



San Antonio, Texas

ARCS News

Alamo Radio Control Society

www.alamorc.org

AMA Charter 603



July

2022

CLUB FLYING SITE Is located just west of Macdonia at 10025 Shepard Road

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Club Meeting:

Held the 3rd Tuesday of
each month (except Dec)

7:00 PM to 9:00 PM

Tuesday. Acadiana Café,
1289 SW Loop 410

The next club meeting is scheduled for Tuesday, July 19 21, 2022, IS CANCELLED due to lack of club officers available. Special note of thanks to our landlord, Joe Rohmer for helping keep the field mowed and green.

June 2022 Fun Fly

The Sun rose above Harold Cannon Field alone in a cloudless blue sky, promising a day of fair weather flying for the June Fun Fly. First on the scene, the *Jet Mafia* came out early to enjoy the calm winds and near comfortable temperatures that were sure to dissipate into the heat and humidity so typical of south Texas summers. Before the day was through more than 25 pilots relished the morning flying conditions before they gave way to the heat of midday.

Juan Galvez distinguished himself that day with a spectacular crash of his T-33 and then by losing a canopy in the pond. Wading into the overflowing waters in an attempt to retrieve the canopy Juan was unable to save it before it sank out of sight.



Making its maiden flight a T-33 "Ace Maker II" flew smoothly and gently making several passes of the pattern without incident. The plane's owner, Ed Kotzur, hugely enjoyed the pleasure of flying his new airplane.



Daniel Eng flew his

TREX 600 helicopter through several spectacular maneuvers leaving many to marvel at his show of skill and dexterity flying rc helicopters.

Bob Gloden flew his Flex RV8 using his FPV headset. Bill Surrat flew his F-16 *Thunderbird* frequently; often inverted.



Visitors included young Sebastián accompanied by his parents Gus and Anna Marie. Interested in Model Aviation, Sebastián contacted ARCS President Bill Ponseigo and at Bill's invitation visited the field with a trainer ready to fly. After introductions to club members on scene JD Smith and Raul Colunga spent time teaching him about flying model airplanes. A fast learner it wasn't long before Sebastián was flying solo under the watchful eyes of JD and Raul.

The ARCS was also visited by Scott from Seattle. Temporarily working in San Antonio and looking for a place to fly, Scott found the ARCS website, and paid a visit. Scott marveled at the similarities of his home field and Harold



Cannon Field.

Bill Grozdanich treated everyone to hot dogs and chili to accompany a variety of breakfast tacos. Thanks to Bill and to everyone who brought the many treats and pastries.

Regrettably the day was incomplete due to the absence of President Bill Ponseigo. Hope to see him at the July Fun Fly.

Jim Witthauer



Minutes of June 2022 Meeting

President Bill Ponseigo called the meeting to order at 7:00 starting with the pledge of allegiance. There were three new members.

Secretary: Minutes approved as published in the newsletter.

Treasurer, Juan Galvez. Club treasury is healthy.

Income: Dues and fees from new members, raffle

Expenses:

Porta-potty monthly fee

Funds for new live camera service at the field

Repairs for lawnmower. Thanks to Bill G for his work replacing bearings on the mower.

Photos and Food Bank Project: Jim Witthauer

Yearly total food to date: 322+ pounds.

Newsletter: Jim Neff absent. Published Monday evening. Always looking for input from members.

Web Site: Buck Murray

Eric: backorder on new caps. Apparently the current supply chain issues are affecting availability.

OLD BUSINESS: The Executive committee decided to make no changes to the remote camera on the field. Members are cautioned to minimize the use; it is only to be able to check conditions and activity, not to eavesdrop on members present.

Bill also voiced his thanks for the work done keeping the field up by members, especially Bill G and Bill Surratt.

NEW BUSINESS: None



Show And Tell: Jim Neff displayed the newest Horizon Hobby release of the mPd Commander electric sport plane. Interestingly, the raffle featured the same plane as the grand prize. One of the new members, also a new flyer, was the winner.

Meeting was adjourned at approximately 8 PM.



Brayden Alsop

On Batteries



. Unless you are running a free-flight or control line plane (remember those, I started the hobby on them), you are going to use batteries.

The batteries we use in our models have come a long way from what they were when I first started in the hobby. We have choices to make regarding which type of batteries we will use and our choices are driven by what we want the batteries to do, power only the radio receiver and servos or provide motor power for flight in addition to the receiver/servo pack.



In old days, or dark ages to some, we used nickel-cadmium batteries. They provided a fairly constant current until they were about discharged, were small and usually gave us a day's flying time on the rigs we were using back in the 1970s and 80's when I was flying pretty regularly. Electric planes were out of the question. The NiCads did not have the capacity nor discharge rate to support long electric-powered flights.

We did have to learn how to manage the NiCads though. The batteries suffered from what we called "memory." If you discharged them less than full capacity and recharged them, soon that is as long as they'd last. I had a device that would "exercise" the batteries, discharging them to a safe level and shutting off. You could hook a clock to the device and get a fairly accurate reading on how long you could fly on that pack. Frankly, that is about all we needed to know. After a while they did lose capacity and we'd have to replace them. We were flying Nitro engines and so batteries were not used for propulsion, only operating the receivers and servos.

Spring forward 30 or 40 years and my, how things have changed! NiCads are still around, but not generally used in RC today. For flight packs I've seen mostly Nickel-metal-hydride (NiMH) or Lithium, Iron, Phosphate (or LiFePO) batteries. The LiPo batteries have enough charge density to provide motive power and power the receiver and servos also. Flights from 3 to 7 or even 10 minutes are possible, equaling the flight times we used to get on the Nitro engines. Like the NiCads, they do have their quirks and can even be dangerous, plus they are expensive. It pays to spend time learning about the batteries we use. What follows is a summary of a recent article by David Buxton (March 2022 Model Aviation) about how to prolong the useful life of our expensive batteries.

--When using the LiPo batteries for propulsion, use a timer to limit your time in the air. The author of the article does not recommend using the low cell voltage alarm system built into some radios.

Here are some of his recommendations and cautions:

--Use a modern LiPo battery charger with embedded balancing and other safety features. Always use the balancing feature.



--Be safe, a burning LiPo battery is like a flame throwing blowtorch, similar to the spewing fountains you set off in the road on the 4th of July. Such blow-ups can be unpredictable. People have lost houses that way. As a matter of fact, it is probably best not to charge batteries inside the house. Bill Ponseigo uses an old gas grill. Put batteries and charger in and close the lid. Of course, not on a hot day, do it at night. (Editor's Note: By the way, the NiMH batteries can also be dangerous if overcharged or mistreated. I almost had one catch an airplane on fire. I pulled the smoking blob of battery out and threw it behind the pavilion on the ground. They are also known to explode if overcharged.)

--Do not store fully charged batteries in a hot car. It ensures high life span reducing stress. It also risks the batteries catching fire.

--When charging, ensure the correct voltage, charging rate and cell count is chosen. Some older chargers won't check automatically and can destroy a battery, and maybe your house or garage.

--Don't drain a battery below 3 volts per cell.

--Let a battery cool down before recharging it.

--Extremes of temperature, cold or hot, will shorten battery life or make them fail.

--Store batteries at room temperature in a safe container, an ammunition can, or special bag or case designed to contain LiPo batteries and limit the possibility of fire spreading from the container.

--Batteries should be stored at a "storage charge" level, usually about 3.2 volts per cell. The storage charge, according to the author, is not critical if the batteries are being used frequently during flying season, say a couple of times a week.

--Discard batteries that have been in a crash. They can sustain internal damage you can't see.

The author also said to extend the life of our batteries we should only charge them to 4.1 volts per cell. Doing so will multiply the battery life by a factor of about 4. He listed the following table from an experiment with maximum charge voltage:

- 4.1 Volts, 2000 cycles
- 4.2 Volts, 500 Cycles
- 4.3 Volts, 100 Cycles
- 4.4 Volts, 5 Cycles.

For fun-fly events, charge batteries all the way to 4.2 so you can have max fun. Otherwise, 4.1 for longevity.

Always buy a good quality charger. Batteries are expensive and having a good charger is a good investment. The newer "Smart" battery system by Horizon takes a lot of guesswork out of battery charging and maintenance. The batteries can be set to self-discharge to storage levels in a certain time span. Also, invest in a good cell voltage reader so you can double check the status of your charged batteries. How many have taken a plane off thinking they had a fully charged batter when they did not? Not admitting to anything here.



Well, that's it. There are a lot of U-Tube videos and articles about batteries. It pays to do some digging and learn a lot about what powers our planes.

Jim Neff

**June 2022 Fun Fly
*Jim Witthauer)**















