

# EAA Mount Rainier Chapter 326 Newsletter

Thun Field - October 2004

70

## Meeting Notice

**Tuesday, October 12th, 7 PM  
CAP Building, Thun Field**

**Program:** Thunder Mustang Show and Tell. George Giboney

**Refreshments:** Chris Smith

**Adjournment:** TBA

**Saturday October 9th.**

**Bob Pailca's Hangar – Thun Field**

**Doors open 9 AM sharp!**

**Everything is for sale!**

**Please come prepared to take your purchases with you.**

## From the Secretary

September 14, 2004

The meeting was called to order by Kevin Behrent.

David Thomas gave a great presentation on his Viper Jet project.

Joe Andre brought the refreshments this month. Thanks Joe!

Our two-year appointment of Officers is coming due this fall. Get ready for nominations in October and elections in November. Kevin was able to find a number of willing volunteers at this meeting, so we have a good start already.

- Gordy – President
- Lance – Vice President
- Andy – Secretary
- Andy – Webmaster
- Paul – Treasurer
- Darrin – Young Eagles
- ??? – Photographer

Visitors: Bryce Johnston – Building an RV9

We still need a portable trailer for chapter item storage. Any ideas on the subject, call Kevin.

Andy

## Annual Membership Dues for 2005

Dues collection for 2005 begins now. The EAA deadline for Chapter renewal is December 15<sup>th</sup> and Kevin has to submit our new roster with the renewal paperwork. So, **\$15 please**. Do your best to pay up this month. An envelope is included with this newsletter. It is addressed to our Treasurer, Mark Hummel. Those who don't get the hard copy newsletter should mail their dues to Mark.

We are not authorized to collect dues from anyone that is not an EAA member. Chapter liability insurance is one of the factors in that. So we need your **EAA number and expiration date**. All chapters are required to forward their rosters to EAA with that info.

EAA Chapter 326  
C/O Mark Hummel  
10012 100th Ave SW  
Lakewood, WA 98498

## Chapter Nominations

The two-year term of Chapter leaders is coming to a close at the end of the year. We will be seeking / confirming nominations at this meeting and then voting at the November meeting.

Feel free to nominate yourself or anyone else. Make sure the person you nominate is a willing volunteer for the job.

The positions to be filled are on the cover of this newsletter. Only the first four require voting by the membership, but all are necessary and all are open. Note that technical counselors and flight advisors require EAA HQ qualification and appointment.

A new position of "Custodian" is needed to keep track of Chapter property, i.e. tables, chairs, library, and miscellaneous stuff that is rather randomly distributed at present.

## Hangar Sale

**The family of Bob Pailca welcomes  
EAA Chapter 326 to a hangar liquidation sale**

## SpaceShipOne wins Ansari X-Prize! Flight two a success!

Here is some bio stuff on three of the celebs. Burt of course is the designer, Mike Melville the test pilot that made the first flight into space and Brian Binnie, the second.

How many of you remember Burt's first kitplane, the VariViggen, and one of the first builders, Mike Melville. The VariViggen first flew in 1972. Mike and Sally Melville built a prize-winner with many improvements to the design. Thus began a long association.

Also check the credentials of Mr. Binnie!

**Burt (Elbert) Rutan** was born in Dinuba, Calif., in June 1943. After receiving a B.S. in aeronautical engineering from Cal Poly, he worked for the U. S. Air Force as a Flight Test Project Engineer at Edwards AFB, Calif., until 1972. After two years designing and developing the Bede BD-J5 he formed RAF, the Rutan Aircraft Factory. For the next 10 years, he shaped the landscape of homebuilt aircraft with the VariViggen, VariEze, Quickie, Defiant, Long-EZ, Grizzly, Solitaire and Catbird. The crowning achievement of RAF was the 1986 Voyager around-the-world flight piloted by Burt's brother Dick.

In 1982, Burt founded [Scaled Composites](#) to develop research aircraft. Currently, about 100 employees occupy three buildings on the flight line at the Mojave airport, a few miles from Edwards.

**Mike Melville** is Vice President/General Manager and a Test Pilot at Scaled Composites, LLC. He has 19 years experience as an experimental test pilot.

### Flight Experience:

- First flight of the Model 72 GRIZZLY prototype, a short take-off and landing bush plane.
- First flight of the Model 77 SOLITAIRE prototype, a self-launching single place sailplane.
- First flight of the Model 81 CATBIRD prototype, a high performance 5 place general aviation aircraft.
- First flight of the Model 120 PREDATOR prototype, a high performance crop duster.
- First flight of the Model 144 prototype, ultimately flown as a UAV.
- First in flight firing of the GAU-12/U25mm cannon in the Model 151 ARES jet fighter.
- First flight of the Model 202 BOOMERANG, Burt's unconventional high performance twin.
- First flight of the Model 226 RAPTOR, later flown as an RPV.
- First flight of the Model 281 PROTEUS, a high altitude research twin engine jet.
- First flight of the Model 316 SPACESHIPONE

### Participated in the flight testing of the following:

- Beech Starship prototype (NGBA)
- Fairchild's Next Generation Trainer for the US Air Force (NGT)
- ARES, a single engine, ground support jet fighter.

- Pond Racer, a twin engine racing plane, designed to break the unlimited piston powered world speed record.
- He is the only person to have flown in the Voyager Aircraft besides Dick Rutan and Jeana Yeager.
- Total flight time: 6950 hours in 127 fixed wing and 11 helicopters
- Holds FAA Commercial certificate, ASEL, AMEL, instrument airplane, Rotorcraft-helicopter and Glider
- Associate Fellow of the Society of Experimental Test Pilots
- Was awarded the Ivan C. Kincheloe trophy in 1999 for his work on developmental high altitude flight testing of the model 281 Proteus
- Member of the Aircraft Owners' and Pilots' Association
- Member of the Experimental Aircraft Association

### Personally built and flight tested:

- Model 27 Variviggen
- Model 61 Long-EZ
- Flew his Long-EZ around the world in 1997.

**Brian Binnie** is a Program Business Manager and Test Pilot at Scaled Composites. He has 21 years flight test experience including 20 years of Naval Service in the Strike-Fighter community. He has logged over 4600 hours of flight time in 59 different aircraft and is a licensed Airline Transport Pilot.

Brian's educational background includes a B.S. in Aerospace Engineering and an M.S. in Fluid Mechanics and Thermodynamics from Brown University and an M.S. in Aeronautical Engineering from Princeton University. He is a graduate of the U.S. Navy's Test Pilot School at Patuxent River, MD and the Naval Aviation Safety School at Monterey CA.

He is a member of the Society of Experimental Test Pilots and a published member of the American Institute of Aeronautics and Astronautics.

### Flight Test Experience:

- Scaled's Model 318 White Knight
- Scaled's Model 316 SpaceShipOne
- Roton Flight Test
- F/A-18 Electronic Warfare Suite Testing and Integration
- F/A-18 TSSAM Weapon Launch Envelope Expansion
- A-6E TSSAM Weapon Launch Envelope Expansion
- F/A-18 SLAM-ER Weapon Launch Envelope Expansion
- A-6E SLAM-ER Weapon Launch Envelope Expansion
- F/A-18 LEX Fence Performance Map
- F/A-18 ATARS Transonic Handling Evaluation
- A-7E Structural Flight Test Qualification Program
- F/A-18 KC-10 Wing Tip Refueling Pod Evaluation
- A-7E KC-10 Wing Tip Refueling Pod Evaluation
- F/A-18 F404 2nd Source (Pratt & Whitney vs GE) Engine Envelope Expansion
- F/A-18 Hi-Energy Nose Strut -T/Off and Landing Eval
- F/A-18 First LGB Weapon Delivery Using Self-Lasing FLIR

### Other Related Experience:

- Completed for the ROTON: Hazard Analysis / Aircrew Checklists / Normal & Emergency Procedures

- Conducted Flight Test / Developed Operational Flight Procedures (Tactics) / Provided Fleet Training (1 to 5 day course) for F/A-18 and AV-8B EW Suites.
- Expanded curriculum to include Foreign Military Customers and provided in-country training to Finland, Malaysia and Italy
- Wrote all the operational checklist and provided the Fleet Tactics Manual for the TSSAM Weapon System
- Planned and executed the first (and only) radar chase of the Tomahawk cruise missile to demonstrate more effective surface fleet training
- Prepared and briefed the Australian Air Force on new Operational Flight Software for their F/A-18 aircraft

***Why do you "fold" the wings to come back down?***

In space, the wings are folded up to provide a shuttle-cock or "feather" effect to give the ship extremely high drag for reentry. This allows the reentry deceleration to occur at a higher altitude and greatly reduces the forces and heating on the structure. Also, the ship, in the feathered configuration, will align itself automatically such that the pilot has a less-critical flight control task. We refer to this as "care-free reentry". The atmosphere orients the vehicle to a belly-first attitude without pilot input. Another benefit is that, since the altitude is higher, the pilot can glide further after the entry deceleration. A SpaceShipOne pilot can glide more than 60 miles after he converts back to the non-feathered glider shape.

**How to Make a Fresh Air Respirator**

This system costs less than \$120 and gives you filtered air from a remote location, similar to a Hobby Air.

1. Get a small shop vac called "The Stinger" from Home Depot for about \$28. Use it only for your respirator.
2. Get a Tyvek painting hood from an auto paint supplier for about \$28.
3. Get a swimming pool vacuum hose, 1.5" diameter, about \$40-50, a little less in the fall when business slows. I bought 50 feet, it is also sold in 40 ft. lengths; Hobby Air uses 40 ft.
4. Pick up a belt clip from your hardware store's key section and a hose clamp for your pool hose.

Take the small orange attachment from the shop vac and cut off the spreader portion, saving the round tube portion. This is your adapter you will use to mate the pool hose to the shop vac hose. Connect the pool hose to the shop vac hose and the hood, but making sure you use the end that swivels for the spray hood. Attach the belt clip to the pool hose near the hood with a zip tie.

Take an old baseball cap and cut off the bill. Attach that to the inside of the hood with a couple safety pins or whatever such that it your head movements.

Put a belt around your chest and use the belt clip to keep the hose weight from pulling on the hood.

Locate the vac in a safe location & spray away! Be sure to be aware of any changes in the wind.

Notes:

1. If you try to go cheap & use 1 1/4" pool hose it will set up a howl that earplugs won't even begin to deal with. The larger diameter hose reduces the velocity & removes the howl. However, a fellow builder did go with the smaller hose and reports that placing an old 35mm film can in the hose slowed the air enough to quiet the howl. I have not tried this. The 1 1/4" hose will connect directly to the shop vac hose without the adapter.

2. I have not tried the baseball cap thing yet. I have used the system without it and as I tilt my head up or down the hood does not follow. So far, I have always had a free hand to adjust the hood as necessary, but I do intend to try the baseball cap thing, just haven't needed to yet.

3. There are peel off lenses available for the hood. Some paint suppliers carry them, some don't, some that do only sell them in a package , rather than individually. You may have to cough up ~ \$25 for a package of them.

Richard Scott RV-9A

**Electrical 101**

T. Bubba Bechtol, part time City Councilman from Pensacola, Florida, was asked on a local live radio talk show the other day just what he thought of the allegations of torture of the Iraqi prisoners.

His reply prompted his ejection from the studio, but to thunderous applause from the audience.

"If hooking up an Iraqi prisoner's scrotum to a car's battery cables will save one American GI's life, then I have just two things to say:

"Red is positive"  
"Black is negative"

End

## Chapter 326 Staff

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**Chapter 326 Website**      <http://www.eaa326.org>

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