

A.R.A.T.S. Coherer

MARCH 2026

Volume 12
Issue 12

The Official Newsletter of
The Amateur Radio Association
of the Tonawandas, Inc.
- Since 1954

(716) 404-9256 or

EDITORS MESSAGE

This club belongs to you, the members. Your ideas, energy, and participation are what keep ARATS vibrant and relevant. I encourage each of you to share your thoughts on how we can make our club even better.

maxwell@acsu.buffalo.edu

South Towns AMS (WB2ELW)

Robert A. Koster (716) 649-7272

Rkoster53@roadrunner.com

ILockport Amateur Radio Association

Lara.W2RUI@gmail.com

President: Mike (716) 240-8826

MEETING DATES & LOCATION

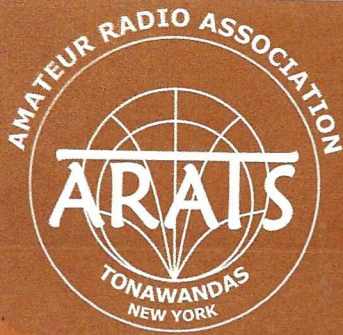
Remember meetings are on the 3rd Wednesday of each month at City Hall, City of Tonawanda, 200 Niagara Street, Tonawanda NY Unless otherwise noted time will be 7 p.m.

Contact any of these Clubs and they will get you started.

VE EXAM LOCATIONS

Lancaster ARC: John H. Maxwell





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President's Message

Thank you to Greg, KE2GCW for his program on Meshtastic, it was very interesting to learn about this. I also would like to thank Bob, K2LED for bringing our guests in that night and thanks to all who came out to hear about this exciting new addition to Amateur Radio World.

Our next board and general meetings are on Wednesday April 15, "Tax Day", the program that night will be The Nature of Waves., it has to do with "Waves, Wires, and a little bit of Einstein.

It's time to get outside and start cleaning up after the harsh winter weather we just had, time to get out and inspect your antenna farm. ARATS annual summer picnic will be held on Wednesday June 17, and our annual Field

Day weekend is Saturday June 27 -28, 2026. Please try to attend our Field Day event if it's only a couple of hours to help with set-up or tear down.

I am looking for two VE (Volunteer Examiners) for Saturday morning at Adams Fire Hall, if interested call or text me (716) 417-3793

Summertime means fun time outdoors, please be safe, and if you are climbing your tower makes sure you have a harness on.

Stay safe and watch out for motorcycles and kids.

73's,

Bob, KC2SZQ

License Renewal

Just a quick note: When was the last time you renewed your Amateur License? You may want to check the date on it before it has expired.

Reminders

Membership is open to anyone interested in Amateur Radio. Regular dues are \$20 a year. Other rates are also available. We are having to look for a place to get name badges as our regular place went up quite a bit, so if you know where we can get them, please e-mail me.

ARATS website and Facebook pages are up and running, look at both.

No need for an application anymore just send your check, to:

ARATS

207 Syracuse Street

Tonawanda, NY 14150 – 5429

C/O Robert Allard /Membership Chairman

If you need more information on the MESH System go to: www.meshtastic.org or,

BuffaLoRa Community Mesh

Skywarn Special Event

March 15 -29 at various times, day and night, using SSB, and FT8/FT4 on 80, 40, 20, 17, 15, 12, and 10 meters, as well as FT8 on 160 and 30 meters. The callsign will be N0A.

Hamfest and Events in WNY

Lockport Summer Hamfest 6 June 2026, Lancaster ARC at Cambria VFD, in Lockport NY

Cortland Hamfest and Technology Fair, 13 June 2026 , sponsored by the Skyline ARC at the Cortland County Fairgrounds, Cortland NY

Rochester Hamfest, 20 June 2026 by the Rochester ARA at the Barnard's Fireman's Field, Greece NY

Batavia Hamfest, 18 July 2026 by the Lancaster ARC at the Alexander FD Rec. Center, Alexander NY

Lancaster Hamfest 12 September 2026 , sponsored by the Lancaster ARC at Transit Drive-In in Lockport NY

Elmira Hamfest 26 September 2026 sponsored by the ARA of the Southern Tier at the Chemung County Fairgrounds in Horseheads NY

RAWANY Mini -Hamfest 14 April 2026 at the Church of Nativity, 1530 Colvin Blvd, Town of Tonawanda , corner of Colvin and Thorncliffe Rd, doors open at 5:30 pm for vendors and 6:30 pm for general public

Meeting Notes

Membership is down a bit, but we are not the only club with low membership, if you know someone who would like to become an ARATS member let me know, they do not need to be an Amateur Radio Operator to join. Some listen to us on the radio, I use to do so for years and so did my son. We are not having meetings in January or February as we find these are the bad snow months and we get low turnouts. Just to let you know we are putting an antenna and repeater on DeGraff Hospital in North Tonawanda, along the TCMH (Twin City Memorial Highway)

*** WANTED ***

Writers *** Picture Takers *** Story Tellers ***

Your editor needs articles and photos for your COHERER Newsletter

Also, I would like Constructive Criticism to help make it better.

What I need all members to do is Email me with suggestions on what do you want from the ARATS Club, is there a Presentation you want us to give or

Some place to go, and if you can give a presentation that would be Great.

Please email your articles, photos, and comments to Bob at reallard5276@gmail.com

MESHTASTIC

What is Meshtastic?

- It's an open network for building decentralized communications.
- It's a low data / long range / low power communications protocol
- It's an ad hoc / decentralized mesh network
- It's an encrypted off-grid texting / data network
- It's a low-cost technology that does not require a license to use.

What does Meshtastic actually do?

- Meshtastic is very good at sending text messages and small amounts of data.
- Meshtastic can work without any help from anything else
- No cell towers, no internet, no dependencies
- No cell Service? No problem
- No Wi-Fi? No problem
- Lots of noise? No problem
- No license? No problem

Quick Overview

AN open-source data network that rides on top of the existing LoRa Lot protocol.

- It's a full mesh network up to 7 hops deep (3 is default).
- In the United States it uses the license free ISM band from 902 to 928 MHz, using 104 frequency slots for data using +27 to =30 dBm (0.5W to 1W) ERP.
- Node – to- node communication is line-of-sight.
- Default Long Fast mode yields about 1 kbps data rate.
- Typical node range is from 1 to 5 miles (record is 200+ miles).
- With three well positioned nodes, the mesh size can potentially be 15+ miles.
- *It can optionally connect to the internet using MQTT(Message Queuing Telemetry Transport) to bridge isolated mesh networks.

What is ARRL Field Day?

ARRL Field Day is a radio communications event that brings together amateur radio operators (also called “hams”) within your community. The event is part picnic, campout, practice for emergencies, informal contest, and most of all, fun! ARRL Field Day is the most popular ham radio activity held annually in the US and Canada. On the fourth weekend in June each year, more than 31,00 hams get together with their radio clubs, schools, or friends to operate from remote locations.

For many radio clubs, ARRL Field Day is one of the highlights on their annual calendar. A typical Field Day site will show off many aspects of amateur radio and its many roles.

Some groups use Field Day as an opportunity to practice their emergency communications readiness. ARRL Field Day is an annual demonstration and invites the public and organizations to see how amateur radio can serve in an emergency, WHEN ALL ELSE FAILS. Hams are well-known for their communications support in real disaster and post-disaster situations. Despite the development of very complex, modern communications systems – or maybe because they are so complex – ham radio has been called into action, again, to provide communications in crises when it really matters.

For those with a competitive spirit, Field Day stations compete to make radio contacts with as many other stations as possible while learning to operate radio equipment in challenging situations and less-than-optimal conditions. These same skills are used by hams who volunteer to help with large, preplanned, non-emergency events such as marathons and bike-a-thons, fundraisers such as walk-a-thons; celebrations such as parades, and exhibits at fairs, malls, and museums.

Come and be one those “HAMS” (community of licensed operators using the air waves with every conceivable means of communications technology.) It is made up of people who enjoy learning and being able to transmit voice, data, and pictures through the airwaves to places near and far without depending on commercial systems.

This whole party starts June 27, 2026, and ends June 28, 2026, we sure can use the help and it's free to attend. You may see your neighbor or friend using one of the radio stations to contact their friend.

We start at 1800 UTC June 27, 2026, and ending 2059 June 28, 2026.



IS IT TIME TO REPLACE YOUR COAXIAL CABLE?

UNDERSTANDING THE LIFESPAN AND EFFECTS OF AGING IN COAXIAL CABLE



By: SWR Editorial Team

In every ham radio station, the humble coaxial cable plays a crucial role. It's the silent conduit that carries your signals to and from the antenna, but like all components, it doesn't last forever. Knowing the average lifespan of coaxial cable, the warning signs of aging, and how old cable affects performance can help you avoid unnecessary signal loss and keep your station operating efficiently.

How long does coaxial cable last?

The average lifespan of coaxial cable in ham radio use typically ranges from 10 to 20 years, although this depends heavily on several factors:

- **Type and quality of cable:** High-end cables like LMR-400 or Times Microwave variants generally last longer than budget options like RG-58.
- **Installation conditions:** Cables exposed to UV rays, extreme temperatures, water ingress, or physical stress degrade faster.
- **Connector sealing and strain relief:** Poorly installed or unsealed connectors allow moisture in, accelerating deterioration.

Outdoor cables, especially those in direct sunlight or subjected to frequent bending (such as rotor cables), may last only 5 to 10 years if not properly protected.



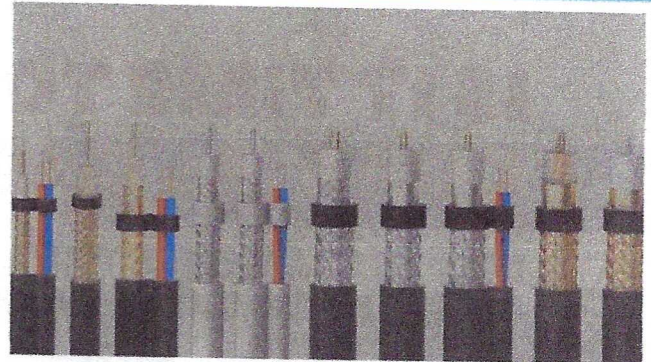
Symptoms of a Failing Coaxial Cable

Like old tires or batteries, coaxial cable rarely fails suddenly. Watch for these warning signs:

- **Rising SWR:** If your standing wave ratio gradually increases without changes to the antenna, the coax may be the culprit.
- **Signal loss:** You might notice weaker received signals or lower-than-usual transmission reports.
- **Intermittent operation:** Crackling audio, unstable output power, or fluctuating SWR can indicate problems with the shield or center conductor.
- **Physical damage:** Cracks in the outer jacket, green corrosion on connectors, or brittleness are obvious signs.

A simple test—replacing the cable with a known-good jumper—can confirm whether the coax is the problem.





Why Replacing It Matters

An aged or damaged coaxial cable can introduce significant losses, especially at higher frequencies. Even small line losses can mean several decibels less power reaching your antenna or a weaker signal arriving at your receiver.

Worse, if the coax shield is degraded, RF leakage can occur, causing interference in your shack or to nearby electronic devices. Water intrusion into the braid or dielectric can also lead to corrosion, creating a resistive path that worsens over time.

Impact on SWR and Station Performance

A coaxial cable with moderate loss can mask a high SWR at the antenna (due to attenuation of the reflected signal), but it does not eliminate the mismatch it just hides it. This illusion may make the operator believe everything is fine, while a significant portion of power is actually lost in the line. This is especially critical for QRP stations and VHF/UHF operation, where every decibel counts.

Conclusion

A coaxial cable is not a “set it and forget it” component. If your cable is over a decade old especially if it has been outdoors it may be time to inspect, test, or replace it. Doing so will not only restore your station’s full performance but also prevent issues from arising at the most inconvenient times.

Regular inspections, proper installation, and investing in high-quality coax will help ensure your signals travel far, both on transmit and receive.

Have you checked your coax this year? If not, now is a great time to inspect your lines—and perhaps give your station a measurable boost.



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Breaking ARRL NEWS: WAS250+W1AW/2+YOTC

Watch an official announcement from the ARRL.

Who: The ARRL and ARRL Affiliated Clubs

What: Celebrating America's 250th Anniversary and the Year of the Club by offering a special WAS in 2026 along with its endorsements to include (1) contacting 50 ARRL Affiliated Club callsigns in all 50 states, (2) contacting W1AW/p in all 50 states.

Where: All amateur bands (even WARC) except 60 meters

When: 0000z January 1, 2026, through 2359z December 31, 2026

How: (as a Pursuer of a WAS250 Award): Make contacts throughout 2026, logging all to the ARRL's LoTW where you can apply for the base WAS award along with all possible endorsements based on what your uploaded log shows.

HOW as a W1AW/2 activator: Register to activate W1AW/2

Activate and log all contacts with a logger that can generate an ADIF file (ADIF is a requirement). When activating, say something like "CQ ARRL WAS250, W1AW portable 2, New York". The W1AW/2 activation in NY will be available for only 2 weeks, once in January and again in August. Sign up early and don't miss activating during your slot(s). You will be popular!

How: (as an ARRL Affiliated Club callsign ACTIVATOR): Get club's permission to activate the club's callsign, and to do so on Voice, CW, and Digital. When calling CQ on voice, periodically say something like "CQ Yacht-See (YOTC) from ARRL Affiliated club [Call Sign] in New York". On CW, "CQ YOTC de [call sign]". Activate throughout the year and upload your club callsign's log to LoTC (paper logs are not accepted).

Happy 250th Anniversary, America! Happy "Year of the Club"! Get prepared now, for a lot of fun 2026!

Western New York Officials

Assistant Section Manager:
Laura Mueller N2LJM
N2ljm@arrl.net

Section Emergency Coordinator
Assistant Section Manager
Joseph M. Tedesco, KC2DKP

Section Youth Coordinator
Keith P. Oliver, KD2KON

Section Traffic Manager
Assistant Section Manager
Raymond M. Fenness, K2RMF

Affiliated Club Coordinator
Luke Calianno, N2GDU

Assistant Section Manager
Richard C. Sparling, K2EY

Section Traffic Manager
Matthew D. Brown, K2EAG

Technical Coordinator
William K. Hibbert, WB2VUO
wb2vuo@arrl.net

Public Info Coordinator
Edward A. Gutowski, W2GUT

Assistant Section Manager
Donald W. Rankins, N2ZWO

Assistant Section Manager
Tom L. Delasin, WA2DAD

Assistant Section Manager, W2LC
Scott J. Bauer, W2LC

Assistant Section Manager
Mike Johnson, N2WKT

The Amateur's Code

- Considerate: Never knowingly operate in such a way as to lessen the pleasure of
- Loyal: Offering loyalty, encouragement, and support to other amateurs, local club and The American Radio Relay League, through which Amateur Radio in the The United States is Represented Nationally and Internationally
- Progressive: With knowledge abreast of science, a well-built and efficient station and Beyond reproach
- Friendly: With slow and patient operation when requested friendly advice and Counsel to the beginner, kindly assistance co-operation and consideration For the interests of others
- Balanced: Radio is an avocation, never interfering with duties owed to family, job, School, or community
- Patriotic: With station and skill always ready for service to country and community

ARATS WEEKLY NETS

- 2 – Meter Net Every Thursday at 8:30 P.M.
146.955 MHz – offset PL 151.4
- 2 – Meter Net Every Wednesday at 8:00 P.M.
144.210 SSB
- 6 – Meter Net Every Monday at 8:00 P.M.
50.200Mhz
Net Controller WB2VUO (this is not an ARATS net)
Anyone can join
- 10 – Meter Net Every Tuesday at 8:00 P.M.
28.450 USB
Net Controller (looking for one)
- Bulletins: The Bulletins have stopped for now

Join in on one of the many nets, find new friends, and ask questions
That you may want to get an answer, or maybe you can help someone
out with their question. Stop by, we would love to hear from you.