

# New England Combat News

VOLUME 19 NUMBER 1 JUNE 2007  
THE CONTROL LINE COMBAT NEWSLETTER OF NEW ENGLAND



## Wompatuck Ice Breaker

**KEN HARGREAVES, RICK CLARK,  
GLENN SIMPSON & JOE FUSTOLO  
TAKE TOP FOUR SPOTS**

### SHAYLENE VADER WINS SPORTSMAN

APRIL 29, 2007 - HINGHAM, MA – This was it, opening day of the 2007 New England control line combat season. Conditions were cloudy and cool with a light breeze, a good day for combat. Nine New England pilots were on hand to get the season off to a good start. We were ready for four rounds of Formula GX Combat action.

Round one saw Ken Hargreaves get off to the best start posting a three cut to one win over Shay Vader. Round two started with Ken and Neil Simpson mid-airing. Meanwhile, Rick Clark got a two cut win while Joe Fustolo posted a three cut win to set the pace with two round totals in the 1100 point range. Round three saw Rick get a two cut to one win over Joe to move into the contest lead. Ken Hargreaves also moved back into contention with a two cut win over Paul Kubek while Glenn Simpson posted a three cut win of his own.

Going into round four Rick had 1860 points followed by Ken (1655pts), Glenn (1630pts), Joe (1330pts) and Shay Vader (1305pts). The final two matches of the contest seemed destined to determine the outcome. In the first of these Glenn Simpson and Joe Fustolo flew to a one cut apiece draw, both pilots flying very well. Next, Ken Hargreaves and Rick Clark had a war with Ken earning the contest win two cuts to one. When the scores were tabulated, the final order of finish was Ken Hargreaves in first, Rick Clark was second, Glenn Simpson was third and Joe Fustolo fourth. On this day Shaylene Vader was the Sportsman division winner.

Thank You to all who shared in the judging and a special thanks to Rick Clark who CD'ed the event, secured the site and did all the great prep work that made this a fun contest.

Details on page two

## Wingbuster Spring Kick Off

**NEIL SIMPSON, RICK CLARK,  
GLENN SIMPSON & JEFF VADER  
ARE THE TOP FOUR IN FORMULA GX  
“LIL SHERM” WINS SPORTSMAN**

### GREG WORNELL, NEIL SIMPSON & KEN HARGREAVES TAKE THE TROPHY SPOTS IN F2D

MAY 5 & 6, 2007 - MIDDLEBORO, MA – Again, this year, the Wingbuster Spring Kick Off was a two day affair featuring Formula GX combat on Saturday and F2D combat on Sunday. The weather was warm and sunny on Saturday turning cool and cloudy on Sunday. We had a moderate to strong breeze both days that, at times, caused a problem or two.

On Saturday morning the GX event got off to a fast start with Joe Fustolo and Rick Clark showing the way with 830 and 620 points respectively. Glenn Simpson, Neil Simpson, Dick Sherman and Paul Kubek were in the hunt, as well, with 500 plus point first round scores. In the first match of round two Rick Clark stayed hot posting a three cut to one win over Joe Fustolo. Round two also saw Glenn get past Dick and Neil get past Paul with one cut victories. In the first match of round three Rick and Glenn flew to one cut apiece draw that left both pilots very much in contention. Next, Neil Simpson earned a one cut win over Joe Fustolo. The match had action buzzer to buzzer. Going into the final round Rick had 1960 points, followed by Neil with 1750 points, Glenn with 1640 and Joe with 1530.

The last two matches of the final round would determine the trophy winners. In the first of these matches Glenn earned a one cut victory over Joe. In the final match Neil Simpson got a big cut just past the halfway point, Rick then chased him like a cornered rabbit, however, Neil made it hold up to earn the contest win.

Continued on page 2

**Wompatuck Ice Breaker - Formula GX Combat**

9 Contestants (7 from MA) (2 from NH)

18 Matches - 6 mid airs

(A) Ken Hargreaves-Worcester, MA	2380pts
(A) Rick Clark-Hingham, MA	2260pts
(E) Glenn Simpson-Worcester, MA	2140pts
(E) Joe Fustolo-Stoughton, MA	1840pts
(A) Paul Kubek-Brockton, MA	1835pts
(S) Shaylene Vader-Franklin, NH	1305pts
(E) Neil Simpson-East Brookfield, MA	1230pts
(A) Jeff Vader-Franklin, NH	1100pts
(A) Brian Stas-Kingston, MA	900pts



Wingbuster Club Field - "Combat Heaven"



The F2D Trophy Winners at the Wingbuster Spring Kick Off were Greg Wornell (1st), Neil Simpson (2nd) and Ken Hargreaves (3rd)

**WINGBUSTER SPRING KICK OFF (from page one)**

Neil accumulated 2370 points while Rick and Glenn ended up tied for second, with 2260 points apiece. They decided the issue, via a coin flip with Rick getting the nod. Jeff Vader edged out Joe for fourth posting an 1835 point total. Young Richard Sherman took home the Sportsman "gold" accumulating 1300 points in route to his win.

On Sunday, we were back to fly F2D Combat. Seven contestants were on hand. As the day unfolded there were very few good matches, as many of us were showing signs of rust, from the long winter layoff. Mark Rudner, who was certainly, the class of the field flew very well and, while there were some other good moments for some of us, it was by and large an ugly day with very few airplanes being landed. Greg Wornell took home the gold followed by Neil Simpson and Ken Hargreaves

Thank You to Rick Clark who cd'ed this contest and did a lot of work behind the scenes to bring it to fruition. Thank You to the Wingbuster Model Airplane Club for the use of their great facility.

**Wingbuster Spring Kick Off****Formula GX Combat**

9 contestants ( 8 from MA )( 1 from NH )

18 matches ( 3 mid-air )

(E) Neil Simpson-E.Brookfield, MA	2370pts
(A) Rick Clark-Hingham, MA	2260pts
* won coin flip	
(E) Glenn Simpson-Worcester, MA	2260pts
(A) Jeff Vader-Franklin, NH	1835pts
(E) Joe Fustolo-Stoughton, MA	1830pts
(A) Paul Kubek-Brockton, MA	1740pts
(E) Dick Sherman-Andover, MA	1520pts
(A) Joey Fustolo-Taunton, MA	1425pts
(S) Lil Sherm-Andover, Ma	1300pts

**F2D Combat**

7 contestants ( 6 from MA ) ( 1 from NH )

13 matches

1. Greg Wornell-Wellesley, MA	5 wins / 1 loss
2. Neil Simpson-E.Brookfield, MA	3 wins / 2 losses
3. Ken Hargreaves-Worcester, MA	3 wins / 2 losses
4. Mark Rudner-Cambridge, MA	2 wins / 2 losses
5. Jeff Vader-Franklin, NH	0 wins / 2 losses
6. Rick Clark, Hingham, MA	0 wins / 2 losses
7. Brian Stas, Kingston, MA	0 wins / 2 losses

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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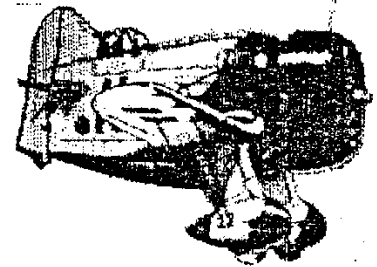
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# F2D News - May 2007

Mark Rudner  
rudner@mit.edu

I wish I could be writing to you this month about all the recent pre-summer flying that we've been doing in New England, but the fact of the matter is that we're still experiencing some post-winter doldrums rather than pre-summer excitement. This is not to say that combat is on hold here; two weeks ago we opened the F2D season with the Wingbuster Spring Kickoff in Middleboro, MA. It was a cold and windy day, but we flew nonetheless and began shaking off the cobwebs. The beginning of the season is always a tough time to get through, and that will be the subject of my article this month.

Before I get on to the main topic, I want to mention some related news. I hope that everyone who has access to *Model Aviation* read Phil Granderson's recent Control Line Aerobatics column. For those who don't know (shame on you), Phil is both a legendary combat pilot in his own time and a masterful builder and tricks flier. Last month he wrote to stunt fliers about the difference between practice and training, drawing on his early experiences learning how to fly combat. I don't know how well they took it, especially those who may not have known about his sordid past in the combat ranks, but in his article he spelled out some crucial and very general concepts about training that can be viewed as a recipe for improvement in any sport. If you haven't read it, do it. If you did read it already, read it again.

At the beginning of the season, you should not be flying as well as you were at the end of the previous season. As with any sport, the mind and body need to be trained to excel in combat. If you train throughout the season, your body will adapt and become more optimized for wiggling the handle, flipping propellers, etc. During the off-season while these skills are unused, your body will become more optimized for wielding a fork and knife, and flipping channels on the TV. If you don't notice a difference after 6 months away from the sport, then chances are that you haven't pushed yourself to achieve your maximum potential in the previous season. It's not a bad thing, it just means that if you start a proper training course you'll have that much more improvement to look forward to.

This time we're passing through can be very frustrating. In our clearest and most recent flying memories, we were much better and smoother than we are now. It will all come back, but in this time maybe more than any other, it is really important to keep your mental state in order. At the Wingbuster contest, the wind plus early season effects led to quite a few hairy situations. This is not unexpected, but if you get razzled by it, things can only get worse. As frantic as combat looks from the outside, successful pilots remain equally calm through thick and thin, rain or shine, line-twist or mid-air, and especially the freak situation that is so unexpected that I can't even think of it right now. Developing this type of calm, unaffected demeanor during combat may require some serious effort, but it's well worth it in, and possibly out of the circle (on the road, for example).

That's all I have to say on the subject for now. Keep rollin' with the punches.



Many issues ago we showed you this pit box when it was under construction

This is Mark Rudner's finished box in use at the this year's Spring Kick-Off

Mark has all the bases covered with this creation

## *Rumors Facts Etc*

**CONTEST FUND:** We received very generous donations from Joe Fustolo, Glenn Simpson and Ken Hargreaves. Joe and Glenn made cash donations while Ken donated four rolls of Fascal that were sold off at \$25.00 each, the proceeds of which were donated to the contest fund. Thanks to Ken and to Joe Fustolo, Jeff Vader, Brian Stas and Paul Kubek who purchased the rolls.

**CONTESTS:** We are attempting to schedule The 2007 District I Championships for F2D Combat on September 23rd. Nothing definite yet, should know more next month.

### NECN CONTEST FUND

Date	Payee	Category	Amount	Running Balance
	Opening Balance			247.00
3/15/2007	Streamer String - 10 Rolls	Streamer Expense	(20.00)	227.00
3/16/2007	New England Championships	Permit/Sanction Expense	(45.00)	182.00
3/16/2007	Fall Finale	Permit/Sanction Expense	(45.00)	137.00
3/18/2007	Wompatuck Ice Breaker	Permit/Sanction Expense	(42.00)	95.00
3/18/2007	Wingbuster Spring Kickoff	Permit/Sanction Expense	(20.00)	75.00
3/18/2007	Eastern Mass Championhips	Permit/Sanction Expense	(20.00)	55.00
3/18/2007	Wompatuck Invitational	Permit/Sanction Expense	(42.00)	13.00
3/18/2007	The Last Shootout	Permit/Sanction Expense	(42.00)	(29.00)
3/18/2007	Wompatuck Fall Fly-Off	Permit/Sanction Expense	(42.00)	(71.00)
3/18/2007	Rick Clark	contribution	108.00	37.00
3/28/2007	Granite State Invitational	Permit/Sanction Expense	(45.00)	(8.00)
4/16/2007	Len Minick Memorial	Permit/Sanction Expense	(45.00)	(53.00)
4/18/2007	Eastern Mass Invitational	Permit/Sanction Expense	(45.00)	(98.00)
4/29/2007	Glenn Simpson	contribution	60.00	(38.00)
4/29/2007	Joe Fustolo	contribution	50.00	12.00
4/29/2007	Ken Hargreaves	contribution	100.00	112.00
4/29/2007	Wompatuck Ice Breaker	trophy expense	(80.00)	32.00
4/29/2007	Wompatuck Ice Breaker	entry fees	90.00	122.00
4/30/2007	Granite State Championships	Permit/Sanction Expense	(45.00)	77.00
5/6/2007	Wingbuster Spring Kickoff	trophy expense	(128.00)	(51.00)
5/6/2007	Wingbuster Spring Kickoff	entry fees	160.00	109.00
<b>GRAND TOTAL</b>				<b>109.00</b>

### **Eastern Mass Invitational**

**June 10th, 2007**

**Silver Lake Regional High School-Kingston, MA**

**CD: Brian Stas**

**AMA Sanctioned**

**Formula GX—Four Rounds**

**Trophies for top four plus 1st Sportsman**

**Registration: 9:30am**

**1<sup>st</sup> Match: 10:00am**

495 South to exit 7A ( Route 24 North ) ¾ mile on 24N take exit 15 ( Route 104 East ) 8 miles on 104 pick-up Route 106 East 6 miles on 106 in Plympton take Lake Street (left hand turn) Follow Lake Street into Kingston, after railroad tracks take another left hand turn also marked Lake Street. The high school is on the right less than one mile - Go to the end of the street – turn right on Route 27- Go around back of school.

### *Ron Connors Memorial Spring Stunt Trials*

**May 26th & 27th, 2007**

NEST Wrentham State School Flying Site

Wrentham, MA

AMA Sanctioned

**Saturday-Formula GX Combat**

**Sunday-F2D Combat**

Mark's Single Airplane Rules

**First match 10:00 am – both days**

**Get on 495 either from Mass Pike or I-95**

**Take exit 15-Route 1A North**

**Follow to Wrentham Center Lights**

**Route 140 crosses Take left on 140 (west)**

**Look for fork in road , bear right onto to**

**Shear Street-Look for first right,**

**Emerald Street-field is on left**

# 2007 Wompatuck Ice Breaker - April 29th

Jeff Vader photos



The trophy winners are Ken Hargreaves (1st), Rick Clark (2nd), Glenn Simpson (3rd), Joe Fustolo (4th) And Shay Vader ( 1st sportsman )



Joe Fustolo and Paul Kubek



Joe Fustolo and Brian Stas



Brian Stas



Shay Vader



Glenn Simpson  
Joe Fustolo photo

# 2007 Wingbuster Spring Kick Off-May 5th & 6th

Jeff Vader Photos



**Joe Fustolo and Paul Kubek**



**Team Sherman**



**Jeff Vader and Rick Clark**



**Rick Clark and Neil Simpson**



**Brian Stas**



**Paul Kubek and Rick Clark**



## 2007 CONTEST SCHEDULE

This is a work in progress /All GX Combat unless noted otherwise/All dates are tentative

- 5/26&27 Ron Connors Memorial Spring Stunt Trials - Wrentham, MA  
( Formula GX-Saturday and F2D Combat-Sunday )
- 6/3  
6/10 Eastern Mass Invitational - Kingston, MA  
6/17  
6/24 Len Minick Memorial Combat Challenge – East Hampton, CT  
7/1  
7/9-14 U.S Nats F2D/Speed Limit/1/2A/Fast  
7/22  
7/29 Granite State Championships – Franklin, NH  
8/5  
8/11&12 Eastern Mass Championships - Middleboro, MA  
( Formula GX Saturday and F2D Combat Sunday )
- 8/19  
8/26 Salmon River Shootout - East Hampton, CT  
9/2 New England Championships - Worcester, MA  
9/9  
9/16 Middlesex, NJ – Speed Limit and 1/2A  
9/23  
9/30 Wompatuck Invitational - Hingham, MA  
10/7 North County Shootout - Leominster, MA  
10/14 Fall Finale - Worcester, MA  
10/21 The Last Shootout - F2D Combat - Hingham, MA
- 10/28  
11/4 Wompatuck Fall Fly-Off / Post Season Contest - Hingham, MA

For more info contact: Neil Simpson Phone: 508-867-8702 E-Mail: [podunk129@charter.net](mailto:podunk129@charter.net)



The GX trophy winners at the Winbuster Spring Kick Off  
Neil Simpson (1st), Rick Clark(2nd), Glenn Simpson (3rd),  
Jeff Vader (4th) and Richard Sherman (1st Sportsman)



Ken Hargreaves at the F2D  
Portion of the Kick Off  
(Jeff Vader photo)

Below please find some really good info supplied to us courtesy of Brian Stas

**Question:**

Should I replace castor oil with modern synthetic oil?

**Answer:**

Tricky question, and not one I'm in any way qualified to answer. There's a lot of folk-lore and ju-ju thrown about on this topic. Instead of poking my vulnerable neck out, here's some words of real wisdom on castor from the master: Bert Striegler. Read it and decide for yourself!

Back in 1983 there was quite a controversy in Radio Control Modeller magazine about the tests that were necessary to measure the "lubricity" of various oils that might be useful in model engines. Castor oil was used as the benchmark, but it was obvious no one knew why this was so. They apparently got a lot of info on various industry tests of lubricants, but these were really designed for other purposes. This was my answer. I will remind you that I was a lubrication engineer and not a chemist, but I drew my chemical info from Bob Durr, the most experienced lubricant scientist in the labs at Conoco. Bob worked with my group on many product development projects and I can tell you that he is one smart hombre! Small changes were made in the text, but surprisingly very little has really changed since this was originally written. Here goes with the answer:

"I thought I would answer your plea for more information on castor oil and its "film strength", which can be a very misleading term. I have never really seen a satisfactory way to measure the film strength of an oil like castor oil. We routinely use tests like the Falex test, the Timken test or the Shell 4-ball test, but these are primarily designed to measure the effect of chemical extreme pressure agents such as are used in gear oils. These "EP" agents have no function in an IC engine, particularly the two-stroke model engine types.

You really have to go back to the basics of lubrication to get a better handle on what happens in a model engine. For any fluid to act as a lubricant, it must first be "polar" enough to wet the moving surfaces. Next, it must have a high resistance to surface boiling and vaporization at the temperatures encountered. Ideally the fluid should have "oiliness", which is difficult to measure but generally requires a rather large molecular structure. Even water can be a good lubricant under the right conditions.

Castor oil meets these rather simple requirements in an engine, with only one really severe drawback in that it is thermally unstable. This unusual instability is the thing that lets castor oil lubricate at temperatures well beyond those at which most synthetics will work. Castor oil is roughly 87% triglyceride ricinoleic acid, which is unique because there is a double bond in the 9th position and a hydroxyl in the 11th position. As the temperature goes up, it loses one molecule of water and becomes a "drying" oil. Castor oil has excellent storage stability at room temperatures, but it polymerizes rapidly as the temperature goes up. As it polymerizes, it forms ever-heavier "oils" that are rich in esters. These esters do not even begin to decompose until the temperature hits about 650 degrees F. Castor oil forms huge molecular structures at these elevated temperatures - in other words, as the temperature goes up, the castor oil exposed to these temperatures responds by becoming an even better lubricant!

Unfortunately, the end by-product of this process is what we refer to as "varnish." So, you can't have everything, but you can come close by running a mixture of castor oil with polyalkylene glycol like Union Carbide's UCON, or their MA 731. This mixture has some synergistic properties, or better properties than either product had alone. As an interesting sidelight, castor oil can be stabilized to a degree by the addition of Vitamin E (Tocopherol) in small quantities, but if you make it too stable it would no longer offer the unusual high temperature protection that it did before.

Castor oil is not normally soluble in ordinary petroleum oils, but if you polymerize it for several hours at 300 degrees F, the polymerized oil becomes soluble. Hydrogenation achieves somewhat the same effect.

Castor oil has other unique properties. It is highly polar and has a great affinity for metal surfaces. It has a flash point of only 445 degrees F, but its fire point is about 840 degrees F! This is very unusual behaviour if you consider that polyalkylene glycols flash at about 350-400 degrees F and have a fire point of only about 550 degrees F, or slightly higher. Nearly all of the common synthetics that we use burn in the combustion chamber if you get off too lean. Castor oil does not, because it is busily forming more and more complex polymers as the temperature goes up. Most synthetics boil on the cylinder walls at temperatures slightly above their flash point. The same activity can take place in the wrist pin area, depending on engine design.

Synthetics also have another interesting feature - they would like to return to the materials from which they were made, usually things like ethylene oxide, complex alcohols, or other less suitable lubricants. This happens very rapidly when a critical temperature is reached. We call this phenomena "unzipping" for obvious reasons. So, you have a choice. Run the engine too lean and it gets too hot. The synthetic burns or simply vaporizes, but castor oil decomposes into a soft varnish and a series of ester groups that still have powerful lubricity. Good reason for a mix of the two lubricants!

In spite of all this, the synthetics are still excellent lubricants if you know their limitations and work within those limits. Used properly, engine life will be good with either product. Cooked on a lean run, castor oil will win every time. A mix of the two can give the best of both worlds. Most glo engines can get by with only a little castor oil in the oil mix, but diesels, with their higher cooling loads and heavier wrist pin pressures, thrive on more castor oil in the mix.

Like most things in this old life, lubricants are always a compromise of good and bad properties. We can and do get away with murder in our glo engines because they are "alcohol cooled" to a large degree. Diesels, though, can really stress the synthetics we use today and do better with a generous amount of castor oil in the lubricant mix. Synthetics yield a clean engine, while castor oil yields a dirty engine, but at least now you know why!

***Len Minick Memorial  
Combat Challenge***

**June 24th, 2007**

**Salmon River State Forest— East Hampton, CT  
AMA Sanctioned**

**Formula GX Combat—Four Rounds**

**Trophies for top four spots plus First in Sportsman  
Registration 9:30am - First Match 10:00am**

**Located on Route 16 approximately halfway between Routes 149 and 196**

**NEIL SIMPSON  
129 PODUNK ROAD  
EAST BROOKFIELD, MA 01515**