CORSAIR MODEL AIRCRAFT CLUB

NEWSLETTER
2025 SPRING ISSUE

Club Officers

President
John Ashley

Vice-President
Butch Bennett

Treasurer
Terry Boser

Secretary
Virgil Craiu

Club Elected Offices

Trustee
Ned Brown (3rd year)

Trustee
Tony Bistransky (2nd year)

Trustee & Safety Coordinator,
Donald Gregg (1st year)

Airfield Manager
Brett McKay

Good geotextile runway is perfect for warbirds R/C planes.
Takeoffs and landings on grass are also available.

Message from John Ashely – Club President

You know when you start a new month and everything's organized and going to be great, then all of a sudden, your world turns upside down?

On March 1st I took a tumble and wound up on the floor. It took three people to get me up. I completely tore off the muscle that connects my kneecap to my lower right leg. It was surgically reattached at Summa hospital in Akron on Sunday morning, but that was only the beginning.

After a five-day stay at Summa, I was transferred to the Green Valley Rehabilitation Health Center where I am to this day. I will probably be here for at least a month and then will continue rehab at home for at least a month. I can't bend my right knee or put any weight on my right leg yet. Eventually, I will need a right knee replacement. I also have a collapsed or compressed vertebrae in my cervical spine that will need to be fixed. I have a lot on my plate, but the Corsair Model Aircraft Club remains primary in my mind.

I've been in touch by e-mail, phone, and text with many of our wonderful club members and am thrilled that so many have stepped forward to ensure a great season.

Upcoming summer events include:

1. May 8-10 is a fantastic opportunity for us to make $950 cleaning up after dogs at the Dog show at the Summit County Fairgrounds. Please contact Ned Brown to volunteer for a shift. We need lots of help, including for the cleanup at the end of the show. MANY HANDS MAKE LIGHT WORK!
2. Club meetings are from 6-7 p.m. at Jetway Field, 7648 Peck Rd, Ravenna, OH 44266 a. June 5
    b. July 3
    c. August 7
    d. September 4
3. Float Fly events are from 8 a.m. to 3 p.m. at the Nimisila Campground Boat Ramp, 5668 Christman Rd
   #5546, Akron, OH 44319. Terry Boser is going to pick up the food. Lowell Croskey will probably pick up the signs and possibly the tents. Tony Hornbeck will be in his boat to retrieve your plane in case you don't get back to shore.
    a. May 17
    b. June 7
    c. July 12
    d. August 9
    e. September 20
4. Thunderbird Night Fly events are from 6-8 p.m. at Jetway Field
    a. May 31
    b. June 28
    c. July 26
    d. September 6
    e. September 27

5. June 28. Rock the Docks festival at Springfield Lake.
6. July 6 – 9 a.m. to 3 p.m. This is our traditional July 4th picnic at Jetway field. At noon, the club will supply hot dogs, hamburgers, and drinks. Club members can help by bringing side dishes. The famous baked beans will be there and we're going to have a great time flying and having some fun.

7. August 2. 9 a.m. to 3 p.m. Dan Greathouse Memorial Fun Fly at Jetway Field
8. August 16 is National Aviation Model Day. We're going to have lots of fun events at the Jetway field. I have asked our university teams at both Akron and Kent to come and put up displays of their fantastic award-winning designs.
9. In May, we'll start training nights on Tuesdays. Hugh Pollock will take the lead as some of EAA Chapter 5 summer youth Build and Fly team fly the airplane that they built over the winter.

As you can see, a lot is going on this summer. I will not be able to do any heavy lifting for these, but I'll be there in the background or in spirit. This is your club, but it feels like my soul, so I hope to see you all there. My right leg may not be functional for another three months, but I will keep you all posted, and I hope to see you all real soon.

Safety Officer's Report – Donald Gregg

At this time of the year we are pulling our planes out of storage, unless you like flying in the Winter. As we get our planes ready for the season we should remember to give our planes thorough inspections. I've included a checklist at the end of this report for your use if you like.

Some key items for your consideration:

- Check your bind and range-check each model before flying. There is the possibility that a receiver has failed during the Winter break. I had to rebind one plane and replace the receiver in another this year.

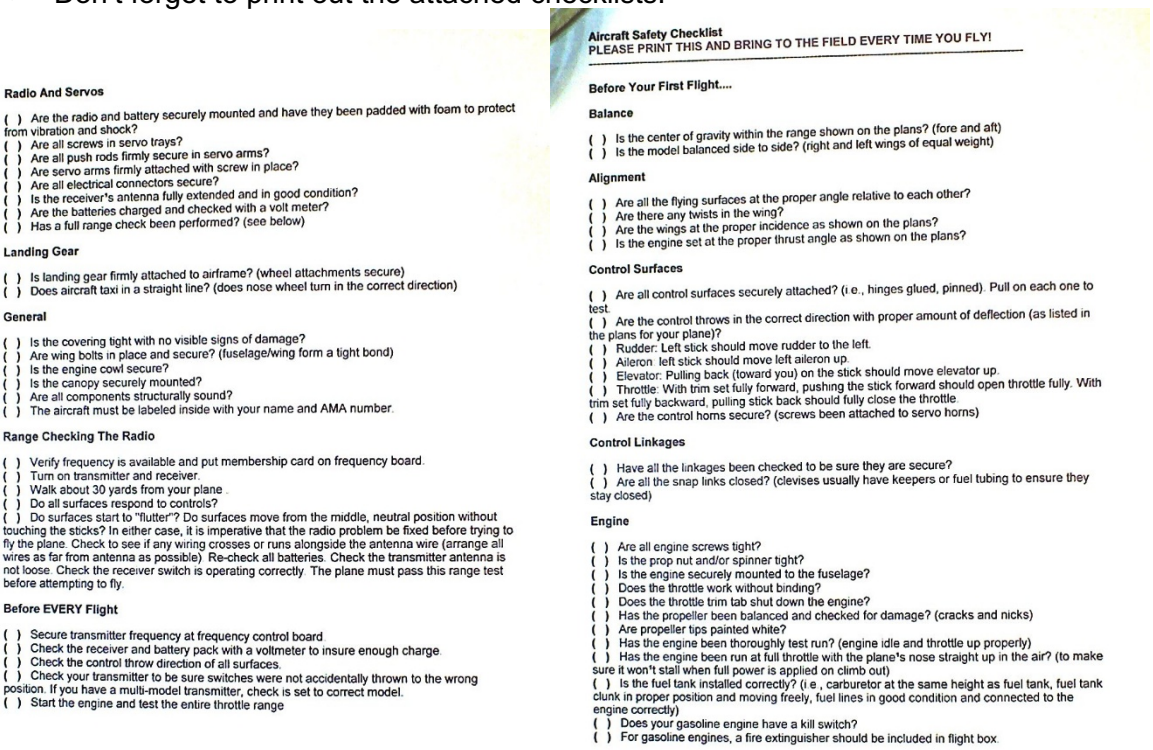
- Check the capacity of your batteries whether they are lipo, NiMH or some other type. It is possible that they have aged and now have a significantly decreased capacity. Most of our smart chargers will cycle the batteries for you and tell you what the capacity was. If there has been a 15% drop, be suspicious and at a 30% loss, it is time to replace the batteries. A NiMH battery should not lose more than 20% of its original capacity. If it has, it should be replaced. I haven't found agreement on battery storage and temperatures, but several sources state that NiMH and lipo's shouldn't be stored below freezing and that damage may occur in NiMH batteries that are stored below zero degrees Fahrenheit. Keeping all of your batteries between 10 degrees C and 30 degrees C is recommended. If you know your batteries experienced extreme cold, you definitely need to check their capacity.

- Wet Fuel - Glow fuel, if kept sealed, will keep indefinitely. The problem with glow fuel is that it is hygroscopic, it attracts moisture. If you have fuel in your airplane's tank, that fuel should be discarded. If you capped your fuel jug in your field box, it should be fine. If not, give your engine a good run prior to flying this Spring to be sure the fuel is good. Gasoline does not keep well. It is generally recommended that all of last year's gas be used in your lawn equipment and that you should start with new gas each season.

- Check all of your control surfaces for free movement and your hinges to see that they are still attached to the airframe. I had a steel ball joint rust over the Winter and it was significantly binding the movement of a pushrod. Overtaxing a servo could lead to a 'brown out' and crash. Check your elastic keepers on your clevis's, look for broken glue joints, screws that may have vibrated

loose/out. Be sure to range check your model before flying this season.

- Don't forget to print out the attached checklists.



Radio And Servos

( ) Are the radio and battery securely mounted and have they been padded with foam to protect from vibration and shock?
( ) Are all screws in servo trays?
( ) Are all push rods firmly secure in servo arms?
( ) Are servo arms firmly attached with screw in place?
( ) Are all electrical connectors secure?
( ) Is the receiver's antenna fully extended and in good condition?
( ) Are the batteries charged and checked with a volt meter?
( ) Has a full range check been performed? (see below)

Landing Gear

( ) Is landing gear firmly attached to airframe? (wheel attachments secure)
( ) Does aircraft taxi in a straight line? (does nose wheel turn in the correct direction)

General

( ) Is the covering tight with no visible signs of damage?
( ) Are wing bolts in place and secure? (fuselage/wing form a tight bond)
( ) Is the engine cowl secure?
( ) Is the canopy securely mounted?
( ) Are all components structurally sound?
( ) The aircraft must be labeled inside with your name and AMA number.

Range Checking The Radio

( ) Verify frequency is available and put membership card on frequency board.
( ) Turn on transmitter and receiver.
( ) Walk about 30 yards from your plane .
( ) Do all surfaces respond to controls?
( ) Do surfaces start to "flutter"? Do surfaces move from the middle, neutral position without touching the sticks? In either case, it is imperative that the radio problem be fixed before trying to fly the plane. Check to see if any wiring crosses or runs alongside the antenna wire (arrange all wires as far from antenna as possible) Re-check all batteries. Check the transmitter antenna is not loose. Check the receiver switch is operating correctly. The plane must pass this range test before attempting to fly.

Before EVERY Flight

( ) Secure transmitter frequency at frequency control board.
( ) Check the receiver and battery pack with a voltmeter to insure enough charge.
( ) Check the control throw direction of all surfaces.
( ) Check your transmitter to be sure switches were not accidentally thrown to the wrong position. If you have a multi-model transmitter, check is set to correct model.
( ) Start the engine and test the entire throttle range

Aircraft Safety Checklist
PLEASE PRINT THIS AND BRING TO THE FIELD EVERY TIME YOU FLY!

Before Your First Flight....

Balance

( ) Is the center of gravity within the range shown on the plans? (fore and aft)
( ) Is the model balanced side to side? (right and left wings of equal weight)

Alignment

( ) Are all the flying surfaces at the proper angle relative to each other?
( ) Are there any twists in the wing?
( ) Are the wings at the proper incidence as shown on the plans?
( ) Is the engine set at the proper thrust angle as shown on the plans?

Control Surfaces

( ) Are all control surfaces securely attached? (i.e., hinges glued, pinned). Pull on each one to test.
( ) Are the control throws in the correct direction with proper amount of deflection (as listed in the plans for your plane)?
( ) Rudder: Left stick should move rudder to the left.
( ) Aileron: left stick should move left aileron up.
( ) Elevator: Pulling back (toward you) on the stick should move elevator up.
( ) Throttle: With trim set fully forward, pushing the stick forward should open throttle fully. With trim set fully backward, pulling stick back should fully close the throttle.
( ) Are the control horns secure? (screws been attached to servo horns)

Control Linkages

( ) Have all the linkages been checked to be sure they are secure?
( ) Are all the snap links closed? (clevises usually have keepers or fuel tubing to ensure they stay closed)

Engine

( ) Are all engine screws tight?
( ) Is the prop nut and/or spinner tight?
( ) Is the engine securely mounted to the fuselage?
( ) Does the throttle work without binding?
( ) Does the throttle trim tab shut down the engine?
( ) Has the propeller been balanced and checked for damage? (cracks and nicks)
( ) Are propeller tips painted white?
( ) Has the engine been thoroughly test run? (engine idle and throttle up properly)
( ) Has the engine been run at full throttle with the plane's nose straight up in the air? (to make sure it won't stall when full power is applied on climb out)
( ) Is the fuel tank installed correctly? (i.e., carburetor at the same height as fuel tank, fuel tank clunk in proper position and moving freely, fuel lines in good condition and connected to the engine correctly)
( ) Does your gasoline engine have a kill switch?
( ) For gasoline engines, a fire extinguisher should be included in flight box.

Don Gregg

Safety officer

"Don't turn your plane into a lawn dart"

Airfield ManageReport – Brett McKay

All is well out at the field thanks to the great work from Terry Boser, Ned Brown, Lowell Croskey and Jim Hanson. I cannot say thanks enough for all they do. That includes the installation of the new gate and the additional help we got from Butch Bennett and Mike Ryan. It is now mostly complete. We still need to add more gravel around the bottom of poles once the ground settles and repaint the metal gate.

When we get some reasonable weather the oil and filters will be changed in all the mowers and mowing will begin. Again, the plan is to mow on Monday/Tuesdays and again on Thurs/Fridays in the morning. Weather permitting, we usually mow from 8:00 – 10:30AM. These times and days may sometimes change based on the weather. Signs have been placed on the inside doors of the mower shed with the mower guidelines and height settings

The runway area has been rolled while the ground was soft and is now relatively smooth. We will continue to roll it throughout the spring to try and keep it as even as possible. The only issue that remaining is a shallow rut that has developed on the Northwest edge of the runway. The fabric will be pulled back and sand added to fill it. It is right on the edge of the runway in an area most people do not use.

Plans for this year include replacing a couple of the folding tables that are falling apart and adding a small windsock closer to the runway that is easy to see yet out of the way

One final reminder, the water tank will again be filled but that is NON- POTABLE WATER SO DO NOT DRINK.

If anyone is interested in periodically helping maintain the field we can always use some additional people. You can talk to one of us if you are interested.

University of Akron's (UA) Zips Drone Design Team

The University of Akron's (UA) Zips Drone Design Team (ZDD) earned an impressive second-place finish in its first appearance at the Vertical Flight Society's fifth annual Design-Build-Vertical Flight (DBVF) Student Competition.

Held April 1–4, 2025, at SURVICE Engineering's Applied Technology Operation in Churchville, Md., the international event featured 18 university teams challenged to design, build and fly electric vertical takeoff and landing (eVTOL) aircraft capable of supporting wildfire response missions.

ZDD's nearly 25-lb aircraft — named Night Fury — performed with precision, navigating a defined course and accurately delivering a 12-water-bottle payload. The team finished ahead of major institutions including Auburn University, University of Maryland, Georgia Institute of Technology and Texas A&M University.

The competition's mission profile required aircraft to complete fully autonomous vertical takeoffs, forward flight through simulated terrain, payload deliveries for fire suppression and autonomous returns.

ZDD met the challenge with a comprehensive six-phase design and development process:

Research: Tested battery, rotor and propeller combinations to optimize a 15-minute flight duration using multirotor simulation tools.

Design: Created CAD models in SolidWorks to meet competition specs for autonomy, stability and payload delivery

Simulation: Applied MATLAB and SolidWorks FEA for flight performance and structural validation; practiced with a free-flight simulator

Build: Fabricated 3D-printed and carbon-fiber components, integrating ESCs, GPS, cameras and other electronics

Integration: Finalized wireless communications, confirmed systems functionality and complied with FAA remote pilot certification

Autonomy: Developed mission execution through ArduPilot and Mission Planner for first-person view and full automation

Led by President Anthony Skitzki, Vice President Jordan Craft, Treasurer Matt Miklos and Pilot Walker Romshak, the team received guidance from advisors Dr. Manigandan Kannan, assistant professor of mechanical engineering, and Eric Pfiffner, engineering technician, in the College of Engineering and Polymer Science.

"The team, originally formed from a senior design project involving students in aerospace systems engineering and mechanical engineering in 2024, has now achieved remarkable success by securing second place in an international vertical take-off competition, outperforming prestigious institutions," shared Kannan. "This achievement is a testament to the strong academic foundation and experiential learning opportunities fostered within the Department of Mechanical Engineering. ZDD extends its sincere thanks to the Department of Mechanical Engineering and the College of Engineering and Polymer Science for providing space, funding and technical resources. The team is also grateful for the generous support of its sponsors, including ***Corsair Model Aircraft Club***,

Phalanx Robotics, Synergy Hobbies, Innov8tive Designs, Event 38 Unmanned Systems, Precision International and Engineering Consultants Group, whose contributions were vital to the development of Night Fury.

Zips Aero 2025 Design, Build, Fly Competition

The 2024–25 AIAA/Textron Aviation/RTX Design, Build, Fly (DBF) Competition Flyoff took place April 10–13, 2025, at the Tucson International Modelplex Park Association in Tucson, AZ. Celebrating its 29th year, the event received 159 proposals, with 112 teams invited to submit design reports. Ninety-six teams—22 of them international—attended the flyoff, setting a record for participation with over 1,200 students, faculty, and guests.

The UA Aero team finished fourth out of 56 completing all tasks

Despite hot and dusty weather, flying conditions were good, enabling 267 official flight attempts. Of these, 164 earned successful scores, with 78 teams scoring at least once and 24 completing all missions. Ninety-two teams passed tech inspection, and team quality, preparation, and performance were exceptional.

This year's theme was an X-1 Supersonic Flight Test Program. Missions included: a Delivery Flight (three laps in five minutes), a Captive Carry Flight (with fuel tanks and an X-1 test vehicle), and an in-flight Launch Mission (where the X-1 had to autonomously reach a target area). A ground mission simulated converting a production bomber into a flight test platform. Final scores combined mission results, design report scores, and participation.

Top honors went to FH Joanneum (1st), Royal Melbourne Institute of Technology (2nd), and Santa Clara University (3rd). The Best Paper Award went to the University of New South Wales, earning a report score of 97.58.

Virginia Tech received the Stan Powell Memorial Award for resilience after early setbacks.

The competition's success was made possible by dedicated volunteers from Textron Aviation, RTX, and AIAA technical committees, as well as support from sponsors including Textron Aviation, RTX, the AIAA Foundation, General Atomics, MathWorks, Stoke Space, and the University of Arizona. Special thanks to RTX for hosting. More details: www.aiaa.org/dbf.

The Kent State University Design, Build, Fly Team

The Kent State University Design, Build, Fly Team is an interdisciplinary group within the College of Aeronautics and Engineering that aims to create aircraft for the annual AIAA Design, Build, Fly (DBF) Competition. Though formed in Fall 2024 and led by senior capstone students, the team quickly became a major contributor to KSU's engineering community.

For the 2025 DBF competition, teams were tasked with designing a carrier aircraft (TED) capable of deploying a smaller glider (TIM) mid-flight, while also transporting external fuel tanks made from beverage bottles.

Despite learning they were not selected to attend the official competition, the team continued the project as a valuable personal and educational challenge.

On December 7, 2024, TED-1 flew its maiden flight at Jetway Airport-61OH. Constructed from balsa wood, foam, and 3D-printed PLA, TED-1 featured a 6-foot wingspan and twin KDE Direct 4215XF motors. Although tail-heavy, the aircraft flew successfully under the control of pilot Joshua Shutic.

Based on lessons learned from TED-1, the team improved TED-2 by adjusting the center of gravity, reinforcing the landing gear, and reducing overall weight using a square carbon fiber spar in the tail boom. TED-2 flew successfully on February 9, 2025, despite icy conditions.

The team then fully integrated TIM-3 with TED-3. TIM-3, built using similar materials, could be deployed via servo-actuation triggered from the transmitter. During the March 23, 2025 flight, TIM-3 was successfully deployed, but TED-3 crashed due to aileron failure caused by a newly added battery eliminator circuit and gusty wind conditions.

Undeterred, the team designed TED-4 with further improvements: better weight distribution, higher aspect ratio wings, and lighter construction. After just 32 days of development, TED-4 flew successfully, even completing a 5-minute flight despite a loose landing gear wheel.

On May 2, 2025, the team held a final design review for sponsors, advisors, friends, and family. They expressed deep gratitude to the Corsair Model Aircraft Club #502, advisors Peter LeMay, Dr. Xuanhong An, and Dr. Benjamin Kwasa, and sponsors including Dupont Vespel, High Temperature Systems, The Technology House, the College of Aeronautics and Engineering, and the Ohio Space Grant Consortium, Humtown Pattern Company, and Cleveland Wire Cloth and Manufacturing.

For video recaps of the Team's work this year, visit https://www.youtube.com/@flora_and_film. To keep up with the KSU Design, Build Fly Team, follow us on Instagram @kentstatedbf, or reach out at kentstatedbf@gmail.co

Float Fly days,

May 17 Nimisilla Lake
June 7th Nimisilla Lake
June 28th Springjield Lake
July 12th: Nimisilla Lake
Aug. 9th: Nimisilla Lake
Sep. 20th Nimisilla Lake

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Thank you, Tony Hornbeck, for being the planes "Rescue Officer" Great Job!!!

FAA / AMA Requirements:

1. TRUST. Members should take "The Recreational UAS Safety Test" available on the AMA website. UAS is the acronym for Unmanned Aircraft Systems commonly known as drowns.
2. Register with the FAA ($5 for 3 years) and display the FAA number on all drowns. Registration can be done through the AMA website.

Virgil Craiu
Club Secretary

Please send me any upcoming event photos or any other information you would like to see in the Quarterly Newsletter. Thank you.