official digital newsletter of

Skywriter

AMA Charter Club #970

www.skymasters.org

24 year Gold Leader Club

Skymasters Radio Control Club of Michigan

it's another beautiful day at Skymasters...

March, 2017

In this issue

From the President...

Dear Friends,

So, this winter I am feeling rather melancholy. Although I'd never admit it…, I do enjoy my friendships with each and every one of you, really…, and each of you enriches my life… and I kind of miss seeing some of you that I regularly run into at the flying field throughout the warmer months. I, like many of you, have made some very close friends through Skymasters. What a great part of our club.

Looking ahead to next month for a moment, I look forward to seeing all the new stuff at "IN THE BONES" coming up on Thursday *April* 13 at our regular club meeting at the Orion Center. This event, used to be the showcase of all the cool winter **kit build projects**, which, YES, kits are still being built, maybe as much as ever, in my opinion. So, now

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with the advent of ARF's and all the great treasures we find throughout the winter at swaps and so, bring them to this "IN THE BONES" meeting (which maybe we could rename…) and share them with the club and talk about your modifications, specifications, engines, motors, etc. This is always a great club meeting and definite sign of spring!

Our Swap Meet happens next weekend, March 4th at St. George Center in Bloomfield Hills. I look forward to putting this one in the books and sharing the great success of this combined endeavor between our sister club Pontiac Miniature Aircraft Club, PMAC. All of us enjoyed working with the PMAC members and leadership. We are always looking for ways to join our two clubs together and support one another. We've taken special care to ensure our two club calendars do not overlap as much as possible. I want to again, thank the PMAC guys who come over and fly at our Open House and Warbirds and other airshow events. I appreciate their great contributions.

This month after the Swap, we have two club meetings… **Thursday March 9th** come see Dave Shea talk about a very sticky situation… Adhesives & Glues… and he will be serving some soup this night too! Then, on **Thursday March 23**, we will be boxing up all the items you've been gathering over the past several weeks/months for our troops to be sent overseas by Troops Need Love Too.

When we did a packing event in January and Jill told the members gathered that night that this time of year is when the troops most need these care packages and when they are most forgotten, the membership unanimously jumped up and said "ABSOLUTELY…. YES"! we'll do another packing project in March! So, please take some time to check the list of items that can be shipped to our remotely deployed troops overseas, check out what the local organization Troops Need Love Too is all about. Then PLEASE gather all that you can and bring it to the Orion Center and help us fill the boxes.

The everyday items that we toss into those boxes that maybe don't mean too much to you and I, mean the world to those men and women deployed in remote areas of the world without them. This event as are all our meetings are open to the public. Let's help make their day!

Here are links to more information about how you can help Troops Need Love Too...

TNLT Skymasters Packing Event Listing

List of What to donate!

Local News Article About TNLT & Meet Jill

I challenge us to fill 60 Boxes!!!

I've met several of our new members that have recently joined our club and want to warmly welcome them into this great club and some are new or newly returning to this hobby after many years. I know they'll experience the warm welcoming and friendly club I did and continue to experience. I want to encourage them to keep asking questions, and just ask for help as much as you want. Our welcoming committee is still under construction, but, each member is a great source of information and can get you pointed in the right direction. I look forward to meeting all our new members!

Very soon our illustrious INSTRUCTORS under the guidance of our **Chief Flight Instructor** and **Chief Safety Officer** will be gathering to put together a plan to continue to serve well our great Students and carry on the great tradition of Skymasters motto ***"we will teach you to fly"***. They will plan how to handle the Wednesday Students Day at the field and how best to get new Students in touch with Instructors. We have 28 of the best, hardworking **Flight Instructors** that really care about our students and want them to learn and have a good experience while learning to fly safely.

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Front Cover: I saw the future at our most recent indoor flying session… and it was a ***3D printed*** Stearman PT-17! This ***entire*** ~50" wingspan airplane (everything you see except the prop and tires) was 3D printed from a $30 file on a $200 printer. Including the wheel suspension AND SPRINGS. ~80 hours of printing ;) AUW including electronics and battery is 5.25 pounds. I'm very sorry I did not get the name of the pilot/builder… please shoot me an Email at newsletter@skymasters.org and I'll revise this issue to include your info here. (editor)

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We are looking for anyone who is interested in being a club flight instructor. We have 3 classes/levels of instructors and if you are interested PLEASE let myself or Ken Gutelius know, email him at cfi@skymasters.org. **We do need a few more instructors**. Please let us know before you are *voluntold* for the position.

Coming up in April, (jumping ahead to next month again) is the ***Weak Signals Club RC Expo in Toledo.*** This is HUUUUGGGEEEEE… and you don't want to miss it. The Seagate Center is only one hour south of us and there are always plenty of Skymasters heading south all three days. Just ask around if you're looking for a ride or want to start a car-pool etc. Click the box to the right for more information.

The Toledo R/C Model Expo is North America's largest and longest running R/C model expo. This three-day event showcases all types of R/C models including planes, cars, and boats. Along with the exhibitors there are R/C model competitions, speakers, a swap shop and an auction. This event is fun for the whole family.

Click HERE for more information

Over the next several weeks you should be receiving the annual club mailing with a calendar of events and other interesting club related information in it. Please ensure your membership is renewed and that your address is correct in your membership profile. You can check all this and SHOULD do this by logging into the club website. Once logged in then click on "Profile" and then "Skymasters Profile" in the drop down menu and check all your information there. If there is a field that you are unable to update then please send an email to our Membership Director, Phil Saunders at membership@skymasters.org and he can help you fix most things there. If there are further problems or you have issues with the website just shoot our webmaster, Greg Cardillo an email at webmaster@skymasters.org and he can sort it out in no time. Most of the time if you take time and read the instructions that are provided you can take care of updating your own profile. While you're at it add a photo of yourself to your profile so I don't have to add one of you for you.

We've got another 6 weeks of Indoor Flying left so I hope you make it over and get in some flights at Ultimate Soccer Arenas. On Tuesday March 7th Bill Dezur will be bringing a local group of Disabled Vets to the Indoor Flying for the third year. This is a special day for these vets and their helpers, if you are able to be there and bring an aircraft for static display let Bill know. Thanks Bill for all the great work you do for the DAV. Thanks Bob Burns for being our Emcee for the Vets. Skymasters Supports our Veterans!

The Romeo Skyhawks swap meet is Tuesday March 7th at 6:30 p.m. at the Romeo Community Center and the Flint Aces Swap is Sunday March 12, at 9:00 a.m. at Fenton High School. See our website for more information.

I am looking forward to a great, safe, spring and summer for flying. We've got all the great ingredients in place for another spectacular year. I hope you'll be a big part of our clubs ongoing success and maybe step up and help out more and more. If you need anything or have any ideas let me know or any of our club officers. YOU are the reason Skymasters is so great!

It is another beautiful day at Skymasters™

Bob Chapdelaine
President, Skymasters RC

PS I am looking for anyone who has pictures of the camping lot from this year's MWRFF

REMINDER!

If your vehicle license plates are coming up for renewal, don't forget to check the "Recreation Passport option" box on your application. It only costs $11 and in addition to granting vehicle access to the Bald Mountain Recreation Area *and our field*, it also gives you access to 103 state parks and recreation areas, 138 state forest rustic campgrounds, and numerous free family-friendly events, as well as parking for hundreds of miles of trails and fee-based state boat

Full Radio Control Accentor Project

Last month We finished the control line version of the Brodak Accentor that I'll be flying in the Skymasters control line fly-in on June 17th. This month we will be starting a full R/C version of the same airplane as promised.

Why do this? Well.....the kit was cheap, control line designs are very aerobatic, the "look" is quite different from the typical semi-scale aerobats that we see at the field these days.

Doing a control line to R/C conversion is not all that unusual but there are some changes that we must do during the conversion. For example, the wing center section on the control line model is designed for a low wing loading model and our R/C version is going to be heavier. We will strengthen the wing a bit in our conversion.

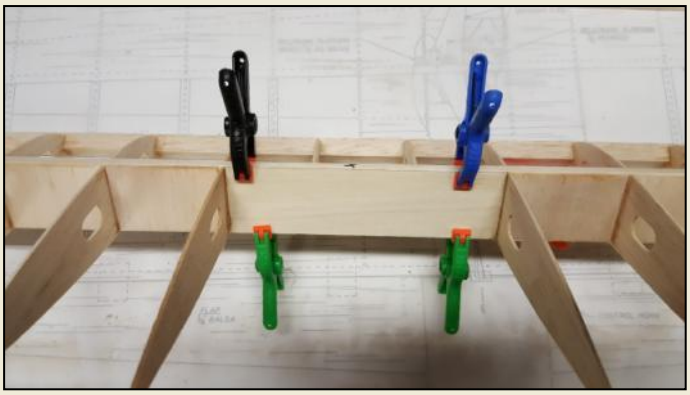
Another change we will make is to increase the fin/rudder size. Control line model vertical stabilizers are typically very small....sometimes missing entirely. Yaw stability is not much of an issue in control line but it definitely is for R/C. We will increase the size to about 10% of the wing area. This is a personal rule of thumb. You can go bigger for better knife-edge flight but it starts looking "wrong".

Also, many control line models are "short coupled" generally meaning the fuselage length is short. They are designed that way to enable very fast response in the pitch direction. Remember that a control line model needs to be able to do sharp corner square maneuvers maybe 25ft on a side at full throttle speeds. That is also why they have large wing flaps coupled to the elevators. We will deal with this when we get to the R/C controls and final setup. Anyway, control line conversions sometimes have their fuselage lengthened to soften the pitch response and improve stability. We will not be doing that here. I've calculated this out for the Accentor and the numbers agree closely with those of the Sig Somethin' Extra and the Sig Fazer so we should be ok here.

I'll be changing the engine mount area to enable a side mounted engine. I did an inverted engine on the control line model like the original. But this R/C version will be using a .40 size gasser. Thats right...a gasser. I'll be using the Russian built NV (formerly Norvel) GX40BB Revlite engine. These engines don't like being started in the inverted position and mounting it upright destroys the sleek look of the model.

I'm not going to repeat everything from the three previous articles. I'll be showing the changes I made in doing the R/C conversion. I encourage you to look at the earlier articles for everything else. So lets get started with the wing.

We will make two structural changes. The first is that we will add a 1/8" lite ply strengthener in the 3 center rib bays. To do this you must cut the center two ribs and remove 1/8" of the material behind the spar to account for the strengthener thickness. The second thing we need to do is add some balsa shear webbing between the ribs behind the spars. The grain must run vertical. It is not necessary to go all the way to the wing tip. I went about 2/3 of the way.



1/8" Lite Ply Center Section Strengthener

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Balsa Shear Webs Added

In my previous build I assembled the entire model before covering it with film. That turned out to be a big PITA. On this build I'm going to cover all of the parts before assembly so it will be like an ARF. To do that the wing must be able to slide through the airfoil shape opening in the fuselage. That means that the little filler pieces at the wing tip cannot be there and the flaps must be lengthened to accommodate their removal. You can of course buy a couple og 1/4x3x36 sheets and make new longer flaps. I'm cheap so I simply glued extensions made from scrap to the end of the kit supplied flaps.

Flap Extensions From 1/4" Scrap

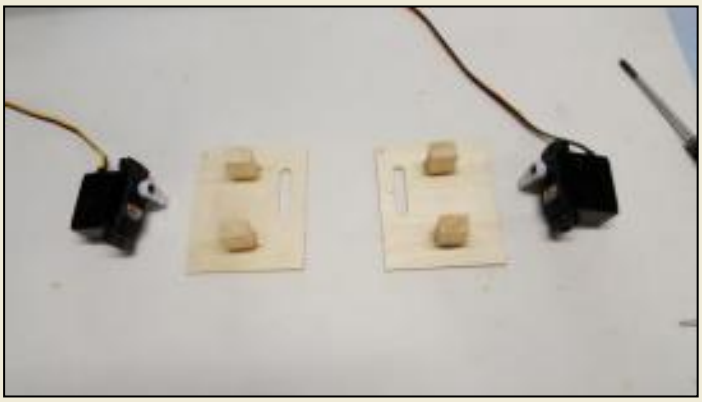
The final wing mod is to add two flaperonivator servo mounts to the under side of the wing. What's a flaperonivator you ask?? It is a combination of flaperons (flap and aileron mix) and flapivators (flap and elevator mix). I've used this combination a couple of times and it works very well. Program a 3 position switch so that:

Position 1 = standard aileron and elevator functionality.

Position 2 = mix elevator and ailerons such that ailerons work normally for roll and are mixed with elevator for "enhanced pitch" control. Flaps move opposite of elevator as in the control line version.

Position 3 = mix landing flap (down) and ailerons. Add some elevator to prevent ballooning if necessary. This isn't all that valuable on this model but mixing up flap to aileron (spoileron) might be useful.

I use a 1/32" plywood plate with hardwood servo mount blocks glued in place. The 1/32" plywood plate is slotted to clear the servo arm.



Servo Mounting Plates

In the wing I glue (2) 1/8 lite ply strips between the ribs and match drill for (4) 4-40 blind nuts and socket head bolts. This gives a nice clean look without a lot of effort.

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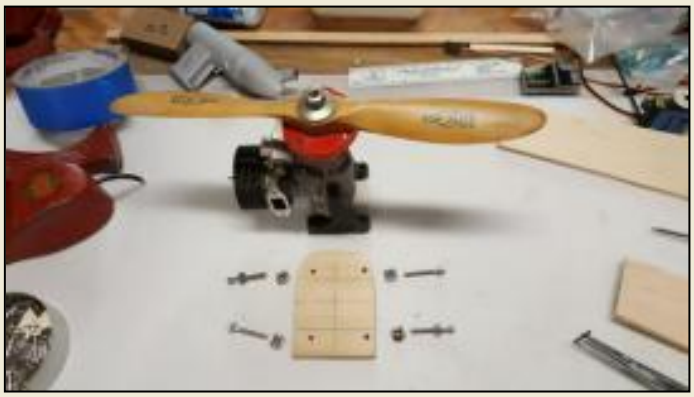
Servo Mounts In The Wing

That's it for the wing mods.

The fuselage gets two mods. First is the side mount engine and the second is a small change to the mounting of the tail feathers to make ARF style assembly a bit easier.

To do the side mount engine we need to make a new F-1 / F-1a bulkhead out of 1/4" birch plywood. The revised F-1 /F-1a does not have notches for the 1/2" maple engine bearers. I drew the center line and lines that represent the width of the engine and the engine center line.Now we need a set of firewall style engine mounts. I had a set in my 20 year box. If you don't have a set take your new firewall to the hobby shop and find a mount that will fit. The nose is a tight fit for the engine so you may have to modify the mount to fit. Drill the firewall for the engine mount and install with blind nuts.



New 1/4" F-1 / F-1a Firewall Drilled

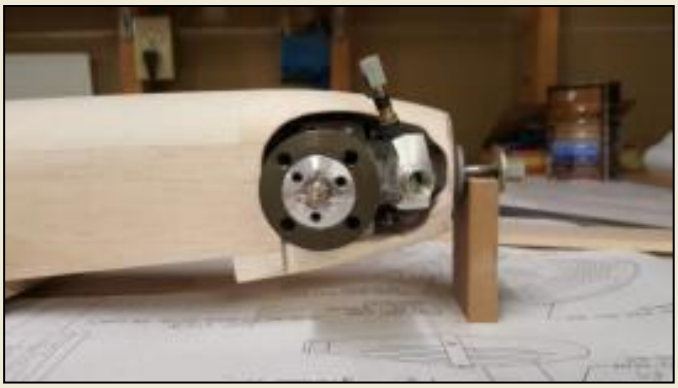
Next I glued the new firewall in position on one of the fuselage sides. This is the point where you must make sure that the spinner back plate will clear the end of the fuselage side. BE CERTAIN that the firewall is perpendicular to the fuselage side and square to the top edge of the fuselage side. This establishes your thrust line which should be 0deg down and 0deg right.

Fire Wall Aligned To Fuselage Side

You must also make a new F-2 to eliminate the notches for the maple beams. Remove the plastic engine mount and finish the construction of the fuselage as we did in the control line build. In this case just tack glue the nose blocks in place and shape to blend to the spinner ring location.

Nose Blocks Ready For Shaping

After shaping the outside, remove the blocks (you tack glued them right?). Re-install the engine mounts. Now, hollow out the blocks to clear the engine mount. Now permanently glue the blocks in place. At this point we need to make an opening on the right side to clear the motor. I sketched the top view of the engine on the fuselage side and drilled a 1" hole there the cylinder will be. I then used a coarse carbide sanding drum on my Dremel tool to enlarge the hole to clear the engine by trial and error. Make sure you have clearance for the muffler and needle valve and adequate cooling.



Engine Opening

I made a small change to how the stab is mounted. I eliminated the 1/4" spacer under the stab so that the filler blocks above it would be larger and create a deeper pocket for installing the fin. I made a 1/4" filler that fits between the fuselage sides below the stab to provide more glue surface when the stab is installed.

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Stab And Fin Mount Modifications

As I mentioned I made the fin and ruder larger. The new area is about 10% of the wing area.

Enlarged Fin And Ruder

Ready For Final Sanding

That's it for this month. Next month we will install the radio gear. plumb the fuel tank and cover/assemble the whole thing. For covering and finishing I'm going to use a material I've not used before. It's inexpensive but it gets excellent reviews. Also I'm going to do a color scheme that will leave you wondering if I've lost my mind. Hope you'll like it.

(hint: 1970's Formula 1)

Steve

Now some practical things at the field

- Always sign in upon arrival – requirement of our lease with state!
- Always wear membership card visible, (especially when flying or in pit area) preferable on shirt or cap – visible so others can see your name etc.
- Don't run up engines for more than 1 or 2 minutes except at test stand or end flight stands.
- Always pull a frequency pin for anything other than 2.4GHz
- Always communicate take offs & landings
- No flying behind the Flight Line
- No solo flying by Students
- Only 5 aircraft in the air at one time – 1 pilot per flight station

Propwash

By

Joe Finkelstine

March 2017

Stability in these trying times

Hi All

Well, I missed last month's column due to life getting in the way combined with general laziness. For the net few columns (whenever I get them done) I think I will focus on topics that are valuable for all of us to know. If you recall my last column, I invited all of you to peek behind the curtains of your ARF and try to figure out what is going on. To that end, I want to talk about something that is appearing in many planes and all multi-rotors to help with dynamic stability – The good old fashioned gyroscope, or Gyro for short.

Originally, gyros made their initial entry into our hobby for the "old fashioned" pod and boom helicopters (the kind I fly) to make tail rotor control possible. They have since multiplied into almost every type of RC flying machine available now, and are key to making multi-rotors so ubiquitous.

If you played with a gyroscope as a kid (many of us did) you may recall that once you got the Gyro spinning (typically with a string) it would spin usually quite fast and its axis of spin would stay in the same direction for quite some time and be somewhat difficult to move. As the Gyro slowed down, the axis of rotation began to wonder (called precession for those of you who must know) until the gyro finally fell over on the table. This ability for a gyro to resist changes in its axis of rotation is key to its use for us RC'ers and for full scale aircraft.

Originally, gyroscopes were mechanical (first ones for RC helis' were also mechanical) but are now solid state. I don't think it is even possible to buy a current gyro (other than toy gyro) that is mechanical for RC.

For the full scale aircraft, there are still many mechanical gyros in place and they are a primary flight instrument. The flight attitude indicator is usually front and center on the pilots IP. With the gyro in the attitude indicator spinning extremely fast (due to it being air driven like a dentist drill) – the axis of the attitude indicator gyro becomes fixed in space as the full scale plane rotates in 3 dimensions around it This difference between the "fixed" axis of the gyro and the attitude of the plane is shown as a bar that shows the nose of the aircraft and tilt of the wings against a background indicating the level ground (I.E. it shows aircraft pitch and roll) – If the plane is flown manually, it is up to the pilot will look at the attitude indicator to see if he/she has to make any adjustments to the controls to move to the desired attitude. If the plane has an autopilot, the orientation indicated by the gyro is sent to the auto-pilot controller to analyze and make adjustments to the flying surfaces independent of pilot input. Modern full scale plane instrument panels have done away with mechanical gyros for the most part (other than FAA mandated backup) and utilize very sensitive semiconductor accelerometers

While I promise to not go into a lecture on the physics (conservation of angular momentum, etc.) of a gyroscope I do want to discuss how they help us out depending on the application. Many modern gyros of today have nothing spinning but instead measure accelerations in quite precise means. These modern Gyros have several advantages – they are very small, very fast to respond to even minimal changes, and are easy to incorporate in a small package allowing several to be combined in a space the size of a penny or smaller. This is why they are everywhere in our hobby now.

For those of you who fly multi-rotors (or perhaps are thinking about it), they all have a controller that has typically 2-3 gyros built in it to work together to provide varying degrees of stability to the Multi-rotor – Each gyro sends a continual signal for one axis to the multi-rotor controller. This collection of signals from the Gyros is then combined in the controller to determine corrective action necessary to maintain the stability the pilot has configured. The amount of correction is usually configurable in many multi-rotors to range from making the multi-rotor stay in one place (needs GPS as well) and be very difficult to maneuver to the other extreme where gyro correction is minimized to allow for aerobatic (or at least as aerobatic as these things can get with fixed pitch props). Fully stabilized (strong and fast correction) is useful for video and for beginners. If the multi-rotor pilot is in the mood to fly around with a trick or two, then the gyro driven correction needs to be minimized

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In the most stable of modes, coupled with GPS, it is possible to buy a multi-rotor at the local gas station, charge it up, and go fly without instruction – The gyro, controller, and GPS unit function together to allow anyone to fly these things right out of the box which is why they are sold everywhere – Gyros are a key enabler for this.

For the newer generation of pod and boom helicopters, there are 3 gyros on these as well, but they do not target fixed hover stability. The flybarless controllers instead target base stabilization because the flybar has been removed from the swash system. Modern flybarless helis still have a tail rotor gyro, but because the mechanical stability provided by the flybar is now gone, they require 2 additional gyros to provide base stability to the swash functions of pitch and roll – While the gyro sensing and signals are essentially the same as in a multi-rotor, they are processed much differently in the controller for corrective actions. A Pod and boom helicopter is flown by attitude.

What this means is if I want to turn 90 degrees (downwind to base for example) when flying, I bank the heli and manually control the tail direction, pitch, and roll myself as the heli flies around the arc. The swash gyros do not fight me to bring the heli back to level, as is often the case with many multi-rotors. The flybarless controller is maintaining the 3 dimensional attitude I set along with the changes I request.

Multi-rotors and Pod and Boom helis fly quite differently in normal usage and it is why to this day, I struggle more with easy to fly multi-rotors. – I can't get one to fly like the helis I have flown for years.

Gyros for RC airplanes are also a somewhat newer phenomenon market wise, although they have actually been available for more than a decade for RC aircraft. When they first came out as stand-alone units, many pattern and contest directors banned their usage saying they were assisting the pilot and giving him/her and unfair advantage. I still believe most IMAC and FAI contests still ban their usage (as should be the case). Most of us are sport pilots however and a gyro in a plane/jet is a mixed bag in my view.

Let me talk about the most common place I see them at our field airplane wise first.

Many ARF's today targeted at beginning pilots come with a 3 axis gyro system available to get the plane into a straight and level attitude at the push of a button ("panic" button). I think this is a good thing particularly if a new pilot has no instruction available to them locally and is trying to teach themselves to fly. If you are trying to learn at the field with me as your instructor, I will almost always ask you to shut the system off. It is not because I think them not valuable, but I believe my students need to be able to fly on their own, so they can "rescue" a plane on their own.

I think it also important to understand that as of today, I have yet to see a 3 axis gyro enabled plane take itself off or land itself. The technology is already available to allow a fully automated plane from takeoff to landing, but for heaven's sake – didn't you take up the hobby to be a pilot and actually fly your plane?

One can also add a standalone 3 axis gyro system to any plane now and have some fun. I had a fellow club member lend me an outstanding 3 axis gyro setup, which I then set up in one of my more aerobatic planes and had some fun switching it on and off (via transmitter switch). I would flip my plane to vertical (the old fashioned way - with my transmitter), quickly turn the gyro on (via a transmitter switch) and it would maintain the vertical orientation while I had to only manage throttle – The gyro system moved my elevators and rudder to keep things vertical. When I got bored, I shut it off and went on my merry way.

For those in the club who fly planes that tend to be a bit squirrelly on the tail control (WWI warbirds, some jets) having a gyro controlling rudder may transform one of these types into a much easier job of flying and make you want to fly it more.

If you watch some of the WW1 bi and tri planes (shameless plug – some see them at the Warbirds and Scale event), a casual observer my note that the tail appears to want to swap places with the nose on takeoff and landings. I think this is a very good application for a gyro and would recommend it be on all the time.

Although I don't think we have many pilots in this club who fly high dollar jets, I do believe that most of these have active gyro systems all the time. When a plane is flying 100+ MPH, having a gyro help the pilot is a very good idea.

Gyros, like the rest of technology, continue to infiltrate our hobby and give us more choices – this is a good thing, but you should still use it to enhance your flying skills, not replace them.

Joe Finkelstine

February Indoor flying

At Ultimate Soccer

Click anywhere in the collage to view the entire photo album on the Skymasters web site

Skymasters Meeting
February 23rd

Click anywhere in the collage to view the entire photo album on the Skymasters web site







Its Membership Renewal Time!

For those of you who haven't done so already, it is time for you to renew your Skymasters membership! It is fast, easy and convenient. You can renew online using PayPal, or credit card. If you prefer, you can print a renewal form and send along with a check to the address below. Visit us at skymasters.org and go to the "Information" tab, followed by "Join or Renew Membership." As previously communicated, we have changed our membership renewal policy from a 'calendar year' membership to a '12 month membership' policy, like the AMA has already done. Our bylaws have been updated to reflect this new policy.

How to Renew your Skymasters Membership

As you have in the past, you have the option of renewing your Skymasters membership online at www.skymasters.org (go to the "information" tab, or click "renew membership" in the upper left corner of the home page) using PayPal or credit card, or you can fill out & send an application (available to print from website or hard copy available from Membership Director) and personal check by mail, to the Membership Director.

Skymasters Membership Fees

We are holding steady with keeping the same membership fee schedule as we have for the past several years. Regular membership fee for members over 19 years of age is $70.00, with an additional $30.00 initiation fee in the first year of membership for new members.

Members up until age 19 are **FREE** and initiation fee is waived. (Note: AMA membership is also FREE up until age 19 with AMA magazine optional)

Skymasters Membership Cards

We are now encouraging Skymasters members to use the new self-service feature of printing their own membership card, through the Skymasters website. To print your own card after renewal, simply go to **Members > Skymasters Member Information > My Membership Card**. Once there, you can view / print your card. For those who would still prefer to have a card sent to them, or simply don't have the capability to print their own, a membership card can still be sent to you. By mid-February, I will determine which members have renewed online and have not printed their own card, and send them one. Also, anyone who renews by mail will automatically be sent a card once your membership has been processed, with mail-out beginning in mid-February.

Welcome Your Friends & Family to our Meetings, Flying Field and Events!

Invite your friends, family members, neighbors, work acquaintances or anyone of any age to our beautiful Bald Mountain State Park flying field, or to the Ultimate Soccer sessions in the winter months to see all types and sizes of radio-controlled model aircraft in action! Also, our bi-monthly meetings at the Orion Center (September- April) are a great way to meet and connect with members, learn new things from a variety of guest speakers, and see many interesting member projects. If you have any questions or problems with renewing your membership, contact me and I will be happy to assist.
Blue Skies,

Phil Saunders
Skymasters Membership Director
1690 Hillcrest Dr.
Rochester Hills, MI. 48306
(248) 459-9663

Help Wanted:

Skymasters RC Club of Lake Orion is looking for people to fill several positions. Some long term some short term. Open positions available are:

Staff Photographer: work with Webmaster and Newsletter Editor to photograph club meetings and events and submit for publication and upload to the club website archive.

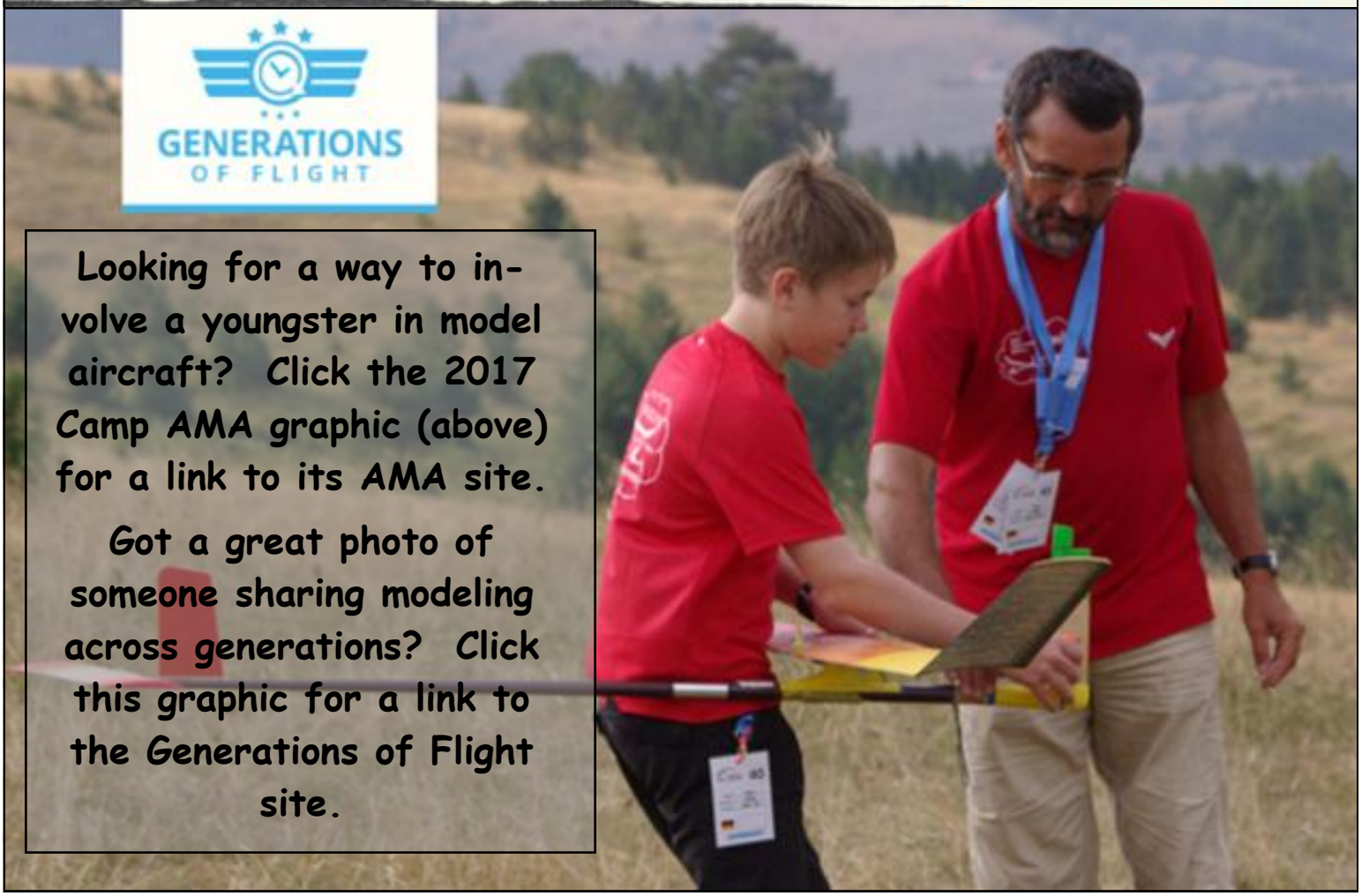
Staff Writer: need individuals who attend the many various Skymasters events, and document the event by writing an article for the club Newsletter the Skywriter. Writers don't need to attend everything and are welcome to contribute by writing some general interest articles also.

PR/Promotions: looking for Skymasters to help on promoting our upcoming summer events in various ways, such as distributing flyers and brochures in Lake Orion and surrounding communities. Looking for a few Skymasters who would sit at a table with a couple of display aircraft and give out brochures etc. (like outside of Kroger in Lake Orion etc.) a few days this summer.

Grill Chef: we are always looking for help to perform one of the most important tasks of our club… keep us well fed. Our Chief Cook, Bill Dezur is on sabbatical for some of our events this year we are looking to fill some key positions for some of our big events. Shift work available and you can eat for free. We will need help at our Sunday May 15 float fly and Wednesday June 15 fish fry as well as many other infrequent opportunities. Your help is appreciated.

Sanitation Engineer: keeping our flying field looking nice involves everyone's hard work constantly picking up around the field. We need someone or several people who will just take it upon themselves to just sweep the cement area under the pavilion as often as possible. Along with this task and also asked of all members is to take home the trash from the trash bins at least once per year. Anyone who is able to do this we are grateful to. Seems like a simple thing except when you show up at the field the morning of an event and both trash cans are over flowing. We need your help to keep the trash flowing! We have several places we can dump the bags of trash, locally, **the problem is transporting them from the field to those dumpsters**. Not all of us have trucks that can easily do this. Please do not try to take the trash home in your car or SUV even if you double bag it because it will leak.

Watch for more Job Postings in the Skywriter



Looking for a way to involve a youngster in model aircraft? Click the 2017 Camp AMA graphic (above) for a link to its AMA site.

Got a great photo of someone sharing modeling across generations? Click this graphic for a link to the Generations of Flight site.

Indoor Electric Flying

Every Tuesday

At Ultimate Soccer Arenas

867 South Blvd., Pontiac MI 48341

Pilots - current AMA required. Visitors Welcomed.

25 - 3hr. Sessions

75 Hours of Fun Flying

Season Pass - $110 for all 25 winter sessions

That's less than $1.50 per hr. Our Best Deal

5 Flying Sessions - Punch Card - $35

That's $7.00 per session

Single Sessions - $10 at the door

On-line registration is open now for Season Pass and Punch Cards !

SKYMASTERS

Would like to thank

For the finest indoor flying venue in Metro Detroit

ULTIMATE SOCCER ARENAS

Two Great Clubs, One Great Event!

PMAC & SKYMASTERS
SKYMASTERS & PMAC

Swap Meet

9:00 a.m. – 1:00 p.m.
Setup begins at 8:00 a.m.

Saturday
March 4, 2017

Design ~ ©George Dzahristos 2016

General Admission: $5.00 | women children active military - free
coffee, donuts, lunch & refreshments available
Handicapped accessable

Reserve Tables Here: www.skymasters.org/register

Vendors & Table Rental email to:
swaptables@skymasters.org OR swaptables@pmac.org
each table includes 1 admission | setup begins at 8:00 a.m.

Tables: $20 main floor | $25.00 outer wall

GREAT NEW LOCATION!

St. George Church / Cultural Center

43816 Woodward Avenue – Bloomfield Hills, MI 48302

WWW.SKYMASTERS.ORG • WWW.PMAC.US

President's MAD

From Flightline & Skymasters

Skymasters Members

2017 Meeting Attendance Drawing

$100.00 Cash Gift Certificate to Flightline Hobby

Drawing May 31, 2017

Earn 1 Entry per Club Meeting Attended and 1 Entry per Show and Tell

Entries must be filled out at each meeting and submitted then. Official Entry Tickets available from President Only. Limit 2 per meeting maximum.

Other ways to earn entries are to submit and have published an article for our club newsletter, volunteer for a club activity or event between now and May 31. Entries may also be given randomly to a member at the President's discretion for performing tasks that directly contribute to club in ways that are positive and edifying.

2017 CLUB EVENTS

SKYMASTERS RC CLUB – LAKE ORION, MI

January 2017

February 2017

March 2017

Saturday March 4 –**Swap Meet**

April 2017

Saturday April 22 —**Involvement Day** – Bald Mountain, Main Park

May 2017

Saturday May 13–**Field Opening/Work Day** – Scripps Road Flying Field; Lake Orion

Sunday May 21—**Spring Float Fly [Chet Brady]** – Bald Mountain Trout Lake; Lake Orion

Wednesday May 31 – **Student Flight Training & Potluck** begins – Scripps Road Flying Field; Lake Orion

June 2017

Wednesday June 14—**Fish Fry Dinner & Member Appreciation** – Scripps Road Flying Field; Lake Orion

Saturday June 24-25—**Electric & Night Fly In** – Scripps Road Flying Field; Lake Orion

July 2017

Saturday July 15 –**Open House** - **[Recreation 101]**– Scripps Road Flying Field; Lake Orion

August 2017

Sunday August 6—**Warbirds and Scale Fly In** - Scripps Road Flying Field; Lake Orion

Sunday August 27—**Corn Roast and Top Gun Flying** - Scripps Road Flying Field; Lake Orion

September 2017

Sat & Sunday September 9-10—**Midwest Regional Float Fly** – Island Lake State Park; Brighton

Saturday September 23—**Skymasters Fun Fly** - Scripps Road Flying Field; Lake Orion

October 2017

Tuesday October 24—Indoor Flying Season Begins – Ultimate Soccer Arenas; Auburn Hills

November 2017

December 2017

Thursday December 7—**Christmas Party** – Orion Center; Lake Orion

Sunday December 31—**Krazy Snow Fly** - Scripps Road Flying Field; Lake Orion

all dates subject to change – PLEASE always consult current information on website: www.skymasters.org

10.7.16 approved | Skymasters - 2017 | EOC Approved

2016-17 Board & Club Meetings

SKYMASTERS RC CLUB – LAKE ORION, MI

October 2016

Thursday October 6 –Board Meeting Orion Center 6:45 p.m. – Multi-purpose Room LL

Thursday October 13 – No Meeting

Thursday October 27 – Club Meeting Orion Center 6:45 p.m. – Room A

November 2016

Thursday November 3 –Board Meeting Orion Center 6:45 p.m. – Multi-purpose Room LL

Thursday November 10 – Club Meeting Orion Center 6:45 p.m. – Room A ***[elections]**

December 2016

Thursday December 1 –Board Meeting Orion Center 6:45 p.m. – Multi-purpose Room LL

Thursday December 8th – Club Meeting Orion Center 6:45 p.m. – **CHRISTMAS PARTY**

January 2017

Thursday January 5 –Board Meeting Orion Center 6:45 p.m. – Multi-purpose Room LL

Thursday January 12 – Club Meeting Orion Center 6:45 p.m. – Room A

Thursday January 26 – Club Meeting Orion Center 6:45 p.m. – Room A

February 2017

Thursday February 2 – Board Meeting Orion Center 6:45 p.m. – Multi-purpose Room LL

Thursday February 9– Club Meeting Orion Center 6:45 p.m. – Room A

Thursday February 23– Club Meeting Orion Center 6:45 p.m. – Room A

March 2017

Thursday March 2 – Board Meeting Orion Center 6:45 p.m. – Multi-purpose Room LL

Thursday March 9– Club Meeting Orion Center 6:45 p.m. – Room A

Thursday March 23– Club Meeting Orion Center 6:45 p.m. – Room A

April 2017

Thursday April 6 – Board Meeting Orion Center 6:45 p.m. – Multi-purpose Room LL

Thursday April 13–Club Meeting Orion Center 6:45 p.m. – Room A

[EOC/Board Meetings = 1st Thursday/Month | Club Meetings = 2nd & 4th Thursdays, typically]

Orion Center 1335 Joslyn Road – Lake Orion, MI 48360

4-21-16 EOC Approved 10-7-16 BOB CHAPDELAINE

ON THE WING

Skymasters Breakfast

(Everyone is welcome)

First and Third Monday of each month

through the summer… and beyond!

9AM

Red Olive restaurant

In the strip mall on Walton

across from Crittenton Hospital

Rochester MI

Skymasters Indoor Flying

We fly every Tuesday

10AM to 1PM (Yes, three hours) at Ultimate Soccer, Opdyke and South Blvd

Pontiac, MI

AMA required

See the Skymasters web site for details

Next Skymasters Meetings:

Thursday, March 9th and 23rd

6:45PM

at the Orion Center, 1335 Joslyn Road

(on the east side of Joslyn, just south of Clarkston Road), Lake Orion, MI

Other local area indoor flying sessions

Premiere Sports Center

14901 23 mile, Shelby Twp, MI

(northwest corner of 23 mile and Hayes)

Every Thursday, 9AM to 3PM

Electric planes and helis (separate heli space)

$10/session, AMA required

Info: Steve Durecki 586-246-4203 (text or voice)

http://www.stevesindoorflying.com/

Legacy Center

9299 Goble Dr.

Brighton, MI 48139

(Off of Winans Lake Road, between Rickett Rd. and M23)

Wednesdays 1PM—3PM November through March

$10/session

Sponsored by the Hamburg Flyers RC club

March 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2 Indoor Flying 9AM—3PM Premier Sports Center Shelby TWP	3	4 Skymasters / PMAC Swap, 9AM St. George Center Bloomfield Hills Saturday Breakfast 8:30AM Iris Cafe
5	6 Skymasters Breakfast 9AM Red Olive, Rochester Hills	7 Indoor Flying *(Honoring disabled American Vets… bring your war-birds)* 10AM-1PM Ultimate Soccer, Pontiac	8	9 Indoor Flying 9AM—3PM Premier Sports Center Shelby TWP Skymasters Meeting 6:45PM Orion Center	10	11 Saturday Breakfast 8:30AM Iris Cafe
12 Flint ACES Swap 9AM Linden MI	13	14 Indoor Flying 10AM-1PM Ultimate Soccer, Pontiac	15	16 Indoor Flying 9AM—3PM Premier Sports Center Shelby TWP	17	18 Saturday Breakfast 8:30AM Iris Cafe
19	20 Skymasters Breakfast 9AM Red Olive, Rochester Hills	21 Indoor Flying 10AM-1PM Ultimate Soccer, Pontiac	22	23 Indoor Flying 9AM—3PM Premier Sports Center Shelby TWP Skymasters Meeting 6:45PM Orion Center	24	25 Saturday Breakfast 8:30AM Iris Cafe
26	27	28 Indoor Flying 10AM-1PM Ultimate Soccer, Pontiac	29	30 Indoor Flying 9AM—3PM Premier Sports Center Shelby TWP	31	

Skymasters Information…

The Skymasters field is located in Lake Orion, within the Bald Mountain Recreational Area on Scripps Road, between M24 and Joslyn (see map). A recreation passport or sticker is required and can be obtained from the Park Headquarters located on Greenshield Road or you can check the box on your tab renewal for a "Recreational Passport".

Flying hours:

QUIET ELECTRICS ONLY from 8AM to 10AM and 8PM to 10PM. The noise limit is 80dBa at ten feet.

Regular flying is permitted between 10 AM to 8 PM. The noise limit is 94 dBa at 10 feet. These noise limits are enforced.

Wednesday evening (through August) is Family Night with flying and a pot luck buffet. Bring something for the grill & a dish to pass.

Wednesday 5PM to 8PM is also Student Night (through August) Meet the instructors and arrange for more instruction time together on other days. Our Chief Flight Instructor is Ken Gutelius, 248-892-2943, cfi@skymasters.org

From June through August, club meetings are held at the field, on the second and fourth Wednesday of the month at 8 PM . A great chance to fly and socialize. **Winter meetings (September through May)** are held at the Orion Center, 1335 Joslyn, in Lake Orion. Check the calendar here or on the web site for specifics. Bring a model for Show and Tell, enjoy coffee and donuts and listen to the speaker of the evening.

The Skywriter newsletter is available online at the Skymasters web site and is free to all. It may also be printed from the web site if desired. All contributions are welcome. Please send photos and articles to **newsletter@skymasters.org** If you know of anyone who may be interested in R/C Aviation, please give them a link to this newsletter or give them a copy of an AMA magazine. It may spark their interest!

2017 Club Officers & Appointees...

President:	Bob Chapdelaine	Oxford	president@skymasters.org
Vice Pres.:	John Billinger	Troy	vicepresident@skymasters.org
Secretary:	Pete Foss	Oxford	secretary@skymasters.org
Membership:	Phil Saunders	Rochester Hills	membership@skymasters.org
Editor:	Paul Goelz	Rochester Hills	newsletter@skymasters.org
Treasurer:	Jim Satawa	Lake Orion	treasurer@skymasters.org
CFI	Ken Gutelius	Lake Orion	cfi@skymasters.org
EOC at large	Jim Satawa	Lake Orion	at.large2@skymasters.org
EOC at large	Jon Grigsby	Ortonville	at.large3@skymasters.org
EOC at large	Paul Goelz	Rochester Hills	at.large1@skymasters.org

Newsletter Submissions

Please send all articles, photos and announcements to the Skywriter editor at:

newsletter@skymasters.org

Deadline is the 20th of each month.

The Skywriter newsletter is published monthly by the Skymasters Radio Control Club of Michigan

www.skymasters.org