

# FlightLine

A Monthly Publication of Collins Model Aviators

June 2000

## Reminders:

- Next CMA meeting is  
Thursday June 1<sup>st</sup> at the  
35<sup>th</sup> Street Complex  
Cafeteria



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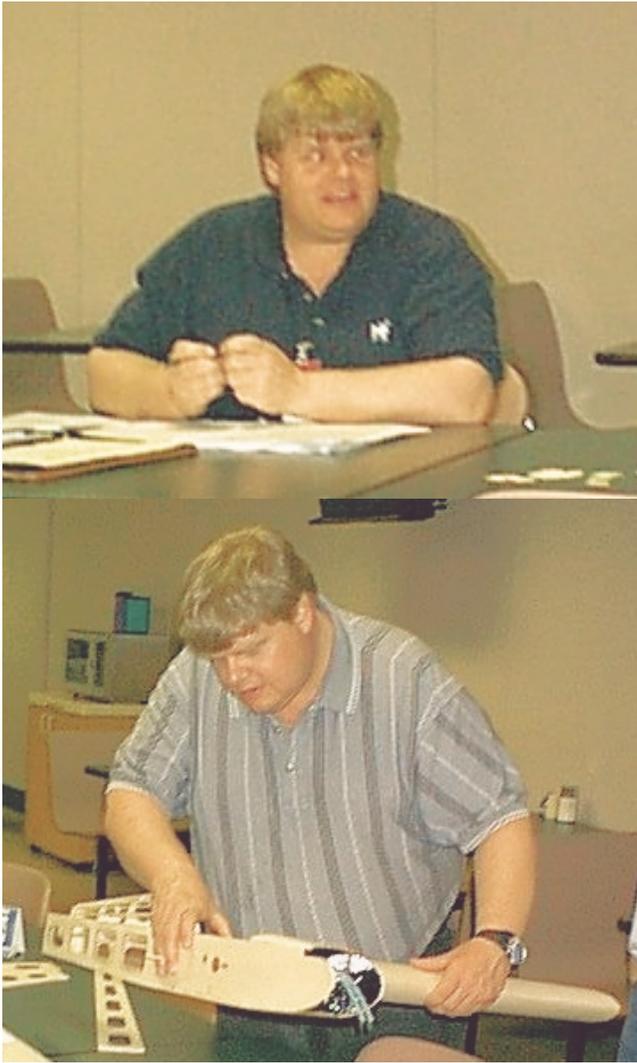
**Flyer tunes the engine of his modified  
Sig Senior at the Hannen Lake Float Fly**

CMA Web Page Addresses:

<http://bbs.cacd.rockwell.com/data/clubs/cma/>  
<http://members.xoom.com/cma3257/>



Collins Model Aviators  
Academy of Model Aeronautics  
Charter Club #3257



## Vice President's Column

By Gregg Lind

*Jamie was suffering "from a lack of ideas" for the June Presidents column, so he asked if I would be willing to share the load and write an article or two this year. I agreed to help, since I have never been one without ideas or comments, as many of you know! With the deadline only 5 days away, I wish I had started earlier. I am sure I am going to get the dreaded call from Jim asking where the article is? I thought I would share some of my thoughts over the past 2 years as to why I joined the Collins Model Aviators (CMA). This involved a little self-reflection to identify my initial reasons for joining and to see how they have changed as I got more involved. Hope this is an encouragement to you to consider your reason for involvement.*

I was asking myself the other day what is the makeup of a good organization or club and what entices or drives people to get involved? With activities come choices and the choice of what I am going to be involved in or how much time I can devote. I call this the great balancing act. This includes the ability to feel like you're involved and part of a club and also having other activities in focus. The major measure of involvement is how much my wife or family will allow me to get away with. One of the limiting factors of how much you can be involved is not just time but financial issues.

The decision process as to why I joined the CMA was at first self-centered. Ever since I was a kid. I always wanted to fly model airplanes. I purchased a transmitter when I was 14 and then purchased an airplane. Just because I wanted to learn to fly RC was not going to stand the test of time, especially with my wife, if it were based only on my own goals. Secondly, my wife already knows whatever I get involved with is going to cost money. She knew it wasn't free and it would take time from other family responsibilities. Let's consider the fact that's its not free and will take time away from your family. Let's look at some of the positives. As for the cost this can be hidden in any good budget look at the government and how it spends our money.

I can say that for me, joining the club was a great step to achieving that boyhood dream of flying an RC aircraft. I guess all of us set goals that we want to attain and those goals always bubble up to the top. I can also say that it has been a great family activity. My wife and kids enjoy coming to the fun fly events. My son really wants to solo and we even had a competition going this last summer to see who would solo first. I think I have him this year but that depends on how much time he has been spending on the simulator.

If you were to wrap this up into a general statement of why I joined the CMA, I would say it is a great bunch of people that are involved in shared desire to help one another achieve their goals.

I was reviewing the membership of CMA from the past 3 years, the membership from 1997 to 1998 grew by about 5 members, but I could not find the exact numbers.

	1998	1999	2000
Members	43	45	35
Provisional	8	12	10

Membership recruitment is an important aspect of our clubs function and has a direct effect on our budget. Membership has effect on how much money we receive as a club through the dues and Rockwell contributed money from Employee Programs. It affects the amount of activities the club can support. Our dues and budget support the operating expenses of the club, which includes insurance for the flying site and purchase of equipment for training and flight instruction. I hope this next section of the newsletter will help start an open discussion within our club as to how we could encourage membership in CMA.

One thing we have not really pushed is membership enrollment. Our membership had been growing over the past years. We have tried to encourage membership in the CMA through a variety of activities. This has included the Beauty Contest, Test Flights and fun fly events. All of these activities will be futile if we don't promote the club and membership in the club. The club is only a club when we have members.

### **Community Awareness**

Most people want to be involved with a club or organization that serves the community or is setup for the purpose of sharing resources and talents to promote a community goal or objective of the organization. Why does the CMA exist? I think it could be debated and I don't think there is any right answer, but for me I think it is for the enjoyment of the community. We can share our passion for flying model RC. The CMA has reached out to the community through the use of flight demonstration and test flights. Last year, members of CMA performed flight demonstration and initial first flights at the flying field. Frank Gutierrez, Geoff

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Barrance and Crist Rigotti have carried out flight demonstrations for Boy Scout troops and schools. This is basically good PR and is also Kudos for the person doing the demonstration.

Our club helps others in getting through the process of solo flight. Our club is in the process of training in Jamie Johnson and Steve Plantenberg as new flight instructors this year. We will then have a deep staff of people that can instruct others to fly. People like Geoff, Frank, Steve, Mark, Crist and Jamie have been more than willing to help me and other's in attaining the goal of solo flight.

### **Diversity**

A key buzzword in business is diversity. I would also like to say we are an evolving club and have expanded our desires to incorporate other aircraft types and methods of flight. We have had Frank towing up gliders on top of his LT-40. We now have sanctioned helicopter flights and have a helicopter instructor. The CMA is growing in diversity according to the club member interests.

### **Providing a Flying Site**

The positives of our flying site are overwhelming compared to what is available in the Cedar Rapids area. Through the use of our dues, the CMA provides AMA insurance for the Martison Sod Farm. I hope that we never have to use it, but if we do we have it.

I would like to encourage all of us to promote the club and grow the membership. I would like to challenge each of us to consider ways to increase the membership. First, let me state that I am not trying to say that membership is everything, but membership is a good measurement of how we are doing as a club. Following are some items I feel we can use to promote our club and I was wondering what the club membership felt about how we have been using our resources such as the Intranet, Training, and Voice messaging system.



## Promoting the Club

One of my questions is how do we use our message system provided through employee programs? How many members understand how to update the voice bulletin board? Who is responsible for making sure that the messages are accurate and not out dated? Are we using this resource correctly? Are we using the phone messaging system as well as we should?

How do you personally promote the club? It really comes down to letting people know about the hobby. I got involved because of Frank but how did I know that Frank did RC? He promoted it in his office. He had a picture of his planes, which fueled my interests.

One of the ideas I had was to generate a certificate of membership that you could post in your office or outside of it would show that you are a Collins Model Aviator and would include our club emblem.

Another way to promote the club is bring friends out for a test flight. When people come out to the field say hi and get to know them. Spend some time with them explaining the hobby. If you see them at work say hi to them, ask them if they have started build a kit? Organize a test flight for a group or department.

In each of the Collins facilities we can promote the club through use of bulletin boards Do we have members in all the buildings that can support this? Is it important to promote our club to the community? This could include contacting schools or the K12 organization to teach basic flight concepts. If you do a community service project write an article for the FlightLine about what you did.

Is their any interest in getting baseball caps made up that would promote our club?

## Conclusion

If you have any ideas on how to promote the club I would like to talk to you. I would encourage each of us to get a new member involved by the end of this flying season. The CMA is a great bunch of people that I have had the pleasure to be involved with over the past years. I would like for you to consider how you can share this club with others. I would like to

thank all of you that have helped me to achieve this boyhood dream... ☺ ***if I solo this summer! Have a great summer see you at the field.***

**Gregg Lind, CMA Vice President →**



## Hannen Lake Float Fly

By Jim Doty

Twice a year the Cedar Rapids Skyhawks hold a float fly at Hannen Lake, a 38 acre lake 4 miles southwest of Blairstown, Iowa. On Saturday May 20<sup>th</sup> I was able to get away from all my daughters' dance recital activities long enough to stop by for a couple of hours. The weather was great, sunny with frequent periods of low wind (a few times it got a little breezy, but nothing terrible).



There were a number of interesting planes at the float fly. The most popular (as far as the number of planes participating) was obviously the Piper Cub. There were three yellow cub models at the event.



Kyle Friauf flew his Cub, as well as his Balsa USA North Star.



The Cub flew great, but flipped over on landing and had to be recovered with the rowboat. Fortunately there was no damage.



The Cub was fun to watch, but the North Star was really impressive. Kyle showed off the North Star's capabilities, with high speed passes, aerobatics, slow flight, and even a touch and go.

Unfortunately the touch-and-go was a little hard causing a crack to open up on the bottom of the fuselage.

Kyle didn't know anything was wrong until he landed and started another takeoff run. The plane didn't jump off the water like the first time. Instead it barely made it into the air. After a sluggish flight, Kyle was able to bring the plane back for a safe landing. When he opened it up the plane was half full of water.

It says a lot for the plane that it was able to get airborne carrying this much water. Fortunately the damage was minimal. A minor patch should fix the fuselage, and hopefully the radio gear will dry out OK.



For those who don't like cubs, there were plenty of other types of float and seaplanes. There was even a helicopter on floats.



The helicopter took off and hovered over the water about the same as on land. However, halfway through the flight its muffler came loose and it had to land. Luckily the pressure tube attached to the muffler kept it from falling into the water, but for a while the flight was pretty loud. I guess these muffler things really do make a difference.





Not everyone was flying planes. These two were fishing, and others running RC boats. The RC sailboat in the background looked peaceful as it tacked back and forth across the water. Other powerboats zoomed across the lake and spun around in a frenzy.

A scratch-built 1947 Republic RC-3 Seabee was interesting to look at but a little too underpowered to get off of the water. The plane tended to plow through the water, and when it started to get up to speed, water hit the propeller slowing it back down. This one could really use a JATO pack to get it off of the water.





This blue Tiger 2 (named Live Wire) looked like it was ready to fly but lost a float on takeoff and had to be recovered.



This modeler used duct tape on the front tips of the floats to hold lead weights for balance.



This Sig Senior was one of the smoothest coming off of the water. Looked like a very easy plane to fly on floats.

The Hannon Lake Float Fly was a lot of fun. Hope to see you at the next one.

James H. Doty, CMA FlightLine Editor ➔

## *National Newsletter*

### **Basic Homemade Fuels**

by Terry Joe Sprinkle

Using reasonable care and good clean chemicals, you can make up a simple and effective model airplane fuel for your own use. I recommend that if you mix your own fuel, you do your mixing outside, away from open flames, pilot lights, and static electricity. Use clean dry fuel jugs. Fill your jugs up nearly full, tightly cap them to reduce moisture in the fuel, and store them in a clean dry area.

I personally use the formulations below for my engines. These model airplane fuels cost me about \$10 per gallon for the last 10 gallons I made. This includes purchase, tax (if any), hazardous shipping, and regular UPS shipping charges.

All of the following percentages below are by volume. You can use clean dry Pyrex measuring cups, the ones that hold up to 4 cups and have a 1000 ml line at the top.

You will need the following ingredients:

**Castor oil**—Be sure to get high quality castor oil. I recommend Bakers AA castor, Klotz Benol castor or Castrol M castor oil. Generally, medicinal castor has been extensively processed and may have additives, and therefore is generally less suitable for model airplane fuels.

**Synthetic oil**—I suggest Klotz KL-200 Techniplate.

**Nitromethane**—Remember that it doesn't matter how many gallons you purchase, you still pay \$13 hazardous shipping fee, so order several gallons and split them up among club members to save a little money on this charge. I recommend buying Nitromethane from FHS Supply (<http://members.aol.com/fhsoil/>) This is excellent nitromethane and is about 99+% pure.

**Methanol**—I buy mine from a local performance shop.

**Heavy Duty High Density Poly Ethylene (HDPE) gallon jugs**—I also purchase these from FHS Supply, Inc. These gallon jugs are great to put your freshly prepared fuel in and are several times the thickness of the commercial fuel jugs.

#### **Formulations:**

1. 10% Bakers AA castor oil, 10% Klotz KL-200, 10% nitromethane and 70% methanol. For example, using a four-cup Pyrex measuring cup (buy at the local supermarket), take exactly four cups of Bakers AA castor oil and put it in a clean container that can hold two and one half gallons, add four cups of Klotz KL-200 oil, then four cups of nitromethane. Now add 28 cups of methanol and mix thoroughly. I use a good clean 10-liter (2 ½ gallon) Nalgene jug with a spigot for this or a 20-liter Nalgene jug with a spigot for making up five gallons at a time.

It is okay to put the methanol in first, followed by the oils and then the nitromethane. Mix in between each step.

Do this carefully. The methanol is the more volatile and flammable, not the nitromethane.

Mix well, allow to sit, then remix. Now, immediately fill up your clean HDPE gallon jugs. Tightly cap them; you do not want them to pick up excess moisture from the air. Store all chemicals at about room temperature. Pure nitromethane should be stored in the dark.

Be sure you have enough of each chemical before you make up your fuel. If you do this, your fuel will turn out the same every single time and you can depend on the fuel to perform properly. You should read your engine manual and see what the requirements are for your particular engine.

2. For those pilots who prefer a castor oil based fuel, you can use the following: 20% Bakers AA castor oil, 10% nitromethane, 70% methanol. This is among the simplest fuels you can make. I prefer the mix of castor and synthetic oil in formulation one above and have been using it since Klotz KL-200 was first sold in about 1958.

3. For the old cast iron piston Fox .35, you need a castor-based fuel. The older formulations for this engine (e.g., Fox Superfuel) were about 29% castor oil, 5% nitromethane and the rest clean, dry methanol. This still works great in this engine. In this case, if it isn't broke, don't fix it.

However, do not go below about 25% castor oil in this engine or you may damage your engine. There are still a number of engines, like the Cox .049 that require a castor-based fuel for proper lubrication of the ball-and-socket connection of the connecting rod to piston, so these engines do well on straight castor-based fuels, but run well on about 15-30% nitromethane.

3. For the larger two-stroke engines, use 2-4% percent castor oil, the remainder of the 12% total oil will be Klotz Techniplate oil. Use 3-5% nitromethane. For the rest, use clean, dry methanol. The smaller ST engines may need up to 16% oil.

4. For the larger 4-stroke engines, you can use 2-4% castor oil; the remainder of the 18% total oil

is Klotz Techniplate oil and 15% nitromethane. The rest should be clean, dry methanol.

I use 3.6% castor, 14.6% Klotz Techniplate oil, 15% nitromethane, the rest methanol, all by simple volumes. This works in my Saito FA-91S and Saito 170 R3 engine. Some folks even run helicopter fuel at 30% nitromethane in these engines for a little better performance. I prefer 15% nitromethane for routine flying. The idle is fine, power is adequate, and the engine lasts a little longer, too.

My latest FA-90S Saito engine recommended 20% oil in the manual, so I would use that at least for break-in and use at least 18% total oil and 20% is even better. No need to see how little oil you can use before you burn up your engine! Remember this: I have seen engines get destroyed by too little oil, but seldom ever by too much oil, the worst thing they usually do is run crummy.

### Discussion

Low lubrication fuels can account for at least some cases of nickel liner separation. Moreover, many pilots run their engines very lean, and with relatively flat props. This further compounds the problem and can lead to premature failure of an otherwise good, strong engine. A strong, well-built ABC engine is often capable of several hundred hours of running.

Many medium sized two-stroke engines (e.g. .19 - .65 displacement) come with instructions to use a minimum lubrication of 18%. There is good reason for them to recommend this. Some of the Control Line folks even use 22-23% total oil in their engines routinely, including their ABC, ABN, AAC and similar engines. Engines run well on these fuels and typically last for years and years.

I find that around 20% oil is fine for RC use. Remember that larger 2-strokes and 4-strokes generally use less oil than this. This formulation is a bit greasy, so direct your exhaust either down, or down your landing gear and it will keep most of it off your plane. Using formulation 1 above, you will find that your engine runs cooler, runs strong and will last a long time, just like it should.

I am not afraid to lean out my engine a bit and enjoy it. You will also find that your 2-stroke engines will

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generally run well with 5% to 15% nitromethane. I use 15% nitromethane on my 2-stroke performance planes, but nearly all my other sport planes run fine on 10% nitromethane.

I hope this is clear and of interest to your club members. I will be glad to answer any questions they may have about mixing up their own fuels. I mix up my own fuels basically for four reasons:

1. It is relatively inexpensive and very simple,
2. I have done so for more than 45 years,
3. I can mix up better fuels than are available to me at my local hobby shop, and
4. I know exactly what is going in my engines and can tailor it as I need for a given engine.

Happy flying!

from Terry Joe Sprinkle  
sprinkle@np2.mcg.edu

The Nation Newsletter issues can be found on the AMA web site:

<http://www.modelaircraft.org/news/newsletters.htm>

## Heads Up, CMA Activities

### June 2000

- 1-Jun 5-6 PM **Meeting** 6-? PM Advanced airplane training
- 6-Jun 5-? PM Basic airplane training
- 8-Jun 5-? PM Advanced airplane training
- 13-Jun 5-? PM Basic airplane training
- 15-Jun 5-? PM Advanced airplane training
- 16-Jun 5:00 PM Flightline deadline
- 20-Jun 5-? PM Basic airplane training
- 22-Jun 5-? PM Advanced airplane training
- 27-Jun 5-? PM Basic airplane training
- 29-Jun 5-? PM Advanced airplane training

### July 2000

- 4-Jul No Programed Training
- 6-Jul 5-6 PM **Meeting** 6-? PM Advanced airplane training
- 11-Jul 5-? PM Basic airplane training
- 13-Jul 5-? PM Advanced airplane training
- 18-Jul 5-? PM Basic airplane training
- 20-Jul 5-? PM Advanced airplane training
- 21-Jul 5:00 PM Flightline deadline
- 26-Jul 5-? PM Basic airplane training
- 27-Jul 5-? PM Advanced airplane training



## CMA voice bulletin board 295-8888

### Send your input for FlightLine to:

James H. Doty  
MS 108-205 x5-2931

[jhdoty@collins.rockwell.com](mailto:jhdoty@collins.rockwell.com)

### Local Events:

**6/03/00 - 6/04/00** New Hartford, IA (C-Restricted) 2nd Annual Big Bird Fly In. Site: New Hartford International Airport. Robert Nelson CD, 433 Ardmore Waterloo IA 50701 PH:319-233-4771. IMAA spec. airplanes, refreshments available at field, overnight parking. Sponsor: BLACKHAWK RC PILOTS

**6/10/00 - 6/11/00** Ottumwa , IL (C-Restricted) SE Iowa Big Wings Fun Fly. Site: Industrial Airport. Ronald Beasley CD, 13522 120th Ave Ottumwa, IA 52501 PH:515-684-4767. Contact Don Wasson 515 Indian Trail Rd Ottumwa, IA 52501 PH:515-682-8432. RV parking, food & beverages. Landing fee \$5 per day. Sponsor: OTTUMWA RADIO CONTROL FLYERS

**6/11/00** Benton County Prop Busters Fun Fly at Dave Wilson's place on Sunday June 11th. Open flying 8:00am till dark. Lunch will be available. No entry fee. Open to all AMA members. Dave has a nice flying field at his place near Keystone, about 35 miles NW of CR, and it's usually a fun time, with a good gathering of folks from the Waterloo, Cedar Rapids and Des Moines clubs joining in. Take Highway 30 West to Keystone corner, turn North and go approx 9 miles to 64th street. Turn East on gravel 64th and go 1 mile to 16th Ave, then turn South. Dave's place is first on right (West) side of 16th Ave. There will be signs. Dave's number is 319-477-6241.

**6/17/00 - 6/18/00** Montezuma, IA (C) SIG RC Fly In. Site: SIG Field. Chuck Blake CD, 707 15th Ave SW Altoona, IA 50009 PH:515-967-5079. Fun fly type events will be flown. Entry restricted to any SIG kit. Sponsor: DES MOINES MODELAIRES RC CLUB/SIG MANUFACTURING CO

**6/24/00 - 6/25/00** Montezuma, IA (AA) SIG CL Contest for 319, 320, 321, 323, 324, 325, 326(JSO). Site: SIG Field. Mike Gretz CD, PO Box 162 Montezuma IA 50171 PH:515-623-5772. SIG Skyray 35 navy carrier(JSO), SIG Skyray 35 sport race (novice)(O), Old time stunt (J)(S)(O), class stunt (J)(S)(O). Sponsor: SIG MANUFACTURING CO

**7/08/00 - 7/09/00** Des Moines, IA (C-Restricted) 312th Giant Sqd IMAA Fly In. Site: Club Field. Ed Niles CD, 4229 65th St Urbandale, IA 50322 PH:515-276-9058. Sponsor: DES MOINES MODELAIRES

**7/09/00** Lake Mills, IA (C) July Jubille Fly In. Site: Lake Mills Airport. Delane Behr CD, 208 S 4th Ave W Lake Mills IA 50450 PH:515-592-4195. Lake Mills Airport 1 mile east of Care Center on South 10th Ave east. No landing fee, no contests, just fun. Drawing for prizes. Food available. Sponsor: JULY JUBILEE COMMITTEE

**7/30/00** New Hartford, IA (A) New Hartford Combat Days. Site: Club Field. Robert Nelson CD, 433 Ardmore Waterloo IA 50701 PH:319-233-4771. 75 mph combat - u-control. Open RC combat - local rules. Sponsor: BLACKHAWK RC PILOTS

### AMA events web page:

<http://www.modelaircraft.org/Comp/Contest.htm>

### For an AMA membership application:

<http://modelaircraft.org/Mem/Memapp.htm>

### Send your input for the CMA Web Page to:

Steve Plantenberg x5-9625  
[scplante@cacd.rockwell.com](mailto:scplante@cacd.rockwell.com)

### 2000 CMA Staff

President:	Jamie Johnson .....	x5-0984
Vice President:	Gregg Lind .....	x5-0008
Secretary/Treasurer:	Chris Heald .....	x5-0793
Field Marshal:	Mark Woytassek ..	x5-4332
Safety Officer:	Crist Rigotti .....	x5-0612
FlightLine Editor:	Jim Doty .....	x5-2931
Web Page Editor:	Steve Plantenberg ...	x5-9625

### Senior Flight Instructors and Test Pilots

First flights of new airplanes:

Frank Gutierrez

Mark Woytassek

First flights of new helicopters:

Crist Rigotti

Flight Instructors in training:

Irv Anderson

Jamie Johnson

Steve Plantenberg

### For membership information:

Contact: CMA Secretary Chris Heald  
MS 105-191, x5-0793

[cdheald@collins.rockwell.com](mailto:cdheald@collins.rockwell.com)



## Late arrivals:

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### **CMA Meeting Minutes**

By Chris Heald

**May 4, 2000**

Jamie Johnson called to meeting to order at 5:40 pm at the Flying Site. Seven members were in attendance. The minutes from the previous meeting were approved as written. The Treasury Report was given.

#### **OLD BUSINESS:**

Gift Certificates for the Beauty Contest winners were handed out. The certificates were from Box Kar Hobbies.

#### **NEW BUSINESS:**

Jamie Johnson won tonight's gift certificate.

Mark Woytassek made a motion to purchase 2 buddy-boxes, 2 trainer cords, and 2 new changing harnesses. The motion was seconded by Paul Carter and passed by unanimous vote.

Mark Woytassek motioned that each trainer pilot make repairs to their respective club trainers. The money spent on the repairs must be less than \$40. The motion was seconded by Crist Rigotti and passed by unanimous vote.

Jamie asked if anyone would be interested in buying bulk fuel (15% Omega). Interested members should contact Jamie Johnson.

Mark Woytassek suggested getting CMA Club hats. The topic was discussed by the members and Jamie was asked to look into prices styles.

The meeting was adjourned at 6:05pm.

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