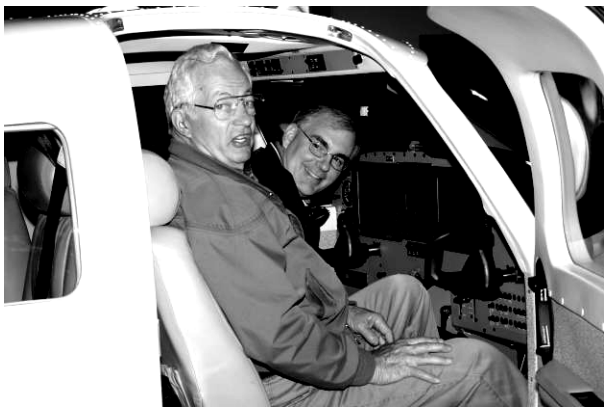
Each month the members of Chapter 569 meet in the hanger at Crete Aviation for a morning of hotcakes and conversation. Individuals from the aviation community outside our club are most welcome. Fly in, drive in or walk in, we hope to see you for breakfast.

The next Chapter breakfasts are:

Saturday May 21	Chapter Breakfast 0800hrs to 1000hrs Crete Aviation, Crete, NE
Saturday June 18	Chapter Breakfast 0800hrs to 1000hrs Crete Aviation Crete, NE

At the April breakfast – Ray, Roger and Norm made omelets, French toast, and blueberry pancakes – all delicious!

At the April breakfast – lots of "hanger flying" in the hanger.



At the April breakfast - Don and Russ checked out a brand new Saratoga IISP

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At the April breakfast – Mark Novak arrived in his T6.

Presidents Message

Please accept my apologies for being absent from our last meeting, as my employer required me to be gone. It sounds like I missed some good presentations and discussions.

Our chapter has discussed the merit of a Club "Tools" Program. The discussion has bogged down while considering "what do we need." I believe the solution to answering this question is to identify the existing assets and resources of the club and its members to determine what or if anything more is needed.

Alan Weigle will survey the club's members to identify and catalog the various tools that club members would be willing to loan, sell or trade with other club members. We hope to publish a paper book with photos, where useful, to present the tools that are available. The book would have pages included to record the event of loaning a tool to someone thus assisting the failing memory of some of us.

Please give consideration to your position on loaning tools, books, or other useful items to other builders. We also know that if you have a special tool you will have some experience and specialized knowledge to offer the potential borrower that will help his project turn out better.

Andy Lahr

EAA Chapter 569 Upcoming Young Eagle Events

St. Patrick's School 7th & 8th Grade Field Trip
May 4, 2005 1000hrs to 1200hrs
At Duncan Aviation
We will need 3 pilots and airplanes and one ground support person. Approximately 28 students.
Contact Tom Trumble

Aerospace Career Exploration Academy
Approximate date July 15
This event is still in the early planning stage.
The Young Eagle rides may be longer and involve landing at Seward, Crete and back at Lincoln.
Sponsorship is by The Nebraska Department of Aeronautics and The University of Nebraska Kearney and Omaha.
Contact Tom Trumble

All Girls Math Camp
July 19, 2005 more information will follow.
Contact Tom Winter

Civil Air Patrol Open House
Open to public at Fremont Municipal Airport
September 10, 2005 0830hrs to 1300hrs
The event will be coordinated with Omaha Chapter 80 and York Chapter 1055. We will need pilots and airplanes.
Contact Tom Trumble

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