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Canada's National Amateur Radio Society

*"We're ALL about Amateur Radio!"  
"Tous ensemble pour la radioamateur!"*

# Radio Amateurs of Canada

## Executive Summary

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Background:

This executive summary provides information about Radio Amateurs of Canada, its structure, objectives, successes and community service activities.

This document was written to provide information about the manner in which amateur radio equipment is used by radio amateurs in their vehicles. This document is for the use of the Ontario Ministry of Transportation staff who are currently drafting proposed legislation to ban the use of handheld cellular devices by motorists while driving.

Additional information, if required, is available by contacting the author.

## Amateur Radio World Wide

- There are currently 2.6 million licensed amateur radio operators worldwide
- The International Telecommunications Union (ITU) established in 1865 regulates international radio and telecommunications. Canada is a member.
- Amateur radio is established around 1898 with the discovery of “wireless” radio
- In 1901 Marconi sends a signal from Newfoundland to England. He becomes an advocate for early adoption of amateur radio
- On the evening of Dec. 24, 1906, Fessenden, a Canadian born in Quebec, broadcasts the first spoken word and music to ships in the Atlantic
- The 1912 sinking of RMS Titanic was cause for formation of new international radio law which affects all radio use including amateur radio operation around the world
- By 1913, the US Dept. of Commerce begins to license and issue call signs to “hams”
- In 1914, American hams form the American Radio Relay League which remains the preeminent radio organization in the world with almost 700,000 members worldwide
- Today, with the exceptions of Yemen and North Korea, virtually all the countries in the world allow their citizens to become amateur radio operators
- Almost without exception, anyone in any of these countries who wishes to become an amateur radio operator must pass a government-approved test of proficiency and is then issued a station license allowing them specific privileges to operate on international radio frequencies

## Amateur Radio In Canada

- Currently there are 56,656 unique resident licensed ham radio operators in Canada
- In a normal year 600 to 800 Canadians become ham radio operators
- Radio Amateurs of Canada represents the interests and speaks for all Canadian radio amateurs
- Current active membership in RAC stands at roughly 5,000 members
- RAC provides liaison with government agencies and is the amateur voice about regulatory and spectrum issues with government and industry leaders, nationally and internationally
- RAC is the Canadian voting member society of the International Radio Union (IARU)
- RAC is composed of seven regional directors elected by the membership and is chaired by a president
- All board members including the president are volunteers and receive no remuneration
- RAC also consists of a network of volunteer radio amateurs across Canada who participate in the National Field Organization which includes the Amateur Radio Emergency Service (ARES), the National Traffic System (NTS), the Official Bulletin Service and the Official Observer Service

## Amateur Radio Emergency Service (ARES)

- Composed of licensed radio amateur volunteers, ARES provides local, national and even international public service when disaster strikes
- Organized in North America in 1935, ARES provides countless hours of public service support to local, provincial and national government, helping agencies and communities
- During many natural and man-made disasters official emergency and public communications systems fail from service overload or lack of Hydro power. Amateur radio suffers from neither of these limitations. Nor are hams limited to the number of volunteers they can field
- When disaster strikes, local ham radio operators have proven capable of creating communications networks for helping agencies and civil authorities
- In Canada, ARES and the Canadian Red Cross Society have a memorandum of understanding stating that during a disaster or an emergency RAC will provide, whenever possible volunteer emergency communications for the Society
- Major events that incorporated extensive use of amateur radio include the following:
  - China Sichuan Earthquake (2008)
  - California wildfires (2007 & 2008)
  - Hurricane Katrina (2005)
  - California earthquake (2003)
  - Shuttle Columbia recovery (2003)
  - 9/11 (2001)
  - The Quebec Ice storm (1998)
  - The Barrie tornado (1985)
- In addition, local ARES groups and clubs provide other communication services to their communities assisting in searches for lost people, parades, walk-a-thons, races, charitable fund-raising events among many others
- ARES can quickly establish local (hospital to hospital), community (civic authorizes to emergency responders), provincial (Red Cross disaster relief) and international help and non-governmental agency coordination (2004 Tsunami in South Asia)
- Communications services include fixed voice and digital communications; mobile local communications; satellite and even communications to the International Space Station (most astronauts have their ham radio license and use amateur radio as a last-resort backup system)

## Amateur Radio use in Mobile Situations

- With few exceptions, amateur radio operators install mobile communications equipment in their personal vehicles
- This equipment is the first vital link in the ARES communications system
- Almost without exception, this equipment works on fixed frequencies
- The operator uses the system by speaking into a microphone
- Unlike cell phones or other small portable devices, amateur radio equipment is normally operated in a similar manner to equipment installed in police, fire, and ambulance vehicles
- Also, unlike cell phones used for business or personal calls, the actual frequency of use of mobile ham radio equipment is quite limited and, while it varies from operator to operator, is normally quite short and of an informal



### Typical mobile amateur radio

*Designed to be mounted under the dash or in a glove box, the unit is most often used on fixed channel with volume and other controls pre-set. The microphone is usually installed so as to be accessed without looking for it.*