



# The Antenna

May 2018



Jolon Martin's helicopter low and inverted after a very impressive flight on Sunday May 6th

***Next Club Meeting: Wednesday, June 6<sup>th</sup>, 19:30, [CARFF Clubhouse](#)***

***Upcoming Flying Event: Show & Shine May 12<sup>th</sup> at the CARFF Bawtinheimer Field***

***In this Issue:***

Randolph Janssen Experiments

May Meeting Minutes

***May 26 Auction Reminder***

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**NEXT CARFF FLYING EVENT:** Show & Shine, May 12th at the CARFF Bawtinheimer Field.

**CARFF AUCTION:** Sat May 26, Sylvan Lake Community Centre, 4725 - 43 Street, Sylvan Lake. Consignment at 09:00

# 2018 Executive, Standing Committees and Contacts

## **CARFF EXECUTIVE**

<b>President</b>	Jon From, 403-896-7175, <a href="mailto:jon@cloud9aviation.ca">jon@cloud9aviation.ca</a>
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<b>Director</b>	Rob McCoy, 403-347-1363, <a href="mailto:rgmccoy@shaw.ca">rgmccoy@shaw.ca</a>

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## **CLUBHOUSE MANAGEMENT**

TBA

## **FIELD AND MAINTENANCE COORDINATOR**

Rob McCoy (403) 347-1363

## **INSTRUCTOR COORDINATORS**

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## **AUCTION**

Rob & Gale McCoy

## **NEWSLETTER EDITOR**

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## **WEBMASTER**

Vince Mulhall, 403-755-1953, cell: 403-872-1911, [vmulhall@shaw.ca](mailto:vmulhall@shaw.ca)

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

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

**Fire Burning Permit:** Not Required.

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

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

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## Randolph Janssen experiments & discusses:

### AILAMINERON

An amalgamation of two words, Aileron and laminar to express the concept of a laminar air flow aileron.

THE WING is a 40" span with an 11" chord. It has a 3/4 degree internal dihedral. The front spar is made from my last good piece of Sitka spruce and the rear spar is a truss made from 3/16 balsa timbers and laminated front and back with CA saturated velum. (30 bond drafting paper)



The cross spacers you see kris-krossing the spars and leading/trailing edges is 1/8 balsa wood salvaged from a broken 9 foot yellow plane wing thrown away from last years auction.

The runners you see from leading to trailing edge, allows the covering to span the length of the wing without touching the spars, inturn preventing the spars from interrupting the airflow.

I made these runners from bamboo shish-kebab skewers. I c.a'd them to a piece of scrap wood (ten at a time) and used a block plane to shave flats on them ten at a time.

The aileron servo is set in a stiff box at the center of the wing that doubles as the securing platform to the body of the plane. Next came the mounting of the single 42 oz/inch servo and the spacing of the twist rods and servo push/pull rods within the structure of the wing. One servo controls 4 twist rods that all turn the same direction at the same time. the bending of these rods determines the direction and deflection of the firm flexible MYLAR lamineron membranes attached to the trailing edge of the wing.

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THE BODY of the plane is made from machined 1/8 Baltic birch patterns sandwiched in-between solid balsa spacers.

These spacers are the same thickness as the carbon fiber golf club shaft that runs the length of the plane.



The carbon fiber shaft that is encapsulated by the wood body was roughed up with 120 grit sand paper and c.a'd into place.

The body also houses...

A robust mounting for an E-flight 15 out runner electric motor.

A 40 AMP ESC fitted with a corrugated aluminum heat sink.

A housing for a Battery and radio receiver that is tucked neatly between the motor

mount and the front of the wing.

robust wing mountings that should be fitted with plastic bolts.

And a pair of 57 OZ/inch servos, that are mounted directly behind the wing. these in turn are connected via carbon fiber rod in V-tail configuration to the tail section.

THE TAIL is an articulating elliptical duct consisting of two box beam front spars and a back beam rear spar layered up from an elliptical mandrel with Baltic birch veneers sourced from Windsor ply-wood.

The carbon fiber push/pull rods act with a V-tail action onto two metal rods that are made to cross thru drilled holes of one end of a universal drive shaft originally intended for use on an RC truck.

The other ends of the crossed metal rods are secured to the outer perimeter of the ellipse high from its center so landing is less likely to damage the duct.

The finishing touch on the plane is the drag wire that is made of a single piece of 1/32 piano wire wrapped around the shaft and projecting down to the ground giving just enough support to hold the tail of the plane off the ground.

This scratch build took me 3 weeks of nights to build over 14 months.

Lots of planning was needed in between building sessions to figure out the best way to achieve the design goals.

To help in this I also created an Excel spread sheet that helped to manage the center of gravity of the plane by tracking all the "moment values" of the materials used to build it.

I had A-lot of fun building this plane, But the first flight, done with skis, on march 13, 2018, was not fun at all.

It was after work on a good calm +6 degree sunny day. The field had a good, stiff, wind blown snow surface.

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I set the plane down and gave it 30% power to get it going, I had the expectation to slowly work up to the power needed for lift off.

20 feet out ,the plane hit a blown in foot print and broke the left ski.

20 min later the next attempt was done with a balsa and CA patch job on the ski.

With full up elevator and a ready for anything attitude I applied 100% power.

40 feet out it left the ground without rolling and climbed aggressively to 4 mistakes high before I levelled it off. the next function i needed to perform was a circuit.

This plane is fast. faster than anything I have flown before. despite my ready for anything attitude, I was caught completely off guard.

Because of the combination of 100 percent servo throws and 100 percent throttle the laminarons were very sensitive.

My top priority quickly became landing it in one piece.

My biggest fear was getting lost trying to rolling the plane right side up before pulling up out of a dive.

by reducing the throttle to 50% I was able to land the plane in 5 very nervous attempts.

I have flown this plane a few times since, and have tweaked it slightly to make it easier to fly and land.

I have learned a lot building this proof of concept plane and will apply the knowledge to my next scratch builds which will more than likely be a cargo carrier of some type.

## EDITOR'S SOAPBOX

Eraldo Pomare

Remember to come out & help at CARFF's only fundraiser of the year: the **Auction on Saturday May 26**; see Rob & Gale McCoy's poster/notes below. It is important that we have a successful auction - the proceeds keep our dues at their current level.

We have had two consecutive weekends of great flying weather - off to a great start to spring! Lots of old & some new friends were at the field yesterday; see the collection of photos below.

Ron Hall's Show & Shine is scheduled for next weekend, May 12. Bring out your new and not-so-new planes.

Thanks to Randolph Janssen for the article on his latest development. Randolph continues to develop & test different concepts and even new words! Great to see experimentation.

See you all at the field!

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

### ***Annual CARFF Auction. Saturday May 6th***

*Sylvan Lake Community Centre, 4725 - 43 Street, Sylvan Lake.*

*Doors open for Consignment at 09:00. Auction Starts at 11:00*

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## MAY 26 2018 CARFF AUCTION JOB APPEAL AND DESCRIPTION

**PLEASE, PLEASE** COME TO THE AUCTION TO HELP. THIS IS OUR ONLY FUND RAISER AND WITHOUT THE MONIES DERIVED FROM THIS WE WOULD HAVE TO DOUBLE OUR MEMBERSHIP. SO FOR AS FEW HOURS WORK YOU CAN SAVE YOURSELF MORE THAN \$125. LAST YEAR WE HAD ENOUGH PEOPLE SO THAT EACH VOLUNTEER MEMBER EARNED \$40 PER HOUR FOR THE CLUB.

WE START AT 8:00 AM AND PUT OUT THE CHAIRS AND TABLES , AT 9:00 AM WE LET THE HOARDS IN TO REGISTER THEIR SALE ITEMS. WE NEED ALL HANDS ON DECK TO ACCOMPLISH THIS IN THE 2 HOURS ALLOTTED. WE HAND THEM A CONSIGNMENT SHEET AND SHEET OF LABELS AND HAVE THEM WRITE DOWN THEIR ITEMS FOR SALE AND TO LABEL WITH A SELLERS STICKER AND A BUYERS LABEL.

WE THEN GO OVER THE ITEMS AND THE CONSIGNMENT SHEET TO MAKE SURE ALL IS IN ORDER AND HAVE THEM SIGN THE SHEET, GIVE THEM THE BOTTOM COPY AND WE KEEP THE WHITE AND YELLOW COPY. HELP THEM TO PUT THEIR ITEMS IN THE HALL , WE WILL HAVE AN ORGANIZER THERE TO HELP YOU PUT THINGS ON THE RIGHT TABLE.

WHEN THE AUCTION STARTS THERE ARE THREE AREAS THAT YOU CAN HELP IN, FIRST IS TAKING PLANES AND ITEMS TO THE STAGE SO THE AUCTIONEER CAN HAVE A STEADY FLOW OF PRODUCT TO SELL, SECOND THE LOCK-UP AREA RUN BY TONY LINDHOUT, AND THIRDLY THE CONCESSION BOOTH.

ANY TIME YOU WANT TO PERUSE THE ITEMS FOR SALE OR TO BID ON SOME THING, THERE IS USUALLY ENOUGH PEOPLE TO COVER FOR YOU AND IT YOU FIND SOMETHING YOU REALLY WANT TO BID ON JUST TAKE IT TO THE FRONT AND HAVE THE BOYS GET YOUR ATTENTION WHEN IT'S UP FOR SALE.

THERE WILL BE A WORK PARTY TO LOAD TABLES AT 7 PM FRI 25 AT THE FIELD

AUCTION CHAIR  
ROB & GALE McCOY

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## CARFF General Meeting

May 2, 2018

In Attendance: Brian Davis, Chris Warner, Gale McCoy, Jon From, Rob McCoy, Mike Tevors, John Ferguson, Tony Lindhout, Cory Derbyshire, Scott Nelson, Randolph Janssen, Wayne Hopp, Gary Allison, Tim Hergert, Buzz Berseowski, Eraldo Pomare, George Rehman, and Wayne Hutmacher.

The meeting was called to order @ 7:31 by Jon.

Agenda: Additions - None.

Motion made by Brian, seconded by Tony to approve agenda. Carried.

Minutes:

Motion was made by Rob , seconded by Eraldo to adopt the April minutes as published in the newsletter. Carried.

Financial Report:

The balance in the bank account is \$10,099.13 and a GIC of \$ 15,540.92 for a total of \$25,640.05

Motion made by Gale, seconded by Tony to adopt the financial report. Carried.

Old Business:

HotDog machine for the auction, Jon to take care of it.  
Carff Show and Shine May 12, 2018 start time 10:00am

New Business:

2018 CARFF auction MAY 26 Sylvan Lake. Everyone needs to help with this event.

- Notification has been sent out to prev buyers/sellers of the new date
- May 25 @ 19:00 loading Tables into the trailer at the Carff Airfield.
- May 26 @ 07:00 am Humpty's Breakfast.
- 08:00 am Auction Setup.
- 11:00 am Auction to start.

Tony Lockup , Gary sound Equipment, Scott Kitchen, Jon kitchen food/supplies.

Dust control paid for for 2018 , will be done by the country.  
June 9/10th Sailplane weekend see Eraldo for more details.

Open Discussion:

None

Adjournment: Motion by Gale at 8:10 that the meeting adjourn. Carried.

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## 2018 Calendar of CARFF Events

May 12, 2018 (Sat)	Show & Shine - Organizer: Ron Hall
May 26, 2018 (Sat)	CARFF Auction, Sylvan Lake ****RE-SCHEDULED****
Jun 6, 2018 (Wed)	Club Meeting, 7:30 PM, CARFF Field
Jun 9/10 (Sat/Sun)	Aerotow & Sailplane Weekend - Organizer: Eraldo Pomare
Jul 4, 2018 (Wed)	Club Meeting, 7:30 PM, CARFF Field
Aug 1, 2018 (Wed)	Club Meeting, 7:30 PM, CARFF Field
Sep 5, 2018 (Wed)	Club Meeting, 7:30 PM, CARFF Field
Sep 15/16 (Sat/Sun)	Dogfight over Benalto - Organizer: Gary Hillman
Oct 3, 2018 (Wed)	Club Meeting, 7:30 PM, CARFF Field
Nov 7, 2018 (Wed)	Club Meeting, 7:30 PM, Red Deer Flying Club
Dec 5, 2018 (Wed)	Club Meeting, 7:30 PM, Red Deer Flying Club **Election Night 2018**

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](#)

[CRAMS](#) Aerotow: July 7 & 8




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