

# Community and Disaster Services

## Message from Community Services Officer



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The RAC Field Organization was established 30 years ago to assist communities by supporting local clubs or organizations.

Radio Amateurs of Canada has always been interested in local activities across the country.

Through the reports in the Community and Disaster Services and the Club Corner and Coming Events columns in TCA magazine and on the website, we are pleased to assist community groups, clubs and disaster service groups in sharing information about what is taking place in their region.

In the past year, the Auxiliary Communications Service (ACS) has evolved from a fledgling initiative into a cornerstone of community resilience and emergency preparedness across Ontario and beyond. Guided by the vision of the Radio Amateurs of Canada and the unwavering dedication of volunteers, ACS has not only built a robust operational foundation but also fostered a culture of collaboration and innovation.

The introduction of EXRSIM – a Canadian-based emergency management training platform – has revolutionized how ACS teams prepare for real-world challenges, streamlining complex procedures into accessible, actionable pathways. This technology empowers operators to respond swiftly and effectively, ensuring seamless interoperability across diverse communication systems and agencies (see pages 50-52).

This message underscores the importance of consolidating resources and expanding training to meet the evolving needs of communities. By embracing new communication technologies and governance frameworks, ACS is positioned as a trusted auxiliary capability that complements existing emergency management structures and inspires national momentum.

The month of May is Emergency Preparedness Month and ongoing support from provincial partners and recognition of volunteer contributions highlight the program's commitment to excellence and inclusivity.

Emergency Preparedness Week (EP Week) is a national event that educates communities about actions to prepare for emergency situations. The week-long event, traditionally held in the first full week of May, encourages individuals to take proactive steps to become better prepared for a range of emergencies.

In Ontario, this year's theme is "A Safe, Practiced and Prepared Ontario," and it will take place from May 3 to 9. The event also encourages municipalities to follow and share tips and information on emergency preparedness. Radio Amateurs of Canada will be hosting opportunities for groups and individual volunteers to partake during the week.

Resources and materials are available to promote emergency preparedness including educational materials for children, people with disabilities, and others – <https://www.ontario.ca/page/emergency-preparedness-week>

### Reflecting on the Past Year: Building the Auxiliary Communications Service

Ottawa held the first Auxiliary Communications Service training this year. It may have been a small class, but it has flourished into a dedicated team working to overcome the struggles of any group getting started, building relationships, and defining their role in the Ottawa area. Since September, they have held many meetings, made time for local exercise, and begun updating their local communications plans to support a more resilient community. It will take time, but this team has what they need to succeed.

Training continued this year across Ontario, including Peterborough, Simcoe County, Toronto, Thunder Bay and recently in London, as shown in the photo below.

Each training session has led team leaders to reach out to their communities and engage with emergency management and community leaders to foster the ACS concept, deepen understanding of their roles,



and strengthen resilience. The culmination of these training weekends was the Auxiliary Communications Service COMMS Expo & Exercise, a one-day event designed to showcase emergency preparedness and test interoperability across communication systems.

The event was held on January 24 from 10 am to 5 pm at the Dr. Edgar Leclair Arena in Azilda, Ontario which is located in Greater Sudbury. This unique event brought together emergency responders, Amateur Radio operators, community organizations, and the public to explore the critical role of communications in disaster response and included:

- Emergency Management Ontario (EMO) field office and Niagara's Community Emergency Response Team (CERT Niagara) made a presentation on drone activities

- A demonstration on the Exercise and operational software EXRSIM
- St John Ambulance provided a display on the services they offer to communities

A large-scale emergency communications exercise called “Operation Claybelt Response” was also held in which participants had the opportunity to enact communications based on the Great Fire of 1922 in the Temiskaming District in Ontario.

*Also known as the Haileybury Fire, the Great Fire of 1922, occurred from October 4 to 5, 1922 and it has been called one of the 10 worst natural disasters in Canadian history. The fire swept through the Lesser Clay Belt in Northern Ontario, affecting 18 townships and burned approximately 1,680 square kilometres (650 square miles). Forty-three people died and nearly 11,000 were left homeless. Entire communities were destroyed including Haileybury, North Cobalt, Charlton, Thornloe, Heaslip and others.*

During the Exercise on January 24, Amateur Radio operators braved the extremely cold weather and a snowstorm across central Ontario, only to find that if anything could go wrong, it did. That weekend tested adaptability in overcoming challenges and in providing ad hoc communication systems. They activated stations across northern Ontario, testing communication systems from HF, VHF and RAC’s new satellite radios and communications gear. Their mission included:

**Demonstrate Interoperability Across Communications Systems:**

- Successfully establish and maintain communications between the Emergency Operations Centre (EOC), reception area, and shelter using Amateur Radio (including D-STAR), public safety radio and satellite radio systems.
- Test the ability to relay messages seamlessly between all systems, ensuring that backup and primary networks can be switched as needed.

**Validate Satellite Email and Digital Messaging Capabilities:**

- Use both satellite radios to send and receive emails and digital forms (e.g., via Winlink) between all three exercise locations.
- Confirm that satellite connections provide reliable backup communications when the primary infrastructure is unavailable.

**Assess D-STAR Radio Performance for Voice and Data:**

- Deploy D-STAR radios at each location and conduct voice and data transmissions including relaying situational reports and emergency messages.
- Evaluate the clarity, reliability and coverage of D-STAR communications in the field environment.

Establishing foundational governance frameworks and policies and aligning with emergency management doctrine have been the focus of the ACS operations and training platform. This year, we introduced Canadian-based software to help our operators understand emergency management and to train them in the

core skills required to work within emergency management services across the country, and in the development of training pathways, exercises and integration concepts to ensure operational readiness.

The pathway to developing these skills started with EXRSIM. Imagine training with the perfect tool for the job, only to be forced to work with something completely different when the time comes. Auxiliary communications are at the heart of interoperability, but how can you achieve interoperability if everyone uses different systems, communications equipment, and even gathers data differently? Well, RAC spent many years studying how, in times of need, plans often took longer due to information overload and multiple points of contact that overwhelmed teams as they attempted to plan or even request support. Our new EXRSIM software and state-of-the-art communications tools allow ACS operators to set up an *ad hoc* incident communications centre focused on a single point of contact and information gathering.

Quiet but essential behind-the-scenes work including drafting procedures, coordinating subject matter experts, and aligning regional capabilities have been my main focus and that of the ACS team. Knowing that we have a solid foundation will contribute to a national platform that can be integrated into emergency management across Canada.

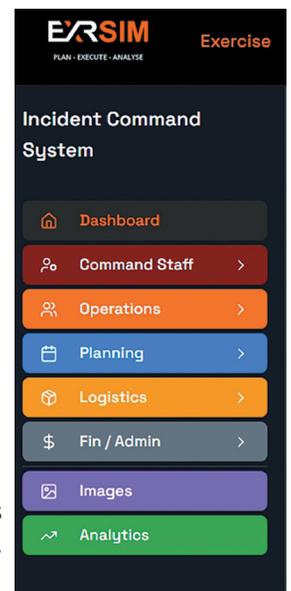


**Training, Governance and Program Readiness**

Progress has been made in standardized training for volunteers and leaders to ensure our teams understand the incident management systems used across Canada.

Our systems have been designed to be easy to remember so as not to overwhelm volunteers when they are asked to assist in a time of need.

Most of these programs are long and involve understanding the Emergency Management system and the countless amount of paperwork that goes with it.



With the new EXRSIM system at the core of our training, we have gone from the form's focus to a new online simplicity of knowing the colour you are working with – Red, Orange, Blue, Yellow or Grey and the task you are assigned – as seen in the photo of the EXRSIM dashboard on the previous page.

Governance development efforts to ensure accountability, consistency, and credibility with emergency management partners. While much of this is handled by the emergency management partners, we still have a role in our own operational governance. In the last few classes, we have had representatives from emergency management, who have always shown a strong interest in this new operational platform.

Ongoing refinement of operational guidelines, credentialing concepts and interoperability expectations is now central to the Auxiliary Communications Service. Many of our partners have defined roles and responsibilities when they deploy. This is where RAC will focus in 2026-2027: which services will we offer when deployed; how will those services be delivered; and whether our operators will need additional credentials?

In 2025-2026, RAC introduced new communications technologies into our deployment, such as the Icom VE-PG4 RoIP Gateway, which enables communication between transceivers, wireless LAN transceivers and IP telephones connected to it.

The VE-PG4 controls IP and wireless LAN transceivers via a 4G/3G line and Panasonic KX-series IP telephones are compatible as of December 2020. The VE-PG4 can host up to 50 wireless LAN transceivers and an Icom IP100FS remote communicator. Up to 25 IP telephones can be registered and used in the VE-PG4 system.

We can connect to speakers in the system, enable emergency calls to linked transceivers and speakers, and monitor the operation of the linked transceivers. Along with Marine, Aviation and Satellite Radio and additional Satellite connectivity, this has helped create an interoperability that we have not had in the past.

The RAC kits are at the heart of Amateur Radio and feature Icom D-STAR-based radios such as the ID52A, IC-9700 and IC-7300. With D-STAR connectivity and the new open spots or similar devices, our kits can connect our ACS teams to the world.

The importance of continuous improvement, driven by lessons learned and volunteer feedback has taken this program by leaps and bounds since it began a little over a year ago.

I have watched as professionals and volunteers have taken an interest in the program, offered insight into areas we had missed, or provided information we didn't have when we first developed it. These refinements have created a program that gives operators the opportunity to learn, share their knowledge and foster a climate of collaboration and teamwork.

## Partnerships and Support: Ontario and Beyond

Recognition of ongoing support from the Ontario Ministry of Preparedness and Response through the Emergency Readiness and Capacity Building (ERaCB) funding program continues and a new application was submitted to continue the program's growth here in Ontario in 2026.

This continued support positions ACS as a trusted auxiliary capability that complements, not replaces, existing systems. Growing interest and early discussions with Nova Scotia are a signal of national momentum.

Radio Amateurs of Canada is excited about this potential growth and ongoing support, not only from the Amateur Radio community but also from Emergency Managers – which has been the most encouraging part of this process.

## Volunteer Contributions and Dedication

Sincere thanks to the many volunteers who have contributed time, expertise and leadership throughout the year.

Recognition of diverse roles played by volunteers – instructors, planners, technical specialists and advocates – has not gone unnoticed by our management teams who are also volunteers themselves.

The Auxiliary Communications Service places an emphasis on the culture of service which is central to this program and I thank everyone who has assisted in its development. We are now working on new recognition programs to show our gratitude.

## Closing Remarks

Radio Amateurs of Canada envisions consolidating our resources into a Community Emergency Response Mobile Platform to support communities, inspire volunteer commitment and growth, and lay the foundation for the ACS to be coordinated and scalable in the future.

We want to empower communities with ongoing ACS Training and expand that training to include our new Family and Community Emergency Communications program. This program is built around "what if no one is coming, how do we look out for our community, our families and connect those into the world of communications".

Radio Amateurs of Canada will focus our efforts on solidifying our current communications capabilities, using the interoperability continuum to define governance, enhance relationship development through training and exercises, and build a stronger, more resilient community.

– 73, Jason Tremblay, VE3JXT

# EXRSIM: Modern Emergency Preparedness Meets Amateur Radio

Steven Harrison, VE4FTS and Ian Clarke, VA3KCP

Emergency preparedness has always been a core value of Amateur Radio in Canada. From floods and ice storms to wildfires and large-scale evacuations, Radio Amateurs continue to demonstrate the importance of resilient, flexible communications when traditional systems are strained or unavailable. That tradition was on full display on Saturday, January 24 at RAC-ACS Expo 2026 in Azilda, Ontario where Radio Amateurs of Canada – Auxiliary Communications Service (RAC-ACS) conducted a large-scale simulated emergency exercise known as “Operation Claybelt Response”.

The Claybelt Response exercise was rooted in history. It was based on the devastating 1922 wildfire in the Sudbury and Algoma regions, an event that claimed lives, destroyed property and burned vast tracts of forest. By drawing on a real historical disaster, the exercise challenged participants to respond to a complex, fast-moving emergency scenario while integrating modern tools, technologies and operational practices.

Amateur Radio operators attending RAC-ACS Expo 2026 were tasked with deploying their skills, radio equipment and emerging communication technologies in support of the exercise. A key component of this year’s operation was the use of a recently acquired emergency-management software application called EXRSIM.

EXRSIM is a Canadian-developed emergency preparedness and incident management software platform designed to help agencies, organizations and communities prepare for, respond to, and recover from both natural and man-made emergencies. The software supports the full lifecycle of emergency management, from planning and training to real-world incident response.

One of the foundational elements of EXRSIM is its support through the Hazard Identification and Risk Assessment (HIRA) process. By systematically identifying potential hazards and assessing associated risks, organizations can better understand their vulnerabilities and prepare appropriate response strategies before an incident occurs.

EXRSIM uses a streamlined 18-step process that allows users to rapidly build either a training exercise or a live operational event. Once the required information has been entered, the Incident Commander can establish an Incident Command Team and begin coordinating an effective response. The software is designed to align with the Canadian Incident Command System (ICS), ensuring compatibility with established emergency management practices used across Canada.

Key features of EXRSIM include integrated mapping, weather data, resource tracking and operational objectives. These tools give the Incident Commander and command staff immediate situational awareness and improved decision-making capability. As conditions evolve, EXRSIM allows for dynamic updates, helping command teams adapt to rapidly changing or fluid emergency situations.



Steve Harrison ,VE4FTS and Ian Clarke, VA3KCP, attended the Sudbury ACS exercise in support of Radio Amateurs of Canada.

During the Claybelt Response exercise, RAC-ACS employed EXRSIM to help coordinate personnel, communications assets and supporting technologies. The platform provided a centralized operational picture, allowing Amateur Radio volunteers and emergency coordinators to better align their activities with the overall incident objectives. This integration demonstrated how modern software tools can enhance the effectiveness of volunteer communications groups when working alongside emergency management partners.

While Amateur Radio played a critical role in communications, EXRSIM itself is designed for use across a wide range of sectors. These include transportation, medical services, energy, security and many other public and private organizations that may be affected by emergencies. The software is equally applicable to incidents caused by natural disasters – such as wildfires, floods and severe weather – as well as man-made events.

EXRSIM is owned and operated by Ian Clarke of Toronto and Steven Harrison of Winnipeg, reflecting its strong Canadian roots and national perspective on emergency preparedness. Their work highlights how Canadian innovation continues to support community resilience and emergency readiness at all levels.

For RAC-ACS and the Amateur Radio community, the successful use of EXRSIM during RAC-ACS Expo 2026 underscores the value of combining trusted communications expertise with modern emergency management tools. As emergencies become more complex and interconnected, these kinds of integrated solutions will only grow in importance.

Readers who are interested in learning more about EXRSIM, or who wish to explore additional resources and references, are encouraged to visit [www.exrsim.com](http://www.exrsim.com).

