

The Temple Aero Modeler

The Official Newsletter of the Temple Aero Modelers Radio Controlled Aircraft Club.
March 2002

This month's meeting
will be held
Monday,
March 25th at
7:30pm at the
Ronald McDonald
House Meeting
Room in Temple.

(See map/directions inside)



**Mall Show
March 23rd
and 24th**

Club Info

**First
Beginner's
Night
April 10th**

2002 Officers

President: Frank Sodek Jr.
773-8081
Vice-pres/Sec: Don Mondrik
939-1242
Treasurer: Dennis Torline
899-1331
Safety Officer: Bobby Zikes
773-3773
Field Marshal: John Rovetto
939-5659

Temple Event Schedule

Mar 23-24	Mall Show
Apr 10	1 st Beginner's Night
Apr 21	Spring Picnic/1 st Combat
May 4-5	Pattern Contest
May 19	Combat
Jun 9	Sanctioned Fun Fly
Jun 23	Combat
Jul 7	Combat
Jul 28	Combat
Aug 11	Combat
Aug 25	Combat
Sep 15	Poker Fly In
Sep 29	Fall Picnic/Combat
Oct 6	Fall Fun Fly
Oct 20	Combat
Oct 23	Last Beginner's Night
Nov 10	Combat
Dec 1	Santa Pal/Ronald McDonald Fly In
Dec 9	Christmas Banquet/ Elections

Instructors

B.W. Ponder 778-6182
Frank Sodek Jr. 773-8081
Mark Cullison 773-9686
Bobby Zikes 773-3773
Fred Huber 690-5025



If you need help learning to fly, please contact one of the instructors listed above.

District 8 Events

(This is not a complete list)

Apr 5-7 BCMA Spring Big Bird, Oyster Creek, TX
Apr 6 Fun Fly, Bomber Field, Monaville, TX
Apr 6 Jetero "Cash Classic" Warbird Race, Huffman, TX
Apr 6 NDRCC 4th Annual Warbird Rally, Frisco, TX
Apr 6 Mayhem Over Mesquite(2610 combat), Mesquite, TX
Apr 6-7 Spring Float-Fly 2002, San Antonio, TX
Apr 6-7 HOTMAC Pattern Contest, Waco, TX
Apr 7 6th Anniv. Fly-In, Huffman, TX
Apr 13 Greater Southwest Float-Fly, Arlington, TX
Apr 13 Pop Gun '02 (SMALL event), San Antonio, TX
Apr 13-14 Prop Nuts Annual Flea Market and Fly-In, Crosby, TX
Apr 14 Spring Fun Fly(unsanct), Longview, TX
Apr 20 Open Class "B" RCCA Combat, Frisco, TX
Apr 20-21 4th Annual Any Size War bird, Austin, TX
Apr 27 GSW Small Steps Flt-In, Fort Worth, TX
Apr 27 Donley Gilbreath Fun-Fly, Mt. Pleasant, TX
Apr 27 Central TX Jet Rally & F-15 Gathering, Austin, TX
Apr 27-28 3rd Annual West Texas Stick-Up, San Angelo, TX
Apr 28 Spring Fun Fly(unsanc), Houston

ON THE COVER

This photo of a past Mall Show is a reminder that this year's Mall Show is this weekend! Blow the dust off those planes and bring them out! For more info, check out the President's Report.

Photograph by Mark Cullison

Mark Cullison – Co-Editor (254) 773-9686
Frank Sodek, Jr. – Co-Editor (254) 773-8081

On the web at:
<http://www.Templeaeromodelers.athome.to>
or
<http://pages.prodigy.net/bischulz/aero.html>

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President's Report

by *Frank Sodek*

Well, it's show time – time to show off our models and our club to the public. The Mall Show will be held on March 23rd and 24th. The location will be in the old County Seat store location in the Colonial Mall – Temple (or whatever it's called now), which is a large empty store that will give us lots of room. The best way to get your planes there is to enter through the southwest Mall entrance next to Fuddrucker's and turn left at the JC Penney's court. The store will then be on your left. We will begin setting up at 8am Saturday morning. It's always hectic as we juggle the placement of the models and the tables, but it always seems to turn out nice in the end. Please also bring any *Model Aviation* magazines (or any other modeling magazines you want to get rid of) so that we can hand them out. We will be showing RC-related videos and will have a flight simulator running, plus we will be selling raffle tickets for the ARF trainer kit. Of course the main purpose is to show off our hobby and provide info about the club and our planes. We will be having a "People's Choice" contest so that the spectators can vote for their favorite plane. Plaques will be given to the top three builders who receive the most votes.

Here's the list of folks that signed up at the last meeting. This is the minimum number required to run the show. If you have some free time during the weekend, please come by and help us out!

Saturday, March 23rd

9am-noon: Frank Sodek, Sr., Travis Berry,
Buster Hinkle

12-3pm: Rick Berry, Bill Hamby, Steve Meyer

3-6pm: Mark Cullison, Steve Sanders, Don Mondrik

6-9pm: James McKee, B.W. Ponder, Don Mondrik

Sunday, March 24th

12-3pm: Jerry Beatty, Fred Huber, Monroe Mortimer

3-6pm: James McKee, Dennis Torline, Bobby Zikes

The show ends at 6PM Sunday, so please be there at that time to get your plane and help take down the show. Thanks a bunch for your help!

Fly safely,
Frank Sodek
fsodek@aol.com

Treasurer's Report

Beginning Balance	<u>\$4,293.12</u>
Deposits	
Total Deposits:	120.00
Debits	
Rent – Meeting:	(20.00)
Postage:	(9.86)
Charter & Insurance:	(40.00)
Total Debits:	(69.86)
Balance February 2002	<u>\$4,343.26</u>

Submitted by *Dennis Torline*

Club Treasurer

Secretary's Notes

Frank Sodek Jr., Temple Aero Modelers club President, called the meeting to order at 7:29 pm at the Ronald McDonald House meeting room in Temple. Frank introduced Jerry Beatty, a new member, to the club, welcome to our addiction Jerry!

Secretary Don Mondrik read the minutes from the January meeting and a motion to accept the minutes as read was made by Buster Hinkle and seconded by Fred Huber (not really), John Redwine and James McKee actually beat them to it this time!

Dennis Torline read the Treasurer's Report. Buster Hinkle made a motion to accept the Treasurer's Report and was seconded by Fred Huber, again!

Old Business:

1. Field Maintenance

- a. John Rovetto is working on the mower. John Cast has offered to help build a windbreak on one end of the awning if there was any interest. The members present declared that if it's that windy and cold we probably wouldn't be flying anyway.
- b. Frank Sodek reminded everyone about the upcoming Mall Show March 23rd and 24th at the Colonial Mall, Temple. Frank passed around a sign-up sheet for Mall Show workers. We have a few members that are able to provide signs, a TV/VCR unit and a computer to run a flight simulator. Raffle tickets were handed out along with Model Information Sheets. The sheets will provide visitors with information about the planes on display, contact Frank if you need more or have any questions.

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New Business:

- a. AMA Election Review Committee: Frank Sodek informed the members present that he had received an e-mail from Dr. Sandy Frank, the District VIII V.P., regarding problems with the AMA election process. Frank passed the e-mail around for those interested.
- b. Frank Sodek Jr. informed everyone about a potential problem with Park Flyers being discussed on the District VIII news group. The potential for radio interference is an increasing concern due to the fact that many of the people flying Park Flyers may not be aware of the potential interference to a flying site near them. Everyone agreed there would not be a quick or easy solution to this dilemma.

Comments & Announcements:

- a. B. W. Ponder reminded all the members present about the NSRCA pattern judging school scheduled to be held the first weekend in March in Waco, contact B. W. for more information.
- b. There is a growing interest in getting more tee shirts made.
- c. Frank received a letter inviting our club to utilize a new website aimed at model clubs, RCAIRPORT.COM, Frank will check it out for next month.
- d. Don Mondrik reported on the Seguin swap meet.
- e. James McKee discussed his visit to the Confederate Air Force Museum in Midland, Texas.
- f. James McKee announced that his Grandson, Alex Devine has been appointed the Air Force Academy. Congratulations to you Alex.

Blunder Awards:

1. Fred Huber described how he lost his Ugly Stick when a low snap roll hit a tree.
2. Frank Sodek and Steven Sanders were doing touch and goes until the firewall (that thing that holds the engine and nose wheel) separated from the aircraft.
3. Steve Meyer was flying his Zikes' Postal design but was unable to recover from a spin, the plane finally stopped spinning on the south end of the runway.
4. David Laster was flying his SPAD combat plane and accidentally landed on the runway.

Fred wins again.

Show and Tell

B. W. Ponder brought his new Pattern airplane kit, the HIDEAWAY, designed by Chip Hyde, one of the top RC pilots in Pattern competition. The plane will be a replacement for his current (one year old) Pattern plane, also a Chip Hyde design, the HYDEOUT. The kit included a gel-coated fiberglass fuselage, sheet foam wings and horizontal stabilizer. The kit is very basic because many pattern flyers have their own preferences for completing a pattern plane, read very little instructions, typical for this type of airplane.

Bobby Zikes brought his newly completed Great Planes Giles 202 ARF, a great looking 1/4 scale model. Bobby installed high torque servos and a YS 1.20 four-stroke engine to complete the plane. Bobby was eager to point out that even though all the hard work was done it still took him months to finish. The plane looks great; Bobby did a superb job *just gluing* this plane together! Frank was very quick to tell Bobby that he could not fly the plane until after the Mall Show, just in case!

The meeting was adjourned at 8:47pm

Submitted by *Don Mondrik*

V.P./Secretary

czechtek@aol.com

Safety Report

Enforcing Field Safety Rules. I received an email from Don Mondrik the other day, which was a copy of a letter from the president of an R/C club in New Mexico. I'll have a copy of this letter at the next club meeting, if you haven't seen it yet. The subject of this letter was how the failure to enforce a couple of basic field safety rules resulted in a fairly serious accident. This incident involved a flyer standing right at the edge of the runway while making a flight and resulted in a spectator standing right next to him getting hit in the head by his plane when he was attempting a landing. The spectator was the pilot's own 3-year-old child. This was certainly a preventable accident. If the pilot would have been standing in his typical flight station, and if the child or any other spectator would have not been allowed on the flight line, this accident probably would not have happened. The writer of the letter hoped that other clubs could learn a lesson from the mistakes their club made. The Temple Aero Modelers Safety Rules have all of

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the situations as described in this letter covered, so let's review one more time:

3. Pilots should stand within one of the four flight stations with safety barriers.
5. No spectators are allowed on field side (east) of heavy red stripe on taxiway and its imaginary north-south extensions.
6. Pets must be on a leash. Children shall be supervised at all times.

I think Temple Aero Modelers is a very safety-conscious club. We've gone through a lot of time, labor, and expense to provide four flight stations with safety barriers and a chain link fence to separate spectators from the flight line. If each club member continues to follow and enforce our field procedures and safety rules, Temple Aero Modelers' flying field should continue to be a safe place to fly.

Bobby Zikes
Safety Officer

bzpostal@hotmail.com

Landing

by *Walt Gerfen*

"Flying is the second most thrilling thing known to man—landing is the first!"

"Takeoffs are optional—landings are mandatory."

"Flying is hours of boredom punctuated by moments of pure terror."

These old clichés all have a basis in truth, but landings need not be that intimidating. I have noticed that some pilots land by forcing the airplane down to the runway with down-elevator stick, while the airplane still has too much airspeed. The airplane then bounces one or more times while it continues to fly, before finally slowing down enough to stay on the runway.

The optimum landing is achieved by running out of flying airspeed and touching the runway at the same time. To achieve good landings, the pilot must know his airplane. Each different airplane will have different flight characteristics that relate to the size of the airplane, the airfoil of the wing, the wing loading (i.e. the ounces of weight per square foot of wing area), the geometry of the flying surfaces, location of the center of gravity (CG), etc. Most airplanes are power-trim sensitive—as power is increased, airspeed increase produces more lift. So in order

to maintain level flight, elevator trim must be adjusted for each power setting. Higher power settings require down trim, and conversely lower power settings require up trim. Aerobatic airplanes with symmetrical airfoils and zero incidence settings are less sensitive to speed changes.

When you are done boring holes in the sky and it is time for landing, use a low power setting and enough up-trim to maintain level flight as you enter the landing pattern. The altitude of your downwind leg should be determined by the low speed glide ratio of your aircraft. The flatter the glide, the lower the downwind leg altitude should be.

Reduce power again as you make your base leg turn to start your descent. Be sure that the nose doesn't drop in the turns, as this will cause the speed to increase and your final approach will be too fast and too low at the threshold. As you turn to final, reduce power to idle, keep the airplane level with just enough up-elevator to maintain a slow glide to the runway. When you are several feet above the runway, add a little more up-elevator to keep it off the ground as long as you can. It will then run out of flying speed and touch down at the same time.

To summarize—know your aircraft, learn how slow it will fly without stalling. Practice low speed stalls at altitude to learn what the stall speed is. When it stalls does it fall off on one wing (tip stall), or does it just mush straight ahead and drop the nose until flying speed is regained? Practice gliding with the engine at idle to learn the low speed characteristics and trim required to glide hands off. Set the engine to the lowest maintainable rpm.

Fly a consistent landing pattern. This pattern altitude may vary for each different airplane you fly, but try to keep the rest of the pattern the same.

Practice touch-and-goes holding the airplane off the runway as long as you can. If it won't settle, then you are going too fast. Remember, airspeed is controlled with the elevator trim. You will probably be surprised how slowly your airplane will continue to fly without stalling.

This all sounds simple, but takes a lot of practice to do it right every time. Flying the landing pattern consistently the same way will result in good approaches and good landings. I like to burn a tankfull at each flying session doing dozens of touch-and-goes to keep current on my landings.

from the newsletter of the Skagit R/C Club
Jerry Odell, editor
Burlington WA

FACTS ABOUT FUEL No. 3 - Nitromethane, the Mystery Ingredient?

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

Nitromethane..... everybody knows it's there, but few, it seems, really know much about it. Although most seem to know - at least vaguely - that's its primary purpose is to add power, we still get an occasional call or letter asking, "Why do you use it in model fuel?" At best, there is much misinformation regarding this somewhat exotic ingredient. Let's see what we can do to clear some of it up.

Nitromethane is just one of a family of chemicals called "nitroparaffins." Others are nitroethane and 1-nitropropane and 2-nitropropane. Nitroethane can be used successfully in small quantities. (Top fuel drag racers, which generally run on straight nitromethane, sometimes add a little in hot, humid weather to prevent detonation.) At one time, nitroethane was only about half as expensive as nitromethane, but its cost now is so nearly the same, using it to lower cost is hardly worth the trouble. Neither of the nitropropanes will work in model engine fuel. Incidentally, nitromethane is made of propane, in case you didn't know (and I'll bet you didn't).

Yes, NITRO = POWER! But.... there are conditions and contingencies. First of all, it doesn't add power because it's such a "hot" chemical. Not at all. This may come as a surprise to most readers, but the methanol (methyl alcohol) in the fuel is by far the most flammable ingredient.... nearly twice as flammable as nitromethane. As a matter of fact, if nitro were only 4 degrees less flammable, it wouldn't even have to carry the red diamond "flammable" label!

In actuality, nitromethane must be heated to 96 degrees F. before it will begin to emit enough vapors that they can be ignited by some sort of spark or flame! (I demonstrated this not long ago to a friend by repeatedly putting a flaming match out in a lid full of nitro. I might add that he insisted on standing about 20 feet away during the demonstration.)

So.... how does it add power? We all know (I think) that although we think of the liquid part substance we put in fuel tanks (in our automobiles or model airplanes) as the fuel, in truth, there is another "fuel," without which the liquid part would be useless. Remember what it is? Right.... just plain old air (in reality, the oxygen in the air.)

Every internal combustion engine mixes air and another fuel of some sort.... in our case, a liquid... glow fuel. The purpose of the carburetor is to meter those two ingredients in just the right proportions, and every individual engine has a requirement for a specific proportion of liquid fuel and air. Try to push in too much liquid without enough air, and the engine won't run at all. That's the purpose of the turbocharger on full-size engines.... to cram in a lot more air than a simple carburetor or fuel injection system can handle.

Now.... suppose we were to find a way to run more liquid through our model engines without increasing the air supply? That would add power, wouldn't it? Well, guess what.... we can! An internal combustion engine can burn more than 2 ½ times as much nitromethane to a given volume of air than it can methanol. Voila! More Power! That's how it works, and it ain't all that complicated. Nor do we have to spend a lot of time thinking about it in the course of a normal day's sport flying.

However, there are some factors we do need to consider. As a practical matter, virtually all our everyday sport flying can be done on model fuel containing from 5% to 15% nitromethane. If you're flying something like a trainer or a Cub or similar model, there's probably no reason why 5% won't work perfectly well. Need a little more power? Move up to 10% or 15%. In most of our sport engines today, I really wouldn't recommend going any higher than that. It probably won't hurt anything, but it won't do you much good, either.

We sell more 15% fuel than any other single blend, and for good reason. Most of the popular engines on the market today are built to run on something very near that blend. Typically, European engines will successfully run on lower nitro blends, because they are built to do so. Why? In Europe, nitro can cost \$150 to \$200 a gallon! Reason enough?

Nitro does more than just add power. It also helps achieve a lower, more reliable idle. One good rule of thumb for checking to see if a particular engine needs a higher nitro blend is to start the engine, let it warm up for a few seconds, set throttle to full idle and remove the glow driver. If it drops rpm, move up to a 5% higher nitro blend. If there is no discernible drop, you should be fine right where you are.

One of the most popular misconceptions is that by adding substantial nitro, the user will immediately achieve a huge power jump. Just ain't so. Most will be surprised to learn that in the 5% - 25% nitro range, you will probably only see an rpm increase of about 100 rpm static (sitting on the ground or on a test stand) for each 5% nitro increase. In the air, it will unload and achieve a greater increase, and it will probably idle better, too.

My pet rule is this: If you have a model that's doing well, but just isn't quite "there" power-wise, go up 5% in nitro. If that doesn't do it, you need a bigger engine, not more nitro!

Most of our popular sport engines in use today aren't set up to run on much more than 15% or 20% nitro. Increasing the nitro has the effect of increasing the compression ratio, and each specific engine has an optimum compression level. Exceed it and performance will probably suffer, not gain, and the engine will become much less "user friendly."

High performance racing engines, for example, are tuned entirely differently.... compression ratio, intake and exhaust timing etc.... and are usually intended to run on much higher nitro blends. One exception, of course, are racing engines used in certain international and world competition (FAI). By the rules, these engines are not allowed to use any nitro at all, and they go just as fast as those that run on 60 or 65%! The first question that comes to mind, then, is, "Why aren't all engines designed to run on no nitro, so we can all save a lot of money?" Ask any of the world-class competitors. Those engines are a serious bitch to tune and run, and are definitely not user-friendly! In fact, they are well beyond the skill levels of most average flyers. There's a price to everything.

Another statement we read or hear frequently is that nitromethane is acidic and causes corrosion in engines. It isn't acidic, and the manufacturers say it doesn't happen..... can't happen. However, at least one noted engine expert and magazine writer insists that it does. Flip a coin. (I once asked Dave Shadel, 3-time World Pylon Champion, and a fellow who works on more high performance engines than anyone I know, how frequently he encounters rust in engines that have been using high nitro blends. His answer? "Never.")

Why does nitro cost so much? While I have no clue as to the cost of manufacturing, other than it takes a multi-million dollar investment in a large refinery to produce it, there is one pretty good reason: There is only one manufacturer of nitromethane in the Western Hemisphere. Figure it out for yourself.

Also (and this will come as a big surprise), our hobby industry only consumes about 5% of all the nitromethane produced, and full-size auto racing about another 5% or so. This means we have no "clout" whatsoever, and simply must pay the asking price. Where does the rest of it go? Industry. It's used for a variety of things - a solvent for certain plastics, insecticides, explosives (yes, it was an ingredient in the Oklahoma City bombing) and I'm told it's an ingredient in Tagamet, a well-known prescription ulcer medication (no wonder that stuff is so expensive!). Please note that while nitromethane is an ingredient in making some explosives, under normal use, it in itself, is not explosive. (Remember.... the guy used fertilizer, too.)

Hardly a month passes that someone doesn't call to ask, "I hear more nitro will make my engine run cooler. Is that true?" Nope. The higher the nitro content, the higher the operating temperature. Fortunately, in most of our sport engines, the difference in operating temps between 5% and 10% is negligible, and there are lot of other factors (proper lubrication, etc.), that are much more important.

Finally, remember in the beginning of this, we said that nitro adds power because we can burn more of it than we can methanol, for a given volume of air? This also means that the higher the nitro content of the fuel, the less "mileage" (or flying time) we will get. In a typical .40 size engine using 15% nitro, we can usually get a minute to a minute and a half flying time for every ounce of fuel. The Formula 1 guys are lucky to get 2 minutes out of an 8 oz. tank!

What's the practical side of this? If you go to a higher nitro blend, be sure to open your needle valve a few clicks and reset before you go flying. Otherwise, you'll be too lean, and could hurt your engine. Conversely, if you drop to a lower nitro blend, you'll have to crank 'er in a little.

Next Installment: 2-Stroke vs. 4-Stroke Fuels - Is there really a difference?

MEETING LOCATION



The Meeting Room in the Ronald
McDonald House
Located at 2415 South 47th Street
Temple, TX

MAX BLOSE

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Mark Cullison - Editor
218 Tanglewood Rd.
Temple, Tx. 76502

Mall Show
March 23rd and 24th
First Beginner's Night
April 10th

Name
Address
Citystatezip

"The Temple Aero Modeler Newsletter"

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Mark Cullison
218 Tanglewood Road
Temple, Tx 76502
(254) 773-9686

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