

## Particulars: Charter 313

**President:** Bryan "Chummer" Chumbley

chumbley@mtco.com

Vice President: Joe "Fantastic Languini" Lang

joe.a.lang@comcast.net

Secretary/ Treasure: Jim "Smokin-Jimmy" Fassino

JFassino@me.com

Safety: Jon " Dew Drop" Dewey

Dew6483@yahoo.com

**W** WEBMASTER

Terry "The Flamer" Beach

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Don "Snappy" Steadman

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Jon "Dew Drop" Dewey

## AMA CONTEST DIRECTORS:

Jim Hogan, Jim Fassino, Jon Dewey

## Flying Field Location:

The flying field is located off Old Galena Road, 1/2 mile north of the Caterpillar Technical Center on the west side of the road.

GPS Location: N40 51.844' W89 33.788'

## Flying Hours:

Flying hours are 8am until dusk, 7 days a week.

## Membership:

Club dues are \$110/year. If paid on or before the December club meeting: \$90, If paid between December meeting and Jan 1st, \$100. All members must belong to the Academy of Model Aeronautics (AMA)

## General:

We are committed to having fun and the safe operation of model aircraft. The Peoria RC Modelers is an equal opportunity, not-for-profit organization and always welcomes new members.

## Flight Instruction:

The Peoria RC Modelers offers flight instruction as a free service to anyone requesting it. Contact a club officer for further information







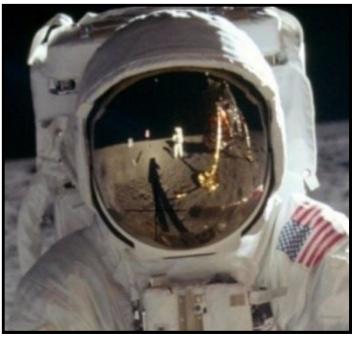




The reason there are only a few photos of Neil Armstrong on the moon, was simply because Neil had the camera most of the time. This is one of the most famous pictures of Neil Armstrong standing on the surface of the moon. But the funny part is, that Neil took the photo himself! I guess it was the first "selfie" on the moon. It is actually a close up shot of Buzz Aldrin's reflective visor, which shows Neil as the photographer as a mirror image. Now look at the reflection in Steve's glasses,

"Snappy on the fence."







We are well into the summer flying season and I hope that everyone has had a chance to get out to the field for some well deserved "fun" time. Each time I go to the field I am amazed at how much better I feel when the day draws to a close. Sure, the flying is a big part of what makes me feel good, but I enjoy the company of my fellow club members just as much.

On Thursday, June 23 I met a group of flyers at the field, there were eight of us in all. The day started off great with the usual teasing and showing off of airplanes. As the flying began, though, the compliments started to flow. "Nice landing!" and "Boy, that engine sounds great!" were just two of the many compliments that were handed out.

Additionally, club safety officer and newsletter editor extraordinaire, Jon Dewey, was preparing his Cub with an RJL K.61 for its maiden flight. Jon was having a few minor problems and asked some of us for assistance. Now this is where it gets good, folks. Everyone that was asked to provide assistance did so without hesitation. That is what makes our club different than so many others!

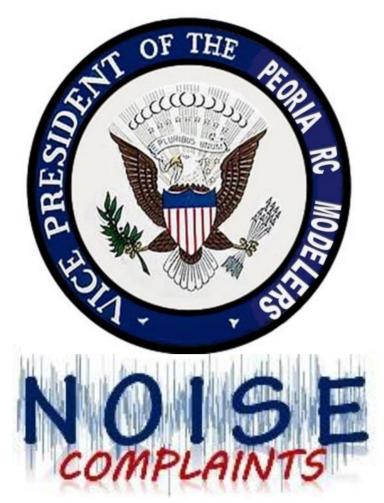
I have been to many different flying fields over the years and have seen some pretty horrendous behavior. Let me just say, that in my 11 years flying with PRCM, I have never once seen anyone cross the line to uncivilized and unacceptable behavior. Sure, we may disagree, but for the most part we are able to set our differences aside and continue to support one another.

I am proud of our club and all its members. Thank you to everyone who makes my flying more successful and enjoyable each time I go to the field.

I would like to take a minute to thank a few individuals who helped to represent the club at the Marshall County Fliers Father's Day Fly-In Breakfast. At this recent event, PRCM was invited to provide a static display of aircraft for the more than 1400 people who attended this year's breakfast. Thanks to Jim Fassino for creating the opportunity and to the following members who were present or who provided planes for the display: Joe Lang, Roger Stegall, Jim Hogan, Don Steadman, Terry Beachler and George Knight (hope I didn't miss anyone). There was a great deal of interest in the display, our club and our upcoming Warbirds on the Warpath event.

Hope to see you at the our Club meeting on July 5th and at the Warbirds on the Warpath event on July 9th.





Over the last couple of months, there have been a couple of discussions regarding our sound programs and the origins of the guidelines for our field since 2009. One of the topics that came up again is propeller vs. engine noise. There is no hard fast rule for the best propeller for your setup and there are many opinions out there. However, there is a bit of math you can use to determine if you are getting into a range where noise from your prop is very likely more significant than engine noise. Here is a reprint of an article from our June 2011 Newsletter that covered prop noise at a very high level.

Along with all of the sound testing that is occurring, there has been a lot of discussion about prop noise. Questions have arisen on how much prop noise contributes to the overall sound level and ways to reduce it. The answers to both of these questions have many variables. However, there is a little bit of science that can help.

Two years ago, when we were developing the current sound program, Bob Wilson dug up some great research on propeller noise and efficiency. There is a lot of math, and if anyone is interested, I can provide more details including a paper or two that double as wonderful sleep aids. However, a very simple rule of thumb is that at propeller tip speeds in excess of 6/10ths the speed of sound (0.6 Mach), prop noise increases

drastically and at the same time, propeller efficiency begins to fall off. The principles in play here involve drag and the speed of air over an airfoil, which in this case is the propeller itself. When propeller tip speeds reach this "transonic" range, the noise generated by the propeller can often be louder than the engine. Now some good news: If you don't want to repeat all of the math involved, here is a simple formula to calculate the RPM when the tips of a propeller reach 0.6 Mach:

RPM when Tip Speed is 0.6 Mach = 154889 divided by the length of propeller (in inches)

For instance, a 23 inch propeller's tips will reach 0.6 Mach at (154889 / 23) = 6734 RPM.

So what does it all mean? Again, there are a lot of variables, but you can be assured that if your setup exceeds the RPM from the equation above, you are generating significant prop noise. Also, the farther you go beyond this RPM, your propeller will be less and less efficient which means you may not be getting the full benefit of the power the engine is delivering. These effects need to be balanced against the power curve of the engine and the aerodynamics of the model itself. A great example of how much difference a small change can make is my Venus II with an OS 120AX. With the 16x7 APC prop, it generates 91dBA in our sound test. With a 16x8 APC, it generates 87dBA. It also flies much better on the 16x8. It has better vertical power and a wider usable throttle range. So... remember that the engine manufacturer's recommended propeller is just that: a recommendation and a good place to start. However, if you are operating in RPM ranges higher than the 0.6 Mach tip speed number from the equation above, experiment with different propellers! Adding length or twist will add load to the engine and reduce top end RPM. There are no guarantees, however, the results may very well be more usable power and a quieter setup!

## Joe Lang

Table of sound levels $oldsymbol{L}$ (loudness) and								
corresponding sound pressure and sound intensity								
Sound Sources (Noise)	Sound Pressure	Sound Pressure p	Sound Intensity I					
Examples with distance	Level $L_{ m p}$ dB SPL	N/m <sup>2</sup> = Pa sound field quantity	W/m <sup>2</sup> sound energy quantity					
Jet aircraft, 50 m away	140	200	100					
Threshold of pain	130	63.2	10					
Threshold of discomfort	120	20	1					
Chainsaw, 1 m distance	110	6.3	0.1					
Disco, 1 m from speaker	100	2	0.01					
Diesel truck, 10 m away	90	0.63	0.001					
Kerbside of busy road, 5 m	80	0.2	0.0001					
Vacuum cleaner, distance 1 m	70	0.063	0.00001					
Conversational speech, 1 m	60	0.02	0.000001					
Average home	50	0.0063	0.0000001					
Quiet library	40	0.002	0.0000001					
Quiet bedroom at night	30	0.00063	0.00000001					
Background in TV studio	20	0.0002	0.000000001					
Rustling leaves in the distance	10	0.000063	0.0000000001					
Threshold of hearing	0	0.00002	0.00000000001					



Our 2016 Pattern contest went into the books on June 11th and 12th. It was very warm on Saturday, but we had decent flying weather all weekend. Saturday did present a significant crosswind that made things a bit more interesting than usual, but we had a great weekend. In all, we had 15 pilots participate and had competitors in all classes ranging from Sportsman to FAI. We had attendees from Illinois, Minnesota, Iowa, Indiana and Michigan that included several new pilots along with many veterans that have been here every year. Bill Ahrens from St. Louis and Dan Landis from Champaign put on a great show in FAI that was not decided until the last flight with Bill edging out Dan for first place. Some great flying from two very talented pilots!

Thanks to all that helped make this yet another successful event. A very special thanks to: Bryan Chumbley for all of his work, especially running the somewhat temperamental scoring software; John Hoelscher for helping with field setup and helping get things going on Saturday; Don Stedman for the photography and helping keep things running smoothly all weekend; Jon Dewey and Steve Blessin for helping with the food and scoresheet running. Due to everyone's hard work, we pulled off another successful and profitable event... Awesome! Now on to the Warbird event on July 9th!

## Joe Lang





We have all heard the saying "fences make good neighbors" or "better seen than heard." Well we recently had another noise complaint from the same "neighbor" to our north. This time he rode his 4 wheeler through the farmer's field and across our runway to confront one of our members. I heard our member handled this situation very well. But if it happens again, and you feel threated, do not hesitate to call the Police for your safety and the safety of others. As for the amount of noise we are generating on a daily average (not talking about the Open House) I feel we are not breaking any ordinates or law in any way. Therefore it just boils down to being a good neighbor. We are aware of his issues, so lets do what we can to try to keep the noise down and continue to follow the agreement we have with the Park District. If you read Joe's article you can see we are all capable of reducing some of the "prop noise" by simple picking a different size and/or pitch. Another simple way is to not fly to far North with your throttle open 100%. Just be aware of your surrounding and be a good neighbor. Please sound check every new airplane and new prop size. Make sure to log it in the book so we can have the information on record if we ever need it. If you are unsure how to sound test, please contact Joe, Bryan or myself and we would be glad to help you. I will have the testing equipment set up at all the meetings for the rest of the summer. Bring your planes out to get tested and enjoy a meeting followed by dinner at the Beach Pub.

Jon Dewey



It is hard to believe we are celebrating our tenth year at the flying field. I remember the first time I flew there, it was late in the fall and we flew off soybean stubble. How things have changes. Mike Mueller from the Chicago area was here for the Pattern Contest and complimented the club on how nice the field had become. He said he has flown all over the country and our field is one of this favorites.

Over time, we have discovered much about our field. We have found the swamp, fence rows, irrigation pivot, asparagus patch, and the power lines because we have dug our airplanes out from under them.

Several years back, one our members lost a "Shoe String" racer in the lake and trees to the west of the field. After several rescue missions, the search was called off and a memorial service was held at the field.

The next spring, the airplane was found by our farmer. It was not severely damaged but water soaked. There was a water line half way up the fuselage. The 3 pound airplane weighted in at 30 pounds when discovered. Believe it our not, the airplane flew again.



The "Swamp Thing" reborn & in the air



That same pilot lost a German ME 163 to the north, but it was recovered months later. It had been taken over by a mouse family



We also lost an airplane on a training mission. It took some time to find, because we looked along the north fence row at the end of the bean field. Eventually It was found, but at the second fence row out, a good half mile from the field.

Then there is the mystery of the 'Right Flyer" trainer that showed up at the field last month. No one has claimed it because there is not much left. It had been in the weeds for some time and only the fuselage was recovered with a seized engine and half a tire.

And what is the latest thing we have learned about our field? Well, did you know there is a gravel road over by the old brown hay barn. Yes, one of our members found it when his "Four Star 40" hit it going straight down. Don't worry, the road was not hurt.

Yes, we have found the swamp, fence lines, irrigation pivots, power lines and now a road. What will we find next, and what will be the next plane lost? Do we have gremlins living the old brown barn?

"See you in the Lawn chairs" - but look under them first!





Weather conditions could hardly have been improved for the June 18th contest of *No Fear Pylon Racing*. Roger Stegall, Jon Dewey, Don Stedman and George Knight were the only four pilots to take advantage of the cool temperatures and light breezes this race morning had to offer.

Photo by: Terry Beachler

Heat #1 saw a good start with all contestants to the start line about the same time. Jon and Don were wing-tip to wing-tip the first few laps until rounding the east turn on the 4th lap when the two racers BUMPED. Don's right aileron got pushed unto the trailing edge of his wing which caused a uncontrollable loop and few fragments of balsa to fall from the sky.

HE DIDN'T SLAM INTO YA
HE DIDN'T BUMP YA
HE DIDN'T NUDGE YA
HE RUBBED YA
AND RUBBING SON IS
RAGORIAN REPORTED TO THE RUBBED YA
REPORTED TO THE RUBBE

All racers were able to finish the race with Jon in 1st place followed by Roger, Don and George. Don determined his racer was unfit to contend for the remainder of the races and George decided not to fly again until his motor was running with more RPMs. This left only Roger and Jon to fly in heats 2-4. The second race had Jon first to the start line with Roger close behind. A pattern seemed to develop where Jon made really tight turns on the east pylon and Roger made better turns on the west pylon. It was close every lap.

Coming out of the west pylon on the 6th lap, Roger passed Jon and held on for the victory. The 3rd race was almost a duplicate of the 2nd race as Jon was again first to the start pole. Unfortunately for Jon, he made too tight of a turn on the east pylon and cut the course. Roger finished just a few feet behind Jon but the penalty for one cut was the loss of one point, leaving both racers with a score of 4 points for the flight.

A fourth race was scrubbed for the day because Roger's Skyraider developed a slight flutter at high speed in the right aileron so he declared Jon the winner because Roger would have to fly at half speed to eliminate the flutter. Points for the day were: Jon Dewey 18, Roger Stegall 17, Don Stedman 3, George Knight 2. **Roger Stegall** 



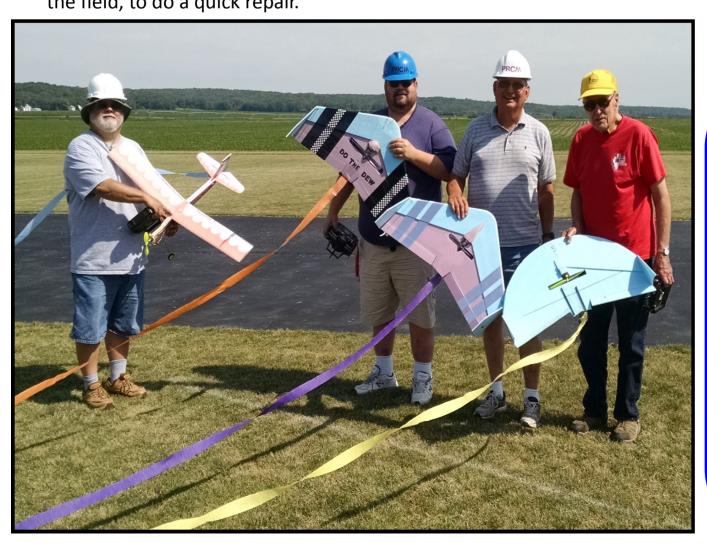
## What is up with that hat?

## STREAMERS OVER MOSSVILLE

Four flyers took to the skies for the June version of combat action. Roger Wheeler, Jon Dewey, Roger Stegall and Verne Holeman launched into the air for round #1 of streamerchasing. Early on, Jon Dewey was successful at cutting off a short length of Vern's yellow ribbon. Stegall also scored a streamer victory. As the remaining competitors continued the action, Jon forgot he had an orange streamer and started trying to control the activity of Stegall's purple ribbon. Needless to say, Jon crashed his wing while making futile efforts to control another plane. Luckily, no real damage was done to Jon's aircraft. Early in Sortie #2, "Full contact Dewey" swooped in on Wheeler causing Jon's 2nd collision of the day. Wheeler's wing folded at the center joint, but Dewey continued to fly and look for other victims. Stegall did a sneak-attack on Jon in the closing seconds of the heat and dissected Jon's orange ribbon for a victory. Both Verne and Roger survived the skirmish with their ribbons still at full length. Roger Wheeler used the hot-melt glue gun, kept at the field, to do a quick repair.

The final contest of the day had Dewey flying at his finest. During the first minute of flight time, Jon enacted revenge on Stegall by loping off a good portion of the purple ribbon that got him in the previous round. "Do the Dew" spiraled upward and also managed a cut of Wheeler's blue streamer. Verne eluded Dewey to prevent him a third ribbon cut for the flight. Scores for the day were: Dewey 10, Stegall 8, Holeman 2, Wheeler 0.

## Roger Stegall



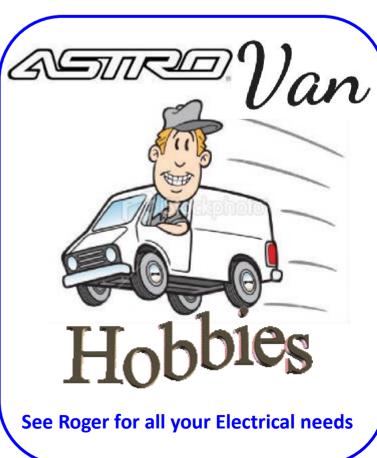


Photo by Terry Beachler

# A Special Thanks To Jim Fassino for the Stearman ride, which was purchased on New Year Day to help support our club.







## Dear: Sum Ting Wong,

These are the rantings of a ghost-writers known but to God.

Someone has taken on the pen name of "Dear Sum Ting Wong".

Other than the physical copying from one medium to another, the editor takes no responsibility in the blasphemy and lunacy herein expressed.

## So Wong,

I hope you can help me. The other day I set off for work leaving my husband "watching TV". My car stalled about a mile away from home. I had to walk back to get my husband's help. When I got home, I couldn't believe my eyes. He was in the basement putting together a new ARF, which I didn't even know he had bought. On the work beach was a new in the box gasoline engine and a battery charger. He had promised me he would stop spending so much time and money on his RC airplanes. When I confronted him, he broke down and admitted he was also hiding 3 more ARFs in the garage. He won't go to counseling and I am afraid for our future. I am a wreck and need your advice urgently. Can you please help?

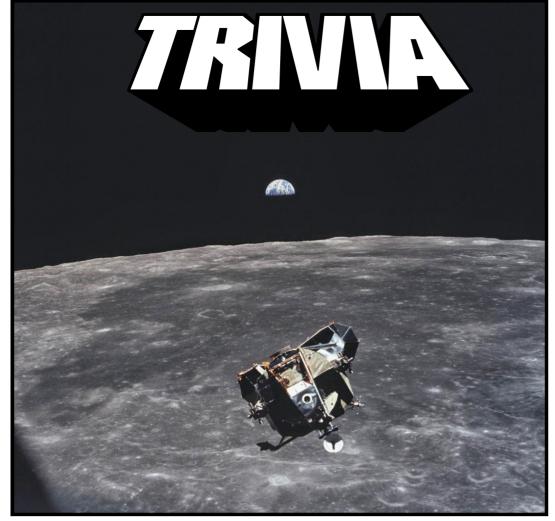
Sincerely: Left on the road

## Dear: On the Road.

A car stalling after being driven a short distance can be caused by a variety of faults with the engine. Start by checking that there is no debris in the fuel line and the gas cap is tight. If all is good, then check the vacuum pipes and hoses on the intake manifold and also check all grounding wires. If none of these approaches solves the problem it could also be the fuel pump. Good car maintenance at Beachler's can prevent problems like this from happening again. Good luck and I hope this helps you with your problem.

S.フ.W 少 必





2016

Who is the only human being, living or dead. Past, Present or Future. That is **NOT** in the frame of this picture?



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
J	uly	201	6		10:30 CANADA	2 7AM  Bob Evans  RESTAURANT
3		7PM	6	7 7AM Panera 1 PM BREAD THE TALDRAGGERS	10:30	WARSIRDS ON THE WARPHIN
10	11	12	13	14 7AM Panera 1 PM EREAD	10:30	9AM
National ICE CREAM Day	NEISON MANDELA	19	20	21 7AM Panera 1 PM EREAD  THE	10:30	Bob Evans
24 EAA AIRVENTURE OSHKOSH 2016	25	26	27	28 7AM Panera 1 PM BREAD THE	10:30	30 7AM Bob Evans
31AIRVENTURE OSHKOSH	Notes: Rive	r Beac	h Pub	after t	he me	eting.



## **Michael Collins**

Collins took the picture of the Lunar Module, containing Buzz Aldrin and Neil Armstrong with Earth in the background, during the Apollo 11 mission. This makes him the only person ever to have lived who was not inside the frame of the photo. Matter cannot be created or destroyed. That means that every human that lived up to the point of this photo being taken still exists, at least in some form, and every human that has been born since then was also is in this photo, at least in some form. So even if you were born after this picture was taken, the materials you're made from are still on the frame of this picture.

