

THE BACK

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Club Activities

Meetings are held on the Fourth Tuesday of the month at the Georgian Yacht Club at seven-thirty. Come early and get a good seat

Two Metre Net is held each Thursday night at nine. All are welcome. We are always interested in discussion topics. Club Breakfast is nourished the second and last Saturday of the month at Rockford at nine am. Eighty Metre Net is held Sunday mornings at nine-thirty on 3783 KHz.

Message from the Editor

Hi all. I want to apologize for the failure to produce the April feedback but work and the radio course took a bit of a bite out of my spare time. I hope to be back on schedule now and plan to do a mid summer edition.

I'd like to welcome all the graduates from the course to the air waves.

73 john

Course Report

Last Saturday was exam day for the GBARC 1998 Basic Amateur Radio Course. I'm happy to announce that of 16 students in the course, 14 were able to take the exam Saturday, and 13 passed! #14 was a "near miss" and will surely pass on the 2nd try, in about a month. One student was unable to come Saturday, and will make other exam arrangements. One student had to drop the course because of family problems, and we expect him to rejoin us the next time we offer the course.

I'm also pleased to announce that two students passed their 5 wpm Morse qualification, so we can look forward to hearing them on 80m after Industry Canada processes the paperwork. Three or four others should be ready for the 5 wpm exam soon. Very special thanks go out to our volunteer instructors: Bob VE3LKD, Grant VE3GCQ, Bob VE3XOX, and Bernie VE3BQM, who did a fine job teaching the students some difficult material. Thanks also to those hams who helped out with setup and "operations" each Saturday, especially Bob VE3STS, Jim VA3CJM, John VE3TXB, and John VA3JRF.

Please join me in congratulating the 13 new radio amateurs in the Owen Sound area, and please make them welcome when they appear on the air in a few weeks.

Brad VE3RHJ

The official newsletter of the Georgian Bay Amateur Radio Club

Is this how the world sees us

---as seen on TV

The Outer Limits

"Feasability Study." A bunch of people, and the gated neighborhood they live in, are teleported to a distant planet. Aliens are studying them to see if humans will make a good slave species. Some of the residents take a neighbor's portable generator by force, intending to break into the home of a ham operator (who was fortunately not at home at the time of the mass kidnapping) and try out some of his equipment.

Now, when was the last time a ham was welcome in a gated community? The CC&R's restrict everything, especially antennas. Do you really THINK he'd publicize to his neighbors that he was a ham? And finally, do you think these regular dweebs would know how to operate his equipment? For what it's worth, they didn't pick up any other stations. Apparently the aliens weren't big on DX.

Twilight Zone

"Three Leather Jackets." Three guys with motorcycles (who are part of an alien race's advance force about to invade Earth) rent a house in a suburb and set up all sorts of antennas. The neighbor (played by Denver Pyle) speculates that they're hams and makes rude comments about TVI.

This is interesting that hams are associated with aliens again. I wonder if there's a connection?

The Munsters

"If a Martian Answers, Hang Up." Herman becomes a ham, with a callsign of

W6XRL4. He thinks he has contacted Mars, when it was really some kids with walkie-talkies and their father. At the end of the episode, a real ET tries to call Herman back but he doesn't believe it's a Martian. I think there is definitely a pattern here about hams and aliens.

At the time this episode was written, suffixes beginning with "X" were reserved for special experimental stations. The first TV station in the western U.S. was W6XYZ, now known as KTLA Channel 5 in Los Angeles.

The Waltons

There was an episode where some folks were in the "radio hobby." They didn't call it ham or amateur radio.

No alien connection here. The Waltons took place in that era between Orson Welles' Martian broadcast and the Roswell UFO crash. The world had something bigger to occupy itself with during that time. It was called World War II.

Ham operators were QRT for the duration. No hams on the air, no aliens either!

McHale's Navy

One of McHale's men wants to talk to his baby at home in the states who is just learning to talk. The guy's wife is at the home of a ham operator. The baby says "da da!" a number of times, leading to exasperation on the part of Captain Binghamton and perplexment on the part of the Japanese listening in.

They used a fake callsign for the ham, too. Needless to say, this scenario would not have been happening for real. And, thanks to World War II, no aliens present in this episode.

Gilligan's Island

In an effort to make the other castaways think they'll soon be rescued, the Skipper has Gilligan hide under a table while the Professor contacts him using a phony radio. He refers to Gilligan as a "French Radio Operator" and the Skipper infers that the guy is in a ham shack.

Dozens of people visited Gilligan's Island over the years, but nothing close to an alien, except maybe the boxy-shaped robot.

ALF

Alf's room had a number of pieces of ham equipment and paraphernalia, but since I never watched this program much I couldn't expound. (Yeah right - I was watching the above quality programs instead.)

Aha! The Alien Life Form itself!

ARES/CANWARN Report

from Ray VE3RGL

I have visited all 4 Clubs in the area to introduce myself and find an ARES and CANWARN contact for each area. Peter Linke VE3PSR has been added as the contact for BWARC.

The use of the Motorola Service monitor has been approved by Jim Ryder at the BNPD.

Bill Reany will be arranging to take it off site when it is required.

I spent an enjoyable evening with the new Regional Emergency Planning Coordinator Al Latimer to discuss how ARES could support the Regional Plan. I explained the use and range of the repeater and handhelds, packet, and HF modes. We discussed the importance of linking the Port Elgin and Kincardine repeaters to cover all of Bruce and Kincardine Townships using one frequency. Al was very interested in CANWARN and will be attending the CANWARN training session. We determined which locations required an ARES presence and together we will be visiting each location to evaluate the equipment needs and introductions. This will lead to obtaining funding in the long term. I believe we have taken a big step in getting ARES recognized here in Bruce County and I look forward to working with the Municipal group and local Amateurs building a fully functional ARES program.

We have not had much luck in our attempts to establish a 440 connection with the VE3IJD BBS using the 440 antenna mounted on the water tower. It is not clear yet if there is a problem with the hardline. Now that we have access to the Motorola Service monitor I will be scheduling a test of the hardline to verify its condition. Jim VE3OVV has volunteered his 440 antenna to perform any future tests.

The 2 meter antenna and coax have been installed at Primeline. The antenna (J-pole) is located on the roof and mounted on west side the chimney and should provide coverage everywhere but toward the lake. The coax was routed through the skylight, across the attic,

and down to the NOS computer mounted in the Primeline office. Michael VE3SLQ will be connecting the antenna to the computer using his 2M radio and TNC on a temporary basis until a permanent 2M radio and TNC can be obtained. The computer will be link to the Primeline server via an ethernet cable. Michael has loaded Linux onto the computer and the source code for Tnos has been loaded onto another machine to be compiled and will likely be the version of NOS we go with.

I have been in contact with Barry Kirkconnell, the sesquicentennial committee member in charge of the Parade to be held on August 1st, to advise him of the support available to him through ARES. Barry had original thought that our services came at a cost which was why he had not sought us out. I assured him that not only are the services of ARES free but that it is in fact illegal for us to charge a fee or accept any recompensation. The plans for the Parade are not finalized as of yet but he will be contacting me with further details as the date approaches. I also suggested that he discuss the requirements of the other committee members at their next committee meeting to determine if ARES can be of assistance in other areas. He stated that he would do so.

The 1998 Bruce County Area CANWARN Training Session has been scheduled and confirmed. DATE: Thursday, April 9th 1998 - TIME: 7:00 pm - PLACE: BNPD Information Centre. The minutes from the CANWARN Subcommittee are to lengthy to publish here but copies are available. At the Subcommittee meeting we covered the new developments at RTCO Severe Weather desk,

CANWARN and the media, pagers, dusting off CANWARN stations, grid maps, training, the new CANWARN web page, and the new public Severe Weather page.

I have contacted the Provincial EMO Operations Centre in Toronto regarding their Amateur Radio Emergency Station. I spoke with Cathy Kerr who is the Operations Officer and an Amateur. We discussed how the POC station fits in with the EMO procedures. Our involvement with the Amateur station there would occur when normal communications channels, ie telephone, break down. Cathy is currently developing a plan/procedure for communications between the POC and ARES stations. To contact them we would use the ONTario Amateur Radio Service net (ONTARS) to establish contact and make plans from there to go off frequency if needed. I also asked about a VHF/UHF path to them via ULR. Cathy was unaware of this possibility and

will be following it up. We also discussed the need to increase ARES awareness in the Municipal EMOs and she has developed a handout just for this purpose. She has sent me copies to assist in my efforts here in Bruce County. We discussed the problem of funding ARES projects and she

recommended that I contact Dave Colvin in London and check out his Homepage. I will be following up on this. Cathy asked me to contact her any time if I have questions.

RAC and the Canadian Red Cross Society have a Memorandum of Understanding between them. To this end I have contacted our Canadian Red Cross Branch in Owen

Sound to discuss their needs and how we can support them. I spoke with Anne-Marie McLeish the Branch Manager overseeing Emergency Services regarding the Canadian Red Cross organization in the area. During our discussion it became apparent that our offer of assistance and the scope their needs justified a meeting between Anne-Marie, myself and the Emergency Services Chairperson Sue Tyrkus. I will keep you all apprised of the results of that meeting.

I now have in my hands the ARES Training manual and the ARES EC manual thanks to the assistance of Don VE3COE. I will be using this information and the assistance of Fran Sajkowski to design a first class ARES training course. Fran designs presentations professionally and when she heard about my efforts in the area she volunteered her expertise in developing presentations for the municipalities and ARES training. No date has been set for this training yet.

Since my contact information is becoming very extensive and complicated, I am developing a Contact List which I will get out to all ARES individuals so that the information will not be lost. It will be a continually evolving list and will need constant updating but will be invaluable if I have to leave the area or something happens when I'm not around. It will contain all the Municipal, EMO, and Amateur contact information.

Lastly, I recently contacted our EMO Provincial Area Representative Steve Beaty. Steve supplied me with the names and numbers of the Owen Sound and Goderich EMO coordinators. I will be contacting these

individuals to try to a) get a copy of their Emergency Plan and b) to put them in touch with the local Clubs.

Ray Lelievre VE3RGL

Emergency Coordinator Bruce County
Bruce County CANWARN Coordinator
rlelievr@primeline.net

“ BUILD IT AND THEY WILL COME.”

160 METER SEASON IS UPON US!

By RON JOHNSON/WE7H *UBET ARC*
160 Meters (also known as the "top band" and sorry YLand XYL, "the gentlemen's band"), offers exciting, unpredictable and frustrating operation characteristics. Sounds a bit like 20 meters doesn't it! One can radiate a weak signal by feeding an 80 meter dipole with a tuner, but considering the high ground losses, one is fortunate to achieve reliable 400-600 mile communications. For illustration, considering wavelength, a 160 meter antenna 35 feet high is equivalent to mounting your 10 meter beam at two feet! For more reliable, distant communication, here are three simple antennas successfully used on this low frequency band: an inverted "L", "T", or helically wound shortened vertical. Achieving a lower angle of radiation without such extreme ground losses, these antennas should offer far better, consistent signals. If one has room, an inverted vee, which has a vertical radiation component, will also offer good results. An inverted "L" is a wire antenna shaped like an upside-down L. The total length of the antenna is approximately 125 feet and one should run the vertical portion as high as possible. The remaining horizontal

portion has little radiating effect but acts much like a capacity hat. The "L" should be fed with a series L/C circuit at the base, and should be worked against a ground/radial system. Simple ground rods will not achieve the results you are seeking. Run as many radials as possible and connect them to your sprinkler system, metal fences, water pipes, and also run them along your foundation or lay them on the ground because they will be covered by snow anyway! (Just roll them up in the spring). The "T" antenna is by far the simplest antenna to utilize if you have an existing 75 meter dipole or inverted vee. (continued nextpage) (160 Meter continued) This antenna must be matched with a tuner, and the coax braid and center conductor must be shorted at your tuner. The resultant antenna is a vertical with a horizontal top hat consisting of your normal dipole section. Don't forget the ground radial system! The helically wound shortened vertical is constructed by winding a half-wave length (260 feet) of 14 ga. insulated wire, evenly spaced on a 15-30 foot long insulator such as pvc pipe, wooden hand railing or whatever one can imagine. The top of the antenna must have a pie tin or pizza pan attached for added capacitance because of the extremely high voltages present. (Unless you want to simulate a tesla coil and impress your neighbors with a torch on your roof top!) Once again, don't forget a counterpoise system if roof mounted, or ground radial system if ground mounted. With any luck, these antennas should turn-out to be resonant antennas, however, the antenna impedance must be matched to the transmitter and coaxial feedline. Refer to the "ARRL

Handbook" or the "ARRL Antenna Manual" for simple matching networks for all of these antennas. I was able to achieve 160 meter WAS (worked all States) in two seasons using 100 watts output with an inverted "L" supported by my walnut tree. So why not try one of these antennas and experience the fun of a new band with propagation conditions completely different than any hf band you have ever operated. Remember these few simple facts: Best results will be achieved with a vertical radiating component. Keep your antenna as far away from televisions as possible. Turn off fluorescent lights. (It took me a whole season to discover that my S7 noise level was caused by my overhead fluorescent light!) Get on the air, talk to others and discover what equipment and antennas the "big guns" are using. You will find courteous hams willing to talk, advise, discuss, chat and give more than a "59 Albania" report. I think you will be surprised to find out that the big signals are a result of the antennas and the radial systems used; not the type of transmitter being used or the power output. Could anything be more fun? See you on 1843 khz. 73, Ron Johnson, WE7H. P.S. The 160 meter contest season begins in December and this offers considerable activity on both cw and ssb. These contests are: ARRL 160 (cw) December 6-8, 1991 CQ 160 (cw) January 24-26, 1992 CQ 160 (ssb) February 21-23, 1992 "Utah 160 Meter Challenge" (cw & ssb) February 28, 1992 (LOOK FOR ANNOUNCEMENT OF THIS NEW CONTEST IN THE MAJOR MAGAZINES!!)

And You Thought You Had A Bad Day

I am writing in response to your request for additional information for block #3 of the accident reporting form. I put "poor planning" as the cause for my accident. Your letter said I should explain more fully, and I trust the following will be sufficient.

I am an amateur radio operator and on the day of the accident I was working alone at the top of my 80 foot tower. When I had completed my work I discovered I had, over the course of several trips to the top of the tower, brought up about 300 pounds of tools and hardware. Rather than carry the now un-needed tools and materials down by hand, I decided to lower the items down from the top of the tower in a small barrel by using a pulley which was fortunately attached to the top of the tower.

Securing the rope at ground level, I went to the top of the tower and loaded the tools and the materials into the barrel. I went back down to the ground and untied the rope, holding it tightly to insure a slow decent of the 300 pounds. You will note in block #11 of the accident reporting form that I weigh only 155 pounds.

Surprised at being jerked off the ground so suddenly, I lost my presence of mind and forgot to let go of the rope. Needless to say, I proceeded at a rather rapid rate of speed up the side of the tower. In the vicinity of the 40 foot level, I met the barrel coming down. This explains my fractured skull and broken collarbone.

Slowed only slightly, I continued my rapid ascent, not stopping until the fingers on my right hand were two knuckles deep into the pulley.

Fortunately, by this time, I had regained my presence of mind and was able to hold onto the rope inspite of the pain. At approximately the same time, however, the barrel of tools hit the ground and the bottom fell out of the barrel. Devoid of the weight, the barrel was approximately 20 pounds. I refer you again to my weight in block #11. As you can imagine, I began a rapid decent down the tower. In the vicinity of the 40 foot level, I met the barrel on its way up. This accounts for the fractured ankles and the lacerations on my legs and lower body.

The encounter slowed me enough to lessen my injuries when I fell onto the pile of tools and fortunately only 3 vertebrae were cracked. I'm sorry to report, however, that as I lay there on the tools, in pain, unable to stand, and watching the empty barrel 80 feet above me, I again lost my presence of mind. I let go of the rope.

VLF/LF/MF/HF

Low end High end Allocation

9 kHz -	14 kHz	Radio Navigation (OMEGA)
14 -	90	Various Services
90 -	110	Radiolocation (Loran C)
110 -	160	Military CW Stations
160 -	190	Fixed Service (Power Companies, GWEN)
1750 Meters		
FCC allows unlicensed transmissions under 1 watt		
190 -	415	Nautical Radionavigation Beacons
415 -	510	Maritime Coastal (CW)
(International calling and distress (CW) - 500kHz)		
510 -	535	Aeronautical Radionavigation Beacons
(AMTOR, NAVTEX)		
525 -	1605	North American AM Broadcast Band
1605 -	1800	Fixed, mobile, radiolocation

Ham Radio in Europe

Ham radio requires from its devotees, to experiment with various technical aspects, like electronics, antennas, etc.

Each country has a special designator (for example, for Greece this designator is the letters 'SV') which uniquely define the country. All hams of that country are also identified with an international callsign, which comprises of the two letters of the country, an area designator and two or three letters which are assigned to him. For example, the author of this page is SV1CEC, which means that he is a Greek radio amateur (SV), living in the greater Athens area (1) and his unique code is 'CEC'. The callsign is an absolute identification of his bearer. There are thick books, called callbooks, which show the callsigns of all radio amateurs in the world, the address where they can be reached etc.

Radio amateurs use a variety of radio frequencies for their communications and experiments. Some of these frequencies are :

High Frequency (HF)

1.830- 1.880 MHz
3.500- 3.600 MHz
7.000- 7.100 MHz
10.000-10.150 MHz
14.000-14.350 MHz
18.068-18.168 MHz
21.000-21.450 MHz
24.890-24.990 MHz
28.000-29.700 MHz

Very High Frequencies (VHF)

50.000-54.000 MHz
144.0 - 146.0 MHz

Ultra High Frequencies (UHF)

430.0 - 440.0 MHz
902.0 - 928.0 MHz
1240.0 - 1300.0 MHz

These frequencies are for Europe, while in other parts of the world they might differ slightly. If you happen to have a radio capable of receiving the HF bands, tune towards the lower part of these bands and you will probably hear the sound of Morse signals used by radio amateurs. Or, tune towards the upper parts of these bands, to hear them communicating with voice.

Hams are also in the forefront of technology. Communications are not limited to direct communications between two amateurs. Hams are also using satellites which act as repeaters and enhance the range that can be covered by a station. Radio Amateurs are also known for the help they provide to the community, in various instances of natural disaster etc. They provide an efficient and well-organized communications network, capable of handling large amount of transferred information. It is not rare for ham operators to help the state forces in earthquakes, hurricanes etc.

As it was expected, radio amateurs were among the first to use personal computers for their tasks. Today, most hams are using computers, to log the contacts they make with other hams, or to find when a satellite is going to be in their area. Several of them, have developed special programs, that allow them to form a wireless TCP/IP network , which is part of Internet and is called Amprnet. This network covers the whole globe, and allows hams to communicate to each other.

Initially, the speed used by this network was very low (don't forget that telephone models of some years ago, used to work at 1200 bauds), but today 9600 bauds is becoming common, while I've heard of connections going up to 2 Mbits.

I found this on the Internet. We really do have a lot of band space with all we have.

Handle with care and preserve

190 - 415 Nautical
 Radionavigation Beacons
 415 - 510 Maritime Coastal (CW)
 (International calling and
 distress (CW) - 500kHz)
 510 - 535 Aeronautical
 Radionavigation Beacons
 (AMTOR,NAVTEX)
 525 - 1605 North American AM
 Broadcast Band
 1605 - 1800
 Fixed,mobile,radiolocation
 1800 - 2000 Amateur 160 Meters
 1900 - 2000 Radiolocation
 2000 - 2300 Fixed,mobile,maritime
 (International calling +
 distress (USB) - 2182 kHz)
 2300 - 2495 Tropical Band
 2495 - 2850 Fixed,mobile
 2850 - 3155 Aeronautical mobile
 (USB,CW,RTTY)
 3155 - 3400 Fixed,mobile
 3200 - 3400 International
 Broadcast 90 M (excluding N. Amer.)
 3500 - 4000 Amateur 80 Meters
 3900 - 4000 International
 Broadcast 75 M
 4000 - 4063 Maritime Mobile
 4063 - 4438 MARS (?)
 (CW,voice,RTTY,TOR,SITOR)
 4438 - 4650 Various Allocations
 4650 - 4750 Aeronautical Mobile
 4750 - 5060 International
 Broadcast 60 M
 5060 - 5450 Fixed,Mobile
 5450 - 5730 Aeronautical Mobile
 5730 - 5950 Fixed,Mobile
 5950 - 6200 International
 Broadcast 49 M

6200 - 6525 Maritime Mobile
 (CW,voice,RTTY,TOR,SITOR)
 6525 - 6765 Nautical Mobile
 (VOLMET weather)
 6765 - 6795 Industrial,Scientific,
 and Medical (ISM) (CW,RTTY)
 6795 - 7000 Fixed Services
 7000 - 7300 Amateur 40 Meters
 7100 - 7300 International
 Broadcast 41 M
 7300 - 8195 Fixed service
 (Out of band broadcast -
 7300-7500 kHz)
 8195 - 8815 Maritime Mobile
 (Survival craft - 8364 kHz)
 8815 - 9040 Aeronautical
 9040 - 9500 Fixed Service
 9500 - 9900 International
 Broadcast 31 M
 9900 - 10100 Fixed Service
 10100 - 10150 Amateur 30 Meters
 10150 - 11175 Fixed Service
 (primary) Mobile (secondary)
 11175 - 11400 Aeronautical Mobile
 11400 - 11650 Fixed Services (Out
 of band broadcast - 11500-11650 kHz)
 11650 - 12050 International
 Broadcast 25 M
 12050 - 12230 Fixed Services (Also
 some out of band broadcasts)
 12230 - 13200 Maritime Mobile
 13200 - 13360 Aeronautical Mobile
 13360 - 13410 Fixed
 Service,Astronomy
 13360 - 13600 Mobile
 13600 - 13800 International
 Broadcast 22 M
 13800 - 14000 Fixed Service
 14000 - 14350 Amateur 20 Meters

14350 - 14990	Fixed Service	23200 - 23350	Off Route
14990 - 15010	Standard Frequency	Aeronautical Mobile	
and Time Operations		23350 - 24890	Fixed Service
15005 - 15010	Space Research	23350 - 24000	Mobile Services
(Secondary)		24000 - 24890	Land Mobile, Fixed
15010 - 15100	Off Route	Service	
Aeronautical Mobile		24890 - 24990	Amateur 12 Meters
15100 - 15600	International	24990 - 25010	Standard Frequency
Broadcast 19 M		and Time	
15600 - 16360	Fixed Service	25010 - 25070	Fixed Service
16360 - 17410	Maritime Mobile	25070 - 25210	Maritime Mobile
17410 - 17550	Fixed Service	25210 - 25550	Fixed, Mobile
17550 - 17900	International	25210 - 25670	Astronomy
Broadcast 16 M		25670 - 26100	International
17900 - 18030	Aeronautical Mobile	Broadcast 11 M	
18030 - 18068	Fixed Service	26100 - 26175	Maritime Mobile
18068 - 18168	Amateur 17 Meters	26174 - 28000	Fixed Service
18168 - 18780	Fixed Service	26174 - 28000	Mobile Services
18780 - 18900	Maritime Mobile	26960 - 27410	Citizens Band
18900 - 19680	Fixed Service	27500 - 28000	Meteorological
19680 - 19800	Maritime Mobile	28000 - 29700	Amateur 10 Meters
19800 - 19900	Fixed Service	29700 - 30005	Fixed, Mobile
19900 - 20010	Standard Frequency	Listing compiled February 4, 1992 by:	
and Time		Scott McCurry KD6FJC	
19900 - 19950	Space Research	204 Downing Lane	
(Secondary)		Santa Maria, CA 93455-2036	
20010 - 21000	Fixed Service	USA	
21000 - 21450	Amateur 15 Meters		
21450 - 21850	International		
Broadcast 13 M			
21850 - 21870	Fixed Service		
21870 - 21924	Aeronautical Fixed		
Service			
21924 - 22000	Aeronautical Mobile		
22000 - 22855	Maritime Mobile		
22855 - 23200	Fixed Service		
23000 - 23200	Mobile Services		
(Secondary)			