Sidebands

W2EGB

The Newsletter of the EAST GREENBUSH AMATEUR RADIO ASSOCIATION

October 2026

www.egara.org

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Winter is Coming -- Are You Ready?

It's Time for Your Winter Weather Station Check-Up

By Steve VanSickle, WB2HPR

Well, its getting to be that time of the year –- kids are back to school, vacations are winding down, less frequent lawn maintenance, leaves are turning color and beginning to fall. The days are shorter, cooler, and soon it will be time to change the clocks. Then it's Halloween, Thanksgiving, Christmas and New Years. This all spurs me into thinking about what's around the next seasonal corner: Winter!

Winter brings its own set of challenges with our sleet/snow, shoveling and navigating icy roads, just to name a few. Many people will spend more time indoors –- staying out of nature's fury -- and possibly enjoying quieter conditions on the HF bands and keeping in contact with many DX friends. The upside to Winter is generally improved band conditions due to the solar cycle and seasonal changes in propagation. But that's provided we have kept our stations in tiptop condition. That means now is the time to prepare our systems by ensuring that everything from microphone (or key) to coax and antennas are in good shape.



Checking coax lines before the weather turns will make life a lot easier if repairs are needed.

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EASY AS 1, 2, 3

Club 444.850 UHF Repeater PL Tone Changed



To avoid potential interference with other repeaters, the club's UHF machine on 444.850 now has a PL access tone of 123.0. It was previously 94.8, but that will no longer work.

The change was made after the club's tech consultant, Bob Isby, K2RHI, determined that the 94.8 tone was potentially capable of triggering other repeaters. The 123.0 tone was selected because it would be easy to remember. The change does not affect the club's other repeaters.

Membership Meeting - October 9, 2026 - Topic: Electrical & RF Safety

IS YOUR SHACK READY FOR OLD MAN WINTER?...

I use two dipole antennas for the mid and lower frequency bands of 160-40 meters. They are suspended from trees and masts using pulleys and ropes. As you might imagine, the ropes take a lot of wear and tear due to tension, buffeting by wind, and abrasion.

Mine are Dacron polyester (so-called Antenna Rope), and they are made for this application, offering high strength and U/V light resistance. Same goes for the dipole end insulators – again, U/V resistant, high strength. I have seen others use generic para-cord for holding up wire antennas, but it typically losses strength due to U/V deterioration.



Snow and ice can greatly strain antenna systems. Replacing worn components can keep you on the air.

And on the subject of wire antennas, the feedline -- either coaxial cable or ladder /window line -- needs to be inspected and made ready for the winter's storms. Unless needed due to damage, I replace my dipole feed lines every 5 years or so. They take a lot of abuse due to wind and ice –- and the occasional falling tree limb!

The point is this: Try to be proactive!

While we are enjoying the nice fall weather, take a walk outdoors and inspect those wires, rope, cables, pulleys before winter weather arrives. It's a lot easier to make a repair now, rather than waiting for the snow to fix a problem your fan dipole. While you're at it, take a look at cable entry points for possible wire chafing, loose or corroded connections – and don't forget your ground rods! (You DO have a proper station ground, right?)

An hour or two inspecting everything now will pay huge dividends, rather than having to wade through snow drifts to re-string your ropes and wires among the trees. If you have guyed towers or masts, now is the best time to inspect them as well, making sure they stay upright and stable by checking guy lines and cables, tower hardware, and clamps. And don't forget to inspect rotor control cables if you have them.

One further note -- October is Fire Prevention Month. Check your smoke detectors and replace batteries where needed. I usually do this the same day that I change the clock settings. Make sure fire extinguishers are fully charged, easily accessible and ready to go. It's also a good idea to check your flashlights and change batteries to ensure they're ready when you need them. Stocking extra batteries is also a good idea. And don't overlook your heating system thermostat. Many also rely on batteries for proper operation, so take a moment to replace them as well.

So there you have it -- a quick reminder to get your station ready for the upcoming Winter weather. Taking time now to ensure everything is in good shape will ensure you'll be on the air and able to get the most enjoyment out of operating this Winter. Plus, you'll be prepared to serve your community's communication needs if necessary.

To make sure your station is ready for extreme weather conditions, use the handy checklist on the following page to guide you. It will be time well spent.

Be well, stay warm, and good DX!

Your Winter ☑ Checklist

Antenna and Mast Maintenance:

- Inspect antenna elements for cracks or structural strain caused by freezing temperatures.
- Check guy wires and support ropes for tension, fraying, or UV damage from summer exposure.
- Add shock absorbers like door springs to tree-supported lines to allow for branch movement and ice loads.
- Apply hydrophobic or non-stick spray coatings to critical surfaces to minimize severe ice buildup.

Coaxial Cables and Grounding:

- Seal all outdoor connections using self-amalgamating tape or coaxial sealant to block moisture.
- Leave small slack loops in cable runs to accommodate contraction when temperatures drop.
- Check outer cable jackets for cracks that let in water and freeze.
- Confirm proper earth grounding for towers, shacks, and portable generators to handle static and winter storms.

Power and Gear Preparation:

- Test all your gear—including auto-tuners, SWR meters, and transceivers, especially those that don't get regular use or are kept as backups.
- Check batteries for proper operation. Make sure they charge correctly and don't show any signs of damage or cracking. Check all internal, handheld, and portable battery packs (LiFePO4, AGM, or AA cells) and store them properly -- keeping in mind that cold drains capacity fast.
- Maintain a reasonable supply spare batteries and periodically check that rechargeable batteries are kept topped off and ready for use.
- If you have a backup portable generator, top off the fuel tank and test run the engine regularly. Use fuel stabilizer and consider replacing old fuel with a fresh supply. Also, avoid using gasoline with Ethanol. It can attract water, damage fuel line components and go stale quickly.

User Review: The Baofeng UV-5R Mini

By Bryan Jackson, W2RBJ



Like many hams, when a new radio arrives I'm intrigued by what it has to offer and what makes it different. So, when the Baofeng UV-5R Mini arrived, I spent some time online exploring what it was all about. Given the many variations of the UV-5 series, I didn't know what to expect. After all, there's been many, including the original UV-5R. But then there's the UV-5R Plus, UV-5RE, UV-5RE Plus, UV-5RA. UV-5RX3, UV-5RTP, UV-5RM... and on and on.

Then it happened. Fellow club member Don Mayotte, KB2CDX, showed me the UV-5R Mini he had purchased and I was hooked... despite the fact I already had eight HTs (and baffled looks from my XYL).

In the past few weeks that I had my Mini (actually two), I've come to really enjoy this small HT radio. Like most handheld portables, it offers dual band VHF/UHF operation and has a stated output of 5 watts -- although 4.5 seems to be more real world (and also depends on the state of the battery charge).

However, the real attraction is its compact size, color screen, type "C" USB charging, and the ability to program it through a cell phone using a Bluetooth connection and app. Both Baofeng's app, OLA Radio, and ODmaster work with it and are available for both Android and iOS. In addition, programming is supported by CHIRP using a standard Kenwood-type cable connected between the radio and a computer. RT Systems (a Hamfest sponsor) also offers programming software which has gotten many positive reviews and adds some extra programming features. In addition, the radio has the ability to instantly copy frequencies along with CTCSS/DCS settings between devices with no manual entry required, saving time and simplifying setup. I haven't used this feature, but Don has and he says it works great.

But what I like most is the simple menu interface. This includes clear cut menu selections that allow for easy entering of things like repeater frequencies, offsets and PL access tones. My greatest frustration with many HTs is having to figure out where those settings are and how to get them properly entered and saved. The UV-5R Mini menu setup carries a refreshing and intuitive layout that convinced me to buy it regardless of anything else it offered. I'm a basic user, so there's probably additional setting I don't use, but the ones I do use seem simple and straightforward.

The UV-5R Mini keypad layout is comparable to others in the lineup. However, it does have two Push-To-Talk buttons, allowing you to transmit on different channels without switching. There's also easy access to NOAA weather stations, FM broadcast stations, and monitoring of local Air Band traffic channels -- which should add appeal for aviation enthusiasts. Like many Baofeng's, it includes an integrated flashlight and stop watch. The radio has 999 channel memories and the supplied 1,600 mAh battery seems to offer decent performance and life. The battery is stated to offer 36 hours of standby time and around 21 to 23 hours of life when used for intermittent transmitting. Of course, your mileage may vary.

Despite its small size, the radio's 1 watt audio output works fine and the volume is more than sufficient. Transmitted audio has also received good reports. Performance-wise, the UV-5R Mini seems comparable to the others in the series. Although Baofengs are sometimes faulted for being "dirty", I found the harmonics on both of mine to be below the acceptable limit. Hitting club repeaters is no problem from inside my home which is a little over 15 miles away.

Speaking of "both" -- I was able to purchase a package set of two UV-5R Minis for a little over $30. In addition to a pair of radios, the package included two each of the following: Rechargeable Batteries, Antennas, Belt Clips, USB-C Charging Cables, and Lanyards. The antennas include one that is short and one that is longer. As expected, the longer antenna provides better performance, but the shorter one is an option if space is a consideration.

The UV-5R Mini is currently available from Radioddity (a Hamfest sponsor) for $46.99. However, they offer a $10 discount if you sign up for their emails (which you can unsubscribe at any time). The radio is also available in three different colors -- Quartz, Amber and Grey. By the way, there is also a GMRS version -- the UV-5G Mini.

While every HT radio seems to come with compromises, I'm finding the UV-5R Mini is becoming my favorite.

On the Beam
News & Notes

The club's Sidebands newsletter was formally presented ARRL's award in its Best Newsletter contest during the September membership meeting. Out of some 80 entries received from clubs nationwide, Sidebands was voted number two. The award was presented by Dave Galletly, KM2O, on behalf of the League and accepted by club President Bryan Jackson, W2RBJ.



In picking EGARA's entry, the ARRL judges stated that club's newsletter was distinguished for its mix of club-specific news and updates, as well as information and stories of general interest about Amateur Radio. In particular, they highlighted helpful articles written by club members, most notably Steve VanSickle, WB2HPR, who regularly contributes content to the newsletter.

October Brings Halloween and the Annual Pumpkin Patrol

Once again this year, area hams will be staffing The Pumpkin Patrol -- the annual safety initiative to prevent dangerous Halloween pranks and protect motorists along the New York State Thruway. The event is coordinated by New York State Police Troop "T" and is lead in the Capital Region by Karen Smith, KS2O, of the Troy Amateur Radio Association.



The Pumpkin Patrol is conducted annually on October 30th and October 31st -- Halloween night and the night before -- to monitor highway overpasses and bridges to stop individuals from throwing objects—such as pumpkins—onto passing vehicles below. The program started in 1976 in Fort Johnson, Montgomery County, by Katherine St. Jacques after a truck driver's windshield was shattered by an object thrown from an overpass

Across the state, hundreds of amateur radio operators work alongside state troopers to monitor bridges and overpasses to deter activities that might endanger drivers. Since 1990, the New York State Police officially assumed operational control of the program to extend the program along the entire length of the Thruway.

Several EGARA members help staff the Pumpkin Patrol each year and will have the opportunity to do so again this Halloween. Details and location assignments are in the process of being developed and those club members who wish to help will be provided with sign-up instructions by email. They may also contact Karen Smith directly to express interest in participating by emailing her at: ksmithkb2uuc@aol.com.

Pumpkin Patrol communication is coordinated through the use of a local repeater. EGARA has offered use of its machines on the Helderberg Mountains, as they provide excellent coverage across the greater Capital District. A final decision will be made in advance of the event and shared with those staffing it.

EGARA September Meeting Minutes

- The meeting was The meeting was called to order at 7:00 PM and introductions were made by all members (19) and guests (1) present.
- **President's Report:**
- President, Bryan Jackson W2RBJ, noted that it soon would be time to discuss where the club would have the annual Christmas Party, Junior's in East Greenbush and the Schodack Diner were suggested. The location would be decided at the October meeting.
- Jackson also noted that an additional UHF repeater was placed in service during the Summer on 444.850MHz with a PL Tone of 94.8Hz. A heavy-duty UHF antenna was donated by member Bob Isby K2RHI and was installed at the repeater site. Isby also donated a 100W Linear Amplifier for the system and installed a circulator that was designed to filter out harmonic interference possibly caused by local FM transmitters, worst case the PL Tone would need to be changed for the repeater (see story on page 1).
- In addition to the new repeater at the WTEN site, Jackson noted that the club continued to maintain the grounds at the repeater site including installing backup power for the repeater and cleaned the carb and replaced the blades, deck belt, and front tires on the riding lawnmower. Jackson also noted that several club members cleaned up the building and kitchen area at the site, and stated that the roof leak had been fixed.
- Jackson stated that the club was exploring the option of placing a repeater at the nearby WRGB site. A second option at the Birch Hill site previously used for a club repeater would cost $600/year and involve a negotiation with Spectrum as well. It was determined it did not seem viable because of the cost and multiple parties involved.
- Jackson stated that Hamfest supplies had been organized and stored, and noted that work parties would continued to be coordinated to periodically clean the Search and Rescue building.
- Jackson noted that member Peggy Donnely KD2LMU had sold some of the remaining Estate Sale equipment and noted that she had $220 to deposit from the sales.
- Jackson noted that over the Summer Field Day had been downsized to only involve home stations due to lack of participation, suggested that the club should re-evaluate future Field Day participation, and noted that he hoped the club would have a better turn out for Winter Field Day in January.
- Jackson also thanked club members who had donated equipment, time, and money to the club over the Summer
- Jackson closed by stating that the club needed to start up VE Sessions again and that there were a number of Public Service events on the horizon that needed volunteers including the Arsenal City Run and the Mohawk-Hudson Marathon and Half Marathon and the Albany JCC Bagel Run.
- **Vice President's Report:**
- Vice President Matt Saplin W2SAP made his report and noted that he had reached out to Sinclair Communications about the WRGB tower site, but that he had not heard back yet. Saplin added that the club would most likely hear back once Siena University moved their radio station, WVCR to the site from its current location.
- **Treasurer's Report:**
- Treasurer Peter Brickman, KD2YLG was not at the meeting to make a report. President Jackson provided a summary of the club's finances.
- **Secretary's Report:** Secretary David Jaeger, K2DEJ had nothing to report.
- **Board of Directors Report:** There were no comments from the Board of Directors.
- **Member Updates:** Member Pete Sochocki NY2V noted for VP Saplin that Sinclair was easy to work with when he had at his club in Syracuse.
- During the meeting, there was a presentation by Dave Galletly KM2O about the ARRL Year of the Club and he presented the club with an award for its newsletter "Sidebands". President Bryan Jackson accepted the award on behalf of the club (see story on page 5).
- A motion was made to adjourn the meeting at 7:45 PM. The motion was carried unanimously.

Minutes recorded by Secretary, David Jaeger, K2DEJ

FCC and Health & Human Services Initiate New Review on RF Exposure

On September 17, the FCC and the U.S. Department of Health and Human Services (HHS) initiated parallel comment periods on RF safety issues. Neither changes the current FCC RF exposure rules that apply to all radio amateurs -- but they could lead to changes in later proceedings if the current rules are found to be deficient.

The FCC's Public Notice is narrowly focused on specific RF exposure issues handed down to the Commission in 2021 by the U.S. Court of Appeals. The Commission emphasizes that it will give particular weight to submissions reflecting specialized expertise in health and safety matters. The HHS Request for Information broadly seeks evidence and information concerning the potential health effects of electromagnetic fields (EMFs), RF radiation, and wireless technologies. These include mobile phones, Wi-Fi, smart meters, wireless infrastructure, wearable technologies, wireless medical devices, 5G, 6G, satellite communications, smart home technologies, autonomous vehicles, and other emerging technologies.

Among those being invited to respond are individuals and families who are asked to share experiences involving potential adverse health effects they believe may be associated with RF/EMF exposure. The Department also seeks observations from healthcare professionals, researchers, and public health practitioners that may help identify patterns warranting further study.

The Request For Information also asks whether exposure assessment or risk evaluation should differ for populations including children, pregnant women, older adults, people with implanted medical devices, workers with elevated occupational exposure, and people with preexisting medical conditions.

Comments on the HHS inquiry are due October 21, with comments on the FCC issues due by October 22.

The current rules governing RF exposure took effect on May 3, 2021, and are discussed in the September 2021 and May 2023 issues of QST.

The ARRL website at ***www.arrl.org*** features additional information, including an RF exposure calculator, the RF Safety section from the 100th Edition of The ARRL Handbook for Radio Communications, an explanatory video, FAQs, and more. ARRL has made these resources available to everyone in the amateur radio community without regard to membership.

RF Exposure Calculation Tool

All radio services -- including Amateur Radio -- are required to perform a routine radio frequency (RF) exposure evaluation for their stations using a formula that applies to all radio services. In addition, there are two categories -- controlled and uncontrolled exposure to RF.

Controlled limits generally apply to amateurs and members of their household if those people have been given instructions by the Amateur about RF safety. The uncontrolled limits apply in all other circumstances, such as exposure to the general public.

To comply with the FCC rules, Amateurs can use the online RF Exposure Calculator that is available on the ARRL website. It uses a form you fill in with your operating power, antenna gain, and the operating frequency. Depending on how far above ground the RF source is located, you might want to also consider ground reflections.

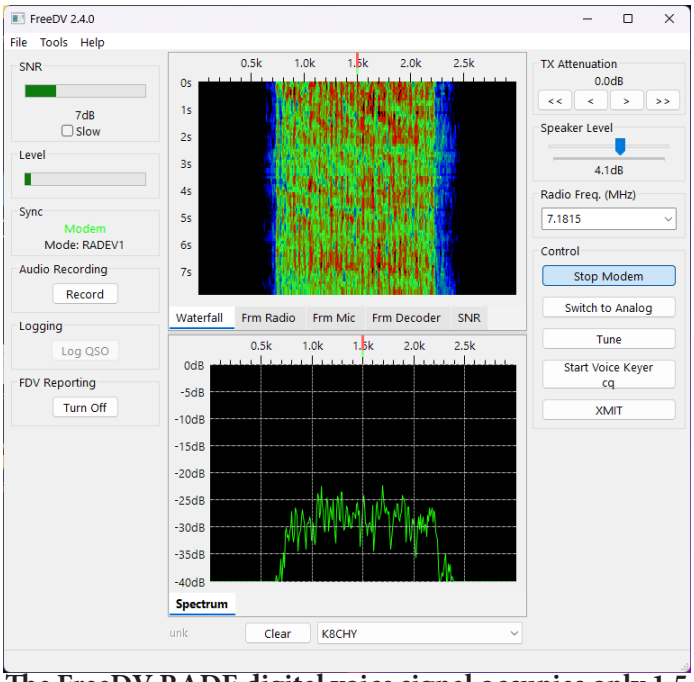
The results shown by the RF Calculator will indicate the minimum safe distance from the radiating element.

https://www.arrl.org/rf-exposure-calculator

Will RADE Be the Next SSB?

It's been a half century since single sideband (SSB) supplanted amplitude modulation (AM) as the most popular voice mode on HF, due largely to its spectrum efficiency, occupying roughly half the bandwidth of an AM signal. Now, there's a new digital voice mode from FreeDV called Radio Autoencoder, or RADE, that occupies half the bandwidth of an SSB signal and reportedly provides more natural-sounding speech.

According to Amateur Radio Digital Communications (ARDC), which funded research that advanced RADE's development, "FreeDV RADE combines machine learning with classical digital signal processing (DSP) and can operate at signal-to-noise ratios (SNRs) as low as -2 dB. Its design also addresses spectrum use, speech quality, and power efficiency, all important considerations for voice communications over HF."



The FreeDV RADE digital voice signal occupies only 1.5 kHz, half the bandwidth of an SSB signal.

Whereas a typical SSB signal occupies about 3 kHz, FreeDV RADE requires about 1.5 kHz, cutting the amount of spectrum used by half. At the same time, it can transmit about 8 kHz of voice audio, capturing a wider range of human speech frequencies, resulting in more natural-sounding speech.

This difference is particularly noticeable when people hear RADE for the first time. When FreeDV demos RADE at hamfests, amateur radio operators who are familiar with DMR, D-STAR, and other forms of digital voice on UHF/VHF are amazed by the audio quality and how closely it resembles natural human speech.

"In south east Australia I conduct a weekly net using FreeDV RADEV1," says Peter Marks VK3TPM. We get stations from VK3, VK2, VK5 and VK7. Many of these stations live in inner city locations where HF noise has become so bad that listening to sideband signals is difficult and tiring. Stations report how easy FreeDV RADE is to listen to compared to analog modes and it's helped to bring them back to HF."

Power efficiency was another consideration. FreeDV RADE has a peak-to-average power ratio (PAPR) that allows for the efficient use of power amplifiers, resulting in less heat and lower power consumption during transmission. The narrower bandwidth and the PAPR of RADE give users a way to experiment with digital voice while making more efficient use of both spectrum and power.

These capabilities do require additional computing resources. FreeDV RADE uses more memory and CPU than the team's previous efforts, a trade off for improved speech quality and the ability to operate across different conditions on HF. Despite these requirements, RADE runs well on a Raspberry Pi 4 or 5.

Open source was also an important requirement for FreeDV RADE. The team wanted to make the technology available for others to learn from, experiment with, and build upon by avoiding patent and licensing barriers.

Most significantly, ARDC reports that manufacturers are beginning to integrate the mode directly into their radios, starting with a module that can be downloaded and installed on certain FlexRadio models. Users of other transceivers may run the mode through computers connected to their radios.

More details are available from the FreeDV website at ***https://freedv.org*** and the ARDC website at ***https://www.ardc.net.***

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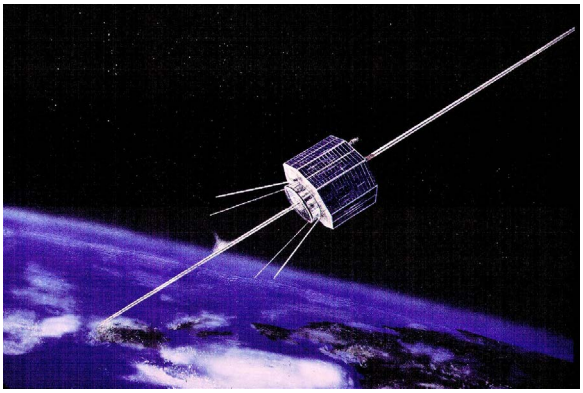
Today's Little Known Ham Radio History



This is an extremely rare photo of President Abraham Lincoln holding the Baofeng UV-5R HT radio he won at the world's first Hamfest. Unfortunately, he was unable to use it because the FCC had yet to be created and President Lincoln was unable to get his Technician license.

AO-7 -- The Zombie Satellite That Came Back to Life

On June 21, 2002, British radio amateur Pat Gowen, G3IOR, was listening near the two-meter satellite band when he found a slow Morse signal around 145.974 MHz. Its frequency moved with the Doppler shift expected from an orbiting transmitter. The identification was improbable but soon inescapable -- the signal belonged to AMSAT-OSCAR 7, a satellite that had been considered dead since 1981.



The return did not mean that anyone had repaired AO-7 or sent it a software command. The explanation accepted by AMSAT is stranger and more mechanical. A battery failure that had behaved like a short circuit appears eventually to have become an open circuit. Once the failed path stopped dragging down the electrical bus, the spacecraft's solar cells could power some of its radio equipment directly whenever the satellite was illuminated by the Sun. It became usable again only under the right combination of sunlight, orientation and surviving hardware. Its second life is therefore intermittent, but no less remarkable.

AO-7 lifted off from Vandenberg Air Force Base on November 15, 1974. It rode as a secondary payload on a Delta 2310 mission whose main passenger was NOAA-4, a weather satellite. The launch placed AO-7 in a near-polar orbit roughly 1,450 kilometres above Earth, where it circles the planet in a little under two hours.

The spacecraft was a compact octagonal structure with solar cells mounted on its exterior. It carried beacons and two principal linear transponders. Mode A accepted uplinks near 145.9 MHz and retransmitted them near 29.45 MHz. Mode B accepted uplinks near 432.15 MHz and returned them near 145.95 MHz. An amateur station transmitted through the spacecraft while another station listened on the downlink. That relay made possible contacts well beyond the line-of-sight range available to two ground stations. The spacecraft acted as a radio repeater with gain, receiving a slice of frequencies, translating it and transmitting it back towards Earth.

AO-7 belonged to a lineage of amateur satellites built through volunteer labor, donated components and cooperation with launch organizations. The achievement was not simply getting a beacon into orbit. A useful amateur communications satellite needed receivers, transmitters, antennas, power regulation, command capability and a structure able to survive launch and the thermal conditions of orbit far above the Earth.

Rechargeable nickel-cadmium batteries on board were intended to store power from the solar cells energy and allow the spacecraft to operate when the Earth blocked the sunlight.

AO-7 worked for more than six years, well beyond the two-year design life commonly given for the mission. Then it went silent in mid-1981. It appeared that a battery failure had created a short circuit. That failure not only killed the power from the battery, it also provided a low-resistance path that also pulled down the voltage available from the solar array, denying otherwise serviceable circuits the power they needed.

AMSAT says that in 2002 one of AO-7's shorted batteries became an open circuit, likely due to the effects of thermal cycling, radiation, and corrosion. Once the fault stopped and the short ended, the solar cells could again provide enough power while in sunlight for the surviving electronics to work again.

The battery did not heal. It ceased failing in the particular way that had silenced the rest of the machine. That is less dramatic than a spacecraft waking up by intention, but it's more instructive. AO-7 had no recovery team waiting to upload a patch after 21 years. It was simply a passive change within an aging component that altered the conditions under which its original circuits could receive power and come back to life. Today, AO-7 is the oldest satellite still operating -- and more than a half century beyond its expected life span of just two years.

CALENDAR

October 8, 2026 @ 7 pm - Regular Monthly Club Meeting, Search & Rescue Building - Club Elections.

December 10, 2026 - Annual Christmas Holiday Party, location to be announced.

Pro Tip: Two is Cheaper Than One?

Having an extra battery for your HT radio can be more than just convenient. It can make the difference of whether or not you're able to communicate during power failures and extended public service events.

But sometimes an extra battery can be costly, especially if you're buying one for an inexpensive HT radio. In some cases, an extra battery can approach the original cost of the radio itself.

When the price difference is that narrow, simply consider buying another radio of the same make and model. Not only will you have an extra battery, you'll have a backup radio as well.



For instance, a Baofeng UV-5R radio can be found for sale at a price of around $15 to $17. Meanwhile, the cost of an OEM replacement battery for it is around $12.

If you're looking for a new HT, there's also often special package deals that offer two complete radios at a discount, or a single radio that comes with two batteries.

The East Greenbush Amateur Radio Association

Organized in 1998, by Bert Bruins, N2FPJ, (SK) and Chris Linck, N2NEH, the East Greenbush Amateur Radio Association, an ARRL affiliate, is committed to providing emergency services, educational programs, and operating resources to amateur radio operators and residents of the Capital Region of New York State. The club station is W2EGB. The club also has several VHF and UHF repeaters open to club members and the public.



GEAR FOR SALE

- 220Mhz j-pole antenna, $25
- Two bookshelf speakers, $10
- Pair powered amp computer speakers, $10

Contact Don Mayotte, KB2CDX at:
ddm653@gmail.com

- Yaesu FT-7900R/E dual band xcvr, RX 108 to 999 Mhz. 5W, 25W & 50W TX. Like new. $220, including shipping.
- Any Tone 5555N 10 meter Radio. AM, FM, SSB, and CW. 30 WATTS. Radio, Mic, Power Cord, mounting bracket and Manual. 28 to 29.7 MHz. Nice, clean and in factory carton. $140.00 Including shipping.

Contact: John, WB2HZT, Email at:
radiowizzz@aol.com

- Atlas Sound AD-12 Mounting flange - $8.00
- Atlas Sound GN-13 Gooseneck, 13 in. - $12.00
- Marshall V67g Condenser Microphone w/ shock mtg, pop filter, case - $75.00
- AKG P220 Large diaphragm condenser microphone with shock mount - $75
- Heil 781 Microphone with shock mount - $125
- Heil FS-1 Foot Switch w/ cable and phug - $ 22
- Heil HM-12 Microphone - $45
- Heathkit HM-12 SWR Bridge - $35
- Timewave ANC-4 Noise Reduction - $100
- W2IHY I Box - $35

Contact Steve VanSickle, WB2HPR
email: stevewb2hpr@gmail.com

Sell your unused gear with a free ad in Sidebands and online! Send details to: EGARAradio@gmail.com