



The VOX



The Official Newsletter of the

Lehigh **V**alley **A**mateur **R**adio **C**lub - W3OI / KB3SYV
Allentown, Pennsylvania (Lehigh County) - USA

2024 Officers

President: **Rod Wolfe - N3XG** (n3xg.radio@gmail.com)
Vice President: **Jeff Bauer - WA3PNY** - (BAUERJV@MAC.COM)
Secretary: **Steve Olock - KS3RO** - (solock@gmail.com)
Treasurer: **Paul Ryan - N0KIA** - (paul.f.ryan@gmail.com)

2024 Board of Governors

John Bartos - AB3LZ - e03145jab@gmail.com
Phil Bigg - KB3HMK - philbert17@ptd.net
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VOX Editor - Mark S. Miller (AK3M) ---- (AK3M@rcn.com)
Net manager - Rod Wolfe (N3XG) - (n3xg.radio@gmail.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 **August** LVARC meeting will be held on **Tuesday**
September 3 , 2024 via **ZOOM AND In-Person** at **7:30p.**

Program: *Field Day Preparation*

Plan to attend this Meeting!

The LVARC holds it's monthly meeting the **FIRST TUESDAY** of every month **BOTH In Person AND** using **ZOOM** at 7:30p Eastern time. Meetings are held at the Tri-Clover Fire Co. in Orefield, PA.

LVARC TEST SESSIONS

The LVARC test sessions are held the **THIRD FRIDAY** of **EVERY OTHER MONTH.**

Contact Mark Miller (AK3M) at AK3M@rcn.com for details.

REGISTRATION IS REQUIRED

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

Up Coming 2024 LVARC Programs/events

September 3 - LVARC meeting
September 21 - LVARC Picnic
October 5 - Women's 5K Classic
October 18 - LVARC test session
November 10 - D&L Half Marathon



Do you remember ...
“Telephone booths?”

Send your “What Ever Happened To/ Do you Remember...,” to Mark (AK3M) for inclusion in a future issue of the VOX).



READER SUBMISSION

Larry (NR3R)

LVARC Nets

1. **Monday Night LVARC/ARRS/RACES/ACS Net - 7:30p - 146.94 MHz**
2. **Monday Night USB Simplex Net - 8:15p - 144.250 MHz**
3. **Tuesday Night Net - 2nd & 4th Tuesdays — 8:00p - 146.94 MHz**
4. **Wednesday Night D-Star Net - 7:00p** - The Net starts out on the W3PLG B DSTAR Repeater - frequency **447.7125 MHz**.
5. **Thursday Night - 2m Simplex Net - 8:00p - 147.420 MHz**



LVARC 2024 Test Session Dates

2024

October 18

December 20

Check the expiration date of your VE certificate. If you need to renew, feel free to attend any LVARC test session.

This Month In Ham Radio

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 <div style="border: 1px solid red; padding: 2px; text-align: center;"> LVARC Net 7:30p </div> N3XG <div style="border: 1px solid yellow; padding: 2px; text-align: center;"> 2m AM/SSB Net - 8:15p </div>	3 <div style="border: 1px solid blue; padding: 2px; text-align: center;"> LVARC Meeting 7:30p </div>	4	5 <div style="border: 1px solid orange; padding: 2px; text-align: center;"> 2m FM SIMPLEX net 147.420 8:00 </div>	6	7
8	9 <div style="border: 1px solid red; padding: 2px; text-align: center;"> LVARC Net 7:30p </div> KB3YOT <div style="border: 1px solid yellow; padding: 2px; text-align: center;"> 2m AM/SSB Net - 8:15p </div>	10 <div style="border: 1px solid blue; padding: 2px; text-align: center;"> Tuesday Night Net 146.94 8:00p </div>	11	12 <div style="border: 1px solid orange; padding: 2px; text-align: center;"> 2m FM SIMPLEX net 147.420 8:00 </div>	13	14
15	16 <div style="border: 1px solid red; padding: 2px; text-align: center;"> LVARC Net 7:30p </div> KB3UZE <div style="border: 1px solid yellow; padding: 2px; text-align: center;"> 2m AM/SSB Net - 8:15p </div>	17 <div style="border: 1px solid green; padding: 2px; text-align: center;"> LVARC "Hands On Night" </div>	18	19 <div style="border: 1px solid orange; padding: 2px; text-align: center;"> 2m FM SIMPLEX net 147.420 8:00 </div>	20	21 <div style="border: 1px solid pink; padding: 2px; text-align: center;"> LVARC picnic  </div>
22	23 <div style="border: 1px solid red; padding: 2px; text-align: center;"> LVARC Net 7:30p </div> KC3HWD <div style="border: 1px solid yellow; padding: 2px; text-align: center;"> 2m AM/SSB Net - 8:15p </div>	24 <div style="border: 1px solid blue; padding: 2px; text-align: center;"> Tuesday Night Net 146.94 8:00p </div>	25	26 <div style="border: 1px solid orange; padding: 2px; text-align: center;"> 2m FM SIMPLEX net 147.420 8:00 </div>	27	28
29	30 <div style="border: 1px solid red; padding: 2px; text-align: center;"> LVARC Net 7:30p </div> N3RPV <div style="border: 1px solid yellow; padding: 2px; text-align: center;"> 2m AM/SSB Net - 8:15p </div>	<h2 style="margin: 0;">September 2024</h2>				

July Net Report

de Rod (N3XG)

Monday Night ARES / ACS Net:

7/1 - 34
7/8 - 40
7/15 - 45
7/22 - 34
7/29 - 40

Total Monday Night ARES / ACS Check-in's: 193 (5 weeks)

Monday Night 2m SSB:

7/1 - 6
7/8 - 8
7/15 - 8
7/22 - 8
7/29 - 8

Total Monday Night SSB Check-in's: 38 (5 weeks)

Tesla Tuesday Net:

7/9 - 10
7/16 - 11
7/23 - 7
7/30 - 9

Total Tesla Tuesday Check-In's: 28 (4 Weeks)

Thursday Night 2m FM Simplex Net:

7/4 - HOLIDAY
7/11 - 6
7/18 - 7
7/25 - 10

Total Thursday Night Simplex Check-in's: 23

Thank you,
Rodney



New Hams In the Lehigh Valley!

At the Friday August 16 test session, two tested and two passed.
CONGRATULATIONS to Ralph (KC3VII) who earned his Extra and Mike Tyniec who earned his Technician license and is waiting for his call.

VEs in attendance included Mark (AK3M), Walt (KE3SP), Rich (KC3VAX) and Bob (KB3JSZ). The next test session is scheduled for Friday October 18 at Hanover Elementary School in Bethlehem at 6:00p.

REGISTRATION IS NECESSARY! To register, contact Mark (AK3M) at AK3M@rcn.com.

Here are the places I used to study for my Extra test

This is Ham Test Online. They offer free access to their Extra Course for any General VE that has worked at least three testing sessions in the past year. Their Extra Course really helped me to learn what you need to know to pass the Extra Test. I then used Ham Study to prep for the test questions...

[HamTestOnline - Study for your Ham Radio License Exam](#)

There is a link at the bottom of the page that leads to the free course information. Here it is.

[HamTestOnline™ - Free Extra Course for Active Volunteer Examiners \(hamradiolicenseexam.com\)](#)

Here is the link to Ham Study. I've used them to prep for each of the three tests.

[HamStudy.org: Cutting edge amateur radio study tools](#)

Hope this helps anyone interested in getting their Extra.

73! —

READER SUBMISSION

Ralph Fenner - KC3VII

Monday Night Net Control operators are being sought. If you are interested in becoming a Net Control operator for the LVARC Monday Night Net, contact Rod (N3XG) at n3xg.radio@gmail.com.

Famous Ham

Barry Goldwater - K7UGA



Barry Morris Goldwater was an American politician and major general in the Air Force Reserve who served as a United States senator from 1953 to 1965 and 1969 to 1987, and was the Republican Party's nominee for president in 1964.

READER SUBMISSION

Submitted by Larry (NR3R)

Mark your calendar!

Rod has reserved the Hawk pavilion for September 21, 2024 picnic.



Keep your license, VE and ARRL certificates, along with your home address, current with the LVARC, FCC and ARRL.

2024 ARES Events

October 5 — Women's 5K Classic

November 12 — St. Luke's Marathon/Race Fest



Chinese Handhelds

READER SUBMISSION

de CHUCK (W3CDY)

Most of us are familiar with “the Baofeng”. Many new hams with Technician licenses start by buying one of these inexpensive handhelds to ‘get on the air”. Many purists in our hobby swear at these radios, for many reasons, both real and imaginary. The question comes to mind “What do you expect from a radio that costs less than \$30?”.

So what would you and these critics say if I told you that there was a handheld currently being sold for less than \$30, with all the faults of a cheap radio, but which allowed hackers to totally change the operation, performance look and feel of the radio in less than 5 minutes without even a screwdriver?

Quansheng UV-K5 and UV-K6.

The UV-K5 appeared first in 2023, the UV-K6 in 2024. For all intents and purposes, they appear to be almost the same radio, in so far as most people can tell. Their nomenclature and appearance initially made them look like knockoffs of the ubiquitous Baofeng UV-5R. Then it was found that some UV-K5's were being made by Baofeng with a Baofeng label! Some other off-brands are reportedly out there also.

The specs do make it look slightly different

General Specifications RECEIVING 200 20 10 ±1ppm FM:11K?
F3E(12.5KHz),16K?F3E(25KHz) 115mmX60mmX37.5mm 234g -20?
+60? 50? F1(50?76) F2(108?135.9975) F3(136?173.9975) F4(174?
349.9975) F5(350?399.9975) F6(400?469.9975) F7(470?599.9975)
WFM(76?108) F2(108?135.9975) WFM(20dB SINAD) AM(10dB S/N)
Audio Frequency: Audio Distortion: ?0.5W ?10% -121dBm -121dBm
-123dBm -123dBm -123dBm -123dBm -121dBm -110dBm -113dBm
Sensitivity:FM(12dB SINAD)

So it appears to have additional bands, like the aircraft band (AM aircraft) and 6-meter FM. It can be programmed using CHIRP. Some experimenters found it could receive between 50-600mhz. It can only transmit effectively in (generally) amateur 2m, 220 and UHF bands because of transmitter design restrictions.

Then some experimenters (hackers) discovered that this radio permitted flashing of the firmware through the same interface used by CHIRP and the manufacturer's software. To reach this other gateway to the radio, all you had to do was hold down PTT and turn the radio on. Believe it or not, the signal that tells you you are "in" is the LED flashlight coming on. That LED also blinks when you load in new firmware.

Well, that was all it took for much better programmers than I to be off to the races. They reverse engineered the original firmware and found it was easy to modify, and modify it they did. You can now custom modify your radio with almost any Baofeng programming cable you happen to have (except those with counterfeit FTDI chips under Windows) and a browser (yes a browser like EDGE).

Some of these mods allow the radio to receive up to 1300mhz. Some allow reception down to 18mhz. Some provide spectrum analyzers and other neat features.

One of the most popular firmware mods is one called egzumer. The browser flash program and the egzumer firmware can be found at

<https://github.com/egzumer/uv-k5-firmware-custom/releases>

A listing of some of the most popular modded firmwares can be found at

https://docs.google.com/spreadsheets/d/1XC7qwNhlAGdnbr8AOzWFWvPD_WFv6Wlrd39VeX5mUFI/edit?gid=0#gid=0 (you may need a spreadsheet program)

I bought two Quanshengs, a UV-K5 and a UV-K6. (See pictures) I have two different firmwares installed and I am experimenting to see which one I like best. If you want to read more, just Google Quansheng uv-k5 firmware mods and run through the multitude of articles.



UV-K5 and UV-K6 side by side. Uv-K6 has the blue accent.



There is a hardware mod that makes the UV series even more versatile. You have to be good at soldering and unsoldering surface mount components. This is the kit.



Mike Tyniec was voted in as a new member at the August 6 2024 meeting. Mike tested at the August 16 2024 test session. He received his Technician license on August 20. **Welcome KC3ZPU !**

Welcome to the club and the hobby Mike!



Free On Line Amateur Radio Classes

READER SUBMISSION

de Bob (KB3JSZ)

A free, weekly, live, Amateur Radio Technician Class Licensing course on Zoom will begin on Thursday, Sept 5, and will run through Thursday, October 17 (7 sessions).

These are the classes that have been presented by the Amateur Radio Club of the National Electronics Museum for a number of years. The three-hour sessions will be held Thursdays starting at 6:30 PM Eastern Time.

Contact Rol Anders K3RA (roland.anders@comcast.net) for more information or to sign up.

**** You may want to contact Rol to find out when General and Extra classes will be held.***

Women's 5K Classic

The Women's 5K Classic will be held on Saturday October 5, 2024.

This event is held entirely within the Lehigh Parkway. The LVARC has provided communications support for this event for many years and will do so again this year!



Your help is needed. To volunteer your time and communications expertise for this event, contact Mark (AK3M) at AK3M@rcn.com.

Ham Radio Call Signs Discovered



Alumni recall making 'infinite connections' around the world. Mysterious letters and numbers etched into the wall of a sealed-off, [fifth-floor room in the Clayton University Center at Packer Hall](#) are ham radio call signs and likely remnants of Lehigh's former Amateur Radio Society—a club started 100 years ago that allowed students to talk with fellow radio enthusiasts all over the world.

Discovered during [current renovations](#) of the Clayton UC, the call signs have revived memories of the Lehigh University Amateur Radio Society, which was mentioned in [The Brown and White](#) as early as 1920 and in the Epitome yearbook through the 1990s.

Daryl George '69 '78G was among those whose call sign—WA3EMX—was etched into the wall. George, who now lives in Wyoming, doesn't remember leaving his call sign, but believes club members used the fifth-floor room for storage. There also were antennas on the roof that could be accessed from the room. They could be rotated to achieve higher frequencies capable of contacting people in Europe and other parts of the world, he said. "You've probably heard about radio waves bouncing off the ionosphere ...," he said. "That was part of the fun of the hobby, trying to figure out what frequency you want to operate on for where you wanted to talk to."



K1UTV, a call sign belonging to Neil Wells '69, was also among those etched into the wall. Wells, who now lives in Massachusetts, was an avid amateur radio hobbyist since getting his license in his early teens. When he came to Lehigh in

1965, Wells said in an email, he immediately sought out the Amateur Radio Society, known as the “ham shack,” in the basement level of the Clayton UC, across from the campus radio station, WLVR.

“Those antennas on the roof were maintained by men more courageous than me,” Wells wrote.

The club was located in several places across campus over the years, including Packard Lab and Drown Hall. It was moved to the basement of the Clayton UC after the building's first major renovation in 1957. Several of the call signs in the fifth-floor room were identified as belonging to students who were at Lehigh in the 1960s and '70s. The room also contains etchings presumed to be of past Lehigh professors and former presidents.

Mostly the hobby is one of, ‘Let’s see who we can talk to.’ There are infinite connections between here and there with nothing in between except the ionosphere.

GARY WILSON '72

Some of the alumni who participated in the club continue to operate ham radios and said they wish to see the club reestablished on campus.

“Mostly the hobby is one of, ‘Let’s see who we can talk to.’ There are infinite connections between here and there with nothing in between except the ionosphere,” said Gary Wilson ’72, who lives in New Jersey and uses the call sign K2GW.

Although Wilson was not in the Amateur Radio Society when he was at Lehigh, he earned his ham license a year after graduating. He finally had the time to learn Morse code, a requirement for a license back then. Wilson is now part of the [Delaware Valley Radio Association](#), and for the past 20 years has continued to renew Lehigh’s call sign—W3AEQ—with the Federal Communications Commission, hoping Lehigh students may one day use it again.

“There’s a magic to ham radio,” said Wilson, who was recently talking over the radio waves to someone in the Southeast Asian country of Laos.

Shawn Donley ’71 joined the club during his first year at Lehigh, in 1967. At that time, his call sign was WA3CHX, though it was not left on the wall.

“I was already an amateur radio operator. I was tinkering with electronics when I got into the hobby,” said Donley, who now lives in Maryland. “I was fascinated by the fact you can throw a piece of wire and a transmitter out there and talk to someone else in the world.”

The club didn’t have set meetings. Anyone could show up and hang out whenever they wanted to, he said. One of his favorite memories is of an SCR-584 radar van from World War II the club acquired and kept on university property in Saucon Valley. It was modified to track satellites and could be aimed at weather satellites to record weather data.

How Does Ham Radio Work?

Amateur radio operators must pass an exam for the FCC license to operate on radio frequencies known as “amateur bands,” according to the [American Radio Relay League](#). The FCC created licensing requirements to fill the need for a pool of experts who could provide backup communication during emergencies.

Enthusiasts can communicate “from the top of a mountain, your home or behind the wheel of a car, all without relying on the internet or cell phone network,” according to the association. There are more than 600,000 radio amateurs in the United States and more than 2 worldwide.

“Part of being in the hobby was learning about how the radio waves propagate and the sunspot cycle that affects that,” said George. The hobby inspired him

to go into electrical engineering. In addition to electronics, he liked learning about other cultures.

“Early on when I was still living at home, my father would sit with me and we had a nice conversation with a fella in the Caribbean who was telling us how they lived down there, picking avocados and pineapple,” George said
Radio operators know who they are talking to based on the letters and numbers in their call sign. Each region of the United States and countries are assigned a unique prefix. History of Ham Radio at Lehigh

The earliest mention of a ham radio club was in the Nov. 5, 1920, edition of The Brown and White. The original club had broken up because of the onset of World War I, but there was interest in reviving it after an “exhibition of wireless telegraphy” in the physics building on the night of the 1920 presidential election. Results were received via radio, and Warren G. Harding won in a landslide victory over James M. Cox.

“Signals from Brooklyn Navy Yard Station were audible all over the room. Students were on hand as late as 1 a.m. when it became evident Harding was elected,” the article says.

Signals from Brooklyn Navy Yard Station were audible all over the room. Students were on hand as late as 1 a.m. when it became evident Harding was elected

THE BROWN AND WHITE, NOV. 5, 1920, EDITION

An article in the Oct. 30, 1923, edition of The Brown and White announced the formation of a new club. “It will be interesting to note that the students taking part in this organization are, many of them, old friends who, while they had never seen each other, have made lasting friendships through their talking to each other over the radio,” the article says, noting about 30 students attended the first meeting in Drown Hall.

A Jan. 15, 1937, article says the club had managed to contact other “hams” in Cuba, Canada, South America and Europe. At that time, the club was in Packard Lab room 504.

The last mention of the Amateur Radio Society is in a 1994 edition of the Epitome.

Continuing the Tradition



From left, Gary Wilson '72 and Don Corrington '70 in front of the equipment at the Delaware Valley Radio Association club “radio shack” in West Trenton, New Jersey.

Lehigh and its students—especially those involved in physics or electrical engineering—have a long connection to amateur radio, Wilson said.

Although a club was no longer on campus at the time, his daughter, Pamela Wilson '08 (W1PAM), was able to earn \$4,000 in ham radio scholarships while at Lehigh because of her license, he said. Wilson suggested the Mountaintop campus as a good location for a station. He said grants are available to obtain amateur radio equipment for educational institutions

READER SUBMISSION

de Tammy (KC3VAY)

Lots happening At the LVARC!

Read the VOX, attend meetings and check into the many weekly nets to remain informed.



Lehigh Valley Amateur Radio Club Monthly Meeting

August General Meeting. - 08/06/2024

Combo Local and Remote via Zoom

The Meeting was called to order by Rod Wolfe @ 731

Secret Word is digital and needs to be emailed to KS3RO@arrl.net to show attendance for online participants.

Rod covered hybrid zoom meeting procedures, zoom will be an active participant in the meeting

Remotes will raise hand to signify a nay vote otherwise no indication will be considered a yes vote

Online was interactive with full communications for both local and remotes

ATTENDEES

There were a total of 21members in attendance with 8 remote members (as per the email method) and 13 Local Attendees.

The following Board Members were present at the meeting:

President – Rodney Wolfe N3XG **REMOTE**

Vice President – Jeff Bauer WA3PNY **PRESENT**

Treasurer - Paul Ryan N0KIA **PRESENT**

Secretary - Steve Olock KS3RO **PRESENT**

Board of Governors:

Rick Pearce KC3EXO REMOTE

Mark Miller AK3M REMOTE

Scott Leichssenring KB3YOT PRESENT

John Bartos AB3LZ PRESENT

Phil Bigg KB3HMK REMOTE

Guests: Mike Tyneic

Proceedings:

A motion was made to approve the July 2024 Meeting minutes as published in the August 2024 VOX newsletter. Motion to approve was made by Chuck, W3CDY and 2nd by Scott, KB3YOT

Motion Passed = Y

Program for tonight: John, Ab3LZ presenting on FT8

Treasurer's Report (Paul - N0KIA)

Income noted was 5050, interest and some used equipment sales, expenses were portapotty from field day.

Motion to accept was made by Mike, KC3UCX, and 2nd by John, AB3LZ

Motion Passed = Y

Committee Reports:

VE and ARES Reports for the August 6 2024 LVARC Meeting

VE Report

There will be a test session on Friday August 16 at Hanover Elementary School at 6:00p. Registration is necessary. To register for this test session, contact Mark (AK3M) at AK3M@rcn.com.

ARES Report

The next LVARC ARES event will be the Women's 5K Classic held on Saturday October 5. Volunteers are needed. To register, contact Mark (AK3M) at AK3M@rcn.com.

The St. Luke's Marathon will be held on November 10th. To volunteer for this ARES event, contact Rod (N3XG) at n3xg.radio@gmail.com.

Mild change to route, needing volunteers, notify n3xg as to your desire to volunteer.

Communications:

A participant for the monday net is hitting the repeater remotely, This presents challenges and is without control for connection failures, he was notified following to discontinue that practice

Repeater report: by Rod N3XG.

Repeater has been hitting open carrier, courtesy tone open carrier repeat for hours.

It will be looked into to determine the cause

Club Station / Trailer:

A trailer Prep meeting will be held to deal with trailer and return to normal use.

If you wish to participate with the winlink activities, get a winlink account setup now to participate as the account can be delayed in arriving.

John Ab3LZ and Rick KC3EXO will be leading the work crews

Old Business:

1.A reminder to all that we have several on-air activities each week. Monday night is the official Club net at 7:30, followed by a 2 meter SSB net at 8:15. Non-club meeting Tuesday nights we have the Tesla Net at 8pm on the 94 repeater. Thursday nights at 8pm we have the 2m Simplex net. 147.420 Please stop by the various nets, and say hello!

1.CLUB PICNIC - Saturday 9/21 - Hawk Pavillion, Upper Macungie Park (1.5 miles north of Fogelsville on Rt 100

1.Trailer mast report- John , Mast was repaired and reinstalled and worked for Field Day as designed. Slight leak over time but currently we are fully operational

Net control operators are needed for monday night net, please contact Rod, N3XG if you're willing to learn and help out the running of the net.

Looking for members for Elmer List, Note your area of expertise or experience or particular enjoyment in sharing and help those with needs in these categories to further their learning and enjoyment in the Hobby, Share your talents with members. Let Rod N3XG Know of how you would be willing to help

New Business:

Michael Tyniec, KC3ZPU

Motion to approve by Scott KB3YOT, 2nd by John Ab3LZ

Motion Passed

Sick Call:

None noted

Good of the Order:

Rod shared thoughts about the Wuben X3 Light and USB supply

Motion to adjourn the meeting was made by Chuck, W3CDY, 2nd by Scot, KB3YOT. Meeting adjourned at 7:59 CDY YOT

Respectfully Submitted Steve Olock KS3RO, Secretary

On The Air Nets for Lehigh Valley Amateur Radio Club

Monday 730PM 146.94 Club Net, Formal Alphabetical (suffix) Checkin,

Monday 815 2M **SSB** Simplex 144.250 casual round robin net following the monday night net

Tuesday, 8PM April 9th 146.94 repeater casual round robin net on **Non Meeting Tuesday Nights**

Wed 7PM Dstar / digital d-rats / 147.7125

Thursday 8PM FM Simplex 147.420 5-8

10 Highlights In this VOX

1. The September LVARC meeting will be held using ZOOM AND In Person on **Tuesday September 3 at 7:30p.**
2. Monday Night Net control operators wanted.
3. Tuesday Night Net control operators wanted.
4. Lehigh University Radio Club!
5. New LVARC member.
6. LVARC Picnic
7. Free On Line License classes.
8. **Women's 5K Classic - October 5.**
9. Minutes of the August 2024 meeting.
10. **D&L Marathon - Sunday Nov. 10**



and more

