Holly Cloud Hoppers Official Newsletter

Silver Lining

http://cloudhoppers.rcclubs.com *Fall 2004*

Be safe, have fun and don't have too many rules!

From The Editor

By Scott Rhoades

Now that it's November, most of the trees have lost there leaves and temperatures struggle to reach the 50's, we can pretty much say the 2004 flying season is kaput. I did not get to the field very much this year so, unfortunately, I don't have any whimsical reflections on the past season for this newsletter. My lack of flying, however, did create a plus… Every airplane I started the season with is still flyable! Since I added a couple planes and resurrected a couple "oldies but goodies" that means I'll be starting next season with quite the arsenal of aircraft. I know we have some die-hard members that plan on flying right through the bone-chilling, finger numbing cold. Personally, I have one word for that, Forgetaboutit! I gave that a try many moons ago and decided winter was meant for building, in fact, I think it's even written in the bible, "and in the winter, he built model airplanes."

For those choosing not to hibernate from the cold, or if we become blessed with a calm, warm day mid December that draws you out to the field, (Hey, it's possible! This is Michigan) note that there is a temporary change at the field. The Frequency/Impound has been taken down and stored away until the field prep party in the spring. In its place is the old add-a-pin frequency control system, along with a tray, for impounding. A couple years have passed since the old system has been in long-term use and since several members have never been introduced to it I'll briefly explain how it works. First of all, the impounding rules still apply. The variation from our regular system is, instead of removing the appropriate frequency pin and attaching it to your transmitter, a flyer uses an indicator. This is typically a clothespin with his/her name on it, that is clipped to the board at the corresponding frequency, hence the name "add-a-pin".

Genesee Fieldhouse in Grand Blanc will be opening their huge dome to indoor flying this winter, once again! At this time, the only scheduled date is November 20th @ 10:00 pm. Once scheduling of other activates is set, more flying dates will be added. All you need to participate is an electric R/C aircraft and a valid AMA card. Cost will be $15 for flyers and $1 for spectators. You can check for future dates at their web page at www.geneseefieldhouse.com or calling 810-655-2200.

The annual *HCH* meeting is scheduled for February 27, 2005 @ 2:00 pm at the VFW Post 5587 located at 201 Airport St. in Holly. Many things will be discussed including one proposed by-law change (see "Proposed By-law Change and Membership Renewal" page 5). If you wish to have input and a vote on club operations/policies, this will be your only chance all year. As usual, the meeting will include the annual winter project contest. So, if you have anything R/C related that you built over the winter, bring it for the rest of us to ridicule… I mean admire. This will be the last newsletter before the meeting so be sure to note this date now because I'm not going to have a chance to remind you again.

Events for 2004 - 05

- ***Indoor Electric R/C*** **Nov 20**
  Genesee Fieldhouse @ 10:00 pm
- ***Chili Fly-In*** **Jan 1**
  HCH Club Field @ 11:00 am
  ** Remember your 2004 AMA expires Dec 31*
  Be sure to renew in plenty of time for this event
- ***Chesaning Swap meet*** **Feb 13**
  Baker College Owosso, MI 9 am - 3 pm
- ***HCH Annual Meeting*** **Feb 27**
  Holly VFW Post @ 2:00 pm
- ***Toledo R/C Expo 2005*** **April 1,2,3**
  www.toledoshow.com

From the President

By Ed Kincer

As the end of my second term as club president approaches, I look back at the last few years and see a couple of themes. First, time flies. The past has become a blur that seems more like weeks than years. Next, our members are great people and we belong to a great club.

I clearly remember in 1996 driving with my son, Ben, to the Academy field and being met by Ken, Frank, Don and Jeff. The next day I drove to Wayne's Hobby Shop buying an ARF trainer he had hanging, ready to fly. During those first few instructional evenings, I remember another fairly new member always announcing his final approach by yelling, "Landing, I think". I still find myself thinking those same words, but not always voicing them. I'd rather call those missed approaches "low passes".

I want to publicly thank Jeff and Ken once more for their time and patience training Ben and I in R/C flight. They told me that Ben would learn quickly, he did. They also said that I would learn slowly, they were right, I'm still learning. That year, along with Ben and I, other new members included Joe, Bill L., and Wiz. We're all still active except Ben who has moved on to driving boats protecting the Caribbean with the USCG.

What all has happened in those eight years since 1996, four of which I have served as an officer (2 as VP plus 2 as president)? First of all, we moved our flying site to Mackey Rd because of encroachment at our Academy field where you can now see houses being built on the original runway. I've been fortunate to travel the world as part of my job during the last few years and have visited RC clubs in England, Sweden, Puerto Rico, Canada and Australia. In every case, the primary concern of each club is the longevity of their field as a RC site. The Aussie club I visited has moved eight times in their twelve-year history. Now they are so far in the bush they must close the gate behind them to keep free ranging sheep from eating their runway. Although we are not immune from losing our site, our new five year agreement with the DNR along with our great relationship with the DNR makes us that much more stable. We all need to continue to work towards being great citizens at the field to help protect our site. Another observation after seeing all those different far-away clubs, I've learned that our Holly club is second to none.

What about our club events? When I joined the Cloud Hoppers, we held one business meeting and one fly-in "open house" annually, two total events. We still have our one business meeting each year, which has become somewhat famous in our area. I truly believe that having only one meeting to elect new officers and to handle our business for the year leaves more time for flying, building, talking about flying and building, the exact aim of our club. Our flying events, though, have evolved and multiplied through the years. In 2004, we started the year off with our New Year's Chili fly-in, followed by our club Fun Fly, our Open House and our fall potluck. We also, for the second year, shared our hobby with static and flight demonstrations at Crossroads Village in Flint. This summer we also participated in the first "inter-club" fun fly contests along with PMAC and Skymasters. We didn't score so well at the inter-club fun flies, but we had fun and met some great pilots from other clubs. Look out for next year. I hear talk of us actually practicing.

What about our club itself? Most importantly, we have flown safely. Lots of planes, including more than one of mine, have seen final hard landings in places not resembling runways. Due to our safe flying, no person was injured nor property damaged. Thanks to Larry we have a world-class web site that helps attract new members. Thanks to Scott, we have a newsletter that has been recognized by Muncie by inclusion of one of Scott's articles in the AMA newsletter. (*Editors note: Thanks Ed… Not that I'm counting but they've published three articles to date.*) Special thanks to Chuck for his long hours caring for the field itself, we never saw the grass so long to hamper our small wheels during taxi. Some clubs find it necessary to force members to work; we seem to always have the help we need when we need it.

And what about me? I have had the flight of a lifetime. The folks I've met and times I've shared have been great. In between a little bit of building, planning & 'CD-ing' events, training a new pilot here and there, I even learned a little about RC flying. Thanks to all the members that made that possible. I look forward to the next eight years now that I have learned how much I need to learn.

How about the future? If we all just remember Frank's rules, our club will continue to succeed. Be safe and have fun and don't have too many rules!

Tips and Techniques

Ever been at the field and had a less than perfect landing in the high weeds that put a small hole in your covering? I haven't either, but in case it ever happens, you might have to patch it. Usually you can do this at the field with a piece of adhesive trim strip, but unfortunately, this stuff is very hard to remove at home when you try to fix the hole permanently. Buy a roll of clear contact paper, cut it into small squares, and use them to do your patching. It matches any color you put it on, holds well (if you get all the oil off first), and comes off easily when you want it to. Note that when you cut any kind of covering to use as a patch, always cut so it has rounded corners or is a circle. You'll be amazed at how much better it stays on.

WIRCS Touch & Go
Whidbey Island Radio Control Society
Mike Mosbrooker, editor
Oak Harbor WA

Fuel Facts

By Don Nix

This is the third article in a series of five written by Don Nix , founder and former owner of Powermaster fuel. Previous articles can be found in the newsletter archives on the HCH web site. Starting with the spring 2004 issue.

Nitromethane, the Mystery Ingredient?

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 cap 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 between $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" powerwise, 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

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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" whatever, 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 exploseve. (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.

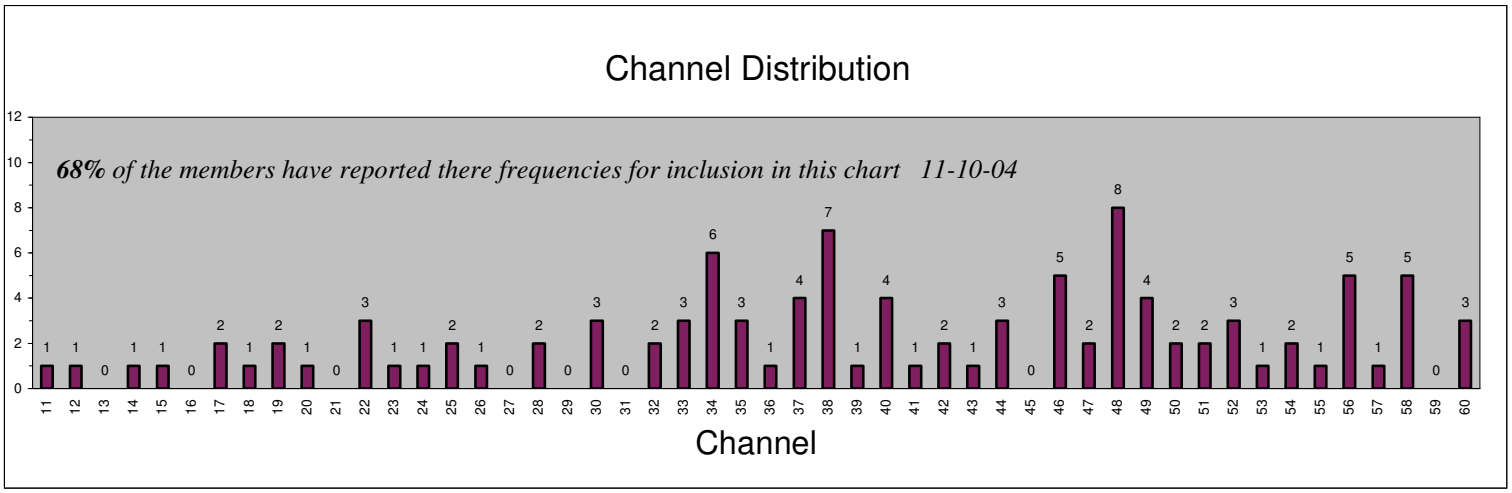
Finally, remember in the beginning of this, we said that nitro adds power because we can burn more of it than we can methanol, for a given volume of air? This also means that the higher the nitro content of the fuel, the less "mileage" (or flying time) we will get. In a typical .40 size engine using 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?**

This article is reprinted with the consent of Mr. Nix for use in the HCH Silver lining newsletter.

Frequency Distribution



Proposed By-law Changes and Membership Renewal

By Scott Rhoades

There was much talk this past year regarding a by-law change that was voted in at the Feb 2004 meeting. That change was the elimination of the club's membership cap. As a result, club officers agreed to present a proposal for voting at the 2005 meeting reinstating a cap, following is that proposal ,as worded by Larry Pittman. Sentences 1 and 2 existed previous in the by-laws when we had a cap. Others sentences are modifications resultant to other by-law changes in 2004. If passed, will be added as the first paragraph under Article 3, Membership.

1. *Maximum membership will be 85 members*
   A. *A waiting list with a maximum of five (5) persons shall be established.*
2. *Any prospective member wishing to join who resides within three (3) miles line of sight distance of the field shall be allowed to join with out regard to the membership count.*
3. *The maximum membership count will not include Associate Members. All others will be part of the count.*
4. *The membership count is not to be lowered during the annual dues renewal timeframe from March 1st to April 15th each year.*

Here is a brief history about *HCH* membership numbers. Since the year 2000, the average number of members is 65.6. Currently, in 2004 , we stand at 60. The all time high was 75 members in 2002 (which is the old cap). There were no reports of a waiting list at that time.

MEMBERSHIP RENEWALS

On Larry Pittman's (*HCH* club secretary) behalf I'm publishing information about membership renewals.

Renewals are due by March 1, 2005. Members that do not renew by April 15th, 2005 will be removed from the club's roster and must pay an additional $15 to be reinstated in the club.

All members must have a MI state park vehicle pass, one pass suffices for all members in the same family. Our preference is vehicle passes be purchased through the club. **The exception is members age 65 and over must purchase passes directly from the DNR.**

Mail your membership renewals prior to Feb 27th so Larry is not busting his arse at the meeting doing renewals like in years past. Sending your renewal in February is ideal because this is when AMA sends membership renewal confirmations to clubs. Larry cannot process a membership without proof of current AMA.

Holly Cloud Hoppers 2005 Membership Renewal Application

Name:_____ AMA #:_____ Email:_____

Additional names for family membership

Name:_____ AMA #:_____ Email:_____

Name:_____ AMA #:_____ Email:_____

Name:_____ AMA #:_____ Email:_____

I will renewing as:

- ☐ Full Membership $35
- ☐ Family Membership $45
- ☐ Associate Membership $25 (no flying or voting privileges)

*The Frequencies I and my family use exclusively are:_____

_____

2005 State park vehicle pass + $24 **Total check amount $_____**

**If your AMA was renewed after Jan 1 2005 or if your sending this before February, provide a photo copy of your 2005 AMA membership card to expedite your HCH renewal.*

Make checks or money orders payable to : ***Holly Cloud Hoppers***

Send to**: Larry Pittman**
11406 Majorca Pl.
Fenton, MI 48530

2004 HCH Club Officers

President / Contest Director	Ed Kincer	12007 Jeffers Ln.	Fenton,	MI	48430	810-629-0928	ERKincer@aol.com
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Holly Cloud Hoppers

Radio Control Flying Club

AMA Charter club #3117

Flying Field located on Mackey Rd. 1/4 mile south of Grange Hall near I-75 Holly, MI

GPS location N42 48.596 W83 34.342

Visitors always welcome!

HCH Member