



## Tail Spin By: David DeWitt, President

The club did a great job supplying manpower at Top Gun this year, we managed to work at our post and still have a chance to see pilots from several different countries flying some of the best scale model airplanes in the world. The detailed workmanship on these planes is hard to believe unless you see it with your own eyes. A lot of time and patience goes into every one of these scale aircraft. Thanks to everyone who helped out and a special thank you to Wally Sunday for running the club raffle which did better than ever this year.

Congratulations to one of our very own members, Shawn Curry, who flew at Top Gun for the first time and finished in the top five of the Pro-Am Am class with his T-34. He also won the award for the most realistic flight.

Our club members can take a break from events for the summer. Top Gun finished off the month of April and we have no more scheduled club events until the pylon race in October. We do want to have a family day one weekend where the club supplies the food and drinks and we just fly, eat and visit. Let me know if you would like to be on the committee to get this organized.

Rick Ruede is getting some of our pilots registered with the AMA for the Introduction Flight Program. This offers a new student the opportunity to fly his airplane on a buddy box with an instructor and get involved in the R/C airplane hobby without spending a lot of money on a AMA license and dues. This gives them a chance to see if he or she is cut out for the hobby. After sixty days they must join AMA and become a club to continue flying at our field.

See you at the field.

## New Members Proposed at the May Meeting

Mike Bermudez Welbie Houghton Alicia Medici Robert Preske Santos Trabal

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.

<u>All contributions</u> for the Newsletter should be submitted no later than the 15<sup>th</sup> of the month.

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This month I will publish the second 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 2 by Don Nix

## No. 2 - Which Oil is Better - Synthetic or Castor?

Before we get started on the subject heading, I'd like to offer a couple more thoughts on last month's subject, "What's the Oil Content?" - thoughts that have been remembered since writing the original column:

Many modelers who have been involved in the hobby for a long time, including those who've been away for years and recently returned, are very stubbornly remembering when model fuel just about had to contain something in the order of 25% oil - usually all-castor - and have a hard time dealing with the idea that virtually no one runs that much any more in modern engines.

The operative word here, of course, is "modern." The metallurgy in today's engines barely resembles that of a generation ago. The end result, as far as model engines are concerned, is that the engines today simply don't require as much lubricant - not nearly as much. I will be quick to add that those running antique engines in Old Timer events should certainly continue to use the old-time formulas - no doubt about it.

In addition to vastly improved metallurgy, we must remember than manufacturing techniques barely resemble those from years ago, in many ways. Modern CNC machinery has made it possible to routinely and cheaply make 1 or 1 million parts all exactly alike.

Those of you who have come along in later years may

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Courtesy and common sense makes R/C modeling fun for everyone. be shocked to know that up until the advent of this new technology, every piston was hand fitted to every liner. There was no such thing as simply machining 1,000 pistons and 1,000 sleeves, picking one from each batch and having them fit.

The belief in those days that some engines of the same size and make were markedly hotter than others was no doubt true. We've read that in those days, a .29 for example, might vary from as low as an actual .26 to a .32 - some 23% more displacement! More closely controlled tolerances have resulted in the ability to use much different fuels than a generation ago.

The second thought on the subject of total oil content came from reading the operating instructions included with a new imported 4-stroke engine - the DAMO FS 218 twin. It recommends a fuel containing 94% methanol, 5% nitro and 1% Castor Oil! Clearly, this reinforces my point that "there ain't no such thing as a fixed percentage of oil content." Now....on to this month's subject:

Before we depart the subject of oil in model fuel, let's talk about a point that's argued vehemently all over the land -Which kind of oil is better - synthetic or castor?

Each side has its very strong proponents, and each side is right....to a point. "Old-timers" tend to still favor an allcastor fuel, or at least one containing a liberal amount of castor oil. Modelers who have come to the hobby in the last 15 or 20 years have a strong affection to synthetic oils, or at least want their fuel to have mostly synthetics. Let's take a look at both types statistically:

## SYNTHETIC OILS

Strong Points - Weak Points

Good Lubricity (It's "slick") Most tend to cause corrosion if adequate inhibitors aren't added.

Little to no carbon or vanish buildup inside Burns off surfaces at about 100 degrees lower temperatures than castor oil

Leave less oily mess on models Many types and qualities, making it hard to choose the best one

Available in a variety of viscosities Expensive - good ones cost almost twice as much as castor oil, increasing the cost of the fuel.

Totally soluble in nitro methane When used as the sole lubricant, a greater quantity is required, which increases the

#### cost of the fuel.

## CASTOR OIL

#### Strong Points - Weak Points

Great Lubricity Tends to cause carbon and varnish buildup in engine if cheap grade and/or too much is used. Reduces the amount required, resulting in more power and better idle. Messier on model than synthetics

Will tolerate internal temperatures about 100 degrees higher than any synthetic Somewhat sensitive to extremely cold temperatures - mild separation in solution, residue on model becomes almost "buttery" in consistency.

Almost 50% cheaper than good synthetics - reduces cost of fuel. Insoluble in nitromethane. In solutions above 40% -50% nitro, will separate unless some sort of co-solvent is used.

Great natural rust and corrosion inhibitor Generally available in only one viscosity

I'd like to insert here that there is a "Chicken Little....The Sky Is Falling" rumor making the rounds of the Internet these days that the manufacturers of castor oil have recently changed their methods of making the product, and the castor oil we are getting now is either wholly or partially incompatible with methanol.

I have talked at some length with the "Head Techie" of one of the largest castor oil importers in the U.S., and I want to go on record as saying that, according to the best information I can find, This is total B.S. The Head Techie actually laughed out loud when I told him what was going around. He said, "You know, there isn't much we do to the stuff. We press the oil out, filter it, grade it and package it.

As far as I know, nothing has changed." It apparently started with one of the fuel manufacturers. For what reason, I have no idea, unless it's to help them promote their proprietary synthetics. (Incidentally, I have read a response on the 'net from SIG, agreeing with the fact that it's nonsense.)

So, there you have it. "You pays your money and takes your choice." Actually, it's a little better than that, and the obvious answer is - use a combination of the two, in proportions that will come nearest to enjoying the benefits of each, while minimizing the adverse characteristics.

A few years back, the modeling community was in a "synthetic oil frenzy," and the swing was toward all-synthetic fuels. Happily - at least in this writer's opinion, we've seen a very noticeable

# The IRCC monthly club meeting will be held at FTE near the Lakeland Airport. The next meeting will be on Thursday June 1<sup>st</sup> and starts promptly at 7:30pm. Bring a chair - if you want to have a seat.

swing back toward the center, with the majority seeming to prefer a synthetic/castor blend. We think this makes sense, and many years experience proves it.

The most frequent comment I hear from lovers of all-synthetic fuels is, "Brand XX leaves a lot less oil on my model." My response to that is, "Doesn't that bother you? If you don't see much oil on your model after flying, that tells you one of two things - or both:

Either there wasn't enough oil in there in the first place, or the oil is burning off with the methanol. Neither is good. There's no way oil can burn off and properly lubricate at the same time." This is usually met with a puzzled look, then one of the light dawning, having just realized something they never thought of before.

Oil residue in model engines is a natural as barking is to a dog. We have to learn to live with it.

As an aside, not long back a friend sent me a copy of an article published in a European model magazine. In one part, the writer stated, "The Americans are the only ones rich enough and dumb enough to use synthetic oils." Perhaps overstated just a bit, but it has some validity.

There a couple of types of engines that do require an all-castor fuel, or at least one with a considerably higher castor content than most others. One would be the Fox ringed iron piston type, and the other would be the small Cox engines, because of their rather unique ball-and-socket connecting rod-to-piston design.

Pattern flyers traditionally prefer an all-synthetic fuel, for a couple of reasons, I think. One is the fact that pattern flyers practice a lot - hour after hour after hour. That much use, plus the tuned pipe setup that is almost universal with them probably, tends to cause a greater problem with varnish and carbon buildup than in sport types. (At the risk of bombarded, I also think it's largely a state of mind. "Joe Champion uses all-synthetic, so that's what I'm going to use.")

The other area where we have seen all-synthetic fuels gain in popularity in recent years has been with model helicopters, probably for the same reasons. Also, the trend toward 30% nitro fuel for serious competition has led to using a lower viscosity lubricant, and, as shown in the comparison charts above, this necessarily dictates using synthetics.

# Minutes from may 11<sup>th</sup>, 2006 Club Meeting Allen Sale, Secretary

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President Dave DeWitt called the meeting to order at 7:30 pm

The Minutes of the April meeting were approved as mailed.

The Treasurers report was approved as read, and is available upon request.

**Membership** reported that we presently have 70 members including 9 junior members. 5 new members were given their first reading for membership acceptance. Pursuant to Article III, Sec A of the IRCC By-Laws, one new member application was not accepted. A Discussion followed on how the membership process works. By-Laws were read. More discussion followed.

**Field Maintenance**- New bulletin board and new frequency board should be completed by next month. Roof has been

repaired. All members should have name and phone numbers on all equipment so that if it is left at the field, owner can be notified.

**Safety-** Pilots were reminded to fly from behind pilot stands and **north of runway** at all times.

**Instructors Report**- Lots of new plane pilots. All five of Doug's helicopter pilots have soloed.

Newsletter Items need to be sent to John Burdin.

**Past Events**- Top Gun was very a very financially successful event.

**Future Events-** Pylon Race October 6th, 7th & 8th. Helicopter meet Nov 10th, 11th & 12th. IMAA meet Dec 1st, 2nd & 3rd.

#### Old Business - None

**New Business-** AMA has a new Intro pilot program available which allows club members to become "intro pilots". For \$5 per year per intro pilot, intro pilots may take student pilots up on buddy boxes for 60 days, and insurance would be provided by AMA even if the student pilot is not a member of AMA or the club. This would give student pilots 60 days to determine if they want to join. Motion made to allow treasurer to "license up to 10 intro pilots. Motion passed.

Members were urged to keep field clean. Cigarette and cigar butts and trash should be disposed of properly.

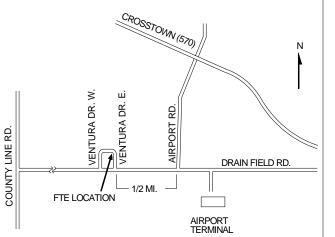
We are increasingly getting younger members and wives of members at the field. Discussion about the language, and decorum of some members when ladies and children are present was followed by a unanimous request that club members make a conscious effort to watch the language when guests are present.

**Sportsmanship** award went to David DeWitt for his work at Top Gun, and Wally Sundey's efforts with the raffle were also discussed. Walley apparently sold more raffle tickets than the Hooters girls, even though the Top Gun crowd was decidedly more male than female. Go figure!

50 / 50 was won by Amaury Rivera.

**Plane of the month** - Doug Bruns showed off his 48" wingspan F-16 powered by an electric ducted fan, and Dale Anderson brought his brushless mini Funtana.

The meeting was adjourned at 8:45pm



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 <u>DO NOT PARK ON THE GRASS</u> at FTE or his neighbors.

# June Meeting Agenda

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 7<sup>th</sup> – 8<sup>th</sup> Rick Ruede, CD 863-682-7210 rruede@tampabay.rr.com www.imperialrcclub.com

Florida International Jet Rally November 2<sup>nd</sup> – 5<sup>th</sup> Lake Wales Airport www.floridajetflyers.com

#### IRCC "Heli Spectatular"

November 11<sup>th</sup> – 12<sup>th</sup> David DeWitt, CD 863-838-4459 benz425@aol.com www.imperialrcclub.com

# IRCC / IMAA Winter Rally December $2^{nd} - 3^{rd}$

December 2<sup>na</sup> – 3<sup>ra</sup> David DeWitt, CD 863-838-4459 benz425@aol.com www.imperialrcclub.com



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Don't forget the stamp

# **OUR NEXT MEETING IS:** June 1<sup>st</sup> Check out the directions to our meeting place.

## From: George Nauck

I had an unexpected opportunity to get my Zenith CH801 STOL model displayed and photographed at the recent TOP GUN 2006!

I was introduced to Carlos Rangel, builder of the all metal CH801 entered in Sportsmanship Class. Carlos had seen pictures of my model on Zenith Aircraft's website, and I had seen his. We were both surprised to meet each other at TOP GUN. Carlos is a professional pilot living in Virginia, and has been building all-metal airplanes for quite a while. Carlos just had to see my model, so I brought it out Saturday morning, and he suggested it set it next to his for some pictures. I jumped at that opportunity, and quite a few people took pictures during the few minutes they were both on display. Carlos once flew a STOL Helio Courier for Wycliffe Bible Translators in Colombia, his birthplace. I look forward to seeing Carlos with his masterfully crafted airplane flying at TOP GUN 2007!



