



# The Antenna

August 2020



*William Gross Jr following Will senior's footsteps into the world of pattern flying.*

***Upcoming Flying Event: Dogfight over Benalto; Sep 19 & 20.***

***Next Club Meeting: 7:30 PM, Wed. Sep 2 at the CARFF Field (Practice Safe Social Distancing!)***

## ***In this Issue:***

John Ferguson's Super Strikemaster - part 3

LiPo Battery Care

Tim Hergert's MonoKote Removal Learnings & Tips

August Club Meeting Minutes

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**NEXT CARFF FLYING EVENT: Dogfight over Benalto: Sep 19 & 20. Details next month.**

# 2020 Executive, Standing Committees and Contacts

## CARFF EXECUTIVE

<b>President</b>	Ron Hall, 587-877-9720, <a href="mailto:tr_hall@hotmail.com">tr_hall@hotmail.com</a>
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## **CLUBHOUSE MANAGEMENT**

TBA

## **FIELD AND MAINTENANCE COORDINATOR**

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Rob McCoy

## **NEWSLETTER EDITOR**

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## **WEBMASTER**

Vince Mulhall, cell: 1-403-505-7002, [vmulhall@shaw.ca](mailto:vmulhall@shaw.ca)

## **COUNTY OF RED DEER BYLAW ENFORCEMENT**

403-343-6301 (Call will be forwarded to member on duty).

**Field GPS Coordinates: N52° 12' 6", W113° 42' 18" (N52° 12.106', W113° 42.304')**

**CARFF on Facebook** <https://www.facebook.com/groups/1418503868392501/>

## Super Strikemaster Scratch Build

John P. Ferguson

### PART 3

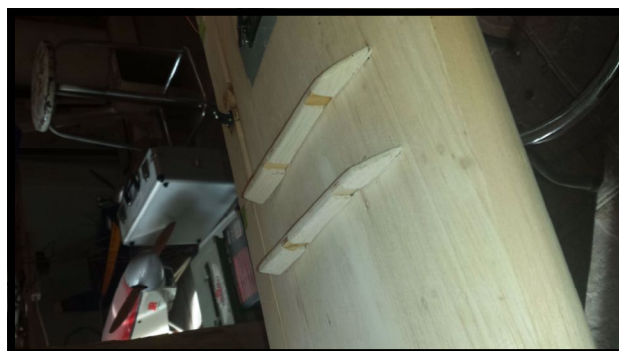
Okay, the last details. With the wing in place, I added the front and rear fairings to the wing. Simple construction with sheet balsa and sanding to shape.



Ah yes the bombs. These used D sized rocket tubes (cardboard) selected nose cones, and 1/32" plywood fins. Not bad.



Once the bomb pylons are made, the rockets are easy. A little Rustoleum Grey spray paint and they look good.



Time to start covering. Pull out the grey Ultracoat, some white and some black. I don't cover over top of covering when I can avoid it so starting at the back I ironed on some grey 1/2" past the invasion stripes. Then the white overlapping the grey to 1/2" past the grey on the front. Then the final grey overlapping the invasion stripe all the way to the nose. Finally I cut some 2" black strips to create the white and black stripes. Yes the black is ironed on over the white.

I won't kid you, the canopy was a bitch and I used 4 or 5 pieces to get this good. In the nose area I use epoxy to coat and seal the ultracoat edges (fuel proofing). Finally with great care I applied the decals from "Callie Graphics". This was fuel proofed by adding clear vinyl film over the decals. There were some fiddly little issues building this model but I think the end result is very acceptable and the cost of this airframe is less than half the cost of a comparable arf. So there you go, see at the field, and try a scratch build. You will enjoy it.



***KEEP THE BLUE SIDE UP, SEE YA AT THE FIELD***

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## Monokote Removal

### Tim Hergert

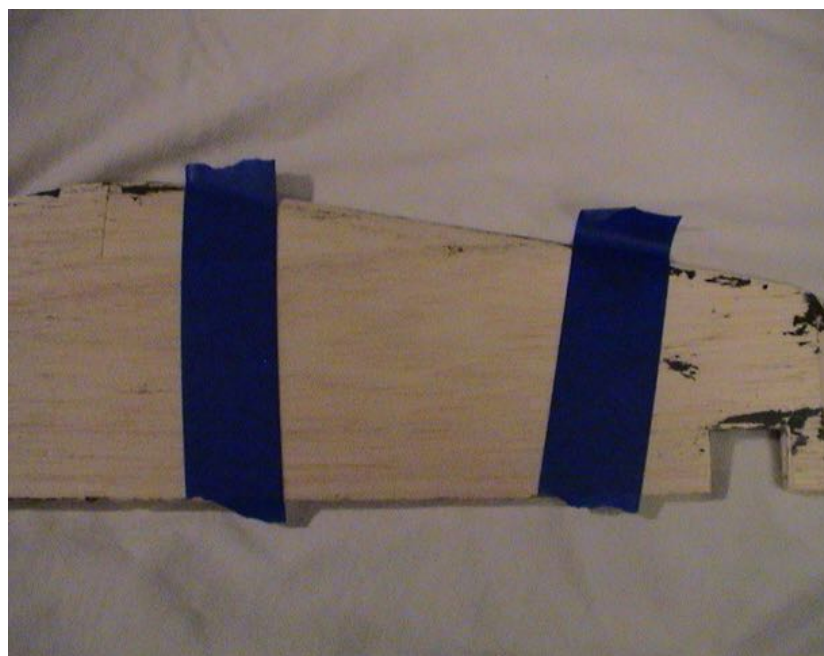
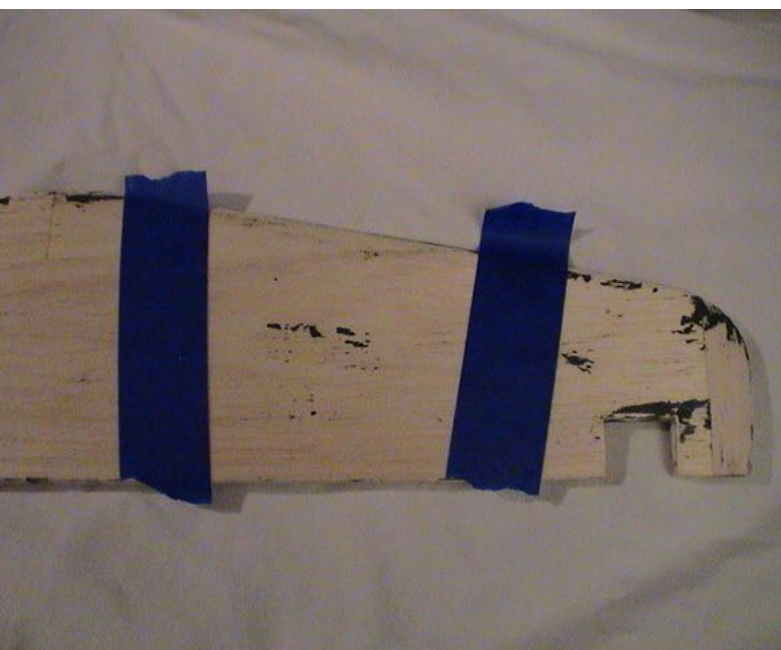
While working on my Mustang project, I ran into lots of problems removing the covering and areas of residue. I did the usual check online to see if I could find some info. Nothing really dealt with the "flat color" MonoKote. A pain to apply and worse to remove. The "Problem" is that if you use heat... the pigmentation completely separates from plastic.

Came to the conclusion that I needed something stickier than the adhesive backing on the MonoKote. Tried using ironing on scrap covering material, masking, packing, and then Gorilla tape. The method I came up with is as follows:

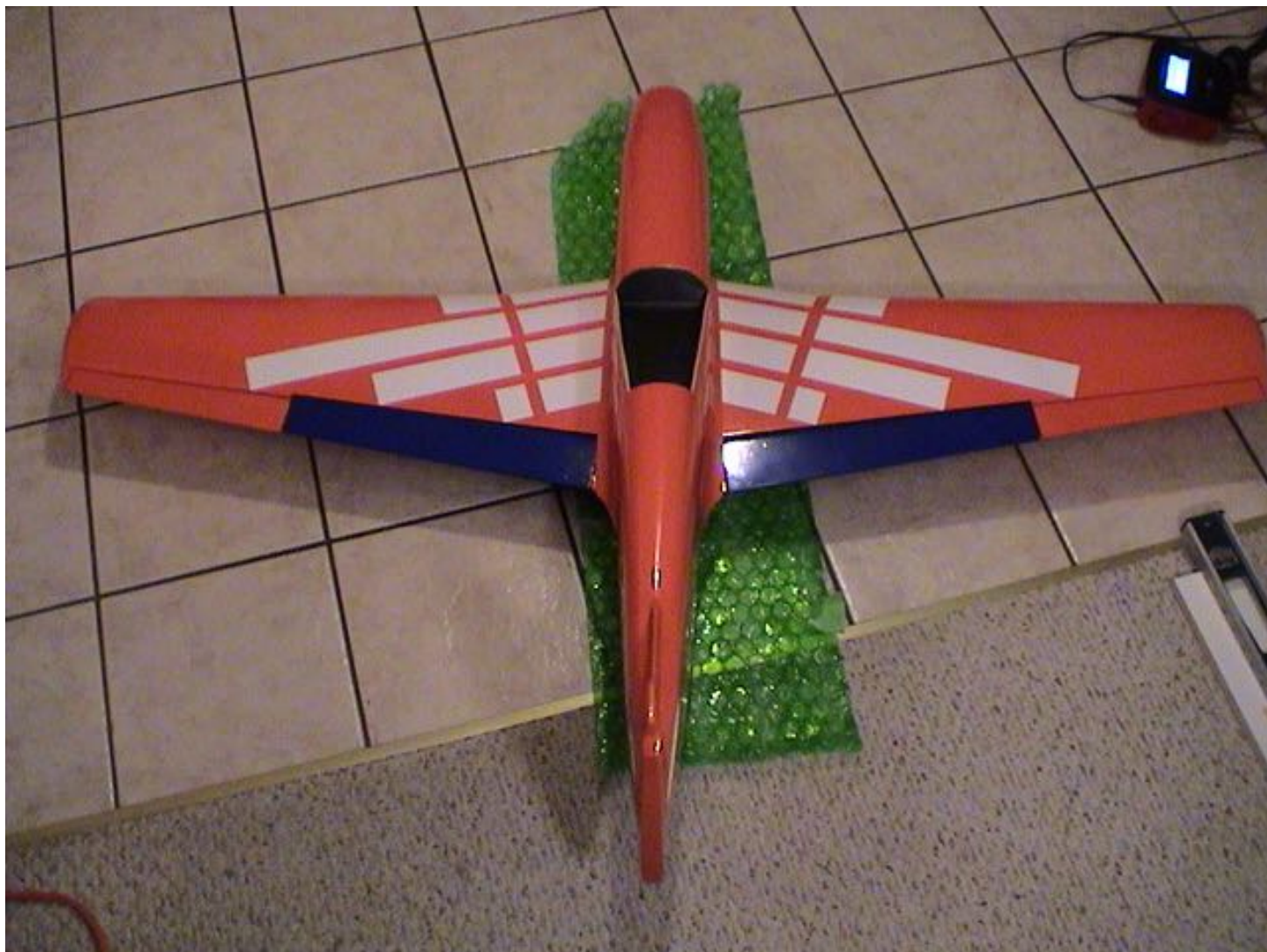
Basically lay your part on something soft so you don't damage the other surface.  
(I just set it down on the carpet)

- Cover the area you are stripping with a 1" wide strip of Gorilla tape (black stuff), with the grain of the wood.
- Rub the tape back and forth with your palm / base of your thumb until it gets good and hot.
- Then just tear it off quickly.
- The residue comes off with very little damage to the wood surface.

Before and after photos:



**Photo of the Mustang nearing completion:**



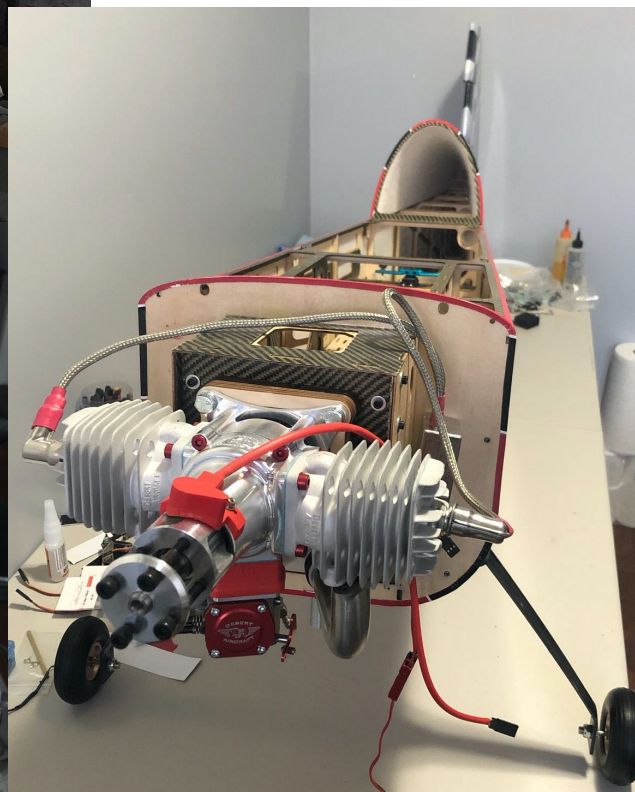
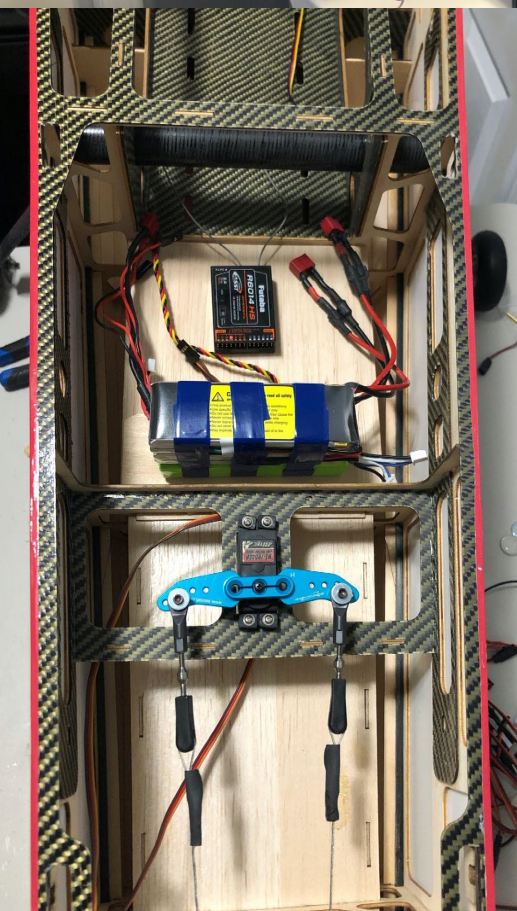
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## Mike Trevors' Edge 540

"93" Tstorm Edge 540. Was hoping to have it complete but like a month ago but been so busy with work it has to be put down a couple steps on the priority list. I have mounted a

Twin DA 70 with 2 into one header terminating at a front dump MKS canister. I have used all high voltage Hitec servos, Wolverine switch, Thunderoower LIPO's. Hoping to have it complete soon as there is not much left to complete."



## Care & Feeding of LiPo Batteries

### Eraldo Pomare

Lithium Polymer (LiPo) batteries are so popular and common in modern RC flying that it's easy to become complacent in their use and handling. There have been many articles with first and third hand accounts of house fires (and other major fires) caused by LiPos, so I won't dwell too much on the dangers; more on their safe handling and how to maximize longevity. Many of the points below are common knowledge, some points may be new to some members and some are clearly my personal bias. Below is a table of voltages that I use as reference.

LiPo Battery Voltages	1S	2S	3S	4S	5S	6S
Full Charge	4.2	8.4	12.6	16.8	21.0	25.2
Storage	3.8	7.6	11.4	15.2	19.0	22.8
Safe Cut-Off	3.5	7.0	10.5	14.0	17.5	21.0
Absolute Min.	3.0	6.0	9.0	12.0	15.0	18.0

### Charging

- Always charge outside on a concrete or fireproof surface away from flammables.
- Always use a balance charger. No exceptions.
  - In my opinion, LiPo chargers should not have a no-balance option.
- My preference is to charge at a 1C rate, even if the manufacturer allows a higher rate. 1C is the same as the 1h discharge capacity (e.g. 1C for a 5000 mAh pack is 5000mA = 5A). If you do chose to go higher, never exceed the manufacturer's rating and if your charger has a battery temperature probe, use it.

### Flying/in use: How low can you go (voltage)?

Probably the quickest way to kill a LiPo is to discharge it too far (i.e allow the voltage to drop below a safe value). Below 3.0 v/cell is a sure way to murder your LiPo packs. If at all possible, use voltage telemetry to announce your choice of safe minimum voltage. I have chosen to set mine at 3.5V/cell. This allows me to do a circuit and a missed approach at part throttle without dropping too close to 3.0V/cell. This margin works well for my EDFs and can be narrowed for lower current-draw planes.

Flight timers work, but because time is an indirect measurement, one needs to be diligent in monitoring after flight voltages vs. time flown so as to set a realistic but conservative timer.

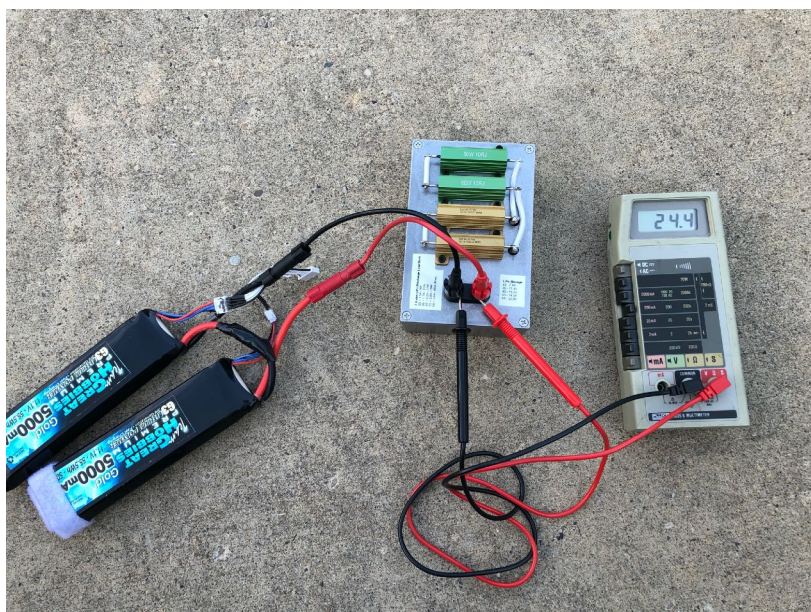
### Storage

After a day's flying, bring the pack(s) to their storage voltage unless you plan to fly within a couple of days. The easiest way to do this is fly the pack down to it's safe cut-off voltage then charge it using the "storage" function of the charger.

Sometimes this is not practical and a fully charged goes home: the maximum discharge rate of most chargers is between 0.4A to 0.6A which means it can take several hours to discharge a

large pack. You can buy or build a load bank discharger capable of higher currents. My home-brewed unit in the picture below uses a network of 50W resistors arranged to make a 7.5 ohm circuit capable of 85W max: good for up to 6S. I need to use a voltmeter to keep track of discharge state. Also, it gets hot!

The commercial unit to the right is rated for 80W, has a built in fan, selectable discharge rate, a cell count up to 8S and automatic stop at storage voltage for ~ \$50. Heck, it cost me almost that much for the home-brew!



### Where to Store?

Fireproof storage is best. Many of us use metal ammunition boxes available from Princess Auto.

### Signs of LiPo Pack Damage

- Any pack that gives-off a sweet odour has a damaged envelope and could be dangerous.
- Any pack that is puffed has likely been electrically over-stressed or possibly stored poorly. It could be dangerous.
- Any pack involved in a significant crash may have a damaged envelope and could be dangerous.
- By danger, I mean fire-risk and should be discarded. Also, capacity could be degraded.
- Best place for a damaged or on-fire LiPo: bucket of water or saltwater.

### LiPo Disposal

My preferred disposal method is to drop suspect pack into a saltwater bath for a couple of days then take the pack to the city dump's battery recycle table. No cost.













Treated well, LiPos will give years of safe service. Mistreated, they can do huge damage and cost one dearly. Treat them well!

## Webmaster's Report

### Vince Mulhall

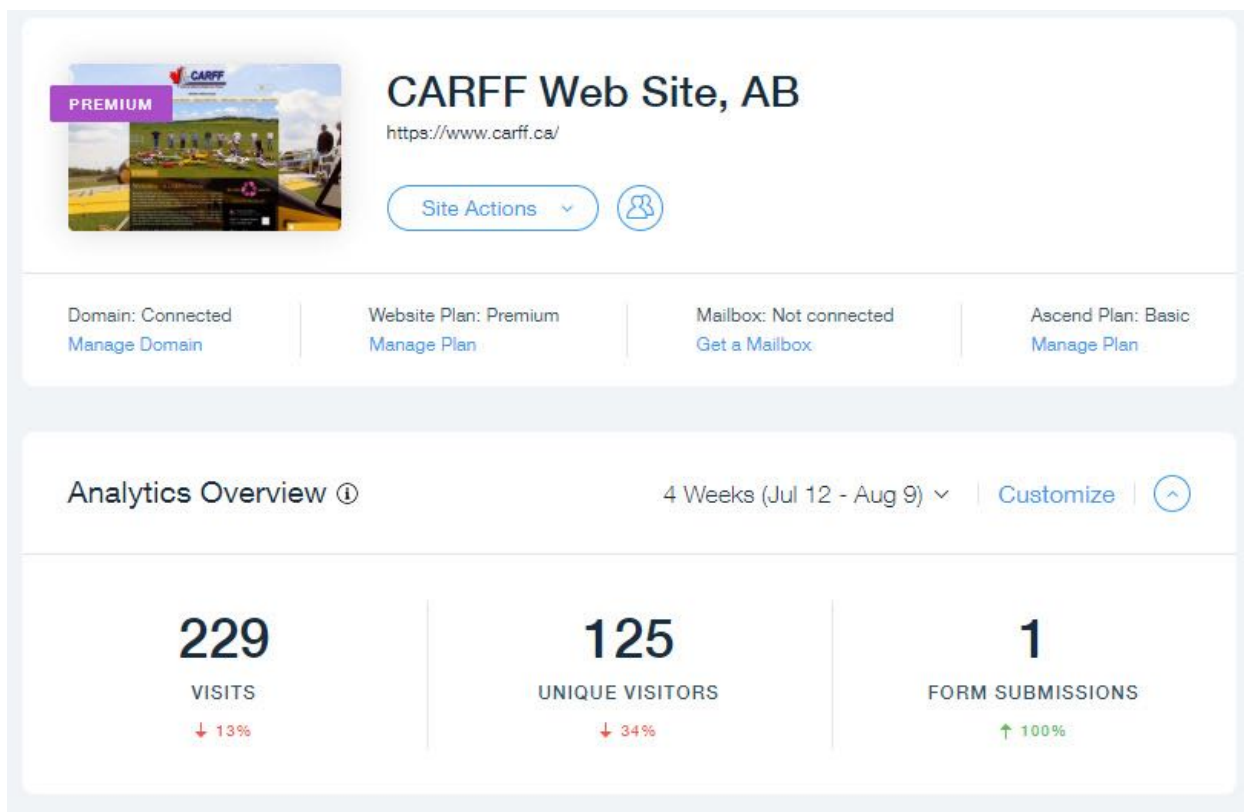
#### Web Stats

Listed below are results to date of e-mail campaigns – The upper two are for “Buy and Sell”, the other two for “Club Meetings”.

	Join CARFF Web Site, AB' ... <small>Sent on: August 7, 2020 at 2:14 PM</small> <b>197</b> <small>DELIVERED</small>	<b>77</b> <small>OPENED</small>	<b>22</b> <small>CLICKED</small>	  <a href="#">Reuse</a>
	Join CARFF Web Site, AB' ... <small>Sent on: July 13, 2020 at 4:36 PM</small> <b>196</b> <small>DELIVERED</small>	<b>100</b> <small>OPENED</small>	<b>28</b> <small>CLICKED</small>	  <a href="#">Reuse</a>
	CARFF Monthly Club Meet... <small>Sent on: July 30, 2020 at 12:12 AM</small> <b>144</b> <small>DELIVERED</small>	<b>90</b> <small>OPENED</small>	<b>11</b> <small>CLICKED</small>	  <a href="#">Reuse</a>
	CARFF Monthly Club Meet... <small>Sent on: July 7, 2020 at 6:22 PM</small> <b>154</b> <small>DELIVERED</small>	<b>94</b> <small>OPENED</small>	<b>5</b> <small>CLICKED</small>	  <a href="#">Reuse</a>

### CARFF Web Traffic

This represents the visits to the CARFF “Home” page. Keep in mind that visits to the site to pages directly linked from Google, or other search engines (ie: Auction page, Forum pages, Membership pages, etc.) are not registered on the “Home Page” counter. The actual visits to the site are about 2-1/2 X what is indicated... We regularly get visits from all over the world, where Australia, Iran, UK, USA, and Czech Republic seem to be the most popular.



### **EDITOR'S SOAPBOX - Eraldo Pomare**

It's good to hear that folks are out enjoying the weather and field. Also really good to have had a club meeting - first one since March!

I took a couple of vacation hours yesterday - the weather *always seems* to be fantastic on Mondays; looking forward to retirement :) Anyway: Tony, Wayne, Rey and Ron were out there mowing and I was able to fly safely on the other runway. Thanks guys! BTW: thermals were unbelievably strong - couldn't miss them.

Next planned event is on the 40th Anniversary Dogfight Over Benalto on Sep 19 & 20. More info to follow; next month's newsletter will be out before then, but mark your calendars!

*Note: "The Antenna" needs your articles, photos and sketches! Previously published articles must be accompanied by a release (permission) from the copyright holder.*

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**NEXT CARFF FLYING EVENT: Dogfight over Benalto: Sep 19 & 20. Details next month.**

## CARFF General Meeting August 5th, 2020

In Attendance: Ron Hall, Chris Warner, Eraldo Pomare, Ethan Brown, Rob McCoy, Tony Lindhout, Jeff Denny, Cory Deibyshire, Mike trevors, Dave Evens, George Rehman, Buzz Berezowski, Tuy Johnson, Vince Mulhall, Phil Dessureault, Brian Davies, Wayne Hutchacher, Tim Hergert and Bruce Schotlie.

The meeting was called to order @ 19:31 by Ron.

Agenda: Additions - Memorial plaque George.

Motion made by Tony, Seconded by Cory to approve the agenda. Carried.

Minutes:

Motion was made by Dave, Seconded by Cory to adopt the March minutes as published in the newsletter. Carried.

Financial Report:

The balance in the bank account is \$9,905.18 and a GIC of \$ 15,704.53 for a total of \$24,799.71.

Motion made by Rob, seconded by Brian to adopt the financial report. Carried.

Old Business:

Door is fixed on the Club house.

Sea can has CARFF locks on it now .

New Business:

New Sea Can requests

- Vents in the roof for ventilation.
- CARFF logo needs to be painted on it.
- Need to be moved to where the old garage sits.

CARFF Auction 2020 still in a holding pattern due to Covid-19

Chris made a motion to have , Rob McCoy , Ron Hall , Mike Trevors signing authority for the Carff Club at Servus Credit Union. Jon Fromm is to be removed from having signing authority at Servus Credit Union.

Seconded by Tony, Carried by all..

Open Discussion:

George will be making a new plaque for the memorial plaque that is in the club house , see George for more info.

Adjournment: Motion by Ron at 20:15 that the meeting adjourned. Carried.

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Pres. Ron Hall

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Sec. Chris Warner

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[Mila Petrik](#) has a non RC flying request:

“I belong to a motorcycle chapter Guardians of the Children of Blackfalds and they will have an Empowerment Ride and Drive for the kids towards the end of the months.

In your next newsletter (If appropriate), could you please publish the Pledge Form and see if any of the CARFF member would be willing to give a donation for the cause? Any amount, no matter how small would be greatly appreciated. This is used for doing things for the neglected or abused kids.

See the Website [www.guardiansofthechildrencanada.com](http://www.guardiansofthechildrencanada.com)

If anyone is willing, they can contact me (or send me the form with their pledge) and I will come and collect the same.

Thanks in advance

Mila”

(pledge form next page)



**Guardians of the Children  
Pledge Ride  
Empower the Children**

[illegible]

**Registration : \$20.00 per person.**

**Collect \$50.00 in Donations and your registration is FREE !**

### Registered Riders Info:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

E-Mail: \_\_\_\_\_



## 2020 Calendar of CARFF Events

Sep 02, 2020 (Wed)	Club Meeting, CARFF Clubhouse, 7:30PM
Sep 19 & 20, (Sat/Sun)	Dogfight Over Benalto - 40 <sup>th</sup> Anniversary Event. Organizer: Gary Hillman
Oct 03, 2020 (Sat)	CARFF Auction, Sylvan Lake. Organizer: Rob McCoy <b>&lt;Tentative New Date&gt;</b>
Oct 07, 2020 (Wed)	Club Meeting, CARFF Clubhouse, 7:30PM
Nov 04, 2020 (Wed)	Club Meeting, Red Deer Flying Club, 7:30PM
Dec 02, 2020 (Wed)	Club Meeting, Red Deer Flying Club, 7:30PM <b>***Executive Election Night***</b>

**NOTE:** If you know of other clubs who would like to have their events listed in the CARFF newsletter, please have them send the info to the [editor](#)

**Ron Hall took this photo of our field from a Cessna 140 on Monday morning. Nice thermal generator adjacent to the field!**




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