

Pikes Peak Radio Control Club Newsletter

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September 2013

AMA Club Number 179 / 2616 Glen Arbor Dr. / Colorado Springs, Colorado 80920
Phone: 719-329-1600 / Website: www.pprcflyer.net

Club President – Doug Ransom / Club Vice President – Rod Hart
Club Safety Officer – Mark “Gus” Grissom / Club Treasurer – Adam Heffington
Club Secretary – Keith Davis / Club Newsletter & Website Manager – Keith Davis

Next PPRCC Meeting:
7:00pm / September 4th (Wed) 2013
@ Pikes Peak Public Library on Union

Local RC events happening this month:
Warbirds over the Rockies
Fort Collins / Love-Air Jet Rally

Last Month's Minutes (August)



Meeting Started: 7:05 pm
Meeting Adjourned: 8:00 pm

Members Attended: 25
New Members: 1 – Marvin Palmer. Welcome!
Visitors: 0

New Business:

1) Club President Doug Ransom, mentioned to everyone that AMA has announced August 17th (Saturday), as National Model Aviation Day. So drop what you are doing that day and come out to the airfield and fly for a few minutes or a few hours!

2) Club Treasurer Adam Heffington, discussed the club's financial expenses for the month of July. The club did spend some money on the purchase of new back-pack fire fighting equipment.

3) Club member Dan Brunson, stated all the money made during last month's cookout and gracious donations was converted into a check was given to the "Share & Care" Foundation for the Black Forest fire victims in the name of the Pikes Peak RC Club.

Old Business:

1) Club members Rick Paquin and Keith Davis, summarized to everyone on how their respective events went, back in July. Rick ran the PPRC Scale event, it was a descent turnout and the weather was great. Keith ran the PPRC Electric event, it also had a good turnout and the weather was good until the afternoon storms rolled in. The club expects to conduct both events again next year.

You're having A bad Day when



"Your first solo approach for landing was perfect. However, you forgot that your plane has floats and you took off from a lake!"

PPRCC Family Day & Swap Meet

By Keith Davis



In honor of Mike Evans, the club held its annual Family Day & Swap Meet last month. It started out as a windy day but as soon as the winds died down around 9:00 am, people came out from everywhere! We had fliers, we had sellers and buyers and we had plenty of family and friends come out to see what the event was all about.



“Dads, moms, sons and daughters of all ages came out to enjoy the great day of flying.”



“The east and west pit areas stayed busy all day. But there was still plenty of airspace for everyone.”



“Plenty of planes, engines and other assorted RC items were brought in to sell.”

Flying continued throughout the day until 1200 noon, that's when the airplane raffle began, followed by lunch. The club members and their families brought in lunch, which consisted of baked and fried chicken, numerous types of salads and desserts and plenty of assorted drinks to choose from.



“For some strange reason when lunch began, all of the flying suddenly stopped!”



“Amazingly our very own club president Doug Ransom won the Park Flyer T-28 Trojan raffle!”

After a fulfilling lunch, flying resumed as people still continued to arrive to visit the airfield. But around 2:00 pm as the afternoon storm clouds began to roll in, people began to pack up and call it a day.

Overall, it was a successful turnout for the club, its family members and anyone who just wanted to come out and fly. The late Mike Evans initiated this event several years ago before he passed away. He would have been proud to know that his event is getting bigger and better each year!

There are tons of pictures now posted on the PPRCC website, so when you get a chance check them out!

Plans on Display: Plans #1

Rod Hart's F8F Bearcat Plans by Zirolì



"Rod brought in a set of 1981 Nick Zirolì plans. It is a Grumman F8F Bearcat that he hopes to begin working on as a distant future project. The Bearcat will have an 86" ws and powered by a G-62 gas engine."

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Gus & Safety

By Gus Grissom



Gus reminded everyone with turbine engines being a big concern for fires, don't forget about electric airplane batteries too.

Electric airplane crashes can cause the battery to catch fire but also not properly charging the battery can also cause a fire.

Gus brought up several good points as you charge your battery(s):

- Be sure to check your charge rate before charging your battery.
- Be sure to have the correct number of battery cells being charged from the charger.
- As the battery is charging, periodically feel the battery for heat and visually check the battery for swelling or smoke.
- If charging the battery under a car hood, try to place the battery on the metal frame and not on top of the car battery or a plastic surface.

Cacti Caution!

By Keith Davis



Once again with the recent heavy rains, cactus plants are sprouting everywhere. If you have to leave the paved area to recover your plane, watch where you walk and carry a pair of pliers.

Trying to pull those needles out with your fingers can leave you in even more serious pain! Those needles can easily pierce through a pair of sneakers, a pair of pants or your skin.

Love-Air 1st Annual RC Scale Event

By Keith Davis



The Love-Air RC club held its 1st Annual RC Scale event back in August. I happened to get a flyer of the event at the last minute and still decided to check it out.

It was a light turnout, only 12 registered pilots but plenty of spectators. I think with the event being so close to the Warbirds over the Rockies, participation was light, even though the event was open to both military and civilian aircraft.



“I decided to bring my JN4 Jenny. It later won the Pilot’s Choice Award.”

The event started around 8:00 am and ended around 1:00 pm. During that time, there was plenty of flying to get done and lunch was served around 12:00 noon. Soon after that, the awards were given out to close out the activities.

Like many other events, many of the pilots stuck around and talked about their planes and what was the next event that they were planning on going to.



“There were only a few civilian airplanes at the event, to include this Pawnee (Foreground) and a Cherokee (Background).”



“This Sopwith Pup flew all day. It was awarded best WWI airplane.”



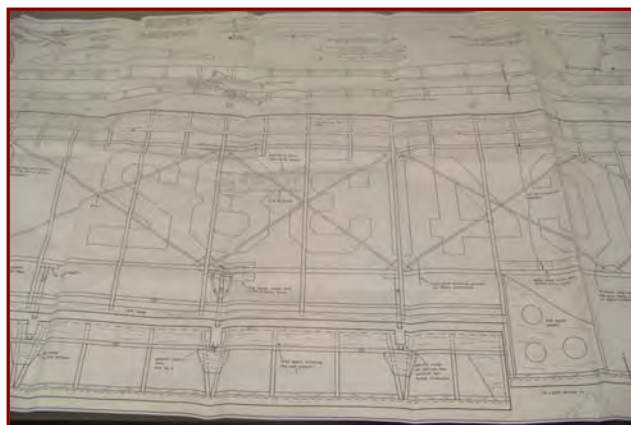
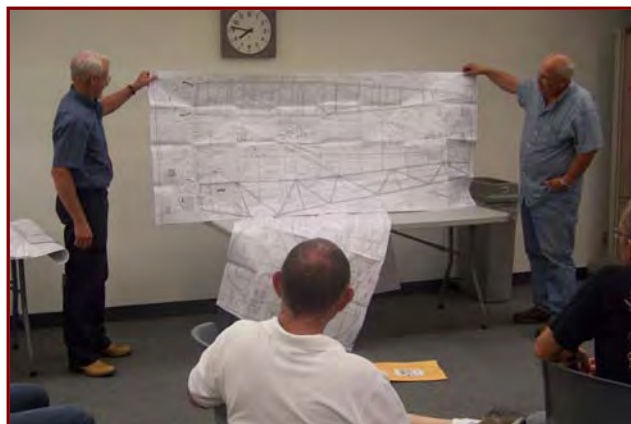
“The B-25 Mitchell sounds nice with its twin engines. It was awarded best WWII airplane.”



“On the left is Rich Perry the Event Coordinator (EC), prepping his Fokker Dr.1. He hopes to have the event again next year.”

Plans on Display: Plans #2

Ben Woofter's J-3 Cub plans by Nelitz



"Ben unrolled his 1981 Robert Nelitz plans for a 140" ws Cub. According to Ben, this is going to be big project and hopes to begin work on it this winter. He wants to make it an L-4 Grasshopper version and hopes to keep the weight under 30 pounds."

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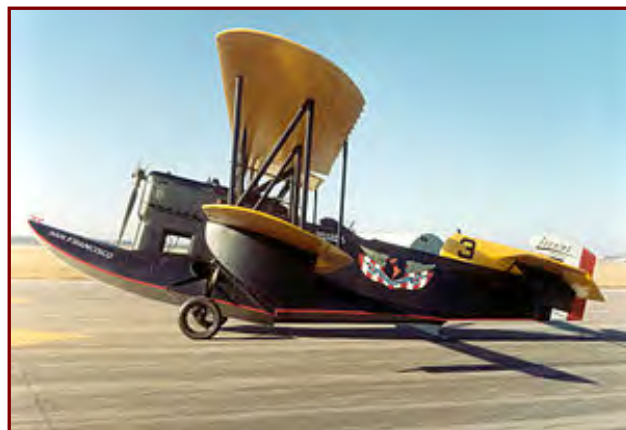
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So, What is This Airplane?

By Keith Davis



Clue #1: This plane was capable of landing on water or on land. However, the landing gear had to be hand-cranked up or down from the rear cockpit.



Clue #2: This plane was powered by a 400 hp Liberty V-1650-1 engine mounted inverted for clearance of the three-bladed variable-pitch steel propeller. This was also one of the first airplanes to be equipped with a fire suppression sprinkler system for the engine.

Last month's plane was a Douglas XB-42 Mixmaster. Mr. Wolfe was the only person that didn't get his answer mixed up and had the correct answer!

All About Civilian Airplanes

Article sent in by **Greg Moore**



Every so often, usually in the vast deserts of the American Southwest, a hiker or a backpacker will run across something puzzling: a humongous concrete arrow, as much as seventy feet in length, just sitting in the middle of scrub-covered nowhere.

On August 20 1920, the United States opened its first coast-to-coast airmail delivery route, just 60 years after the Pony Express closed up shop.



“What are these giant arrows? Some kind of surveying mark? Landing beacons for flying saucers? Earth’s turn signals?”

There were no good aviation charts in those days, so pilots had to eyeball their way across the country using landmarks. This meant that flying in bad weather was difficult, and night flying was just about impossible.

The Postal Service solved the problem with the world’s first ground-based civilian navigation system: Large concrete arrows were constructed on the ground along the way as visual navigational aids for the planes flying the mail route. There were built at intervals of approximately 10 miles and were about 70 feet long. Typically, there was a 51-foot beacon tower in the middle of the arrow topped with a powerful rotating beacon light. Below the rotating light were two course lights pointing forward and backward along the arrow. The course lights flashed a code to identify the beacon's number. A generator shed, where required, stood at the "feather" end of the arrow.

Now mail could get from the Atlantic to the Pacific not in a matter of weeks, but in just 30 hours or so. Even the dumbest of air mail pilots, it seems, could follow a series of bright yellow arrows straight out of a Tex Avery cartoon.

By 1924, just a year after Congress funded it, the line of giant concrete markers stretched from Rock Springs, Wyoming to Cleveland, Ohio. The next summer, it reached all the way to New York, and by 1929 it spanned the continent uninterrupted, the envy of postal systems worldwide.

Eventfully new advances in communication and navigation technology made the big arrows obsolete, and the Commerce Department decommissioned the beacons in the 1940s.



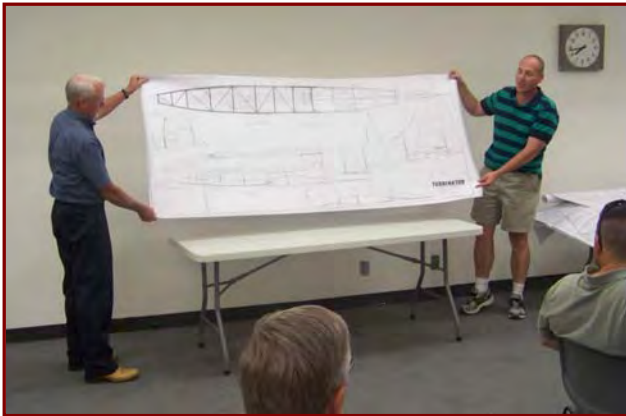
“Above: A re-creation of a 1920s map showing the route of airmail planes; the dots are intermediate stops along the course. Below: Close-up of one of the remaining arrows.”



The steel towers were torn down and went to the war effort. But the hundreds of arrows remain. Their yellow paint is gone, their concrete cracks a little more with every winter frost, and no one crosses their path much, except coyotes and tumbleweeds.

Plans on Display: Plans #3

Rod Hart's Turbinator plans by Zirolì



"Rod brought in a second set of plans to talk about. This is also Nick Zirolì plans (2007) and Rod wants to start on this project before the Bearcat project. The Turbinator is a turbine trainer with a 75" ws."

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September Love-air RC Events

By Keith Davis



If you have a bit of business or pleasure to take care of while in the Fort Collins area, be sure to check out one or both RC events that will be taking place during September.

Warbirds over the Rockies will be a 3-day event; September 13th, 14th and 15th.

Love-Air Jet Rally will also be a 3-day event; September 27th, 28th and 29th.



"Both events are open to pilots and spectators, landing fees and spectator fees may vary."



Up's and Down's of Density Altitude

By Gus Grissom



Although there are more technically accurate definitions of Density Altitude (DA), a very practical and meaningful definition is: "DA is the altitude the airplane thinks it is at, and performs in accordance with this computed value". So, if you are at Pike's Peak RC club flying field (approximately 6500' MSL) on a standard atmospheric day (altimeter 29.92 Hg), and the air temperature is 90 degrees F, your airplane thinks it is at 9,996 feet and performs accordingly – not very well!

Table 1 below assumes a field elevation of 6500 feet Mean Sea Level, altimeter of 29.92 inches of mercury and 20% relative humidity:

Table 1 – Standard Day, Vary Temperature	
Air Temp degrees F	Density Altitude
70	8740
75	9056
80	9370
85	9684
90	9996

As shown in Table 1, given the fixed field elevation, altimeter and relative humidity, as the temperature rises, the DA goes up.

Similarly, if the altimeter goes down (less pressure), the DA goes up. For example if all values remain the same as in Table 1, except the altimeter goes down from 29.92 to 29.62, Table 2 below shows the resulting DAs:

Table 2 – Reduce Atmospheric Pressure	
Air Temp degrees F	Density Altitude
70	9079
75	9395
80	9708
85	10,021
90	10,334

Lastly, as the humidity rises, the DA goes up. Yes, I know that we refer to hot, humid days as having

'heavy air', but the fact is that dry air is more dense than humid air. This is evidenced by Table 3 below that shows the effect of raising humidity from the 20% value in Table 1 to 50%.

Table 3 – Increase Humidity to 50%	
Air Temp degrees F	Density Altitude
70	8855
75	9191
80	9530
85	9871
90	10,216

So, just for fun, let's look at a 90 degree day with 50% humidity and a low altimeter of 29.62: The DA is 10,555! Might be a good time to pack up and go home!

A couple 'sea stories' to finish up the topic: A friend of mine flew SH-60B helicopters in the Navy. The SH-60B had a service ceiling of 10,000 feet. Using our examples above, any combination of field elevation, temperature and humidity that produces a DA above 10,000 feet would mean that his helicopter could not legally even take off.

And, an F-14 story: Many years ago, a relatively new F-14 pilot (not me!) was on a detachment to Naval Air Station Fallon, Nevada. NAS Fallon has a field elevation of almost 4,000 feet MSL. This new guy had never flown out of any airfield that was much above sea level. So, on a hot afternoon, he starts his takeoff roll (having done no preflight planning regarding DA) and soon 'feels like' something is wrong because the scenery is going by pretty fast, but his indicated air speed is lower than what he feels it should be.

He attempted a high speed abort but went off the end of the runway causing significant damage to the mighty Tomcat. The high DA meant that yes he was moving faster over the ground with lower indicated airspeed. But the airplane would have flown away just fine had the pilot been patient and waited for the indicated airspeed to build to that required for rotation and fly away.

For us modelers, awareness of DA is a 'nice to know' to explain why our model does not perform well on hot, humid days. For those flying civil aviation (C-172, for example) calculation of DA and its impact on performance and climb rate is critical to flying safety.

Pueblo's Big Birds

By Keith Davis



Back in August, the Sky Corral RC club out of Pueblo held its annual two-day "Big Bird Fly-In" event. A few of our PPRCC members attended on Saturday, flew all day and enjoyed the heat!



"PPRCC members from left to right: Rick Paquin, Keith Davis, James Murphy and Eric Sauley. Larry Sipes was also there, he didn't fly but came down for moral support."

About 30 pilots attended and the only requirements were a \$10 pilot's fee and to have an airplane with at least an 80" wingspan. Rick and Eric brought nice looking aerobatic planes and Murphy and I brought large-scale sport planes.



"Eric does some fancy flying with his Python while Rick looks on."

Flying continued throughout the day, with the winds remaining light but switching back and forth from each end of the runway. So there were a few times when you took off from one end of the runway only to land at the other end of the runway.

Around 2:30 pm things began to rap up, one of the Pueblo club members had invited everyone to his house for a Big Bird cookout. By that time all of us PPRC members were packing up and calling it a day also. We didn't need to stay all day or come back a second day since we were coming back the following weekend for the "Warbirds over Pueblo". But we did have a good time!



"Rick heads out with his Extra 260 as Eric comes along as a spotter."



"Murphy flies overhead with his 110" ws Chinook. This plane had a unique feature of having spoilers on the top wing."

While we were there, I did take plenty of pictures of the RC event. You can view them on the PPRCC website under the "Gallery" tab.

Pueblo guys, thanks for the Big Bird event! We will be looking forward to your Warbirds over Pueblo event in the future!

Upcoming RC Events:

- **Sep 4th (Wed) 2013 - PPRCC Meeting**
- **Sep 13-14-15 (Fri-Sat-Sun) 2013 - Warbirds over the Rockies**
- **Sep 27-28-29 (Fri-Sat-Sun) 2013 - Love-Air Jet Rally**
- **Oct 7th (Mon) 2013 - PPRCC Meeting**

