



OUTER BANKS REPEATER ASSOCIATION

OBRA March Newsletter

OBRA STRATEGIC MODERNIZATION INITIATIVE – 2026

“When disaster is at its worst, communications must be at their best.”

RESILIENCE Secondary Power	DIGITAL CAPABILITY Winlink & Data	ENERGY Independence
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Build Confidence • Demonstrate Capability • Scale Intelligently

The banner features a background image of a radio tower silhouetted against a sunset sky over the ocean. The text is overlaid on this image in white and yellow. The three pillars (Resilience, Digital Capability, Energy Independence) are separated by vertical lines and each has a corresponding icon.

President’s Note

If you’ve been trying to work out which season is currently tied up at the dock here on the Outer Banks, you’re not alone. February & March have delivered a full coastal sampler — from biting cold and even snow, to warm sunny days that felt more like boating season than late winter, and then back again almost overnight.

We recently experienced temperature swings approaching 50°F within a single 24-hour period, enough to make any mariner reach for both sunscreen and a watch cap. Meanwhile, winter briefly returned further north with snowfall across Northern Virginia — a reminder that this time of year the weather forecast can feel a bit like navigating the shoals without a chart.

For those of us who live and operate along the coast, rapid changes are simply part of the environment. From sudden squalls to the long memory of hurricane seasons past, resilient communications are as essential as a reliable compass. These recent conditions serve as a timely reminder of the important role amateur radio plays in community preparedness and response.

Against this ever-changing backdrop, OBRA continues to make steady progress. March has been a productive and forward-looking month, with the Board and our dedicated volunteers advancing



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initiatives that strengthen infrastructure, improve regional coverage, and enhance readiness for whatever conditions may come over the horizon.

Like any good crew, our members bring skill, humor, and determination to the task. As we head toward the more active spring season, I am confident that OBRA will continue to serve as a trusted communications lifeline across the Outer Banks — fair weather or foul.

Copyright Issue – Resolved

OBRA unfortunately received a copyright infringement claim raised by company PicRights acting on behalf of Associated Press AP and Agence France-Presse AFP, relating to two images historically used on OBRA platforms.

Following a structured exchange of correspondence and careful review, the matter has now been amicably resolved without financial cost or adverse impact to OBRA operations or good standing.

This case reflects a growing trend affecting all, including volunteer and non-profit, organizations, where Artificial Intelligence (AI) tools are increasingly being exploited to scan (scrape) large volumes of online content looking for possible infringements. It serves as an important reminder that:

- Non-profit status does not exempt organizations from copyright law
- Only properly licensed, permission-granted, or public-domain material should be used
- Verification should occur before publication

In response, OBRA is strengthening internal policy and awareness to protect both the organization and individual contributors. Guidelines have been written and will be provided to members in the coming days. Remember this is equally applicable to individuals as organizations so please note the guidelines when provided it could save you significant money.

We thank members who provided constructive input and support during this process.



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Understanding Digital Mobile Radio (DMR) – Building Skills for the Future

Digital Mobile Radio (DMR) continues to grow as an important capability within the global amateur radio community, offering expanded global coverage, efficient spectrum use, and powerful networking options. However, for many operators, DMR can initially seem complex — with its talkgroups, time slots, servers, hotspots, and Internet interconnections. The OBRA Board recognizes this and would like to increase understanding of how DMR works and how members can confidently use it as part of their communications toolkit.

At its core, DMR is a networked digital communications system. Repeaters, personal hotspots, network servers, and Internet links all work together to route voice traffic. Because the system prioritizes resources and manages multiple users simultaneously, there are occasions when a transmission may be heard on one device but not another. Understanding how these components interact helps operators make better use of the system reduces confusion during nets and operational activities.

To support this, OBRA is proposing the development of two complementary training packages, each tailored to different interests and experience levels:

1. Technical Reference Package

A detailed guide covering system architecture, repeater and server functionality, programming concepts, network behavior, and advanced operational considerations. This package is intended for members with a technical or engineering background — or those who simply enjoy understanding how systems work at a deeper level.

2. Operational User Package

A practical, step-by-step guide focused on programming radios, using talkgroups effectively, and getting the most from DMR in everyday operations and emergency communications. This package is designed for members who prefer a more hands-on, non-technical approach but still want to use the system confidently.



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Training material will address both major network environments used in our region — BrandMeister and the North Carolina Packet Radio Network (NCPRN) — and will also include a brief overview of other digital voice systems such as System Fusion (C4FM) and D-Star. This broader perspective will help members remain connected when traveling or operating outside the OBRA service area with appropriate compatible radios.

Developing this material represents a significant investment of volunteer time and effort. Before committing to such a program, OBRA will survey all paid-up members to assess interest in the training initiative and potential for classroom-style sessions with hands-on practical exercises.

If you do not currently own a DMR radio, don't be concerned. OBRA intends to make loaner equipment available for training purposes so members can learn by doing. These training opportunities are made possible through the dedication of member volunteers and are therefore offered as a benefit of OBRA membership.

DMR can be both a valuable operational capability and an enjoyable part of the hobby. With the right understanding and support, it becomes far less daunting — and far more useful. We encourage members to participate in the upcoming survey and help shape the future of digital training within OBRA.

Grant Strategy – Pilot Project Update – Southern DMR Capability

As discussed in February, OBRA has been evaluating candidate projects to support our infrastructure modernization and grant planning efforts. A leading proposal has now emerged with the Establishment of a DMR Node in Southern Nags Head Area on Public Works Water Tower.

This initiative aims to:

- Improve digital communications coverage in southern service areas
- Strengthen interoperability across the Outer Banks region
- Enhance EMCOMM / AUXCOMM PACE resilience



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Hybrid Digital–Analog Concept

The Board will explore the potential for a switchable hybrid configuration, allowing the system to function as:

- A primary DMR digital repeater / network node
- A fallback analog FM repeater during network outages or contingency operations as and if required under PACE Planning.

This approach would provide:

- Increased operational redundancy
- Improved compatibility with legacy equipment
- Greater flexibility for incident communications planning
- A scalable model for future system upgrades

Public-works locations offer not only good elevation, but also reliable backup power, making them well suited to resilient communications infrastructure. Technical feasibility assessments and cost modelling will commence in coming weeks.

Engineering and Maintenance Program

OBRA's structured maintenance initiative has commenced, under the leadership of Tom Atwell KD2U, with initial inspections focusing on the Mamie site infrastructure.

Key objectives include:

- Transitioning from reactive repairs to planned lifecycle management - Preventative & Corrective maintenance.
- Developing a comprehensive asset condition register
- Prioritizing maintenance actions aligned with operational risk
- Creating backup copies of Repeater and Controller configuration files.
- Verifying settings for optimal performance
- Verifying Antenna and Feedline SWR for issue identification



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This program represents an important step toward strengthening technical governance and supporting future grant applications.

OBRA Annual Financial Audit

The Board is pleased to report that the annual audit of OBRA's financial accounts has been successfully completed. We are especially grateful to Jim Borst, KO4OBX, who generously volunteered his time and expertise to conduct this year's review. We are pleased to share that the audit identified **no observations or issues**, reflecting sound financial stewardship and good governance practices by our treasurer. Our sincere thanks also go to **Jim Bailey, N4ACT**, for ensuring that all relevant financial documentation was readily available to support the audit process.

Community Events – Get Out, Get On the Air, Get Involved

OBRA's active support to community events, coordinated by Jim Kranda N4WYO, continues to be one of the most enjoyable — and valuable — ways for members to use their skills while serving the local communities. Whether it's a road race, festival, or public safety activity, these events give us a chance to get out of the shack, into the community, and on the air under real operating conditions.

Working event nets sharpens radio discipline, improves confidence with equipment, and strengthens teamwork. It's also good for the soul — fresh coastal air, a bit of sunshine (or the occasional nor'easter breeze), and the satisfaction of helping things run smoothly. Around here, we like to say it's the only "hobby" where you might bring sunscreen, a rain jacket, and a handheld — all in the same day.

While FCC rules prohibit amateur operators from being paid for communications services provided, event organizers often show their appreciation through voluntary donations to the club. Such donations are allowed under FCC rules and critically, help maintain club repeaters, support training, and strengthen OBRA's overall capabilities.

Remember, our "amateur" status reflects that we are unpaid — not unskilled. OBRA members routinely design, build, and operate sophisticated communications systems that rival many professional solutions. Community events are an excellent opportunity to demonstrate that capability while supporting our neighbors and community events.

If you haven't participated recently, consider joining the next event. It's a great way to hone your skills, support the club, and enjoy the best office view on the coast — wherever your portable



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antenna happens to be set up. Check the OBRA Website for Scheduled Events and sign up forms or better still reach out to Jim who will be pleased to work with you.

Repeater Modernization – ARCOM Controller Approved

At last month’s meeting, members approved the procurement of a new ARCOM repeater controller — a key step in reducing operational risk and strengthening the resilience of the OBRA repeater network. This upgrade also supports our ongoing grant efforts by demonstrating proactive infrastructure modernization and responsible asset management. Operationally, the new controller will provide smarter station identification management, helping prevent IDs from transmitting over linked repeater traffic. It will also improve relay timing, delay handling, and integration with digital systems, resulting in smoother network performance, enhanced interoperability, and a more professional on-air experience once rolled out across the network. Procurement is currently delayed pending vendor equipment availability, with the Board hopeful that an order can be placed in April.

HF

Our resident HF expert Duane Tuberville organized an event recentlyand



Malcolm Green, KY4RY
President
Outer Banks Repeater Association

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