



December 2013

# Thunderbolt

Ray Field LAT: 42.5062 N LON: 83.5987 W



## Editor's Note

It's December.....the temperatures are dropping and snow flurries are in the air as is expected for Michigan in late fall. There will be some days for the hearty "all season flyers" to get out to the field. Prez Scott wrote a very good list of suggestions for cold weather flying that was published in the December 2012 Thunderbolt. If you would like to read it, send me an email and I will send you a copy. It's not too early to start thinking about "First Flight of the Year" strategy - bragging rights and the coveted "Hank Wojcik Memorial (?)" trophy are in the offing! You will need a "credible" witness—some in the past have tried to use their dogs—to vouch for your flight and time, a picture would help.

Last December Leon Narozny organized a club get together at a local sports bar for dinner and holiday fun. There were a lot of laughs going around and a good time was had by all - even that white hair bearded guy at the end of the table....no not Santa.....Ralph Hegadorn! That beard was so long I didn't recognize him for a while. Marshall even held a 50 - 50 raffle. Who ever won I remember

that the money was donated to the club. Let's have another - who is in for setting it up?

It's election time - again - for the Ribcrackers at the December meeting. Who will be elected to lead us through 2014? This summer I met one of the original founders of our club and he was delighted to see that the club was still up and running.....50 plus years!

This is my last edition of the Thunderbolt as editor. I need to take a break to recharge my batteries. I was reticent in accepting the task five years ago, in retrospect it was a lot of fun and a terrific learning experience what a great way to learn about our club and it's members. I will be available to help out getting my replacement started.

The December meeting will be held at Nankin Hobby and start sharply at 7:00, the January meeting date will be determined at that meeting. Have a very Merry Christmas and a fun-packed New Years Eve and Day. Don't forget first flight prior to all of the bowl games start. See you at the meeting.

DON



**Club Meeting**

**Monday, December 2, 7:00 pm**

**Nankin Hobbies**

33350 W. 9 Mile, Farmington



# Meeting Minutes for November 4, 2013

Meeting came to order at some point after 7:00pm 11-4-13

Dennis wanted to know if there is some avenue for club members to list items they might have for sale to other club members.

Suggestions were: supplying an email list or simply submitting to editor to be included in the Thunderbolt.

- President - There are still some good days to fly.

Did anyone make it to the Midwest swap meets - Roger said it was a little smaller but still pretty good.

Island Lake update - Dennis will try to contact our parks contact to see if we start the conversation again. Roger suggested that we update our existing presentation. There may be a sense of urgency since it appears that Walbridge is putting that lot back up on the market.

Need a new newsletter editor. Don would like to move on to other things but will make himself available to anyone wishing to take up the task.

With Roger Wilfong retiring, we may be losing our website hosting site. Looking for suggestions.

Don't forget the elections are coming up. Come to the December meeting to volunteer and be voted in. No experience required.

Budget will be sent out for review and will be discussed and hopefully approved during the December meeting.

- Hank wanted to voice his appreciation for the fine job that Matt Jerue did running Student Night this past year. Thank you Matt!

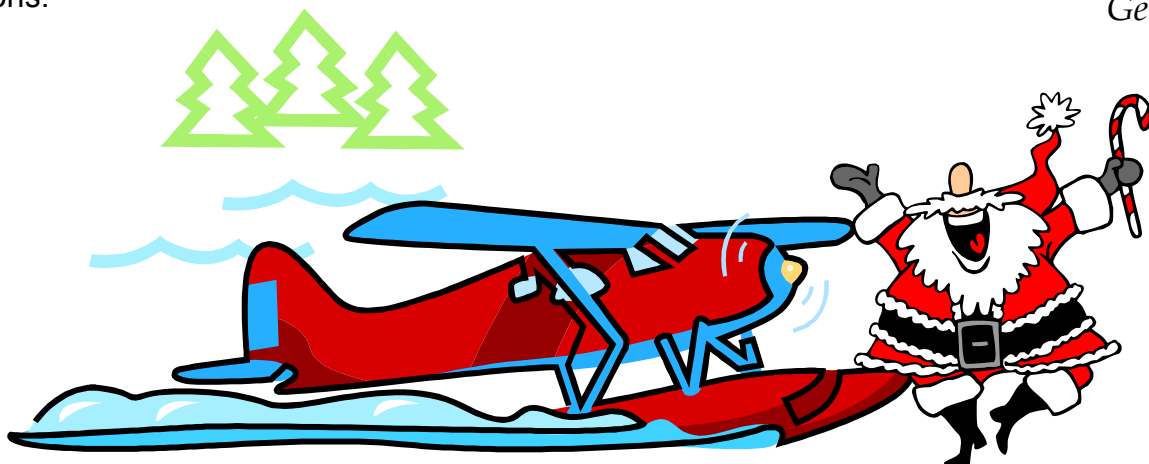
## Raffle

Hobby People Superfly x	Bill Capler
\$50.00 Gift Card	Louis Marcon
\$25.00 Gift Card	Kank Wojck
Blue Ticket	Matt Jerue

- Scott then finished off the evening with a presentation providing an overview of Electric Plane Component Selection.

The meeting was adjourned shortly before 8:00pm so that those members that wished to could still partake in a few additional minutes of shopping before the store closed.

*Gerald Klose*



## Editor's Note:

Ribcracker John Jushkewich has forwarded the following article from a series that he discovered. For those that want to explore the website.....<http://www.geistware.com/rcmodeling/index.htm>. The article "Beginners Guide to R/C Flight is a 22 page article that is very good for flyers new to the hobby.



## 2 Stroke vs 4 Stroke Fuels



The following is the forth in a series of articles exploring all facets of model engine fuel. The writer is Don Nix, founder and former owner of POWERMASTER FUEL.

Well, what do *you* think? Is there really a difference, or is this merely a big hype by the fuel manufacturers to sell more products? Let's see a show of hands.....ah, yes...about evenly divided. Well, let's explore the *facts*.

Fact: Most 4-stroke model fuels contain less oil than comparable 2-stroke fuels.

The most common response to this is, "But 4-stroke engines have more moving parts....they should need *more* oil, not *less!*" Well, that sounds reasonable, but it doesn't stand up under close examination. The number of moving parts has nothing to do with it. What *is* important? Think about it.

Fact: With rare exceptions, 4-stroke engines run at substantially slower rpms than a comparable 2-stroke engine...most in the under-10,000 rpm range vs. 12,000, 13,000 or more for a typical 2-stroke of the same size. They are engineered to deliver maximum power at slower rpms, with bigger props. What does this have to do with it? One of the main factors used in determining the proper oil content of fuel is heat. To use the well-worn term, it doesn't take a rocket scientist to figure out that the more slowly an engine turns, the less heat it generates from friction. If you don't believe that, rub your palms together slowly, then as fast as you can.

So....lower rpms = less heat = less need for oil.

Fact: 4-stroke engines only fire every other stroke, vs. every stroke by a 2-stroke engine. Firing, or combustion, burns fuel, which creates heat. Logically, it may be deduced that if there is fire in the chamber only every other stroke, the engine has time to cool off a bit between combustion cycles.

Let's take that a little further: Using a hypothetical 4-stroke engine turning 10,000 rpm = 5,000 combustion cycles per minute, vs. a hypothetical 2-stroker turning 13,000 rpm...with the same number of combustion cycles per minute...the gap widens. The 2-stroker has *160% more combustion cycles* than the 4-stroker. Even though this is partially offset by the fact that at least some 4-strokers have a higher exhaust gas temperature, the message is clear: 4-strokers remain cooler, and need less oil.

Fact: Oil doesn't burn (or shouldn't) - methanol does. Using a little logic, we arrive at the conclusion that a properly made 4-stroke fuel will deliver better performance than a 2-stroke fuel in the same engine.

Why? Remember...the 4-stroker is only firing every other stroke. This results in the plug element wanting to cool down between strokes, resulting in a "colder" plug. Excess or unnecessary oil, constantly dousing the element, is going to make it more difficult to achieve a slow, smooth idle. Those who contend that, "Well, using too much oil can't hurt anything" are wrong. In addition to causing undue friction in the engine, keeping the metal parts from properly mating, etc., too much oil in 4-stroke fuel is constantly trying to cool a plug element that is already having problems. Sort of like pouring a bucket of cold water on a poor guy who is already shivering.

Again, since oil doesn't burn, it's doing nothing to help us develop power....it simply lubricates and goes right out the exhaust and all over everything. *However*, suppose we *don't* put unnecessary oil in the fuel, and replace it with methanol, which *does* burn. Well, what do you know...greater top end power! Hey, I think we're on to something here! Remove unnecessary oil from 4-stroke fuel, and we get a "twofer" - two benefits for the price of one...a slower, more reliable idle plus greater top end power!

Conclusion: For reasons that should be clear above, a properly blended 4-stroke fuel should deliver better all-around performance in a 4-stroke engine than a regular 2-stroke fuel in the same engine.

While it's not going to actually harm anything to run 2-stroke fuel in a 4-stroke engine, *never, ever* run 4-stroke fuel in a 2-stroke engine. It's not going to have enough oil. Now, for those of you will say that you have done it with no problems, I'll agree.....if you have a real good ear and keep the needle valve "fat" (rich), it will probably work just fine...but the official word is DON'T! It reduces your margin of error unacceptably.

Finally: Because engine manufacturers have been burned in recent years by some fuel makers' attempt to lower the cost of their products by using either too little oil or a cheap grade, most manufacturers today are recommending that you run a 2-stroke fuel only in their 4-stroke engines, or will specify what would seem to be an abnormally high oil content (and it probably is). Who could blame them? Since they know they have no control over the oil used in someone else's fuel, they're just trying to cover their fannies. So would I.

Note: I believe it's commonly known that the manufacturers of YS engines...among the most powerful 4-stroke engines available....mandate that only fuels containing oil contents in the normal 2-stroke range be used. Their engines are unique, and the manufacturer's recommendations should be followed, although, as with anything, there are exceptions.

# UPCOMING LOCAL EVENTS

December 2 – Ribcrackers Club Meeting – Nankin Hobby – Elections

January 6 (?) – Ribcrackers Club Meeting – To be determined at Dec. Meeting

January 18, 2014 – Kalamazoo Thunderbirds Swap Meet – See page 163-Dec MA

## CLUB RAFFLE

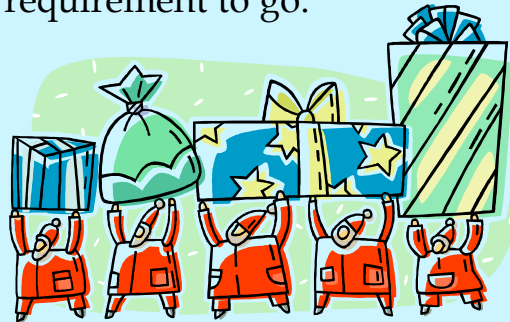
*The following items available for the December meeting raffle.*

1 – Seagull Models replica ARF-Piper Comanche (electric or nitro).  
Requires .61 or .75 2 stroke. \$150.00 requirement to go.

2 – Hobbico heat gun.

3– Rechargeable nitro igniter.

4 – \$23.00 Nankin Hobby Gift Card.



The model is one that I would like to win, if possible, but whomever gets it will be very pleased. Just a note, this is the 5 th ARF that has been in the 2013 club raffle drawings.

Marshall Stern, Raffle Coordinator

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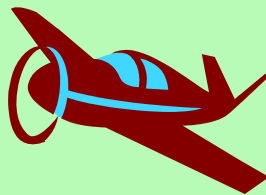
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