

April 2010

AMA #197

IMAA #687

# Glitch Busters



Next Club Meeting:  
Tuesday  
April 6, 2010  
@  
Newark Senior  
Center  
7:30pm

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*Please keep our flying site  
clean by removing all  
trash and debris when you  
finish flying for the day!*

## The Prez Sez



Spring, at last!

Time to do our spring clean-up. Plan on coming out to help spruce up the place on Sunday, April 18<sup>th</sup>. We have some food to share and plenty of tasks to accomplish. The field needs to be rolled and fertilized, the area needs some general cleaning, and we should get rid of trash that has accumulated. "Many hands make light work" So plan on coming out and get-r-done.

We had a moment of awakening this month when we found that one of our supposed members had been flying for four years without AMA or club membership. When informed of his status he immediately rectified the situation, but it brought home the fact that we haven't been very diligent in checking the credentials of our fellow pilots. To maintain our insurable position, we must verify this. Anyone flying should either have a frequency pin and AMA card with the club sticker on it in the proper slot or display it while flying (2.4 GHz).

In preparation for Warbirds, we've ordered loudspeakers to be placed on the roof of the pavilion and purchased several new shelter tents. The pilot lay-down area will be marked out as a grid, to try for a more organized and accessible route to the flight line.

Arrow replaced the portable toilet after another incident where the interior was soiled.

I placed a padlock on the front gate. The combination is the same as always. Remember to push the hasp in before pulling it out.

**Most important: close and lock the gate when the last person leaves.**

Warbirds tee shirts are available from Tony Albence, at \$15 for most sizes, \$17 for XXL and up. If you would like any other clothing, like a polo or sweatshirt with a logo, contact Tony [t50uc75@comcast.net](mailto:t50uc75@comcast.net) by May 15th. We will have a limited number of sweats for sale on a trial basis.

John



## Delaware R/C Club Meeting Minutes

### General Membership Meeting of the Delaware R/C Club

Tuesday March 2, 2010

- President John Kirchstein called the meeting to order at 7:30PM.
- Guests and New Members:
  - Bob Groeber was our guest.
- Show and Tell:
  - Tony Albence unveiled the new Warbird T-shirts, showing a beautiful P51D, another well done job by Tony.
  - Secretary Stan Michalski displayed and described a new charger he purchased recently and talked about its features.
  - President John Kirchstein showed us some pipette tips that someone had told him about. These according to the gentlemen were great for accurately placing CA and did not plug up. John has some samples that could be taken by anyone to try. Thanks John.
- Treasurer's Report:
  - President John Kirchstein gave the treasury report
  - Old Business:
    - Brian Pasternak tried out a speaker horn which was given to the club at his house. It was determined to be adequate. We need two more to cover the field so Pres John Kirchstein offered \$600.00 to purchase the other two.
    - Tom reported on the WRAM show. He bought a nice looking 9 foot jenny from Maxford products but there was some shipping damage.
- New Business:
  - Lebanon is coming up March the 13<sup>th</sup> it's a great opportunity to pick up some bar gains.
  - President John Kirchstein received a call from the Senior Center Director thanking us for our donation. John thanked her for letting us use the facility.
  - Dick Stewart elaborated on the need to purchase some new tents for Warbirds. He is going to use his tent this year and it would not be available for club use . A discussion was held on purchasing a few additional tents.
  - Andy DiSabatino called to ask if we could help him out by flying model airplanes to chase birds away from their site. Stan Michalski had contacted Andy to discuss the situation with him. Stan has concerns. Dave Moyer also expressed concern as well. It would be good to try and help him out but no one stepped forward due to various Issues that could transpire.

- Safety Report:

Stan talked a little about properly sizing RX batteries and switches so your power system is adequate to support the servo load under flight load conditions. Also, He discussed a failure that occurred with a deans ultra plug that caused the battery to be shorted out. He emphasized not to grab the wires and connectors barehanded or severe burns could be inflicted on your hands and fingers.

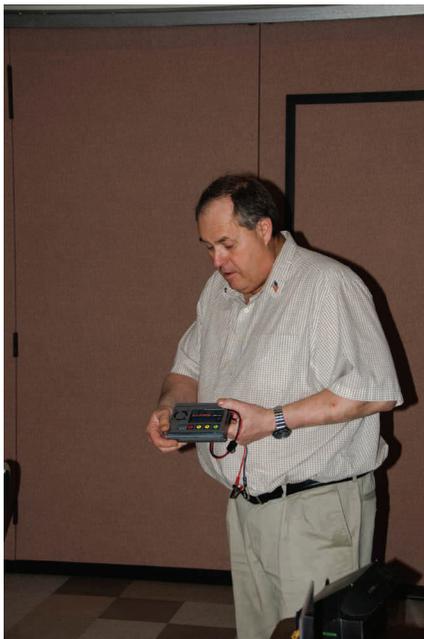
- Meeting was adjourned at 8:42PM.

*Submitted by: Stan Michalski, Secretary*

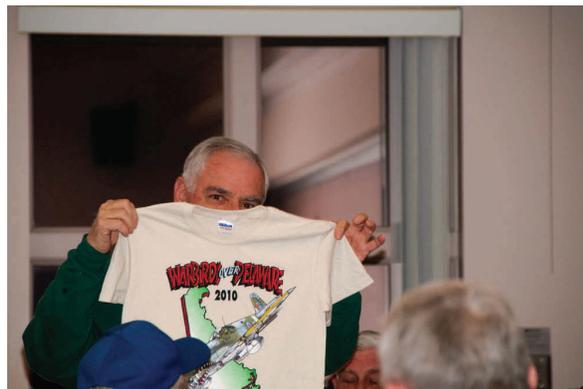


## Show and Tell Gallery

All photos by John Kirchstein



Secretary Stan Michalski demonstrating his new charger.



Tony Albence hiding behind his new War-bird T-shirt design; a P51D.

## 3-D Aerobatics

From the Mid Atlantic Radio Kontrol Society, Snow Hill, Maryland

By Jeremy Chinn

### **Learning to 3-D and 3-D Well: A building blocks approach.**

#### **Part 2 of 5: Getting the Harrier Down.**

If you have followed along with the previous article, you now have a simulator to learn on as well as the right kind of airplane to learn with. This is a point at which many people just begin banging the sticks around and thrashing the airframe around the field. Not only does this not necessarily turn into the safest situation, but it does not often yield success.

To learn to 3-D well, you need to learn with a building-block approach that builds a good foundation of basic 3-D maneuvers and progresses from there. This progression will use much of the basic aerobatic knowledge you have previously learned to control the airplane in all attitudes and situations.

While most people think the core maneuver to flying 3-D is the hover, that is unfortunately incorrect. The most basic and fundamental maneuver for learning 3-D is the Harrier. The Harrier is a part of a majority of 3-D maneuvers and skills learned during training to help build rudder-control skills necessary for more complex maneuvers.

To learn to Harrier correctly, we are going to use another simple maneuver called an elevator. Learning to Harrier this way initially allows this first maneuver to be flown at a higher altitude and with an easy escape route.

Start by climbing to an altitude of “five mistakes high.” Level the airplane at center field with the nose into the wind and cut the throttle to idle. When the airplane has slowed significantly, hold full-up elevator and allow the airplane to fall. If your airplane is set up correctly with an appropriate center of gravity and control throws, it should descend slightly nose down or level. An idle set too high will cause the airplane to descend nose high.

As the airplane descends, use the ailerons to hold the wings level. During the descent, the wings may rock back and forth. Careful correction with the ailerons will help correct this problem with most good designs.

When the airplane has reached an altitude of one mistake high, decrease the pressure on the elevator and increase the throttle to fly out level. You have just completed an Elevator. Congratulations! Continue practicing this maneuver until you are comfortable with the airplane descending in this manner.

Next up, prepare to fly an Elevator just as you did before, however for this round of exercises, you should begin to use the rudder to steer the airplane as it descends. Remember to use the ailerons to keep the wings level during the descent. Try descending while steering the airplane through a gentle circling descent and exit as before. Continue flying this exercise until you are comfortable using the rudder to steer. This exercise may feel odd to many sport pilots who are not used to using the rudder on a regular basis.

In the next phase, we will begin the Elevator just as before and use the rudder and ailerons. As the airplane reaches the midway point of its descent, begin to increase the throttle until the nose rises slightly. The airplane will also move forward more than in previous exer-

cises and its rate of descent will slow. Do this repeatedly until you feel comfortable increasing the throttle and maintaining control of the airplane.

Once you are comfortable descending in this increased throttle state, allow the airplane to descend to one to two mistakes high and increase the throttle more while easing off the elevator backpressure. Your goal now is to find a point of equilibrium where the airplane maintains a nose-up attitude of approximately 30° to 45° while slowing the descent to no altitude change.

When you can complete this last exercise, you have successfully flown a Harrier. You can successfully control the heading of the airplane with the rudder and its attitude and rate of descent with a combination of elevator and throttle control. It's now time to take your efforts to the next level.

Once you feel comfortable finding that balance between elevator back pressure and throttle input, you need to take the next big step.

In the next phase of this exercise, you are going to fly at a very low level. This is a point at which many students get very uncomfortable. They reason that, since they are closer to the ground, they are more likely to hit the ground. That is not an unreasonable thought; however it fails to take all the factors into account.

Learning to fly 3-D, especially learning to Harrier, at a very low level is absolutely the best place to perfect your Harrier. Optimally, you'll fly with your tail one to two feet off the ground.

By learning to Harrier at a low level, you:

- Fly at an altitude and proximity to yourself that allows you to see every movement of the airplane no matter how small, and react to it promptly to keep the airplane flying the way you want it.
- Keep the airplane low so that in the event it does get into an "out-of-shape" attitude, it does not have enough time or altitude to build up momentum that will cause significant crash damage.
- Impress your friends!

Start this phase by flying low, level, straight-line runs down the runway into the wind. Remember to be courteous to your fellow fliers and yield the runway to those who need it. Pilots taking off or landing always have the right of way. If you get uncomfortable with the airplane at this altitude because of a gust of wind or other factor, use the ailerons to level the wings, cut the throttle back somewhat and let the airplane drop to its landing gear.

As you get more and more comfortable flying your Harrier down the runway, begin to add turns into your exercise. Start with circles one direction, then the next. When you feel comfortable flying circles in a Harrier, modify your exercise to include figure-eights over the runway.

These simple exercises are a great way to build, refine, and improve your fundamental 3-D skills.

You now have a great foundation to begin building more 3-D maneuvers into your repertoire, so what is next? Before moving to an entirely different skill, you need to go back to the beginning of this Harrier lesson, but progress through it inverted. A successful inverted Harrier is another important building block of learning to 3-D.

As you move through the inverted version of the Harrier lesson, remember that your rudder and elevator require inputs opposite of those you use in an upright Harrier. Most people

find it extremely helpful to use their simulator at a slower time rate to build this skill before moving to the real world.

Becoming proficient at flying your airplane in a Harrier is one of the most important building blocks or fundamentals of becoming a great 3-D pilot. Don't be afraid to take your time moving through these exercises. Some pilots will progress through the Harrier lesson in a weekend. It may take others a month. You should also not be afraid to break this lesson out again when you have progressed past it.

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### **Part 3 of 5: High Alpha Knife-Edge Flight.**

In the previous articles, you got the right equipment (both virtual and real) and you learned how to fly a Harrier. Then you expanded your 3-D horizons by learning to fly an Inverted Harrier. You are well on your way to building a solid base of fundamental 3-D skill.

Next in line is another fundamental skill that can be built upon later. It is time to learn to do a High Alpha Knife Edge.

If you followed earlier suggestions to build your basic aerobatic skill set, you learned to fly a Knife Edge during that effort. If not, then go back and learn to fly it. Make sure you can fly both left tip down and right tip down, and both orientations with the top and the belly of the airplane toward yourself. This basic aerobatic skill can also be developed quickly using the simulator.

If and when you are comfortable flying regular Knife Edge flight, you are ready for the next step in your 3-D education: High Alpha Knife Edge. This name is really just the common name for flying Knife Edge at a high angle of attack.

To learn this skill, start by flying a regular Knife Edge down the field repeatedly. As you fly, gradually increase the rudder deflection, while balancing that against changes in throttle. Some airplanes require more throttle, some less. All have a point of equilibrium that you must find on your own.

This skill can be learned at any lower altitude, but I've found that having the lower wing-tip at around eye level is the most effective. This altitude gives enough time to roll the airplane back to level in the event of a problem, but is not too high to allow good vision of the airplane.

You may find that the airplane you are flying will require a higher angle of attack in high-angle-of-attack Knife Edge than it did for Harrier flight. This is because the fuselage typically has less area than the wings do, and thus requires a higher angle of attack, more power, or both, to maintain a flat heading. You may also find that you need some aileron correction or elevator correction to keep the airplane on the same heading while in High Alpha Knife Edge. Fly the airplane in this case rather than relying on a mix. I've found that rarely are mixes effective in maintaining High Alpha Knife Edge when compared to regular Knife Edge.

Perform the same exercise in both directions down the field, and both directions with both orientations to yourself. When you feel comfortable in all orientations, begin to make circles with the airplane. Use your elevator to 'steer' the airplane in your intended direction. Practice this skill repeatedly until you feel comfortable in all attitudes and orientations, and turning in all directions.

When you have mastered High Alpha Knife Edge and flying upright and inverted Harriers, you are ready to move on to two more advanced 3-D skills: The Hover/Torque Roll and the Rolling Harrier. Each will be covered in upcoming articles.

# LUMS POND IMAC

June 5 & 6, 2010



**Delaware R/C Club  
Lums Pond State Park  
Bear, Delaware**

All Classes Flown / Freestyle on Saturday  
Pilots Fee: \$35 - \$10 discount for IMAC members  
Pilots Meeting at 9AM / Flying to Start at 9:30  
Field Open for Practice on Friday

Contact: Mark McQuaide - [markmcquaide@verizon.net](mailto:markmcquaide@verizon.net)  
Hotels in Newark, DE at the I-95 - 896 interchange, and in Middletown, DE  
For Add'l Info: [www.mini-iac.com](http://www.mini-iac.com) > Regions > NE > NE News & Events

State Park entrance fee of \$3/day (\$6/day for out-of-state)  
Out-of-state pilots will receive a \$6 discount on pilots fee.



The field is open Friday, although, some contestants may be practicing. The field is closed Saturday and Sunday. All club members are invited to participate in the contest. Anyone looking for coaching in flying the IMAC sequence should contact Mark McQuaide or Jake Ruddy.

## CPAA Flea Market - Lebanon

### The 30th Lebanon Flea Market

Advertised as the “Largest R/C Flea Market in the USA” the Lebanon Fairgrounds was the place to be on March 13th. History has proven this to be true with high attendance and many good buys. Several Delaware R/C members have rental tables here each year.

Despite heavy rain conditions, Tony Albence, Jim Schlapfer, Paul Gustafson & the writer set off from Newark @ 5am in two vehicles (full of goodies to sell) on the 93 mile trip. The rain got heavier as we drove up through PA & we even had to detour once because of high water across the road. One couldn't help but to wonder if the event was going to be successful. A stop above Manhiem for breakfast and off we go for a 7am arrival (for Renters only) ha!, ha!, I'll explain later.

Now the fun starts, our tables are on the back side of the West Wing, a restricted parking area due to the limited area. After a “Don't make me get out of this car” comment, the parking attendant let us go around back. Guess what?, no parking spots near a door. Do you know what its like trying to carry your goodies through rain, wind & mud to get inside? Poor Paul almost went airborne while carrying his giant Stinger wing. Finally, everything is inside & at the tables.

It was very crowded right at the start & difficult to set up. Buyers were at the tables before you could unload the boxes. General admission was scheduled for 9am. Here is the laugh, the object must be to get in somehow before the opening time. We sold more than half our stuff before 9am! Lots of dealing. It was over by noon so we packed up.

General thoughts: attendance was typical (very high), we had lots of multi-purchases, a few tire kickers, many good deals & it was neat to see Delaware R/C members wearing their 2010 “Warbirds over Delaware” shirts. Yes, Lynn Lee & Jason from MPI were there selling servos, extension, switches, etc. Lebanon Flea Market had another very successful event. Be there next year!

*Submitted by: Dick Stewart, Contributor*

[A few members of the Delaware R/C Club were observed participating at the CPAA Flea Market in Lebanon, Pennsylvania on Saturday, March 13th.](#)

Photos and Captions Courtesy of Dick Stewart



Spot the Club Members



John Williamson - “Please take my picture”

## CPAA Flea Market - Lebanon



Mike Donato and Son



Paul Gustafson - "Can we go home yet?"



John Kirchstein - Prez made it



Paul Gustafson - "What's in the box?"



Jim Schlapfer to Tony Albence - "Was President Nixon on a \$100 bill?"



Crash Cup Special

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## Park Passes for 2010 are payable online

The State of Delaware is now providing Park Pass purchases online (there is a \$2 handling fee). You can go to [www.destateparks.com](http://www.destateparks.com) and follow the links.

Park Passes are required from March 1st through November 30th.

## Florida Jets, March 4 – 7, 2010

I had a chance to go to Florida Jets this year... just as a spectator, I didn't want to haul any planes down there on a 10+ hour drive!

The event is held at a local airport in Lakeland, Florida. It started on a Thursday and ended on Sunday. It featured almost every major manufacturer pertaining to turbines and electric powered R/C planes. The set-up was quite good with ample parking, good food, vendors, and of course the unique announcing of Sam Wright.

The event is run by a gentleman named Frank Tiano who is a unique individual. He constantly runs around in a golf cart barking orders to his helpers. Amazingly, the whole thing went off without too many hitches. The weather was much better than here ( no snow) and as it progressed through Sunday the weather just got better.

Here are some of the highlights:

- \* The BVM (Bob Violet Models) tent was HUGE with ALL of his products in one half and Sky-master stuff in the other half.
- \* BVM introduced a new electric jet, the "E Bandit", it flew in spectacular fashion as do all of his jets. It's larger than the BVM Electra but with the same flying qualities and lands nice and slow.
- \* Great Planes introduced a new small EDF (Electric Ducted Fan) jet the "EVADER". I predict it will be popular as it's a very good flyer. *See pictures on page 11.*
- \* Frank Tiano arranged for a Jet A1 fuel truck to make daily stops to fill up anyone's portable fuel containers!
- \* The quality of the planes was quite high, especially the factory ones, but even planes brought by modelers were very good.
- \* On Saturday, they lined-up all of the planes on the runway for a photo shoot, I took some also, they can be viewed here>>> <http://www.youtube.com/watch?v=bIRBZnalamU>
- \* There is a very good thread on R/C Universe about this years event... It's located here>>>[http://www.rcuniverse.com/forum/m\\_9550741/anchors\\_9592099/mpage\\_12/key\\_anchor/tm.htm#9592099](http://www.rcuniverse.com/forum/m_9550741/anchors_9592099/mpage_12/key_anchor/tm.htm#9592099)
- \* The flying was very good, especially when observing some of the pilots such as Ali Machinchy and Thomas Singer among others. These pilots are very smooth and precise, they don't fly around at 'warp speed' but just fly realistically, sometimes, just inches from the runway (inverted and knife edge) and they always nail their landings!
- \* Some pilots exceeded the AMA speed limit of 200 mph, but, on Saturday, Dave Schulman blistered a 265 MPH flyby using a 'C-ARF Ultra Lightning" with a 50+ lb thrust turbine in it that was picked up on a radar prompting Frank Tiano to announce that anyone who did that again would be banned for life from all future Florida Jet events! After that everyone calmed down a bit.
- \* SKSS video was there and they will, of course, produce one of their usually good videos about this event.

*Submitted by: George Haak, Contributor*

## Florida Jets, March 4 – 7, 2010

All photos by George Haak



### Delaware R/C Club Dues for 2010 are payable online

We have setup the website and our membership application so that you may now download the application, fill it out on-screen, mail it to Mark and pay the dues by PayPal.

Presently, you must go to PayPal and send the money to the dues address:

[dues@delawarerc.org](mailto:dues@delawarerc.org)

## Plane of the Month



George Haak's OMP RAVEN, powered by a WREN 44 Turbo Prop

## 15 Minutes of Fame



Lee Tollar with Andy Kane and his 50% Cub - WOD 2009



**Glitch Busters**  
is a monthly publication of the  
Delaware R/C Club:  
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<b>Set Your Course for Upcoming Events</b>	
Tri-County R/C Swap Meet	March 27 @ Hamburg, PA
Toledo Show	April 9 - 11
Joe Nall	May 8 - 15
Armed Forces Warbird Fly-In	May 15 @ Andover, NJ
<a href="#">Lums Pond IMAC Challenge</a>	<a href="#">June 5 - 6</a>
SKSS ESL Thermal Duration	June 12 - 13
SKSS Electric Warbird Fun Fly	July 3
<a href="#">Warbirds Over Delaware</a>	<a href="#">July 7 - 10 (Wed. through Sat.)</a>