

# Silver Lining

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Official Newsletter of the Holly Cloud Hoppers  
Radio Control Flying Club  
AMA Charter #3117



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*Flying Field GPS location N42 48.596 W83 34.642*

**[www.hollycloudhoppers.org](http://www.hollycloudhoppers.org)**

*Be Safe, Have Fun and Don't Have Too Many Rules!*

# Behind The Flight Line

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**B**ack in April those of you on the club's email list were sent a reminder for the Field Prep Party. That same message also contained a notice that the HCH now had a Facebook page. Since then a few people with Facebook accounts 'liked' the page and that's cool.

Those of you not on Facebook were probably thinking, "What's the big stinkin' deal with this Facenook... Facehook... Facecrook or whatever the heck it's called? Why does the club need to be involved with this nonsense?"

First let us examine what Facebook is for those not familiar with it. Facebook is a social networking service with more than 845 million active users. To put it simply; users create a personal profile, add other users as friends, and exchange messages. A profile is anything a user wants to share with others about themselves: likes, dislikes, relationship status, what city/state they

live, where they went to school, vacation pictures, pictures of kids/grandkids, so on and so forth.

Until about half a year ago, I was a Facebook hold out. I just didn't see anything worthy about this whole social networking thing and refused to join. For the life of me I couldn't figure out why in the world anybody would want to make their life public by creating such a page? It just seemed senseless to me.



Well now that I have my very own profile page I'm here to tell you... It still seems senseless to me. Let's just say I don't post a damn thing on my page.

So for those reading this who are on Facebook and thinking about sending me a friend request... Save yourself the time. If you want to communicate with me, my email is listed at the top of this page. I have a Facebook for a purpose other than to post updates about myself or get the same from others.

For those unfamiliar with Facebook, let me provided a little explanation how one aspect works: Once you create your own page and put whatever information you wish, you can 'friend' other people. These people become part of your inner circle and whenever you update your page, whether it be small talk, gossip, jokes,

## On the Cover:

**An HCH members plane participating in the bomb drop at the 2009 HCH Open House.**

*Photo by Mike Lanzetta*

► **Flight Line, 3**

## ◀ 2 Flight Line

pictures or whatever, it will come up on theirs in what is called a News Feed. Then your friends can leave feedback regarding your updates. This happens vice versa too as you will get their updates in your News Feed and you can leave comments with them. That is if you have not blocked them.

After setting up my account, a few family members sent me requests to be friends. Not wanting to be rude, I accepted. Since doing that I'm learning which ones just appeared bonkers all these years and which ones truly are. Those that are truly bonkers post personal updates about everything and I mean EVERYTHING! This brings me around to my own little message I'd like to share with the social media world... I DON'T CARE WHERE YOU ATE DINNER LAST NIGHT! Unless you got food poisoning, then that information would be good to know.

So here's the score of my own Facebook use... I have an account but don't post anything. I don't care much for reading the minutia going on in the personal lives of others (See 'blocked' reference above). And I prefer to communicate by email, text or phone. So why in the heck did I ever become part of Facebook? That's easy... For stuff just like the Holly Cloud Hoppers page.

The fact is that many businesses, organizations, groups now have Facebook pages. Once you 'like' a page, whatever updates they post will come up on your News Feed. This way you stay abreast of what's new with them without having to visit their website or even their Facebook page directly. The real advantage comes when you 'like' various pages that interest you. All that information will funnel down

to one single point.

Here is an example how this can work: Say for instance you 'liked' your favorite local restaurant. One day they post on their Facebook page they will be having a two for the price of one dinner special. It comes up in your News Feed and you're thinking, "Halleluia! Now I know where to take the wife for her birthday." If they had only posted that information on their website, you very likely would have missed it and you'd be in the dog house.

Now if dinner specials are your thing you can 'like' several local restaurants that are on Facebook, then with just one simple scan of your News Feed you will see any updates from them and know if any are running a dinner special. If there happens to be more than one you can choose which sounds the best.

So you're wondering, "How does all of this relate to the HCH?" No, we're not going to be posting dinner specials. That was just an example. Our page is currently set as 'public' so anybody on the net can view it and any Facebook user can post a comment, question, picture or recipe for blueberry muffins. Having a club Facebook page provides a quick and easy way to communicate club information. Most of which will probably not be worthy of a mass emailing or even a mention on the website and newsletter.

You might be thinking, "Do things happen within the HCH that I need to be even more connected than I am now?" The answer is not really. Being part of the HCH Facebook page has benefits other than knowing every last detail that is going on at the field or within the club. For example, let's take

► **Flight Line, 4**

### ◀ 3 Flight Line

the big complaint I've been hearing from members over the past few years. Many guys are complaining that when they go out to the field on nice days, they often times are the only one there. Maybe that's your big complaint. It sure is mine. With Facebook, a member can go on to the HCH page and post a day/time he plans on going out to the flying field. Others checking in will see this and just might decide that going flying at that time will work for them too.

Maybe you like that idea and wouldn't mind getting onboard, coordinating your own flying times with others but you have one minor problem, you don't have an account and you're just not sure if you want to be drinking the Facebook Koolaide.

Being skeptical is a good thing but keep these points in mind: With Facebook you don't have to include any information on your page that you don't want to. The privacy of your page can be set to different levels from public to ultra private. Finally, the entire account can easily be deleted from existence like it never happened if you decide it's not working out for you.

To sign up just go to the HCH Facebook page (clicking on the "Like us on Facebook" icon, on page 2, will link you). Once on the HCH page you will see a box near the top that says "*Holly Cloud Hoppers is on Facebook. To connect with Holly Cloud Hoppers, sign up for Facebook today.*" Just below that you will see a green box that says "Sign up". Click on that and you will be on your way. Fill out the necessary information and before you know it, you too will have your very own Facebook page.

After you sign up, don't forget to go to the HCH page and click the 'like' button. While you're there locate the box that says "What's on your mind?" Click on it and write something, anything, even if you just say hello. Be sure to click on the blue "Post" button to submit what you wrote and you will have just made your first entry on the page. Then when you want to go flying and you would like to invite others along, you know exactly how to do that. It will, however, require you write a little more than just hello. †

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## Links to key HCH web pages

### Home page

<http://hollycloudhoppers.org>

Officer contacts, Announcements, Weather, Club Dates, Club document links, Etc

### Members Only (password protected) <http://hollycloudhoppers.org/members.html>

Financial report, Meeting minutes, Club roster, Gate code

### Classifieds

<http://hollycloudhoppers.org/classifieds.html>

### Field Operation Rules

<http://hollycloudhoppers.org/documents/Field%20Operational%20Rules.pdf>

### Newsletter Archives

<http://hollycloudhoppers.org/newsletters.html>

### Club Frequency Usage

<http://hollycloudhoppers.org/documents/clubfreq.pdf>

### Web page help

[http://hollycloudhoppers.org/help\\_faq.html](http://hollycloudhoppers.org/help_faq.html)

### Membership renewal

<http://hollycloudhoppers.org/renew.html>

### Facebook Page

<http://www.facebook.com/pages/Holly-Cloud-Hoppers/289670371113020>

# Cures For Nosing Over

Written by:  
Jim Finch

**A**t a recent club event I was talking with a fellow club member about a plane he owned that had a tendency to nose over on landing. Told him about a book I had that addressed those issues; "Radio Control Scale Aircraft Models for Everyday Flying" by Gordon Whitehead.

The book is dedicated to model airplane scale design and in one section Whitehead illustrates a couple of reasons that would cause a plane to nose over on landings. After sending a summary of this information by email to the member, I figured there are others that would like to know this too. So here are a few details from the book explaining nose over tendencies and what can be done to correct it.

Chapter 6 of Whitehead's book is titled "Striking the Right Balance" and is dedicated to proper CG location. Most of the text has to do with finding the right CG and avoiding problems with stability in the air. Although in this chapter Whitehead also explains how CG is related to the landing gear of a tail dragger and the effect it has on take off and landing. He says wheels that are set back too close to the CG will create a tendency for the plane to nose over.

Conversely, it's possible to get the wheels too far forward of the CG. The further away the wheels get from the CG, the tendency of ground looping increases. You can see how wheel location, in relationship to the CG, is a delicate balance of being neither too close nor too far away.

One could easily deduce that to solve a nose over problem you have the option of either moving the undercarriage forward or the CG aft. Moving the wheels forward would be the best fix because, as most modelers know, moving the CG back can result in stability problems in the air. Nosing over problem is one thing but having an unstable flying plane is a surefire way to put an end to ALL the problems your having with the plane. (Read crash)

Moving the CG back is certainly the easiest option but how far back can you go and still be safe? Whitehead provides a formula for calculating a safe CG location for a particular airplane. By using this formula you can calculate where the CG should be and compare it to where it currently is. If the CG is currently forward of the calculated point, you know you have room to safely move it aft. He cautions that if you do move it back, only do so in small increments at a time and do test flights after each change.

Here is the formula for safe CG location.

$$CG = (\text{average chord} \div 6) + ((3 \times \text{tail area} \times \text{tail moment arm}) \div 8 \times \text{wing area})$$

*Before we continue further here is a brief explanation of what Tail moment arm is: It's the distance between the 1/4 of the average chord point of tail to 1/4 of the average chord point of wing ( 1/4 point is measured from the leading edge).*

## ◀ 5 Nose Over

Here is an example of the formula.

Wing area = 543 sq. in.  
 Tailplane moment length = 24.8 in.  
 Tail area = 102 sq. in.  
 Average wing chord = 10.8 in.

$$CG = \frac{(10.8 \div 6) + ((3 \times 102 \times 24.8) \div (543 \times 8))}{1}$$

$$CG = 1.8 + (7588.8 \div 4344)$$

$$CG = 1.8 + 1.75$$

$$CG = 3.5 \text{ inches from the leading edge}$$

I rounded off the end result to a reasonable decimal place. This represents about 32% of the average wing chord and is a typical percentage that you might see with many airplane CG placements.

You may find that to correct a nose over problem you have to move the CG too far back for stable flight. Whitehead offers a solution that allows the CG to be moved aft safely without affecting the stability of the plane and that is increasing the horizontal tail area. He points out that by altering the tail plane area, a designer can place the CG wherever it needs to be. The formula provided above has been re-arranged to provide a tail area vs. the CG location.

$$\text{Tail area} = (8 \times \text{wing area} \div 3 \times \text{tail moment arm}) \times (\text{CG} - (\text{average chord} \div 6))$$

*As a side note, this is the reason why most sport scale models, scaled from 3 view, full scale drawings, often have a horizontal tail plane that is slightly larger than scale.*

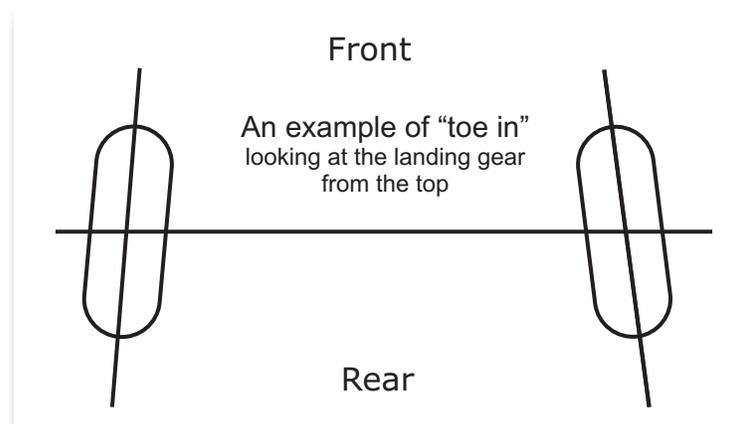
Redesigning the horizontal is certainly a complex solution for moving the CG aft just to cure a nosing over problem. This information has been included more or less to give you some insight to the various solutions available to airplane designers.

There is another chapter in Whitehead's book that discusses landing problems and that is Chapter 11, "The Undercarriage". Most of this chapter deals with the issue of ground looping in tail draggers, which we already discussed as being caused by wheels that are too far forward of the CG. One of his recommendations to fix ground looping is to add two degrees of "toe in" to each wheel. However, Whitehead says that too much toe in can result in an increased tendency to nose over on landings. He also points out that when an undercarriage flexes on landing it causes the wheels to toe in. In other words; a nose over problem could simply be landing gear that is too springy. ▶ **Nose Over, 7**

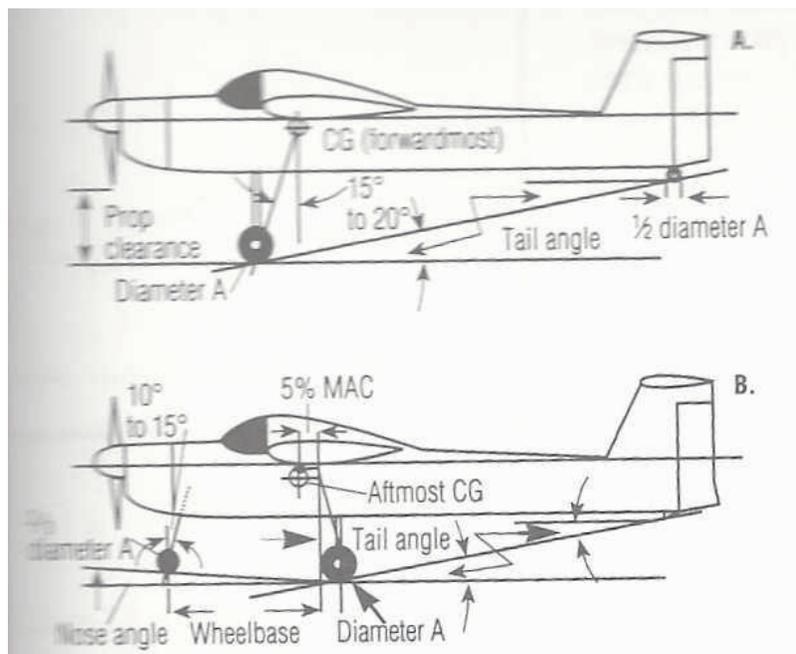
## ◀ 6 Nose Over

Here is a quote directly from Whitehead's book:

*"One thing to ensure is that undercarriage geometry does not change when the wheels contact the ground, either through sprung leg geometry, or through unwanted flexing of axles, legs and so on."*



I have another book called: "R/C Aircraft Design Practical Techniques for Building Better Models" by Andy Lennon. Lennon also explains design principles for undercarriage location. The easiest way to explain his recommendations is to simply include a diagram from the book. Here you can see an example of both tail dragger and tricycle gear locations. Note that the CG location indicated on the tail dragger is the "forwardmost location" or  $\frac{1}{4}$  of the average chord as measured from the leading edge of the wing.



Hope this information helps and gives you an understanding of what can casue a plane to nose over or ground loop easily and how it can be fixed. †

# In The Know

By Scott Rhoades



- HCH officers would like to send out a thank you to all the members that showed up to the annual Field Prep Party on Saturday, April 21 to help get the field ready for the 2012 flying season. Now for a very BIG THANK YOU to those members that tackled the big project of day; removing the brush between the field and Mackey Rd. This was not an easy task and without a doubt was the cause of many sore muscles the following day. It took a lot of hard work but we're glad to report the goal of making the field more visible from the road was a huge success.
- Making the field more visible from Mackey Road is a response to the theft and vandalism noted in the Fall 2011 and Winter 2012 Editions of the Silver Lining. The State Police at the Groveland post as well as the Holly Recreation Area have been notified of our recent problems and both agencies have promised to include our field in their daily patrol. The successful brush removal project will make it much easier for these fine officers to monitor things for us. As also mentioned in the previous newsletter, we're still asking members to also help keep an eye on things during down times at the field.
- Considering all the hard work that went into removing the brush at the road, a proposal was presented to the club officers to have some heavy equipment brought in to grade the area, so as to make it much easier to maintain so things don't get out of control again. The plan also included taking care of other issues at the field as well.

Club officers and several members agreed this would be a worthwhile investment and voted to go forward. A backhoe was brought in, in early May and as you can see from the picture taken from the road, the grading done where members removed the brush really helps visibility. In that same venture many Russian Autumn Olive bushes, as well as the big rock that resided on the north side of the runway, were removed. Members that have not been out to the field since all of this has taken place will notice a distinct improvement.



**View of the flying field as seen from Mackey Rd.**

► In the know, 8

## ◀ 7 In the Know

- A vote was taken at the annual meeting and the HCH will again have a float in Fenton Freedom Festival Parade Wednesday July 4<sup>th</sup> (weather permitting) to defend our 2011 title as Best Float!!!! For those familiar with last year's parade, it appears the route will remain unchanged. Last year we set up behind the Fenton Middle School and this worked perfect for us as we did not need to set up and take down in different locations. Parade officials have been very accommodating in the past and hopefully will allow us to stage in the same area this year. So the plan is (unless you hear otherwise from me) we will be setting up in the exact same spot as last year starting at 8:00am (newcomers see map below for directions)

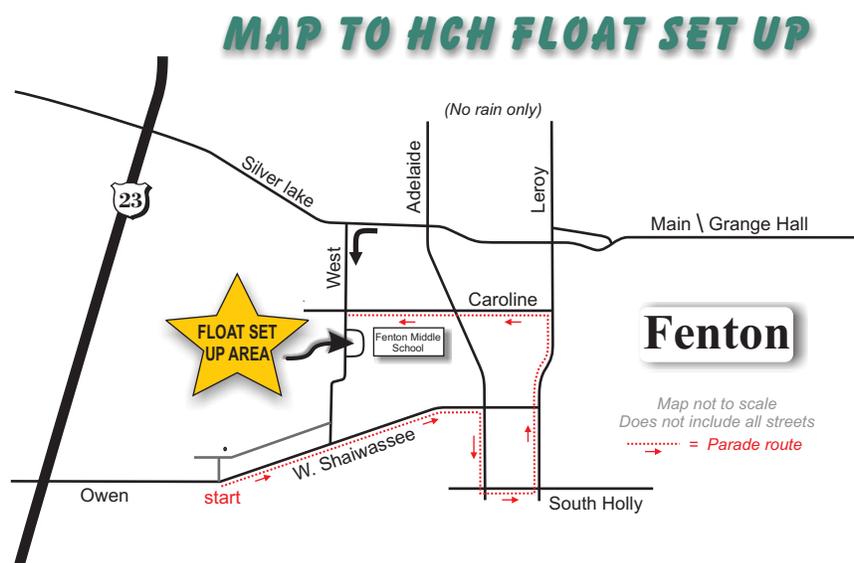
Every time we do a parade I'm worried we will not have enough membership participation and it's going to be a huge flop. Somehow we manage to pull it off with the few who do show. This year I'm extremely worried. This past year, two members that were parade regulars recently moved from the area. I have also learned that another member that has been a huge help in the past, has a prior commitment this year and can't make it. That's about one third of the parade regulars: Gone! Even when we did have their help, several airplane and helicopter stands went unused.

You might be thinking, "What is the big stinkin' deal with the parade anyhow? How does this in any way benefit me as a member and the club?" First and foremost, it's exposure. It gets the HCH name out there to let people know we exist. Just like any club the HCH is dependent on membership numbers. The more members there are, the lower dues can be kept so fixed costs are carried by many rather than just a few. You know that \$10 dues reduction you've been enjoying with your renewal the past few years? you can thank the members who are supporting these endeavors for that one.

Promoting the club has benefits other than membership numbers and its called goodwill. Goodwill is very valuable but the return it provides is immeasurable. The returns received from goodwill could be something as simple as a discount in a service provided to the club or as huge as a property owner that has land we could use, should something happen to our lease with the state. Hopefully you can see now why doing these parades is a lot more than just show and tell.

Keep in mind that participating DOES NOT mean being in the parade yourself. We just want to use of a couple of your aircraft for the morning. You can help on the 4<sup>th</sup> and STILL have plenty of time to do that family barbeque. Last year we were done and all packed up well before noon.

Info about the parade is unlikely to change but be sure to keep an open eye for updated info on the HCH webpage, on the HCH Facebook page or your email in box, just in case. Any questions, comments, ideas or pledges of support, please contact me: [sdrhoades25@hotmail.com](mailto:sdrhoades25@hotmail.com) or 810-923-3799. *We will cancel in the occurrence of rain. If you're unsure, don't hesitate to call the day of.* †



# Events Calendar



## May 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

## June 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

## July

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## August

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## September

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

*Important HCH dates*

Events around the area

Date	Event	Host Club/location/Link	Time
★ June 9	HCH Fun Fly	HCH Club Field	10:00am
★ July 4	Fenton Freedom Festival Parade	See map on page 9	8:00am
★ July 14	Mid Michigan Fun Fly	<a href="#">Midland R/C club</a>	10:00am
★ Aug 4	Open House	HCH Club Field	12:00pm

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