

Tail Spin

By: David DeWitt, President

Now is the time to start planning some club activities for the cooler months ahead. We have already discussed having a picnic at the flying field that includes your entire family, girl friend or favorite pet. The club will supply all the food and drinks and the officers will do the cooking while the rest of you fly. If you want to have any fun fly activities during the afternoon at the picnic we can plan something simple like a "timed touch and go" or a "bomb drop" event.

The other suggestion is for the club to have a one day swap meet at the field; we can send out flyers to the other local clubs and sell table space spots to the venders. It's a good way to find a new home for some of your excess R/C stuff or anything else within reason that you may want to sell, and you can find some real bargains.

If anyone has any suggestions please bring it up at the next club meeting.

See you at the flying field.

New Members

Proposed at the July Meeting

- Jeffery Alspaugh
- Ash Bishop
- Alex Isom
- Christopher Isom
- Colin Knowles
- David Raff
- Robert Russ

It never hurts to bend over and pick up a piece of trash laying on the ground, empty the trash cans when they are full or take care of other small task when you are at the field.

"It's our house"

This month I will publish the fourth part of a four part article on model fuel written by Don Nix. Don was the past president and developer of PoserMaster Fuels. He is an expert in the subject, and everyone should find his information interesting and informative.

All about Model Aircraft Fuel Part 4

by Don Nix

2-Stroke vs. 4-Stroke Fuels. Is There Really A Difference?

(The following is the fourth in a series of articles exploring all facets of model engine fuel. The writer is Don Nix, former President of GBG Industries, Inc. Readers are invited to contact Don directly via e-mail - FLYERDON@aol.com.)

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

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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.

Minutes from July 6th, 2006 Club Meeting
Allen Sale, Secretary

Rick Ruede – Standing In for Allen

Meeting was called to order at 7:30 with 13 members present. The minutes from the last meeting and the treasurer's report was approved. The membership reported that we have 78 members with the following

The IRCC monthly club meeting will be held at FTE near the Lakeland Airport. The next meeting will be on Thursday August 3rd, and starts promptly at 7:30pm. Bring a chair - if you want to have a seat.

new members names to listed:

Jeffrey Alspaugh
Ash Bishop
Alex and Christopher Ison
Colin Knowles
David Raff
Robert Russ

The field maintenance report indicated that everything looks good except for the weeds growing through the cracks. They will be taken care of soon.

The instructors reports mentioned that we have several new pilots cut loose over the past few weeks. Dale and Rick will be working on poster to put up at HobbyTown to promote the field and the instructor pilot program.

The news letter is going along.....

George brought in his helicopter with the fuse that he built as a Brantley.

Rick Ruede was given the sportsman award for his work with new pilots.

Meeting was adjourned at 8:10....

From George Nauck

As an army aviator, I had the good fortune of flying some interesting helicopters. While in the active reserve, Uncle Sam allotted me 15 hours of civilian helicopter flight (under government contract) per quarter to keep up my proficiency. At that time, \$55 per hour was the limit under the contract. This resulted in my renting some interesting small helicopters such as the Hughes 269A and the Brantly B2B. R/C helicopters really didn't appeal to me other than the scale model ones which I had no budget for, but Doug Bruns' offer to teach club members to fly with his equipment, and for the mere cost of 2 gallons of glow fuel lured me in.

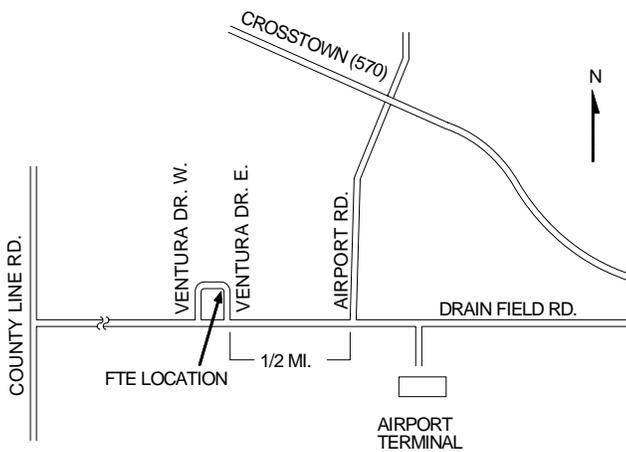


After learning to hover and buying my own Century Hawk .30, I got the bug to attempt to make it look something like something I had flown, and I decided to give the Brantly B2B a try. I literally built the fuselage over the helicopter frame, using only thin balsa sheeting, 3/16 balsa sticks, and a little lite-ply. The fuselage splits right down the centerline for an easy-on, easy-off assembly. I flew it for the first time Sunday, June 25th, and I must say that I am quite pleased with it. It's a shame that Brantlys aren't still being made, as they were really nice machines 40 years ago! Doug Bruns did his best to keep them alive, but apparently his pockets were not deep enough! Thanks for trying, Doug.



Contributions to the IRCC newsletter by club members are always welcome. Hobby related are best, and both humorous and general information about R/C may be used. Please forward your material to the newsletter editor via Email so we can use our member's ideas.

All contributions for the Newsletter should be submitted no later than the 15th of the month.



There is a vacant lot across the street from FTE which is a good place to park. There is another Facility to the west of FTE which has parking. Please **DO NOT PARK ON THE GRASS** at FTE or his neighbors.

August Meeting Agenda

Future Events

Beginning to plan for 2007
What would you like see next year??

Put in your three cents worth

Who's Building What??

Bring your latest creation, and show the other members what you are doing.

If you have a topic for discussion let Dave DeWitt know so he can put it on the agenda

Coming Area Events

Fall Pylon Race "Mulberry 500"

October 7th – 8th

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Florida International Jet Rally

November 2nd – 5th

Lake Wales Airport

www.floridajetflyers.com

IRCC "Heli Spectacular"

November 11th – 12th

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IRCC / IMAA Winter Rally

December 2nd – 3rd

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OUR NEXT MEETING IS: August 3rd

Check out the directions to our meeting place.