The Seminole Flyer



www.seminolerc.com

A chartered member of the Academy of Model Aeronautics AMA Charter #216, 1969-2010



"The Seminole Flyer" is a publication of the Seminole Radio Control Club of Tallahassee, Florida

MARCH 2010

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Letter from the Editor- Stephen Warmath

Well, the pattern continues.

Cold...Rain...Cold...Rain. Seems like the rain always times itself out on the weekends. But, I am confident pleasant spring weather is on the way. Staying inside and at my computer gives me more time to tinker with the newsletter and find some stuff to put in it. One of those things is a short primer on "How to Choose a Brushless Motor" in helping you select the right size electric motor based on the weight and performance envelope desired. It is very helpful for converting nitro size birds to amp-drive. Next is another example of how anything can happen at the field. "Flight Box Fires" is our safety tip for the month. Additionally, Jim Ogorek warns us about ticks while searching for that lost bird in the woods.

Want to enter the fray of "RealFlight G5



Multiplayer" combat? There are a few things I found out about my hardware that you need to check to get the most out of this very cool feature. Jeff Owens sent in a **Flight Report** on the Graupner Kwik Fly III pattern plane. Finally, **HobbyTown** checks in with the latest reviews of some hot products.

Safe and Happy Flying- Steve.

Chief Pilot- Mike Atkinson

Finally, the weather seems to be breaking (again)! This has been a strange weather cycle we've been having, but blue skies and warm weather are just around the corner. Although we've had a little controversy over the first two months, I'm excited about the rest of the year. We've got several events scheduled in March, April, and May, which should bring a lot of focus on the club and our facility.

One of the events I'm really looking forward to is hosting an aviation camp field trip over the summer. We've been contacted by a local museum which has 2 aviation camps over the summer. Frank, at HobbyTown USA, is going to provide them with a loaner flight simulator for practice during the early part of the camp. Later that week, several of the instructors and those who participate in the school air shows will meet with the group at the field for a flight demonstration and training session. Events like the one mentioned above are why your club has been awarded "Gold Leader Club" status by the AMA. Jeff Owens was notified in mid February of the designation. Only a very select few charted clubs are leader clubs, with even fewer reaching the highest level. Thanks must go out to Jeff for putting together the information and submitting it to AMA headquarters. The members will be presented with leader club pins at the next meeting.

We should be able to finalize any changes to the field safety code at the next meeting. I'll be sending out a separate email regarding the meeting agenda early next week to give everyone notice of the meeting agenda.

Don't forget to plan your trip to Perry, Georgia, Friday and Saturday, March 5th and 6th. The club has purchased 6 tables for member usage. Although it is on a first come first served basis, please be courteous if you've got an extra ordinate amount of stuff to sell and someone else needs some table space.

At this time, October 9th and December 4th are the only dates the field will be closed for running events. Put that on your calendar and plan to spend time with family those mornings. Things should be cleared out my mid-afternoon, similar to last year. I'll keep you posted on any additional dates (They are allowed 5 per year).

Finally, the new mower has made it to the field and it is AWESOME!!! Thanks to Mike Kinsey for negotiating such a great deal. He was able to save us an additional \$700 off the original price! It's wide, cuts fast, and the deck drops low enough for even the smaller planes to use the runway.

See you at the meeting,

Michael Atkinson- President, Seminole RC Club

Chief Copilot- Mike Kinsey

Well march is upon us and it is time for the Perry Swap Meet. Make sure you go if you can, it will be worth it. Due to some recent changes, I am once again in charge of field maintenance. Along with Geoff and Gordie, we will take care of the mowing. I'm looking for some volunteers to help us weed eat and mow as the season wears on. We have already hauled off garbage, lumber, and some other misc. items. We did some maintenance on the tables, hauled dirt and put down sod around the shed, stained the fence and did a general clean up. Everyone, please do your part to keep it that way. I would like to thank Tristan, David, Mike, and Dan for their help. The officers picked up the new John Deere mower. It runs great. We mowed some winter weeds. I am restocking the shed with garbage bags, weed eater line, oil, and ant killer so we

should be ready for the season. A reminder to everyone to be courteous to and respectful of others. Remember why we do this hobby; TO HAVE FUN!!

Mike

<u>Club Calendar-</u> The schedule reflects current Club events planned for the year to date. Check monthly for additions and deletions at the meetings and in the newsletter. For regional, sanctioned AMA events, see your AMA magazine or visit the AMA website section "Calendars".

March

- 4- Monthly Meeting- HobbyTown
- 5-6- Perry, Georgia GAMA Model Show http://www.gamarc.com/
- 20- Southwoodstock
- 27- Aerobatic Fly-In

April

- 1- Monthly Meeting- 7:00 Field
- 2- Crawfordville Elementary 12:30 and 1:30- Flight Demo
- 10- HobbyTown Fun Fly
- 20- Shadeville Elementary 1:00, 2:00- Flight Demo
- 30- Medart Elementary 1:00, 2:00- Flight Demo

May

- 6- Monthly Meeting- 7:00 Field
- 11- Riversink Elementary 12:45, 1:435- Flight Demo
- 15- Airfest- Quincy Airport
- 22- Flying for a Cure Fly-In

September

• 25- Club Fly-In

October

- 9- Field Closed for Runners
- 16- Float Fly

November

• 20- Toys for Tots

December

• 4- Field Closed for Runners

Chief Treasurer- Theo Titus

Editor's Note: The Treasurer's report is published for Members only. The public version of the Newsletter does not include account balances.

Numbers:

Petty Cash - **\$0.00**Capital City Checking - **\$0.00**Capital City Savings - **\$0.00**Total Assets - **\$0.00**

Premier Checking - **\$0.00** SunTrust CD - **\$0.00**

Chief Scribe- Geoff Lawrence

The February meeting was called to order at 7:03 pm on Thursday, February 5, 2010. Welcome visitors John Bose, Rick Stanley, Craig Zole, Cliff Nichols, and Michael Bell.

Geoff Lawrence stated the January, 2010 minutes were posted in the current newsletter. Motion to accept the minutes was made, seconded and passed.

Theo Titus read the treasurers report. Motion to accept the treasurer's report was made, seconded and passed.

Old Business:

- Mike Atkinson and Keith Sandell met with County park director Pat Plocek for the latest fence
 updates. Mike described the proposed fence layout and passed around a sketch for review. It was
 decided the Club will hold off on extra fencing at our expense until the County completes their
 fencing.
- Reminder of Perry, Georgia Swap Meet March 5 and 6. The Club has reserved six tables for Club use. Please share.
- Mike Kinsey discussed the proposed event schedule for the year to include Air Fest Quincy on May
 15. See elsewhere in the newsletter for dates.
- Mike Kinsey presented his recommendations for a new mower. A vote was taken and purchase of a new 22hp 48" John Deere was approved. Mike will handle the purchase. Frank Bastos has purchased the old mower.
- No news yet on the FSU Cross Country Track request to wave the requirement for electrical power.
 The outcome of that request will determine our need for solar power.
- Frank Bastos is working with Maclay School for indoor fly-in dates after April. Frank is also exploring other locations.

New Business:

- Safety Officer Jim Ogorek spoke, informing the Club of the appointed Safety Committee and passed around copies of proposed new safety rules. The proposed new rules are based on input from the Safety Committee, other club members, other club's safety rules, and extensive research of AMA and the Canadian and British equivalents of the AMA's safety guidelines. Jim explained the changes and after input from the floor, some proposed changes were modified. However, after much discussion, the Club was unable to reach a consensus on acceptance of the proposed changes and a motion was made to table the issue, seconded, and passed.
- Due to the number of new flyers coming out to the field with electric park flyers, Mike Atkinson proposed the Club implement a park flyer membership category with one dollar monthly dues and AMA Park Pilot membership requirements. Aircraft must meet AMA park flyer definitions, membership is non-voting, and does not count toward the one year requirement to hold elected office. AMA states the Club will still be covered for full liability insurance. Mike will put together a Park Pilot packet for hand out at HobbyTown and the field. A motion was made for a trial run of the program to the end of the fiscal year, seconded, and passed.
- Guest Michael Bell, representing the SouthWoodstock Music and Arts Festival, spoke, graciously thanking the Club for their past participation and inviting us again to fly on March 20th. The festival is a fundraiser for John Paul High School to help provide local kids with a high quality education. Michael said the SRCC flying demos were a very popular attraction at the festival and suggested we set up a table to recruit new members. Geoff Lawrence volunteered to be the Club focal for the event. All qualified Club members are invited to fly, nitro, gas, and electric.

With no more business and no more announcements the motion to adjourn was made at 8:20pm, seconded, and passed.

A SPECIAL THANKS TO FRANK BASTOS AND HOBBYTOWN FOR USE OF THE FACILITIES.

How to Choose a Brushless Motor for an Airplane

How Electric motors provide a clean and reliable power source for models. Selecting a motor is not much different than selecting an engine when you look at the fundamental requirements. The basic principles that make aircraft fly should be used to select a power plant for the performance desired. Power to weight ratio and flight speed envelope make up the aircraft's performance. This translates to thrust to weight ratio and pitch speed. Considering power and propeller choosing an electric motor doesn't have to be a challenge.

The power loading is the first parameter to consider. Power to weight ratio for electric models is generally quoted in watts per pound (W/Lb). This is basically a performance gauge. More power available per pound results better the aircraft performance. Power loading hold true for models all the way up to full scale. Some examples are listed below. 1 Horsepower (HP) = 746 Watts (W)

Airplane	Power (HP)	Weight (Lb)	Power Loading (W/Lb)
Piper Cub	65	1220	40
B-17	4800	65000	55
Pitts Special	260	1626	120
Spitfire IV	1440	5000	215

The chart shows that high performance requires a high power loading. The Cub flies sedately at 40W/Lb and so will a model with this power loading. Follow the chart below for model aircraft.

Performance	Power Loading (W/Lb)
Mild ROG	50
Mild Aerobatics	75
Aggressive Aerobatics	100
3D or High Speed	125-150
Competition	300

There are many aircraft designed for internal combustion or glow engines. We can also approximate the required power based on engine displacement. A survey of available engines resulted in the chart below in terms of watt per cubic inch displacement(W/ci)

Engine Type	Power Output (W/Lb)
Sport 2 or 4 Cycle	1250
BB 2 Cycle	1500
High Perf. 2C/4C	1800
Racing, Ducted Fan	4000

Multiply the displacement of the recommended engine by the W/ci rating to find the amount of power required of the electric motor system. For example; a .40 plain bearing engine will make .40ci x 1250W/ci = 500W of power. Consider that many .40 size trainer models weigh 6Lb, the power loading works out to 83W/Lb.

Once the required power is known we can look at the motor and battery. Look at the motor specifications for power rating. Choosing a motor with a power rating equal to the requirement is safe. Erring on the safe side one would choose a motor capable of slightly more than is required. The motor must be able to handle the required power and the torque to turn a propeller appropriate for the model. A high-speed model will work best with a small prop at high RPM, while a slower model will work better with a larger prop at lower RPM. Power is a product of RPM and torque. For a given amount of power one can have a lot of torque and low RPM, or high RPM and low torque. Getting a lot of both requires more power. RPM and torque is related to the flight speed of the model. Take a look at the specifications of different motors. Find the ones that meet the power requirements. Now look again at the prop size. Choose a motor that uses a prop size suitable for the model. Assume that the smaller props work best with models designed to fly fast. On test flights it is best to try several props in the suggested range which draw an acceptable amount of current to see what works best. A difference of an inch in diameter or a couple inches in pitch can change the way a model flies drastically. If prop size doesn't narrow the selection to one motor consider gearboxes or the simplicity of an outrunner motor direct drive. Also consider the voltage required to see what kind of battery

is needed. The battery must be able to support the current requirement of the motor with the chosen prop. Check the current rating of the battery to make sure it will not be overworked. The ESC must also be sized to handle the voltage and current requirements.

Flight Box Catches Fire

During a flying session at a BMFA affiliated club site, the pilot and his helper noticed a flash or arcing inside the flight box. The starter was immediately disconnected and the 12V battery removed. After this it was noticed that the bottom of the plastic flight box was bubbling the cause of which was not immediately apparent.

After 15 seconds or so, the pilot and his helper tried to remove the flight box from the pit area and as the pilot's helper bent over to pick it up, the flight box exploded in his face, throwing him some 30 feet and causing burns to his face and scalp which required specialist hospital treatment.

The explosion was caused by the ignition of half a gallon of methanol based fuel which was stored inside the plastic flight box together with the 12V battery and associated circuitry.

Unfortunately, the flight box was so badly damaged that inspection did not reveal the detailed cause of the ignition. However, it is highly probable that an electrical fault ignited either spilt fuel, fuel vapor, or probably both causing the plastic flight box to melt and the fuel container to ignite. Unfortunately, methanol burns with a very pale blue flame which is barely discernible in daylight resulting in the pilot and helper being unaware of the seriousness of the situation.

Fortuitously, there was a source of water nearby which was used to cool the burns while waiting for medical assistance.

Fuel fires of this nature are extremely rare but to prevent a re-occurrence we advise the following:

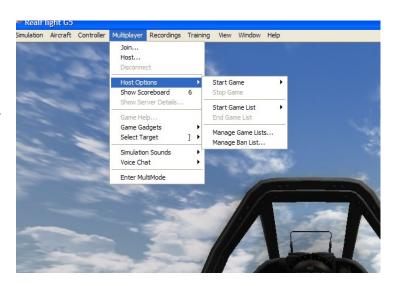
- 1. Fuel containers are stored externally on flight boxes away from potential sources of ignition such as electrical equipment, lighters and matches.
- 2. If you do store your fuel within the flight box, it should be within a separate compartment within the flight box. Drain holes should be incorporated to disperse spilt fuel and the compartment should be well ventilated to disperse fuel vapor. The design of the box should prevent fuel migrating to other compartments within the flight box in the event of a spillage.
- 3. Mop up any spillage immediately and dispose of the mopping up materials in a safe place.
- 4. Do not smoke in the vicinity of fuel.
- 5. If you have or suspect that you have a fire, warn your colleagues and clear the area immediately. Remember, methanol fires are not obvious in daylight so stay well back if in doubt.
- 6. If the fire is small, attempt to extinguish the fire by using an approved extinguisher for fuel fires (foam or powder). If there is any danger of a large fire, i.e. the fuel container itself, do not attempt to extinguish the fire under any circumstances. Always exercise extreme caution and if in any doubt stay well back and contact the emergency services for assistance.
- 7. Do not attempt to move any burning material.
- 8. Ensure you know the first aid treatment for burns and where your nearest water supply is. The first few minutes in the treatment of burns is critical if the injures are to be minimized; the quicker the burn is cooled

the less the damage to the underlying skin tissues. Burns can cause severe shock which will also require treatment.

Remember, avoid putting your fuel container into an enclosed space and never adjacent to potential sources of ignition. Should you have a fire, do not take any risks; your equipment is replaceable but you are not.

RealFlight G5 Multiplayer Steve Warmath

I bought my first flight simulator software a number of years ago. It was pretty basic, but then again, it was compatible with my computer hardware at the time. Later, at the GAMA show in Perry, I found a good buy on an early version of "RealFlight Deluxe". Again, this software was not too complex and within the realm of my hardware resources. I got lots of flight time on this version and was pretty much content with the results. A few years later, I decided to go for the big "fix" and purchase "RealFlight "4.0. Again, everything was good except for the \$200 outlay. Good graphics, good sound and no major computer issues. Only an occasional "pause "in the action was noticed. Then an upgrade to 4.5. So far, so good.



Some minor frame rate issues began to surface but they were tolerable. Then came **G5** with the Multiplayer function. The hardware problems became evident in the **Multiplayer mode**. I'm currently running a Pentium 4, 2 GHZ processor with 2 GB ram. I can tell you that this is not enough for this feature. RealFlight suggests an optimal system of a dual core 2.4 GHZ CPU with 2 GB ram and 3D accelerated video with 512 MD RAM with Pixel Shader 3.0 support. You will have to configure your port settings to make the multiplayer function work properly. I will admit I had to call my computer guru to fix my settings. The real problem surfaced when I entered the combat, multiplayer zone. My computer could not keep up with 7 airplanes in a combat, multiplayer environment with blazing guns and wild aerobatics. The frame rate and processing speed were abysmal and I got shot down before even entering the game. What's really kind of strange is hearing other people "talk" through your computer using their microphones.

I will admit that the new views available are very cool. You can choose between cockpit, chase, and other views. Photo Fields do not give you choice, 3D fields do. Look around to see what's available.

My computer guru is scheduled to upgrade my motherboard to a quad core processor with 2 GB ram. I am also adding a Zotac, GForce 9800GT graphics card that will hopefully result in blistering video speed to solve the frame rate problem. I'll let you know how this turns out. In then meantime, you may want to look at your hardware situation before making an upgrade to G5 if you want to get maximum benefit out of the multiplayer environment. Here's a link for you to check G5 system requirements and see a short demo video of the multiplayer games available. Have fun. Smoke 'um if you got 'um.

http://www.youtube.com/watch?v=8FBB3YU4VOw&fmt=18

System Requirements and recommendations http://www.realflight.com/new/system-regs.html

Flight Report - Graupner Kwik Fly III by Jeff Owens

In a previous column I described some aspects of pattern flying and discussed some of the ARF aircraft which are currently available. Two of these are the Tower Hobbies Kaos 40 and the Graupner Kwik Fly III. The Kwik Fly III was the third in a series of models designed by Phil Kraft, the owner of Kraft Radio back in the 1960-1980 time frame. Phil was the World Champion pattern pilot in 1967 flying a Kwik Fly. He also designed the original Ugly Stik (see https://www.modelaircraft.org/files/Kraft-Phill.pdf). I became interested in the Kwik Fly in a rather unusual manner. The RC club in Prattville, Alabama held an Antique Pattern contest in November 2009. The maneuvers were chosen from those flown in the late 1960s and aircraft from that time period were specified. We were discussing the upcoming contest while flying in the Masters Contest in Atlanta last fall and my wife suggested that we should go to the Antique event. When I replied that I didn't have a suitable plane her response was "Then go get one!" Not being one to refuse a direct order, I started looking for something I could get in the air in a two week time frame (very very fast for me.) This was when I found the Graupner Kwik Fly which is carried by Hobby-Lobby. It was from the correct time period and the Graupner version was reported to be a good performer. I had an OS 55 AX that wasn't being used and this seemed to be the perfect engine, so I purchased the kit (\$230 – Frank says that he can order them.)



My completed Kwik Fly is shown above. It features an inverted engine installation and the OS 55 AX fits very nicely. The model retains the original "barn door" style of inset ailerons – they are very effective. I encountered no surprises in assembling the kit, which is very complete and features high quality hardware. The covering is also better than that of the usual ARF. It is a heavy duty covering material – slightly thicker than Monokote. There were no wrinkles when I examined all the parts and I haven't had to do anything in the way of reshrinking or reworking the covering thus far. The plane was very easy to trim for pattern work and it performs all of the required maneuvers quite well. Any sport pilot would feel quite at home with this design. In addition, the ground handling is quite stable and it lands like it is on rails. As expected, the OS 55 AX is an excellent match and the vertical performance is excellent. Loops, rolls, spins, and more can easily be done as one would expect from a design which won the World Championship in its day. There are several Antique contests on the Senior Pattern Association schedule for this year and now I have an excellent plane for them. By the way, the kit comes set up for retracts (sold separately) and also includes mounting plates for fixed gear – you get to choose.

Several pilots at the Prattville contest were impressed with the performance of the Kwik Fly and decided to order their own. One SPA member, Ken Blackwell, posted some pictures and construction notes at the following web site www.flickr.com/photos/kenfly/sets/72157623175971478/

If you are looking for a different sport plane with a bit of history, I highly recommend the Kwik Fly. It is a great pattern trainer and just fun to fly. You won't be disappointed.

Tick Patrol Jim Ogorek

There is a country western song out about the singer wanting to check his girl friend for "Ticks" after a walk in the moonlight. Since I have not seen any notice of moonlight flying, but have seen a few walks in the weeds for downed aircraft, I recommend that you do just as the song suggests, "Check for ticks". Take a hot shower soon after getting home and throw your flying clothes in the wash. Do a body check to see if you see any of the little boogers. After talking with my Vet and dog groomer about tick population being very high this year, taking these minor precautions should help keep you safe from tick born disease. If you do find a tick, don't just rip it off. You will only leave the head and jaws attached. Use a pair of tweezers to firmly grasp the head and mouth next to the skin and pull the tick off. Swab the area of the bite with alcohol.



HobbyTown Corner by Jim Ogorek

We at HobbyTown are continuing to expand our suppliers to fit the many requests of our customers. In the last month we have added products from **AirBorne Models**, the US supplier of **World Models**. Looking for something different from the foam park fliers, piloting skills have improved, want a different war bird, have a look at the AT-6 Texan, this ARF kit was written up in last months Model Aviation magazine and got great reviews. Coming complete with retracts and motor, a great flier to show of your military flying skills.





How about a Zero with these key features:

Scale park flyer warbird.

All wood construction and covered with pre-painted genuine heat Shrink LighTex covering.

Pre-installed retractable landing gear.

Full house controls.

Pre-painted fiberglass cowling.

High performance KM0283010 outrunner motor and Ultralite pilot included.

We have also added products from **BP Hobbies**.

How about a 15 cc "Gas Engine" from RCGF

Displacement 15 cc / 0.91 c.i.d.

Bore x Stroke 29 x 26 mm / 1.14 x 1.02"

Carburetor Walbro w/ RCGF Valve

Ignition DC-DCI (Electronic)

Power Supply 4.8 - 6.0 V

Weight plus ignition and muffler 825 grams - 29.1 oz

Weight without ignition and muffler 635 grams - 22.7 oz



Maximum Output 2.1 hp / 1.54 kW **Speed Range** 1500 - 15000 rpm

Gas/Oil Mix Ratio 25-40:1 (90 octane) - recommended 30:1

Propeller(s) 15 x 8 @ 8000 rpm / 13 x 8 @ 10000 rpm

Ever have servo extensions come apart? These Servo Extension Clips weigh less than half of a gram so added weight is not an issue! You can use the clips with any standard Futaba/JR/Hitec servo plug.



With our major flying season upon us, remember we have most of your wants and needs in stock. If not, we can order on Monday and in most cases have in by Wednesday or Thursday. Stop in and have a talk with us. See what else is new at your local HobbyTown.

Jim

Spring Fly In and Swap Meet

Sponsored by
HobbyTown USA Tallahassee and Seminole RC
Saturday April 10th, 2010
Seminole RC flying field
Tallahassee, FL

\$10.00 Pilot registration fee Swap for FREE

Field opens at 8:30 for Pilot Registration and swapping set up. Open Flying to begin at 10:00 AM following safety briefing.

Even if you don't fly, come and register for Pilot door prizes. The more registrations, the larger the Grand Pilot prize! Additional raffles and door prizes awarded throughout the day.

Bought it and decided you didn't like it after getting it home? Have a lot of accumulated "Stuff" and want some extra cash? Swap for **FREE**, no table fees, swap from your vehicle, bring your own table or blanket.

AMA membership required for flying - bring your card for verification. Flying will be open style with some possible fun fly events.

Food and Drink available on site

For additional information contact Jim Ogorek or Frank Bastos c/o Hobbytown USA, Tallahassee 850-671-2030 or via email at jimogorek@comcast.net or frank@hobbytowntally.com

For field location visit www.seminolerc.com

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Seminole Radio Control Club Tallahassee, FL

AMA Charter #216, 1969-2010

SRCC Officers

President – Mike Atkinson
Vice President – Mike Kinsey
Secretary – Geoff Lawrence
Newsletter Editor – Stephen Warmath
Treasurer – Theo Titus
Field Marshall – Keith Sandell
Field Safety Officer- Jim Ogorek

Field Hours

Electrics/ Sailplanes- 9:00 am till dusk. Gassers and Nitro- 12 Noon till dusk.

Training Notes

To schedule a training time contact Mike Atkinson.

Flight Instructors

Mike Atkinson- Primary/ Advanced Fight Instructor (Coordinator)	926-4692
Geoff Lawrence- Primary/ Advanced Fight Instructor	942-9807
John Hall- Primary/ Advanced Helicopter Flight Instructor	893-6457
Jeff Owens- Ground School/ Airworthiness Instructor (Fixed Wing)	894-2504
Frank Bastos- Hobby Town Flight Demonstrator	671-2030
Jim Ogorek- Primary/ Advanced Fight Instructor	766-2477

Club Meeting Location and Time

November- March: The regular club meetings are held on the first Thursday of each month at **7:00 PM** at **HobbyTown** on Thomasville Road. The Club offers food and drinks for a small charge at 6:30. **April- October:** The regular club meetings are held on the first Thursday of each month at **7:00 PM** at the Flying Field. The Club offers food and drinks for a small charge at 6:30.

Newsletter Submissions- Submissions are requested to be in M.S. Word format or via e-mail text. Photos should be in .jpg or .tif format. Vector art accepted in Corel, Illustrator and AUTOCAD format. We will, however, accept anything to make it easier for those who wish to contribute. Submissions are due no later than the 28 th of the month. Send your submissions to Stephen Warmath sswarmath@comcast.net

