

Annual Report WCARC, 2025

Prepared by: Mike Kennedy VA3TEC, President WCARC.

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1 Introduction

The West Carleton Amateur Radio Club (WCARC) experienced another active and successful year in 2025. Club activities focused on advancing technical knowledge through hands-on projects, on-air operating, and skills development, while also maintaining a strong presence in amateur radio contests and special operating events. Regular meetings, workshops, and collaborative efforts provided valuable learning opportunities and helped foster strong engagement among members.

Community service and outreach continued to be an important part of the Club's mission. WCARC members supported public service and emergency communications preparedness activities, promoted amateur radio within the local community, and welcomed new participants into the hobby. Despite occasional challenges, the commitment and enthusiasm of our members ensured continued growth, operational readiness, and a positive outlook for the year ahead.

1.1 Key Accomplishments

Club's Beacons still going strong!

The Club's 50, 144, 222, 432, 903, and 1296 MHz beacons at the Diefenbunker site continued to operate reliably throughout the year, providing consistent regional propagation and band condition monitoring. Ongoing maintenance, fine-tuning, and system updates were carried out by Bert (VE2ZAZ) and Nick (VE3OWV), ensuring stable operation and optimal performance across all bands.

Also, During the construction of Mike Kennedy VA3TEC, VHF contest station, They Came EXTREMELY handy to test the system functionality!



Community and Club Visibility:

Participation in regional ham shows and festivals remained a priority. The WCARC booth at the Carp Ham-fest in September drew significant interest, supported by an engaging demonstration of the AREDN Node. This portable node drew a lot of interest with fellow members of the club as well as visitors to the WCARC booth. This node showed the power of networking capability and the community sense of the wide area mesh networking. More on this later in the report!

MAD Days (Microwave Activity Days):

Once again provided memorable and enjoyable operating opportunities throughout the year. Several events were held at the top of the Diefenbunker foothill, bringing together members for portable microwave operations and experimentation. One particularly memorable MAD Day took place during the month of April by our extremely experienced 10 GHz operator Bert!

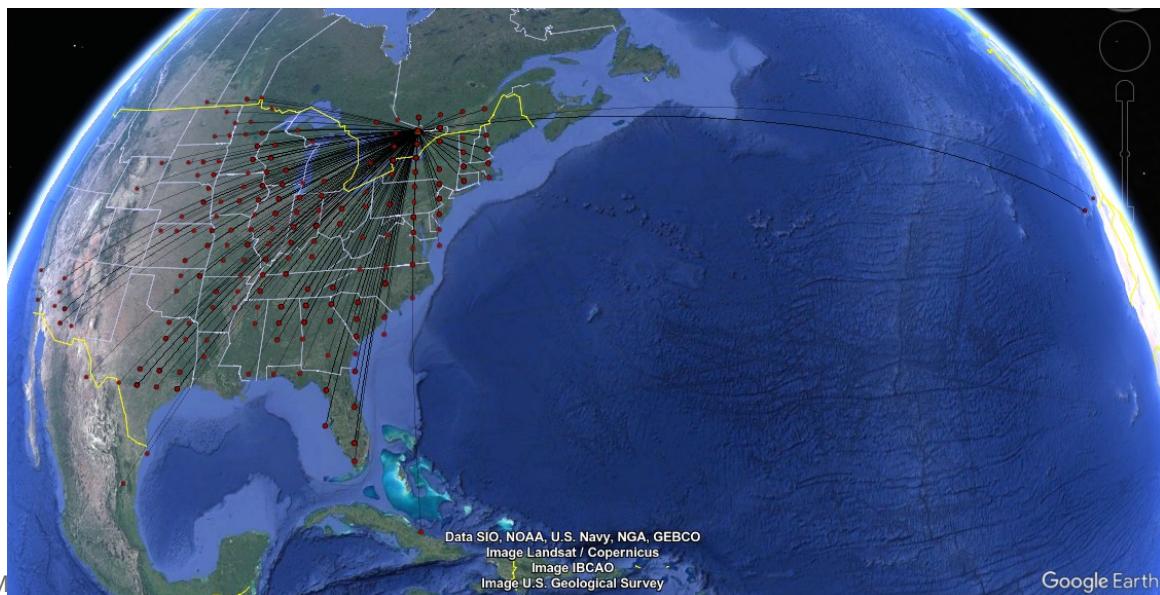


Bert (VA2ZAZ) had an adventurous time at the Diefenbunker for the MAD day, He made several contacts to keep the tradition alive!

A special memorial microwave expedition was also held on September 21 at the summit of Mont Tremblant. (FN26rf) This event combined technical challenge with remembrance, as members operated from an elevated site well suited for microwave propagation. The expedition resulted in successful contacts! Including WCARC members: Ray (VE3FN), Bert (VE2ZAZ), Wayne (VE3CZO) and finally Glenn (VE3XRA) were on hand for a Total of 12 QSO's!!! Great GIG Guys!!!

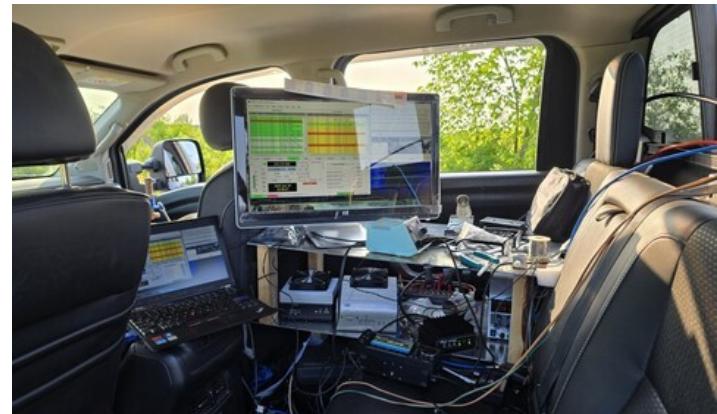
1.2 Contest Participation

June VHF Contest: Another successful WCARC club operation was conducted from our preferred Kinburn location, resulting in a score of 166,611 points!! with over 553 QSOs!! and 237 multipliers. A particularly notable highlight that the 6 meter band was open almost the whole weekend. This created a fun environment as this helped create an extreme amount of 6 Meter VHF contacts, for a more recent record amount of VHF contacts in recent history. Below is a Graphic of the majority of the contacts there we achieved by the club! Great job for everyone involved!!





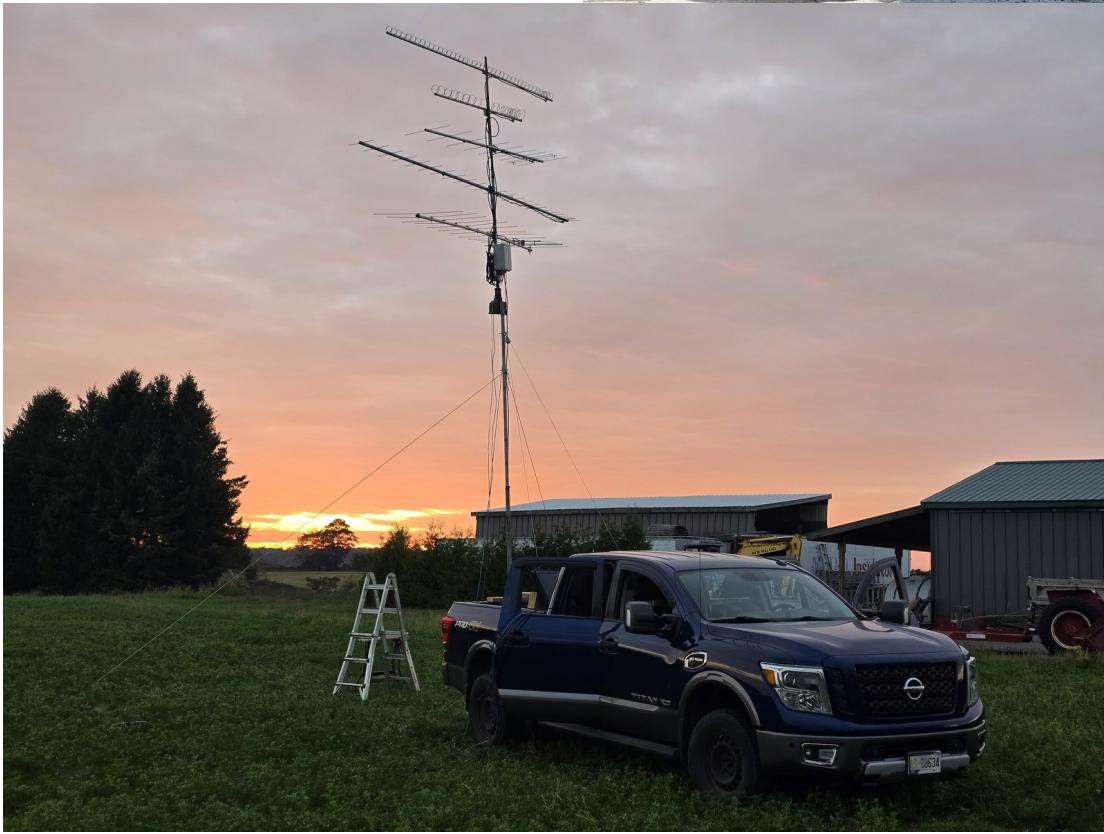
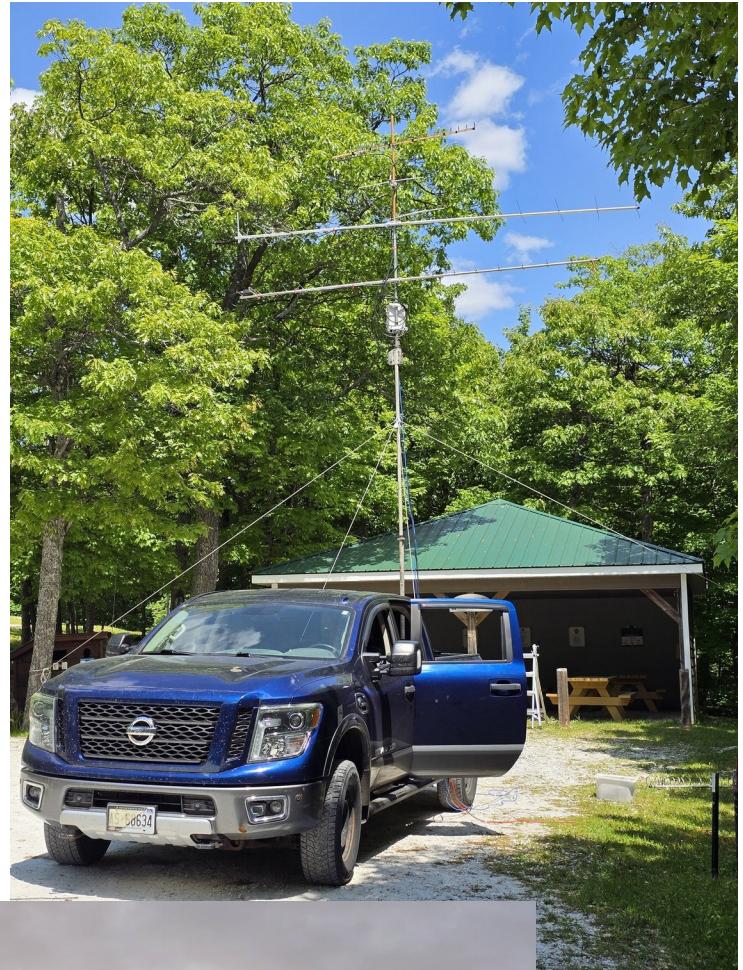
Also featured during this event was a mobile VHF station constructed by Mike Kennedy VA3TEC, installed in his truck specifically for contest and rover-style operation. The station utilized a tall mast mounted to the vehicle, supporting five Yagi antennas ranging from 12 to 22 elements in length. This providing excellent gain and directional performance across multiple VHF bands. All radio equipment was professionally installed and neatly integrated into the rear seating area of the truck, ensuring reliable operation and efficient use of space during the contest.



Below are Images of the Radio setup up top of Mount Morrisett, with a Grid square of FN16xd



September VHF Contest: Another successful WCARC club operation was conducted from FN04xa and FN14ba, our preferred location at a Farmers Field overlooking Lake Ontario! Mike Kennedy VA3TEC Setup for 2 Rover station events! He was able to make Contacts back to Ottawa and As far South as Northern Massachusetts! Images Below!

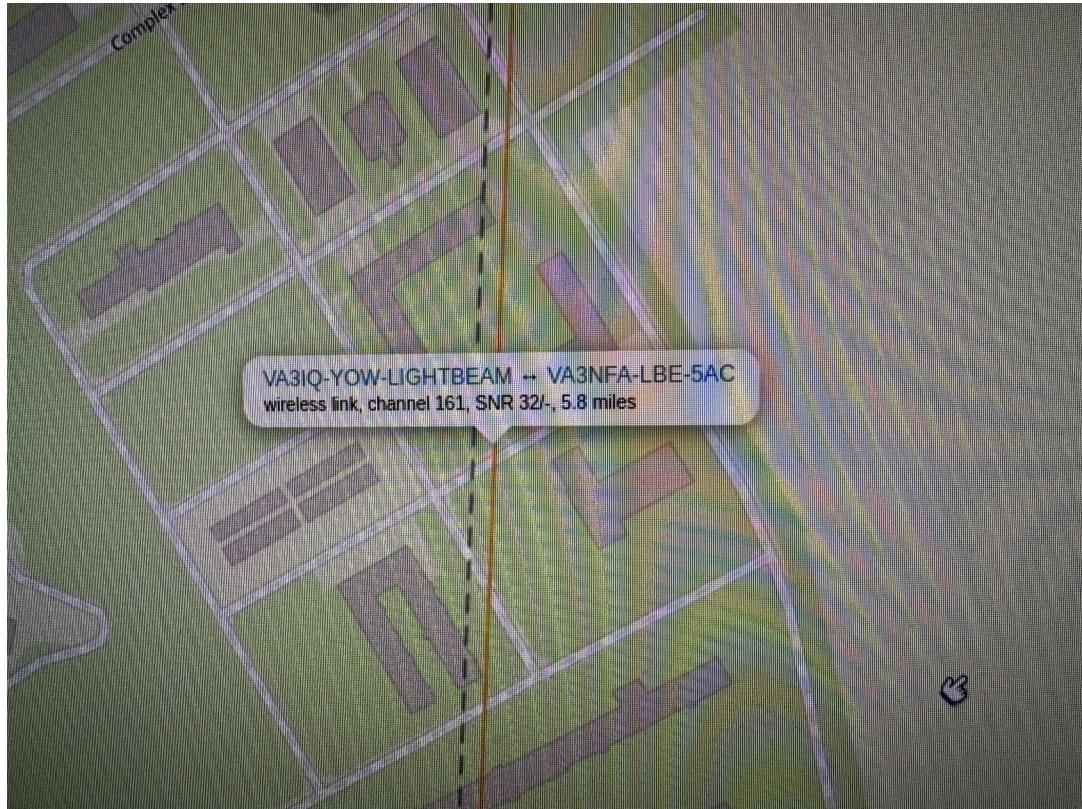




1.3 AREDN Activities!

Other activities that have attracted the interest of several of our newer members include the AREDN™ Ethernet network and Wireless RF mesh networking. **AREDN (Amateur Radio Emergency Data Network)** is a high-speed digital communications network designed specifically for amateur radio operators. It uses modified, commercially available wireless equipment operating on amateur radio frequency bands to create an independent, self-configuring mesh network capable of carrying data, voice, video, and other IP-based services without relying on the public internet.

For the amateur radio community, AREDN represents a significant expansion beyond traditional voice communications. It enables hams to support emergency and public service operations with modern data capabilities such as real-time messaging, file sharing, video streaming, and situational awareness tools. The mesh architecture allows nodes to automatically discover and route traffic through one another, increasing resilience and coverage even when infrastructure is damaged or unavailable. In addition to emergency preparedness, AREDN encourages experimentation, learning, and collaboration, making it an exciting technical area that blends RF engineering, networking, and community service—especially appealing to technically minded and newer members.



Lawrence VA3IQ, has taken on a full role on expanding the AREDN data network in the Ontario side of the River with Gatineau Super-node! A super-node in the AREDN network is like a major hub or backbone node. It's a high-capacity node that connects multiple parts of the mesh network together, allowing for greater coverage and increased data routing efficiency.

Not Secure <http://va3iq-yow-lightbeam.local.mesh/a/status>

TBEAM

WiFi Scan Help

SNR	Signal	Chan	Enc	SSID	Hostname	BSSID	Mode
46	-49	161	-	AREDN-5-v3	VE3EDE-YOW-5GHZ	04:f4:1c:31:c1:7c	My Ad-Hoc Mesh
24	-71	161	-	AREDN-5-v3	-	fa:f8:1b:00:72:8d	My Ad-Hoc Mesh
22	-73	161	-	AREDN-5-v3	VA3NFA-LBE-5AC	0c:ea:14:a0:55:22	My Ad-Hoc Mesh

Recently, Lawrence (VE3IQ), Tom (VE3NFA) & TED (VE3EDE), and had both trials and tribulations on the setup of a 5.8 GHz data link from Tom's place, near the central experimental farm and Lawrence's place! Nice Work Boys!

1.4 Ted's Interesting Beacon Project!

At the October meeting Ted (VE3EDE) presented an extremely interesting project where he transmitted a WSPR signal to his wife using his QRP Labs QDX rig in remote locations such as his famous kayak trips! Image below..

A Digital Beacon for Back-Country Activities

QDXCast – an experimental kayaker/hiker/biker safety solution

Ted Reinhardt, VE3EDE



A photograph showing a man in a red kayak on a calm river. He is wearing a light-colored hat and a red life vest. A tall, black and white striped antenna is mounted on the kayak. He is holding a paddle and looking towards the camera. The background shows a dense line of green trees along the riverbank. The water is dark and reflects the surrounding environment.

As at 20 Oct 2025

1.5 Looking Ahead Activities FOR 2026!

1.5.1 Infrastructure Enhancements



A possible project would be expand on the Beacons at the Diefenbunker to include a 2.4GHz beacon.

1.5.2 Increased Contest Participation

Encourage member participation in regional and international contests, with a focus on mentoring new operators. Mike Kennedy VA3TEC have recently purchased a 8.5 x 16 foot enclosed trailer. This trailer would be able to enclose various equipment such as; Radio's Amplifiers and power systems, as well as the Infrastructural Information Technology (IT) systems. This trailer can also be used as a portable RF Ham shack for contesting, mobile development systems environment as well as a remote prototyping test-bench for Radio communication.



1.5.3 Community Engagement

Another proposal idea is to install a DATV Digital Amateur Radio Television Station, at RAC Radio Amateur of Canada Headquarters in Ottawa Canada. This station could be used as a technology demonstrator.

1.6 Meetings

The WCARC had twelve member meetings, one of which being the annual general meeting which took place at the RAC (radio Amateur of Canada) Headquarters in December, 2024. The WCARC is appreciative of use of the facilities!

1.7 Conclusion

2025 was a year of accomplishments and resilience for WCARC. As we move into 2026, we are poised to build upon our successes, deepen our community impact, and ensure the vitality of amateur radio for future generations. Thanks to the dedication and passion of our members, the future of WCARC remains bright.

Prepared by:

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West Carleton Amateur Radio Club