



High Sierra Flyer

Volume 34
Number 5

May 2006



Experimental Amateur Built Schreder HP-14 Glider owned by Frank Davis

**EAA Sierra Chapter 403
2500 E College Parkway
Carson City, NV 89706**

Address Correction Requested



Chris & Merry Romine
P.O. Box 533
Genoa, NV 89411-0533



EAA SIERRA CHAPTER 403 OFFICERS FOR 2006

		(775) Area Code
President	Chris Romine	783-9506
Vice President	John Grub	885-1945
Secretary	Merry Romine	783-9506
Treasurer	Steve Silva	887-0532
Directors:	Warren Fields	358-6904
	Bruce Gray	246-2401
	Edie Grub	885-1945
	Mike Reynolds	885-0434
	Barry Sklar	450-4995
<u>Committees:</u>		
Reno Air Races	Steve & Donna Silva	887-0532
Breakfast Coordinator	Tommie Dee Lindsey	887-1216
Flight Advisor	Warren Fields	358-6904
Flight Advisor	Ron Sutton	882-1662
Technical Counselor	Mack Murphree	246-9364
Technical Counselor	Ron Sutton	882-1662
Raffle		
Website Administrator	Jacki Montgomery	230-2294
Young Eagles Coordinators	Merry Romine	783-9506
	Mike Reynolds	885-0434
Newsletter Editors	Judy Berg	267-5431
	Sandra Erb	883-6494

Chapter 403 Schedule

Chapter Meeting	First Wednesday	Potluck 6:00 p.m.	Meeting 7:00 p.m.
Executive Committee	Third Thursday	6:00 p.m.	
Builders Meeting	Call or check website for schedule		
Pancake Breakfast	Third Saturday	9:00 to 11:00 a.m.	
Coffee & Donuts	Saturday	9:00 to 11:00 a.m.	
	(When we don't have pancakes)		

*Unless noted, all meetings are at the chapter building, 2500 E. College Parkway, Carson City, Nevada 89706

Website: <http://eaa403.org>

MEMBER SPOTLIGHT



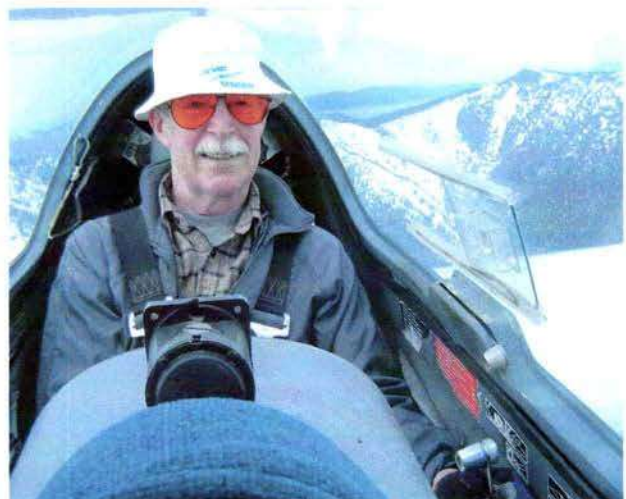
BY JB

Frank and Sue Davis have been members of Chapter 403 for six years. Frank was born in Peking, China to missionary parents and spent his early years there. The family moved to Glendale, California where he went to school through Jr. College. In 1955 he entered USAF Aviation Cadet pilot training, flying the PA-18 Super Cub, T-6 and T-33. 1956-1961 he was an instructor pilot for the Air Training Command in the T-33. In 1961 Frank was an undergraduate student in electrical engineering at the Air Force Institute of Technology, then a graduate student in electrical engineering, College of Aeronautics, Cranfield, England from 1963 to 1965. He was at HQ Air Force Communication Service, Scott AFB, Illinois in 1965 flying a T-39 Saberliner and went to Hurlbert Field, Florida in 1967 for combat crew training in the A-1 Skyraider. In 1968 he was with the 1st Air Commando Squadron and 22nd Special Operations Squadron in Nakhom Phanom AB, Thailand where he had 207 combat missions and 495 hours combat time in Skyraiders, mostly interdiction on the "Trail" in Laos. From 1969-1973 he was Assistant Professor, Electrical Engineering, USAF Academy and instructed in T-41's (210 HP Cessna 172's) and flew T-33's. From 1973-1975 he was stationed at Hq. European Communications Area, Wiesbaden, Germany, and was not required to fly.

Sue was born in Omaha, Nebraska but grew up in Hollywood, California. She met Frank at a church camp and they will be married 50 years in June. They retired to Salt Lake City in 1975 where Frank worked in international navaisds sales. Frank joined EAA Chapter 23 and held most positions including president for two years, and was able to get Richard Van Grunsven as the speaker at their annual banquet. He started building a Mustang II project during this time, and started glider flying at Heber City, Utah in 1997 flying Schweizer 2-33's.

In 2000 Frank and Sue moved to the Johnson Lane area of Douglas County, for the gliding opportunities, and bought a Schreder HP-14 amateur built glider which has a "V" tail and 90 degree landing flaps. Frank got his commercial glider add-on in 2004 and is presently flying commercial glider rides for Soar Minden on a volunteer basis. They have built a 32 x 48 ft workshop in the back yard which is used for aircraft construction and woodworking. He sold the Mustang II project and started building a Xenos motor glider which is a long wing, stretched version of John Monnett's Sonex (spelled backwards) with a "Y" tail. It's more motor than glider with gliding performance like that of a Schweizer 2-33, and he is planning on a six cylinder Jabiru 3300 engine. Picture below is Frank in the cockpit of a Grob 103 glider near Lake Tahoe.

Frank and Sue enjoy astronomy, birding, camping and attending fly-ins. They have a son in Tucson, Arizona and a daughter in Dayton, Nevada and four grandchildren.



PRESIDENT'S CORNER

We have an exciting and challenging few months ahead. The Chapter is close to signing the lease for the land our new facility will be built upon. Once that is signed, the clock starts ticking on the agreed upon timetable for improving the property in three phases over three years. If that sounds like a long time just think about what you were doing in May of 2003. Seems like yesterday, doesn't it? We already have a group of members committed to getting this project done, but we still need more leadership to do it right. Leadership that properly delegates. Leadership that motivates. Leadership that has the passion to push through problems and look for solutions. Experience is important, but attitude is critical. The pay is low, but the rewards are enormous. If you are qualified, please raise your hand. First up is the Building Committee chairman. That committee is responsible for designing the facilities, researching the issues, estimating the costs, establishing timetables, identifying contractors (some that hopefully donate their time and equipment), and managing the construction. This committee will work with the Finance Committee to develop budgets appropriate to the financial resources available. The chairman should have some understanding of the task at hand, have some time to invest, and not be expecting to be a paid contractor on the project, which would be a conflict of interest. Please contact me or Phil McKinnon. And, please do not be offended if we get multiple volunteers and you are not selected for this very important position. Our next project meeting is Thursday, May 4 at 7:00pm.

We need all of you to help with two important parts of the project: a catchy, respectable and appropriate NAME for it (not "The Clubhouse", for example), and a MISSION STATEMENT that helps define the essence, or meaning of the "NAME". These will be used as tools for communicating with outside organizations and the community, raising money and keeping our focus while we fly the plan.

Next up on the "hot list" is our annual Silver State Fly-In, now scheduled for June 17 and being combined with the Carson City Airport Open House. We need volunteers for working the ramp, helping with breakfast and lunch, judging aircraft, recruiting sponsors, setup and teardown, award certificate creation, local transportation, and stuff we haven't yet even thought of. If you will not be present at the May 3 general meeting, please contact an officer and express your interest in helping.

A special thanks to Jim Nunnelee for leading the April Builders Meeting on aircraft fuel systems. The emphasis was on safety, and even veteran pilots and A&P's can use reminders about proper procedures and operations when it comes to a topic as important as getting fuel all the way from the truck to the cylinders. Good job, Jim.

Chris

BUILDING TIPS FROM SKIP PARDEE

I'm in the stretch run on my RV-8A project. Most of the sheet metal work is done, the canopy is fitted, the wings and empennage are painted, the instrument panel and wiring is all done, and now I'm working on the firewall forward.

My RV-8A has a 160 HP Lycoming O-320 B3B originally manufactured for a 1958 Piper Apache (according to Lycoming records). The engine as I bought it had no logs, but was reportedly running when taken off the airplane it was on with about 900 hours on it. We completely tore the engine down and had it overhauled at Gill's Engines at Stead. It's a conical mount, so I had to special order the engine mount from Van's. As with everything that Van's makes, the engine mount bolted right up to the firewall, and the engine fit perfectly.

When plumbing and wiring the engine, you always must keep reminding yourself of two things. Heat and vibration. Heat and vibration. Whether it is the fuel system, the oil lines, the electrical system, the exhaust system, or anything else under the cowling, you must protect it from heat and vibration.

Starting with the fuel system, remember that the gasolator should be mounted at the lowest point possible on the firewall. Shroud it and run cooling air to it. The fuel line from the gasolator to the fuel pump should run constantly up hill. Remember that the fittings on the Lycoming fuel pump are special Lycoming fittings and not standard AN fittings. The fuel lines should be fire sleeved. All of the fuel lines purchased from Van's come fire sleeved. Note that any line between the firewall and engine, be it fuel, oil, or whatever, must be flexible. A rigid line is absolutely guaranteed to fail due to vibration, probably with disastrous consequences.

I am using an electrical primer. The primer lines from the gasolator to the engine are flexible. They 'tee' into semi-rigid copper lines. The fittings that screw into the primer ports are AN4022-1 from Aircraft Spruce. They are designed to provide a mist of fuel into the intake manifold rather than a squirt of fuel. Remember to secure the copper lines from vibration.

The lines from the engine to the oil cooler and back are flexible. The fittings are standard AN fittings. I use size 8 for the 1/2 inch oil lines.

Both the oil system and fuel system have pressure sensors. In my case they are electrical sensors that relay data to the Grand Rapids Technologies EIS System. These sensors must not be screwed directly into the engine. They are mounted on the firewall or the engine mount. They must be attached via flexible hoses. The fittings where the hoses to these sensors attach to the engine need to be restrictor fittings. In case the hose fails, the loss of fuel or oil will be minimized. Van's sells these restrictor fittings. I have not seen them in the Aircraft Spruce catalog.

I use primer ports on three cylinders for the primer system. The fourth I use for the manifold pressure sensor line. This port must also have a restrictor fitting on it. If not, your manifold gauge will fluctuate wildly. You can buy the same one as for the oil and fuel sensors, or save money and construct your own. Both Tony Bingelis's books have illustrations on how to do this.

As much as possible, safety wire anything you can. Murphy's Law is hard at work under your cowling. If it can vibrate lose, it will. Guaranteed. Use all metal stop nuts whenever possible. Nylon stop nuts are not acceptable in the engine compartment.

I've just touched upon the subject of firewall forward engine hookups, but in everything you do here, always remember two things. Heat and Vibration. Heat and Vibration.

UPCOMING EVENTS

May 2	Silver State Fly-In Meeting	6:00 p.m.
May 3	*General Meeting	Potluck 6:00 p.m. Meeting 7:00 p.m.
May 4	Building Project Meeting	7:00 p.m.
May 9-10	B-17 at Truckee Tahoe Airport	
June 7	General Meeting	Potluck 6:00 p.m. Meeting 7:00 p.m.
June 9-11	Golden West Regional Fly-In, Marysville, CA	http://www.goldenwestflyin.org
June 17	Chapter 403 Silver State Fly-In, Carson City, NV	
June 17	Carson City Airport Open House	
June 25	Minden Airport Open House	

*Our general meeting on May 3 will feature a presentation by Steve Lantz and R. Paul Shepherd on building the award winning Lake Tahoe Special Seabee. The experimental aircraft took over 20 months and 4200 man hours to build, and Steve won Grand Champion Seaplane at Oshkosh in 2005.

YOUNG EAA-GLES REPORT

Young Eagles Fly Day is planned for April 29. Chapter 403 currently has a volunteer list of 13 Young Eagle pilots who share their enthusiasm for aviation with young people. The pilot requirements are:

- Appropriate Airmen's Certificate (Sport Pilot or higher)
- Current Medical Certificate (if applicable)
- EAA National Membership
- 90-day currency in aircraft used
- Current Flight Review
- Aircraft Passenger Liability Insurance for aircraft used (owned, rental or borrowed).

As an added benefit, EAA members are automatically provided an additional \$1 million passenger liability policy, if they carry at least \$100K per seat liability insurance. If you meet these requirements, then you are ready to fly Young Eagles! Call Merry Romine 783-9506 or Mike Reynolds 885-0434 to sign up!

BUILDER HELP LIST

We are still looking for members to add to our builder help list. If you are willing to lend a hand to help other members/builders, or just answer questions, please contact Judy Berg to add your name to the list. We will publish the list again in the June newsletter.