



FARM Newsletter

AMA Charter 1654

June 2021

FIELD MARSHALL CORNER

John Gilbert

I HAVE SOLOED. After 4 years of trying, with the patience of EVERY Instructor in both the FARM and CMB Clubs, as we well as the encouragement of all the members of the clubs, I have SOLOED. WHEW! And now I need to make sure that any crashes I have are a result of my airmanship, not my inexperience. To aid in that end, Ernie Padgette gave me a 1970's era ARF called the Right (yup, a poor play on words) fresh from the box. Bill Towne, as my mentor in all things building and repairing and repairing and repairing my planes, helped me modify the plane for electric propulsion. First, let me say that ARF doesn't mean Almost Ready to Fly! What a joke. After working on at least 3 ARFS with Bill, I am sure that it means Airframe almost ready to Rebuild, Fool....

So we started on this one. First we used a program called eCalc to determine the motor, ESC, battery and prop size which would work most efficiently on this aircraft. We settled on a Badass BA2826/1030KV motor, a Badass BA-REN-85 amp ESC, 4S 4500 mAh LiPo battery and a 12x6 prop. eCalc said that this would give me about 8 minutes flight time, with good specs on efficiency, load and thrust. So on we went making structural modifications to use these parts. But when we balanced it, even after calculating the weight of a glow engine and a fuel tank, which we assumed would balance correctly, we ended with **19 ozs** of nose weight!! It balanced PERFECTLY (What!?!). But on takeoff for its maiden flight, the plane started to lift off when the nose wheel rotated to the right and, with all that weight, the nose crushed, the firewall ripped off and the nose wheel bent. YEESH!!! Shades of my training flights.

Gordon Collyer, my last flight instructor, shuddered, helped me Black Bag the A/C and suggested that if he rebuilt and extended the nose, and changed the location of the motor, ESC and battery, maybe we could get it to balance with considerably less weight. So, with his usual careful work, he reconstructed the plane, re-christened by me, as the Kollyer Kraft. We haven't had the weather or time to re-maiden it yet, but it only has 2.5 ozs to rebalance it let's hope for the best. May the Force be With It....

Respectfully submitted,

John Gilbert

EDITOR'S NOTES – Upcoming Events

Jeff Killen

1. **Club Meeting, at the field, 7:00 PM, 6/22/2021**
2. **FARM Club Day & Fun Fly #4, at the field, all day, 7/11/2021**
3. **World Championships, at Muncie, IN, all day, 7/10-19/2021**
4. **AMA Aerobatic (pattern) Nationals, at Muncie, IN, all day, 7/20-24/2021**

SECRETARY'S REPORT

Jeff Killen

On May 25 the club had a virtual meeting via zoom. Nine members were on the call.

Dave Rothbart began with some medical news on two members. Ernie Padgette had a heart attack recently. He was treated with 2 stents, for arteries having significant blockages. He is at home now, taking it easy for a while. Bill Towne is staying

close to home to care for his wife who is rehabbing after having a broken hip. We wish these guys well.

Dave continued with some thank yous, first to Carl Hampton for his help with the zoom meetings, and then to the guys (Nic Burhans, Bill Towne, and Ralph Graul) who have helped lately with the mowing equipment.

In light of the passing of one of the FARM founding members, Phil Coopy, we discussed honoring his contributions to the club by naming the pavilion after Phil. We will have a board vote on this at the June club meeting. Lloyd Hinrichs will provide a sign for this, if approved.

Nic Burhans updated us on the TRUST initiative. See your recent AMA magazine, page 8 for details. This will be a free test, taken on-line, with 20-25 multiple choice questions. If you miss a question, you will be cycled back to pick another answer; you can not fail the test. When complete, you should print your completion certificate and always have it with you when you fly.

Officer Reports

Treasurer – Nic Burhans gave us this report. We have 61 members currently. We have \$6629 in the bank. Mower repair work has begun; governor and governor shift are being replaced.

Secretary – Jeff Killen had no report, but requested more pictures for the newsletter.

Vice President – Bill Towne was not in the meeting and thus had no report.

Field Marshall - John Gilbert was not in the meeting and thus had no report.

Safety Officer – Ernie Padgette was not in the meeting and thus had no report.

Member-at-Large – Charlie Koustenis was in the call but had no report.

Web Site - Dick Sutton has posted two pictures on the web site recently.

Presentation

Jack Cullen gave a nice presentation on scale model building. His flying years began back in 1970. He had several pictures to show us. His focus has been on WWI bi-planes. He also made the cover of Scale Modeler magazine in 1985 with his Sopwith Pup model.



From the Jack Cullen presentation, one of his bi-planes from yesteryear. Pretty !

FUN FLY #3 RESULTS

Nic Burhans

- The FARM Club's Fun Day and Fun Fly #3 was today, 6 June.
- Dave Rothbart was the event CD under very hot sunny skies and minimal wind conditions.
- We had two members who only participated in the Fun Day and received 3 total points each for singing in.
- We had five members who participated in the Fun Day and the Fun Fly and received points:
 - 3 points for signing in, 8 points for being the Fun Fly CD, 5 points for flying in the Fun Fly, and Fun Fly placement points (reverse order number of the number of participants)
- The 6 June 2021 Fun Fly results:
 - 1st place – Doug Cash (5 pts.)
 - 2nd place – Vince Tabacco
 - 3rd place – Ernie Padgette
 - 4th place – Dave Rothbart
 - 5th place – Nic Burhans (1 pt.)
- Our next FARM Club Fun Day and Fun Fly will be held on Sunday, 11 July, with Vince Tabacco as the CD.

Be Safe,
Nic

LEARNING TO FLY

John Hunton

Learning to fly RC models is a lifetime challenge.

In my opinion flying RC models well is one of the most difficult things people can do and we should admire those who do fly RC well.

As an example of how difficult it is to fly RC, an experienced full-scale pilot, who knows very well all of the basics of flight, give him an RC model and he will not be able to fly it successfully the first time.

Take level flight in an RC model as an example. In looking at the model from the ground, how do you judge when it is flying parallel to the ground and the wings are level when your perspective of the model is ever changing as it passes by? This is an acquired skill, learned by hours of trial and error, hopefully with an experienced instructor standing by.

Flying RC models, like full scale flying, is a continual learning process and the more you learn about what the airplane is really doing up in the air, the better pilot you will become. One of the best learning tools is a book titled: "Stick and Rudder" by Wolfgang Langwiesche, Subtitled "An Explanation of the art of flying" copyrighted in 1944 and illustrated by Joe Kotula (who illustrated the covers of many model magazines over the years).

The book has 230 pages. 104 pages (nearly 50%) are dedicated to use of the Rudder and the Turn.

The function of the rudder, however is simply summarized thus: it is to make the tail follow the nose.

The main things keeping the tail from following the nose are torque and adverse yaw.

Torque effects are maximum during a full power takeoff and climbout. The plane strongly want to turn left (right in the RAF), so you must apply a lot of right rudder to correct for torque. You get up to cruise altitude and trim up (10 pages in the book on level flight).

With cruise trim in place you descend to land and now you have to apply left rudder to counteract the cruise trim. You wonder why the model tends to stall to the left when landing, but who changes trim to land?

The proper turn is a very exciting maneuver. A lot of things happen in a turn. First, with the control inputs creating more drag, and the wing tilted in relation to the ground requiring it to produce more lift to maintain altitude, thus creating more drag, the airplane will tend to descend without the addition of more power, but who does this?

Try turning your model with rudder only. if your model has dihedral it will turn, but with a big yaw to make the wings produce unequal lift. And this yaw produces drag.

Try turning your model with aileron only, which most of us do. Crank in a left turn and the model yaws to the right (adverse yaw) because adding lift to the right wing adds drag. The wings lose lift in relation to the vertical, so the nose drops. We crank-in up elevator. This is the "bank and crank" maneuver and it is adequate to get around the patch.

To make a fair turn we should "always use rudder whenever we use aileron". This is a good habit to develop.

To make a good turn we should apply a little up elevator, not when you see the nose drop and react, but going into the turn and adjust.

To make a great turn we should add a little throttle going into the turn, again, not in reaction to when you see the nose drop.

The above suggestions are fun to practice and when they become second nature you will be a better RC pilot.

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The FARM Newsletter is published monthly by the Fauquier Aero Recreation Modelers, AMA charter #1654. It is mailed to FARM members and to other clubs on an exchange basis. Articles related to all types of aviation are welcome. Opinions expressed in the newsletter are those of the individual author and do not necessarily reflect those of FARM Inc. Publishing deadline is the 2nd Tuesday of the month. Please mail all input to:

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