

Smoke Signals

Monthly Newsletter of the Meroke RC Club

April 2009

AMA Gold Leader Club #458 - established 1963



From the President

In a few weeks the warm weather will arrive and many of us will be taking out our planes for the first time this flying season. It is extremely important to check our planes carefully before going to the field. Some of the items to check include:

- Capacity of receiver and transmitter batteries. Cycle them and make sure they reach full capacity. Check voltages before you leave home for the field. Check voltages frequently at the field. If batteries are about four years old, consider replacing them.
- Replace the engine glow plug if old or if you had any lean runs at seasons end. Tighten glow plugs.
- Tighten all engine head and back plate bolts. Check that carburetor is secure. Tighten muffler mounting bolts and use loc-tite.
- Tighten all bolts mounting engine to the engine mount and all bolts securing the engine mount to the fire wall. Use loc-tite.
- Tighten propeller nuts and spinners and replace propellers if nicked or damaged.
- Balance propellers and balance spare propellers.
- Operate all controls and check for smooth and proper operation. Check for any binding.
- Tighten all servo mounting screws, servo arm screws, and control horn bolts and hardware.
- Check all control rod linkages and servo arm linkages and install fuel tubing, fishing line, etc. to keep clevises from coming loose.
- Tug on all control surfaces to insure hinges are secure.
- Check that wing mounts are structurally sound and check all wing bolts for any wear or damage. Replace if needed.
- Check that all wheels rotate freely and that wheel collars are secure. Tighten bolts holding the landing gear in place.

- Check fuel lines for any damage, wear, or pin holes. Check that the fuel tank clunk moves freely.
- Repair any aircraft dings or dents and any tears in the covering. Touch up paint as needed.
- Secure any loose covering then clean and polish your plane.
- Check that your glow plug igniter is charged and operating properly. Replace the battery if old and can be replaced.
- Check that your electric starter is operating and that your starter battery is fully charged.
- Check that you have fresh fuel and that your fuel pump is working.
- Be sure you have a 2009 Aerodrome permit. You cannot fly without a 2009 permit.

Enjoy the flying season.

Meroke Calendar

April 2 nd	Club Meeting 8 PM - Show & Tell
April 16 th	Club Meeting 8 PM - Lecture - Repairing ARFs by Ron Berg
April 19 th	First Club Fun Flys of the season - weather permitting
May 7 th	Club Meeting 8 PM - Lecture - Ed Anderson speaking on Electrics
May 21 st	Club Meeting 8 PM - Show & Tell
May 24 th	Club Fun Flys
June 4 th	Club Meeting 8 PM - Show & Tell
June 7 th	Annual Meroke Open Fun Fly
June 21 st	Club Meeting 8 PM - Lecture - Tom Gywnne of the Cradle of Aviation speaking on History of Aviation on Long Island ****Lecture starts at 8PM****
July 19 th	Come Fly with Us
September 13 th	Annual Meroke Picnic at the Cedar Creek Aerodrome

Meetings are held the first and third Thursday of each month at 8:00 PM at the First Presbyterian Church of Levittown located at 474 Wantagh Avenue. The church is about 1 mile north of Exit 28N on the Southern State Parkway. Additional information can be found on the club website - www.meroke.com.

Club Officers & Volunteers

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Programs	Jaclyn Tavorario	Phil Friedensohn-Advisor
Education	Charlie Lando	
Friends of Cedar Creek	George Carley	Ed Wiemann
Building Program	Charlie Lando	Ernie Schack
Archivists	Ron Berg	Stan Blum
Webmaster	Ted Evangelatos	
Social (Coffee)	Irv Kreutel	Al Hammer
Raffles	Curtis Underdue	
	Ed Wiemann	
Show and Tell	Bob Cook	
Video Librarian	Tom Cott	
Audio/Visual		
Come Fly With Me	Charlie Lando	Dave Bell
Open Fly-In	Ernie Schack	Dave Bell
TAG Program	Charlie Lando	
Monthly Fun Fly	Chris Mantzaris	Gene Kolakowski
One Fly	Ted Evangelatos	Jaclyn Tavorario
Dinner	Jaclyn Tavorario	
Picnic	Chris Mantzaris	Nick Giuffre
Contest Directors	Allen Berg	Tony Pollio
	Ernie Schack	Tom Scott
	Allen Berg	Ted Evangelatos
Flight Instructors	Douglas Frie	Dan Gramenga
	Mark Klein	Gene Kolakowski
	Ken Mandel	Tim Murphy
	Tony Pollio	Mike Hagens*
	Bob Reynolds	Bill Streb
		Al Weiner
*Flight Instruction Coordinator	Mike Hagens	516-546-6773

Cradle of Aviation Expo

March 28th - 29th, 2009

Once again the Meroke R/C Club was invited to participate in the annual Cradle of Aviation Expo. We have made our presence shown several times before and it has always been a showcase for what our flying club has to offer to the community. It was something I have always looked forward to. As usual several other clubs participated, and each person was asked to bring one or two of his models for display. By bringing a model or by being an exhibitor, you were allowed to see the entire museum (except the Imax theater) without a fee. If you brought a model of a full scale aircraft that was on display, then your model was placed next to it.



The Meroke's had the largest showing of all the clubs. Our committee consisted of Tony Pollio, Lou Pinto, Joe Czeto, Alan Weiner, Phil Hajohn and myself. Other Meroke members provided support as well. We had our lap top computer, projector and screen, and provided "Virtual Flight" for all of those interested. We had the busiest and most popular booth most of the time. Children as well as adults wanted to try their vision and

(continued on page 4)

Flight Techniques

Wing Shapes & Stall Characteristics

How an airplane behaves during a stall depends primarily on its wing planform shape. Let's look at the three typical shapes and their stall characteristics.

Rectangular wing. The stall begins at the wing's inboard area and progresses outward. In this case, the plane descends straight ahead, and the ailerons are still effective. This is the easiest stall to get out of, just relax the elevator, and with enough altitude, the plane resumes normal flight.

Tapered wing. Planes with highly tapered wings stall at the outboard section first. The ailerons therefore become ineffective. If one wing panel stalls slightly before the other, the wing will drop quickly, and a snap roll will result. This is also referred to as a "tip-stall" and can be caused by the wing's incidents being slightly different between each wing panel or a slight application of rudder and/or aileron. To recover, you must "unstall" by relaxing the elevator and pulling out of the resultant dive.

Elliptical wing. Elliptical wing and moderately tapered wings stall evenly across the trailing edge. Although it isn't as docile as the rectangular wing, this design is more forgiving than highly tapered wings.

Trainers typically have rectangular wings for easy stall recovery. Many also have small elevators to reduce the elevator's authority, and that makes it more difficult to stall in the first place. There are also different design techniques for modifying stall characteristics. A common technique is to use washout (wing twist); it puts the wingtips at a smaller AoA than the inboard section to prevent tip-stalls.

You may wonder why all planes aren't designed to be stall resistant or to have gentle stall characteristics. Tapered and elliptical wings have much better high-speed and roll

characteristics, and many aerobatic maneuvers rely on stalls. In a snap roll, you deliberately stall one wing half. The other wing is still lifting, so the plane rolls very quickly. A snap roll is initiated by giving full-up elevator and applying rudder. The up-elevator brings the wing close to the critical AoA, and rudder application makes one wing panel stall.

More Flight Techniques

In-Flight Check for Center of Gravity (CG)

Test-fly your model on a calm day; wind can affect flight reactions and control response. Climb to a safe altitude, and trim the model for straight and level flight at about 1/2 throttle.

Test 1. Throttle back slightly, lower the nose and put the model into a shallow, 30-degree dive. Center the controls, and see what happens. If the model maintains a straight, shallow dive, the plane's CG is very close to where it should be. If the nose rises quickly, the model is nose-heavy. If the model noses downward into a steeper dive, then it's tail-heavy.

Test 2. Roll the model into a 90-degree banked turn, and note what it does. If the nose drops, add tail weight. If the tail drops, add nose weight.

Test 3. Roll the model into sustained inverted flight. If you have to use a lot of down-elevator to hold level flight (more than 10 percent), you must add tail weight. If you have to add up-elevator to hold level inverted flight, you must add nose weight.

Land the model, and adjust the CG appropriately, adding weight in small increments. Check the balance again by performing the same maneuvers.

Congratulations to our Newest Senior Flyer

Kevin Urso

(continued from page 2)

test their reflexes on a simulated airplane, from trainer to jet, from "Warbirds" to helicopters, all in the spirit of good and clean fun. Flyers, circulars and R/C magazines were available for all those who were interested in this hobby, or in visiting our flying field for one of our events.

Some model airplanes on exhibit that were noteworthy was a B-17 4 engine 'Flying Fortress' built by Junior Pacheco from Brooklyn. A Nieuport 17 built by Hank Riehl and a 1/5 scale, 100 inch Douglas Dauntless in bare bones being built by our own Allen Berg.

Other clubs demonstrated indoor flying in the main rotunda with small electric airplanes and helicopters. When the weather turned nicer in the afternoon they flew larger electric airplanes in the parking lot.

All in all, despite the less than expected crowd, the Meroke's had the largest exposure to the visiting public. This can only help in promoting our hobby and particularly our club in the field of model aviation.

Respectfully submitted by Ron Berg

Show and Tell

At the March 5th meeting we had 2 members participate in the Show and Tell.

- Phil Miceli displayed the airplane cradle that he fabricated from the PVC tubing you can find in any Home Depot plumbing department. He also added a cushion that was made from those long floating tubes that are used in pools. It's certainly a low-cost means of building a customized cradle for use at home and at the field.
- Nelson Ramos spoke about his 40-size Nitro Plane ARF that he equipped with an OS 55AX engine and 13/6 prop. Nelson won the \$10.

Tech Tips

How a Perry Carburetor Works

- Fuel enters through a nipple at the rear of the carburetor body.
- From there, it passes directly into a small, cylindrical reservoir that forms an extension of the throttle-barrel housing.
- Extending axially through this chamber is the rotating metering tube and throttle barrel that is surrounded by the stationary sleeve and idle-disc assembly.
- Two O-rings are installed between the barrel housing and the stationary sleeve to seal the fuel chamber against leaks.
- Fuel passes through a cylindrical stainless steel filter (mesh) fitted between the O-rings.
- Through the coinciding crescent and rectangular orifices, fuel passes from the fuel chamber to the spraybar (metering jet) within the venturi.
- The metering screw inside the metering tube extends into the slot from the left side of the carburetor. Turning the metering screw progressively inward reduces the slot's effective length and thereby decreases the amount of fuel added to the available air. The metering screw acts like a conventional needle valve.
- Adjusting the idle mixture requires incremental movements of the idle-mixture disc. For visual reference, three parallel lines are molded into the carburetor housing. Adjustment is very sensitive; rich to lean can be achieved within 1/4 inch, as measured at the disc's circumference.

Congratulations to our New Member

John Raparelli

Product Review: ElectriFly EDGE 540T

With the technology of electric flight still increasing at a rapid pace, "40 size" or 50-inch wingspan electric aircraft have been showing up on the market more frequently. The larger size, stability and relatively light weight make these airplanes ideal candidates for everyday flying. The ElectriFly Edge 540T is one of the newest

airplanes in this category, and after testing it, I think it's one of the best.



This airplane comes as an ARF, all of the hardware is included, along with plenty of high-quality features that help improve the assembly of the model and make it even easier to use. The entire model is covered in MonoKote and the purple, blue and white color scheme really looks fantastic. There are even some upgrade carbon-fiber parts available for purchase to improve the strength and lighten the model. The Edge is a fully 3D aerobatic model and can be flown by anyone with sport plane experience. The quality of the materials is fantastic and the fit and finish of all the parts is perfect. As with all Great Planes products, the instructions are very detailed and there is nothing left out. The recommended RimFire 42-50-800 kV is a drop-in fit and when combined with the RimFire ESC, it is plug-and-play.

IN THE AIR

The ElectriFly Edge 540T works well on short, grassy surfaces, basically anything a .40 size nitro would be comfortable in, the Edge can handle. You can also hand launch the plane if the surfaces do not allow you to take off. Due to the electric torque of the ElectriFly brushless outrunner and four-cell LiPo battery, takeoffs are very quick and immediately provide you with unlimited vertical performance. Since it's a tail dragger, you do need to apply up-elevator, but it handles the ground well.

Landing is predictable and uneventful. With high rates on, you can really slow down into high alpha flight and perform a spot landing.

SPECIFICATIONS

MODEL Edge 540T

MANUFACTURER ElectriFly (www.electrifly.com)

DISTRIBUTOR Great Planes (www.greatplanes.com)

TYPE scale aerobatic

WINGSPAN 49.5 in.

WING AREA 490 in.

WEIGHT 3.33 lb.

WING LOADING 15.29 oz./ft.

RADIO REQ'D 4-5-channel radio w/4 micro servos

POWER REQ'D outrunner brushless motor

PRICE \$170

Don't miss the complete review in the June issue of Model Airplane News!

E/Z Mount Cowl System

The E/Z Mount Cowl System provides an easy method of mounting

your cowl.

It's shock

absorbing

bushings will

also reduce

vibration and protect your painted surface from being marred. The E/Z Mount Cowl System is also adjustable and comes complete with all the hardware needed. There are 6 pieces in each package for a price of \$8.95 and is manufactured by Dubro.



Chicken Wings on Vacation

Chuck and his crew are taking the month off. So Chuck wanted to share one of his favorite stories with you that happened on a flight he was taking to Houston.

A plane is on its way to Houston when a blonde in Economy Class gets up and moves to the First Class section and sits down. The flight attendant watches her do this and asks to see her ticket. She then tells the blonde that she paid for Economy and that she will have to sit in the back. The blonde replies, "I'm blonde, I'm beautiful, I'm going to Houston and I'm staying right here!"



CHUCK THE PILOT

The flight attendant goes into the cockpit and tells the copilot that there is a blonde lady sitting in First Class that belongs in Economy and won't move back to her seat. The copilot goes back to the blonde and tries to explain that because she only paid for Economy she will have to leave and return to her seat.

The blonde replies, "I'm blonde, I'm beautiful, I'm going to Houston and I'm staying right here!" The copilot tells the pilot that he probably should have the police waiting when they land to arrest this blonde woman who won't listen to reason.

The pilot says "You say she's blonde? I'll handle this. I'm married to a blonde. I speak blonde." He goes back to the blonde, whispers in her ear, and she says "Oh, I'm Sorry," and she gets up and moves back to her seat in the Economy section. The flight attendant and copilot are amazed and asked him what he said to make her move without any fuss.

"I told her First Class isn't going to Houston."

April Birthdays

- 11 *Bob Reynolds*
- 13 *Curtis Underdue******
- 18 *Mark Klein*
- 26 *Ted Evangelatos*
- 29 *Frank LaSala*
**Big One*



Tips and Tricks

Piping Hot

Charging leads on a factory charger are very long and sometimes get in the way. This is a way to shorten them up but still be able to lengthen them when needed. Cut a piece of thin wall 3/4-inch PVC pipe and loop the excess leads in the pipe. This will help keep things neat and adjustable.



Newman's Own Dual-purpose Sandbags

Sandbags are very useful when you're building, covering, or painting your plane, or when you're parking that sailplane wing-down and into the wind; just put a couple of sandbags on the low wingtip. Sandbags conform to the shape of a structure, and they don't damage it. Compared with bags of lead shot, they are very inexpensive. Just fill locking freezer bags with the fine play sand that's available at home improvement centers. One bag of sand will fill many freezer bags.



Hop, Skip and Jump No More

Have too much spring in your landing gear? Or perhaps the aluminum gear that came with the plane is too soft? There's a way to take care of that problem. You need a small piece of spring steel, a heavy-duty compression spring, a washer, a blind nut and a cap bolt. Add this extra "leaf"-spring support, and your plane will never again bounce on landing.

