Propwash

The Newsletter of the Mercer County Radio Control Society
September 2005

Warbirds and Electric Fly Events This Month

September is a big month for events at Warren Kruse Field. The annual Warbirds Over Jersey show is scheduled for the weekend of September 17th and 18th. The Electric Fly is scheduled for the following Saturday, September 24th.

The Warbirds show is a fun-fly exhibition. It is open to scale and semi-scale models of military aircraft. Unlike last spring's Jumbo Jamboree, this show is not limited to giant scale aircraft; **all sizes of model, from foam electrics to giant scale, are welcome**. We hope to see aircraft like Tom Dyl's Spitfire, Gary Ebert's Corsair, Don Rowley's Thunderbolt, Bill Zentmayer's Skyraider, Keith Zimmerly's B-17, and all the foamy warbirds given by the club as door prizes last December. In addition to the models from our own club, an impressive collection from clubs in the surrounding states is expected. Flying begins at 9:00 each morning.

Tom Dyl's Spitfire made its debut at this year's building contest.

The kitchen will open both days of the Warbirds event serving its famous dishes such as pancakes, heartstoppers (porkroll, egg, and cheese sandwiches), and sausage sandwiches (with peppers, onions, and sauce, of course). Bagels, muffins, hotdogs, and hamburgers will be available for those with less adventurous tastes. Coffee will be available starting at 7:30, breakfast will begin at 8:00, and lunch will be served about 11:30.

Gary Ebert's Corsair is also new this year.

The Electric Fly will occur on Saturday, September 24th. Although this is a somewhat lower-key event than

the Warbirds, it provides an opportunity to see what is happening in one of the fastest growing sectors of the RC hobby. See what the 3D foamies can do in the space of a living room. See what happens when you fill a large-scale glow model with LiPo batteries and a big electric motor. Experience the thrill of combat as the sky fills with Zagis. See the sun blocked by a swarm of Wingos during the all-up events.

Some electric warbirds are equally comfortable at either show.

Coffee will be available at the Electric Fly starting at 8:00 AM and flying will begin at 9:00. The kitchen will provide limited food service including donuts and bagels for breakfast, hamburgers and hotdogs for lunch, and soda all day.

Setup day for the Warbirds event is Friday, September 16th. All available club members are invited to help starting at 9:00 that morning. Come learn the proper way to set up the tents, master the puzzle of the registration booth, and marvel at the dry kitchen thanks to the recent work of Rich Green and Dan Geerders. Current teams and team leaders for the days of the events are listed below. If you would like to help on one of the teams, give the leader a call. Most will welcome the assistance. (If you are listed and unavailable, please let the team leader know.)

50-50

Bill Schumann (Leader) 609-586-1320

Impound

Jim Meighan (Leader) 609-586-7162
Bing Gearhart
Carl Gubkin
Patrick John
Dave Kanter
Pat Meighan
Frank Vorob

Kitchen

David Vale (Leader) 609-430-9633
Jans Brower (Cashier)
Brian Erxleben
Dan Geerders
Joe Gendron
Rich Green
Irwin Keshner
James Vale
Terry Watros
Harry Werner

Parking

Jim Feszchak (Leader) 732-251-8547
Bob Bennett
Floyd Smith

Registration

Fred Doldy (Co-leader) 609-883-3902
Sal Lucania (Co-leader) 609-587-1248
Joe Spett
Bob Vanisko
Mel Weeast

Signage

Doug McMillan (Leader) 609-443-3175

Cleanup

There is no formal cleanup crew. All members who are available Sunday afternoon after the Warbirds event or Saturday after the Electric Fly should help clean up the field and put equipment away.

Pancake Dave's Famous Recipe

For those who enjoy the pancakes at the club airshows throughout the summer, now you can have them all year long. Here is the recipe, which makes enough to comfortably fill two adults (or one teenager).

1 cup flour
½ teaspoon salt
½ teaspoon baking powder
1 teaspoon baking soda
2 Tablespoons sugar
2 eggs
2 cups buttermilk
2 Tablespoons vegetable oil

Mix with a whisk, electric mixer, or spoon and pour about ½ cup onto a hot griddle for each pancake. Serve hot with butter and maple syrup.

Tuesdays at Warren Kruse Field

Every Tuesday morning (weather permitting), sometime between 9:00 and 10:00, several of the Mercer County club's most experienced members arrive at Warren Kruse field for an informal event usually referred to as Old Farts' Day. While technically open to all (and despite any implications in the name, not limited to gas), the Tuesday morning crowd tends to consist of older members with freedom from the responsibilities of work.

A typical Tuesday draws between ten and twenty members. And although they may be the club's most experienced members, not all that experience is related to flying. In fact, a number of the Tuesday regulars are student pilots who took up RC flying as a retirement hobby. Of course, several of the group (regularly including Stan Blyskal, Stan Karczewski, Sal Lucania, Forrest Miller, and Bill Zentmayer) are instructors.

Ben D'Amico poses with his new trainer

Sal Lucania (right) finds instruction a big part of his day.

Bill Zentmayer offers Rick Debastos advice on his newly acquired airplane.

A casual lunch offers time to reflect on the experiences of the morning.

The gathering offers a low-key atmosphere given to leisurely flights of magnificent models with character. It is rare for more that two to be in the air at once, with as much attention given to fine tuning performance on the ground as skill in the air. So, next time you have a Tuesday free, stop by for a day with the pillars of RC.

Hamburgers left over from the family picnic provide an added treat.

Forrest (Woody) Miller exhibits the cool, dignified demeanor befitting a senior test pilot and instructor.

Kitchen Flood Averted

Those dedicated folk who work in the club kitchen have long lived in fear of rain, which could without warning pour through the roof and dampen their spirits (and their products). Now, those who have been afraid to enter the kitchen because of the water threat should fear no more. Due to the work of Dan Geerders and Rich Green, the kitchen should no longer leak. Recently braving bugs and heat, the intrepid duo identified the holes in the roof and filled them with flashing compound. Thanks to Rich and Dan for securing our kitchen!

Master flashers Rich Green and Dan Geerders at work.

Crash of the Year?

Sunday, August 21st, saw the most recent entry in the Crash of the Year contest with the midair demise of Augie Lucidi's Fly Baby Bipe and Keith Zimmerly's Sopwith Pup. As the story unfolds, Augie was dropping partial rolls of toilet paper from high altitude while Keith and others were waiting at lower altitudes with the intent of chopping the falling streamers with their propellers. After one drop, Augie landed, reloaded, and was on his way back to altitude for a second drop when he encountered Keith, who was hovering in the wind awaiting the next streamer. In attempting to simultaneously occupy the same part of the sky, both aircraft were structurally altered to a significant degree.

Keith Zimmerly's Pup Before the Midair.

Keith's Pup had a nine-foot wingspan and was powered by a 4.2 cu. in. gas engine. Augie's eighteen year old biplane had an 88" wingspan and was powered by a 3.8 cu. in. gas engine. In terms of total weight and horsepower, this probably represents the most significant crash at our field thus far this year (which is not intended to make light of Bill Zentmayer's earlier efforts). Both airframes were total losses, but almost all of the equipment from each airplane was salvaged.

Zagi What?

Who in their right mind would take to the air with the intention of having a midair collision? A Zagi combat flyer, comes to mind.

Combat, in one form or another, has been part of model aviation since the days of control line. Streamers were attached to flying wings and combat pilots, two at a time, tried to trim the streamer from their competitor's craft. With the advent of proportional control and the ability to fly with adequate precision, combat made its way into RC, again with streamers and similar rules of engagement.

Zagi combat appears to have begun as an outgrowth of slope soaring. (Note that "Zagi" is a registered trademark of Trick R/C Products LLC, although the term is widely used generically for combat wings.) Soaring, while appealing to some on its own, is even more exciting when you have someone to chase. Of course, in close quartered flying, occasional collisions are inevi-

table. A special breed of slope soaring craft, the combat wing developed. The combat wing was highly maneuverable, and over time came to be well reinforced for durability. In fact, the durability of current models is such that the occasional collision (and the often resulting crash) does virtually no damage to the aircraft.

In conventional combat, the idea is to use your propeller to chop your opponent's streamer. However, the slope soarers had no propellers and thus no way to cut a streamer. Another form of scoring developed: A kill consisted of hitting your opponent's craft and knocking it out of the air. Of course, given the sturdiness of the aircraft, being knocked out of the air was no big deal.

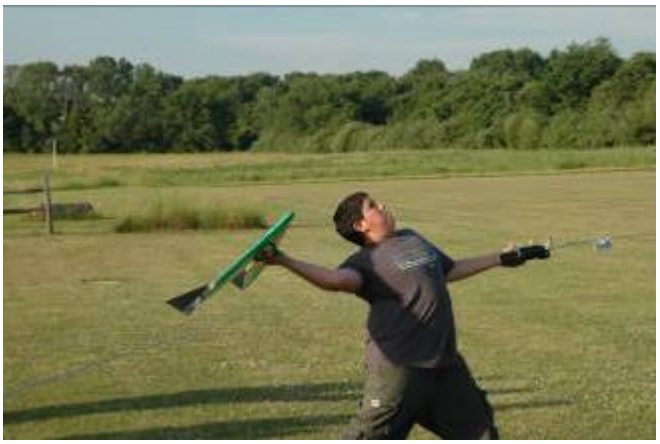
Unfortunately, not everyone has ready access to a soaring slope. So someone got the idea of putting an electric motor on the combat wing. At this point, it seems a de facto decision was made that the object of this sport would continue to be hitting your opponent, rather than trimming a streamer. Thus, the motor was mounted in the back of the aircraft, rather than in the front.

Ace James Vale poses with his Zagi.

Initially, the standard motor was the brushed Speed 400, although many now sport higher-powered brushless motors. While the standard combat wing seems to have about a 48" span and a Speed 400 motor, wings of a variety of sizes and speeds now appear. Some groups limit combat to stock Speed 400 motors, but even without the limitation, performance in line with that standard is necessary for success. Larger aircraft generally lack the maneuverability required to compete with those of the standard size. And while speed is occasionally useful in regrouping after a wrong turn, generally it is much more difficult to hit an opponent when your craft is traveling significantly faster.

What makes the Zagi wings so sturdy (virtually indestructible)? It begins with the wing cores made from expanded polypropylene (EPP) foam. This foam is a bit heavier than conventional Styrofoam, but it is much harder to damage. Bend a sheet of standard Styrofoam and it will break; do the same to EPP foam and it will bend and recover its original shape when you release it. Step on a piece of Styrofoam and you will crush and break it; step on a piece of EPP foam and it will be none the worse for the experience. Note that some combat pilots still prefer Styrofoam for its lighter weight, but some durability is lost.

The EPP foam core is usually stiffened with spars of plywood and/or carbon rod. The Zagi XS, for example, uses both. Then fiberglass filament tape is laid at strategic angles to further reinforce the wing. A tray for the electronics, a pair of plastic tiplets, and an application of colored tape complete the construction (different colors top and bottom to help orient it in the air).



Launching a Zagi can be a challenge.

Launching a Zagi can be a challenge. During Zagi events, half a dozen of so experienced flyers often launch their Zagis at the same time. It is not at all unusual for at least one of these to crash on takeoff. Usually, the crashed craft is recovered and launched again for the same event. There are three accepted methods of launching a Zagi. In the first, you grip the Zagi by placing two fingers immediately in front of the propeller and the remaining fingers on the bottom of the wing. You launch with the motor turned off and hit the throttle as soon as it leaves your hand. This method can be uncomfortable if you get the toss/hit-the-throttle sequence out of order. An alternative is to put your hand on the bottom of the wing and your thumb over the nose and toss it into the air with your fingertips, usually also with the motor off. This method, while easier on the fingers, results in more launch crashes. The final method is to use a short length of surgical tubing to launch it like a glider. This appears to be the more reliable method, but requires some setup.

Zagi events take on a variety of forms, some comparable to those of regular RC models. The spot landing

competition, for example, begins when the starter yells "Launch." About thirty seconds later, he yells "Land." At that point all competitors cut their motors and attempt to land as closely as possible to a target, frequently an orange plastic cone. The event differs from a conventional spot landing competition in two ways. First, the approach can be from any angle, the Zagis not being constrained to a traditional approach. Second, the "Inverted Flare" is unique to Zagi spot landing, in which a competitor gliding over the target may suddenly give down elevon and dive into the ground toward the target. Only with a Zagi would this extreme maneuver seem to make sense.

Spot landing requires special techniques.

The Zagi Limbo is another conventional event adapted to Zagi competition. A cord is stretched across the field and the Zagi flyer attempts to fly under it. Often this is a timed event in which the winner is the one who makes it under the cord the most times in a sixty second period. Inverted limbo is an obvious variation of this event.

But the real attraction of Zagi flight appears to be combat, that is the deliberate attempt to knock other aircraft from the sky. Two variants of this event are target combat and one-on-one combat. Target combat requires a target, usually a sturdy and well-worn trainer. The target is flown back and forth from one end of the course to the other, not attempting any evasive maneuvers. The objective of the Zagi combatants is to hit the target, ideally hard enough to knock it out of the air, without themselves crashing to the ground as a result. This is surprisingly difficult to do. Early in the combat season, it is not unusual for a target to fly against half a dozen Zagis for a whole evening while sustaining only a couple of glancing blows. Generally, the number of hits increases as the season progresses.

One-on-one (usually many on many) combat eliminates the target aircraft. The objective becomes that of hitting and knocking one of the other Zagis out of the air. When the collisions are one on one, it is somewhat more difficult to determine who hit who. Thus, rules of scoring are established such as the winner is the one that doesn't hit the ground or the winner is the first to recover and execute a role.

The target is usually a sturdy and well-worn trainer.

Zagi combat is a lot of fun, both to perform and to watch. It is also a good way to develop reflexes for handling unusual flight attitudes and conditions. It can raise some issues of safety that should be considered as well.

Zagi combat, in its initial slope soaring environment, was a relatively safe sport. The potential danger was being hit by a one-pound block of foam traveling at 40 miles per hour. With the addition of a motor, the additional elements of danger consist of the weight of the battery and motor as well as the spinning propeller. If LiPo batteries are added to the mix, the possibility of a fire resulting from a prop strike on the battery becomes a possibility.

Going down.

How serious are the dangers? The dangers of being hit by a Zagi during combat are very real, especially during fun flies when piloting skill is often marginal. Is

the damage of a hit likely to be significant? Except for the possibility of an ejected battery hitting someone in the head, the effects of momentum are not likely to be much worse than uncomfortable. Being struck by a propeller of the Wingo class driven by a brushed Speed 400 is likely to be painful, at worst. However, when brushless motors swing larger propellers at high speeds resulting from power input exceeding 150 Watts, a propeller strike might do serious damage to a person. And a damaged LiPo that starts a fire in dry grass or woods may present a problem. All things considered, an out-of-control Zagi is considerably less lethal than an out-of-control giant scale aircraft, but considerably more likely to get out of control. Perhaps, as the sport evolves, equipment standards will emerge to standardize the risk at an acceptable level.

Although the AMA has given some informal thought to the matter, and is purported to be of the opinion that deliberate mid-airs collisions are not a good idea, the issue has yet to appear in the AMA safety code or any other public AMA documentation. Given the popularity of the event and the apparent lack of notable injuries to date, a ban would seem unlikely.

Zagi combat represents a good opportunity to bring a generation of video gamers into the RC hobby. The skills of Zagi combat are quite similar to those required by several video games. It is a bit frustrating, of course, to be repeatedly bested by an RC newcomer fresh from the video console. It does, however, provide a good venue for playing with your kids. Where else is it socially acceptable to look at your son and exclaim with glee, "Die, Sucker, die!"

For Sale

Hangar 9 Ultra Stick 60 ARF - NIB $180.00
Saito 100 - 4 Cycle Engine – NIB $280.00
This is a matching engine for the Ultra Stick.
Available for inspection at the meetings or the field.
These are my costs... You save Shipping & Handling
Contact Alex: drszemere@aol.com or 732.816.1810

MCRC
JACKET SALE

Sept. 7th & 21st Meetings

Designer Notes: Exceptional value nylon jacket offers protection from the wind and rain with a flannel lining for added warmth. Versatile styling for on or off the field.

Fabric/Style: 100% nylon shell with lightweight flannel lining in the body, nylon-lined sleeves for easy on/off; locker loop, slash pockets, raglan sleeves with elastic cuffs, drawstring bottom hem, inside pocket with Velcro closures. Snap closure.

Adult XS-4XL
XS-XL 60.00
2XL 62.00
3XL 66.00

Designer Notes: Casually styled jacket is perfect for nearly any occasion, rain or shine, thanks to the water repellent protection. Contrasting colors on the collar and body give this jacket a distinctive look.
Fabric Style: 65/35 poly/cotton shell, mesh body with sleeves lined in nylon for easy on and off; drawstring collar with cord locks. Zipper closure.

Adult XS-6XL

XS-XL 70.00
2XL 72.00
3XL 76.00

Designer Notes: It's easy to see why this is our most requested jacket! Hard working and extremely durable, it repels the rain, resists the wind, and locks in your body warmth (thanks to the lining and rib knit trim). And look at all those sizes!
Fabric/Style: Teklon nylon shell, poly-filled body with heavyweight fleece lining; 1 x 1 rib knit trim at the waistband and cuffs; front zip close slash pockets and interior pocket. zipper closure.

Youth S-XL Adult XS-6XL

S-xl 80.00
2xl 82.00
3XL 86.00

Available Tall Lg-4XL +5.00
Youth sizes -8.00

Jackets have NEW club jacket back design, American flag on arm, club patch on chest, your name on opposite chest.

Upcoming Events

September

7th Meeting at WWL (Jacket sale)
16th Setup for Warbirds
17th & 18th Warbirds Over Jersey
21st Meeting at WWL (Jacket sale)
24th Electric Fly

October

5th Meeting at WWL
19th Meeting at WWL
25th Last Student Night of the year

November

2nd Meeting and annual elections at WWL
6th Turkey Fly
16th Meeting at WWL

Club Information

The Mercer County Radio Control Society is an AMA Chartered Gold Leader Club. Its field is in Assunpink Wildlife Management Area off Exit 11 of Hwy 195. It meets at the West Windsor Branch of the Mercer County Public Library on the first and third Wednesday of each month at 8:00 PM. The club publishes this newsletter for members approximately six times a year and operates a web site at www.mcrcs.com.

Officers

President: Doug McMillan
VP, Membership: Sal Lucania
VP, Events: Armand Graziani
Secretary: James Feszchak
Treasurer: Jans Brower

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