



VOLUME XV ISSUE IX

SEPTEMBER 2023

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IMPORTANT DATES

(GO TO WEBSITE OF MORE INFO)

Sept. 25—General Meeting. 7:00 PM. Plymouth Library. Weather Balloon Presentation.

Oct. 9—Board Meeting via ZOOM. 7:00 PM.

Oct. 14—LARC in the Park. Bien Park. VHF Shootout. Joe KE8DOU.

Oct. 23—General Meeting. Plymouth Library. TBD.

UP FRONT

◆ The first **General Meeting** after summer break will take place on **Monday, September 25th at 7:00 PM.** Downtown [Plymouth Public Library](#). Socializing begins at 6:30 PM. There will be a Weather Balloon presentation by Drew Mortensen, AC3DS

◆ Please join fellow LARC members any Saturday around 8:00 AM for **breakfast** at the **Senate Coney Island**, 34359 Plymouth Road, Livonia, between Farmington and Wayne Roads. We are located in the backroom to the right of the entrance. Sometimes we even talk about ham radio.

◆ Our annual **Edmund Fitzgerald Special Event** will take place from November 1—12, using the W8F callsign. We will be operating the LARC in the Park event on Saturday, November 11th at the Dossin Museum on Belle Isle. More information is available on the Club website at: [Edmund Fitzgerald Special Event Station – Livonia Amateur Radio Club \(livoniaarc.com\)](#).

◆ **SAVE THE DATE:** Our 52nd Annual **Swap ‘n Shop** is scheduled for Saturday, February 17, 2024 at the Monahan Banquet Center on Farmington Road, north of Seven Mile, the same location as last year.

◆ Chuck WV8A is coordinating a project to highlight Amateur Radio at the Livonia Public Library during the month of October. He is looking for additional ideas and help with set-up. Members would have received information in an email from Chuck. You may contact him at wv8a@mac.com.

◆ Welcome to our newest LARC member, **Tom Mitchell KE8YVH.**

LIVONIA REPEATERS ♦145.35 PL 100HZ ♦ 444.875 D-STAR (GATEWAY 89C)♦ ECHOLINK K8UNS-R [NEW]

LARC 2-METER NET EVERY THURSDAY ♦ 8:00PM LOCAL TIME

WEBSITE: [HTTP://WWW.LIVONIAARC.COM](http://WWW.LIVONIAARC.COM). AND, JOIN US ON [FACEBOOK](#)

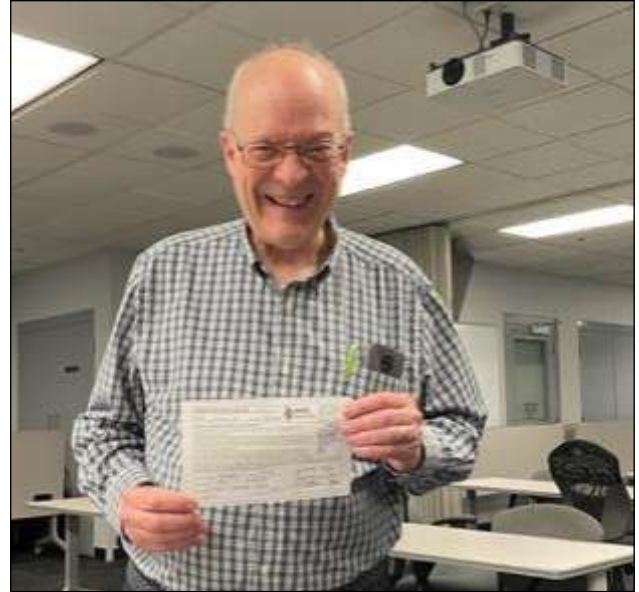
EMAIL: info@livoniaarc.com

STUDENT TO EXTRA IN ONE NIGHT

Not often someone walks into a VE Session with no license and walks out an Extra. This month, Associate Member Paul Wagner did just that.

Originally licensed as a Technician at MSU in the early 1970s, Paul let his license lapse. After decades of pondering the idea of getting back into the hobby, he decided to go for it just a few months ago. On September 6th, he came to the VE Session at the Livonia Police Station and passed all three exams. He just received his call sign of AD8LD, but hopes to change it to his original WB8ICI.

Here's Paul with his CSCE.



SAVE THE DATE FOR THE THANKSGIVING TURKEY TROT

Once again, the Strategic Staffing Solutions Turkey Trot 5K and 10K races are looking for radio operators to provide safety on the Downtown Detroit course on Thanksgiving morning, November 23rd.

Earn high-fives and kudos from thousands of runners and walkers. Plus, you get a pretty nifty long-sleeve t-shirt. And, you'll be home in time for lunch.

What will you do as Emergency Communications volunteers? Simply, hams **“Observe & Report.”** Licensed Amateur Radio Operators are stationed at key intersections on the race course and communicate any safety issues back to the Command Center. You may be called upon to assist when necessary. We'll even provide the handheld if you need one.

John Dudek, KC8CRK, a frequent operator on our Thursday 2-meter net, is the Command Center Manager for this event.

JOHN DUDEK, KC8CRK

Emergency Communication Captain

johntiger@wowway.com:

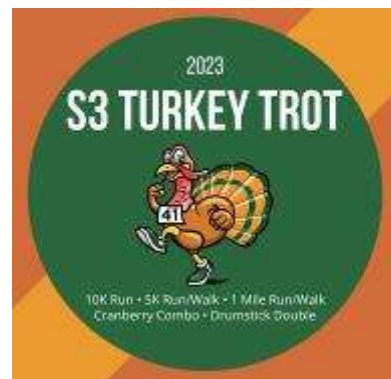
313-318-9202

You may contact John personally or sign up at the online volunteer system by clicking this link:

[2023 Strategic Staffing Solutions Turkey Trot Volunteer Signup \(hugheswarevolunteersystem.com\)](https://www.hugheswarevolunteersystem.com)

Just scroll down to “Outdoors on the Course,” and check “Emergency Communications.”

Come join the fun! You can also stay down and watch Detroit's Thanksgiving Parade® presented by Gardner White.



Website: [Turkey Trot General Info](#) | [The Parade Company](#)

PART SOCIAL MEDIA AND PART PREPPERS' PARADISE, HAM RADIO IS THE PERFECT HOBBY

BY ROY MAYNARD



IMAGE CREDIT: DAVID CANTERBURY/YOUTUBE

In a fractured nation with a toxic public square, ham radio — even in this always-online digital age — is a thriving part of civil society.

Shannon Vore and her friend C.J. Bouchard were out [four-wheeling](#) in their Jeep last fall when a passing trucker warned them of what looked like an ATV accident nearby. They said they'd investigate. Deep in the Rocky Mountains of northwest Idaho, there were no towns nearby and no cell phone service.

But both Vore and Bouchard were newly licensed [amateur radio operators, also known as "hams."](#) In amateur radio lingo, the operators are "hams," and they transmit on "ham radio," a spectrum of noncommercial radio frequencies. Vore and Bouchard found the accident site and two critically injured teenage girls. After establishing contact with another ham on the national calling frequency, 146.420 MHz, Bouchard handed off the microphone to Vore and began some basic medical treatment. He stopped one of the girls' bleeding with a tourniquet.

[For the next few hours](#), Vore worked through a ham operator 20 miles away in Coeur d'Alene who was on the phone with 911. She relayed information and instructions to Bouchard and an off-duty EMT who also came upon the scene. Adding urgency to an already dire situation, a storm was blowing in, and a Life Flight Network helicopter was grounded before it could make an air rescue.

Two teams of EMTs were dispatched by ground, and the Coeur d'Alene ham guided them to the site with instructions from Vore. [Both girls](#)

[were transported to a hospital.](#) Due to the actions of the radio-equipped good Samaritans, both will recover.

Like an increasing number of people, Vore and Bouchard have rediscovered an American anachronism: ham radio. What they've found is more than a means of communication; they've found a community and connection.

Connection, Service, and Disaster Readiness

In a fractured nation with a toxic public square, ham radio — even in this always-online digital age — is a thriving part of civil society. It's a signal in the noise. And what's more, it's a robustly American institution. But more on that in a moment.

Ham radio is booming, spurred on by several trends. Covid lockdowns [forced](#) people to stay home. Old radios were [dusted off](#), while thousands of new ham operators were licensed to take to the airwaves.

Ham radio is increasingly popular with off-roaders, who find that amateur band signals can carry much further than Citizens Band (CB) or General Mobile Radio Service (GMRS) signals. At the other end of the call, there's very likely a ham operator who [is trained in emergency and disaster response.](#)

Many come to ham radio through prepping. The hobby's usefulness in a grid-down situation was demonstrated in the Maui fires, when [amateur radio operators stepped in](#) after the cell phone system went down, passing along information to civilians and first responders alike. The nature of ham radio clears away the fringiest of preppers. It is governed by the Federal Communications Commission; it requires an exam, license, and registration with the federal government. That leaves the rest of us — every American who recalls the [empty store shelves](#) at the height of the pandemic and every Texan who remembers

(Continued on page 4, Hobby)

(*Hobby*, Continued from page 3)

the [deadly freeze of 2021](#) — to benefit from ham radio.

The biggest boost ham radio as experienced in recent years has been [Parks on the Air](#), or POTA, a successful promotion of the National Parks Service’s 100th anniversary in 2016 that has grown into much, much more. To participate in POTA, hams set up in national, regional, and state parks across the globe, and they look for contacts — transmitting “CQ, CQ, CQ, Parks on the Air...” If they successfully contact at least 10 people, then they activate the park.



Hunters, which are at-home operators, can go to the [POTA website](#) to see which parks are currently being activated and on which bands. It’s not a contest; it’s an event. And as it has grown, it has drawn in younger hams. POTA appeals to those who can travel to beautiful places and those who wish they could.

Amateur Radio, an American Tradition

What makes ham radio so uniquely American?

First, it’s an enduring public square. It

was [the first social media](#), but it carries on without the bitterness and acrimony on social media platforms now. Part of this is because it’s not anonymous. Operators are required to identify themselves by their call signs every 10 minutes that they are on the air and at the end of every conversation. And part of it is because the FCC has rules against profane language on public frequencies, and the ham community is largely self-policing.

On the ham radio airwaves, connections are made, civilities are exchanged, and contacts are often recorded in logbooks (either on pencil and paper or online). Deeper relationships can form through local amateur radio clubs and meetups, but even casual chats provide the connection Americans clearly crave.

It has been said ham radio is “a hobby, where you use the hobby to talk about the hobby.” That’s true, but let’s check back with Robert D. Putnam. *Bowling Alone* was never really about bowling — it was about community.

Next, ham radio is ruthlessly DIY. In an age of throwaway electronics and user-friendly interfaces, ham radio operators look down on mere “appliance operators.” Hams will build their own radios from [kits](#), and then they’ll cobble together their own antennas from trash, old speaker wire, and [attitude](#). There’s a bustling [YouTube community](#) of hams to help new licensees with the more complicated aspects of the hobby. But DIY — known as homebrewing in the community — is the goal. You might even call it “self-reliance.”

Ham radio is also inexpensive and service-oriented. Financially, the barrier to entry is low. Handheld ham radios can be had for as little as \$25, though “shack in a box” transceivers can cost thousands of dollars. Hams put their radios, their resources, and their skills to work for their communities. Many hams build “go boxes,” with radios and solar panel systems that let them operate in areas without power or working infrastructure.



(Continued on page 5, *Hobby*)

LARC PICNIC—AUGUST 27, 2023



(Hobby, Continued from page 4)

“Organizations such as Amateur Radio Emergency Services train members to work with emergency organizations, lending their radio expertise to pair with rescuers, set up communication centers and assist accordingly,” [tech journalist Seth Price writes](#). “Most local, county and state emergency organizations have established working relationships with the amateur radio community.”

Historical Hams

Ham radio played a role in Cold War-era civil defense efforts, and amateur operators remained ready to work with the National Guard to relay messages in a national emergency. This has evolved into [today’s Radio Amateur Civil Emergency Service](#).

Hams have also helped NASA. In the early days of the space program, Cape Canaveral re-

lied on amateur radio operators all over the world to communicate with orbiting space capsules. (Remember that “line of sight” scene from “Independence Day”?) Even today, NASA regularly asks hams for help [documenting solar phenomena](#) and tracking down [“zombie” satellites](#) that the government has lost contact with.

For Vore and Bouchard, ham radio was a way to ensure their own safety in the wild places where the Jeep people go. But they found it’s more than that.

“It took us about two days to wind down from the experience,” [Vore](#) said, following the rescue of the injured teens. “We are both glad we had our amateur radio licenses and were able to help.”

Roy Maynard, who uses the ham radio call sign KJ5BVP, is senior writer for the Texas Public Policy Foundation. As seen in [The Federalist](#), August 31, 2023.

LEARNING ABOUT RADIO DOES MATTER

BY DAN ROMANCHIK KB6NU

I recently received an email from someone who reads my blog that struck a chord with me. He wrote:

“I’ve been a ham for decades, operate all modes (but mostly CW), and do a lot of Parks on the Air (POTA). I also spend a lot of time recruiting people into the ham radio hobby and mentoring new hams. It’s that last focus that prompts this question.

“For a variety of reasons that I can’t put on my finger on, it seems like more and more hams don’t really care about how radios or antennas work, and don’t want to invest much time or effort into learning such things. They just want to turn it on and use it. How it works, and what’s going on inside of the box, aren’t important.

“For example, I know of one guy—a General-class licensee—who decided his top-of-the-line Yaesu HT was ‘defective’ because whenever he pressed the push-to-talk switch on one of the repeater frequencies, the radio transmitted on a different frequency. Ugh. Another guy I know thought that his hamstick wouldn’t tune because the wire coil was installed upside down. As you’d guess, the hamstick tuned and worked just fine.

“Some people say that we should get hung up on this. Get new hams into the hobby and they’ll learn as they go on. Except that doesn’t seem to be happening, at least not consistently. Even very experienced, highly educated hams can be clueless on very simple, fundamental radio concepts.

“So, here’s the question: does any of this matter? I don’t know how my microwave oven works, and I don’t need to, and I don’t want to. All I want to do is push a button. So maybe it’s perfectly fine that hams don’t know about radio technology and we should stop pretending that any of this matters. Put ‘em through a ‘ham cram’ and get them on the air. Or maybe amateur radio transceivers are different than microwave ovens and it does matter. I don’t

know. I go back and forth on this and don’t really have a clear assessment in my mind.

“Anyway, since this seems like the kind of thing you’ve already thought about, I wonder what you make of all this. If you’re sitting around with nothing to do, I’d be curious to know what you think.”

Yes, learning about radio does matter!

This struck a chord with me because I teach ‘ham cram’ classes, and I often encounter people who think this way. They just want to push buttons and talk on the radio. They say, “I’m only going to use it when I go off-roading with friends,” or “I’m only going to use it when my CERT team is activated.”

I always ask them what they’re going to do when something goes wrong (and we know that at some point, something is going to wrong). I tell them that without some basic knowledge of how radios and antennas work, they aren’t going to be able to fix problems or work around them, and if they can’t do that, they’re not going to be very effective communicators and their experience is going to be very frustrating. Not only that, I explain that they’ll have a lot more fun with ham radio if they understand how the technology works.

So, the question is how to get these people to be more curious about radio technology and how to encourage them to learn more. Being insulting or negative isn’t the way to do it. I hope, for example, that when the guy complained about his Yaesu HT, that someone patiently explained how repeaters work. Sure, he should have known that already, but belittling him for not knowing this would only do more harm than good.

I don’t think that you can fault people for not knowing things, but you can fault them for not wanting to learn things. There’s a lot to learn in ham radio, and you can’t learn it all before you

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EERIE SIGNALS FROM A SATELLITE THAT VANISHED 50 YEARS AGO STARTED DRIFTING BACK TO EARTH

BY KEN MACDONALD



NASA.

Most people don't realize it, but sometimes satellites orbiting Earth mysteriously go dark. If they stop transmitting a signal and there's no way to track them, crews on the ground have no choice but to just let them go. But what's even stranger is when they decide to turn back on again after being lost. Such is the case of one satellite that was detected by Phil Williams, an amateur radio enthusiast. The long-lost craft he found had been silently orbiting Earth for years, then somehow started transmitting a signal back all on its own. And when experts listened to the strange sounds the satellite was making, they couldn't quite believe what they were hearing.

The lost Lincoln Experimental Satellite 1

This unexpected communication came from the Lincoln Experimental Satellite 1 – more commonly known as LES-1. At one time, the satellite served an important purpose as it was linked to the development of nuclear weaponry.

Like other advanced technology projects, LES-1 was the product of a military initiative, and not a whole lot was known about it by the public.

Space junk

But when the LES-1 went dark, it became just one of over 20,000 manmade objects that are perpetually orbiting our planet, according to figures released by the U.S. Space Surveillance Network in 2019.

NASA estimates that this amounts to around 9,000 tons of space trash, floating out there in the void. In a sense, space is not as empty as we think.

High-speed collisions

And having all this stuff spinning around in space is not without risks, as an incident from 2009 has illustrated. In that year, some 500 miles above Siberia, a non-operational Russian satellite careened toward another orbiting object.

It smashed into a working American communications satellite at a speed of more than 22,000 mph. Crew members on the nearby International Space Station had to take cover in docking bays in case the debris from the crash proved dangerous.

Evasive actions



[NASA/Tracy Caldwell Dyson/Wikimedia Commons](#)

Around once a year, the International Space Station also has to take evasive action to avoid a possible collision with orbiting debris. And there is no doubt that the potential threat is real.

*(Continued on page 8, **Satellite**)*

(Satellite, Continued from page 7)

In 2006, for example, a small piece of debris crashed into the Space Station – although this thankfully only chipped a window. Anything greater than that could prove catastrophic.

Mysterious bomb tests



Federal government of the United States/Wikimedia Commons

To uncover the roots of LES-1, however, we need to first go back to the 1958 high-altitude nuclear bomb tests near Johnston Atoll in the Pacific. And after the detonation of the first of the two bombs involved in these experiments, scientists recorded a curious phenomenon.

Specifically, the blast had completely wiped out the gases within a large area of the ionosphere above the test site.

Using our planet's atmosphere

The ionosphere is the layer of Earth's atmosphere that sits between 37 and 620 miles above the planet's surface. This wide band was important, too, when it came to the long-distance communications capabilities of the day.

You see, high-frequency radio transmissions travel by actually bouncing off the ionosphere; without this region, then, the process simply doesn't work.

A groundbreaking means of communication

And while this potential communications failure had obvious implications for civil avia-

tion, it was also an ominous scenario for the military. So, the Lincoln Laboratory at the Massachusetts Institute of Technology initiated Project West Ford.

Essentially, the mission entailed the creation of a system of long-distance radio communication that did not depend on the ionosphere to work.

Project West Ford

At first, Project West Ford worked on a system of multiple gadgets called resonant scatterers that would continuously orbit the Earth. These would then enable radio communications by creating a kind of artificial ionosphere.

And this somewhat primitive stopgap – basically, 480 million tiny copper needles acting as antennae – was subsequently launched into orbit in 1963.

Still up there decades later



Lincoln Laboratory/Wikimedia Commons

To read this article in it's entirety, just follow the link:

[Eerie Signals From A Satellite That Vanished 50 Years Ago Started Drifting Back To Earth \(historicalgenius.com\)](https://historicalgenius.com/erie-signals-from-a-satellite-that-vanished-50-years-ago-started-drifting-back-to-earth/) .

Thanks to Joe Mattia, KE8DOU, for information about this article.

TURN THINKING INTO DOING (BUT DO SOME ACTUAL THINKING FIRST) BY CHRIS WARREN

It's been quite a summer! Flooding, extreme heat, wild fires, and (at this writing) a hurricane just tore up the Western USA and another storm is churning in the Gulf of Mexico. Every time a string of disasters happen, there is increased chatter of how amateur radio can be useful for emergency communications. More anecdotally, *Off Grid Ham* site traffic bumps up around these incidents. Many hams who consider themselves just hobbyists start realizing their hobby also has a very practical aspect. It therefore seems disasters get people thinking. When applying amateur radio to disaster & emergency communications, it's important to turn thinking into doing.

Step one: Define your goals.

Before you collect or set up any communications apparatus, create a concise, specific list of goals your off grid radio system should achieve. This part of planning is often skipped over because it's not much fun! Yes I get it: Everybody loves the excitement of ordering gear on line and assembling what they believe will be a kick ass station. But if you don't know what you intend to accomplish with the equipment, the entire plan will fail (because you never really had a plan in the first place). emergency communications

Examples of goals:

- Comms for a loosely organized local group, such as a few neighbors who live within a small area. emergency communications
- Communicate with a relative in a distant city.
- Civilians coordinating with government officials & disaster response agencies.
- Coordinating with non-government organizations: Red Cross, Salvation Army, etc.
- Monitoring event-related radio traffic: Fire, police, etc.
- Provide communications within private property: Family farm, retreat location, hunters/fishermen, etc.

Many operators will have overlapping goals. This is fine, but do try to keep your goals as focused as

possible. Going with an "all of the above" approach means your plan and equipment needs will be excessively complex. If your list of goals is long, take a moment to be very discriminating and see if something can be edited out. It's not realistic to be "ready for anything" so be ready for what it most likely. Your budget & skills will be a factor in your goal setting as well.

Step two: Define your scenario.

Defining a preparedness scenario is an extension of what we reviewed in step one. It's a simple mental exercise: What exactly are you preparing for? The person who just wants to participate in a neighborhood watch group is going to have much different needs than the person who is preparing for a doomsday societal collapse.



Secondly, how will you use your setup? Is it going to be a fixed, home-based station? A mobile rig in a car? Some sort of "go bag/box"? Like in the previous step, your format and defined scenario will drive what kind of equipment you will need.

Step three: Take inventory.

Once you have a clear vision of your goals and know what scenarios you're preparing for, it's time for the fun part: Buying stuff! Before you whip out the credit card, take inventory of what you already have and see how much of it can be used for your application. If you're a newer ham, this may be easy because you likely don't have a lot of stuff laying around. For those of us who

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have been hamming for decades, well, we probably have gear that we forgot about. I personally own enough ham equipment to fill a decent sized truck. I speak from experience when I say



it really sucks to buy something only to find out a short while later that you already had one!

Step four: Putting it all together.

This is where we go from conception to actual product. Assemble your station in the chosen

format (permanent, go bag, etc.). At this point do not obsess over getting every last detail perfected. The main purpose of this step is to get a working prototype. The details can be sorted out later.

My first effort at an EMCOMM go box years ago seemed like a good idea at the time, but I should have seen the disaster coming. I had no plan or purpose. I made a box out of cheap press wood and filled it with whatever old gear I had laying around. The empty box itself was already way too heavy, and with all the stuff I filled it with it became an unwieldy cumbersome mess. I never deployed it even once. In the end, I pulled all the gear out, then cut the press wood box up and tossed it in the trash. I'd never been so disappointed in a project and to this day it is my greatest failure.

Step five: The “shakedown cruise”.

I hope you did not plan on assembling an off grid radio station and then just stash it in a closet somewhere, to be taken out only in an emergency. It's a huge mistake, It's really important to take your new setup out and use it under conditions you would anticipate according to your plan.

This is where you identify and correct deficiencies and perfect the details. The reason I suggest you wait until this step to do your fine tuning is because things always look good “on paper” and on your bench at home. When you take your station out into the “real world” you will almost certainly find out that changes need to be made. Once you deploy your system in a live event you may not have the time or the means to correct shortcomings.

Ongoing practice & training will be necessary to keep your skills sharp. If the first time you use your off grid setup is when [SHTF](#), you're already in huge trouble. Don't be the guy or girl who takes their radios out for a spin once a year for Field Day and calls it good.

Volunteering for emergency communications groups.

Volunteering for an emergency communications group seems like a great idea, right? You can glean insight for your own EMCOMM planning, get some practice, and meet like minded folks. For the most part volunteering is a great idea. But volunteering comes with some important considerations. So important, in fact, that there is an [entire *Off Grid Ham* article discussing the ramifications](#). I strongly suggest you read the article before jumping into the volunteer pool. Also, [here is a great article about operational security \(OPSEC\)](#).

Pulling it all together.

If your current off grid radio setup is not meeting your needs, it may be because you didn't plan it right in the first place. It's never too late to reverse course! Those who enjoy ham radio only as a fun hobby don't need to plan so much; just go with whatever moves you. But hams who want their radios for emergency communications will need to be more thoughtful.

Planning may not feel like you're not “doing anything” but it is an essential precursor to having effective off grid radio communications.

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<https://www.offgridham.com>

SOME POPULAR LOCAL NETS

Net	Day	Time	Frequency	PL Tone	Link
Michigan Traffic Net	Daily	7:00 PM	3.952 MHz	None	MITN
Michigan Net	Twice Daily	6:30 PM 10:00 PM	3.563 MHz	None	QMN
Southeastern Michigan Traffic Net	Daily	10:15 PM	146.76 MHz	100 Hz	SEMTN
Wolverine SSB Net	Daily	2200 UTC	3.935 MHz	None	WSSBN
Michigan ARPSC Net	Sunday	5:30 PM	7.232 MHz	None	MIARPSC
Garden City ARC	Sunday	9:00 PM	146.86 MHz	100 Hz	GCARC
Salvation Army Team Emerg. Radio Net	Monday	7:30 PM	147.18 MHz	100 Hz	SATERN
U of M ARC	Sunday	8:00 PM	145.230	100 Hz	W8UM
ARROW ARC	Monday	8:00 PM	146.96 MHz	100 Hz	ARROW ARC
ARROW DMR	Monday	9:00 PM	443.5/448.5, TG 312654, color code 1, time slot 1		
Utica Shelby Emerg. Com Slow Code	Monday	9:00 PM	147.18 MHz	100 Hz	USECA
Motor City ARC	Tuesday	9:00 PM	147.24 MHz	100 Hz	MCARC
Wayne County ARPSC Net	Wednesday	9:00 PM	145.330 MHz	100 Hz	WA8EOC
Hazel Park ARC Kids	Thursday	7:00 PM	146.64 MHz	100 Hz	HPARC
Oakland County ARPSC Net	Thursday	8:00 PM	146.900 Hz	100 Hz	W8OAK
LARC 2 Meter Net	Thursday	8:00 PM	145.35 MHz	100 Hz	Livonia ARC

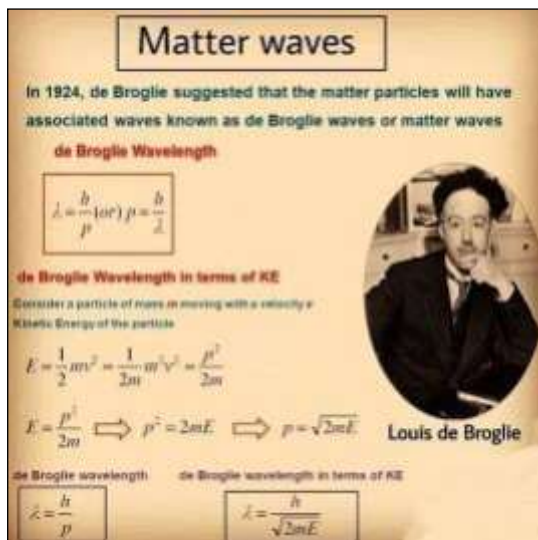
(KB6NU, Continued from page 6)

get a license. In fact, I'd argue that most things you can only learn after you get a license and start doing things.

Having said all that, our challenge is to make ham radio a place where those that want to learn things can thrive. I think that we're doing better at that. Look at all the YouTube channels where you can learn about just about anything that ham radio has to offer. The ARRL is getting in on this as well, with its "Learning Center."

I'd say not to worry about those who don't want to invest the time and effort. They're not going to be hams for very long. They're going to get frustrated when they can't get things to work and drift off to something else. Let's concentrate those who are curious and able and willing to invest the time and effort and make good hams out of them.

Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog ([KB6NU.com](#)), the "No Nonsense" amateur radio license study guides (<https://KB6NU.com/study-guides/>), and often appears on the ICQPodcast (<https://icqpodcast.com>). When he's not writing about amateur radio, he tinkers with electronics projects and operates POTA and works CW on the HF bands.



ABOUT LARC



LIVONIA AMATEUR RADIO CLUB
 P.O. Box 51532
 LIVONIA, MI 48151-5532
info@livoniaarc.com



The Livonia Amateur Radio Club, founded in 1969, has been a long-standing part of the Livonia, Michigan community.

Our club has wide and varied interests -- Special Events, DX, Contesting and more.

LARC has been affiliated with the ARRL since February 7, 1976.

LIVONIA AMATEUR RADIO CLUB OFFICERS & COMMITTEE CHAIRS

President - Mike Cononie, KE8CEH— president@livoniaarc.com

Vice President - Gordon Scannell—KD8COJ

Treasurer - Bill Allen, AD8WA

Recording Secretary - Mike Hammerberg, K8AGY

Public Information Officer - Chuck Reti, WV8A

Club Directors—Keith Mavin, KE8AUO; Mike Rudzki, N8MR; Zach Raubinger, K8ZRY

Membership Manager - Bill Allen, AD8WA

Trustee of Record for K8UNS—Mike Hammerberg, K8AGY

Trustee of Record for N8LPD—Bill Allen, AD8WA

Technical Trustee for Club Repeaters—Dan Saputo K8PLW

Technical Trustee for Livonia EOC—Bill Allen AD8WA

ARRL VE Liaison—Mike Rudzki, N8MR

Information Technology Manager —Zach Raubinger, K8ZRY

LARC in the Park Coordinator—Joe Mattia, KE8DOU

Public Service Manager—Bill Allen, AD8WA

Repeater Maintenance - Dan Saputo, K8PLW

Swap-N-Shop—Mike Rudski, N8MR, Gordon Scannell, KD8COJ—swap@livoniaarc.com

Field Day Coordinator—Bill Allen, AD8WA; Mike Rudzki, N8MR

2-Meter Net Manager - Hiro Wakamatsu, AD8AE

Equipment Manager - Mike Rudzki, N8MR

Volunteer Examiners - AC8ND; AD8AE; AD8GD; AD8WA; AK9TX; K8RKT; K8TXM, KB8DGC; KD8ZPX; KE8AUO; KN8B; N8DXZ; N8MR; N8RI; W2EQX; W6AQT; W8PAS; WV8A

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