

## From the Gavel...



Finally, May is here, Hamex is over and it is now time to make the pilgrimage to Dayton Ohio on the 15th. For those of you who have not made the trip, here is what you're

missing.

The Dayton Hamvention is the largest amateur radio flea market in the world. Every year approximately 20,000 hams converge on the city for a 3 day event. It is held at the Hara Arena and Convention Center, a facility capable of hosting 2500 vendor spaces. The commercial vendor area spans the indoor hockey arena and three large convention areas. The entire parking lot is dedicated to tailgaters.

Chartered buses shuttle people from various nearby mall parking and campgrounds to the arena throughout the day. Local parking is available, but located well outside the property limits. Hotels are completely booked up for a 30 mile radius. The Hamvention is big enough to make the local radio and TV news.

The event attracts all sorts of radio fanatics. This alone is worth the price of admission. I have seen Hams walk around with HF radios strapped to their chest, battery pack and antenna included. Some have worn custom hard hats with VHF beams attached. It is not uncommon for vans and cars known as "porcupines" to be littered with antennas covering the complete RF spectrum from DC to green light. The other unusual fact that you will be surprised to learn is that the average American ham is over 60, bald, single, weighs at least 350 pounds, wears an oxygen mask and drives a motorized wheelchair.

But that isn't the only attraction. You can attend various forums covering all aspects of amateur radio - contesting, dx-peditions, packet radio and APRS just to name a few. All the major radio manufacturers are in attendance with sales and engineering staff to showcase their complete product line. Prototypes of upcoming radios are often introduced to the public for the first time at Dayton.

Then there are the door prizes! Minor prizes are drawn hourly for the entire event. Unclaimed prizes are re-drawn on Sunday afternoon in the arena until claimed by someone in attendance. The 12 major prizes are given away immediately after. They range from complete D-Star repeater systems, high end HF radios, towers etc. All major prizes are worth well in excess of \$1000 each.

I have been making the trip to Dayton annually since I first obtained my license back in 1976 and only missed it once. This is quite an accomplishment when you consider the fact that my wedding anniversary occurs at the same time. Making it down on my 25th anniversary wasn't so easy though.

In recent years, I have been renting a KOA cabin which houses up to 6 people. The entire campground is filled with Hams, so I have lots of company. Over the years I have been sharing the cabin with various club members and will be again this year. I still have space if anyone is interested! So, don't miss out! Be there, or be square!

73 .... Rick Brown VE3IMG

### This Month

2. Commentary
3. Club Calendar
4. Letters to the editor
4. Where Am I
7. RAC ARES and NTS FAQ
10. RAC Application Form

### Sunday Brunch

Sunday brunches are held on the first Sunday of each month. Time is 9:30AM at Shopsy's, 6986 Financial Drive Unit 5 Mississauga (at the corner of Mississauga Rd and Derry Rd). All are welcome to come out and have an opportunity to chat in an informal setting.

### Club Nets

**2 Metre Tuesday Night Phone Net** Join in on the chatter starting at 8:30PM every Tuesday on the club repeater. Hosted by various net controllers. 145.430MHz Tone 103.5 Minus (-) offset. Contact our VHF Net Manager, **Lorne (VE3CXT)**, if interested in becoming a net controller.

**75 Metre Sunday Night Net** Starts at 8:30PM every Sunday. Hosted by various net controllers. Contact our HF Net Manager, **Michael (VE3TKI)**, if interested in becoming a net controller.

## Commentary



Will you be ready when you get that call? Surprised? Well, I am neither talking about the Super-7 / Lotto 649 nor anything of a religious nature. As hams we have two roles, one as a communications hobbyist and another in the service of the community in the form of Amateur Radio Emergency Service, ARES.

We practice ARES skills on the 2 meter and 80 meter nets every week, we have annual exercises and attend ARES presentations at club meetings. All this is good but my question remains – will you be ready when you get that call to help the community? Talking to Dan VE3NI and others in the club I discovered that they either already had or were putting together a “Grab-N-Go Kit”. This is essential for any ham involved in emergency communications.

I have made a start by putting my entire shack in a box. A rather small tool box I picked up at Canadian Tire for \$20 now houses my IC-7000 all band all mode radio, Alinco DMV330 power supply, LDG tuner and Signalink Sound Card interface. I can power this from a battery if needed. The laptop and portable antenna are the only radio equipment outside this box. If you like doing jigsaw puzzles, you will like putting together all these into a small box. It took a few trial and errors but it all worked out well in the end. I found that I can pick up this box and set up shop anywhere required in less than 15 minutes. Of course I need some sort of power source – 110 VAC or 12 VDC.

Of course this is not the complete Go-Kit. A whole lot of other things are also involved including proper training. For that I look forward to Dan VE3NI.

If you have put together a Go-Kit why not share your experience with others in the club? A short write-up and pictures will be very welcome.

Thomas VA3TMB

### Executive Directors

President	Rick Brown, VE3IMG
1st Vice President	Asim Zaidi, VE3XAP
2nd Vice President	William Bressette, VE3WPJ
Treasurer	John (Sr) Lorenc, VA3XJL
Secretary	Dan Goodier, VE3NI
Past President	Dave Harford, VA3DFH

### Club Managers

Membership Manager	Dave Harford, VA3DFH
Education Manager	Earle Laycock, VE3XEL
Basic Theory Courses	Earle Laycock, VE3XEL
Basic Theory Courses	Bob Hawkins, VE3AGC
Basic Theory Courses	Jody Levine, VE3ION
Basic Theory Courses	Don McPhee, VA3BOW
Basic Theory Courses	Basil Burgess, VE3JEB
Basic Theory Courses	Robert Dutton, VE3ZZF
CW Courses	Frank Lamb, VE3HTX
CW Courses	Earle Laycock, VE3XEL
House / Visitor Host Manager	Robert Humphreys, VE3HOW
Newsletter Editor	Thomas Bernard, VA3TMB
Researcher	Kim Cheong, VE3KTC
Net Managers HF Net	Michael Brickell, VE3TKI
VHF Net	Lorne Jackson, VE3CXT
Repeater Manager	Michael Brickell, VE3TKI
Assistant	Bryan Jay, VA3BLJ
Assistant	Bob Boyer, VE3XBB
Assistant	Lorne Jackson, VE3CXT
Assistant	John Duffy, VE3DRZ
Assistant	Asim Zaidi, VE3XAP
Assistant	Tony Champion, VA3QC
Assistant	Robin Stubbs, VE3VVS
Assistant	William Bressette, VE3WPJ
Club Station Manager	Stefan Bejusca, VA3OBR
Assistant	Rick Brown, VE3IMG
Assistant	Asim Zaidi, VE3XAP
Assistant	Alex Malikov, VE3MA
Assistant	Bryan Jay, VA3BLJ
Field Day Manager	Open
Assistant – Documentation	Tony Champion, VA3QC
Assistant – Logging	Jody Levine, VE3ION
Assistant – Refreshments	John Duffy, VE3DRZ
Assistant – Site	Thomas Godden, VE3TWG
Assistant - Press and Publications	Reg Vertolli, VA3QA
FSV Manager	Dave Stubbs, VA3BHF
Assistant	William Bressette, VE3WPJ
Programs Manager	Lorne Jackson, VE3CXT
Webmaster Manager (Source Code and DB)	Dave Harford, VA3DFH
Assistant	Dan Goodier, VE3NI
Assistant	Rick Brown, VE3IMG
Graphical Support	Alex Malikov, VE3MA
Legal Consultant	Lorne Jackson, VE3CXT
Public Information & Media Relations Manager	Tony Champion, VA3QC
Photography	Reg Vertolli, VA3QA

### Audit Committee

Auditors Coordinator	Basil Burgess, VE3JEB
Assistant	Robert Humphreys, VE3HOW

### Public Service

ARES Emergency Coordinator	Dan Goodier, VE3NI
Past Coordinator & AEC	Sean Conlin, VA3MED
Assistant EC - 1st Day	Michael Brickell, VE3TKI
Assistant EC - 2nd Day	John Duffy, VE3DRZ
Assistant EC - 3rd Day	Bob Boyer, VE3XBB
Assistant EC - 1st Night	Sean Conlin, VA3MED
Assistant EC - 2nd Night	Dave Harford, VA3DFH
Assistant EC - 3rd Night	Lorne Jackson, VE3CXT
CANWARN Manager	Peter Mosher, VA3PKM
Special Events / Walks Manager	Bob Boyer, VE3XBB

## CLUB CALENDAR FOR 2008

### May, 2008

01 Thu Exec Meeting  
03 Sat Toronto Area CANWARN Training  
03 Sat ARI International DX Contest  
04 Sun Sunday Brunch - Shopsy's  
04 Sun HF - 75/80 Meter Net  
06 Tue VHF/UHF - 2 Meter Net  
08 Thu Club Meeting  
11 Sun HF - 75/80 Meter Net  
13 Tue VHF/UHF - 2 Meter Net  
15 Thu Radio Night at Club Station  
18 Sun HF - 75/80 Meter Net  
20 Tue VHF/UHF - 2 Meter Net  
22 Thu Club Meeting  
23 Fri CQ WW WPX Contest  
25 Sun HF - 75/80 Meter Net  
27 Tue VHF/UHF - 2 Meter Net  
29 Thu ARES Meeting

### June, 2008

01 Sun Sunday Brunch - Shopsy's  
01 Sun HF - 75/80 Meter Net  
03 Tue VHF/UHF - 2 Meter Net  
05 Thu Exec Meeting  
08 Sun HF - 75/80 Meter Net  
10 Tue VHF/UHF - 2 Meter Net  
12 Thu Club Meeting  
15 Sun HF - 75/80 Meter Net  
17 Tue VHF/UHF - 2 Meter Net  
19 Thu Radio Night at Club Station  
22 Sun HF - 75/80 Meter Net  
24 Tue VHF/UHF - 2 Meter Net  
26 Thu Club Meeting - Pot Luck Dinner  
28 Sat ARRL Field Day Contest  
29 Sun HF - 75/80 Meter Net

30 Mon RAC Canada Day Contest

Provisional Schedule below...

### July, 2008

06 Sun HF - 75/80 Meter Net  
12 Sat IARU HF World Championship  
13 Sun HF - 75/80 Meter Net  
20 Sun HF - 75/80 Meter Net  
27 Sun HF - 75/80 Meter Net

### August, 2008

03 Sun HF - 75/80 Meter Net  
10 Sun HF - 75/80 Meter Net  
17 Sun HF - 75/80 Meter Net  
24 Sun HF - 75/80 Meter Net  
31 Sun HF - 75/80 Meter Net

### September, 2008

07 Sun HF - 75/80 Meter Net  
14 Sun HF - 75/80 Meter Net  
21 Sun HF - 75/80 Meter Net  
28 Sun HF - 75/80 Meter Net

### October, 2008

05 Sun HF - 75/80 Meter Net  
12 Sun HF - 75/80 Meter Net  
19 Sun HF - 75/80 Meter Net  
26 Sun HF - 75/80 Meter Net

### NOTES

1. Meetings start 7:30PM at St. Thomas A Becket Church Hall, 3535 South Common Court unless otherwise noted.
2. Brunch is at 9:30AM unless otherwise noted.
3. Classes are from 7:00PM - 9:00PM at Meals On Wheels at 2445 Dunwin Drive

Visit our website: <http://www.marc.on.ca> for any updates of the calendar.

## Letters to the editor

### Missing Q signals

There are some Q and other signals missing from the April 2008 newsletter list:

QLF = try sending with your left foot

QQQ = wipe bird guano off your antenna

Also, there are some other cw abbreviations that are as universal as Q signals:

LID = if you could copy cw, you'd know what this means

UP (sent by DX station) = listening on my own frequency

UP (sent by another station on DX station's frequency) = you're zero-beat the DX station

EU only = W4s call now 599

TU = universal expression of peace, love and understanding and

HI = if you believe these, I have a great antenna to sell you...

George VE3YV / K8HI

## Where Am I

### Everything You've Always Wanted to Know About Coordinates and Grid Squares But Were Afraid to Ask.

<http://www.arrl.org/tis/info/HTML/grid-squares/grid.html>

As more hams explore the worlds of VHF, UHF, microwave and satellite operating, we receive an increasing number of questions about grid squares in particular and geographical coordinates in general. Mike Gruber, WAISVF, ARRL Laboratory Engineer, walks you through this maze and helps you discover where you are - geographically, if not metaphysically! -WB8IMY

**Q:** I'm interested in trying my luck in an upcoming ARRL VHF/UHF or 10-GHz contest because I'm gunning for my VHF/ UHF Century Club award. They say that grid squares are usually exchanged during these contests, but I'm not sure what a grid square is. How do I determine my own grid square?

**A:** Before we get into grid squares, let's take a quick look at one of the more common methods used to define locations. If you have a globe handy, get it now. If not, just about any map will do.

As you look at your globe or map, notice the lines that run north to south as well as east to west. These lines divide our entire planet into a system of coordinates. Any point on the globe can be defined by the intersection of two ordinate lines.

**Q:** I seem to recall this from my fifth-grade geography class. My apologies to Mr. Conlin, an excellent teacher, but it really has been a few years for me. Can you refresh my memory?

**A:** Certainly - but first take a look at Figure 1. The latitude lines, sometimes called parallels, are the ones that run

parallel to the Equator. They are defined by their position north or south of the Equator in degrees. The Equator is defined as 0° latitude and each pole is at 90° latitude. The north pole is +90° and the south pole is -90°.

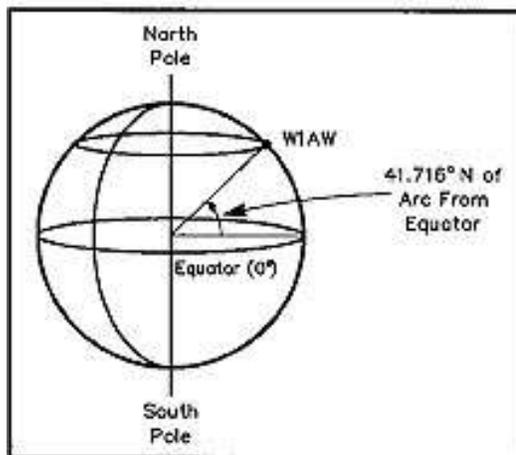
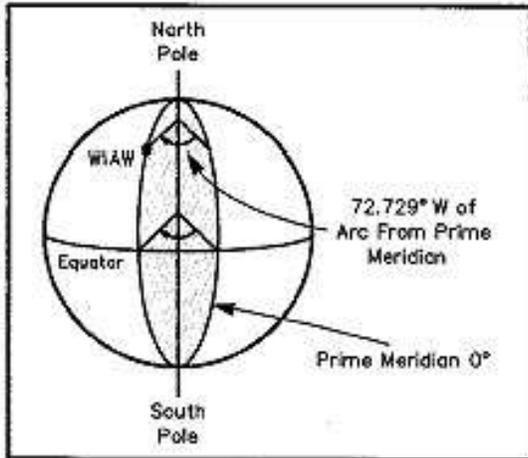


Figure 1—Latitude lines circle the Earth at positions north and south of the Equator. The latitude of station W1AW is 41° 42' 57" N (or 41.716° N).

Longitude lines, sometimes called meridians, are shown in Figure 2. Notice that they run from pole to pole perpendicular to the latitude lines. They are similarly expressed in degrees relative to the famous reference prime meridian (0°) running through the Royal Observatory in Greenwich,

England. (The prime meridian was established in 1884 by the International Meridian Conference held in Washington, DC.) Longitude lines are positioned in degrees east and west of the prime meridian to the 180° point on the opposite side of the globe. This is the approximate location of the International Dateline. Notice that while longitude runs from 0 to 180° east or west, latitude lines run only from 0 to 90° north or south.



**Figure 2—Longitude lines run north and south from pole to pole. Zero degrees longitude is known as the *prime meridian*. The longitude of W1AW is 72° 43' 43" W (or 72.729° W).**

Two systems are commonly used to express a part, or fraction, of a degree. Take care not to confuse them. The easiest system to understand is the decimal method in which each degree is divided into tenths, hundredths, thousandths, and so on. It's similar to the way a dollar bill is divided into tenths (dimes) and hundredths (pennies). The decimal system is easy to calculate with a standard electronic calculator. The second method divides the degree into minutes and seconds of arc. Each minute is one-sixtieth of a degree and a second is one-sixtieth of a minute (or one-three thousand six hundredths of a degree!). One not-so-obvious advantage of this more traditional system is compatibility with the nautical mile. Each nautical mile is equal to one minute of latitude, or approximately 6076.1 feet. One knot, by the way, a unit commonly used to express wind speeds, is equal to one nautical mile per hour. (Be sure not to express speed, or velocity, in "knots per hour." I've even heard my local TV weatherman commit this faux pas!) Coordinates by the way, are very handy to know. They can be used to determine Great Circle headings and distances for beam orientation, and may also be required for many types of ham radio software, including satellite tracking and propagation prediction programs.

**Q:** Great Circle headings? Great Scott! Now what are you talking about? Mr. Conlin never told me about those.

**A:** A Great Circle path is the shortest distance between two points on the globe. Because of the spherical shape of our Earth, Great Circle headings and distances cannot be readily determined by ordinary flat maps. Several peculiar and surprising phenomena are associated with Great Circle headings. For example, the Great Circle heading from your location to some other arbitrary location is probably not 180° different from the return heading to you from that location! The best way to fully appreciate Great Circle paths is with a globe and a piece of string. Notice that if you stretch the string between two distant points on the 45th parallel, the string does not simply follow the path of the latitude line. Instead, the center of the string deviates northward. The string is following the Great Circle path. Experiment a bit with other points. Notice that the heading from true north of one point is not always 180° from the return path at the other point.

Equations for Great Circle headings can be found in Chapter 4 of the fourth edition of the ARRL Operating Manual, along with a list of coordinates for many cities around the world. Other related computer pro-grams are also available; I'll be sure to include sources for them before we finish.

**Q:** Okay. I'm with you so far. But now that we've covered coordinates, how can I determine the coordinates for my specific location? My backyard doesn't have all those black lines painted on it!

**A:** Well, presently there are three common methods available to you. Let's cover them one-by-one.

**Maps and Charts:** Although there are numerous maps and charts that amateurs can use to determine coordinates, the most useful are the US Geological Survey (USGS) topographical maps, or topos as they are often called. The USGS produced the first such map in 1879. Today they've become a standard for both accuracy and content. Their most striking feature is the presence of contour lines that define elevation above sea level.

The best USGS topographical maps for determining coordinates cover 7 1/2 minutes latitude by 7 1/2 minutes longitude in areas called quadrangles. Each quadrangle is usually defined by a reference code and a prominent feature located within its area. These maps have a typical scale of 1:24,000 (1 inch = 24,000 inches = 2,000 feet), but some quadrangles, especially in some northeastern states, also have 1:25,000 maps that are more compatible with metric units (1 cm = 0.25 km) These maps will often show individual buildings and homes, making them excellent

tools to pinpoint the coordinates of your particular residence. Contour lines are shown for 10-foot variations in elevation above sea level.

Topos usually display two different coordinate systems. The first is the one we just discussed. The second is called the universal transverse mercator (UTM) grid system. Its big advantage is that all horizontal and vertical lines form perfect squares one kilometer on each side. (Recall that in the system we discussed, one degree of longitude constitutes a greater distance on the Earth's surface at the Equator than it does as we approach the poles.) It is important not to confuse the two systems when trying to determine your coordinates. Topo maps are excellent sources for information on local terrain, roads and trails, bodies of water and other land features.

The angle of magnetic declination, or difference between true north and magnetic north, as well as the map's grid north, is also given for each map. (Map grid north and true north do not always precisely agree because the map is really a projection of a curved surface onto a flat surface!) The angle of magnetic declination also changes with time. This is usually of little importance to hams, but it can be a problem if you need a precise angle and you're working from a very old map. For example, the declination here in Newington is currently about 14" but it increases at a rate of approximately 3 minutes per year. (The rate at which the declination changes is indicated on nautical charts.)

To order a topographical map, you need to know the reference code, map name and state. You'll find this information in the map index for your area. You can obtain further information on topo maps, such as pamphlets on map symbols, as well as a map index, by calling the Earth Science Information Center in Reston, Virginia, tel: 800-USA-MAPS (8 AM to 4 PM Eastern Time).

You can also obtain a map index, or order maps from:

USGS Map Distribution  
Building 8 10  
Box 25286 I Denver Federal Center  
Denver, Colorado 80225  
tel: 303-236-7476

The cost is \$2.50 per map. Add \$1 for post-age and handling for orders of less than \$10. Topographical maps are also available from many local outdoor, sporting goods shops, camping supply dealers and book-stores. Other maps, including aviation charts and road maps, can also be used in some cases, but usually with reduced precision. Nautical charts are very useful if you are near a coastal environment.

Loran-C: The current version of long range navigation (loran) is loran-C. It works by comparing the synchronized signals from loran ground stations operating at 100 kHz. Accuracy is good to within about 100 meters. Loran-C can be affected by skywave interference and other local conditions. The portability of a loran receiver is limited by its antenna. Loran is nonetheless very popular with boaters and loran receivers can be purchased at marine supply dealers. You'll find used loran gear selling at bargain prices as GPS systems become more popular (see below).

Global Positioning System (GPS): The satellite-based GPS system was originally conceived for military use. As such, it is a relatively recent innovation for civilian purposes.

The GPS operational system consists of 24 NavStar satellites. NavStars transmit on 1575 MHz, in an internationally assigned navigation band. Other intersystem UHF and microwave links are also required. At the heart of each satellite is an atomic clock accurate to within one second in 300,000 years!

A GPS receiver determines your coordinates by comparing the reported time and location from each received satellite. You must receive signals from three satellites to determine your latitude and longitude. If you can pick up four satellites or more, your approximate elevation can be determined as well (something that Loran-C cannot provide).

To determine the status of the GPS system, you can contact the GPS Information Center (GPSIC) operated by the US Coast Guard in Alexandria, Virginia. You can listen to a taped GPS status announcement (updated daily) by calling 703-313-5900. Similar announcements can be heard on WWV at 14 and 15 minutes after every hour and on WWVH at 43 and 44 minutes after the hour.

Of particular interest to hams are portable hand-held GPS receivers. While prices vary, some are now selling for as little as \$100. They're similar in appearance to common calculators and can fit in a shirt pocket. The antenna is self contained. (See the review of the Trimble Navigation Scout GPS receiver in last month's QST).

**Q:** Great! But you still haven't told me about grid squares. How can I determine my grid square once I know my coordinates?

**A:** The Maidenhead Locator System was named after the village outside London where it was first conceived by a meeting of European VHF managers in 1980. Each grid square measures 1° latitude by 2° longitude and measures approximately 70 x 100 miles in the continental US. A grid square is indicated by two letters (the field) and two

numbers (the square). Each subsquare is designated by the addition of two letters after the grid square. These more precise locators are used as part of the exchange in the 10-GHz contest. They measure 2.5 minutes latitude by 5 minutes longitude, roughly corresponding to 3 x 4 miles in the continental US.

The simplest way to determine a grid square is with a grid square map. If you're only interested in a grid square (not the subsquare), and are located some distance from the boundaries of the square, it is usually not necessary to determine the precise coordinates involved. A grid-square map and an atlas are available from the ARRL. (See the publications catalog elsewhere in this issue.)

If you know your precise coordinates, you can also determine your grid square manually. See Tables 1 and 2 for instructions. Another method of determining your grid square is to simply plug your coordinates into a computer program. This approach is certainly faster and easier. Depending on the software, it may also calculate Great Circle headings to target stations at the same time. This can be of considerable help during a contest. Several such programs are available via Internet.

GRID.COM-For IBM PCs and compatibles.

GRIDLOC.BAS-Calculates Maidenhead grid square from coordinates.

GRIDX.BAS-Calculates grid squares and Great Circle path headings.

These programs can be found on Grid Locators and Grid Squares.

Some GPS receivers, such as the Trimble Navigation Scout, will indicate your grid square automatically. This is particularly handy for roving VHF/UHF contesters.

**Q:** One final question: I don't live near a local marine supply dealer. I would sure like to look at all the GPS, Ioran-C and navigation tools available to boaters. Are there any mail-order marine suppliers?

**A:** Yes, there are several. One of the big ones with a detailed catalog is: E&B Discount Marine 201 Meadow Road

PO Box 3138  
Edison, NJ 08818-3138  
tel: 800-533-5007

Note: Products and manufacturers are listed in this column for informational purposes only. No warranty or endorsement is expressed or implied.

*Editor's note: If you want to find your grid square go to <http://f6fvy.free.fr/qthLocator/fullScreen.php> zoom into your location on the map and click.*

## FREQUENTLY ASKED QUESTIONS ABOUT RAC ARES AND NTS

<http://www.rac.ca/fieldorg/faqares.htm>

**Q:** I would like to form an ARES emergency radio group. What do I need to get started?

**A:** Contact the Section Manager for your RAC Section information. You could start the ball rolling by completing the Proposed New ARES Unit form and sending it to the SM. The SMs are shown in The Canadian Amateur Magazine listing, and elsewhere on this web site. Once he/she is satisfied that you have the ability to properly recruit, organize and manage the group, he/she, or the Section Emergency Coordinator, will appoint you as an Emergency Coordinator (EC). You will then have access to the ARES training and reference material to get the job done right.

**Q:** Must all the radio amateurs in my emergency radio group be members of RAC?

**A:** We encourage all to join RAC so they can benefit from the monthly Public Service and Section News columns, as well as the other TCA features. However there is no

requirement that they be RAC members and TCA is now available for subscription without membership, although the cost is the same. ARES ECs are leadership appointees in the RAC Field Organization and it is reasonable that they must be RAC members.

**Q:** What training and reference material will ARES provide?

**A:** When you are appointed you will be directed to three major publications for download:

a) The RAC ARES Instructor's Training Manual can be downloaded from this web site whenever you are ready for it. It is available in Adobe acrobat (pdf) format and may be read and printed with Adobe Acrobat Reader

b) The RAC Emergency Coordinator's Manual is a comprehensive reference guide covering all aspects of setting up and managing an emergency communications group. If you are already set up, it makes a good checklist.

c) The ARRL Public Service Communications Manual is another reference manual covering ARES and NTS.

**Q:** What does ARES expect of an ARES Emergency Coordinator?

**A:** You are expected to properly recruit, organize and manage your group. The only other requirement is to submit a brief monthly report on a form which is provided when you are appointed. The information you provide on your progress in getting your group going, the courses you run, the meetings you conduct and the exercises and public service events you help on, is used to prepare the monthly Section News in TCA. That's it. ARES is here to help you, not to burden you.

**Q:** Do I need to wait until my organization is complete, before I ask for an EC appointment?

**A:** No, that is doing things backwards. Contact your RAC Section Manager, (addresses and numbers on this web site) when you are ready to start so that you can take advantage of the ARES publications and other resources while you are getting underway. Or ask your amateur radio club to "sponsor" your ARES group. That has two benefits - it assures some backing for you, and you will have a ready source of volunteer help.

**Q:** We already have an amateur radio emergency group. What advantage would we gain from joining ARES?

**A:** Your group doesn't "join ARES". The group leader is appointed as an Emergency Coordinator (EC) in the ARES organization by the RAC Section Manager or SEC. This appointment does not directly affect the others in the group. It does provide the EC with reference material and assistance on how to set up and manage the group. You can also download the RAC ARES Instructor's Manual, which will help you to do your ongoing training.

**Q:** What resources can ARES provide that our non-ARES emergency radio group doesn't already have?

**A:** Most amateur radio emergency groups are organized around the use of VHF FM mobile and battery-powered handheld radios for maximum flexibility in providing local communications. Some even have portable repeaters. What ARES adds, is the National Traffic System (NTS) resources to get your traffic out of the local area. Also, if the emergency becomes one of longer duration, you will be able to draw support from neighbouring ARES groups which have similar training and procedures.

**Q:** Why do we need NTS? Can't we feed our emergency-related traffic over any amateur radio net?

**A:** Yes you can. But the NTS net structure ensures a high level of quality and reliability in message handling. NTS operators are very experienced and proficient as they get daily practice in the formal handling of message traffic. This includes simulated emergency traffic. Furthermore, the NTS is active across Canada and the USA. You can expect your traffic to get through to the destination across the province or across the continent. You can also expect answers back by the same route and with the same reliability. You don't have that assurance when you simply feed your traffic to any well-meaning radio amateur. Even if your immediate contact is proficient, there are plenty of opportunities for Murphy's Law to strike. With NTS you can expect high skill and dedication from the NTS operator, at each step along the way to destination and back.

**Q:** Who do I contact within the NTS structure to take our outgoing traffic in our next exercise?

**A:** Setting you up for outgoing traffic is part of the appointment process. Those procedures are established up front, before they are needed. That way, you will not have to improvise when disaster strikes. If you are already set up as an ARES EC, don't forget to advise your Section Manager of your up-coming exercises. During your exercises, generate some simulated emergency messages through your own local ARES group operators and request a reply to each message, so that the ARES and NTS systems gets "exercised" end-to-end.

**Q:** Will RAC ARES take over if we have a real emergency?

**A:** No. You will be expected to carry on your responsibilities as Emergency Coordinator. However, if you need assistance, the RAC Field Organization is there to draw on. You decide what help you need. If you have Assistant ECs, make sure that they have the names and numbers of RAC ARES people to call upon, in the event you should be unable to fulfill your duties due to injury or illness.

**Q:** My local municipality insists that their military-style message forms be used for their message traffic. The ARES message form is the Radiogram. What can I do?

**A:** Many Canadian ARES groups use the local message form for all local traffic. When they are sending a message outside the local area they use the Radiogram form. There are perhaps dozens of variations on the military-style message form. It is probable that the addressee is using a different message form variant from the sender. The radiogram is a neutral document which contains all the same information - just a different layout. However it does support the standard message sequence that is used throughout North America by the National Traffic System.

**Q:** I've heard that I must have Basic, Advanced and 5 WPM to become an ARES Emergency Coordinator.

**A:** You must have an amateur radio certificate with Basic qualification for your EC appointment. If your group confines itself to VHF that is all you will need. Of course, RAC expects that you will always operate within your certificate qualifications, so if you are using HF equipment, then you must have the additional qualifications. One of the major benefits of ARES affiliation is that the National Traffic System operators will take your traffic out of your local area, relieving you of the complication of elaborate and expensive HF equipment and antenna systems, and the obligation of having to recruit only radio amateurs with HF qualifications.

**Q:** I am interested in volunteering as an amateur radio operator with my local emergency radio group. Who should I contact?

**A:** Your local Emergency Coordinator is probably looking for volunteers. Check the listings on this web site for the telephone number of your local EC. Or contact your Section Manager. If there isn't a local group, and you think you have the "right stuff" to set up and manage a group, consider talking to your Section Manager about setting one up.

**Q:** In addition to my amateur radio certificate, I also have a Radiotelephone Restricted Certificate. Is that useful?

**A:** Make sure that your Emergency Coordinator knows that you have that credential. It doesn't help in amateur radio operation, but you might serve as a backup operator on non-amateur frequencies to support the other radio systems, if they are short of staff in a real emergency. Whether your services might be used depends on what equipment they are using, and if an extra operator is ever needed.

**Q:** I don't have any emergency radio equipment. Can I still volunteer?

**A:** Contact your local Emergency Coordinator. There are a number of jobs to do, including operating amateur radio sets that are already in place at your Emergency Operations Centre.

**Q:** I am still studying for my amateur radio certificate with Basic Qualification . Can I help?

**A:** Contact your Emergency Coordinator. There are many support jobs. Also you may have the opportunity to operate under the supervision of a properly qualified radio amateur. This is a fine chance for operating practice.

**Q:** How can my ARES group and/or amateur radio club gain protection from liability while we are doing emergency exercises or supporting public service events?

**A:** Your Emergency Coordinator should ascertain exactly what coverage you receive from the municipality you are working with. You may receive coverage under Worker's Compensation as though you were part time employees. Even if that is the case, it is prudent to investigate supplementing that coverage with a RAC affiliated club insurance policy. Contact RAC headquarters for an affiliation number and an information package, and then contact:

Mr Peter or John Vogelzang  
c/o The Insurance Centre, Inc  
295 Queen St  
Kingston, ON K7K 1B7  
(613) 549-3604

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 Ottawa, ON K1G 0Z5

