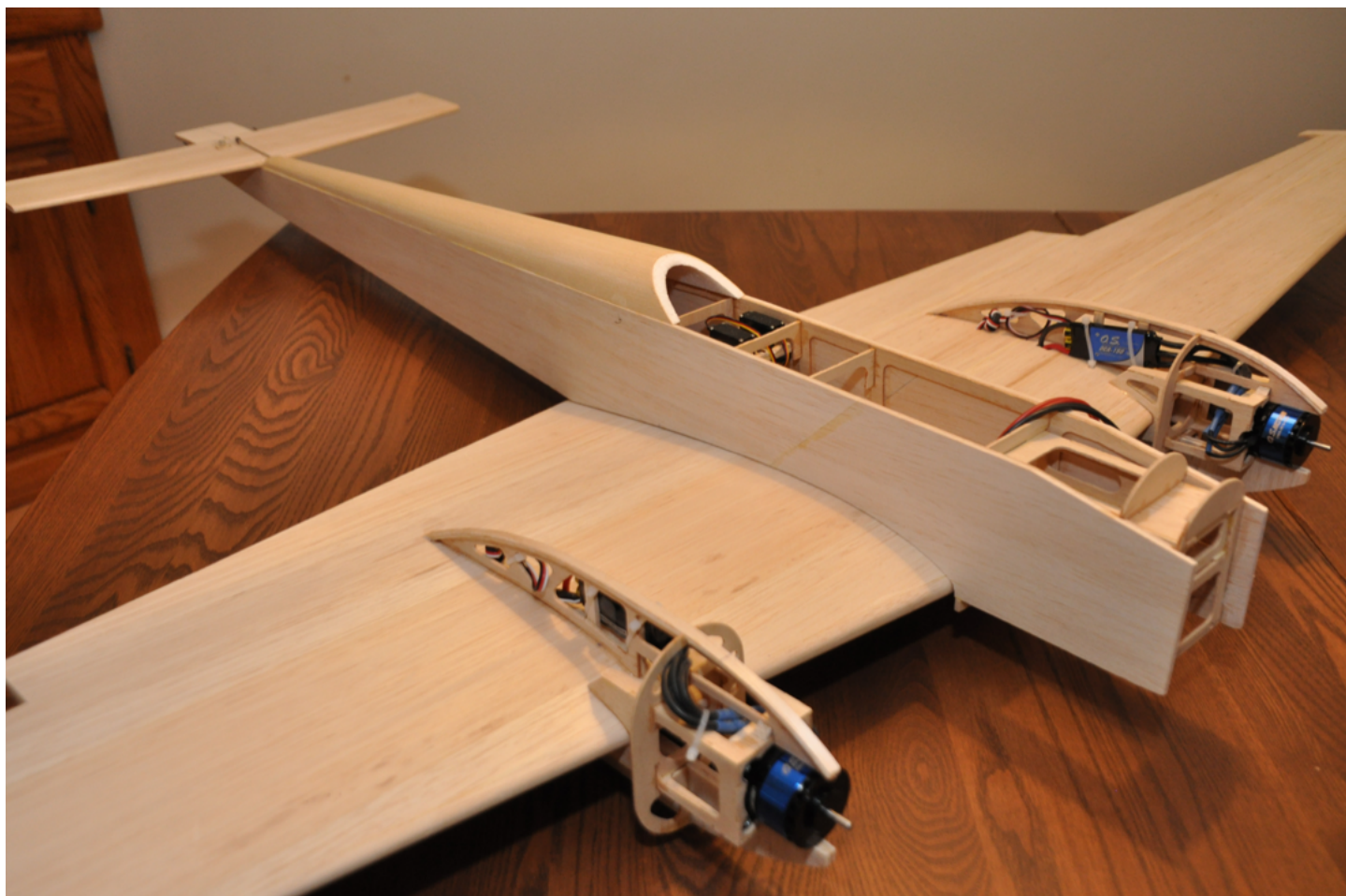




The Antenna

February 2015



Twin electric power Messerschmitt Bf110 taking shape.

Next Club Meeting: Wednesday, March 4, 2015. 7:30PM at the Red Deer Flying Club

*****NOTE: New winter venue*****

In this Issue:

Safety Committee Report

2015 CARFF Budget and
2014 Year End Financials

Feb Meeting Minutes and
Bylaw Vote Result

Messerschmitt Bf110 Build
Continued

NEXT CARFF FLYING EVENT: Sun Feb 15th, Indoor Flying, Penhold Multiplex, 13:00 - 16:00, \$10/pilot

2015 Executive, Standing Committees and Contacts

CARFF EXECUTIVE

President Jon From, 403-886-5515, jon@cloud9aviation.ca

Vice Pres. Harvey Fodor, 403-347-9256, hfodor@transwest.com

Secretary Chris Warner, 403-589-0298, warner_c@hotmail.com

Treasurer Gale McCoy, 403-347-1363, rgmccoy@shaw.ca

Director Brian Davies, 403-318-4577, ve6ckc@gmail.com

Director Tony Lindhout, 403-347-8463, tslindhout@shaw.ca

Director Will Gross, 403-346-6119, ti2wgo@hotmail.com

CLUBHOUSE MANAGEMENT

TBA

FIELD AND MAINTENANCE COORDINATOR

Rob McCoy (403) 347-1363

INSTRUCTOR COORDINATORS

Will Gross 403-346-6119,
 Rob McCoy 403-347-1363, cell: 403-396-5747
 Travis Sayler 403-986-7581

AUCTION

Rob & Gale McCoy

NEWSLETTER EDITOR

Eraldo Pomare, 403-343-2072, pomare@telusplanet.net
 snail-mail: 1 MacKenzie Crescent, Red Deer, AB, T4N 0H6

WEBMASTER

Vince Mulhall, 403-755-1953, cell: 403-872-1911, vmulhall@shaw.ca

COUNTY OF RED DEER BYLAW ENFORCEMENT

403-343-6301 (Call will be forwarded to member on duty). Primary contact: Stephen Poburan
 If no answer call Bob Dixon 403-505-9030.

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/>

NEXT CARFF FLYING EVENT: Sun Feb 15th, Indoor Flying, Penhold Multiplex, 13:00 - 16:00, \$10/pilot

MESSERSCHMITT Bf110 BUILD (Part 2)

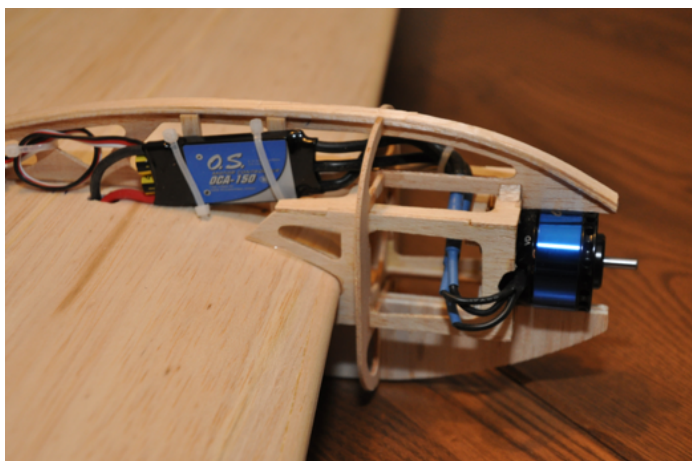
Eraldo Pomare

The focus on the Bf110 build over the past month was on the nacelles, installing the motors, ESCs and framing the fuselage. The good news was that finding all the wires and pull-through strings in the wings went well so no surgery was required :)



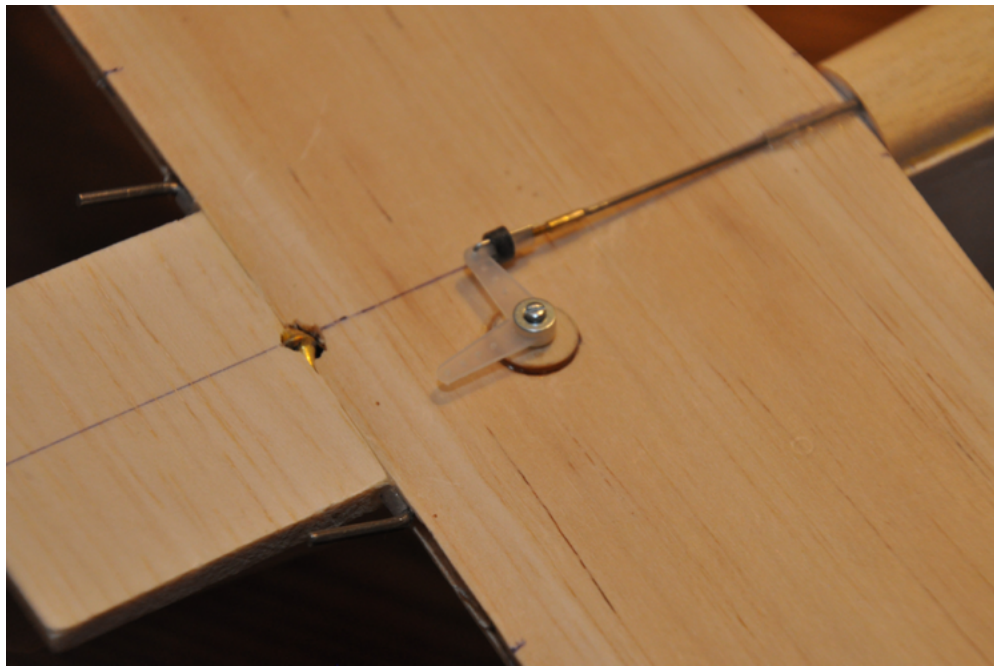
The original Flair Bf110 model was powered by two brushed 600 motors wired in series to one ESC (electronic speed control). Brushless DC motors each require their own ESC and in this case each ESC has a BEC (battery eliminator circuit) to power the receiver and servos). Sometimes BECs from multiple ESCs can be plugged into the Rx without issue. Sometimes they can cause random glitches due to electrical noise or small stray currents, so even though the OS

technical representative at Tower Hobbies said I could plug both BECs into the Rx, I have decided to remove the +ve wire from one ESC so that only one BEC supplies power to the Rx. Only the -ve and signal wires are need to control the ESC from the Rx - the red wire supplies power to the Rx from the BEC.



The other decision was to wire the ESC power supply wires in parallel so that both ESCs see exactly the same voltage throughout the flight which should minimize any asymmetric thrust. The OS technical representative suggested running each ESC on a different (mixed) channel so that any differences in speed could be adjusted via throttle curves. An excellent idea that I will adopt.

As designed, the model Bf 110 does not have rudders. I have planned to install rudders which means adding a servo, pushrod and bellcrank to operate the rudders. Hopefully the weight and hassle will be worth it. By the way, the model will have no landing gear - hand launch and *careful* grass landings only. No touch-and-goes.



WARNING: Technical Nerd Paragraphs below:

While deciding on the wiring configuration, I took the time to try to get a better understanding of how our brushless motors work.

Since I'm familiar with AC 3-phase motors in industry, I had assumed our brushless motors were pure AC but often wondered why our motors have magnets instead of a simple "squirrel cage" and also why a single ESC can't be used for more than one motor. Well the penny dropped, or more accurately, hit me between the eyes once I read a few articles: brushless motors are DC motors not AC motors at all; the ESC is not an inverter in the normally accepted sense - motor speed is a function of voltage rather than frequency.

The ESC is an electronic commutator which uses the back-EMF generated by the rotating rotor for timing instead of the familiar segmented copper cylinder and brush assembly of brushed DC motors. The two other functions/parts of the ESC are the variable voltage circuitry to modulate motor speed and of course the BEC discussed above. So Kv makes lots of sense too. Some brushless motors used in industry have sensors to more accurately time the electronic commutator, but as far as I know, all our model motors are sensorless. Anyone seen a sensor equipped model brushless motor?

This may not be news to many of you, but its amazing what happens when one stops to think. I should try that more often :)

SAFETY OFFICERS COMMITTEE

John Ferguson, Harvey Fodor, Eraldo Pomare, Will Gross, Vince Mulhall, Brian Davies

Meeting Date January 17, 2015 – 10:30 am @ Wills house.

The committee met for 2 hours and discussed all issues thoroughly finally arriving at the following consensus;

1. Identify safety issues
2. Identify causes and likely cures
3. Review programs and procedures
4. Review potential of success in meeting targets
5. Review past programs and identify their breakdowns
6. MOST SAFETY ISSUES ARE SIMPLY COURTESY AND COMMON SENSE.

After considerable consideration and discussion, the committee reached a consensus on safety officer recommendations for approval by the club at a general meeting. Identifying the weakest link in past and present programs took the longest portion of time and the committee is comfortable with the outcome as listed in our recommendations. Under no circumstance did we desire to create new rules or restrictions in the club and agreed that education and currency was the real issue. Along side of this concept was the need to make the instructor program function better.

RECOMMENDATIONS:

1. ALL CARFF members are responsible for safety and as such must bring issues and questions to the CD (events), the executive, the participants, the member, or the general membership as is appropriate.
2. All Events, including fun fly's, demonstrations, and contests, must have a designated safety officer in attendance. The safety officer shall preside at a safety meeting with the participants, prior to any event flying and in the case of a 2nd day, provide a summary and any issues from the previous day, for the benefit of those in attendance and any newcomers on the 2nd day.
3. ALL INSTRUCTORS are required to attend a Safety Meeting each year to ensure currency and safety competency for the instructor. The Instructor is the only person in a position to ensure all members are aware of field rules and safety issues and as such must include safety and rules instruction during the wings process and thereafter as needed.
4. The executive will generate a current list of competent safety officers each year and post the list in the clubhouse. This list is to provide access to all members for any field rule or safety questions that may arise.
5. Current competent instructors as well as members at large will make up the list of safety officers.

This constitutes the entire recommendation of the committee. IF IT'S A SAFETY ISSUE, SPEAK UP!

CARFF GENERAL MEETING

DATE: Feb 4th, 2014

In attendance: Gale McCoy, Rob McCoy, Lorn Brooker, Eraldo Pomare, Harvey Fodor, Vince Mulhall, Ethan Brown, Jon From. Wayne Hutmacher, Chris Warner, George Rehman, John Ferguson, Dale Simpson, Tony Lindhout, Herb Curran, Brad Cleland, Ron Ditchburn, John Bampfield

Call to Order: 7:40PM

Agenda:

Additions: Safety Officers Committee report

Moved: George Rehman

Seconded: John Ferguson

Carried

Minutes: Moved as circulated : Wayne Hutmacher Seconded: Eraldo Pomare Carried

Financial Report: Bank account: \$9,710.03 GIC: \$5,436.45 Total: \$15,146.48

Move acceptance of financial report: Gale McCoy Seconded: Tony Lindhout Carried

Old Business:

1. Auctioneer for the Auction.

It was decided by the club that the members of CARFF will be the Auctioneers for the 2015 Auction.

Many suggestions concerning the auction were discussed, as the income from the auction has been Decreasing every year, it was suggested that the auction will be discussed further at the next meeting Rob McCoy will be the main contact. Please contact Rob with any suggestion or concerns for the 2015 auction.

2. Locks at Club house

Ron Ditchburn will be installing the new locks soon

3 Safety Report, presented by John Ferguson

John/Harvey/Eraldo/Will/Vince and Brian Meet on Jan 17, 2015 for a 2 hours discussion

On Safety. Please see attach report presented by John Ferguson.

Moved as presented John Ferguson

Second by Brad Cleland

Carried

New Business:

1. 2015. Budget

The 2015 Budget was presented to the CARFF members by Gale McCoy. Please see the attach report For the budget Details

Move acceptance of 2015 Budget Gail McCoy

Seconded Lorn Brooker Carried

2. Meeting Location during winter months

Jon suggested that we move the winter meeting to the Red Deer Flying Club, located at the Red Deer airport, as there is a lot of work to open the club house up during winter months (snow plowing, starting the heater etc.)

The cost would be \$100.00 a year for the Club to become a member and be able to use the facilities

Moved to Proceed Eraldo Pomare

Seconded Tony Lindhout

Carried

2. CARFF Bylaw Voting

The Club voted on the new bylaws for CARFF , Everyone present at the meeting voted YES along with the members that voted via E-mail , Members not present at the meeting will be contacted by phone as to their status of their vote. Voting results will be presented at next meeting

Open Discussions:

Adjournment: Lorn Brooker moved adjournment 8:41

NEXT CARFF FLYING EVENT: Sun Feb 15th, Indoor Flying, Penhold Multiplex, 13:00 - 16:00, \$10/pilot

Bylaw Vote Update (New Bylaws Approved)

After the meeting, Rob & Gale contacted Service Alberta and spoke with Corporate Registry Specialist Pam Vona. Pam confirmed that our current bylaws require 75% of the members present at a special resolution meeting to pass amendments to our bylaws (provided there is a quorum). The meeting held on Feb 4th meets the requirements of a special resolution meeting in that the bylaw vote notice and material had been published in the required time. Therefore the bylaws were approved at the meeting and it is not necessary to contact members not present at the meeting.

Mall Show - March 7th

CARFF will be at Bower Mall again this year to showcase our models and share our interest with the public. Details will be discussed at the March 4th club meeting. Please dust off your models and plan to participate. Set up will be between 07:00 and 09:00 and tear-down sometime after 17:00 - preferably closer to mall closing time at 19:00.

Winter Meeting Venue - Red Deer Flying Club

As approved at the last meeting, CARFF now has a Red Deer Flying Club corporate membership. As such we are able to book the Red Deer Flying Club's clubhouse for meetings. Our March 4th meeting will be held there. The clubhouse is just north of the Red Deer Airport Terminal. April meeting location TBA.

Do you wish to receive the monthly Red Deer Flying Club Newsletter via email? If yes, please confirm with the Antenna editor: Eraldo. I will not pass on your email address without your express permission.

NEW DATE: CARFF AIRSHOW

The 2015 CARFF Airshow has moved out one week: it will now be held on Sunday, **July 26, 2015** at the CARFF Field (Bawtenheimer Field). See Jon From for more information.

EDITOR'S SOAPBOX

Eraldo Pomare

2015 activities are coming together well. Building season is getting short, but there's still time :) Indoor flying this upcoming weekend - hope to see you there.

The CARFF Auction is coming up on May 2nd, 2015. Please mark the day off in your calendars and set it aside to help the club run the auction. It's an all hands on deck day which goes much better if we are all available for the day.

2015 CARFF BUDGET				PASSED FEB.	4/15		
		2014	PASSED		ACTUAL	DIFFERENCE	BUDGET 2015
REVENUE							
AIR SHOW					\$ 3,918.20		\$ 4,000.00
AUCTION INCOME	(net)	\$4,500.00			\$ 2,512.74	\$1,987.26	\$ 4,500.00
MEMBERSHIPS	56x125	\$7,000.00			\$ 6,040.05	\$959.95	\$ 6,000.00
INDOOR FUN FLY		\$1,400.00			\$ 1,200.00	\$200.00	\$ 1,200.00
FUN FLY EVENTS					\$ 660.00		\$ 600.00
MISCELL					\$ 127.09		\$ 100.00
TOTAL REVENUE		\$12,900.00			\$14,458.08	\$1,558.08	\$16,400.00
EXPENSES							
CLUB HOUSE (PROPANE ETC.)		\$200.00			\$ 26.78	\$173.22	\$ 200.00
COMFORTS		\$100.00					\$ 100.00
EQUIPMENT MAINTENANCE		\$1,000.00			\$ 759.99	\$240.01	\$ 1,000.00
FIELD MAINTENANCE)		\$1,500.00			\$ 974.57	\$525.13	\$ 1,500.00
INDOOR FUN FLY		\$2,500.00			\$ 1,858.50	\$641.50	\$ 2,000.00
INSURANCE		\$2,300.00			\$ 2,312.00	\$12.00	\$ 2,300.00
MISC.		\$500.00			\$ 922.01	\$422.09	\$ 500.00
MACC		\$200.00			\$ 1,200.65		
OFFICE		\$150.00			\$ 140.14	\$9.86	\$ 150.00
TAXES		\$2,700.00			\$ 2,792.78	\$92.78	\$ 3,000.00
WEB PAGE		\$450.00			\$ 92.94	\$357.06	\$ 100.00
FLN FLY EVEBTS					\$ 3,762.68		\$ 600.00
AIR SHOW							\$ 3,500.00
TOTAL EXPENSES		\$12,100.00			\$14,843.03	\$2,743.03	\$14,950.00
REVENUE VS EXPENSES		\$800.00			\$ (384.95)	1184.95	\$ 1,450.00

NEXT CARFF FLYING EVENT: Sun Feb 15th, Indoor Flying, Penhold Multiplex, 13:00 - 16:00, \$10/pilot

**CARFF
FINANCIAL STATEMENT
JANUARY 1 – DECEMBER 31, 2014**

OPENING BALANCE JAN. 1/14 **\$ 5,704.98**

INCOME:

AUCTION FLOAT	\$1,200.00
HAT SALES	75.00
DONATION	25.00
POP	25.00
INTEREST	2.09
INDOOR FLYING	1,200.00
MEMBERSHIP	6,040.05
AUCTION	27,778.75
FUN FLY	<u>4,578.20</u>
TOTAL	\$40,924.09

EXPENSE:

MACC	\$ 1,200.65
AUCTION	25,266.01
EQUIPMENT MAIN.	759.99
FIELD MAIN.	974.57
INSURANCE	2,312.00
TAXES	2,792.78
FUN FLY	3,762.67
ADVERTISING	469.51
OFFICE	140.14
AUCTION FLOAT	1,200.00
WEB PAGE	92.94
CLUB HOUSE MAIN.	26.78
DONATION	452.50
INDOOR FLYING	<u>1,858.50</u>
TOTAL	\$41,309.04

NET LOSS **384.95** **384.95**

CLOSING BALANCE DEC. 31/14 **\$6,320.03**

BANK BALANCE DEC. 31/14 **\$6,320.03**
GIC **5.436.45**

TOTAL CASH DEC. 31/14 **\$11,756.48**

NEXT CARFF FLYING EVENT: Sun Feb 15th, Indoor Flying, Penhold Multiplex, 13:00 - 16:00, \$10/pilot

2014/2015 Calendar of CARFF Events

Feb 15, 2015 (Sun)	Indoor Flying, 1:00 PM - 4:00 PM, Penhold Multiplex; \$10
Mar 1, 2015 (Sun)	Indoor Flying, 1:00 PM - 4:00 PM, Penhold Multiplex; \$10
Mar 4, 2015 (Wed)	Club Meeting, Red Deer Flying Club, just north of Terminal **New**
Mar 7, 2015 (Sat)	Mall Show, Bower Mall. Organizer: Jon From
Mar 15, 2015 (Sun)	Indoor Flying, 1:00 PM - 4:00 PM, Penhold Multiplex; \$10
Mar 29, 2015 (Sun)	Indoor Flying, 1:00 PM - 4:00 PM, Penhold Multiplex; \$10
Apr 1, 2015 (Wed)	Club Meeting, 7:30PM, venue TBA
May 2, 2015 (Sat)	CARFF Auction, Sylvan Lake - <i>all hands on deck please.</i>
May 6, 2015 (Wed)	Club Meeting , 7:30 PM, CARFF Clubhouse
Jun 3, 2015 (Wed)	Club Meeting , 7:30 PM, CARFF Clubhouse
Jul ? , 2015 (Wed)	Club Meeting , 7:30 PM, CARFF Clubhouse. Date TBA (Canada Day)
Aug 5, 2015 (Wed)	Club Meeting , 7:30 PM, CARFF Clubhouse
Sep 2, 2015 (Wed)	Club Meeting , 7:30 PM, CARFF Clubhouse
Oct 7, 2015 (Wed)	Club Meeting , 7:30 PM, CARFF Clubhouse
Nov 4, 2015 (Wed)	Club Meeting , 7:30 PM, Red Deer Flying Club
Dec 2, 2015 (Wed)	Club Meeting , 7:30 PM, CARFF Clubhouse
Jul 26, 2015 (Sun)	AIRSHOW 2015. Organizer: Jon From **New Date**