



The CONNECTOR

Newsletter of the Aeroguidance Society, Inc.
AMA Chartered Club No. 441

www.agsny.org

Volume #62 Issue # 1 January 2016

Recipient of the AMA Presidents Award for
50 years of Service to AMA and Aeromodeling

THE NEXT AGS MEETING WILL BE ON MONDAY Feb 1st 6:45 P.M at the Endicott Municipal Library

Changes to time or location will be noted in this newsletter

The Prez Sez

Submitted by Frank Gioffredo

AMAZING, is all I can say about this winter's weather, my power and heating bills have really enjoyed the relief, but not much snow fun, however I did get to fly off my skis at the NYD fly, had a great time and Rick's Chili was darned good. Thanks to Rick for hosting. I think all had a good time, we braved the wind and flurries and still many flew and enjoyed the camaraderie. Great time!!! Next up is our Winter-Fly to be hosted by Neil Hunt, I believe Neil will have something in the newsletter elsewhere.

Some good news, Jeff Hatton has agreed to take over as Webmaster at Marks's request to be replaced. But currently Jeff is having vision issues so be patient in this transition. I would also like to acknowledge Bob Noll and Scott Wallace for the past couple month's programs, excellent presentations both months and really informative. Thanks to both for such awesome info.

The FAA drama continues to unfold, Kudos to Ray for his deciphering all this information for us. I went through the registration process for myself and Derek and found you cannot register two persons under the same E-mail address fortunately D has his own E-mail so that disaster averted but what about those of us that have kids without personal E-mails sure you can pay with Dad's credit card but it would only let me register myself under my E-mail. Another government ooh we didn't think about that I guess. Other than that the process is pretty painless, I printed and laminated three copies for each of us 1 to put in our wallets and one for each flight box for each, so hopefully we won't be caught without our paperwork.

Jim Monaco has some exciting news for the meeting. I look forward to seeing everyone there for his presentation.

The club has made a donation to hospice care in Charlie Lecher's name.

Please bring your Show and Tells so we can all enjoy them. See everyone at the meeting.
Frank

Cancellation of AGS Meetings:

In the event of poor weather, listen to the radio or television for local closings and cancellations. If the Library is closed the meeting is cancelled and a notice will be sent via the AGS mailing list.

Coming Events

AGS February Meeting

Monday February 1st
6:45 PM
Endicott Muni Library

AGS Winter Fly

Sunday February 7th
11:00 AM
BC United Soccer Fields

WRAMS Trade Show

Feb 26-28, 2016
Meadowlands Expo Center,
Secaucus, NJ

The Aeroguidance
Society, Inc.
P.O. Box 39
Vestal, NY 13850-0039

AGS Officers:

President: Frank Gioffredo (A-C)

Vice President: Charlie Brown (D-H)

Secretary: Ray Phillips (I-L)

Treasurer: Bob Jennings (M-R)

Board Members at Large:

Tom Kopl (S-Z)

Stan Driggs

Past President: Rick Allabaugh

Committee Chairmen:

Membership: Charlie Brown

Program: Tom Kopl

Activities: Open

Field: Todd Kopl

Historian: Don Green

Public Relations: Open

Sound: Scott Wallace

Safety: Frank Gioffredo

Librarian: Frank Gioffredo

Webmaster: Jeff Hatton

Newsletter Editor: Scott Wallace

Editorial – submitted by Scott Wallace

I've read so much the past month or so regarding the new FAA regulations and AMA's handling of the issue on both RC Group's and RC Universe's various forums that my head is spinning. Even though the AMA's current recommendation is to hold off (they have since changed and now say to register), I have gone ahead and registered with the FAA. As an organization with less than 200,000 members, AMA is a very small voice in the overall landscape of this issue so they don't have much hope of shaping current or future regulations regarding model flying.

Also, as someone who has a security clearance, every possible bit of personal information of mine was already compromised via the OPM breach last year so there's very little "new" risk to me by having data on the FAA's servers so I saw no need to hold off registering at this time. Please take the time to read the article submitted by Ray Phillips – lots of good stuff and we're lucky to have Ray on top of the constant changes regarding this situation.

As for me I'll take it year by year and build, fly, and enjoy as I always have - if at some point in the future the hobby becomes more of a hassle or expense than it's worth then I'll stop. That would be a shame as this hobby is one that can be enjoyed regardless of age where many other activities aren't practical as one reaches a certain age.

There is something therapeutic about working with wood, and working with balsa is no exception. I've built plenty of models with foam wings, and models that used fiberglass fuselages...but nothing compares to the satisfaction of creating a flying model from raw strip and sheet balsa. Yesterday I carved block balsa wingtips for a model I'm building for Frank, many people dislike carving but I enjoy it. With a little luck I'll have Frank's "Bingo" done in time for the next club meeting show & tell.

After the "Bingo" back onto my own projects, I am undecided and waiting for the WRAMs show to see if anything new catches my eye. I have a new OS 62V four cycle that needs a home but I've still got a Sig Hog Bipe and a Midwest Esquire to finish in before I get to the next project.

NOTE: 72 MHz Channel #42 Must Not Be Used at the AGS Field

The CONNECTOR is prepared on a Personal Computer. Submissions are happily accepted via email to: wallaceaero1@aol.com

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CLUB MEETINGS**

AGS General Membership Meeting Minutes

Aeroguidance Society Meeting # 818

Date: Jan 4, 2016

Place: Endicott Municipal Library

Guests: None

Vice-President Charlie Brown called the meeting to order.

The minutes as published in the Connector were approved.

Bob Jennings gave the Treasurer's report. Details are available from Bob.

Rick Allabaugh gave a report on the fun; the event had a good turnout, even though the temperatures were much colder the previous week end. The chili was good and everyone had good time.

The next fun fly event will be hosted by Neil Hunt on Sunday 7 Feb 2016, starting at 11:00 AM.

Scott Wallace displayed his newly finished DeBolt Champ Mk III. This airplane was covered and finished with traditional aircraft dope. The Champ is a popular model at VRCS events.

Bob Noll showed an article from July 2001 Model Aviation detailing an indoor record flight of 2:50 and 10 seconds. The model was electric powered and used a huge set of NiCad batteries.

We had a discussion about the new FAA requirement for all operators of radio control aircraft to register with the

FAA and mark their aircraft with the number assigned by the FAA. Registration started on 21 Dec 2015 and must be completed by 19 Feb 2016 for all operators with previous RC aircraft flight experience. The cost is \$5 and will be refunded if the registration occurs before 21 Jan 2016. The AMA is asking its members to hold off until the 19 Feb 2016 date. The AMA disagrees with many elements of this requirement and working with the FAA for a solution.

Registration is online at www.faa.gov/uas/registration. Operators are required to provide a valid email address, name, physical and mailing address during the registration process. One registration number covers all aircraft; there is no requirement to register each aircraft. Registration is good for 3 years. Registration number on aircraft must be legible and accessible without tools. Modelers everywhere are concerned about these new FAA Regulations. Many are disappointed that the AMA was not able to prevail during the task force meeting that concluded in Nov. AMA is the only voice we have in this matter and we need to continue to support the AMA. Members can go to the AMA web page to see suggestion to write comments to the FAA. Members should also contact their Congressman.

AGS members should continue to monitor the AMA web site for updates. You can contact Ray Phillips if you have questions.

Bob Noll provided a program on early RC equipment starting in 1953 with single channel radios and aircraft flight controls that were operated by rubber band powered escapements. The evolution continued from one escapement to adding a second for engine control and then on to cascading multiple escapement to achieve rudder, elevator and engine control. The modeler needed to remember the number of button pushes that were required to achieve each control input. These control functions were not proportional; the escapement drove the control surface to whatever mechanical limit was set by the modeler.

Over time there were boxes developed that either mechanically or electrically sent the desired number of "button pushes" to the transmitter, controlled by a joy stick. Early modelers were very creative in developing systems to achieve greater control function. Systems like "galloping ghost" this caused the rudder and elevator controls to be continuous flapping. Control input could command one surface to flap more in one direction to achieve early proportional control. These early system were a marvel to see. It is amazing to think all of this control was achieve by way of a single electrical relay in

the receiver. They were mechanically intensive, very unreliable and subject to control system failures when the vibration from the engine stopped.

Returning home with a model in any condition was considered a good day. Returning home with a model that was still flyable was an excellent day. To fly RC in the early days, you needed patience and be a “tinkerer”. Modelers communicated with each other to exchange ideas and developments by way of a newsletter called “Grid Leaks”.

In the mid 1960’s the technology evolved to multi-channel reed systems. These systems incorporated a tone sensitive relay that would direct the control signal to a servo connected to a control surface. These systems were also not proportional, but they did provide input to two control surfaces at once. The big innovation of the day was having elevator trim. Control input was from a hand held transmitter with a series of lever switches for each control function. Reed flyers were more like an organ players than pilots. Electric servos were now employed to drive the control surfaces. The radio receivers had progressed to “supper heterodyne”. With these narrow band width radios we could now have multiple RC airplanes flow at the same time. I am sure pylon racing soon followed.

In the latter half of the 1960’s proportional radios came to market. These radios provided full proportion control to all surfaces and trim for all surfaces. Control input was from either 2 transmitter joy sticks or a single stick with 3 control functions. These radios were very expensive, costing the typical modeler one to two months’ pay. These digital systems were also very complicated using many discreet transistors and components in the receiver. These radios were also not very reliable. Serious modelers had 3 radio systems. One in flight, one at the repair shop and one intransient either to or from the repair shop. If you were a competitor, the first thing you determined at a contest is which motel room your particular brand repair technician was staying.

All of this seems ancient compared to today’s 2.4 gig computer control radios with receivers less than the size of a business card. Ancient it was, but it is all we had. Thanks Bob, for a trip down memory lane.

Meeting was adjourned at 8:45.

Respectfully submitted - Ray Phillips AGS Secretary

Technology, AMA, FAA, Registration and the AGS – submitted by Ray Phillips

I have been involved in radio control aircraft since 1960, maybe before. After watching Bob Noll’s presentation on early RC systems, I can only reflect on how far this hobby has come in the last 55 years. I flew with some of the equipment in Bob’s presentation. Back in the day, if you were interested in radio controlled airplanes, you either bought a kit or built from scratch. Either way, many man hours were invested. You installed whatever radio technology of the day you could afford and fought with cantankerous, smelly engines. After many hours you went off to the field only to find the acceptable range check you did at home was now to just a few feet. Eventually, everything worked at the same time and you attempted a flight. During your flight some CB guy started talking resulting in your plane spiraling into the trees. The most frequent asked question at the field was “did you see where it went?” Then there was the day you launched the airplane and made lazy turns through the sky and the plane glided back to earth near the take off point. These flights were priceless and were a result of investment of many hours of dedication and pure determination to our craft.

Fast forward to today, radios have become so reliable that we just expect them to work. Those engines have been replaced by modern brushless motors that have amazing power. Kits are hard to find and have been mostly replaced by ARF’s. While many look down at ARF’s. You cannot deny their value and how quickly you can get into the air. If you are a beginner or someone looking to get active again, ARF’s are a viable path, certainly nothing to be ashamed of. Modern computer radios have near endless versatility. Back in the reeds day, “mixing” was the ability to get both rudder and elevator to enter a spin. Modelers today have a very broad spectrum of equipment, designs and power options. Can you imagine showing up at the field with this equipment in 1965? That would make a good Twilight Zone feature for sure. As all of this technology progressed, the AMA was there representing us to federal agencies like the FCC and the FAA. Without the AMA, we would still be looking for 27 mc airplanes in the trees.

But, we should never forget model aircraft equipment suppliers and the AMA are businesses. Annual volume of sales and increased numbers of members is what keeps this hobby moving forward. Everyone is watching the bottom line and looking for ways to expand. Technology advances are the driving factor for this

expansion. AMA embraces these developments as a way to increase members. Today the manufactures sell products that are ready to fly out of the box. These technologies are being marketed to increase sales to people outside of the hobby. The claims are you can teach yourself to fly at the local ball field. This is a double edged sword. While this may increase sales, it reduces the dependency on clubs and even membership in the AMA. If you are flying outside a club like organization, you do not have anyone to share your frustration with or anyone to help you.

Young people are very accustomed to computer based video games and simulators. With this virtual reality, you can fly any aircraft you want. These flights can be visualized from the cockpit. Crashes are not a problem; aircraft get repaired right before your eyes. The requirement of hours of dedication spent to build an airplane and to learn how things work is fast disappearing, no longer required.

Add to all of this the technology to allow an aircraft to fly by way of automated systems with miniature cameras. These flights can be made with preprogram flight paths navigated by GPS. This has allowed the rapid development of quad copters, i.e. Drones. These aircraft can takeoff from your patio, fly around the neighborhood and photo graph anything of interest. All while you monitor the flight from a screen on your transmitter. Lose track of the drone, no problem. You push a button and it returns to home. Boy, we could have used that button back in 1960. All it takes is some money and a few hours reading a manual. Then you are good to go!

This advanced capability has now moved our activity from a hobby to a platform that has commercial value. Aerial photography that was once done by manned helicopters and aircraft can now be done by drones. In fact drones can operate in areas that would be unsafe for even helicopters. Photographing real estate, structure inspection, crop surveying and delivery of packages into remote locations are all within capability of drones. More applications will develop with time.

Unfortunately, all of these capabilities can be abused. Why would anyone think of flying near airports with the idea of photographing man carrying airplanes? Or what about a Federal employee working in Washington DC, knowing the area around the White House has been a no fly zone, like forever, why would he fly his newly purchased drone there? Reports are alcohol may have impaired his judgment. Stupid is as stupid does. But, these are not isolated cases. Hundreds of near misses

have been reported, Drone operators have interfered with emergency aircraft, and all of this in the name of getting some good video. It looks like there is plenty of stupid to go around. Remember, these are people acting as “hobbyists”.

With all of this happening in the national airspace system and with commercial activity increasing, where money is exchanging hands, the FAA believes it must act. The FAA estimates radio control aircraft activity will increase at a rate of 23% per year, 2020 projections are for 7.2M aircraft. The FAA position is “We are here to help and we have a regulation for that.” The drone task group was organized in Oct of 2015 to address the problem and make recommendations to the FAA. The AMA, several commercial sellers, drone manufacture, airline pilots association (ALPA) and the Aircraft owners and pilots association (AOPA) were members of the task group. This group developed recommendations in a period of only 5 weeks. It is interesting to see how quickly things can move when a Federal agency is trying to expand control vs. when others have been asking for some regulation relief for over 5 years. The results are a Federal requirement for people operating any radio controlled aircraft to register with the FAA. Hobbyists are only required to register once to cover all the aircraft they operate. Operators must provide an email address, name and physical address. The FAA then issues a sUAS (small Unmanned Aircraft Systems) certificate of registration. The certificate is received by way of email and must be in possession of the operator while flying. Aircraft must be marked with a 10 digit number issued by the FAA. This number must be legible and accessible without tools. The cost for registration is \$5 for a 3 year period.

Now what does all of this mean to AGS members? Well for the moment, not much. The AMA has several concerns about the recommendations that were published and how it affects AMA members. The definition of “aircraft” is one of these issues. The AMA has stated that letters of disagreement were not permitted to be attached to the report. Registration dates are a little confusing. The FAA registration web page was operational on 21 Dec 2015. But, people like AGS members technically have until 19 Feb 2016 to register. Even that date does not mean much. If you choose to register after the 19th, to extend your 3 year period a few months, you can do that. But, you should be registered before you fly after 19 Feb 2016. Because the AMA is addressing issues with the FAA, they have requested members not register before 19 Feb 2016. But, the FAA will refund all registration charges made from 21 Dec to 21 Jan 2016. AMA actions include direct dialog with

the FAA and legal actions. Many modelers and AMA members are downright mad about these requirements. Many believe the AMA let us all down. But, only the members of the task group know what happened behind closed doors. Some talk about dropping AMA membership and others are saying they will just stop flying and get out of the hobby.

While all of these reactions are to be expected, these are just emotions. No matter what people decide to do, they should be knowledgeable about all the AMA benefits, like insurance and whether you want to be bullied out of your hobby.

I expect the 2016 season at our field to be normal with no changes. We can hope the AMA makes some progress with the FAA. But, I have seen issues like this in the past. The FAA is a very powerful Federal Agency, chartered with the responsibility of the safety of the air traveling public and those on the ground. The fact we own our field is a big plus. Clubs operating on public land may become under greater evaluation. If there is an accident that gets a lot of news media coverage, clubs operating on private land could also be in jeopardy. The FAA has established a web page for registration <https://registermyuas.faa.gov/>. This web site also has a "Learn More" button to see some of the history and the FAA's position on many questions. It is interesting to see the FAA position and supporting documents. UAS is ALL radio control aircraft activities, not just "drones". You should also look at the AMA site for AMA's comments and information: <http://www.modelaircraft.org/> It is interesting to see the differences in the Q&A's from both side and to notice contradictions in areas both side believe to be fact.

I am certainly not one who is in favor of UAS registration for us old guys playing with toy airplanes. Like many, I can see the inability of enforcement agencies and the lack of improving safety, the justifying intent. . People that have been stupid will still be stupid. There will be people that do not register and will cause problems, these people I will call "outlaws". No matter what your interests there are always "outlaws". Don't let yourself be bullied. Don't stop supporting the AMA. Without the AMA, who do we have? As I have outlined above, all of this can be traced back to the technical developments in our hobby. Dedication, craftsmanship, time and being responsible are no longer required. All you need is some money and you are in the air, for better or worse. In some ways, we are a victim of our own success.

As hobbyists, AGS members and AMA members, we must go forward in a responsible and safe manner. This is no different than what we have done in the past. .

"Hang in there and keep flying"... "This is only as bad as you let yourself believe"... "There is nothing to fear except fear itself".

The AGS is very saddened to report the passing of long time member Charles Lecher just before Christmas:

Charles T. "Chas" Lecher, Jr., 86, of Owego, NY, went home to be with his Lord on Sunday, December 20, 2015 with his family by his side. He was born on November 23, 1929 in Berkshire Valley, NJ, the son of the late Charles T., Sr. and Jane Lecher. Charles was a US Veteran of the Air Force, serving during the Korean Conflict. He was a retiree of IBM, Owego, NY. He loved radio control airplanes and collected many different styles of them. Charles attended Christian Life Church, Waverly and was a member of MENSA and the Aeroguidance Society of Vestal, NY. He was predeceased by his first wife, Dawn L. Lecher; second wife, Florence Haxton Lecher; son, Matthew Lecher; and 13 brothers and sisters. Charles is survived by his children, Charles Lecher III, Mark Lecher and Julie Miller of Owego, NY, Jane Lecher of Laurel, MD, and Margie and Mark Burger of Dublin, OH; step-children, Donna Haxton of Waverly, NY, Lawrence and Avis Haxton of Athens, PA, and Cindy Haxton of Waverly, NY; grandchildren, Elizabeth Burger and Lorraine Burger both of Dublin, OH; step-grandchildren, Llewellyn Smith of Waverly, NY, Larry Haxton of SC, Christina and Ronald Pierce of Waverly, NY, Heather and Jamie Bell of Vestal, NY, Jeremiah and Sue Smith of Waverly, NY, Timothy Haxton and Tasha Plouse of Waverly, NY, Bellva and Randall Chapman of Waverly, NY, TJ Haxton of Athens, PA, Sheena Haxton and Tim Goudreau of Athens, PA, and Charity Smith and Jason Chapman of Waverly, NY; great-grandchildren, Victoria, Misty, Heath, Zachary, Douglas, Sabrina, Christomas, Jonathan, Joshua, Nicholas, Little Lou, Brittney, MacKenzie, MacKenzie, Brianna, Taylor, and Davin, great-great-grandchildren Danyell, Camden, Ruby, and Nevaeh; and several nieces and nephews.

Memorial donations may be made in Charles' memory to: Lourdes Hospice, 402 Old Vestal Road, Vestal, NY 13850. (For those wishing to sign the E-guestbook, send flowers or condolences may do so by visiting www.LoweryFuneralHome.com)

WingInIt with Warbird – submitted by Charlie Brown

Hope everyone is taking the wintery cold period to possibly be adding a new airframe or two to your fleet or just going over an ol' reliable and ensuring that they are ready to go when spring finally arrives.

Just a heads up for February's monthly club meeting, Jeff won't be able to do his scheduled program on ESC's so Tom Kopl asked me if I would mind doing something. So if you've ever wanted to convert a gasser over to electric or build an electric powered airframe and didn't know where or how to start, I will be doing a program called "Fundamentals of sizing electric propulsion to your airframe".

So as I sit here contemplating what should I write about that you might find interesting to read while in the back of my mind I am somewhat preoccupied with thoughts about attending this evenings (Wednesday) public open forum on "drones" sponsored by Broome County it dawned on me.

With the latest shenanigans being imposed upon our sport by the FAA (and thanks again to Ray for keeping us abreast of all the latest developments) it became actually rather clear to me as of recent that they are not our biggest concern regarding the future of RC modeling. The FAA has had an agenda going all the way back to 1981 concerning its oversight of the modeling community but really as a non-issue to us.

Background of FAA Oversight of Model Aircraft Operations

Historically, the FAA has considered model aircraft to be aircraft that fall within the statutory and regulatory definitions of an aircraft, as they are contrivances or devices that are "invented, used, or designed to navigate, or fly in, the air." See 49 USC 40102 and 14 CFR 1.1. As aircraft, these devices **generally** are subject to FAA oversight and enforcement. However, consistent with FAA's enforcement philosophy, FAA's oversight of model aircraft has been guided by the risk that these operations present. The FAA first recognized in 1981 that "model aircraft can at times pose a hazard to full-scale aircraft in flight and to persons and property on the surface," and **recommended a set of voluntary operating standards** for model aircraft operators to follow to mitigate these safety risks. See Advisory Circular 91-57, Model Aircraft Operating Standards (June 9, 1981). These operating standards included **restricting** operations over populated areas, limiting use

of the devices around spectators until after the devices had been flight tested and proven airworthy; **restricting** operations to 400 feet above the surface; requiring that the devices give right of way to, and avoid flying **near** manned aircraft, and using observers to assist in operations.

Guys don't freak yourselves out. This is all about power and money within the government, not model safety. What concerns me more than the FAA is our own local government agencies. We at a national level are going to have uninformed law enforcement as well as politicians who see only the slanted views publicized by the uneducated media and then these same public servants get all nervous and jerky about all this hyped up stuff on the evening news. Our local CBS (WBNG) news had a little 4 minute report about this upcoming forum I mentioned above and reported the County Executive, Debbie Preston saying they were aware of 50 registered drones in the county. REALLY..... that FAA data base is not accessible by local government agencies. Again, more misinformation coming from politicians to serve an agenda. I think our concerns as a modeling community is not with the FAA but more with the local level of governance. Many of you may not be aware but a month ago a bullet was dodged just 150 mi NE of us in Albany. They almost banned all RC aircraft from flying in the capital district because of the "quad" perception. Had it not been for the efforts of a lot of AMA members along with AMA's District 2 VP caucusing the State legislators to rethink their narrow views they had of modeling it would have happened and that my friends is not a good thing because as you know things like that will snowball from one city to the next and then where is our sport going to be. I don't believe for one moment that it won't happen in another town or city in the near future.....so could we be next?? I know that it is a PITA (pain in the butt) but if you/we don't start standing with our convictions to be involved with sharing and spreading information about the sport, then who knows where we will be able to have fun flying in a couple years from now. If you love the child in you that comes out from flying your model, then embrace that passion by educating the uninformed.

Some of you may think that I'm on a soapbox, maybe yeah, but that's what happens when you survive 5 different cancers and have rediscovered the boy in myself with my passion for RC again and THEY aren't taking that away from me....

Warbird

AGS CLUB ACTIVITIES FOR 2016

ACTIVITY / LOCATION	DATE	CHAIRMAN
Annual Winter Fly BC United Soccer Fields	Sunday, Feb 7 th 11AM - 1PM	Neil Hunt
Annual Spring Fly BC United Soccer Fields	Sunday, Mar 13 th 1 - 4 PM	Jim Quinn

Other RC events of interest

Event / Location	Date	Contact
WRAMs RC Trade Show Meadowlands Expo Center, Secaucus, NJ	Feb 26-28, 2016	http://www.wram.org/wram-show

Editor's Note: If you know of an event in the area that would be of interest to the general membership please forward that information to me at wallaceaero1@aol.com for inclusion in the next edition of The Connector.

FEBRUARY PROGRAM



Fundamentals of sizing electric propulsion to your airframe



AEROGUIDANCE SOCIETY, INC.
P. O. Box 39
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