



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

SERVO CHATTER

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

MARCH 2009

THE MEETING WILL BE THURSDAY, MARCH 19, AT RIVERWIND!!!

PRESIDENT'S CHATTER

It looks like it's going to be three to six weeks until we are able to get outside and enjoy our hobby. This is a good time to go over your aircraft and field gear. Look over your aircraft's connections, both electrical and mechanical. You should also cycle your receiver batteries and/or transmitter battery. Cycling your batteries will give you an idea of where your battery life stands, and may prevent flight issues causing injury to people or property.

For the nitro people, check the fuel tubing in your fuel supply bottle for deterioration, the fuel line tends to dissolve over time in the fuel bottle. A couple of dollars will replace all your fuel tubing from the fuel supply bottle to the tank in the aircraft and will keep the "crud" out of your engine. And while replacing the fuel tubing in the supply bottle, check on the clunk filter.

For all of us, electric and nitro, take a few minutes to check on spinners for cracks or dents, also check for balance issues. And of course check our props for cracks, nicks and balance. It is amazing how many problems we hear about and read online about other hobbyists losing aircraft due to easy maintenance and preflight checks. Take the extra few minutes for safety sake and you will enjoy longer, safer flights.

See you at the field..

Erik Castrodale



FLIGHT TRAINING

It looks like we are off to a great start this year for training. There are two new members joining us. David Clapp is ready to go, he has his AMA card and membership card, and come spring Mike Dorff will be working with him. We also have Greg Morin who is waiting for his AMA card in the mail as we speak and will be joining us soon. Matt Campson will be working with him. Thank you again, instructors, for your time and effort. And all of us please welcome our new trainees at our next meeting

Moving on to our Equipment list, it is completed and is as follows. I have:
2-JR boxes 2-chargers 2-JR cables and 2-JR to Futaba old cables.
1-Hitec Box, 1-cable old to old (works with any old Futaba cables).
3-Futaba boxes, 1-cable, old to old 1-cable old to new and 1-charger.

We also have equipment that is assigned out. Dan Stahn has the Club's PT 40 trainer plane, buddy box and cable. Mike Dorff has the Futaba buddy box, old to old and old to new cable and the DB meter (sound meter). Darren Bitzer has all of the club's CD tapes inventoried and ready for use.

In addition a great thank you goes out to Al Spearbecker for building and donating to the club a trainer plane (Goldberg Freedom 20) and a new cable (JR to Futaba) that we can use this year for our training program.

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Also, Big Thank You goes out to Steve Ulrich and Mark Felland for letting the club use there training equipment when needed.

As you can see we have a great start to the new year. Remember to let me know of any new trainees so we can stay organized and follow proper training guidelines.

Happy Flying!! Director of Training Jim Taylor

Meeting Minutes

Meeting called to order at 7 P.M.

28 members present.

Board Reports:

* President: Eric Castrodale reported that the MAARCE auction was very successful.

* Safety: Mike Dorff reminded the members to wear safety glasses when starting engines to protect from props, spinners and the like that could fly off.

* Membership: Stan Zdon reports that 67 members have renewed. He reviewed the recent rules revisions. Stan also informed us that the club re-charter was complete and that the event sanctions for the upcoming season had been submitted.

* Training: Jim Taylor informs us that the training arrangements for spring are complete and he provided copies of the instructor list, solo certification and check list.

* Treasurer: Jake Groetsch reviewed the current club finances with the members. All is in good order.

New business:

Al Spearbecker brought in a \$250 donation from Aero Space Welding. Thank you!!

Andy offered to provide another run up stand.

Tim Karash reminded the members that the Duluth/Superior swap meet was to be held in Superior on 2/28.

Show and Tell:

Stan Zdon brought in a recently completed Fun 51. The model was beautifully covered in purple and yellow Monokote and powered by a GMS .47. Stan upgraded the landing gear & tail wheel assembly. He also mounted some of the servos on the top and modified the fuselage by removing the underbelly pan. The model weighs in at 4 ½ lbs. Looks great!!

Al Spearbecker brought in a finished model of his own design. It is covered in a yellow and green color scheme and powered by a 450 E-Flight which will accept a 2 or 3 cell LiPo pack. It weighs in at 20 oz. Al plans to add an air scoop fashioned from a pop bottle. The plane looks great and we are looking forward to seeing it fly!

Dave Green brought in a completed model of his own design. It is a biplane that is constructed out of cardboard for the wings. Dave stiffened the wings with carbon fiber rod. The cowl was fashioned from a Mr. Pibb bottle and is powered by a 480 brushed motor. He named the plane the "Dead Barron." The model turned out great and we are anxious to see it fly!

Raffle:

1st Place:	Bruce Montgomery	H9 Tribute 36
2nd Place:	Stan Zdon	Cutting mat
3rd Place:	Steve Ulrich	Robart stand
4th Place:	Bill Vaughn	Glow driver
5th Place:	Al Spearbecker	Glow wrench
6th Place:	Jim Taylor	Remote fueler

Steve Ulrich



CONVAIR PB4Y-2G

MEMBERSHIP NEWS

ACRC currently has 72 (78, 97) members signed up for 2009. Of these, 59 (67, 85) are members that pay full yearly dues. The rest are honorary members, junior members and life members. The numbers in parenthesis are the membership numbers at the end of 2008 and 2007 respectively. As you can see, membership is lower than in previous years. There are 24 full dues members, listed below, that have not renewed their membership for 2009. If you know any of these members personally, please call them and remind them to renew for 2009. If they all renew, the membership numbers will equal last year's numbers. The 2009 budget is based on a projected membership of about 100 fully paid members. If we drop much below that number we will have to cut services somewhere.

This month a channel usage list, an email list and a phone list are being published. Please check your e-mail addresses and phone numbers for errors. Some of them were hard to read on the application. If you find any errors please call me at (763) 784-3121 or e-mail me at szdon@yahoo.com so that I can correct my database.

The March meeting is when ACRC has the annual club swap meet. If you have something you want to part with bring it to the meeting and get BIG BUCKS for it.

The ACRC freeze-fly and the TCRC auction are finished now and the flying season is almost here. The Annual Spring Fly-In will be held on May 16, the Pattern Contest will be held on June 6, the Fun Scale Contest will be on July 11. The ACRC annual float fly will be July 22, the ACRC Electric Fly will be September 5 and ACRC Fly-Out is October 3. Get those airplanes ready and come out and have some fun. More information will be published as the year progresses.

ACRC will be working with King Kong Hobbies in Coon Rapids this year for the fuel order. The prices are about the same as last year, some a little higher and some a little lower. An order sheet for fuel from King Kong Hobbies is

included with this month's newsletter. It will have to be mailed to King Kong Hobbies by **March 31** and you will have to pick up your fuel at their store. If you have any questions call Stan Zdon at (763) 784-3121 or call King Kong Hobbies at (763) 390-0490.

2009

ACRC CHANNEL USE

11 - 1	29 - 1	47 - 2
12 - 6	30 - 5	48 - 3
13 - 2	31 - 1	49 - 2
14 - 3	32 - 4	50 - 6
15 - 1	33 - 2	51 - 3
16 - 12	34 - 2	52 - 6
17 - 1	35 - 2	53 - 1
18 - 5	36 - 2	54 - 3
19 - 0	37 - 0	55 - 1
20 - 0	38 - 5	56 - 5
21 - 2	39 - 4	57 - 2
22 - 2	40 - 4	58 - 1
23 - 1	41 - 2	59 - 2
24 - 4	42 - 3	60 - 2
25 - 2	43 - 1	SS - 29
26 - 3	44 - 3	27Mhz - 0
27 - 2	45 - 2	50Mhz - 3
28 - 4	46 - 6	53Mhz - 2
28 - 4	46 - 5	53Mhz - 2

The next meeting will be at Riverwind on March 19 at 7:00 PM.

Stan Zdon

Non-Renewals for 2009

Lane Beard	Doug Jelinek
Kevin Carlson	Dana King
Kurt Clark	Rodney Krogstad
Bruce Dibb	Eric Malkerson
Tom Doty	Spencer Minear
Vong Duong	Andrew Noll
Bud Durant	Frank Peternell
Jeff Flander	Bob Proulx
Michael Flander	Dan Stahn
Robert Gallagher	Mark Strommen
David Greene	Ed Wright
Nick Halstead	Jim Wright

2 BLADES vs. 3 BLADES

I am periodically asked to recommend a 3-blade prop for an airplane that currently has a 2-blade prop or vice versa. Like most questions like this, there are no "perfect" cookbook methods. However there is a cookbook method that works pretty well.

If you have a 2-blade prop which works well and want to try a 3-blade prop which is a pretty good match, try this: If the diameter of the prop is D and the pitch is P, multiply D times D times P and you get what's called the load factor of a 2-blade prop. For example, the load factor (LF) of a 10x6 2-blade prop is 10 times 10 times 6 = 600. Multiply the LF by .6666667. For the example, you get a "modified" LF of 400. Now pick the diameter of a 3-blade prop you might like to try. Let's try a 9" prop. Divide the "modified" LF by the diameter you want to try squared: 400 divided by 9 times 9 = 4.93. 4.93 is the pitch of a 3-blade 9" prop that you should try, but you won't find a prop with that pitch, so try a 9" 3-blade prop with 5" pitch.

Now let's go the other way. Suppose you have a 3-blade prop which works well and want to try a 2-blade prop which is a pretty good match, try this: If the diameter of the 3-blade prop is D and the pitch is P, multiply D times D times P. Then multiply that by 1.5 and you get the LF for a suitable 2-blade prop. Let's try another example. You have a 9x6 3-blade prop. Multiply 9 times 9 times 6 = 486. Then, multiplying by 1.5 gives 729, the load factor for a suitable 2-blade prop to try. Let's get wild and see what pitch is required for a 14" 2-blade prop to be a match. 729 divided by 14 times 14 = 3.72. This means that the closest match of a 14" 2-blade prop is to a 9x6 3-blade prop is one with a 4" pitch.

Ron Van Putte



Choosing the Right Glow Plug

Several factors influence the use of the correct glow plug for your engine. Here are some guidelines:

Engine Type

Standard engines: Engines with a 1-piece head are most common. Standard plugs are easily available, inexpensive, and fit almost all standard engines. Standard plugs are installed with a washer, which creates a compression seal with the head.

Turbo: Many new O.S. engines feature a special 2-piece turbo head. The biggest benefit of turbo plugs is superior performance. Unlike standard plugs, turbo plugs (identified by a "P" in the description) feature a tapered "seat" that matches perfectly with the head. That creates a superior compression seal and with it, maximum efficiency and power. Turbo plugs are the choice for racers, who want, and need, top performance.

A word of caution: you should never install a turbo plug in a standard engine or vice versa. Doing so risks doing serious (and expensive) damage.

Displacement

Small displacement engines need a hotter plug than larger displacement because larger engines have more mass and retain heat better.

Nitro Content

Use of higher nitro fuels will require a colder plug than lower nitro fuels.

Temperature

The hotter the day, the colder the plugs need to be.

Additional Things to Know:

- Hot plugs promote better idling and acceleration. If your engine runs rough or accelerates sluggishly, a hotter plug will help.
- Cold plugs produce more power and may improve performance if your engine runs hot. The downside is rougher idling and more difficulty in tuning.

- Fuel-air mix not only affects how your engine performs; it can also have an impact on how long your plug lasts. If you run rich, it means that you're using more fuel than necessary for top performance. Modelers are often advised to run rich during engine break-in, because it helps cool the engine. However, running too rich can also cause an engine to bog down or quit entirely. In addition, it also means that the glow element is being exposed to more contaminants than necessary, which shortens plug life. Running lean means that you're using less fuel. "Leaning in" an engine has a positive effect on performance. However, care is needed here, because over-leaning an engine can harm it, by raising operating temperatures, and burn up a plug [Tech Editor's Note: More than the plug might be lost, excessive leaning can ruin an engine!] before it's time. Do not over lean!

Final Thoughts

Choosing the right glow plug not only improves performance, but can also extend the life of your engine and the glow plug itself. With the guidelines above and the tips below, you're well on your way to achieving both.

- Buy quality plugs. You're protecting your investment.
- Store plugs where it's dry. Moisture can ruin them.
- Use the right glow plug. Follow the guidelines above.
- Follow the proper break-in procedures.
- Tune your engine carefully. Running too lean will make your engine "blow" plugs more often. Proper tuning helps extend plug life.
- Never touch the filament of a glow plug. Doing so can break the filament and ruin a plug.
- Don't over tighten your plug. Tighten it until it's just snug.
- Be sure to shim your engine correctly. A plug that's too close to the piston can cause pre-detonation, which will quickly damage a glow plug.

- Use only a glow starter or 1.5V battery to heat your plug. Otherwise, your plug may burn out ahead of it's time. Don't be afraid to ask for help. Experienced modelers have already "been there, done that." Their experience can save you time and money; and most are glad to help.

- Glow plugs get very hot, enough to glow the filament red or white hot, and removing a glow plug while power is applied can cause burning if appropriate care is not taken. [Tech Editor's Note: Removing the plug while it's still being "heated" strikes me as nearly impossible, since any attachment to the plug, that would be doing the heating, must be removed so that you can have access to remove the plug. The only other way to heat the plug is from the combustion in the engine, so if you are handling the engine, it's generally a good thing to have stopped it running while you "fool" with it.] Special caution must be taken while near fuel sources.

- Some connectors for glow plugs can short circuit and damage batteries, or cause them to explode. Batteries may get hot during the use of a glow plug. This especially applies to homemade or nonstandard connectors.

- [Tech Editor's Note: One source of material that can ruin glow plugs is detritus left in the engine during/after manufacture. Before you run any new engine, it's a good idea to flush, at least the combustion volume, to eliminate as much "stuff" as you can. Flush it with fuel or methyl alcohol, never water. The best way to flush is to remove the head and the back plate and flood the engine with the flushing fluid. If you are uncomfortable removing the engine parts, then take the glow plug out, move the piston down so that the top of the piston is below the exhaust port and run the flushing liquid down the plug hole and out the exhaust. If you catch the flushing fluid on a white paper towel, you should be able to see anything that the flush eliminated.]

From the AMA National Newsletter



SERVO CHATTER

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COON RAPIDS, MN 55433

Your husband is suffering from a very severe stress disorder. If you don't do the following he will surely die. Each morning fix him a healthy breakfast. Be pleasant at all times. For lunch make him a nutritious meal. For dinner prepare him an especially nice meal.

No chores. No nagging. Oh yes, insist that he goes flying every day. Do this for the next year and

he'll regain his health completely!



What did the doctor say?



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*Deadline for the
next newsletter is:
April 1, 2009*

ACRC Website - www.acrc.com

CALENDAR OF UPCOMING EVENTS

Thursday – March 19, 2009

- ACRC Club Meeting

Thursday – April 16, 2009

- ACRC Club Meeting

Saturday – April 18, 2009

- ACRC Fun Fly

