



GLITCH BUSTERS

July 2022



Upcoming Events

Antiques and Classics at Lums Pond - July 30, 2022

General Membership Meeting - August 21

Annual Club Picnic - October 2

Photo by Sam Winder

The Club held our **30th Annual Warbirds Over Delaware** event from July 13th through the 16th. Well attended with over 80+ registered pilots and many spectators. This event takes considerable coordination and planning with thanks to all of the sponsors and coordinators, especially Dave and Pete Malchione, and volunteers who have assisted, as well as the pilots and spectators that have made this event a success! Some of Sam Winder's photos of the event are included in this newsletter edition, but many more of Sam's photos are available at <https://winder.smugmug.com/Sports/Warbirds-Over-Delaware-2022>. Additional photos are available on our Club's Facebook page at <https://www.facebook.com/DelawareRC> and a video report by SKS Video is available on their YouTube channel at <https://youtu.be/MUXD1ssdOL8>.



Photo by Sam Winder



Photo by Sam Winder

Minutes of the July 2022 General Membership Meeting - July 10, 2022

The July General Membership Meeting was called to order at 11:07AM by President Greg Schock.

Treasurer Report: Recently PayPal has incorporated IRS changes to their policy that affects our business account. PayPal will now provide an IRS form 1099 for income over \$600 in a tax year. This will require the club to pay federal income taxes on money received for membership renewals, donations, etc. Additionally the "Friends and Family" option will no longer be available on business accounts. PayPal will collect a fee of 2.99% on each dues transaction received by the club. Continuing the use of PayPal to receive dues payments will result in the loss of funds available to the club. Therefore, with the concurrence of the officers, we are terminating our PayPal account effective immediately. Dues renewals will be by either cash or personal check only. Additionally you must provide a membership form to the Membership Chairman at the time of your new or renewal membership.

New Business: The August General Membership Meeting will be held on Sunday August 21 at the Flying Field Pavilion starting at 11:00AM. This will be our last monthly General Membership Meeting. Meetings will then be held quarterly starting in October 2022.

The following **Club Offices are up for re-election** this November; **Vice-President, Treasurer and Secretary.** If you would like to volunteer for any of these positions, please contact a Board member prior to the October General Membership Meeting when elections will be held.

A motion was made and seconded to raise the membership dues and hire a contractor to provide grass cutting. The Board will discuss and make a recommendation at an upcoming meeting.

WOD Discussion: Warbirds Over Delaware setup and volunteer coordination discussions took place.

The meeting was adjourned at 11:30AM.



Photo by Dick Stewart



Photo by Dick Stewart

Vintage Thoughts -By Mike Denest

Simple Radios and Simple Models

Last month I covered the development of radio control technology from the postwar to the mid 1960's. A standard among the manufacturers was developed to where you could purchase a transmitter, receiver, servos, batteries, etc., separately, depending on your R/C modeling budget. Most all the manufacturers offered reed radio transmitters and receivers from four to twelve channels. Purchasing a complete, ready to install system was available but could be very costly. In 1960 dollars, a Citizen-Ship ten channel TMS transmitter cost \$119.95; the matching ten channel ZR10 receiver cost \$79.95, purchased from your local hobby retailer (remember them?) or you could order by mail from America's Hobby Center in New York City. Now add five Bonner servos, four self-neutralizing and one trimmable at \$29.95 each. Don't forget the batteries, switches and wiring to make everything work! Next, you had to wire the servos and batteries to the receiver to make everything go. As you can see, radio control flight was a very expensive proposition in the 1960's. When the average take home pay check would average somewhere around \$75 to \$100 per week, there wasn't much available for a \$400 radio system.



The radio manufacturers saw this and developed less costly radios and receivers for single channel flight. Checking the Americas Hobby Center ad in a 1964 issue of Model Airplane News, you could purchase a F&M Electronics single channel transmitter and receiver for less than \$50. You would also need to purchase an escapement actuator, batteries and wiring to complete the package. So for around \$75, you had a radio system ready to go. Actuators were operated by rubber band power, electrically triggered by a tone signal sent from the transmitter. Early receivers contained relays to trigger the actuator; later models were transistorized, reducing the weight and cost of the airborne package. To move the rudder (the only available control), a button on the transmitter was pulsed once for left and two for right. It was possible to have more than one control on your model. Bonner Specialties marketed a "Compound" escapement which would give rudder and kick up elevator control. If you wanted throttle control, another escapement was installed. The biggest problem was not so much the radio but how many times you pressed the transmitter button. As some point, the rubber wound down to the point where the actuators would no longer move. Essentially, you either had a flyaway or your plane spun into the dirt.



With the availability of simple radios, the kit manufacturers were quick market airplanes designed for single channel operation.



Top Flite, Carl Goldberg, Ecktronic, Consolidated, DeBolt, Midwest and others capitalized on the small airplane market with prefabricated kits which included die cut (crushed) balsa, covering, an aluminum landing gear blank and hardware all in one box. Probably the most popular designs were the Schoolboy, Schoolgirl and Rascal from Top Flite. Goldberg offered the iconic Junior Falcon, Skylark and the later 1/2A Cessna Skylane. Also needed was the glue, butyrate dope and paint to fill the balsa grain, then cover and paint the model (no such thing as Monokote back then). For small models, you need an engine to make it go. Cox was king; offering engines from .010 displacement all the way up to .15. If you kept track of your expenses, getting into the air in a simple way still cost close to \$200 bucks. For the kid who wants to fly that's a lot of lawns but hey, you were an R/C pilot!

Let's talk a moment about pulse proportional. Essentially it was a single channel radio but instead of a button, you had a control stick for left, right, up and down. The way it works is a tone is transmitted, but by altering the pulse rate and width, you could change the movement of the controls and fly your model just like a full size airplane. Min-X, Controilaire



and others offered transmitters and receivers for around \$100. You would need to purchase an actuator to operate the rudder and elevator. Pulse radios earned the name "Gallopig Ghost", "Kicking Duck" and other names due to the operation of the actuators. Until you moved the stick, the actuator would fully pulse left and right, up and down to its limits. Pulling the stick back (up) resulted in the actuator pulse altered to hold the elevator up; the same applied for the rudder. This "galloping" could be seen in the way the model moved up and down according to the actuator movement.



Don't forget the Vintage and Classics event at Lums Pond July 30th for models designed, built, kitted or flown prior to 1987. It's a day at the field for some fun flying with vintage airplanes. We'll have some awards to give away, burgers and dogs on the grill, bull sessions and whatever else. Come out and enjoy the day.

Next month; R/C Pattern.



Photo by Sam Winder



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The Delaware Radio Control Club invites you to Antiques and Classics

at Lums Pond State Park, Bear DE July 30, 2022*

**For all vintage R/C models designed, built, flown, published
or kitted prior to January 1, 1987****

AMA Sanction#12635. Pilots must present current AMA membership.

Event Director: Mike Denest president@vintagercsociety.org (610)316-3570. Flying site address: 3749 Red Lion Rd. Bear, DE 19701

Lat: 39.55135930246809 Long: -75.73258226054361

VRCS Concours and theme models to be judged per VRCS rules. Open flying all day, competition and awards. SAM planes welcome.**

Pilot registration: \$8 for VRCS members, \$10 for non VRCS members.

Tailgate sale: vendors \$10 registration.

Join VRCS at the event and receive the registration discount.



<http://www.delawarerc.org/>

<https://vintagercsociety.org/cms4/>

*This event may be subject to Presidential TFR. Check <https://tfr.faa.gov/tfr2/list.html> before attending or contact the Event Director for status.

**See <https://vintagercsociety.org/cms4/> and <http://www.btemodels.com/vintage-resources.htm#kitlist>

Useful Links

Club Website <http://delawarerc.org>

Academy of Model Aeronautics <http://www.modelaircraft.org>

Academy of Model Aeronautics National Model Aircraft Safety Code <http://www.modelaircraft.org/files/105.pdf>

AMA Media Room <http://www.modelaircraft.org/aboutama/mediaroom.aspx>

FAA Registration <https://faadronezone.faa.gov/#/>

FAA TRUST Test <https://www.modelaircraft.org/trust>

FAA NOTAMS/TFRs <http://www.modelaircraft.org/membership/clubs/notams.aspx>

B4UFLY Mobile App https://www.faa.gov/uas/recreational_fliers/where_can_i_fly/b4ufly

Photos by Sam Winder <https://winder.smugmug.com/Sports>

Glitch Busters

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www.delawarerc.org

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Treasurer: Michael Denest

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