

**Tailgate Swap Meet
Changed to May 11th**

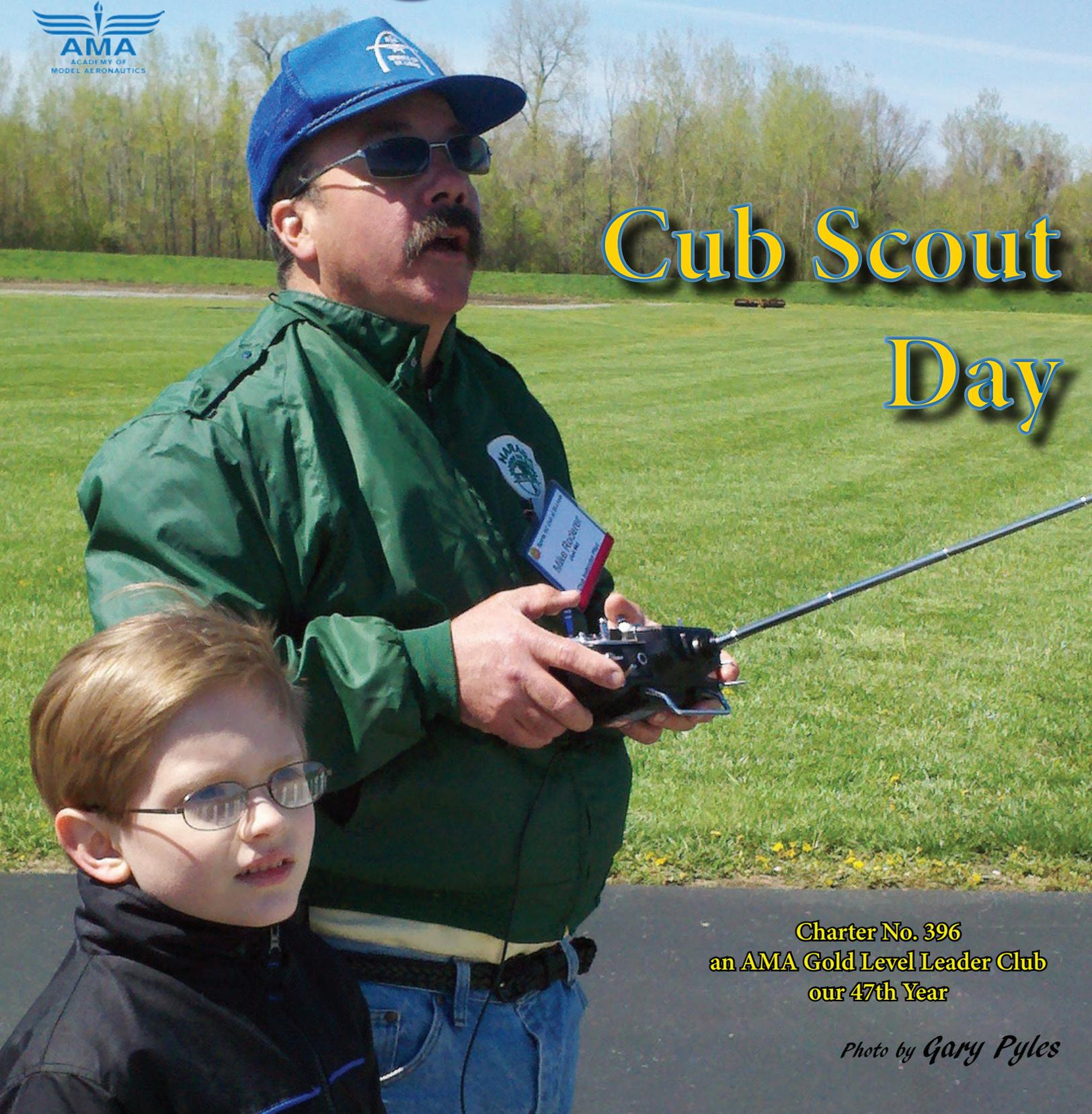
**Weather Wreaks Havoc
With Events at the Field**

**Next meeting, May 8th
Bridgeton Trails Library
7 PM**



Flight Lines

Cub Scout Day



**Charter No. 396
an AMA Gold Level Leader Club
our 47th Year**

Photo by Gary Pyles



Stuff

by: Gary Pyles

Time to write another column and I always wonder what I going to write about. Between the recent Cub Scout Day at the field and a phone call I received. Recently I experienced our hobby in the context of a set of bookends.

At our recent Cub Scout Day, the Scouts, 2nd through 6th graders, got the an introduction to our hobby through our Intro Instructor Pilot Program. Hopefully, some of these scouts represent a future generation of model aviators. As these youngsters were taking their first flights at the hands of some of our great Intro Pilot Instructors who volunteered their time and patience to get them airborne, I was scheduling another activity to help transition the end of a modeling career.

I was contacted by a very nice lady whose brother passed away. Her brother was an avid model aviator with no one to pass his passion on to. After talking with Donna, his sister, I met with her and spent several hours doing my best to organize and inventory her brother's R/C collection hoping to help her sell his collection.

This is the second time in as many years that I have assisted someone that lost a family member that was a model aviator. The experience is both enlightening and gratifying. Being able to live these modeler's R/C exploits through their loved ones is truly eye-opening. The level of skill, passion and love of the hobby spills out as their families shared stories about their modeling exploits.

We are all sad when lose someone we know, but somehow when we lose a fellow aviator, even one we never met, it hits close to home. As I was going through the collection I could not help feeling connected somehow and honored to share his hobby and meet his family.

There is an extensive collection of engines, a variety of unique aircraft, and some support equipment that I will post for sale for the family in the newsletter and on our website. Take a look and see if there is something there interests you.

Our hobby is sometimes a loose collection of individuals that share a single interest. At other times it feels like an enormous family with a very big heart.

See you at the field.

Gary

Club Business

3 Meeting Minutes

8 Events

Features

2 Stuff

4 Safety Corner

4 Bending Music Wire

5 Heat Treating

6 Technical Presentations

7 Cub Scout Day
Gary Pyles

8 Rain Out

9 Links

10 Summer Modeling
Bob Brown, AMA

11 Spirits Advertising

12 Spirits Advertising

14 Spirits Advertising
video spotlight

Pages 9 through 14 are available in the Online version only.

The table of contents was left unfinished because the Online version was not complete prior to printing time.

IN THIS ISSUE



MEETING MINUTES

Meeting Minutes: April 10, 2013

By Dale Buchanan, Secretary

Meeting was called to order at 7:00 PM by President, Gary Pyles.

Attendance:

17 members were present.

Announcements:

A membership roster is available upon request. If you would like a roster please email Gary Pyles and he will get one out to you or you can get one at the meeting. The roster has the member's name and phone number.

The River City R/C club is still in operation. They are not closed down and the field has not been plowed up. The rumors are not true.

Gene Jones brought in a flyer for a company that makes name tags. The tags that Gene had were about 1"X3". The companies name is Banacom Signs, 3 Charlestown Plaza, St. Charles 63303. Phone # 636-928-8889.

Cub Scout Day on April 20th turned out to be a great day. There were several young scouts flying for the first time and all seem to be having fun. Thanks to the intro pilots that helped make this event a success.

New Members in Attendance:

No new members were present.

Secretary's Report:

Dale Buchanan, Secretary

I have AMA Gold Club Leader Pins for members who do not have one. They will be given out at the club meetings, events or I can meet you at the field.

A motion was not made to accept the Minutes because of the late newsletter. No one saw the minutes at the time of the meeting.

Treasurer's Report:

Bill Lindewirth, Treasurer

A motion was made to accept the Treasury report as presented and the members accepted.

Field Report:

Gary Graul, Field Chairman

Gary was not present. Gary has started to repair the cracks in the runway with the help of a few club members. Thanks to Gary Graul, Bob Gizzie, Steve Ramonczuk, Gene Jones, Bill Schultheis, Rob Groeller, Mr. Weidinger and whoever else helped.

Lee Volmert and Steve Ramonczuk put the battery in the Kabota, checked the fluids and got it running.

Paul Geders is looking into what needs to be done to the field roller. It seems to need new pillow block bearings.

Bill Lindewirth has replaced the clubs pop up canopies.

Mowing the field was started on April 11th. Mowing will be on Thursdays at 2:00. There will be no Flying when mowers are at the field.

Safety Report:

Russ Watts, Safety Chairman

Russ suggests that when someone calls out that they are landing the other pilots could step back if possible and give the person landing a better view. Common courtesy promotes safety.

Membership Report:

Ralph Doyle, Membership Chairman

Ralph reports out of 168 members last year, 119 members have renewed plus another 22 new members. When renewing or joining send a copy of your 2013 AMA card. NOT a copy of the temporary card.

Dues for renewing members will be \$160.00 because you are now past the March meeting (In Arrears).

Events Report:

Vic Bunze, Event Chairman

Vic talked about the War Bird races and if the prop is turning while landing with electric planes. He says it is up to the CD to make the call if the prop is turning or not.

The club will have its swap meet on May 4th and the rain date on May 11th. Gene Jones will be the gate keeper. There will be concessions.

Some events have been moved to different dates.

Electric Fly In from August 17th to October 12th

Four Star Forty from October 19th to October 5th.

Steve Cross will be CD the October Four Star race.

Vic has volunteered to CD the October Electric Fly In. A contest director is still needed for the May 18th Scale Fly In.

There are still events that need contest/event directors. Please contact

Vic Bunze if you are interested in running an event.

New Business:

The Name That Plane contest is up and running on the Spirits website. When you identify a plane, use the correct letter identifier at the end. Example: P51D or B25C or L. If you

have any questions about the contest please contact Bill Lindewirth.

Meeting was adjourned at 8:31.

The next meeting is on Wednesday, May 8, 2013 at the Bridgeton Trails Library, 7:00 PM, meeting room 1.

SAFETY CORNER

Spring is here, well then gone again, then back... I'm really not sure. You know the story about St. Louis weather, just wait... yada, yada... Well, what comes with spring? Besides a large dose of rain this year.

Flying, working in the yard, sports, Sun, and hopefully a lot of fun.

OK, it is the Safety Corner, here we go. 1. Flying, You know the drill safety first last and always. 2. Yard, don't mow in sandals. 3. Sports, stretch out, stay hydrated and don't over do it. 4. Sun, if you are fair-skinned, slather on the sunblock. If you are more sun-tolerant, don't over do it. A few simple things to help your summer be safe and fun.

Bending Music Wire

by Roy Vaillancourt



About the author:

Roy Vaillancourt is the president of Vailly Aviation, a part time venture, catering to giant scale enthusiasts. Roy and his wife, Nancy, have operated Vailly from their home since 1986. Roy, whose specialty is giant scale warbirds, is an active scale contestant who has competed regularly at the Top Gun and Scale Masters Championships for the past ten years. He is a frequent contributor -- on a variety of topics—to the major scale modeling magazines and to our own Articles and Tips department. A mechanical engineer with two advanced degrees and over thirty years experience in design and manufacturing, Roy works full time as a senior design specialist for Lockheed Martin.

The music wire used by sailplane modelers to make landing gear and cabin struts is medium carbon steel heat-treated to spring temper or about 45 on the Rockwell C scale of hardness (RC45). On this scale, RC20 is soft, RC45 is tough, and RC60 is hard. Tough wire can be bent and cut using the proper tools and techniques, but sometimes it's just too difficult to work with.

One way to soften steel music wire is to heat it, which makes it easy to bend and form. But after heating and forming, the subsequent cooling—often at an uncontrolled rate—can make the finished wire too hard or too soft since its hardness is determined by the rate at which it cools. For some parts, the final hardness isn't critical. But a landing gear formed from wire softened too much won't spring back to its original position; and a gear made from wire cooled to a harder than normal state will snap on its first use. To restore the wire to its original specific spring temper, it must be heat-treated a second time and cooled at a controlled rate.

Read how it is done on the next page

Heat Treating Music Wire

Step-by-Step

by Roy Vaillancourt

Three Steps

To form wire easily, first anneal it; next, form or bend it to the desired shape; and then heat-treat the part back to spring condition—that is, temper it.

First the wire should be annealed² at the location to be bent. To anneal it, heat the wire with a torch until it becomes a bright cherry red—about 1400 degrees Fahrenheit. Let it cool completely to the touch. Don't quench³ it or blow on it. Just let it cool naturally away from any drafts. The wire should now be in the RC25 soft range, and it will bend easily. After forming, once again heat the wire with a torch until it becomes bright cherry red, but this time quench it—that is, cool it rapidly by immersing it in room temperature water. Plunge the steel into the water with a twisting, swirling motion to keep water vapor from insulating the wire against the cooling action of the water.

At this point the wire should be very hard, probably above RC60. To test the hardness, try to make a mark on the worked area with a file. The file should slide off without cutting into the steel at all. If it cuts the wire, try the heat and quench cycle again. If the file still cuts the wire, it isn't high carbon steel. Get another piece of wire and start over -- you won't be able to add the necessary carbon to low-carbon steel.

When the file test signals success, the wire is ready for the final step, but not for use, because it's very hard and quite brittle, and will probably snap off. The final step is to temper the wire back to the desired hardness. Tempering is a form of annealing but is controlled so that the steel achieves a specific hardness. Start by sanding the wire with steel wool or emery cloth. Then heat it gradually with the torch. Watch for the following colors as a guide: straw color (350 degrees), followed by dark blue (600 degrees), and then medium blue (750 degrees). At this point, remove the wire from the heat and allow it to cool slowly. Don't quench it or blow on it; just let it cool naturally in still air. Once the steel returns to room temperature, it should be at the target RC45 hardness, which has a good spring temper. Try the file test again. You should be able to make a mark now, but only with some effort. If it passes this test, the wire is properly tempered. Besides parts for model planes, tempered music wire can also be used to make special purpose tools. Instead of tempering to 750 degrees (medium blue), stop at the straw color stage. The wire will be at about RC60, which is still very hard, but not brittle. Wire at this temper can be used to drill wood and plastics, and most aluminum and copper.

Notes

1. Rockwell hardness testing, named after Stanley Rockwell who made his first testing machine in 1921, is a general method for measuring the bulk hardness of metallic and polymer materials. Although hardness testing does not measure performance properties, hardness correlates with strength, wear resistance, and other properties. Rockwell hardness testing is an indentation testing method. An indenter is impressed into the test sample at a prescribed load to measure the material's resistance to deformation. A Rockwell hardness number is calculated from the depth of permanent deformation of the sample after application and removal of the test load. Various indenter shapes and sizes combined with a range of test loads form a matrix of Rockwell hardness scales that are applicable to a wide variety of materials. The Rockwell B and C scales are used for metallic substances. (Back to text.)
2. Anneal: To heat and then cool (as steel or glass) usually for softening and making less brittle. (Back to text.)
3. Quench: To cool (as heated metal) suddenly by immersion (as in oil or water).

Bibliography

For more information about working with metals in general and about hardness testing in particular consult these books by noted metallurgist, Harry Chandler.

Hardness Testing, 2nd Edition Harry Chandler, 1999.

Metallurgy for the Non-Metallurgist Harry Chandler, 1998.

Thanks to Ralph Doyle for submitting this article.

Did you find this article interesting?

If you come across an article that interests you share it with the rest of the club by sending it to the newsletter editor.

SPRITS OF ST. LOUIS

Ralph Doyle brought in his Nitro-Planes Messerschmidt. The plane weighed 12 lbs with an E2 20cc gas engine. The plane cost \$260.00 plus \$125.00 for the engine. It has split flaps and air brakes in the wings along with molded exhaust pipes and air scoops on the fuselage.

Jeff Becker brought in his Rebel 70 EDF foamy from Hobby Lobby. It has a 70mm fan and a 6S 2600 mAh LiPo battery. The airframe is \$110.00. The transmitter ready version is \$150.00. Jeff recommends this plane for the first time EDF pilot.

Vic Bunze brought in his Rifle which is a small hand launched airplane. With a 3 cell LiPo it will reach speeds around 100 MPH. He also brought in a Banana Hobby Rare Bear with a 4S LiPo battery.

Vic also made a short presentation on the relationship between motors and batteries, amount of watts per pound required for different flight modes, and how current is bad for the motors and any accessories. Vic is the go to guy for anyone needing advice on electrics power setups.



Ralph's Messerschmidt



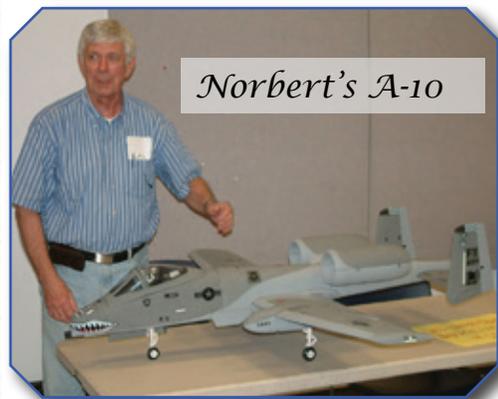
Vic's Rare Bear

Norbert Becker brought in his Banana Hobby A-10 Warthog. The Jet has twin 70mm ducted fan motors, retracts and flaps. It uses 12 servos and has a servo to kick off the canopy and eject the pilot. It is all powered by a 22.2v 6S LiPo. The ARF cost about \$400.00.



Vic's Rifle

photos by Walt Wilson



Norbert's A-10



Jeff's Rebel

The storms were moving in and people were leaving early so everyone that presented this evening got a \$10.00 gift card.

Keep the presentations coming! Every week there is something new or different to see. Thanks again to everyone for sharing their projects with the club.

Great presentations this month by all.

Will you be next month's winner?



WATTS/LB!
 100 = OK
 200 = Good
 300 = EEEHAW

Cub Scout Day

by Gary Pyles

Out of the three events scheduled since our last meeting the weather only cooperated for Cub Scout Day. With temperatures in the high 40s and calm winds at around 9 AM and peaking around 54 with 6-8 mph winds and clear blue skies the morning it was a great day to introduce some youngsters to model aviation.

This was Cub Scout Pack 763 from Harris Elementary School in St. Charles second time visiting our field. During their prior visit high winds kept everyone grounded except for a few demonstration flights by our members. Not this time. The Spirits Flight Instruction Staff was ready and took 17 scouts up for introductory flights.



The day started about 9 AM with the instructors showing up and checking out their aircraft and buddy-boxes. We had six planes scheduled and 4 were down for various reasons. Bob Gizzie and Mike Roederer and their planes pulled all of the weight this day. At just before 10 AM the scouts and their families began to show up at the field and get acquainted with the members.

Like all Cub Scout meetings this one began with the boys doing the pledge of allegiance facing the flag in

the center of our taxiway. After that a few administrative notes and a safety briefing then off to ground school. We discussed the AMA Safety Code, the Spirits' Safety Code, model airplane general safety, transmitter operation, and basic commands they would hear from their flight instructors. All of the boys were eager to get their chance to fly and it appeared that everyone had a good time.

Between scouts, parents and members there were about 60 people that spent a very nice Saturday morning at the field enjoying model aviation. This event, like all of our events is dependent upon the support of the membership. I wish to thank our Intro Pilot Instructor Staff that were present; Bill Lindewirth, Pat Keebey, Ron Mais, and especially Bob Gizzie and Mike Roederer for their assistance and dedication to helping our hobby continue.



There is another person that merits recognition as well. He was in last month's Member Spotlight and deserves the thanks of the club. Leo Steck donated 4 gallons of fuel to the flight training program. In the flight training program this is how we reward our instructors for using their own planes for Intro Flights. If an instructor uses their own plane and equipment to do Intro Flights at one of our events they receive a gallon of fuel. This means that the club does not need to maintain a stable of trainer planes and usually the planes are better prepared for the Intro Flight.

Leo, thanks for the fuel! As you may have read in last month's issue Leo represents several R/C products. He recently added RTL Fasteners to the list of fine products he carries.

Let's keep getting the young kids out to the field to ensure to continuation of our hobby.





Tailgate Swap Meet



May 11th

9 AM till 2 PM

\$5.00 per car

Concession Available

check out the [website](#) for details



Four-Star-40 & Warbirds Races



The Four-Star-40 and Warbirds Races were canceled due to weather on April 27th. When the event schedule was approved by the membership a rain date was not selected. The CD of that event, Paul Geders and the Event Chairman have agreed on a suitable date to reschedule this event. This date will be presented on May 8th at the monthly membership meeting for approval by the membership. Anyone who has interest in this event is encouraged to attend.

If you have question about the events or event schedule contact [Vic Bunze](#), Event Chairman.



Links

to stuff in this
issue & other things

About the Spirits

[Click here](#) to see all of the elected officers, Board of Director positions, and the chairmen that administer the club's affairs.

Events

[Click Here](#) to go to the Spirits Events Page and see the list of events that are scheduled.

[Click Here](#) to visit the Local Events Page where we list events in the surrounding area. If you know of an event, send it and a flyer to the [Webmaster](#).

Membership

[Click Here](#) to view or download a Spirits, Membership Application for 2013.

Reminder: If you are reading this and have not renewed your Spirits or AMA membership you are no longer legal to fly at the field. There is **NO grace period**. If you renew your Spirits membership before the end of the March meeting there is no "In Arrears" penalty. *You must be a current member or guest to fly at Spirits.*

**Support your
local hobby
shop!**

**If you don't, one day they won't be there
when you need that critical part to go
fly!**



Safety matters

Safety always matters in our hobby. Please be careful this winter while building and refitting your aircraft. If you are new to electric aircraft, consult a member

experienced with electric models to get some tips on preventing injuries from unwanted tor starts.

Safety is everyone's responsibility.

The following links discuss AMA and Spirits Safety:

[AMA Safety Code](#)

[Spirits Field Layout](#)

[Spirits Bylaws](#)

[Spirits Safety Rules](#)

[Click Here](#)

to go to the "Useful Links" page of our website. You will find dozens of links to manufacturers, Distributors, Hobby Shops, RC organizations, Local RC Clubs, Information for Newcomers, and info on Spirits' safety Program. Enjoy!



Lost & Found

Transmitter found at the Field. If it is yours contact Gary, gp@gtp ltd.com

Summer Modeling is on Its Way

by Bob Brown, bobb@modelaircraft.org, AMA President

I'm happy again ... the snow has finally melted and I had three consecutive days of flying in this week. Hopefully all of you are looking forward to the upcoming flying season as much as we are. The first couple of months of the season have some great events on the schedule.

May 11-18 is the time to visit the home of fun, friendship, and hospitality known as the Joe Nall Week at the Triple Tree Aerodrome in Woodruff, South Carolina. The AMA Education Trailer will be introduced to everyone. I think you will agree that this is going to be a great asset for model aviation. Improvements to the Triple Tree site include the removal of some airplane-grabbing trees, more permanent AC power, extra showers, toilets, and sinks. Would you believe they even planted more grass?

In early June we have Camp AMA. The two great instructors, RJ Gritter and Nick Maxwell, are coming off of great competition accomplishments. RJ came out on top at the Electric Tournament of Champions (ETOC) in Toledo, Ohio. Nick ventured to Australia to win the 3DX Championship. These champion pilots will provide great insight into their winning "secrets" to those in attendance at camp.

The Extreme Flight Championship will be in Muncie, Indiana, on June 14-16. The world's best helicopter and airplane pilots from 10 different countries will compete for this year's championship. The event has the most spectator appeal of any modeling competition and the plans for this year will provide a memorable experience.

Jay Smith, Model Aviation editor, spearheads the National Electric Fly-In (NEFI). Jay and his staff provide a weekend of electrifying fun for everyone in attendance. The folks working at AMA Headquarters and other volunteers provide the support Jay needs to produce a world-class event. Models of all sizes provide great fun for everyone. The proceeds from the weekend will be donated to the Animal Rescue Fund of Muncie, Indiana, and the National Model Aviation Museum.

The Outdoor National Aeromodeling Championships (Nats) begins on June 25

w i t h

Scale Aerobatics. Your AMA site will host the various categories of national championship competition for the next five weeks of the summer. If you are interested in competing or spectating, please see the schedule at: www.modelaircraft.org/events/nats/natsschedule.aspx.



Along with all of these events, your own area will also provide some excitement.

The local schedules may be found in the Contest Calendar in Model Aviation or on our website at: www.modelaircraft.org/events/calendar.aspx.

Enjoy our great hobby! Fly safely!

Spirits

Advertising Section

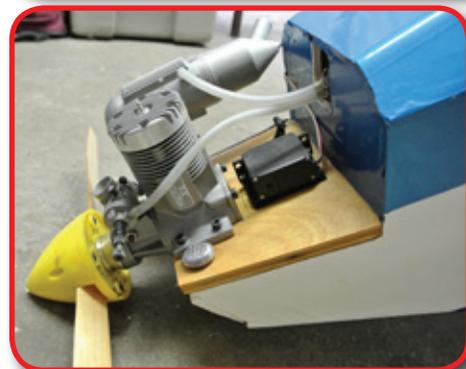


If you have something you wish to advertise for sale please in the next Online newsletter please send it to the [editor](#) with photos, and your contact information. These services are free for club members.

The following items are posted for sale by Donna McGuire on behalf of her mother and late brother. I can answer some questions about the items presented here. All sales will go through Donna. She accepts cash only for any of these items. The prices listed are estimates, you may feel these items are worth more or less once you see them in person. There is a collection of large 2-cylinder gas and nitro Engines that I will bring to the swap meet on behalf of Donna and her mother. Many of these engines are new or like new. They sold for many hundreds of dollars when new. Donna's items will be in RED frames on the next few pages. Thanks,

Gary P

Donna can be reached at 314-650-3030 or by email at: blackbeauty03@att.net

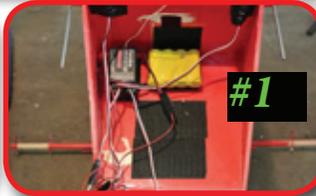
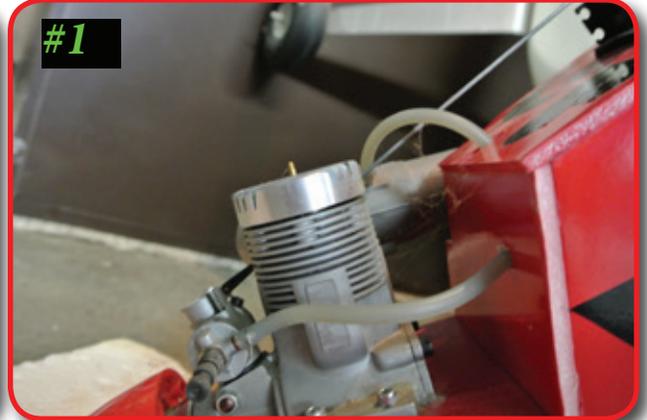


Agre-Duck

Giant Scale, appears to be constructed of foam-core, all the servos, 9 1/2" pneumatic wheels, and what appeared to be a like new Magnum XL engine, not sure of the size. If interested I can send a larger picture of the engine.

This looks like a lot of fun! If I had room in my hangar, it would already be there. Bring a van or truck. This is big.

\$150 or best offer.



Mud-D
Giant
all the s
used Ma
this one
pair.
This loo
my hang
or truck
\$125 c

Floats
36", balsa and plastic floats. Looks like they
(#3) John Sullivan Foam Float cores, (2) 3
\$20 each pair.

Unknown plane (#4)
Built-up foam wings, gas engine, pod and boom
prop. \$70

Lanier RC 1/3 Scale Extra 300S (#5)
Still in (2) boxes, not an arf, not a stick build
one of Donna's big gas engines for this plane. \$2

Tiger Trainer .40 size (#6)
A great looking trainer with an engine that lo
or another great trainer to add to your fleet. \$1

WW1 plane with an OS .61 Four-Str
Looks GREAT in orange. \$120

Pod and Boom Trainer, Magnum XL
Como Engine, unknown size (#9) \$

Misc. Fuel System Parts (#10) \$5
Misc. Model Tools (#11) \$15

SIG large Field Box and 2x gas cans
Misc Muffler Parts (#13) \$5



Duck (#1)

Scale, appears to be constructed of foam-core, servos, 9 1/2" pneumatic wheels, and a gently gnum XL engine, not sure of the size. You need if you buy the Agre-Duck, so you can have a

ks like a lot of fun too! If I had room in gar, it would already be there. Bring a van k. This is big, or best offer.

& float Cores (#2)

would work on a .40-.60 size plane. \$20 6" pairs and (1) 48" pair. Still in the box.

m design with plastic body, swings 15x8 Zinger

either. Looks complete. Could be a beauty by \$50

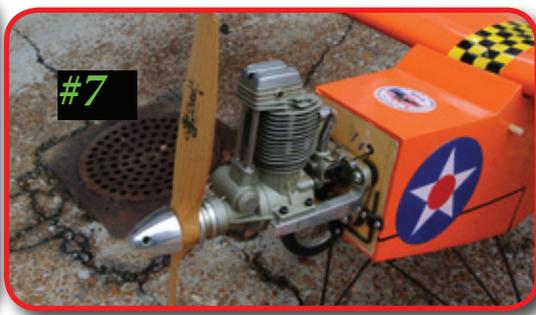
ks new. This appears to be a great starter plane, \$25

roke engine (#7)

L 15 engine. (#8) \$50

\$30

s (#12) \$40



placeholder for Video



Unknown Large Balsa Plane with Wing (#1) \$50

Unknown Biplane Frame with wings (#2) \$50

Engine 4-Stroke FA-45 (#3) \$40

Big Lazy Ace, Kit (#3)

Still in box, appears to be complete \$120



Flight Lines is a monthly periodical produced by the Spirits of St. Louis R/C Flying Club, Inc. to provide club information and entertainment to our membership. The Online version is free of charge and anyone interested may view current and back issues by visiting our website, www.spiritsofstl.com

Editor, Gary N. Pyles