The Wing Nut

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MWD Gate

Maricopa Water District Gate at the west end of Greenway.

Temporarily the MWD gate at the end of Greenway has a combination lock on it that matches the ARCS field gate.

Here's the drill:

WEEKENDS and HOLIDAYS:

Using the same combination that the ARCS field gate has, you may use the gate at the end of Greenway under the following conditions.

Open the gate, pass through, and then close the gate behind you.

NO EXCEPTIONS

WEEKDAYS:

On weekdays the gate is usually open from about 6:00 am until the afternoon. On weekdays you are not required to open or close the gate behind you, UNLESS it is already closed. Then follow the weekend/holiday procedure.

The Club has been granted this privilege on a TEMPORARY BASIS.

IF WE DO NOT FOLLOW THESE PROCEDURES THEN THE PRIVILEDGE WILL BE WITHDRAWN.

Current Officers—Club Contact Information

President		
Jack Knuth	**(623) 878-9140**	**jaknuth@cox.net**
Vice President		
Fred Frost	**(623) 214-2254**	**oofred@cox.net**
Treasurer		
Jeff Lambert	**(623) 544-9224**	**jeff5403@cox.net**
Secretary		
Dick Olin	**(623) 214-1439**	**rolin2@cox.net**
Field Marshall		
Frank Mattox	**(623) 936-3077**	**fmattox@intouchmail.net**
Safety Officer		
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Newsletter Editor		
Frank Mattox	**(623) 932-5922**	**fmattox67@q.com**

These are the new officers of the club.
Fred Frost will be acting President for the next few months while Jack has a hectic work schedule.

Scheduled Events

Next Club Meeting
Saturday September 13th. 2008
ARCS Field
Meeting starts at 9:00 A.M.

Fear Fly
October 3, 4 & 5th. 2008
Flying Starts at 8:00 A.M.

Minutes- ARCS Membership Meeting
May 3, 2008-Mustang Field

Meeting called to order at 9:00 AM by Frank Mattox, 16 members present

Motion to approve February Meeting Minutes was carried.

The 2008 Budget- 1st Quarter was read and approved. Jeff Lambert (Treasurer) was not present but sent word that the problem with Chase Bank was resolved and the club will not be changing banks

There is no new information on the final location for the new power line. Frank Mattox discussed a map that he downloaded from the APS site . The best guest is that the towers will be West of the berm (on the State Property) with a target date of 2010/2011.

Field Cleanup (March 22) was completed and March Madness (March 29th) was a success with 15 pilots competing. Every flyer received a prize plus the volunteer's who did the timing and recording.

The Glider launch Trial was reviewed. The glider launch will be west of the pit area fence and in line with the cages.

The Night Fly on July 4th was discussed. The members voted to go ahead with the event. Hotdogs will be provided.

The planting of trees was discussed. Fred Waterman recommended that the stumps and the old tree's be removed and replaced. Jack Knuth will get information from a nursery. Hud Hatch suggested that we bury pvc or steel pipe several feet from each tree to create deep watering for the roots.

Membership renewal is due in December.
Motion to Adjourn, seconded, carried.
Submitted by: Arnold Alpert-Safety Officer

Summertime at ARCS Field

This has been an interesting summer so far at the field. There has been a flock of strange gliding birds otherwise know as Easy Star Gliders that are made by Multiplex. There has also been several larger gliders, some of them by Multiplex like the Easy Glider all the way up to John Cyr's 10+ foot soarer. This article deals with the Easy Star Glider and a typical morning at the field.
The tendency has been to launch a group of gliders and then attempt to fly in formation, either in close, wingtip to wingtip passes or touch and go's one behind the other. This can get a little exciting as most of our depth of field vision, (or at least mine) is starting to deteriorate. Here's a few examples. On the day that I had the camera out at the field, Chuck Watson, Bob Lang, Fred Frost, Bob Wells, and myself all had Easy Gliders. Chuck, Bob, Fred and Bob Were provided the photo opportunities. I was taking the pictures. For Instance:

Left to right this was Fred Frost, Bob Lang and Chuck Watson making a close pass down the flight line. They made several of these passes without accident. But that is not the norm as there are usually a few wing tips tagging each other as they fly. This day the flybys were pretty clean and accident free.

Fred and Chuck are playing tag in the previous picture while Bob just watches.
Here's another pass that they got rather close together.

Chuck's above just watching this craziness as Fred was laying shadows across Bob's plane.

They didn't hit, but this is probably about as close as you can get and not hit each other. There were several passes like this and on one of them I actually heard a set of wingtips make a little noise.

About this time Fred ran out of battery and had to land. Chuck and Bob then made a few more passes for the camera.

Here's one of them going away after a close pass down the flightline.

At this point I lined up the gliders in the pit area and took a few shots.

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Here's the group lined up in the pit area.

And the participants. You know who they are.

But just in case.
L to R:
Bob Lang
Chuck Watson
Fred Frost
Frank Mattox
Pete McKenna

Bob Wells was also there but had to leave before I took the pictures.

Frank

U Can Do 3D Electric Conversion

Want a really nice electric conversion in a proven and easily converted electric 3D.
The U Can Do 3D is an ideal platform to start with. A proven Stunt, Sport, and 3D plane with a 4 stroke 70 or 91 in it. As an electric conversion it has most of the pre-requisites to make the conversion reasonably painless.

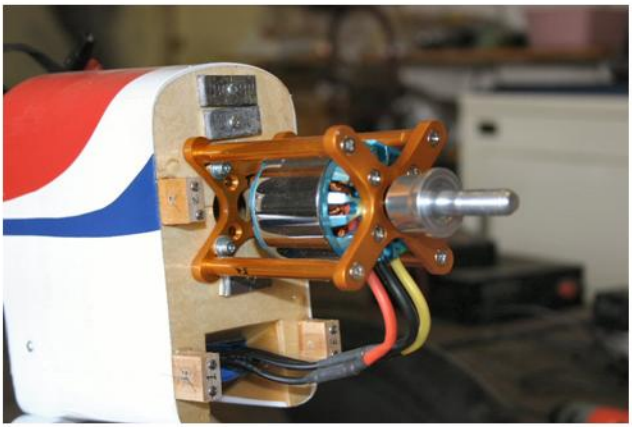
We now have three of these conversions at the ARCS field that I fly on. All are a little different in both power plant, speed control and battery choice and I'll provide the differences in this article.

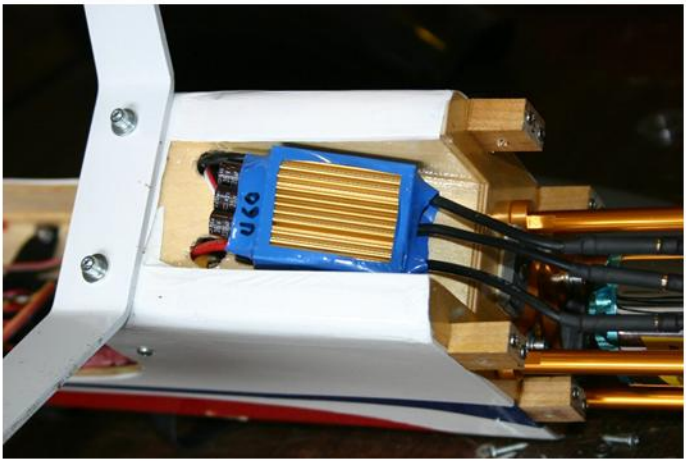
Since I wanted to retain the performance of the 70/91 4 stroke envelope it seemed reasonable to use an electric motor that had the same capability. The finished conversion will weigh a little more than the glow powered version, but it will not lack performance.
My choices after scouting around on the Internet were from Sky Shark RC in Lake Havasu. Az. For the power plant, I chose the Skyshark 75 with a 60 amp ESC and 2 –4 cell 3000 mah with a 15 C rating. The 15C rating will give you 75 amps of possible draw for the motor/ESC combo. That's over rating the ESC, but as I'll explain a little later, it's a good combination.

Using the mount from Skyshark RC that they recommend, in this plane you have to carve on the cowling a little bit, but since I have a sense of humor I turned this to my advantage as you'll see in the pictures.

You're probably not going to see it to well here in the newsletter, but the front end looks like a villain from a horror show or a clown. Take your pick.

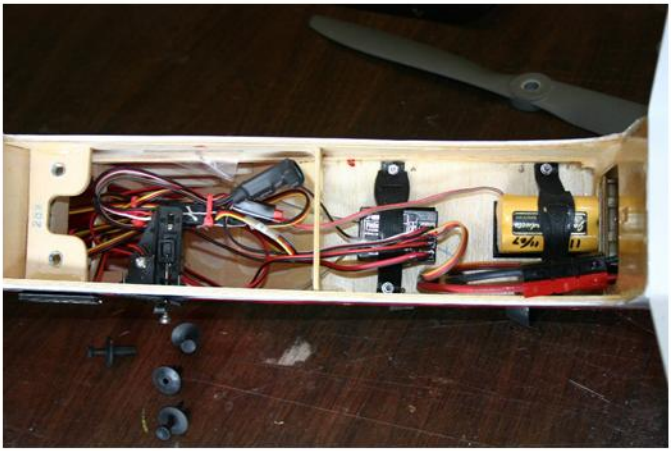
The business end with the "Lightning 75 and and the 3 oz. that I had to add in order to balance the plane.





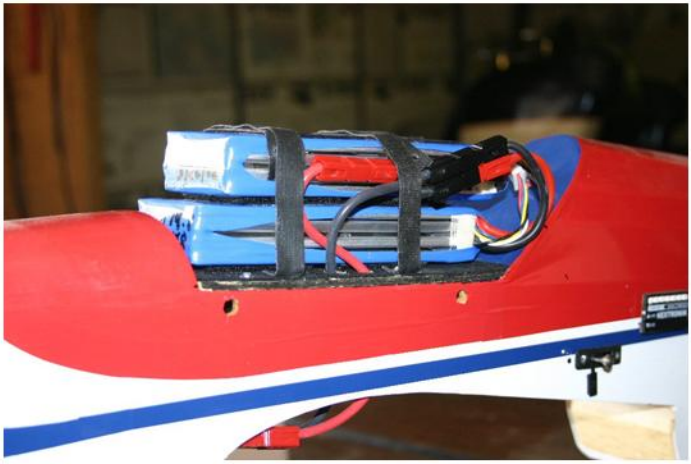
Again a little hard to see in the picture, but I chose to mount the 60 amp ESC In what would have been the air tunnel had I mounted a Glow engine.

On the firewall of the UCD3D, Great Planes has given you the approximate center of the motor mount so if you are using the standard offset your prop shaft will come out in the center of the cowling. I used it as a guide and by using washers under the mount got the shaft to come out where I wanted it to. Removing the motor I then drilled two holes in the back of the air exhaust chamber to put the battery leads and the ESC leads into the fuselage. By doing it this way you get the ESC placed right into the airstream for the best possible cooling. I mounted the usual servos on the wing and in the rear of the airplane as the instructions tell you to. Having a Futaba 6EX 2.4 Ghz radio that I had recently purchased this seemed like a good aircraft to start using it on. The receiver was mounted on the plywood platform inside and the twin antennas were placed at 90 degrees as Futaba recommends then I added a 700 mah 4.8 volt flight battery. Later on I'll probably replace it with a BEC. I extended the battery connection about 6-7 inches and drilled another couple of holes in the cockpit area. This is where I'm going to mount the batteries. It also happens to be very near the balance point of the aircraft so If I change batteries in the future, I'll not have to worry too much about rebalancing the aircraft. After all this, I placed three ounces of weight in the firewall area to obtain the recommended balance point. I also added a reversing "Y" harness for the twin elevator servos. On the bench in the garage with an APC 15 x 4W (non-electric) prop mounted I get about 9400 rpm at 38 amps with a reading of 1050 watts. Overall weight was 7 lbs. 2 oz. That didn't seem to bad, so it's time to take it to the field.



The inside. Look closely and you can see the flight battery at the front, the receiver in the middle and the switch and wiring towards the rear.

The batteries are mounted inside the cockpit. I used 8-3000 mah batteries in series for a 33 volt flight pack.



In order to gain quick access to the battery pack I came up with this idea for the canopy. Those are headlight grill push rivits and I got them at Autozone in a `1/4" size. You just drill holes in the sides of the plane where you normally would put in screws. I reinforced with a strip of plywood where I drilled first.

At the field, I assembled everything, ran a range check and then placed it on the flight line. At my field, when you show up with a brand new aircraft, everybody lands and goes behind the flight line to become the cheering/kibitzing section. Or at least they do for me. I don't know if their trying to tell me something or not. I do know it's hard on the nerves or at least it is on mine. After a short taxi session for ground handling checks, I powered it up and it rose off the ground rather quickly. Yikes that's quick, especially on high rates. I quick put it on low rates and a few wobbles later while I flew it to a two mistakes high altitude, I added a few clicks of trim and started flying it around very carefully. Did I mention that I'm only an average pilot. Anyway, I tried a few loops from altitude and then a couple of rolls, a Cuban 8 or two brought it around to the end of the runway and using a little bit of power, landed it, brought it into the pits and went and sat down and had a cup of coffee to settle my nerves. Flight two was a longer repeat of the first flight except that I brought it down the flight line, high, and ran it into a hover. It was capable of that and also of climbing right up through the hover with some more throttle. That's as brave as I was on the first flight, but since then I've tried a couple of flat spins from great altitude and I've managed to rip the landing gear off on one landing that's been repaired. I also strengthened the gear area while I was in there with a couple of half inch pine blocks laid right down between the two plywood formers inside the front of the plane. Something that I think Great Planes should do on future assembly of this ARF, since about all the UCD3D's at the field have had their landing gear torn off at least once.

It seems to be a weak point to this aircraft. And I've seen some excellent flyers tear their landing gear off. It times out to about 9 to 10 minute flights so far. Well that's mine, now I'll tell you about the other two that I know.

John Cyr's U Can Do 3D is similar to mine with this choice of power plant, ESC and battery combo. He used a Hacker B50/10L with a 5.2:1gear box turning a 14 x 7 or 15 x 8 APC prop. A Castle 60 amp Phoenix ESC delivered the power to the prop. This setup gave about 550 watts output and that worked out to about 105 watts per pound. It didn't have unlimited vertical but flew very well. He also tried some A123 cells and that made it about a pound lighter and it flew better. John sold this plane to Bob Wells.

Bob Wells made a few changes. He used an AXI 4120/14 Motor teamed up with a Jeti spin 66 ESC and powered it with Thunderpower EXT V2, 4 cell, 14.8 volt 3300 mah Lipo's turning an APC 13 x 6. 5 Electric prop. This combination gave him a measured 750 Watts of power. The setup drew 53 amps at full power. He usually flew it at Half to two thirds power and got 6.5 minute flight times with the occasional burst to full power. In other words with mixed use throttle. Bob ran a 72 Mhz flight radio and standard servos.

So that's where the U Can Do 3 D Electric conversions stand at this time at ARCS field. I expect that they will all be together at the F.E.A.R. Fly this fall, or certainly out at the field when the weather cools off.

Frank Mattox

July Night Fly
Mother Nature and the ARCS

The wind had been blowing for several nights straight when Friday arrived. It was nice and gentle most of the day and I had received a few phone calls about the event. Since it still looked good outside at the time that I got the calls I made the decision to go ahead with it.

Mother Nature however had other plans in mind. When I left the house about 5:00pm everything was fine, a nice gentle breeze was blowing and it looked like everything was OK.
I stopped and got ice for the sodas that Fred was bringing, and then continued on to the field. The combination lock was hanging on the Maricopa Water District gate as promised. I opened the gate, passed through, and relocked it behind me per the agreement and then opened the ARCS field gate. I was the first one there at about 5:40pm. After opening up the storage container I started setting up the grill and the generator for the evening Fly-in. Just about the time that I was finishing up the first of the evenings flyers showed up. He offered to help, but since I was almost finished I told him to go ahead and fly if he wanted. After finishing the setup I stared putting my plane together. By that time about a half dozen others had arrived. I had one test flight, but the plane was erratic, it kept doing strange things like it was being hit with interference. Another glider that had flown previously was also acting like there was interference. Then the wind started picking up. One other flyer got another flight in and then the wind was blowing really strong.
At 6:45 I started warming up the grill and put on some hot dogs. While the group was eating the wind kept getting stronger. After everybody had eaten we sat and talked for a hour or so, then by mutual consent started packing up and putting away the field equipment and our planes. Mother nature had won this round. Around 8:20pm we were all on the way home.

Frank