

## *RadioSport*

### Geo-hamming

What do treasure hunting and Amateur Radio have in common? Geocaching of course. This techno-adventure sport encourages geeks to open the door and explore the outdoors with all their gadgets and it is fast becoming popular in the Amateur Radio world as well. Indeed, the first geocache in Canada was placed by VE1AM in East River, NS. A quick Google search turns up an article on the ARRL website; "Geocaching: A GPS Receiver is a Radio Too!" (<http://www.arrl.org/news/features/2002/11/12/1/>).

The commercial Global Positioning System (GPS) is a network of 27 satellites (24 active, 3 reserve). The satellites transmit two low power radio signals, designated L1 and L2. The Civilian GPS uses the L1 frequency of 1575.42 MHz in the UHF band.

The signal contains: a code to identify the satellite, a code with the time from an Atomic clock, and Almanac data showing the orbital information for the transmitting satellite and for every other satellite in the system. 'Triangulation' of multiple satellites gives the location of the GPS receiver (GPSr).

With GPSr technology in their hands, Geocachers (cachers) hide camouflaged containers of trinkets (okay junk). They share the locations (longitude/latitude) of these caches on the web – [www.geocaching.com](http://www.geocaching.com). Other cachers then download the co-ordinates into their GPSr's, pile copious quantities of gadgets into their backpack, and go in search of the cache. The cache hunt can be by car, on foot, by kayak or by helicopter. Who loves junk, gadgets, adventure and a tall tale more than a Ham? This game is played in over 220 countries of the world.

Geocaches can be hidden throughout urban environments or on remote hilltops and densely forested locales.

The lightweight, portable, 2-meter handheld has become the tool of choice for geocaching communications in areas where there is no cell coverage. A three-day hike to pristine Pollett's Cove in Cape Breton could have turned into a disaster without a Yaesu VX-6. The radio was our only way to get

emergency help when a fellow cacher became ill. Although he made it out on his own two feet, we all felt the impact of being prepared. We also used the radio to listen to weather broadcasts. A sudden weather warning of a massive thunder and lightning storm in the middle of what seemed to be a beautiful calm night was enough to convince us to double stay all tents.

Not all communications are done on VHF. Some cachers have QRP rigs such as the YAESU FT-817ND. Amateurs involved with both SOTA (Summits on the Air) and geocaching go to great lengths to haul their rigs, batteries, portable towers and antennas to the top of summits by backpack, cart, donkey or whatever, just so they can make a contact and find a cache. Why? Just because it's there.

(<http://www.summitcaching.org.uk/home.php>).

Geocachers have overlapping interests, so it should not be surprising that many are involved in Amateur Radio, Search and Rescue and various surveying and geographic disciplines. Multiple groups hiking in an area can use ARTS (Automatic Range Transponder System) to locate each other. ARTS uses a DCS (Digital Code Squelch) tone or code found on newer rigs to inform parties that another ARTS-enabled rig is within communication range.

Further information regarding geocaching and Amateur Radio can be obtained from the local group, Atlantic Canada Geocaching Association (<http://www.atlanticgeocaching.com/>). VE1NSX has developed many weblinks that are useful for Ham Radio, Geocaching, and the great outdoors in Nova Scotia. <http://www.nsexplore.ca/radio/>  
<http://www.nsexplore.ca/summits/>

So go ahead and try it. If you're up to the challenge of a workout, try the summit geocache dedicated to Amateur Radio, "Hamming it Up at High Head" GC16HG2, and as we say 'Hope to meet you on the trails and the airwaves'.

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