

# **THE CARRIER WAVE**

## **PHANTOM FLYERS**

### **R/C CLUB**

**ama #393 SAINT CHARLES, MO**



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## **August 2018**

Newsletter of the Phantom Flyers R/C Club

<http://phantomflyersrc.com>

### **CLUB OFFICERS**

### **Contact Number**

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President - Jan Jansen	(314) 921-9420
Vice President - Don Grzina	(636) 233-0193
Secretary - Jim West	(636) 387-0804
Treasure - Jose' Espinosa	(636) 947-6067
Safety Officer - Dave Evans	(636) 448-4800
Field Manager - Don Grzina	(636) 233-0193
Chief Flight Instructor - TBD	
Activities Chairperson - Ed White	(636) 441-6431

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### **Send Membership Renewals to:**

Jim West

9 Teak Court

St. Peters, MO 63376

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### **Board of Directors:**

#### **Work**

#### **Home**

Ed White	(314) 232-1479	(636) 441-6431
Dan Sundman	(314) 749-4029	(636) 352-0150
Mitch Galatioto	(314) 234-5141	
Dave Evans	Retired	(636) 448-4800

**Phantom Flyers Club Meeting Minutes**  
**July 16, 2018**

President Jan Jansen opened the meeting at 7:00 pm at the Club Field. There were 9 members in attendance.

**Tech Session**

Don Grzina discussed a recent situation he had with a malfunctioning "arm safe" switch made by MPI. This switch is basically a jumper with a SERMOs connector that plugs into a jack and completes the motor power circuit. This all happened at a Pattern Contest in Pittsburg, KS. During Don's second flight his plane went dead stick while doing a 4 point roll. He was fairly low and was advised to cycle power which enabled the motor to run again and allowed Don to land his plane. After inspecting the plane he could not find a problem so onto the third flight and another dead stick, this time there is no restart but Don manages a safe landing - again. Another inspection of the plane, changed the LV cutoff, new battery, everything seemed okay - but the plane fails a taxi run. When Don removes the arming switch he gets esc arming beeps! The plug was not making good contact in the receptacle. The arming switch had three seasons on it. After Don tells of this problem, a couple fellow members speak up and claim they don't trust this plug because it has a history of failure. Apparently they were keeping it a secret from Don. The good part of the story is that we have learned a lesson and Don was able to come home with his plane intact. Thanks for sharing!

**Secretary's Report**

The Club currently has 39 regular members. The May Meeting Minutes were approved. There was no meeting in June.

**Treasurer's Report**

Club finances were reviewed by Jose.

**Safety Report**

Be careful of the Heat. It is hot. (My favorite planet is the Sun)

**Field Managers Report**

- Our list of Mowing reserves is growing
- The Field looks good.
- The roller was pulled out of the shed, it was leaking and is now drained. Don is struggling on how to repair it as it is wearing out due to corrosion.

**Activities Chair Report**

- The Glider contest went well. Apparently the electrics had an advantage.
- Next Glider contest is Aug 26
- We need to move the scale contest from Jul 29 to Aug 11
- We are hosting the August 4 joint Fun Fly with Wright City Flyers. Open at 9:00 and Start Time at 10:00

### **Old Business**

- Dues increase was discussed. Proposal is to take the annual dues from \$135 to \$150. We need to make a formal proposal and try for a vote next Month

\* \* \* A Motion was approved to raise annual dues to \$150.

- We still need the Board to approve the increase.

### **New Business**

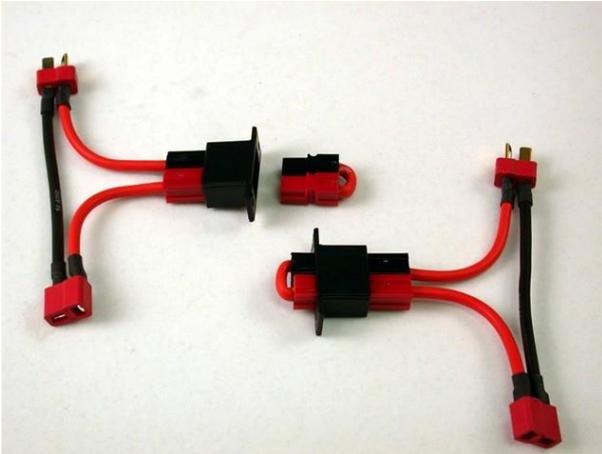
- Make sure to check Mark Twain to get your Club discount when making a purchase. Some members are reporting they had to remind the clerk.
- Members are reporting suspicious drive-by. Cars apparently parked near the field waiting, then driving off.
- Some teens rolled a truck the other day on the gravel road around the turn. a girl was injured when thrown from the truck.
- A discussion was had about getting more club members to come to the field. Quite a few of us have been absent lately - me (JJW) included. The heat might be an issue. Consideration was given to having a BBQ. Also discussed was having a theme night on a set week night. This was discussed with some interest.

Meeting Adjourned.

jjw 7/23/18

# The Hangar Bay

As mentioned in the meeting minutes Don Grzina was flying his pattern aircraft that is equipped with a safety arming switch. This is always a good idea with prop driven models and I have had stitches in my arm to back it that up!



As Don noted the flights, up to the incident, had gone off without a hitch. Don was able to trace the problem to the arming connectors or plug which are constructed using Anderson Poles also called Sermos. The Anderson Poles/Sermos have been around for years and its uses range from small low current applications to high powered equipment like large battery powered fork trucks (lift trucks). I started using Anderson Poles connectors when I out grew my Tamiya connectors. By this I mean the amperage/ current draw had increased to the point where the Tamiya connectors would fail. The next type of connectors that most modelers went to were the Anderson Poles. These could be soldered or crimped and the plastic colored covers were keyed in such a way that you could orient them to prevent potential reverse polarity connection issues. The covers, when installed correctly, would 'click' signifying the connector was securely attached in to the cover/hood. If it did not click there was a good chance that a poor connection was a possibility.

These connectors were great, easy to install, easy to connect and disconnect but like any electrical connector it has its limitations. The manufacture has these rated for 45-55 amps but many modelers have been using them at much higher amperage.

**Powerpole® Connectors  
- PP15 to PP45 :  
up to 55 Amps**



PP15-45 series are the smallest Powerpole® housings. They can be used for wire-to-wire or wire-to-board applications. Wire sizes from #20 AWG (0.75 mm<sup>2</sup>) to #10 (6 mm<sup>2</sup>) offer power capabilities up to 55 amps per pole. Finger proof housings and the ability to incorporate first-mate last-break ground connectors enhance the capabilities of this Powerpole® series.

**High Power Density**  
• Up to 55 amps in a compact footprint

**Wire-to Wire & Wire-to-Board Configurations**  
• Wire & PCB contacts can be used in the same housings

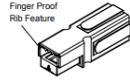
**Finger Proof Housings Available**  
• Protects against accidental contact with live circuits

SECTION 2  
Powerpole® PP15 to 45

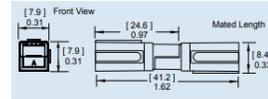
**PP15-45 ORDERING INFORMATION |**

**PP15-45 Finger Proof Housings**  
Improved on the original APP design by adding ribs to mating interface to protect against accidental contact with live circuits. Meets the requirements of UL1977 section 10.2 and is rated IP20. Will not mate with standard housings.

Description	Part Numbers	
Minimum Quantity	2,500	200
Red	1327FP-BK	1327FP
Green	1327GSFP-BK	1327GSFP
Black	1327GSFP-BK	1327GSFP
White	1327GTFP-BK	1327GTFP
Blue	1327GSFP-BK	1327GSFP
Yellow	1327G16FP-BK	1327G16FP



**PP15-45 Finger Proof & Standard & Ground Housing Dimensions**



One of the issues that surfaces, after repeated uses, is a weakened contact retaining clip. This clip holds the contact barrel in position and is actually part of the plastic cover/hood. When assembled correctly with that audible click that I mentioned, this ensures proper pressure on the mating contacts. It also prevents the contact from being pushed out of the back when it is plugged in. Giving the wires a simple tug is a good check to see if the retaining clip is at least holding the contact in place.



As a matter of record, here is a partial data sheet for a few of commonly used connector compiled from various testing sources.

<http://www.elektromodellflug.de/hochstrom-st.-bu..html>

## High-current plug-in systems in comparison - Part II

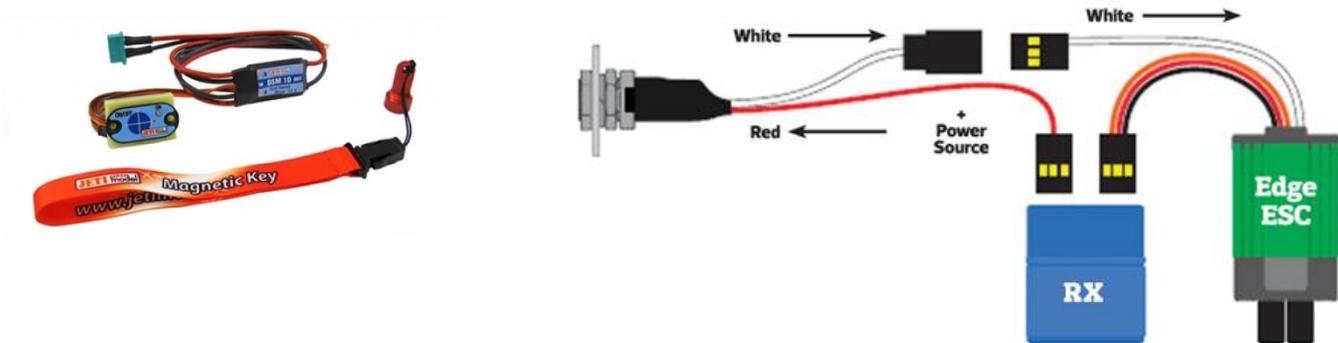
To the older plug-book combinations it goes here in [part I: LINK](#)

The test specimens were also original and partly selected (see hand information) and / or from German production, so no derivatives! A demand before the purchase at the dealer should be worthwhile!

image <small>(click to enlarge, comments below)</small>	comment <small>(Feeling when putting each other apart)</small>	Dimensions/ Contact Dimensions [mm] <small>put together lxbxh (d)</small>	Weight [g] <small>(Plug and socket)</small>	contact resistance [mOhm] <small>a socket / plug combination</small>	soldering diameter [mm ^ 2] <small>of the max. connecting cable</small>	continuous current [A] <small>( Full throttle profile with high battery capacity, see below )</small>	reference <small>(Link to the website and the date of measurement)</small>
	MPX standard & MPX, female with <b>double tongue</b>	13x6x7	2.5 <small>(standard)</small> 3 (double tongue)	<b>0.75</b> <small>(standard)</small> <b>0.5</b> (double tongue)	<b>2.5</b> <small>(13 AWG)</small>	<b>35</b> (standard) <b>45</b> (double tongue)	<b>In the specialized trade</b>  <small>(As of: 08/2012)</small>
	<b>XT30</b> Good grip. Safe seat, comfortable to handle. Plug in slotted design!	18x11x6 <small>(2mm contact)</small>	1.7	<b>0.8</b>	<b>1.5</b> <small>(16 AWG)</small>	<b>25</b>  <b>35A</b> KB <1min.	<b>rc- avenue.com</b>  <small>(As of 11/2015)</small>
	<b>XT60</b> Good grip. Safe seat, comfortable to handle. Plug in slotted design! <b>XT60L and XT60 +</b>	24x16x8 <small>(3.5mm contact)</small>	4.5	<b>0.4</b>	<b>3</b> <small>(12 AWG)</small>	<b>50</b>	<b>mylipo and rc- avenue.com</b>  <small>(As of 04/2016)</small>
	<b>XT90</b> Good grip. Strong seat, still comfortable to handle. Plug in slotted design!	29x21x11 <small>(4.5mm contact)</small>	12.5	<b>0.21</b>	<b>8th</b> <small>(8AWG)</small>	<b>85</b>	<b>Staufenbiel</b>  <small>(As of 10/2012)</small>
	<b>XT90 S with anti-theft</b> Comment see XT90! Additional information: <b>Image 1</b> <b>Picture 2</b> <b>Picture 3</b>	29x21x11 <small>(4.5mm contact)</small>	13.5  <small>(with cable routing: 15g)</small>	<b>0.3</b>	<b>8th</b> <small>(8AWG)</small>	<b>75</b>	<b>Staufenbiel</b>  <small>(As of 10/2014)</small>

	<b>Mini Dean</b> Gold-gold execution Soft tight fit! Good soldering possibility.	12 (17) x 9 x 6	1.8	1	1.5 (AWG 16)	15A	<a href="http://rc-avenue.com">rc-avenue.com</a> (As of 04/2016)
	<b>DEAN</b> Gold-gold execution Soft tight fit! Good soldering possibility.	16 x 13.5 x 8	4.5	0.65	3 (12 AWG)	40	<a href="http://mylipo.de">mylipo.de</a> (As of: 08/2012)
	<b>DEANS Ultra Plug</b> (Original) gold-silver version. Soft tight fit! Good soldering possibility.	16.7 x 13.4 x 7.7	4.6	0.25	3 (12AWG)	65	<a href="http://KD-Modelmaking.com">KD-Modelmaking</a> (As of: 08/2013)
	<b>EC3</b> Good grip. Stronger seat. Good soldering possibility.	24x16x8 (3.5mm contact)	4.3	0.4	3.5 (12AWG)	50	<a href="http://HackerMotor.com">Hacker Motor</a> (As of: 04/2013)
	<b>EC5</b> Very fine slats. Good grip. Stronger seat! Good soldering possibility.	34x20x10 (5mm contact)	12.5	0.27	5 (10AWG)	80	<a href="http://HackerMotor.com">Hacker Motor</a> (As of: 04/2013)
	<b>3.5 mm gold</b> lamellar plug with tight fit and clean punching.	16x5x5	1.5	0.4	3 (12 AWG)	50	<a href="http://nettle.de">nettle</a> (As of: 08/2012)
	<b>4mm gold</b> Slat plug with tight fit and clean punching.	27x5	3	0.3	4 (10 AWG)	70	<a href="http://mylipo.de">mylipo.de</a> (As of: 08/2012)
	<b>4mm gold</b> "Stepped" lamellar plug with tight fit and sharp punching.	20x5	1.8	0.4	2.8 (12 AWG)	55	<a href="http://Hobbyking.com">Hobbyking</a> (As of: 08/2013)

The conversation that started this topic was related to safety arming switches. Again, a great idea and some modelers use a kill switch on the transmitter to perform this function. But the latest type of safety arming switches are the magnetic type by Jetti and Multiplex. Castle Creations Arm Lock mechanical set that can only be used with certain Castle ESCs. Any type of arming device should not replace safe work practices.



# Joint Wright and Phantom Flyers Fun Fly

August 4 at Phantom Flyers Field

Come on out and enjoy flying from an asphalt runway on a beautiful flying field. Participation in the brief Fun-Fly portion is not required.

Events may or may not include:

- 1) Timed taxi around pylons
- 2) Minimum time to take-off, perform a specified number of loops and land
- 3) Closest to specified time from take-off to landing – BUT no timers for the pilot!

Open Flying begins at 9:00 and the “fun” part, after 10.





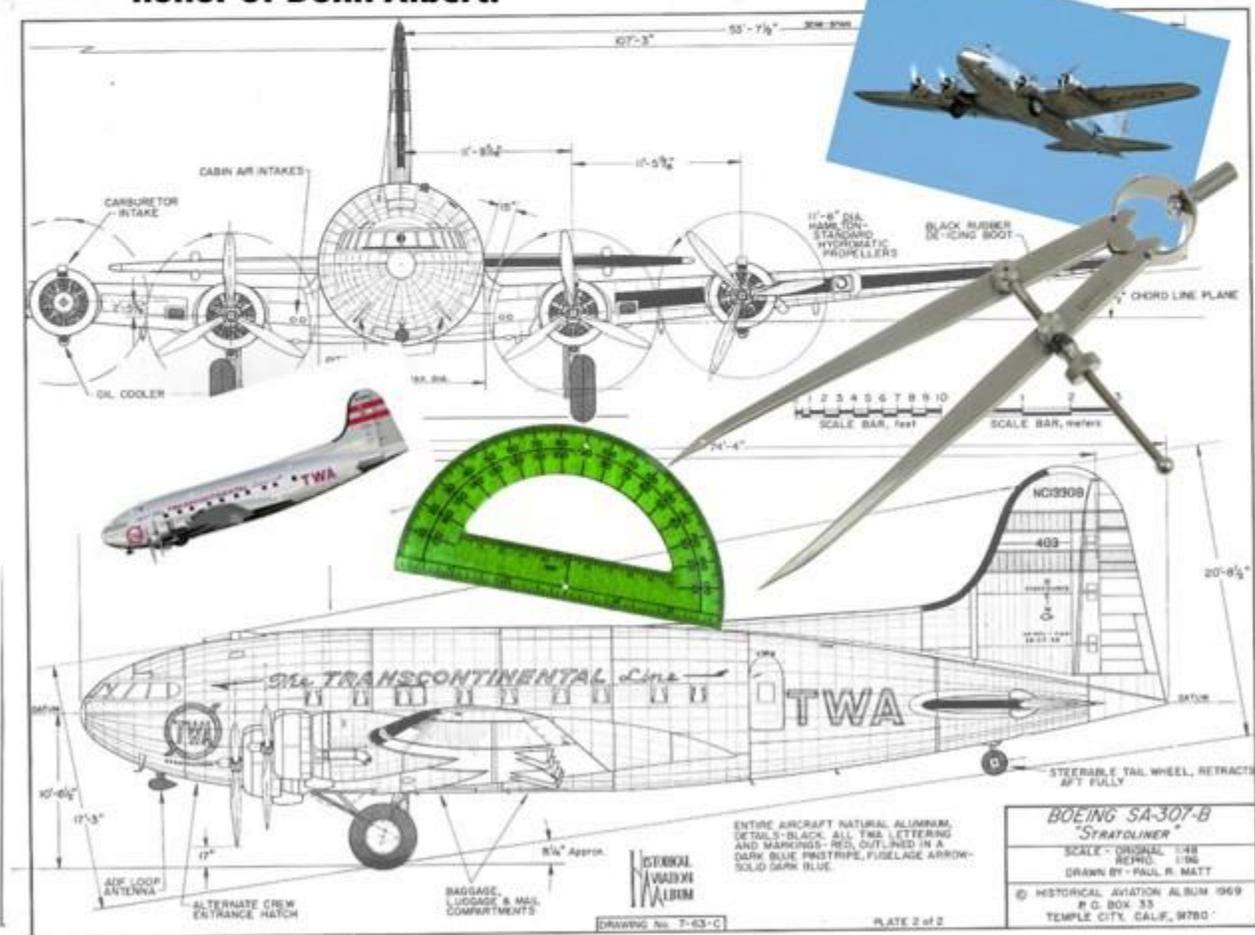
# AMA National Model Aviation Day

## August 11, 2018, 12:00

### Scale Aviation Fly-in

[www.PhoenixFlyersRC.com](http://www.PhoenixFlyersRC.com)

**Get out your models of full size aircraft to celebrate your love of aviation. Bring them out, show 'em off. Participate in the Second Annual Phantom Flyers Fun Scale contest. Can you document the authenticity of your model? How well can you fly your model in a realistic manner? (See the attached contest synopsis for contest details.) Free-will donations to American Diabetes Association in honor of Donn Albert.**



**IF YOU ARE UNABLE TO MOW THE SCHEDULED WEEK,  
IT IS YOUR RESPONSIBILITY TO FIND A REPLACEMENT.**

April				
6	13	20	27	
		<b>Harold Weaver</b>	<b>Larry Anderson</b>	
		Jim Frederick	Peter George	
		John Klein	Brian Molloy	
May				
4	11	18	25	
<b>Dan Sundman</b>	<b>Mitch Galatioto</b>	<b>Scott Watts</b>	<b>Don Grzina</b>	
Al Bone	Rick O'Mara	Jose Espinoza	Kevin Cox	
Brad Young	Emery Kattelman	Bill Ahrens	Jim West	
June				
1	8	15	22	29
<b>Jim Alberico</b>	<b>Wes Wallin</b>	<b>Jim West</b>	<b>Ed White</b>	<b>Jose Espinoza</b>
Jack Buydos	James Greenwood	Harold Weaver	Rick O'Mara	Brad Young
Ed White	Jan Jansen	Dan Sundman	Mitch Galatioto	Scott Watts
July				
6	13	20	27	
<b>Don Grzina</b>	<b>Peter George</b>	<b>Jim Frederick</b>	<b>Al Bone</b>	
Kevin Cox	Brian Molloy	James Greenwood	Emery Kattelman	
Wes Wallin	Larry Anderson	Jim Alberico	Jan Jansen	
August				
3	10	17	24	31
<b>Jack Buydos</b>	<b>Brad Young</b>	<b>Don Grzina</b>	<b>Rick O'Mara</b>	<b>John Klein</b>
Bill Ahrens	Scott Watts	Jim Frederick	Mitch Galatioto	Jim Alberico
John Klein	Jim West	Harold Weaver	Ed White	Jose Espinoza
September				
7	14	21	28	
<b>Brian Molloy</b>	<b>James Greenwood</b>	<b>Jan Jansen</b>	<b>Dan Sundman</b>	
Larry Anderson	Kevin Cox	Bill Ahrens	Al Bone	
Peter George	Jack Buydos	Emery Kattelman	Wes Wallin	

**Note:** It is possible I will be calling for volunteers in October if the field requires mowing late in the season.

# Phantom Flyers RC 2018 Event Calendar revB

Event	Date	Day	CD	Remarks
Snow Fly	1 Jan		Jan Jansen	
Vista/Electric Sailplane Contest	5 May	Sat	Larry Anderson	Sunday, May 6 if weather is bad
Innsbrook Float Fly	26 May	Sat	Don Vetrone	
Vista/Electric Sailplane Contest	2 June	Sat	Larry Anderson	
Vista/Electric Sailplane Contest	1 July	Sun	Jan Jansen	
Meet Me In St. Louis Pattern Fly-in	14 July	Sat	Ed White	
Joint Fun Fly at Phantom Field	4 Aug	Sat	Ed White	
Scale Fly-In and Contest	11 Aug	Sat	Don Grzina	Date moved
Vista/Electric Sailplane Contest	26 Aug	Sun	Ed White	
Float Fly Innsbrook	1 Sep	Sat	Don Vetrone	
Joint Fun Fly at Wright Flyer's	8 Sep	Sat	WF	
Vista/Electric Sailplane Contest	22 Sep	Sat		
Pattern Contest	29-30 Sep	Sat-Sun		
Christmas Dinner	1 Dec	Sat	Jan Jansen	

# Phantom Flyers RC CLUB

(Be sure to explore our website: [phantomflyersrc.com](http://phantomflyersrc.com))

## **2018 MEMBERSHIP APPLICATION**

- Regular \$135/year x \_\_\_\_ yr(s) = \_\_\_\_\_  
 Family (IRS Dependents) \$140/year x \_\_\_\_ yr(s) = \_\_\_\_\_  
 Non-Participant (Non flying) \$15/year x \_\_\_\_ yr(s) = \_\_\_\_\_
- \*\*\*\* Late Renewal Fee \*\*\*\* \$15 \_\_\_\_\_

} Select  
All  
That  
Apply

Note: All new applications received after 1 July of this year will receive next year's dues free

(Late fee required if member has not paid by 31 Dec)

Total Amount Due = \_\_\_\_\_

Make checks payable to:  
**Phantom Flyers RC Club, Inc.**

	<u>Eligible Member</u>	<u>Additional Family Member</u>
Member Name (/Nickname)	_____	_____
AMA Number	_____	_____
Primary Phone (home/cell)	_____	_____
Secondary Phone (work/cell)	_____	_____
Street	_____	_____
City, State, Zip	_____	_____
Spouse's Name	_____	_____
Primary E-Mail Address	_____	_____
Can Mow Flying Field? (Yes/No)	_____	_____

**My signature below signifies that:**

***I have read, understood and will abide by the Phantom Flyers RC Safety and Field Use Rules.***

***I understand that my participation in this activity is purely voluntary and I agree to hold Phantom Flyers RC Club, Inc. harmless for any and all liability for any injuries including death, which I might sustain while participating in this activity.***

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Submit form and membership dues to:**

Jim West  
9 Teak Court  
Saint Peters, MO 63376  
Full members only, please send S.A.S.E.

<b>For Club Administrative Use Only</b>	<b>Dues Received</b> _____ Date	<b>Current AMA Received/Shown</b> _____ Date
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<http://phantomflyersrc.com/>

<https://www.facebook.com/Phantom-Flyers-RC-Club-139791882811519/>

Check there for the back issues of the Carrier Wave Newsletter, mowing schedule, event calendar and club roster/contact information (handy for mowing).

Articles, pictures and tech notes for publishing in the Carrier Wave are always appreciated. Let us know what you are building, repairing or flying!

Send them to:

[kevcox@charter.net](mailto:kevcox@charter.net)