

MON VALLEY R/C CLUB NEWSLETTER

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Oct-Dec 2017

CEDAR CREEK PARK

AMA CHARTER CLUB NO. 546

[Mike Eiben](#), President (412) 304-7048

[Al Kozusko](#), Vice-President (412) 445-0614

[Linda Wojnar](#), Secretary (412) 654-7867

[Ron Doctorick](#), Treasure (412) 655-8362

President's Corner

The end of 2017 is approaching quickly. The leaves have changed colors and will soon have all fallen. We had a long stretch of beautiful weather. Now there may be more cold, wet, and windy days than calm and dry days.

As the calendar year ends I am reminded of our monthly meeting back in February of this year. I had made a proposal to change the bylaws to allow members whom had not paid their dues by December 31st of the year prior extra time beyond January 31st to pay their dues with only a \$10 penalty. The current bylaws state that after January 31st, you must rejoin as a new member, \$35 dues plus \$35 initiation fee.

After a long discussion, the membership agreed by a large majority, that this part of the bylaws should not be changed and should be enforced exactly as written.

To restate this clearly, your membership dues of **\$35** will be paid to the Secretary by **December 31st, 2017**.

Between **January 1st and January 31st** you will need to pay **\$45**.

On **February 1st**, you will need to rejoin as a new member **\$70** (\$35 dues plus \$35 initiation fee)

Thank you for your continued support,

Mike Eiben

October

Mon Valley RC Meeting Minutes: September 1, 2017

The meeting of the MVRC Club was called to order at 7:02 PM at the MVRC Airfield with the Pledge of Allegiance. Minutes from the August 4 meeting were read and approved on a motion by Al Kozusko and seconded by Mark Szesmanski. All members approved the minutes as read.

There was no Treasurer's report.

Executive Committee Chair, Rich Wojnar reported:

Rich said several previous meetings discussed works-in-progress, but the Giant Scale was a great success. Rich said he received calls as to why lines have not been painted on the field and why the line painter is not being utilized. Rich reported the equipment has a dead battery and should be replaced. Rich mentioned it's a good idea to have several people trained in line painting. John Millard is a back-up line painter.

The EC Committee suggested having an event's coordinator and that there is so much information on the Westmoreland County website. Events to be coordinated are: Giant Scale – Fun Flying, Night Flying, etc.

Vice President, Al Kozusko, reported:

He is the liaison with Greg McClosky and will comment on the progress of the new land. Al said it was disheartening to learn we will not get a shelter this year. Next year doesn't look good, but the County will keep trying. Al suggested the club look into writing a grant the AMA issues to promote speed to get the shelter. Al mentioned the Fun Fly on 9/23 from 10-4. Al arranged to have the event sanctioned.

Discussion:

Flying Stations – Toss idea out again

Fly anywhere vs. flying stations – Many clubs have designated flying stations. Bill Haas said it's hard to argue if other clubs do it and it's a safety issue.

Discussion took place:

Three (3) aircraft in the air at one time during the week

Five (5) aircraft in the air at one time on the weekend.

Aircraft should be no closer than 25 feet to any individual except the pilot or helper.

Mike read a rule regarding flying.

Bill Haas asked, "How about the size of the aircraft – foamie vs. jet"?

Pilot line is 15 feet from the safety line.

Field Director, Rick Altomari suggested:

Painting an orange box three feet away from the panel. Can we do something with the shed?

Mark Szesmanski suggested placing a notice in the newsletter to read: "Remove all personal items from the shed as soon as possible. The shed is for club equipment and storage only!"

Linda read **John Millard's Safety Report:**

Safety at the Giant Scale was great.

A few minor problems, but nothing to write home about. I asked someone to get rid of the beer. A few were not in tune when to fly, but everyone was safety aware and went by the rules.

I have noticed people flying drones from the benches or from behind the safety line. This subject has been beaten up by the best of them and still we have drones being flown over the pit area. There is no difference between a drone, a heli, a bi-plane or a single fixed wing. ALL flying will be one in front of the safety line.

David Herrington, Webmaster:

Asked members to let him know about any problems or issues with the website.

Linda Wojnar:

Thanked the members for their support and attendance at the picnic. Linda mentioned she is working on plans for the Christmas party.

Allan Lesko, New Land Development Director reported:

Al Kozusko is the single contact person for the County. He met with the landscape architect, Jeff Richards, walking the property and spent an hour going over everything. He took ideas. He will create a map with two contour lines to compare existing and proposed ideas. Rick volunteered to work with Al. This will not be done overnight. May take three years. He said the County is asking for folks to help drive heavy equipment. We asked for 10 feet to be taken off the top and pushed to the end of the airfield.

Old Business:

In September Rich and Linda will perform an audit with Ron Doctorick.

New Business:

Suggestion was to purchase chairs for the field. How many? Motion to be presented at the next meeting.

Dues are to be set at the October meeting per bylaws. Need volunteers to be on nominating committee to announce candidates in November and for voting in December for officers and EC Committee members.

Night Flying was cancelled.

7:39 PM – Meeting was adjourned on a motion by Al Kozusko and seconded by Mark Szesmanski.

Respectfully submitted,

Linda Wojnar
MVRC Secretary

Mon Valley RC Meeting Minutes: November 3, 2017

The meeting of the MVRC Club was called to order at 7:40 PM at the Rostraver Municipal Building with the Pledge of Allegiance. Minutes from the September 1 meeting were read and approved on a motion by John Millard and seconded by Ron Novak. All members approved the minutes as read.

Al Kozusko read the Treasurer's report.

Executive Committee Chair, Rich Wojnar reported on major topics discussed at their meeting:

- Line painting equipment; Need a new battery in the spring – has a dead battery now. Need more folks trained on the use of the equipment and line painting.
- Look at the website – David Herrington has added a calendar and a classified section to the club's website. Members selling items do not have to wait for the newsletter to advertise their items.
- Considering buying portable flood lamps for night flying as a safety feature for members walking to their cars. An idea was presented rather than purchasing portable flood lamps mount the lights on each side of the pinboard controlled by a switch.
- One member suggested having a flea market during the winter months. Also over the winter, John Millard is working on having theory directed ground school training with hands-on flying in the spring. John is also working on club clothing but needs a logo. Various clothing types were discussed.
- Giant Scale Event – Lack of attendance on Sunday. Event peaked on Saturday, but was advertised for two days. Discussion took place the event should be kept at the end of July.
- Christmas party – One member suggested we have a variety of types of aircraft we fly since the party is a flying club party. Lots of surprises/ good stuff.
- Discussion took place at the EC meeting suggesting we ask for a motion to pay for the Christmas meal for the members on the grass cutting crew as a good gesture for their service and for the EC members. A motion to pay for the Christmas party meals \$19/person for the grass cutting members was made by Nick Corrozza and seconded by George Wilson. Motion was passed without opposition. Paying for the dues for EC members is tabled until next month's meeting.

EAA Coordinator, Lew Marascalco reported the current newsletter has been posted to the website.

Ken Monte suggested a chat room be added to the website. More discussion is needed.

Field Director, Rick Altomari, reported:

- Blades were removed from mowers.
- Storage of equipment was discussed.

Safety Director, John Millard, reported we had a great summer – few nicks; nothing major. Al commented, "Nice work!"

Nominating Committee Chair, A J Sweitzer, reported he has not received verbal or email feedback from any members who would like to run for office in 2018.

Club Airplane Director, A J Sweitzer, reported:
Airplane was used several times – coming along.

Vice President, Al Kozusko, reported:

- He's trying to work with the county because we don't want to lose the auxiliary field we just acquired.
- Al mentioned he is the single point of contact with the county.
- Jeff Richards, Landscape Engineer for the County, is working on our plans for the auxiliary field. The land has high points and low points and the plan is to take earth from the high points and move them to the low points to flatten out the land as much as possible. Also there is discussion to take dirt to the North-Western part of the runway to make it suitable for flying.
- Al said we don't want the existing field to be interrupted so flying can continue,
- Al developed a plan and gave it to Jeff Richards who is making a 2 foot contour plan of the current field with a 2 foot contour plan of the changes that have been proposed.
- Gradual, improvement in increments is suggested.
- Al expressed a "thank you" to Rick for the electricity/ conduit. Problem is funding for the shelter.
- Al and Rick met with the new Commissioner – Gina Sorelli.
- Al suggested applying for an AMA grant and then to take that information to Gina.

There was mention we should consider having more fun flys.

Questions:

1. Where is the line painting equipment kept over the winter months? John Millard mentioned Bob usually takes it home since our shed is not heated. More information is needed.
2. What is our tax exempt status? More information to follow.

Al asked about fruit basket distribution this Christmas season. A motion was made by John Millard and seconded by Jerome Moran to issue fruit baskets as we have done in the past (County Park, Rostraver Municipal Building and the Christmas Party). Motion passes without any opposition.

New Business:

Lew Marascalco said he is willing to hold a theory class regarding introductory soldering without a hand-on component. If anyone is interested, please let Lew know.

Ken Monte lost a plane. If anyone has seen it, please let him know.

New Club Member, Dave Semak, introduced himself at the meeting. Lew Marascalco is his sponsor. He has been around aviation his whole life. He flies here and in Florida. All members approved Dave's membership into the club without opposition.

There were two **Show 'n Tell presentations**: Ron Novak and George Wilson. Once we receive information from George and Ron, the information will be published for club members to read.

Linda asked for any veterans present to be acknowledged. Members raised their hands. Thank you for your service was expressed. Linda also wished the members and their families a Happy Thanksgiving on behalf of the club.

John Millard mentioned the ground school classes would take place mid-January for three weeks.

8:49 PM – Meeting was adjourned on a motion by John Millard and seconded by Nick Carrozza.

Respectfully submitted,
Linda Wojnar
MVRC Secretary

2017 MVRC CHRISTMAS PARTY

Salvatore's Catering and Events – Dec. 9 - Saturday

5001 Curry Road

12:30 – 3:30 PM

Pittsburgh, PA 15236

\$19/ meal (Pay by 11/23)

412-653-1880

RSVP no later than Nov. 23 to Secretary

Website: <http://www.salvatoresbanquets.com>

HOT BUFFET LUNCHEON

Tax and gratuity, complete service, assorted rolls, unlimited coffee, iced tea, lemonade and soda bar included in total meal price of \$19.00 per person. Children 12 and under pay \$17.

Two Entrees:

Chicken Romano (lemon cream sauce on side) and
Roast Beef with gravy

Two Sides:

Mashed Potatoes and Green Beans Almondine

Tossed Salad

Dessert: Strawberry Layer Cake

Live Entertainment with more details to follow.

Trivia with Al Kozusko and his wife. Details to follow.

Thanks to all of the members and their families/ guests
who are making this party at Salvatores possible.

President's Corner

Again it is a requirement that all pilots of small unmanned aircraft systems are to register with the FAA. You can register at <https://registermyuas.faa.gov>.

If you are a newer member to our club, I am sure that you already realize that you are associated with an awesome group of people. Any one of our members is willing to assist you in any way possible to make your RC experience a positive one. This is not limited to club members, but their families often commit much of their time and effort to make our club and our events great. There are so many people to thank for stepping up and helping this past year and years past. I don't want to start naming names for fear that I will leave someone out.

I would like to thank everyone that worked to organize or participated in our funflys, picnics, March for parks, or Giant Scale Airshow.

I would also like to thank all that commit their time cutting the grass and maintaining the equipment throughout the summer. This is very time consuming and very much appreciated.

Thank you to those involved in maintaining the website and producing the newsletter. You present our club to the world as a first class organization.

And finally, I offer a special thank you to those who devote their time to serving on the Executive Committee and as my fellow officers. Your wisdom, knowledge, experience, and willingness to serve have been of immense value to me personally and to the club.

I am very proud that the membership of this great club accepts me as their president. So many of you have taken time to express encouragement. This means the world to me. My friendship with many of you has stepped up to a new level. This gives me a feeling of personal growth and that my life is being well-lived.

I wish all of you a Merry Christmas and a Happy New Year.

Mike Eiben

December

Mon Valley RC Meeting Minutes: December 1, 2017

The meeting of the MVRC Club was called to order at 7:40 PM at the Rostraver Municipal Building with the Pledge of Allegiance. Minutes from the November 3 meeting were read and approved on a motion by John Millard and seconded by George Wilson. All members approved the minutes as read.

Mike Eiben read the Treasurer's report. All members approved the treasurer's report as read.

Executive Committee Chair, Rich Wojnar reported on major topics discussed at their meeting:

- The classified section to the club's website looks cool. Send me or Linda an email if you have something to sell. Thank David Herrington when you see him for all of the work he did to make this section possible.
- The banquet is coming along nicely – We'll have a good time. I'll be sending out directions to Salvatores. Bring your planes, helis, foamies, etc. to the party. We're going to have a lot of cool surprises.
- John Millard is working on club clothing and pricing.
- January 1 is the next MVRC meeting and is also the Fun Fly. Fly something. The first person to fly receives recognition in the newsletter as the First Person to Fly in 2018. Pizza, coffee and water will be provided.
- The next EC meeting is late January before the February meeting.

EAA Coordinator, Lew Marascalco, said David Herrington has posted the current newsletter to the website.

Field Director report was reported by Mike Eiben:

- The mower was taken to the County storage facility for storage over the winter.
- Looking for a battery. A motion was made by John Millard to accept the purchase of an engine for the field roller which falls under the Emergency purchase as per the bylaws and to accept Rick Altomari's decision for the purchase. The motion was seconded by Rich Wojnar. All members approved the motion without further discussion or opposition.

Safety Director, John Millard, reported there was nothing new to report but he wanted to reinforce the need to stop flying drones, helis, foamies, etc. from behind the flight line.

Introductory Pilot Program, John Millard, reported there isn't anything going on now, but there will be a ground school in January. Dates to be announced.

John Millard mentioned he will store the line painting machine and the paint for the winter.

Vice President and New Land Development Director, Al Kozusko, reported:

- He attended a CAB (Citizens Advisory Board) meeting last week. March for Parks is kicking off. This year March for Parks will not be held at Cedar Creek Park, but will take place at Twin Lakes. Al said MVRC still has money in the March for Parks account and the money we raise for the March for Parks is dedicated solely for use at our field. We have also had electricity installed as a direct result of money from this fund. Al will report on the balance of the money we have in this account.
- Al is working with Bob Walters for the purchase of the 4 fruit baskets that will be purchased. They will go the County, Rostraver Municipal Building, County Maintenance Workers, and to the MVRC Christmas Party.
- Al and his wife are working on the Trivia questions and prizes that will be a vital part of the MVRC Christmas party this year. Al's wife is doing the purchasing of all of the gifts.
- Al is working with Jeff Richards, Landscape Architect for the County. The County is working on a dog park at Cedar Creek Park. This area is currently under construction. Extra earth may be available to us to straighten out the dog leg in the runway. There may be a cost involved with subsoil and soil, but Al will negotiate this with the County. Discussion took place that the extra dirt from the dog park has to

go somewhere, so Al will negotiate with the County on the pricing. Al proposed using some of our funds in the existing account.

- Al discussed March for Parks. The club has donated \$1000 per year to this account. Mike Eiben wants to make a motion that the club donate \$1000 for the 2018 March for Parks. John Millard seconded the motion. Motion carried to next month due to lack of a quorum tonight.
- Lew Marascalco added positive comments regarding the March for Parks fund and how it has benefited our club.

President, Mike Eiben, read:

- The structure of dues payments for the 2018 flying season reverbalizing the information in the bylaws. Mike added there will be one exception that we will accept dues on 1/1/18 without penalty of a \$10 late fee.

Old Business:

John Millard reported the Giant Scale event will take place the last weekend in July 2018 (July 28-29). Al Kozusko will complete the required event paperwork to reserve the ball parks, etc. The director of the event will be discussed at another meeting.

New Business:

George Wilson suggested the club look into equipment rollover protection for the safety of the equipment operator. Mike will pursue this investigation.

John Millard suggested adding another area to the website of "Things we want to Purchase".

All officers and EC Committee members will continue to serve the club in 2018.

President – Mike Eiben

Vice President – Al Kozusko

Secretary – Linda Wojnar

Treasurer – Ron Doctorick

EC Committee: (EC members voted this year for two years – Rich Wojnar, Jerome Moran, and John Millard.); Next year, Rick Altomari, Mark Szemanski and Jim Cannon will be up for re-election.

New Club Member, Dave Fordyce, introduced himself at the meeting. He has been interested in flying since he was a teenager. All members approved Dave's membership into the club without opposition.

Show 'n Tell presentation: George Wilson demonstrated his Stuart V, 1/16 scale RC tank.

8:13 PM – Meeting was adjourned on a motion by John Millard and seconded by Bill Kirkpatrick.

Respectfully submitted,
Linda Wojnar
MVRC Secretary



Got PFC?

by Jeff Sumey



A recent walk through a cemetery with my father prompted a conversation about military rankings. “Hey dad, look at this headstone with a US flag beside it – it says PFC in front of the name.” Dad promptly replied “He was a Private First Class in the Army”. “But of course”, I thought then was immediately reminded of how acronyms must be taken in context.

Another meaning of PFC is *Power Factor Correction*, something that was fresh in my mind after recently purchasing a new power supply that features ‘active power factor correction’. Remember when you upgraded from a 4 cell 1100 mAh NiCd battery pack to the then new 3S2200 LiPo technology? Oops, gotta get a new multi-chemistry charger and a bigger power supply to run it. Then you upgraded to the newer ‘high C’ LiPos that could fully charge in under 30 minutes. Oops, gotta get a new ‘high C’ charger and a bigger power supply to run it. Nowadays, our electric aircraft have evolved to using the likes of 6S 5000 mAh LiPos with up to 5C charge ratings (i.e. 25 Amps). Oops, on no – not again. I think I could open a power supply museum by now!

Until recently, we never considered *power factor* in the 100-or-so Watt power supplies we bought because it wasn’t really that big of a deal. However, things are a bit different when you get into bigger power supplies. By definition and put into context of a power supply, power factor is the ratio of useful power out of the supply (in Watts, W) to the total apparent power going into the supply (in Volt-Amps, VA). Power factor is normally a number between 0 and 1 (aka 0..100%) and carries no units – it’s a just a pure number. In a DC (direct current, i.e. battery) device, only resistance (in Ohms, Ω) is present so power factor is always 1 (100%) because the voltage and current are always ‘in phase’. However, the *efficiency* of the device which is the useful output power divided by the input power would most certainly be less than 1. Now in an AC system where the voltage and current waveforms are continuously alternating in a sinusoidal fashion, things can get wonky real quick when the voltage and current waveforms become out of phase with each other. “What could cause this?” you ask. Well, straight resistance as in the previous DC example still exists in an AC system but with the alternating voltage and current waveforms comes another dimension of resistance called *reactance*. This gremlin appears when AC is presented to capacitive and inductive devices. “Does my power supply have these devices and gremlins?” you wonder. Oh yes grasshopper, it certainly does! Lower cost ‘linear’ power supplies are essentially based on AC-to-DC rectification and a transformer. And guess what: a transformer as with any device based on a magnetic field is an inductor. Like it or not, inductors are possessed with *inductive reactance* (X_L , also in Ω). Or maybe you have a better ‘switched mode’ power supply (SMPS), which features a combination of boost (step up) and buck (step down) power converters and a corresponding efficiency increase over linear supplies. Sorry, you still have the gremlins.

Let’s go back to that smaller power supply mentioned above. Say you have a supply that outputs 20 amps at 12 volts. Power in watts equals volts times amps, so $12V \times 20A = 240W$. Now if you jump over to the input side, you think “I plugged this into a 120V outlet so I’m pulling $240W \div 120V = 2$ amps from the wall”. Not so fast – if you insert a load meter between the outlet and the supply, it would probably show something more

like 3 amps, and the power company will correspondingly charge you for using $120V \times 3A = 360W$. So this supply, consuming 360W to output 240W has a power factor of $240W \div 360W = 0.67$ or 67%. And we live with that.

Now let's consider a more serious power supply for those high power 6S 5000 mAh LiPos. To charge two of these batteries in parallel at 3C (6C total), you need a supply that outputs 30A at about 25V, so that's $30A \times 25V = 750$ Watts. If this supply has the above power factor of 67%, the power company will bill you for $750W \div 0.67 = 1.1+$ kilowatt (kW)! [Hey Rick: that's 9.3A in the circuits to the pinboard.] "So where is all this extra input power going?" as you think about the next electric bill that you (or the club) will have to pay. Simple: that's those fans in your power supply that sound like mini turbines pushing all that heat out of the supply, i.e. the non-useful output power (unless your name is Ken and you want to use this as a handwarmer for winter flying).

That takes us to the title of this article: power factor correction. A power supply that features PFC contains some additional anti-gremlins in the form of *capacitive reactance* (X_C) that effectively cancel out the inductive reactance created in supply. This causes the resulting power factor of the supply to behave more like a simple DC device and drives the PF up closer to the coveted 1.0. The trick to getting this right; however, is to have a supply with 'programmable' or 'variable' PFC because the amount of PFC needed depends on the amount of current your charger pulls from the supply. And we know that value changes over the course of a charge with Lithium-based batteries. You can see in the photos how the newest addition to my power supply museum features 'Programming PFC' labeling, in fact, the user manual states 'up to 94% active PFC efficiency'. My test of this was to hook a 40A load to this supply and see what happens. After some 8 or 9 minutes of just sitting there effortlessly pumping out 40A, the fans finally kicked on but at such a low RPM, they barely make any noise. And the exhaust temperature was barely perceivable to be above my ambient garage temp. I guess that makes me 94% happy with this power supply and I am quite satisfied to live with that. Now I need to go shop for a good handwarmer...





MVRC Christmas Party Salvatores' Events and Catering West Mifflin, PA



Club
President
Mike Eiben
and
Dr. Alvi



Club Vice
President
Al Kozusko
(and
his wife
Kathy)
enlightening
us with
Christmas
Trivia
questions.







Victoria Room

Macino Family
Christmas Party

Emerald Room

Merry Christmas
Mon Valley RC Club



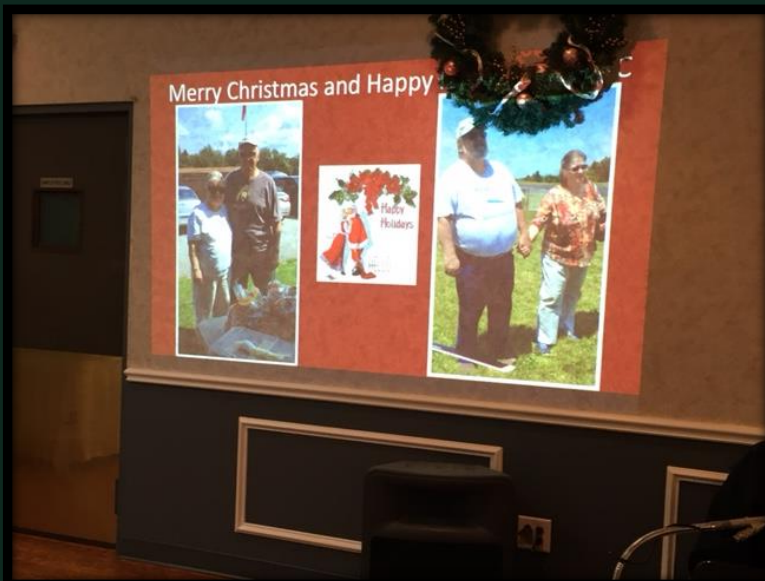
Thank you, Ray,
for entertaining
us with your
musical talents.
We can't thank
you enough!!!







Our PowerPoint presentation attempted to provide a snapshot of the wonderful members who spend their precious time with us.



Time: Life's Most Precious Commodity

"Time is the greatest gift you can give to someone. Because, it's like giving a portion of your life you'll never get back."



(I'm not sure who to credit for this quote.)



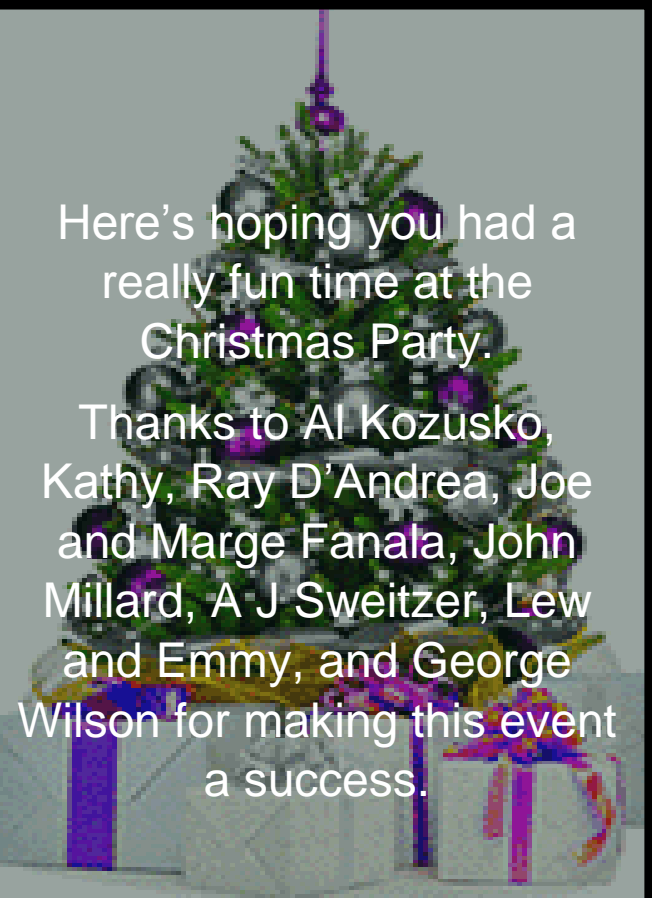














LED Therapy Information

Several years ago i stumbled onto NASA's discovery that LED lights, in the near infrared, can speed healing. Since I was constantly receiving red LED lamp samples from vendors at work, I began to tell friends about it and give them red LED lights. Of the many who tried it, most reported positive results. I am sending the information below in the hopes that it might help you. At any rate it couldn't hurt to have a look. I have one that I use all the time. More so the older I get. :-)

It's been a while since I first created this general e-mail, so some of the links may not work. However if you just go to Google and type in "NASA Led Cure" or "Healing Power of LEDs" you can find tons of information on the subject. Good Luck!

Here's some information on the healing power of LEDs. This is no joke. It's not my invention, it's NASA's research. It seems that **any red LED** has a large component of the required spectral frequencies that are described in the NASA research articles, to be effective. But I'm sure that a lamp consisting of LEDs selected in the proper spectral frequencies would be more so. But it appears that any red LED source will yield positive results.

I have been using this to good effect. My first "patient" was our drafting manager. He had tennis elbow and the lamp seemed to have fixed it. Since then I have used it many times with excellent apparent results.

I have been using a simple automotive tail light (the brightest one you can get) and a 12 volt DC, 1.5 amp, Radio Shack wall adapter to power the lamp. Simply wire the tail and brake wires (red and black) together and connect to positive (+). The white wire should be connected to the negative (-) lead of the wall adapter. If the lamp doesn't light, just reverse the black/red (+) connection and the white (-) connection. LEDs cannot be harmed by connecting them backwards. If you don't wish to buy locally, you can order tail lights from a company called Soundoff Signal, www.soundoffsignal.com. They have some great products at very reasonable prices.

The other approach would be to buy the custom made lamps from the NASA licensed medical equipment company, Quantum Devices*, referenced in the article. They cost a lot more. The auto taillight is under \$20 locally, less if you go to Soundoff Signal.

I am just passing along NASA's information and my own experience. Please read the attached referenced links and decide for yourself. With that said, if you wish to try it and have any trouble finding the parts, please let me know. You should also talk with your doctor. Personally, I think every medicine cabinet should have one. ;-)

I hope this information helps you. If I can be of any further assistance please don't hesitate to contact me.

George Wilson
724-379-5366

You may wish to share this information.

<http://www.quantumdev.com/products/led/index.html> (Take a look at the WARP 10 Product)

<http://www.healinglightseminars.com/products/quantum-devices-leds/>

https://spinoff.nasa.gov/Spinoff2008/hm_3.html

<http://www.mylighttherapy.com/led-light-therapy.html> (This one has information, but I have not vetted this site)

****I'm not a doctor and I don't play one on TV. I suggest that you talk with your doctor. With that said, I usually put the light on several times a day or while watching TV.**

HEADS UP!!!

Here are two links to the LED lamps that may be of interest to you. One is 850 nm and that other is 630 nm. They are both in the nano-meter range that have the healing properties. I am also listing links to a lot of articles on the subject. Of particular interest to you may be the one I have highlighted in red below. You might wish to buy both.

These are kind of big. You could snoop around for the frequencies that you want but these are also rather inexpensive. I think these will work fine.

[Amazon \(\\$25.00\)](#)

Aweek® 850nm 60 Leds IR Illuminators CCTV Lighting IR Infrared Illuminator Light LED infrared light CCTV Camera Night-vision Fill Light Array Led IR Light for CCTV Security Camera Night Vision Outdoor https://www.amazon.com/Illuminators-Lighting-Infrared-Illuminator-Night-vision/dp/B00QM3KI7E/ref=sr_1_7?ie=UTF8&qid=1512407041&sr=8-7&keywords=CCTV+Security+Camera+Night+Vision+Outdoor

[Walmart \(\\$39.00\)](#)

<https://www.walmart.com/ip/HQRP-12-quot-x-12-quot-Square-High-Power-45W-225-LED-Red-Grow-Light-System-Panel-plus-Hanging-Kit-HQRP-UV-Meter/141278851>



Articles

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799034/>

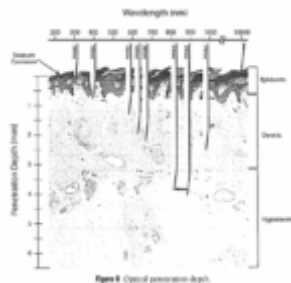
<http://www.sunlighten.com/pdfs/manuals/NIRvsRedlighttherapy.pdf>

<https://photonichealth.com/light-therapy/clinical-studies/>

https://scholar.google.com/scholar?q=led+wound+healing+studies&hl=en&as_sdt=0&as_vis=1&oi=scholar&sa=X&ved=0ahUKEwjGx6GZm-rVAhXCJiYKHWPnBMkQgQMISzAA

<https://link.springer.com/article/10.1007%2Fs10103-017-2189-7>

Red light therapy and near infrared light therapy fall into a whole other light spectrum. The two are often confused as the same thing but they are really quite different. Red light falls into the visible



part of the light spectrum between 630-700 nm on the electromagnetic scale and is used to treat the surface of the skin. Near infrared wavelengths fall into the invisible part of the light spectrum between 700 and 1200 nm. So what does this mean? The longer the wavelength, the deeper the penetration to deliver energy to the cells, stimulating healing and relieving pain. Various cell and tissue types each have their own unique light absorption methods at varying wavelengths. This means certain tissues absorb certain kinds of light. For example, light vibrating at the blue wavelength is great for skin while other colors may penetrate the skin more deeply – see [LEDs in Dermatology](#) study.



2018 MVRC Club Officers

Mike Eiben - President

Al Kozusko - Vice President

Secretary - Linda Wojnar

Treasurer - Ron Doctorick

*Happy
New
Year*

2018 Executive Committee Members

Rich Wojnar - Chair

Rick Altomari

Mark Szemanski

Jerome Moran

John Millard

Jim Cannon



Who will be the First Pilot to Fly on 1/1/18?
Reflecting on photos from 1/1/17.....



Wear Warm Clothing – Weather Projection: 12
Degrees - Partly Cloudy – W 7 MPH



FUN FLY – MVRC Airfield - First Pilots – JANUARY 1



**Ron
Doctorick
2017**

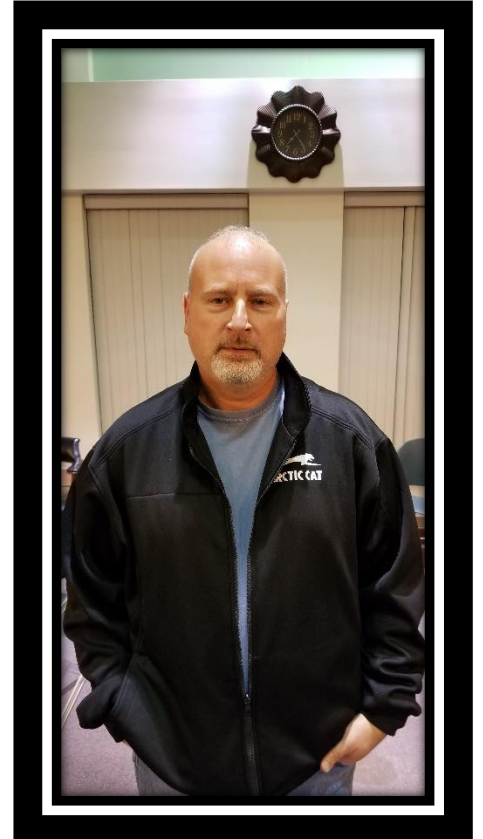


**Al
Kozusko
2016**

Welcome New MVRC Club Members



Dave Semak



Dave Fordyce

Welcome aboard, Dave and Dave!!!!



Do you know you have the phone numbers for the club's officers at your fingertips?

1. The flip side of your membership card lists the phone numbers; and
2. On the top of every newsletter you'll notice this area contains phone numbers as well.

Our Members and Their Magnificent Flying Machines



**John Millard's Cub and
Joe Fanala's Taylorcraft
Aircraft.**

IMPORTANT DATES



January

2018

1 –HAPPY NEW YEAR/ MVRC Meeting/ FUN FLY –

If you can find time to attend as many meetings as you can this year, your input will better serve our club. This meeting will be held at 10:00 AM at the MVRC Airfield.

Who will be the FIRST PILOT to FLY in 2018?

15 –Martin Luther King Day



February

2 –MVRC Meeting/ Groundhog Day (No shadow please, Phil)

If you can find time to attend as many meetings as you can this year, your input will better serve our club. Meetings are held at 7:30 PM at the Rostraver Municipal Building.

14 –Happy Valentine's Day



19 – President's Day

28 – Last day in February

Leaving You Today with a Walk Down Memory Lane...Seems Just Like We Created These Memories Yesterday.

Thank you to members who have given us this great addition to the newsletter and for taking the time to provide us with these special memories. Please continue to send your photos and captions to us.



Lew Marascalco, "Master" Rick Hamel and Nick Carrozza. Maiden flight of Nick's Cobra 400 at Grove City, PA. A fantastic, scratch built, Toledo RC Show winner!



Mac Hodges' famous B29 w/ Bell X1 in foreground. Mars, PA RC fly in.



Mac Hodges' B29 taking off with "smoke on". Note the Bell X1 under the right wing. Once at altitude, Mac launches the X1, fires the rocket propulsion and after rocket burnout, another pilot glides the X1 back for a landing.



The genius and master craftsman himself, Rick Hamel, at Grove City, PA. Every creation he's ever taken to the Toledo WEAK Signals RC show has won first place!