

"TURBULATOR"

Newsletter
of the Rio Rancho
Radio Control
Flying Club
AMA Club #2770

WATERMAN FIELD

ELEVATION 5840 FEET

35° 17.2'N 106° 44.8'W

Club Nite Fly



PRESIDENT'S CORNER

"Da Prez Sez"

Greetings all... Fall is officially here and there have been some great flying at the field and Lake. Bad news the lake closes Oct 15th so there are only one or two float days remaining (And Hotdogs). Cannot say it was good flying for the September Night Fly. Almost got a plane in the air when the patter of rain hit the field cover. Something about the lightning also halted any hopes. BUT... Well planned, lots of good food and fellowship. Thanks Tom for all the planning this year and to our cooks Don & Ken. Don't forget to support ARCC 10/3-5 Huckfest and 10/16-19 Jet Fly-In. Lastly, our October meeting takes us back inside with day change. (The first Monday of the month at Gary's Shop see below for details) Fly for fun and fly safe!

Coming Events

1. Next Meeting 7 October @ Wallen Club House
2. HuckFest @ Maloof 3-5 October
3. Nomination for Club Officers opens at the October Meeting.

BATTERY CAPACITY

BY DON MCCLELLAND

Doug and I were at the field and noticed that when we were flying our LiFe battery packs in the gas powered planes that after a flight of between 6 and 11 minutes when checking the batteries with our hand held meters we had used between 20 and 25% of the capacity of our batteries. The batteries were between 1800mAh and 3300mAh. Two flights on my plane with an 1800mAh for the Ignition Ckt and 2500mAh for the receiver and servos showed the power remaining in both batteries at approximately 55%. This seemed a little weird to both of us so I decided to investigate further.

So, off to my Laboratory, er Shop. I didn't start with fully charged batteries since our hand held meter said they were at 55% I wanted to find out how much longer I could fly. I set my chargers for a discharge which brings the batteries down to 3.0 volts/cell which is 0% on most meters and a 1C (capacity) rate of discharge. Basically the 1800 would discharge at a current of 1800mAh and the 2500 would discharge at a current of 2500mAh. At 100% charge this should discharge the battery in 1 hour. The members who aren't sure on battery capacities the ratings on our batteries ie 2200mAh means that if you can use the battery for 1 hour if you are using it at a current draw of 2200mAh or 2.2Amps. The 1800mAh battery discharged for 55 minutes and the 2500mAh battery discharged for 61 minutes. Great! this means that I could fly for another 55 minutes or does it? What does my plane draw for power? The plane these batteries were in is a 30cc sized Escapade which has 8 servos 7 are high torque digital (HiTec HS-5495BH) and 1 (Futaba 3004) (throttle) is a standard. I decided to measure the current draw of both the receiver system and the ignition system. I put a current meter between the switch and battery and got my measurements. The receiver system with the main flight servos moving under no load was right at 130mAh and the ignition system was drawing 90mAh at engine idle and 300mAh full throttle. Now what does this all mean????? First I know I that my smallest capacity battery is the ignition battery and it ran for 55 minutes. I had already had two 11 minute flights before I discharged the batteries so. I could get another 5 flights knowing that my ignition system would draw less than 1800mAh rate that I discharged the battery. In reality my ignition system actually draws 300mAh at full throttle. So that is 1/6 the current draw that I discharged the battery. So in reality, I could actually get 6 times the 55 minute discharge time or about 5.5 hours flight time. In other

words I could fly all day without worrying about the batteries in my plane!!

In the process of gathering all the data I needed a place to store and analyze the information. I wrote a couple of spreadsheets for this purpose. I will make both spread sheets available in the members section of our website. Below is a list of the equipment I used for measurements etc in the above article. If you have questions, would like more information or explanations or just want to talk batteries my email is at the end of the newsletter and I'm usually at the field.

Equipment used in this article.

1. [FMA GT Series Chargers.](#)
2. [Hanger 9 Digital servo current meter.](#)
3. Fluke Digital Volt Meter



Flying Low at Cochiti Lake



Rudy Chauffeur his Albatross around Cochiti Lake in the inflatable Yacht

MEETING MINUTES

Minutes from the Sept 2019 Club Meeting

The meeting began @ 10:00 with 11 members present

Minutes: Accepted as published.

Treasurers Report: Accepted as presented.

Membership Report: 40 Members

Field Report: Field good for flying.

Safety: Keep up Pilot Communications on the flight line. Pilots should announce their intentions ie: Taking Off, Landing etc when there is more than 1 pilot flying.

Unfinished Business: 1. Club Nite Fly is scheduled for 6pm Saturday Sept 14. Dinner of Burgers and Dogs will be provided. Bring planes, drinks and chairs.

2. Maloof Scale Fly is 6/7/8 Sept at Maloof field.

Unfinished Business: 1. October Meeting will be the 1st Monday in October and will be held indoors at Garry's Shop.

3. Nominations for club officers will open at the October meeting. This is a great opportunity for members who'd like to increase their club participation and take a leading role ! Nominations will be open for all Officer positions, which are President, Vice-President, Treasurer and Secretary. Don has been our Secretary, web editor and newsletter editor for 13 years and has been threatening to take a break.

The meeting concluded at 1030.

Club Nite-Fly

The Club Nite Fly was held on Saturday September 14th. A big thanks to Tom Maier and his wife Laura for shopping and getting all the food to the field. Don and Ken French performed their duties as cooks getting the Burgers and Dogs ready to eat.

Unfortunately, the only participant that wouldn't cooperate was the weather. It started getting dark earlier than predicted and we watched a storm heading straight for the field as we were eating. Doug decided to put a plane in the air. Wouldn't you know it just as he was installing his battery, the storm hit like blockbusters. High cold winds, and RAIN!!!! The skies opened up and starting raining like crazy. That pretty much put a damper on things and our club member were scrambling to get everything put away and get out of the cold and the rain. All in all the Food was good and plentiful, club members came out and had a good time meeting, greeting, talking airplanes. It was definitely a good time for the wives to lament the status of "RC Widows" and of course they got the night off from cooking! So, I'm told the night wasn't a complete loss even though the weather wasn't on our side this time.

Turbulator:

Editor Don McClelland

We are always looking for articles, pictures and your input!

For comments, or suggestions

Please Email Don at
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RIO RANCHO RC CLUB

AMA Charter #2770

www.rioranchorcflyers.org

Next Club Meeting

October 7th 7:00pm at the Wallen Club House. 5545 Lilac Pl.