The "Rogue Eagle" is a publication of the Rogue Eagles R/C Club, Medford Oregon - AMA 534

Rogue Eagle

www.rogue-eagles.org

March 2012

Update your contact information!

Contents:

Pylon Racing Season Begins March 24!

ALL THUMBS
FROM THE PREZ'S CHAIR

My name is Jay Strickland and I approve this message

I have been seeing a lot of "Esprit De Corps" amongst our members lately and I've got to say it is fun to watch. By the way, I will frequently "Run home to mama" with regards to using military terminology so you better get used to it.

I know there are a great many of us who have had some kind of bad experience when we were starting out in this hobby. It could have been you were ignored and left to figure it out yourself (which usually ended up with you building another airplane!) or it could have been someone being downright rude let alone not helpful. Remember how that felt? We all need to do our best to make sure this never happens to modelers at our field.

One of the club's greatest attractions and resources is the camaraderie and sharing of our experience(s) in our common interest, aero modeling. Everyone has something to contribute, be it beginners enthusiasm and excitement to sage old veterans know how and tricks. Make it a point to introduce yourself and get to know someone you aren't acquainted with at the field. It's a sure bet you both love some kind of aircraft!

Speaking of aircraft, the flying season is just around the corner and it's time to get your favorite bird(s) ready to perform. How long has that battery pack been treating you right? If you are anything like me, it could be a few years! It is certainly cheap insurance to replace that old pack. I have been notating in sharpie on the pack (cover with scotch tape) the date I place it in service and have been surprised a few times by how long they have been in use. It sure seems like batteries have been getting better and better while getting actually cheaper. What a downright shame it is to lose an aircraft to battery failure.

Remember:

"The important things are simple.
The simple things are hard.
The easy way is always mined!

That is all for now, Grandog out.

President signs FAA bill, includes protection for model aviation

Congress passed the first FAA Reauthorization bill in more than four years. The Bill included a special provision for model aircraft protecting it from FAA regulations.

Signed by President Obama, the special provision in the Bill recognizes community-based safety programming as an effective means of managing the modeling activity. The model aircraft section establishes minimum criteria for safe aeromodeling operations and specifically directs the FAA to not enact rules for modeling activity conducted within the safety programming of a nationwide community-based organization.

The culmination of AMA's efforts over the past four years in achieving this recognition and obtaining the legislative safeguard is a great accomplishment for the aeromodeling community. This recognition will help with our continuing efforts with the FAA to improve safety in the national airspace.

Recognition is also due to the tens of thousands of AMA members who went the extra mile by writing their congressional leaders, making phone calls, and supporting the AMA with donations used for this campaign.

Continue to monitor www.modelaircraft.org/gov for further details.

FAA Rules and the Non-AMA Member

Rich Hanson, leader of the AMA Government and Regulatory Affairs:

We won't know for sure how the FAA will address the non-AMA modeler until the proposed sUAS rule is published in the Notice of Proposed Rulemaking (NPRM) slated for release later this spring.

However, it's clear that the provisions provided in the recent FAA reauthorization bill do not apply to model aircraft operations conducted outside the safety programming of a nationwide community-based organization. Therefore, it's easily assumed that the proposed rule will establish minimum safety criteria for what I call the non participating modeler. And, I suspect this criteria will be relatively restrictive as to what, where and how these individuals can operate model aircraft.

(Continued on next page)

Most of us are familiar with club flying sites that are controlled and managed by an AMA chartered club, and where AMA membership is required to fly at the site. However, there are many locations where both AMA members and non members fly. Most of these are established public flying sites; however, there are a few locations where MA operations occur in a more casual or unstructured fashion. Exactly how the rules will be established for these locations is yet to be determined.

Assuming the FAA does establish minimum MA safety criteria in the sUAS regulation, this will then become the operating requirements for the non participating modelers and for all model aircraft operations conducted outside of AMA's safety program. It would follow that this criteria will become the default rules for locations where non participating modelers are allowed to operate. At public flying sites where both AMA members and non members are allowed to fly it will be left to the public authority to establish the rules for their facility. Nevertheless, AMA intends to work proactively with the public entities to encourage them to adopt AMA's safety programming in order to afford the greatest latitude in the MA operations.

At other locations where both AMA members and non members fly, the criteria established in the sUAS rule will still apply. However, it will be left to the landowner or the local authorities to determine whether MA operations will be conducted under the sUAS rule or to adopt the safety programming of a community-based organization.

In any case AMA and its standards development workgroup are working hard to protect both public and private flying sites as well as the AMA member's ability to fly from ad hoc locations.

AMA is not and will not be responsible for model aircraft operations conducted outside of AMA's safety program and will not be responsible for the actions of the non participating modelers. Enforcement of the safety criteria established in the sUAS rule will be left to the FAA.

Rich Hanson AMA Government and Regulatory Affairs

Sam Arrigo Memorial Day of Flying

There will be a memorial day of flying at the field for Sam Arrigo on **Sunday, March 18th**. There will be a cook-up (hot dogs and potato salad) and Pot-Luck (bring side dishes) to provide food for attendees. All donations to the fund will be given to Sam's Widow.

Club Meeting Schedule

The General Meeting and Board Meeting are now held on the SECOND TUESDAY of the month.

Board Meeting: 5:30 pm

General Meeting: 7:00 pm

Meetings are still held at the Central Point Senior Citizens Center, 123 North Second Street.

See You There!

TIPS & TRICKS

Airplane Cleaner

- 5 cups hot water
- ½ cup ammonia
- 1 cup rubbing alcohol
- 1 oz. of Dawn dish detergent

Mix all the ingredients in a clean milk jug; pour enough into a small spray bottle for field use. This solution cuts through the old buildup on the underside of your airplane, and leaves it squeaky clean.

Caution: Dawn seems to be the only dish detergent that cuts through the oils and does not leave a residue on the model.

—From the Utah Valley Aeromodelers, Lehi UT

Electric Motors for Gas and Glow People (Part 1)

Electric motors provide a clean and reliable power source for models. Selecting an electric motor is not much different than selecting a gas or glow engine when you look at the fundamental flying performance requirements. The basic principles that make aircraft fly should be used when selecting an electric motor for the flight performance desired. Power to weight ratio (power loading) make up the model's performance. Considering power loading and propeller size, choosing an electric motor doesn't have to be a challenge.

Power loading is the first parameter to consider. Power to weight ratio for an electric models is quoted in WATTS PER POUND (W/lb). This is the "electronic" performance gauge for a model's performance. More power (Watts) per pound results in higher aircraft flight performance. Power loading holds true for models all the way up to full scale. Some full scale examples are listed below. (1 Horsepower (HP) = 746 Watts (W). The first line on the chart below is calculated as follows: (65 HP) (746 Watts/Horsepower)/1220 pounds = 40 Watts/pound.

Aircraft	**Engine Horsepower**	**Total Flying Weight**	**Watts per Pound**
Piper Cub	65 HP	1,220 lb	40 W/lb
B-17	4,800 HP	65,000 lb	55 W/lb
Pitts Special	260 HP	1,626 lb	120 W/lb
Spitfire IV	1,440 HP	5,000 lb	215 W/lb

The above chart shows that high performance requires a higher power loading (Watts per Pound). The Piper Cub flies sedately at 40 W/Lb and so will a model with this power loading. Use the following power loading (Watts per Pound) chart for selecting an electric motor for model aircraft.

Mild and Trainer Flying	50 W/lb
Basic Aerobatics	75 W/lb
Aggressive Aerobatics	100 W/lb
3D or High Speed	125 – 150 W/lb
Competition	300 + W/lb

Once the required power is selected (Watts per Pound), we can look at the motor, battery, and ESC to accomplish the power loading. Look at the motor specifications for maximum power rating in Watts. Divide the maximum watts of the motor by the weight of the model to come up with the power loading (Watts per Pound). Every electric motor is specified with maximum Watts and a stated propeller range. Remember, power is a product of RPM and torque. For a given amount of power one can have a lot of torque and low RPM, or high RPM and low torque. Getting a lot of both requires more power. RPM and torque are related to the flight speed of the model. Choose a motor that uses a prop size suitable (fits) the model. Assume that the smaller props work best with models designed to fly fast. On your initial test flights, it is best to try several props (in the recommended prop range for the motor) which draw current within the maximum Amp capabilities of the ESC and battery. With electric motors, a difference of an inch in diameter or a couple inches in pitch in the propeller can drastically change the way a model flies or doesn't fly. If prop size doesn't narrow the selection to one motor, consider gearboxes or the simplicity of an outrunner motor direct drive. Also consider the Amps required to see what capability of battery is needed. The battery must be able to handle the Amp draw of the motor with the final prop selection. Check the Amp rating of the battery to make sure it will not be over worked (C rating times mAH = maximum Amp draw the battery will handle without being overworked). The ESC (electronic speed control) must also be sized to handle the maximum Amp draw (this is printed on the ESC in maximum Amps capability). Keep in mind that using the computer program MOTOCALC will highly simplify the selection process for the motor, ESC and battery.

Melvin S. Harder
Level 2 Electric Pilot

Use them new batteries, like NOW!

The March Issue of the AMA Magazine. somewhere mentions hoarding lithium polymer battery packs. Well, It reared it's ugly head this week!

Flying almost all electric power these days, happiness for me, was a large pile of battery packs, various sizes. I have never had a serious incident with lithium polymer battery packs. I charge them at the recommended rates, and don't milk the last milliamp from them flying. Almost all packs that went to re-cycle, were the result of dents in the ends, and failure to properly secure them for bad landings or crashes.

This past week end, it was time to put the maiden flight on a new plane. New equipment that I wasn't familiar with, so everything needed to be tested. First battery pack didn't make it through launch. About half throttle, the battery sagged to cut off, and the motor quit. Installed the second battery pack, almost as bad, but the same problem. I had checked the batteries at home and they were fully charged. They were new batteries, so it had to be something else in the power system. I did get enough of a test glide, to verify the plane would fly.

Tests the next day, showed the cut-off was about 150 watts – I expected 500 watts and needed 400 watts. After a double check on everything else, I tried a smaller, third battery pack. Everything worked perfect! It was the New Batteries! Then I checked past orders, and found the new batteries were over two years old, but had never been used. It seems that these Little Darlings start deteriorating from the time they are manufactured. The rate of deterioration is determined by the amount of contaminates that went into them. Even if they are Not Used! Yep! They all have it, some more than others.

Is there a test? Read the label. The cell count may be correct, but the rest will be numbers invented by a politician - lies! Sorry, pay and hope for the best. Bottom line, don't load up on battery packs you don't need. You are wasting time and money.

Flying days are short, because of the weather. Time to sort out your old battery packs and get the pregnant ones to the re-cycle bin -- Might just save that Hanger Queen!

(Batteries Plus will take your old packs. Don't know if they re-cycle them or just throw them in the dumpster. Free!)

Larry Masten—Rogue Eagle Contributor

Garage Sale for
Bill Grove's Estate

March 17 - 9:00 AM
685 Galice Rd., Merlin, OR

Crash Etiquette

from the Long Island Radio Control Society, NY

While bent over your model tweaking the needle valve, too often you hear "I ain't got it …" followed by a low frequency thump. Usually several expletives will be inserted, some used imaginatively. A hand-crafted masterpiece of airframe miniaturization crammed with state-of-the-art electronic equipment, and powered by an exquisitely machined engine is no more. The pilot who is frequently the builder/owner has made an unscheduled landing or has discovered the radio in his hands has a greater range than the eyes in his head.

Your immediate problem is how to react. Generally, it is considered bad form to immediately ask if you may borrow the pilot's glow plug battery. Similarly, you probably shouldn't ask if he's finished with the clip.

Any equipment related reasons for the crash you hear are, by definition, reasonable. Pilot error is too rare and sensitive to suggest, so don't say, "That's odd, I haven't had any problems on that frequency today," until at least an hour after the crash. Offer to help go look. Don't say "It sounded like it hit something solid." Note that most lost models are found and returned. Don't as if he has his name and phone number on the model, or wonder out loud if the model hit a house or a car.

If it looks like more than enough people have volunteered to help with the search, try to weasel out of going. There are ticks and poison ivy out there, and seeing a grown man cry isn't pleasant. If the pilot takes a plastic bag with him or comes back empty handed to get one, assume the worst. Actually, in a really bad crash, two hands and a pocket are enough space for anything worth salvaging.

Whatever you do, don't hold a postmortem on the spot. The pilot probably doesn't want to discuss:

- Battery condition
- Poor construction
- Pilot error
- Used rubber bands
- Fuel tank capacity
- Light blue covering
- Model selection vs. pilot skills

As best you can, avoid specifics, sound supportive, and look appropriately grave. You'll want the same consideration someday.

Rogue Eagles 2012 Event Calendar

MO	DATE	ACTIVITY	LOCATION	CD
Jan	1	Chili Dog Fun Fly	Agate Field	Larry Myers **(B4 7:30p)** 541-770-3390
	14	Polar Bear Fun Fly	Myrtle Creek Airport	Bruce Harlow 541-863-1920
Mar	10	Swap Meet	Yamhill County Fairgrounds, McMinn-ville	Larry Miller 503-472-4987
	18	Sam Arrigo Memorial	Agate Field	NA
	24	Pylon Race #1	Agate Field	Ben Musolf 541-608-7240
	24	Rogue Valley Flyers Swap Meet	Josephine County Fairgrounds, Grants Pass	Len Barker 541-956-9384
Apr	13-14-15	Float Fly	Agate Lake **NOTE! 2.4 ONLY**	Larry Myers **(B4 7:30p)** 541-770-3390
	21	Pylon Race #2	Agate Field	Ben Musolf 541-608-7240
	28-29	IMAC Contest	Agate Field	John Gaines 541-951-1947
May	5	Swap Meet	Agate Field	Joe DeAscentis 541-890-2765
	19-20	Warbirds	Agate Field	John Gaines 541-951-1947
	24 thru 27	IMAA	Castle Air Base	Mike Brown 503-549-3005
	26	Pylon Race #3	Agate Field	Ben Musolf 541-608-7240
	27	Fun Fly & Pot Luck Keno Club Invited	Agate Field	Rick Lindsey 541-776-5832
Jun	1-2-3	Fun fly	Klamath Glen	Sam Ellis 707-954-8284
	1-2-3	La Pine Fun Fly	La Pine	Paul Lamb 541-536-2859
	15-16-17	Float Fly	Platt I	Dave Olson
	23	Pylon Race #4	Agate Field	Ben Musolf 541-608-7240
	24	Lee Renaud	Agate Field	Jay Strickland 541-855-7161
Jul	7-8	Float Fly	Lake Selmac	Art Kelly 541-472-9683
	6-8	Warbirds over the Pacific	Cottage Grove	Gus Phillips 541 643-9430
	13-14-15	IMAA Fun Fly	Agate Field	Cliff Sands 541-941-0503
	21	Pylon Race #5	Agate Field	Ben Musolf 541-608-7240
Aug	3-4-5	IMAA Fun Fly	Henry's Winery (Sutherlin)	Bruce Harlow 541-863-1920
	10-11-12	Dawn Patrol	Henry's Winery (Sutherlin)	Bruce Harlow 541-863-1920
	18-19	Air Show	Agate Field	Larry Myers **(B4 7:30p)** 541-770-3390
	25	Pylon Race #6	Agate Field	Ben Musolf 541-608-7240
	24-25-26	Fun Fly	Klamath Glen	Sam Ellis 707-954-8284
	31	VR/CS Fly In	Agate Field	Richard Schwegerl 541-773-5479
Sep	1	VR/CS Fly-In	Agate Field	Richard Schwegerl 541-773-5479
	8	RVF Air Show	Grants Pass	Art Kelly 541-472-9683
	15	Flitemasters Fly In	Keno (Sportsmans Park)	Edward Huddleston
	22	Pylon Race #7	Agate Field	Ben Musolf 541-608-7240

L-15 Scout *(Boeing-Stearman)* (Model 451)

The L-15 Scout was the last Boeing aircraft in the single-engine or small-aircraft market. The all-metal, light aircraft for ground observation was neither a bomber nor a four-engine aircraft, but its development was typical of the Boeing effort to diversify after World War II.

Boeing Wichita (Kan.) designed the L-15 for maximum visibility and good flight control at extremely low speeds. Intended for use by ground forces, it was easily dismantled and transported on an Army truck or in a C-97 transport.

The L-15 usually used conventional landing gear but twin floats could be installed for water landings and takeoffs. An outstanding aerodynamic feature was its use of flaperons, which were separated from the basic wing structure and could be used as either wing flaps or ailerons.

Twelve L-15s were built between 1947 and 1949 but did not lead to any contracts. All 12 all went to US Forest Service in Alaska.

Specs and Performance

First Flight:	July 13, 1947
Model:	451
Class:	Liaison-light observation aircraft
Span:	40 feet
Length:	25 feet
Gross Wt:	2,050 lbs
Top Speed:	112 mph
Ceiling:	16,400 feet
Power:	125 hp Lycoming 0-290-7
Crew:	2

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