



The Bend High Desert Flyer of Chapter 1345

WEBSITE: <http://1345.eaachapter.org/>

KBDN AWOS 134.425

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PREZ SEZ:

Where has the summer gone? Seems like we were waiting for summer to get here and with a blink of an eye, it's over.

I have admitted on several occasions that, regarding electronics, I get confused with all the options available to us as consumers. So where do all these wires get plugged into to make my TV, amplifier, DVD & cable box and toaster talk to each other?

I've just had the pleasure, of getting my computer "fixed" for the second time in 3 weeks and it's driving me crazy! New programs, old info saved, old operating systems wiped from the face of the universe! Give me a handful of rivets and I can make you something. Give me a handful of electrons and I'll just get a shock.

Greg Tanner's Comanche is finally ready to fly. So this leads me to look at all the latest gadgets available to us builders and even more useful to us pilots! Laptops, Sky Maps, Notebooks, GPS and a lot more! I've not been flying nearly enough to keep current and with all of these new fangled contraptions (that I don't have), so where do you start, all over again?

I've been trying to keep up with all the new stuff but if you're not using anything, soon everything I've been reading about is already obsolete! At least if the manufactures will still support the "older" units then we should be able to pick up some good deals on the used market.

So I'm reaching out here guys. Hopefully some of you can point me in the right direction and not spend allot of money on something that's soon to be if not already a dinosaur.

Our next meeting will be held Wed. September 12th at Bend Muni in the Pro Air conference room above their maintenance hangar.

Look for the signs. Doors will be open at 6 o'clock with pizza and drinks available.

Eric Simkins will be showing us a program from his days at Boeing. Eric and I both worked in the aerospace industry but for different employers.

See you on the 12th and bring a friend!

Thomas Phy, President

Treasurer's Report

Financial for period 1/1/12 through 8/31/12

Total Income:	\$748.00
Total Expense:	\$785.86
Net Income (Loss)	(\$ 37.86)
Cash Balance:	\$2,044.69

Jack Watson, Treasurer

August meeting minutes

In short, there are no minutes as we had the Chapter annual barbecue, held at Bruce's temporary hangar (he had been displaced by the Taxiway A upgrade). Thanks to Jack for being the chef, and the Chapter for supplying the brats and hamburgers. Some 25 people enjoyed the food and companionship.

Ready to fly aerial mapping platform \$599.99

Add your point and shoot digital camera to create beautiful, high-resolution images from the air.



The development of post processing solutions is making it easier to create product from simple platforms. Many of the more expensive solutions out there include post production and that's where their cost is justified.

Several years ago the airframe and autopilot were the expensive part; looking into the near future compliance and training will become profit centers.

Fixed wing platforms have the ability to be lower cost than multicopters for longer range and greater lift. They however require a little more thought and flight planning to operate as they use more sky in operation.

Announcing the RTF Arduplane Solution from Event 38

The E382 Aerial Mapping Airplane comes with a completely assembled and ready to fly airplane capable of making high resolution aerial maps. This kit is designed to get you up and running with your plane as quickly as possible.

Kit Includes:

- Skywalker Airframe, Assembled and Ready to Fly
- 1250 kV Brushless Motor
- Motor Speed Controller
- 4x Servos
- Cables & Harnesses Pre-Installed
- ArduPilot Mega 2.0 Autopilot
- Includes GPS, IMU, Pressure Sensor and Flight Data Log

Features:

- Cruise speed: 25 mph
- Endurance: ~60 minutes with 4S 5000mAh battery
- Fly-by-Wire mode, Return-to-Launch and Autonomous modes available
- Stable airframe is easy to launch and land
- Wings detach and separate in two pieces for transport.

And if that didn't one nail you in the pattern, how about a robot bird-strike?

Researchers build robot that can land on your hand

Aerospace engineering researchers at the University of Illinois at Urbana-Champaign have "duplicated the control functions that allow birds to successfully perform a soft landing--in this case, perching on a human hand."



How can you not get worked up by a bird robot that can cross a room and land gracefully on someone's hand?

The researchers have created a micro-aerial vehicle (MAV) that can fly nimbly across a room and then pull up at just the right moment for a soft landing at a specific place, or on someone's hand.

The model above uses articulated wing segments (for flapping) with more conventional ailerons and rudder.

"Because the wings of ornithopters--birds or aircraft with flapping wings--are inherently capable of being reoriented, this capability can be used for controlling and maneuvering the aircraft in a gliding phase, thereby eliminating the need for additional traditional actuators," the university wrote in a press release.

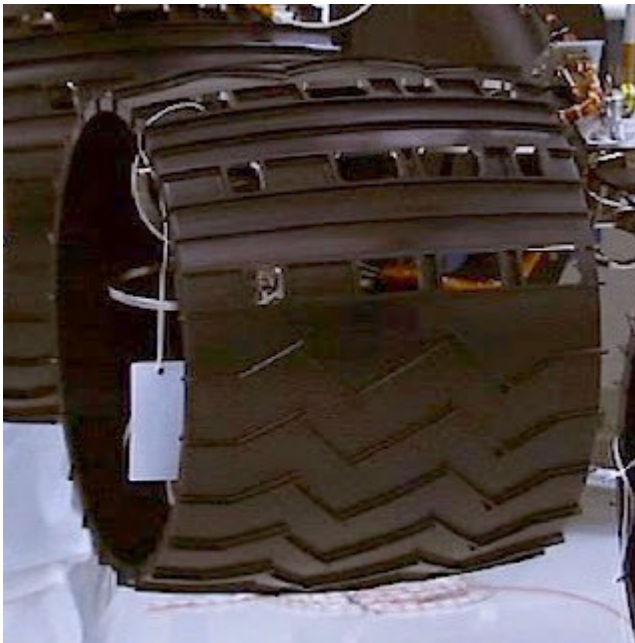
"Gliding is an effective way to conserve energy while soaring, descending and landing."

It turns out that this project was not inspired solely by academic curiosity. In fact, there appears to potential military application, which is probably why the Air Force Office of Scientific Research funded the work.

Curiosity writes 'JPL' everywhere it goes

The Curiosity Rover that landed on Mars has a neat feature in its wheels that allows it to spot if it gets stuck. The wheels have an asymmetric pattern of holes in them that leave a distinctive imprint on the surface of Mars. The rover views these marks with a camera to determine if it has traveled the distance it thinks it has. This 'visual odometry' means that Curiosity can spot if it's slipping or stuck and call home for help.

Look carefully at the wheel pattern ...



short long long long
short long long short
short long short short

or

. - - -
. - - .
. - . .

which is Morse Code for JPL, the home of Curiosity.

Fastest piston seaplane record still stands since 1934

The Macchi Castoldi M.C. 72 design was unique with a fuselage partly metal to the cockpit and wood monocoque bolted to the front tubular portion by four bolts. The streamlined nose contours enclosed an oil tank with its outside wall exposed to the airstream. The wing was all-metal with flat tubular water radiators smoothly faired into the wings. The twin pontoons had three smoothly-faired radiators on the outer surfaces, the forward radiator for water and the centre and rear radiators for oil cooling. The float struts also featured water radiators and another radiator was fitted during hot conditions under the fuselage running from cockpit to tail.



The M.C. 72 was built in 1931 with the idea of competing for what turned out to be the final Schneider Trophy race, but due to engine problems, the M.C. 72 was unable to compete.

Instead of halting development, Macchi continued work on the M.C. 72. Benito Mussolini personally took an interest in development of the M.C. 72 and directed state funds to the company. Two test pilots died trying to coax world-class speed out of the M.C. 72.

After 35 flights, the engines were overhauled in preparation for a record attempt. The aircraft finally lived up to expectations when it set a new world speed record (over water) on 10 April 1933, with a speed of 682 km/h (424 mph). It was piloted by Warrant Officer Francesco Agello (the last qualified test pilot).

Fastest piston seaplane - continued



The final design of M.C. 72 used double, contra-rotating propellers powered by a modified, supercharged FIAT AS-6 engine V24 engine generating 2,500-3,100 hp.

Not satisfied, development continued as the aircraft's designers thought they could break 700 km/h (430 mph) with the M.C. 72. This feat was in fact achieved on 23 October 1934, when Agello piloted the M.C. 72 for an average speed of 709 km/h (440 mph) over three passes. This record remains (as of 2012) the fastest speed ever attained by a piston-engine seaplane.

After this success, the M.C.72 was never flown again.

Politically incorrect ...

From AVWEB:
Heard on KBIS tower frequency years ago:

Tower:

"NorthWest XYZ, cleared to land, 31.
Be advised of model rocketry testing
from the United Tribes Educational
Center just west of the airport."

Northwest XYZ (with a Texas drawl):

"Ah liked it bettah when they only used
bows and arrows."

Flying quadrotors

These acrobatic robots can launch themselves through rings, duck and weave around obstacles, and even fly through your bedroom window. Hell, they can construct your bedroom window. Flying quadrotors first developed at UPenn's GRASP Lab by Daniel Mellinger have reached the big time. Mellinger and his colleagues have created a new company, Kmel to expand this work.



The coordinated movement across a large number of the robots, up to 20, in complex three-dimensional formations, relies upon external sensors for tracking position and movement. These robots aren't quite smart or aware enough to fly so smoothly entirely on their own. Vicon cameras (the boxes seen along the walls) provide a central control computer with necessary data to help the robots keep from smacking into one another. Simpler instances of coordination were seen in earlier demonstrations when quadrotors worked together to build basic structures out of prefabricated beams. KMel is likely to focus on networking/tracking/coordination of swarm robotics, and the quadrotors themselves may not be their actual product – just a test platform. Can you imagine similar feats of piloting performed with full-scale military drones or surveillance UAVs?

FAA FSDO humor

Any FAA FSDO can help you with it... and after all, "they're from the FAA, and they're there to help." Oops, that's obsolete; the new motto is "We're not happy until you're not happy."
Oops, THAT one is now obsolete;
I heard the latest version from a highly placed FAA HQ official -- "We've upped our standards; up yours!"

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