



The VOX



The Official *On-Line* Newsletter of the
Lehigh **V**alley **A**mateur **R**adio **C**lub - W3OI / KB3SYV
Allentown, Pennsylvania (Lehigh County) - USA

2020 Officers

President: **Myles Bodisch** - KB3ZMA (KB3ZMA@gmail.com)
Vice President: **Jeff Bauer** - WA3PNY (BAUERJV@MAC.COM)
Secretary: **Phillip Bigg** - KB3HMK (philbert17@ptd.net)
Treasurer: **Paul Ryan** - N0KIA (paul.f.ryan@gmail.com)

2020 Board of Governors

John Bartos - AB3LZ (e03145jab@gmail.com)
Mark Miller - AK3M (AK3M@rcn.com)
Steve Olock - KS3RO (solock@gmail.com)
Rick Pearce - KC3EXO (rickp.127@gmail.com)
Rod Wolfe - N3XG (n3xg.radio@gmail.com)

VOX Editor - **Mark S. Miller (AK3M)** ---- (AK3M@rcn.com)

LVARC Repeaters

146.34 / 146.94 (PL 71.9)
147.735/147.135 (DCS 315)*
147.420 (Club Simplex Freq.)
445.025 W3OI D-Star "B" module
147.165 W3OI D-Star "C" module

LVARC/RACES/ARES Net

**Every Monday at 7:30p (ET)
on the 94 repeater.**

* 147.735/147.135 (DCS 315) Automatic Mode Select. Analog * FM or YSF, Yaesu System Fusion),
--

Many club announcements will be heard there

The **April** LVARC “**Virtual Meeting**” will be on **Tuesday April 7,** 2020 using **ZOOM** at **7:30p** (local time) - See pages 6 and 17.

The scheduled program is **George Miller (W3GWM)**
ARRL EPA Section Manager via ZOOM.

Plan to attend this “Virtual meeting”
from the comfort and safety of your computer chair!

The LVARC holds it's monthly meetings on the FIRST TUESDAY of every month via ZOOM (Virtual meeting) until further notice at 7:30p Eastern time.

LVARC TEST SESSIONS

All LVARC test sessions have been canceled until further notice.

The LVARC tests at a public school and we do not have access to the building.
Alternate sites are also closed.

REGISTRATION IS REQUIRED

If you have questions, contact Mark (AK3M) at AK3M@rcn.com

NOTICE

The LVARC radio shack is **NOT** open for use on the third Tuesday of the month) during the COVID-19 isolation. The “Hands On,” night will resume at a later date.



April 2020 LVARC Program

April - George Miller (W3GWM) EPA ARRL Section Manager via **ZOOM**.

Note: — Programs or topics are subject to change. Listen to the Monday Night Net for any changes.

The LVARC 2020 Activity Calendar

April 2020

April 6 - Monday Night LVARC Net - 7:30p 146.940

April 7 - LVARC meeting at 7:30p using ZOOM - 7:30p

April 12 - April 17 test session.

April 13 - Monday Night LVARC Net - 7:30p 146.940

April 17 - NO LVARC test session

April 21 - LVARC club radio shack CLOSED until further notice

April 20 - Monday Night LVARC Net - 7:30p 146.940

April 27 - Monday Night LVARC Net - 7:30p 146.940

The LVARC radio shack is **NOT** open on the third Tuesday of the month in order to follow CDC recommendations and protect LVARC members. This in effect until further notice.

2020 ARES Events

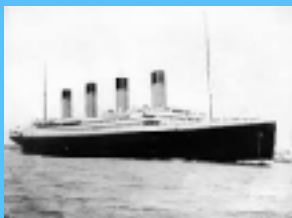
April 26 (Sunday) -- St. Luke's/Lehigh Valley Road Runner's Half Marathon - **CANCELED**

June 6 (Saturday) -- Hanover Township Spring 5K -
On site time: - 0830

September 13 (Sunday) -- VIA Marathon - On site time: 0630

October 3 (Saturday) -- Women's 5K Classic - On site time: 0800

November 1 (Sunday) -- Delaware & Lehigh Heritage Half Marathon Run/Walk -- On site time: 0800 . Rod will have that information



The **Titanic disaster** happened on April 14-15, 1912, 108 years ago this month.

LVIA (ABE) Emergency Drill

There will be an emergency drill at the LVIA (ABE) airport on April 18. Volunteer "victims" are needed. Communications support is yet to be determined.

Lehigh Valley International Airport (ABE) Triennial Full Scale Emergency Exercise



Volunteers Needed

Where: Lehigh Valley International Airport (ABE)
3311 Airport Road, Allentown PA 18109

When: Saturday, April 18, 2020 (Rain or Shine)

6:00 a.m. (Volunteer Arrival) to approximately 1:00 p.m.*

*Volunteers applying make-up/"moulage" to players are not allowed to stay for the entire exercise

If interested, respond via this web link: <https://www.surveymonkey.com/r/2020ExerciseVolunteer>, no later than Friday, March 6, 2020.

For questions, contact Jennifer Bogari, Emergency Management Specialist, via email at jbogari@lnaa.com.

Planned LVARC 2020 Programs

April	George Miller (W3GWM)	ARRL EPA Section Manager
May	TBA	
June	Regina Monaco (N2RNA)	Packet radio
July	Jeff Bauer (WA3PNY)	Satellite Communication
August	Myles Bodisch (KB3ZMA)	SDR
September	Robert James (AB3RC)	Radio Pioneers
October	Paul Ryan (N0KIA)	Baofeng Family
November	Mike Mandel (KC3BLF)	DRATS
December	John Bartos (AB3LZ)	Wire Antennas

LVARC Celebrates an Anniversary!

The LVARC administered it's first ARRL test session on Friday April 25, 2003, **17 years ago this month!**



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April			1	2 D-Star Net 7:00p	3	4
			5	6 LVARC Net 7:30p Jim KC3AFU	7 LVARC Meeting 7:30p via ZOOM	8
9	10 D-Star Net 7:00p	11	12 EASTER 	13 LVARC Net 7:30p Matthew KB3UZE	14	15
16 D-Star Net 7:00p	17  Test session canceled	18	19	20 LVARC Net 7:30p Rod N3XG	21 LVARC Activity Night	22
23 D-Star Net 7:00p	24	25	26	27 LVARC Net 7:30p Tom WW3TRG	28	29
30 D-Star Net 7:00p	2020					

SOS Titanic - de Larry (NR3R)

Here is the supposed “original” SOS message from the Titanic.

READER SUBMISSION

If you were the radio man on board sending or on shore receiving, could you copy it?

You can even slow down the play for practice CW receive.



<https://www.youtube.com/watch?v=snkwsU98QIQ>



In order to safeguard LVARC members, the April 7, 2020 LVARC meeting will be held as a “Virtual Meeting.” This will be accomplished using ZOOM. Download ZOOM for your OS. You can use video and/or audio.

Listen to the Monday Night Net for further details.



The current EXTRA class test questions are still used but will change on July 1, 2020.

READER SUBMISSION

de Larry (NR3R)

What was the call sign of the Titanic?

Answer: **MGY**

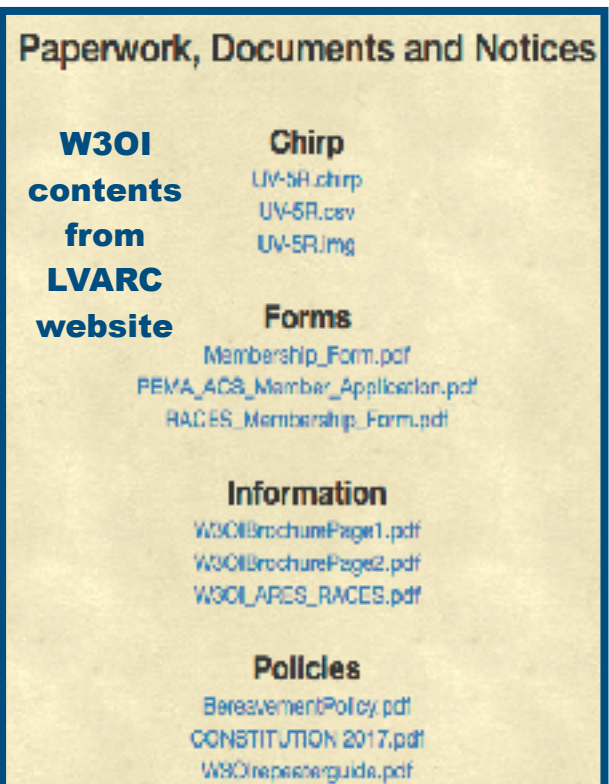


... that you could read/download **Paperwork**, **Documents** and **Notices** from the LVARC website?

Those include, the W3OI brochure, W3OI ARES/RACES document, LVARC Constitution, W3OI Repeater guide and more.

The W3OI website is a wealth of information!

Look for information you may need from the website at:
<http://www.w3oi.org> or go to
<http://www.w3oi.org/#/documents>
to see this specific page.



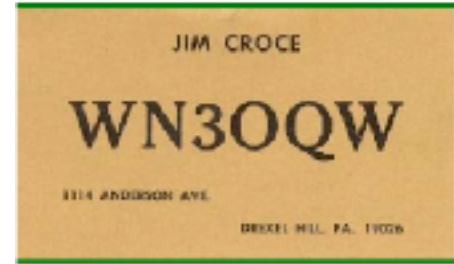
The Easter bunny first arrived in America in the 1700s with German immigrants who settled in Pennsylvania.



Famous Ham

Do you remember Jim Croce, a 70's recording artist? Jim was a licensed ham operator!

Jim was born in Philadelphia and grew up in Upper Darby, Pennsylvania and attended Upper Darby High School. Graduating in 1960, he studied at Malvern Preparatory School for a year before enrolling at Villanova University, where he majored in psychology and minored in German. He graduated with a bachelor's degree in 1965. Croce was a member of the Villanova Singers and the Villanova Spires.



Up coming ARES Event

The second ARES event of the 2020 season will be the **Hanover Township Spring 5K on Saturday 6**. About 11 operators will be needed. ***This event has not yet canceled.***



MP Outfitters has the LVARC logo and will print it on apparel available at their store. They are located at 2733 W Emaus Ave, Allentown, PA 18103.

Mark your calendar. Field Day 2020 will be held on Saturday June 27 and Sunday June 28, 2020.



Iceland consumes more Coca Cola per capita than any other country?



ARES CONNECT CORRECTION

The URL in the March issue of the VOX for ARES Connect was incorrect. Please note the correct URL for ARES CONNECT is <https://arrr.volunteerhub.com/ip/epa>



New Hams



Those who tested at the February 21, 2020 LVARC test session received their calls on Wednesday February 26, 2020.

CONGRATULATIONS to:

Michael Velders - **KC3OYZ** (Tech)
Michael Hoppes - **KC3OZA** (General)
Steve Small — **KC3OZB** (General)
Christopher Josack (**KC3OTC**) upgraded to General

*Welcome them to the hobby
if you hear them on the air.*



Mark Your Calendar and Volunteer Your Communication Expertise!

(1) **The Star of Bethlehem Children's Festival is CANCELED.**

(2) **2020 Field Day** will be held on the weekend of **June 27 & 28, 2020**. The LVARC is already making plans for this annual event! More to follow.

Attend meetings (via ZOOM) and/or read the VOX for details as they happen. **This event has not yet been canceled.**

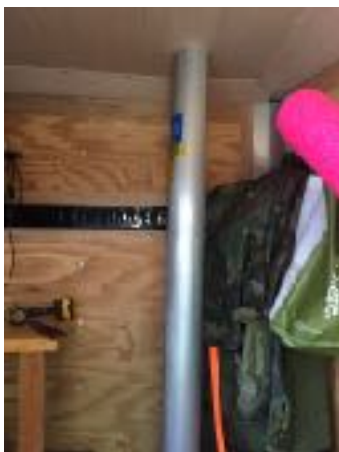


Listen to the Monday Night Net and read the VOX for updated LVARC information or ARES event cancelations.

Work Continues on the LVARC Comms Trailer!

March 7, 2020

TNX to John (AB3LZ)



Lehigh Valley Amateur Radio Club (W3OI)

Meeting Minutes

Date: March 3, 2020

The meeting was called to order by President Bodisch at 1957 Hrs. (EST).

The meeting opened with the Pledge of Allegiance, and then a moment of silence was observed for Silent Keys.

There were a total of 18 members in attendance, and the club was joined by 1 guest.

The following Board Members were present at the meeting:

President – Myles Bodisch	Present
Vice President – Jeff Bauer	Present
Treasurer - Paul Ryan	Present
Secretary - Phil Bigg	Present
Board Members: John Bartos	Present
Mark Miller	Absent
Rick Pearce	Present
Steve Olock	Present
Rod Wolfe	Present

Guests: Chris Josack – KC3OTC

Corrections additions to the minutes: None noted

Motion to accept made by: Chuck – W3CDY

Seconded by: Rodney – N3XG

Motion passed by voice vote: (Y/N) Y

Treasurer's Report (Paul - N0KIA)

The report was presented

Motion to accept made by: Rick – KC3EXO

Seconded by: John – AB3LZ

Motion passed by voice vote: (Y/N) Y

Committee Reports:

Repeater: Nothing to report

Program: Tonight's program will be Gordon West (WB6NOA) will be doing a skype presentation on Tropospheric Ducting. Next month will be George Miller (W3WGM). He is the ARRL Eastern Pa. Section Manager.

Volunteer Examiners: At the February 21 2020 test session, four tested and four passed.

VE's in attendance included Mark (AK3M), Walt (KE3SP), Mike (KC3BLF) and John (AB3LZ).

Those who tested at the February 21, 2020 LVARC test session received their calls on Wednesday February 26, 2020.

CONGRATULATIONS to:

Michael Velders - **KC3OYZ** (Tech)

Michael Hoppes - **KC3OZA** (General)

Steve Small — **KC3OZB** (General)

Christopher Josack (**KC3OTC**) upgraded to General

The next test session is scheduled to be on Friday March 20, 2020. To register, contact Mark (AK3M) at AK3M@rcn.com no later than the Sunday before the Friday test session.

ARES / RACES: The first LVARC ARES event is the **St. Luke's Half-Marathon**. It will be held on **Sunday April 26, 2020**. About 12 operators will be needed. As of now, there are 7 volunteers. To volunteer, contact Mark (AK3M) at AK3M@rcn.com. See the current VOX for a complete list of the 2020 scheduled ARES events.

Club Station / Trailer: Myles got the mast installed in the trailer. He would like to do a work party towards the end of March. Maybe the 28th or 29th. Try and work on the antennas on the roof and some other items need to be done.

Communications: Nothing to report

Old Business: The club station will be open on March 17 to check the logging software on the laptops. If you would like to see what program we use, please attend.

Myles will compile a list of contests that are scheduled. If there are any scheduled for a Saturday, the club station could possibly be open for members to participate.

The annual Dinner Get Together was held on February 18 at the Golden Corral. Roughly 25 people attended. A good time was had by all.

At this time Don (N0VGA) is unable to pick up Kenny (KC3BLE) and bring him to a meeting. If someone is able to help out, please let Kenny know.

New Business: Tri-Clover Fire Company recently went through some administrative changes. The question was asked if we should make a donation for this year. The fire company did not cash the check from last year. It was suggested to table it till next month. Myles will contact the fire chief to see what the status is.

Upper Macungie Township did not cash our deposit from last year for the rental of the pavilion for the clubs picnic. They stated to Paul that they will just hold last year's check for this year. They suggested booking a date for the pavilion soon. It was decided to have the picnic on September 19 this year. That is if we can get the pavilion for that date. More info to follow.

A question was raised about the funds that are currently in the VE's account and what is done with the funds. The ARRL states that the funds can be used for supplies or reimburse VE's their travels. It was asked if the funds can be used toward the free one year membership that we give to people that pass the test. It was stated that the ARRL is very precise on what the funds can be used for. Discussion followed. Myles will talk to Mark about this issue.

Good of the Order: Mike (KC3BLF) stated that there will be an LVIA disaster drill on April 18. If interested in participating, please contact Mike for more info.

The current question pool for the Extra class will end on June 30. After the stated date, a new test will come out.

John asked the members if they enjoyed Gordon's presentation tonight. The consensus was that they liked it.

New member applicants:

Name: **Chris Josack**
Callsign: **KC3OTC**

Name: **Michael Velders**
Callsign: **KC3OYZ**

New Members motion to accept made by: Rod – N3XG
Seconded by: Chuck – W3CDY
Motion passed by voice vote: (Y/N) Y

The LVARC Monthly Business Meeting Closed at 2105 hrs. (EST.)
Motion to accept made by: Chuck – W3CDY
Seconded by: John – AB3LZ
Motion passed by voice vote: (Y/N) Y

Respectfully Submitted de KB3HMK, Secretary.

Baofeng UV-82 Radio

Speaker Mike

Ear Piece Mike

Base Charger x2

Alkaline Battery Pack

Cigarette Plug Cord for Base Charger



All accessories are designed for the UV-82 radio.

Asking \$60 for everything. Great condition. Only used a couple of times.

Please contact Phil Bigg (KB3HMK) @ philbert17@ptd.net

Phillip W. Bigg - KB3HMK

Secretary

Lehigh Valley Amateur
Radio Club - W3OI

Cell - 610-390-7565

philbert17@ptd.net



The word 'pixel' is a contraction of either 'picture cell' or 'picture element'.





On Friday March 13, 2020, Gov. Tom Wolf, closed all K-12 PA schools for ten business days.

Since the LVARC holds its testing

sessions at a BASD school, the March 20 test session had to be canceled. Three were scheduled to test.

The the April 17 test session is CANCELED.

COVID-19? No problem! If you can't go to your favorite restaurant, watch your favorite sports on TV, are self-isolating, *amateur radio is the perfect remedy!*



On March 15, 2020, the Centers for Disease Control (CDC) recommended that all gatherings and events larger than 10 people be canceled for the next eight weeks. In accordance with this recommendation, **we will be canceling the 2020 St. Luke's Half Marathon, 5k, Youth Run and Family Fun Walk which is scheduled to take place over the weekend of April 25-26, 2020.**

(Signatures)

*Neal Novak, Race Director, St. Luke's Half Marathon
Leslie Billowitch, President, Lehigh Valley Road Runners*

The ARRL VEC Looking Out for VE's de Mark (AK3M)



I received the following email text from the ARRL VEC today (March 16 2020). The March 20 test session had to be canceled as the BASD schools closed and we did not have access to our test site.

ARRL VE Newsletter - March 2020

Coronavirus (COVID-19) information for ARRL VEs

=====

We know that our VEs have a lot of questions and concerns with respect to the Coronavirus (COVID-19) and we are reaching out to share with you what we are doing.

We want you to know that your health and safety is top priority and we are taking the coronavirus outbreak very seriously.
We have been monitoring the U.S. Centers for Disease Control (CDC) website for information updates.
We understand that with the rapidly changing updates on restrictions and cancelled or postponed public events, our VE teams are in different locations and should do what is best for them and their communities.

We urge you to stay informed so you can make informed decisions based on your local communities guidelines, as each community is unique. Then use your best judgement when deciding whether or not to conduct, postpone, or cancel an exam session.

As we navigate this ever changing situation community-by-community, it is important to us that you feel confident when choosing your course of action.

So our VEs and teams can make informed decisions about the Coronavirus (COVID-19), please **get the latest report from the Centers for Disease Control (CDC) at <https://www.cdc.gov/coronavirus/2019-ncov/index.html> or your local health department website.**

We cannot stress enough that we are being proactive because your health and safety is our foremost priority.
We will continue to monitor developments and evaluate the situation to support our VEs as needs arise.

If you have any concerns or questions, or would like to cancel or postpone your exam session, please email the VEC department at VEC@arrl.org.

We are privileged to serve you and thank you for your ongoing support of our VE program.

73, Maria Somma, AB1FM

Remember: If you key the repeater, remember to ID.



All 2020 ARES are still scheduled until further notice (with the exception of the **April 26 St. Luke's Half Marathon**) which is **now canceled**.

There MAY be changes to that ARES schedule depending on the course of COVID-19. Listen to the Monday Night for any changes.

(See page 3 for a scheduled list of these activities).



IMPORTANT



The April 7 2020 LVARC will be held as a “**Virtual Meeting,**” using **ZOOM**.

If you want to “attend” the meeting, download ZOOM for your computer and/or smart phone.

Before the meeting, you will be sent an email from Myles (KB3ZMA) which will contain the **ID number** and the **password**. That information will allow you to join the meeting. Go to <https://zoom.us/download>.

This format was used to hold a BOG meeting on March 17 and worked very well.

CANCELED

Another Late Cancellation - The **Star of Bethlehem Children's Festival** scheduled for May 17 has been **CANCELED**.

PL Change to KA3NRJ Repeater

de Jamie Elovski (KC3ELT)

READER SUBMISSION

There has been a PL change to the KA3NRJ 224.08mhz machine. The PL has changed to 151.4 so that audio is passed to all linked machines attached to 444.1 system.



GOIN' GREEN

Alfred Gruenke PE, KB3JPP

READER SUBMISSION

It all started on a dark and stormy night a couple of years ago, as I was meandering outside Harbor Freight Tools in the Tilghman Square Shopping Center. They had a 45 Watt solar cell panel for sale for only \$129.99! I had no immediate use for this, and had no plans for any solar cell installation in the near future, but I couldn't resist. I bought it.

Fast forward a couple of years. I'm now retired, and the XYL insisted I downsize by getting rid of much of my "junk", including the solar panels. Like most hams, I consider my junk box, composed of resistors, transistors, wire, connectors, nuts, bolts, this-and that's, and where-with-all's, sacred.

There are two options to clear out a junk box. Throw everything out, which I consider a sacrilege, or use it to make something useful. I chose the latter.

I decided to build a power switching unit so I can run my gear either from a power supply or from a 12 Volt battery. Also, I wanted to be able to charge the battery either from the power supply or from the solar panels. My equipment consists of an ICOM 746PRO, a K1 QRP rig, an antenna switching unit, and a Z-11PRO II LDG ATU.

My secretary years ago had given me a metal box that was perfect for my plans. It looks like a bread box because I suspect that's what it had been.

My Samlex Power Supply powered everything. It also has a Battery Charge feature. I bought a 12 Volt 105 Ampere-Hour Deep Discharge battery from DEKA Batteries near Kutztown for \$120.00 which I connected to the Power Supply Battery Charge terminals. I had the main components, so I was set to go.

The solar cells, installed
in the back yard
(Right)



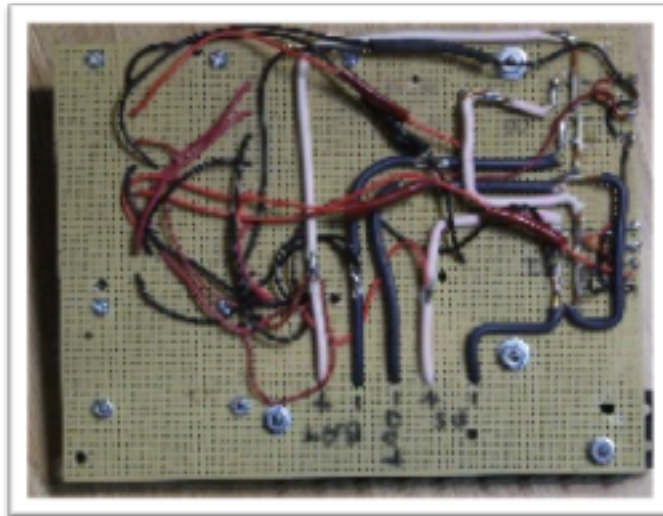
I set some broad based criteria. The Power Supply In to the switching unit was an ICOM connector, so I could easily move the connector from the power switching unit directly to

the ICOM 746PRO in the event of problems. All other connectors were Anderson Powerpoles. To simplify things I bought the connector crimping tool for \$50.00 for easier, trouble free installation. Money well spent. Internal wiring between the base board and the front panel were terminal strips and spade clips, with crimp (mostly) connections. To switch the power from the Power Supply to battery I used four SPDT relays, switching the positive and negative lines. To switch from Power Supply Charge to Solar Charge I used two smaller relays. Also, everything had to be fused.

I had the essentials to proceed. To measure main current I installed a 25A/50mV shunt and a digital indicator. Battery charging amps would be measured with a directly connected analog meter.

The first stumbling block was the digital indicators. They required 9 Volts to power them, so I had to install a 12V/9V converter. I set the range to 200 mV and one decimal point, determined by jumpers on the board. Only one worked. Good enough. I kept the non-working indicators hoping for a re-incarnation, but eventually threw them away.

In order to have 12V control power with either main power or battery power I installed a diode matrix so that relay control power would be available if either power supply or battery power was energized.



The back of the main board

Halfway through the project I ran out of spade clips so I ordered more from e-Bay. Delivery was at least a month so I ordered a hundred from MPJA. So much for eliminating the junk box. I now have enough spade clips for at least three generations. There also were two (or was that four?) trips to Harbor Freight for hole punches, drills, connectors, shrinkable tubing and a couple of trips to A&A Auto Parts for battery connectors and in-line fuses. That junk box was expanding, not contracting.

The analog meters presented a problem. They were sealed, so changing their range was near impossible, so I took them out and threw them away. I covered the holes with sheet metal from an olive oil can and went to Plan B, all digital meters. On Amazon I found various indicators that seemed to suit. They were reasonable priced, so I got a couple of 6-100V-10 A dual indicators to measure the battery charging current and battery voltage.

When partially complete I tested it with a 9 Volt battery and found that my installed digital meter died after only a brief moment of glory. To measure the output current and voltage I went to the Amazon (or was it e-Bay?) and bought a Voltage-Current-Power-Energy indicator with a 100A/75mV shunt. I decided to leave the original shunt installed, and maybe have a conversion chart.

Again some sheet metal work to install the new indicators.

Just for the heck of it, I installed a USB receptacle on the back. The USB receptacle looked so sexy I might move it to the front panel. I also got some 12 V LED lights for the shack but haven't installed them yet.

I put it all together, tested it with a 9V battery and a variable power supply, and everything looked good. I put the solar panel together and wired it up. Everything looked good. I connected the main Power Supply and the 12V battery. As Hemingway would say, "The Moment of Truth".

Tragedy! The output voltage and output current indicator went dark. Power switched from Power Supply to Battery ok, and the battery voltage and charging from the power supply to solar cells also seemed to work.

I tried to analyze the reason for the indicator failure but I couldn't figure it out. Connect the voltage, connect the shunt to the input, what else is there? I bit the bullet and bought a new meter (two, actually, in case I had another failure).

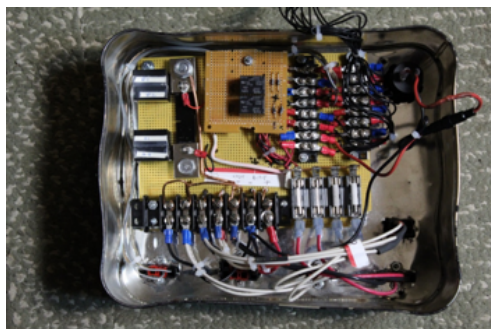
When the indicators arrived I remembered something I learned many moons ago in a previous century very early in my career. "When all else fails, read the instructions." A point well intended, but often ignored.

The instructions clearly state, "Do not connect shunt in the positive side of the circuit". Doggonit, I had installed the shunt on the positive side. When I started this thing I wasn't aware of this restriction, and I never bothered to correct my presupposition. After all, who bothers to read the instructions? Hey! I'm an engineer!

Changing the shunt to the negative side of the power circuit required considerable effort so I decided to install the shunt that came with the indicator, 100A/75mV. As a bonus the scale of the indicator and the shunt now matched.

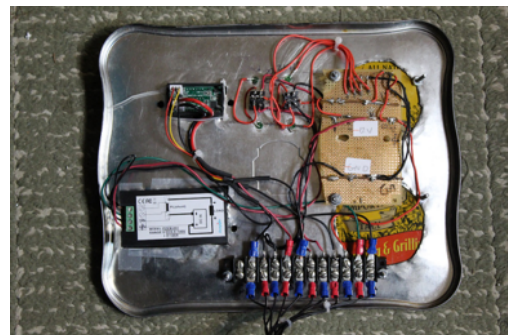
I wired it all together, and powered up. Lo and behold, it worked!

Years ago I learned something else, "When you build something or fix something, never act surprised when it works". Well, I wasn't surprised, but I was mightily pleased with myself!



The completed
internals. (Left)

Inside the
front panel
(Right)





Back panel connectors



Front panel

So how does it work?

I found out my antenna switching unit draws 60 mA, around 0.8 Watts. Response of the meters is too slow to react to cw, but the indication is, the K1 draws 0.78 Amperes, 11 Watts when transmitting. The 746PRO draws 1.86 Amps on receive, 23.3 Watts. On transmit, the metering is too slow for cw or SSB, but on PSK it draws 110 Watts, 9.0 Amps at 12.5 Volts.

The solar cells generate anywhere from 0.5 Amps to 5 Amps into the battery, depending on the voltage level of the battery and the amount of sunshine. As a plus, I can approximate solar conditions by looking at the Charge Amps.

Not bad. Free power!

Was it worth it? I did the math. Add up the cost of the solar cells, batteries, connectors, crimping tools, meters, shunts, blood splatter from the sheet metal work, relays, some more of this-and that, scorn from the XYL, and with purchased power at \$0.07 per kWhr, I should break even in about 262 years, give or take a century or two. However, knowing that I will be able to communicate with the world, charge my cell phone and I-pad in the event of a major power outage, zombie apocalypse, or alien invasion, priceless.



10 Takeaways from the April 2020 VOX

1. **The April 7 LVARC meeting will be On Line using ZOOM.**
2. The LVARC "Hands On Night," is **CANCELED** until further notice.
3. The 2020 St. Luke's April 26 Half Marathon is **CANCELED**.
4. Changes in the LVARC programs.
5. ARES Connect URL correction.
6. The 2020 Star of Bethlehem May 17 Children's Festival is **CANCELED**.
7. PL change to KA3NRJ repeater.
8. LVARC test sessions have been **CANCELED** until further notice.
9. The LVIA Emergency drill scheduled for April 18 is now **CANCELED**.
10. **Listen to the Monday Night Net for any updated information.**

