New England Combat News

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THE CONTROL LINE COMBAT NEWSLETTER OF NEW ENGLAND

Jeff Vader wins
2008 Most Improved GX Pilot Award

2008 F2D Season Re-Cap
Five Contests

5/24	**Middlesex County Invitational-Billerica, MA**	**Mark Rudner**
6/8	**Eastern Mass Invitational-Kingston, MA**	**Mark Rudner**
8/17	**District I Championships-Kingston, MA**	**Mark Rudner**
9/7	**Wingbuster Shootout-Middleboro, MA**	**Jeff Vader**
10/26	**Wingbuster Invitational-Middleboro, MA**	**Mark Rudner**

FROM THE EDITOR: New England Combat News exists, not to make a profit, but rather, to promote control line combat in New England It is distributed without charge to those readers who participate in New England combat contests or who support these contests through donations to the New England contest fund. The subscription rate is $10.00/year for people who do not meet the above criterion. If you have information you would like to see in this newsletter please call or write:

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If you make a donation or if you subscribe to this newsletter make the check payable to NEIL SIMPSON …...Donations go into the New England Contest Fund and are used to cover the cost of running New England control line combat contests. IF YOU WANT TO RUN A CONTROL LINE COMBAT CONTEST IN NEW ENGLAND AND YOU NEED HELP (FINANCIAL OR OTHERWISE) CALL OR WRITE NEW ENGLAND COMBAT NEWS. We want to continue to help make New England a "Hot Spot" for control line combat. New England Combat News is your newsletter-USE IT. Control line combat is your sport-PROMOTE IT.

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www.homestead.com/F2DNews

F2D News - January 2009

Mark Rudner
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Change is here! No, I'm not talking about the US government. I'm referring to the F2D rules. January 1, 2009 has passed, and the last time I checked the world has not imploded yet. That can mean only one thing – from now on you better keep it strapped up with a shutoff every time you fly.

What's that you say? You don't have any shutoffs? Don't know how to use one? Don't have any idea how a shutoff works? I won't say "not to worry," but instead I will try to provide you with some (old and new) references and information to hopefully help ease the transition.

Let's start with the official wording from the CIAM website:

> From the 1st of January 2009 it will be mandatory that an engine shut-off be used in F2D. In the event of a fly-away the shut-off must activate and stop the engine. Failure to do so will result in disqualification.
>
> The shut-off can either be armed by the mechanics prior to launch or by automatic arming of the shut-off on take off. When the model is prepared the shut-off may also be armed.
>
> A damaged shut-off on a landed or crashed model (for instance as a result of a mid-air collision) must be repaired or replaced before the model is launched again.
>
> Both mechanical and electronic shut-offs will be allowed, providing they do activate and shut down the engine in a fly-away. The fly-away activation can be of any type, mechanical or electronic.
>
> The shut-off rules are intentionally of a basic nature to allow the development of good working systems but it should be noted that flagrant breach of the rules or "ungentlemanly conduct" will result in disqualification.
>
> 8th of December 2008
>
> Bengt-Olof Samuelsson C/L Subcommittee Chairman

So that's what we have to work with. Now, what to do about it. The best and most comprehensive reference for information on shutoffs to my knowledge is still Henning Forbech's webpage `http://www.modelflyvning.dk/linestyring/combat/shutoff/shutoff.htm`. If you haven't looked at it before, or even if just not recently, I strongly suggest looking over what he has posted. He has amassed a wealth of information about his own tests and designs, as well as those of other people, and is sharing it freely with the public. We should all thank him for helping spread this information around and facilitate rapid development.

Another great resource is on Preston Briggs' control line combat information page: `http://www.clcombat.info/shutoffs.html`. In addition to the shutoffs you see on the page when you enter the address mentioned in the previous sentence, there is a menu bar along the left side that will allow you to navigate to detailed pictures of a wide variety of shutoffs used in Fast combat. Although some adaptation is needed to meet the specific challenges of F2D, this site can be a great resource for ideas.

In terms of readily available products, the Aerolux factory in Ukraine is now producing centrifugal force activated swing-arm shutoffs for $35 each. I saw an early prototype when I was in Novomoskovsk last year, and my sources tell me that there has been considerable development and testing since that time. A nice feature of swing-arm shutoffs as that they easily bolt on to the mounts of existing models without the need for any modification (in contrast to shutoffs based on moving bellcranks, etc). Although those who flew Fast combat in the late 90s and early 21st century are undoubtedly familiar with some of the controversies and arguments surrounding swing-arm shutoffs, I think it would be a big mistake to overlook the swing-arm at least as a temporary solution for the 2009 F2D season. While I was back in CA over the holidays, I flew several matches with a swing-arm shutoff (prepared by my dad) and found it to be working reasonably well.

FIG. 1: Pete Athans' F2D shutoff. The other end of the string is attached to the leadouts, and opens the spring when line tension pulls the leadouts straight.

Keep in mind that no shutoff will ever be 100% effective. Every design has its flaws and particular set of conditions that can lead to failure. We've been flying without any shutoffs for a very long time; a shutoff that works even 60% of the time is already a good step in the right direction.

Over time we can continue to refine our equipment, but for the immediate future the best strategy is to find something that is simple, cheap, and relatively reliable/effective. In this vein, Pete Athans has been working on an extremely simple solution that requires nothing more than a simple spring and a piece of string – only $0.08 USD in parts, and perhaps 5 minutes to set up! One end of the spring is attached to the engine/mount, and the other end is attached to a piece of string ("spider wire") that connects to the model's leadouts. The fuel line (soft latex stuff) runs between coils of the spring. When there is line tension and the leadouts are fully extended, the spring opens up and lets fuel flow. When line tension is lost, the spring pulls closed and pinches the fuel line between coils. It's dead simple and can be adjusted by changing the length of the string or the tension/strength of the spring. Don Jensen has adopted this design and made some of his own modifications. Although the design still needs an effective arming mechanism, it looks very promising. According to Pete, he used this same design in Fast combat and had 6 successful shut-downs in flyaway situations.

At perhaps the opposite extreme, Alex Prokofiev is working on a technologically advanced shutoff. He and Mike Willcox created a very cool webpage (`http://www.unteh.com/shutoff/`) to describe the guts of the shutoff and to report on its progress. The basic idea is to place a small transmitter in the handle that sends an electrical signal through the lines to the model. On-board the model, there is a receiver that checks for the signal from the handle. If the signal is absent, indicating a break in the lines, the receiver trips the shutoff mechanism.

What I like most about Alex's shutoff is that to my knowledge it is the only design that operates on the "correct" principle. By this I mean that swing-arms or accelerometer-based electronic shutoffs operate by detecting the centrifugal acceleration of the model that is present when the lines provide a force to keep the model flying in a circle. However, there are many reasons why a model may fly in a circular arc once its lines are cut, and thus "fool" a centrifugal shutoff. Line-tension shutoffs suffer from a similar problem: if enough junk is caught on the line remnants attached to a model as it flies away, or if the leadouts get jammed into the wing tip due to a collision, the shutoff may fail to engage. The Prokofiev electronic shutoff, however, attempts to detect whether or not there is a direct connection between the model and the pilot. Let me reiterate, however, that I am not writing in opposition to any of the other designs. We should continue to explore all options, and until/unless an electronic shutoff like Alex's is widely available, cheap, and reliable, the best bet is to go for something simple and keep up the R&D.

Jeff Vader - 2008 Most Improved Pilot

Two Ways the Same Outcome

It was an interesting Formula GX season. Yes there was some controversy over the way people performed. There was details made black and white that maybe more white than black or just the opposite. The term tactical is applied to some part of the competition and deemed collaboration if done in another. Then, there is the application of home field advantage. How could there be such a thing? Yes, there are times when even well seasoned cut judges fail to see cuts. Now cut judges should know that the ears are sensory devices that can help to avoid missing a small cut. We have all heard that distinctive sound as the prop cuts the streamer, and yet even some of the younger cut judges that should still hear fine fail to notice. If the regulars that fly GX all started to use F2D models with .15 engines, would there still be a rule for them that does not conform to the AMA requirement. Is it possible that there would be more entries if such a special rule did not exist? Yes the issue of safety for this special rule may be brought up. The AMA rules state there should be a pull test before each match and yet there have been many GX events that did not conform to it. “Beauty is in the eye of the beholder”.

Now I do understand the idea for awarding points at specific places in time during the match. It takes fewer people and less equipment to run the matches. The best events in the country and anyplace else usually have multiple people working as officials. Fewer officials usually mean less accuracy. The logic seems a little flawed for awarding airtime points. What is meant by that is that at the midway point of the match, only 150 seconds have elapsed, not 200? At the one minute point, only 60 seconds have been used, not 100 and at the four minute interval only 240 seconds of the match are used are used, not 300. Is it too difficult to add them up as they actually happen? Then there are those starts that are very close to those points in time. Did anyone ever consider that it is hard to watch the clock and the guy launching when the clock is behind the judge? There would never be questionable calls because of that. Shouldn’t the clock that is the master of GX, be positioned in front of the judges? It is possible they could not read it on the other side of the circle. It is a wonder that our aging pilots can see it from the center while they spin around with their models. Should a cut judge be the event photographer while counting cuts? Is this an unreasonable ask?

Well this should have been addressed sooner, but the other concerns got in the way. “Two ways the same outcome.” Lets start with the East Coast Super Slow Championships this past August. One pilot was very upset at the outcome. Some fairly unskilled pilot finished high. Then some of the best pilots finished behind that pilot. So, at the two final GX events something new was done with scoring the matches to prevent the ease of scoring points against any of the unskilled pilots. The funny thing was that this new scoring and entirely different approach did not seem to have the desired effect. In fact it looked to me like a couple of the not so highly skilled pilots did well at these last two GX events.

It seems that many of us have lost site with the facts. Those facts are that Super Slow and GX are entry level events. It does not require a lot of skill to fly them and that is good. After all, is it not the idea to attract new pilots to the sport through these events? How do we teach them the skills they need to become better pilots? Should the better pilots let a new pilot take a cut or two that would not be added to the new pilots score? There are no easy answers.

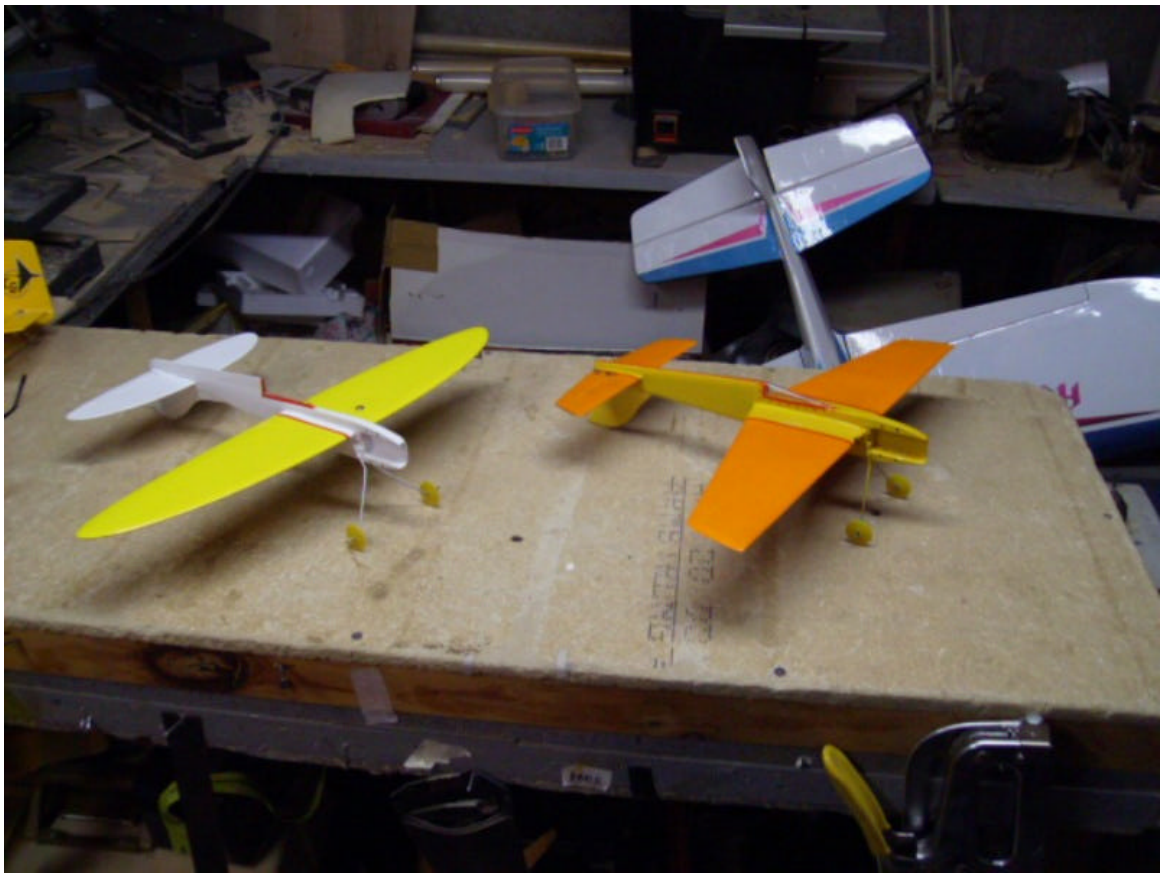
At times we are not able to see the good and the not so good in the way the rules are established and the reasons they are enforced. After flying these events for many years, I am inclined to agree where I once disagreed. My life long best friend Bill Horton said that the rule to run any contest should be established with the AMA. His argument was that it keeps everyone playing on the same field. The tough part is getting people to write them for the good of all competitors involved. That is not an easy task. If you think it is, take a stab at writing your ideas down on paper. Then after doing that get together with several groups of pilots and listen to what they think of what you have placed on paper.

Roy Glenn
December 9, 2008

Winter Projects

Larry Jaconetta always has an interesting project or two .
Below are his 1/2A proto machines
His next project is for a new event called F2D proto. (F2D combat engines for power)

Bottom of Page: Ken Hargreaves sent along a photo of brother Kirk's Heli
What are you working on, send us a photo.



Rumors Facts Etc

CONTEST FUND: This month we received a nice donation from Roy Glenn and also an article for the newsletter, in which Roy shares some of his thoughts. Thank you Roy.

2009 SCHEDULE: The 2009 Schedule is rounding into shape and a tentative schedule will be published next month. It will be available on the website on or around February 1st.

NECN CONTEST FUND 7/1/2008 Through 1/23/2009

Date	Payee	Category	Amount	Running Total
7/1/2008	balance		257.00	257.00
7/20/2008	Jeff Vader	contribution	10.00	267.00
7/20/2008	Chris Sarnowski	contribution	10.00	277.00
7/20/2008	Ron Connors Memorial	entry fees	110.00	387.00
7/20/2008	Ron Connors Memorial	trophy expense	(68.00)	319.00
7/20/2008	Jeff Vader	contribution	10.00	329.00
7/20/2008	Rick Clark	contribution	10.00	339.00
7/31/2008	Wingbuster Shootout	Permit/Sanct Ex	(25.00)	314.00
8/10/2008	Eastern Mass Champs	trophy expense	(68.00)	246.00
8/10/2008	Eastern Mass Champs	entry fees	70.00	316.00
8/10/2008	Paul Kubek	contribution	10.00	326.00
8/17/2008	District I Champs	trophy expense	(51.00)	275.00
8/17/2008	District I Champs	entry fees	110.00	385.00
8/17/2008	Jeff Vader	contribution	10.00	395.00
8/24/2008	Ray DuFour	contribution	10.00	405.00
8/24/2008	Salmon River Shootout	entry fees	100.00	505.00
8/24/2008	Salmon River Shootout	trophy expense	(68.00)	437.00
8/31/2008	Brian Stas	contribution	40.00	477.00
8/31/2008	New England Champs	trophy expense	(280.00)	197.00
8/31/2008	New England Champs	t-shirts	(209.00)	(12.00)
8/31/2008	New England Champs	entry fees	450.00	438.00
9/1/2008	Wingbuster Invitational	Permit/Sanct Ex	(20.00)	418.00
9/7/2008	Wompatuck Invitational	trophy expense	(51.00)	367.00
9/7/2008	Wompatuck Invitational	entry fees	80.00	447.00
9/10/2008	Wingbuster MAC	donation expense	(100.00)	347.00
9/29/2008	Ernie Carosella	contribution	25.00	372.00
10/5/2008	Wompatuck Invitational	entry fees	90.00	462.00
10/5/2008	Wompatuck Invitational	trophy expense	(68.00)	394.00
10/12/2008	North County Shootout	entry fees	150.00	544.00
10/12/2008	North County Shootout	trophy expense	(68.00)	476.00
10/19/2008	Fall Finale	trophy expense	(68.00)	408.00
10/19/2008	Fall Finale	trophy expense	130.00	538.00
10/26/2008	Wingbuster Invitational	entry fees	70.00	608.00
10/26/2008	Wingbuster Invitational	trophy expense	(51.00)	557.00
10/26/2008	Paul Kubek	contribution	10.00	567.00
11/2/2008	Year End Awards	trophy expense	(223.00)	344.00
11/2/2008	Wingbuster Fall-Fly Off	trophy expense	(68.00)	276.00
11/2/2008	Wingbuster Fall-Fly Off	entry fees	110.00	386.00
11/2/2008	Rick Clark	contribution	10.00	396.00
11/2/2008	Jeff Vader	contribution	10.00	406.00
12/30/2008	Roy Glenn	contribution	20.00	426.00
	GRAND TOTAL		426.00	426.00

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Please rate your preference of flying 1 through 10 with 1 being most preferred.

Combat: 1/2A [ ], Fast [ ], Slow [ ], Super Slow [ ], FAI [ ]; Stunt [ ]; Racing [ ]; Carrier [ ]; Speed [ ]; Free Flight [ ]; R/C [ ]; Other [ ]

ANNUAL DUES: $ 15.00 U.S. - $ 18.00 Canada & Mexico - $ 25.00 Foreign (U.S. Funds Only)
$ 3.00 for each additional family member at same address (No Newsletter)
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