



The Bend High Desert Flyer of Chapter 1345

WEBSITE: <http://www.eaa1345.org/>

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PREZ SEZ:

Your Voice - How Will You Serve?

EAA1345's success, past and present, is attributed to the participation of our members, the dedication of our elected officers and those who volunteer to tell a story or make a formal presentation at our monthly meetings. I want to thank all of you who have helped build and maintain a fun, enjoyable and successful club for the past 10 years!

A quick glance at the "Thank You Volunteers!" page on our website shows the names of each officer since the clubs inception back in 2002. When you review the list, I'm sure you will be struck by the fact that many of these people have served the club for multiple years. In fact, all of your current officers have served multiple years as well.

Take a look.

Mike Bond - Served 10 years as Newsletter Editor

Bud Candland - Served 6 years as Young Eagles Coordinator

Jack Watson - Served 5 years as Treasurer

Erik Rustand - Served 3 years as Secretary

Thomas Phy - Served 3 years as Vice President and Secretary

Bruce Myers - Served 3 years as Facilities Crew Chief, Chef and Storyteller

Sean Harbison - Served 2 years as President, Vice President and Website Editor

That is dedication!

As you enjoy the final weeks of the summer warmth, consider that in just two short months, it will be time to elect new officers to move our club forward into the future. The question we have is...Will YOU be one of the new officers?

Volunteering for an Officer position is something everyone in the club is capable of doing and should do. If you have not served yet, or have not served recently, please consider it. Even if its only for one year, your help is important. It provides you a chance to offer new energy, new ideas and help lead our club to a bright future.

Yes, it does take work, and sometimes it's a challenge to find the time from our busy schedules. But the sky's the limit, so if you have a lot of energy and time, you will have an opportunity and venue to do a lot. If you only have a little time, then there are ways you can help too.

Our success as a group is dependant on everyone's participation and shared effort. If you want to learn more about a particular Officer position, please ask one of us or take a look at the website page, "Volunteer Duties".

Thanks for your consideration and future efforts to make 2012 a success.

Sean Harbison

Treasurer's Report

Financial for period 1/1/11 through 8/31/11

Total Income:	\$610.00
Total Expense:	\$511.91
Net Income (Loss)	\$98.09
Cash Balance:	\$2137.49
Accounts Receivable:	\$180.00 (2011 dues)

Jack Watson, Treasurer

Don't miss our September meeting!

Tom Phy has lined up Lauren Paine to present at our September meeting. Lauren produces articles for the EAA Sport Aviation Magazine. You can see his latest in this month's issue, page 110. This is a great opportunity for our club and we have also invited Chapter 617 and local OPA members to join the meeting. Lauren will fly his RV8 if possible or drive. Thomas will be hosting him at his place overnight.

Join us at 6pm, September 14th at the Ellsberg hangar.

Sean Harbison

America's First Jet Flight, October 1942



This is America's first jet airplane -- the P-59 first flown in Oct. 1942. Volunteers have spent the last 10 years restoring this airplane, and they put the wings back on last weekend just in time to be on static display at an air show this weekend. In 1942, this was a Top Secret project located at Edwards AFB. When the dry lake flooded, they had to transport it by road so it was disguised with a dummy wooden propeller on the front and covered with a shroud.

The German ME 262 had flown in July, three months prior to this flight, but this was the first American entry into the modern jet age. The British Gloster E28/39 had flown in May of 1941 and was credited with killing the first German V-1 flying bomb, with a second kill the next day.

Only 66 P-59A's were built and it never reached military service. The contract was cancelled in 1945.

The first thing that strikes you with the airplane is its strong resemblance to the P-39 (or P-400) Bell AircoBRA. It was of course built by Bell, also makers of the World War II workhorses.



This aircraft, the first Bell XP-59A, is the direct ancestor of all American jet aircraft. Built for testing purposes, it proved that turbojet-powered flight was feasible and efficient.

Designed and built by the Bell Aircraft Corporation, the XP-59A was first flown at Muroc Dry Lake, California, on October 1, 1942, by Bell's chief test pilot Robert M. Stanley. The next day Col. Laurence C. Craigie became the first U.S. military pilot to fly a turbojet aircraft. In October 1943, Ann Baumgartener Carl of the Women Airforce Service Pilots flew a YP-59A and became the first American woman to fly a jet airplane.

The XP-59A was powered by the first American jet engine, the General Electric I-A, based on the W2B design of British jet pioneer Frank Whittle.

Design Features:

Wingspan: 14.9 m (49 ft)
Length: 12 m (38 ft 10 in)
Height: 3.8 m (12 ft 4 in)
Weight: 3,294 kg (7,320 lb), empty
Engines: 2 General Electric I-A centrifugal-flow turbojets
each rated at 5,560 Newtons (1,250 lb) static thrust.

Manufacturer: Bell Aircraft Corporation, Buffalo, New York

August meeting minutes

We met at the Ellsberg Hanger for our annual barbecue, drinks and hangar flying so there were no formal meeting minutes, but all who attended had fun! Thanks especially to Bruce for food/drink pick-up, Tom for taking over the barbecue ...and Erik for taking time-out from his new-father responsibilities.

Roadable GlaStar

During our July program, a visit to Windward Performance, among other interesting projects we saw this 'Roadable GlaStar' Sportsman. They have taken over the design and modification of a four place GlaStar. The previous firm's design proved too heavy to both fly and drive.



Last week this airplane was parked outside Windward Performance, with conventional gear, presumably to make room for their other projects

... and another Bend-based program ...

Stratos jet undergoes wind tunnel tests

A one-fifth-scale model of Stratos Aircraft's Stratos 714 very light jet has just completed five days of testing in the University of Washington's Kirsten Wind Tunnel, the company reports. The aluminum model went through 90 test runs designed to evaluate the flow over the airplane's fuselage, wings, and vertical tail.

Data is still being analyzed, but early results "verified" the Stratos Jet's scalloped forward fuselage, Stratos Aircraft said.

All flight attitudes were studied, including high yaw angles where, under strong simulated crosswinds, airflows into the downwind inlet remained "remarkably clean," Stratos said. The wing-body fairing was enhanced during the testing; prompting the company to state that this area will need further computational fluid dynamics (CFD) analysis and additional wind tunnel work.



A video of the wind tunnel test can be seen on YouTube.

Two flying prototypes of the Stratos 714 should be ready within the next two years, Stratos Aircraft says. In the meantime, a \$10,000 deposit will hold you a delivery position. Performance targets for the airplane include a max cruise speed of 415 knots, a 7,213-pound max takeoff weight, and a 1,602-nautical-mile range with four passengers.

SPORT AIR WORKSHOP at 617

A second EAA Sport Air workshop is being held at the EAA 617 hangar in Prineville on September 17th and 18th.

Last years was a tremendous success drawing students from all over the US. This year they will have workshops on Fabric covering, Composite Construction, Sheet Metal Basics, Electrical Systems and 'What's involved in Kit Building' as Saturday evening program.

Oliver VTOL Announces The "Hexplane"

Oliver VTOL LLC, has announced the "Hexplane," an innovative six-engine vertical take-off and landing (VTOL) aircraft that holds the promise to fly faster, further and safer than any VTOL in the industry.



The Hexplane design has three wings and six tilt-able propulsion units that will enable the aircraft to fly above 25,000 feet at cruise speeds greater than 425 miles per hour with ranges exceeding 2,000 miles - more than 250 percent faster and 300 percent further than modern helicopters. Hexplane's estimated performance approaches that of a fixed wing airplane because it functions as a fixed wing aircraft during forward flight.

The design will also enable the Hexplane to continue to perform full gross weight vertical operations if a propeller, engine or a gearbox fails - the first VTOL with these capabilities. A planned Hexplane technology demonstrator is expected to have a ceiling greater than 35,000 feet and carry a load of 1,000 pounds, 1,000 statute miles at 400 miles per hour. This is a capability that the Defense Advanced Research Projects Agency (DARPA) has challenged the aviation industry to accomplish.

"The Hexplane is a breakthrough in VTOL design," said Richard Oliver, founder and chief executive officer of Oliver VTOL and the designer of the aircraft. "We have created a design that overcomes the historic challenges for VTOLs: achieving the speed, range and payload similar to the fixed wing airplane. However, the Hexplane goes further by providing the ability to perform a safe maximum gross weight vertical landing at its hover out of ground effect (HOGE) limit altitude with a failed propeller, gearbox or engine."

The U.S. Patent office published Richard Oliver's patent application for the Hexplane on July 14, 2011. The company expects to receive a patent for the aircraft in the next 12 to 18 months. The Hexplane's capabilities have been validated in a report issued by DAR Corporation, Lawrence, Kan. The scientific advisors for the report were: Dr. Willem Anemaat, president of DAR Corporation; University Of Kansas Professor Emeritus Dr. Jan Roskam, founder of DAR; and Penn State Boeing Professor Emeritus, Dr. Barnes W. McCormick.

Hexplane overcomes the limited maneuverability and asymmetrical vortex ring state (AVRS) susceptibility of twin tilt rotor aircraft. The Hexplane can safely continue its mission even with the complete failure of a propulsion unit, a capability the military desires.

"In the event of an engine failure, the Hexplane is a novel way of maintaining trim and, hence, safety without the use of cross-shafting," said Dr. McCormick.

The Hexplane is designed using well-understood applied aerodynamic engineering principals and therefore does not require expensive advanced development activities which usually plague novel VTOL solutions. The advanced development costs must be amortized over the typically small quantity of aircraft produced adding significantly to the cost.

Oliver VTOL officials believe the Hexplane technology could be used in both manned and unmanned flight operations for the military. The aircraft also could be used as an air ambulance because its speed and range would allow the transport of patients faster and further to access more trauma centers than currently possible. Other applications include offshore oil platform support, search and rescue, and business aviation.

Oliver VTOL, a start-up aircraft development company based in Atlanta, is currently in the process of raising its first round of equity investments that will be used to develop a technology demonstrator of the Hexplane as well as provide funds for marketing and operating costs.

For more information on Oliver VTOL and the Hexplane, please contact [info\(at\)olivervtol\(dot\)com](mailto:info(at)olivervtol(dot)com).

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