

**CQ CQ CQ DE VE3WE**

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# WAVELENGTH

Official bulletin of  
Scarborough Amateur Radio Club, Inc.  
[www.ve3we.org](http://www.ve3we.org)

PARTICIPATE – LEARN – ENJOY

65th Anniversary

June 2011

Volume 5 Issue 6

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Education: Nick Blacklock VE3EBC  
Examiner: Nick Blacklock VE3EBC

Assistant Secretary: Rod Long VE3SOY  
Archives: Gord Hogarth VE3CNA  
Audrey Little VA3YD

Elmer: Rod Long VE3SOY  
Nick Blacklock VE3EBC

Sunday

Tuesday

Thursday

## SARC Nets

28.730 Mhz  
CW 10:00 AM  
SSB 10:30 AM  
147.060 MHz (VE3RPT)  
7:30 PM  
Alternate frequency  
146.520 MHz simplex  
28.730 MHz  
SSB 7:00 PM

Everyone is invited to check in on CW before the nets start.

These are open nets. All licensed hams are welcome. Come and join us.

We also want to emphasize that 28.730 MHz is our calling frequency. Please monitor and/or call your friends. 7:00 PM is a good time.

# A word from your President

We are now into summer weather and looking forward to our field day and I would like to say thank you to all that has helped to make this possible this year.

I also wanted to say THANK YOU to the great donations that have come in this year to help our club Rick Bushnell VE3QV/GBP, Rob Murray VE3REM and all the members that have donated equipment.

I wanted to say see you later to Bob Chrysler VE3IEL and wish you a happy and fun life ahead of you at your new location and that you will be missed very much here and are always welcome here.

Thanks Ralph VE3VXY

## Field Day Rules Simplified

The 2011 field day is around the corner. This year's field day theme is "do something different". That means try a new mode, use a different antenna or get new hams on the air. I am also hoping that Mother Nature will try something different as well and give us some dry weather for a change.

Field Day 2011 will be held in Heber Down Conservation Area in Whitby -

[http://www.cloca.com/con\\_areas/CAheberdown.php](http://www.cloca.com/con_areas/CAheberdown.php)

Check [ve3we.org](http://ve3we.org) for location and driving direction. Field Day takes place on the weekend of June 25<sup>th</sup> and 26<sup>th</sup>. We have the site booked for Friday thru Sunday. So feel free to drop by on Friday afternoon. This site cannot be accessed by walk in. You must contact Ralph, VE3VXY, Nick VE3EBC or me VA3SIF if you are coming in.

As I try to describe field day rules in the following section, remember principle rule of the day, "Have a lot of fun in something you love to do, which is Radio. So here are the rules simplified:

**Bands-** You can transmit in ALL amateur bands **except** for the WARC bands (12,17,30 and 60M)

**Entry Category** – We will be an Alpha Station. Each band each mode adds a number to it, for example 1 operator doing 20M phone + 1 80M phone + 1 80M PSK31 makes it 3A. We were around 9A last field day, so, it means that there were maximum 9 hams calling or responding to CW Phone and Digital CQs at any given time.

**Callsign to be used** – Everybody participating in the Field Day must use one callsign, VE3WE, with one exception noted later. Do not use your own callsign for any QSO's

**Get-On-The-Air (GOTA)** - On top of the all stations discussed above we get to operate a GOTA station. Any single band or mode can be chosen and a different callsign (Not VE3WE) should be used. Customarily, the Scarborough Club uses VE3HR callsign and operates on 20M phone.

GOTA operation is great way to begin HF for new hams. Your non-licensed friend and family can even operate under supervision. I still cherish the moment in last field day when I made my very first phone QSO with a ham in Ohio.

**Free VHF/UHF station-** Additional to the stations listed above, this year, for the first time we can use an extra VHF/UHF/SHF station. So if you want to tryout your high gain gazillion element SHF Yagi, Bring it On.

**QSO/Exchange-** When you make a QSO make sure you exchange the following information,

- Callsign: VE3WE
- Operating Class: 9A (The actual operating class will be announced on field day)
- Section: ON or Ontario

So a typical exchange will sound like

“ CQ field Day CQ Field Day this is Victor Echo Three Whiskey Echo”

“We are 9A Oscar November and you are 59 and 73”

Everybody keeps it short because there is lot of stations to work.

**Points Calculation** – Point calculation is complicated but well defined by ARRL. Check ARRL website for detailed rules if you are really curious. Make sure you log all your QSOs as described in the previous section. Let your field day coordinator worry about the point calculation and submitting them to ARRL. The total points earned by the club will be announced in a club meeting later.

**Power Multiplier** – There are two distinctions, Above 150W or below it. Let your field day coordinator know what power you are operating with. Less than 150W counts twice as much, so it's better.

**Miscellaneous Rules-** Refer to section 6 of the detail field day rules if you are interested. I will summarize the obvious ones for you.

You cannot call yourself..Duh!

- You cannot call another club buddy of yours using VE3WE
- No calling through repeaters.
- Use VE3WE all the time. (VE3HR for GOTA)
- Do not call the same station twice. You'll annoy that station if you do anyways.

**Other Activities-** There are various ways to score some bonus points. Among these we have done WIAW bulletin, Information Desk and Satellite QSO in the past. Refer to the ARRL rules and let us know if you can do some other activity to earn us some bonus points

**Club Rules-**Please remember, you are representing your ham community and your club in this event. Hams are held in high regard when it comes to behaviour and we will be no exception in this year's field day. This will also be our first time with Heber Down. We should all try to make a good first impression. As a club policy we clean up after ourselves and leave the site exactly the way we find it.

Any question you might have, please feel free to ask your field day coordinator.

I hope this information was helpful for you. The idea here is to have fun, look at different setups and spend some quality time in the nature among your friends. Have fun. See you all there.

73 de Joy, VA3SIF mail@asif.ca

# FEMA Admin Praises Hams

By Dan Romanchik, KB6NU

At the Earthquake Communications Preparedness Forum, held on Tuesday, May 3, 2011 in Washington, DC, FEMA Administrator, Craig Fugate, had some kind words to say about ham radio. He noted that ham radio really is valuable “when all else fails.”

The Web page describing the conference <<http://www.fcc.gov/event/earthquake-communications-preparedness-forum>> has a video of all the talks given at the conference. Fugate’s remarks begin at the 18:45 mark . His remarks about amateur radio start at about 29:20.

I think it's great that the head of FEMA thinks so highly of hams. Before you get all excited about this, though, listen to all of Fugate’s comments. He has some interesting comments about all of the different ways that responders gather information and provide information to the public in an emergency. I think listening to all of the remarks will help give those of you who are involved with emergency communications more of an overall perspective, and may even help you evolve our role into something that’s more useful in the future.

At one point, for example, Fugate held up a cell phone and told the audience to think of this device as both a data point and a sensor. Folks with cell phones can help emergency responders by sending video and audio of the situation, preparing the responders for what to expect when they do arrive. I don't know how many ARES/RACES groups have incorporated video into their emcomm plans, but it sounds like it should be.

Also important, says Fugate, is a solid knowledge of communities, local geography, and place names. I'm not sure if that's normally a part of emcomm training, but it sounds like it should be.

I'll be the first to admit that I'm not an emergency communications geek, so perhaps I'm talking through my hat. It seems to me, however, that it's important to listen to what guys like Fugate are saying and work with them to make amateur radio even more relevant and useful in emergency situations.

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When he's not pondering the state of ham radio, you'll find KB6NU teaching classes; working on WA2HOM, the ham radio station at Ann Arbor's Hands-On Museum ([www.wa2hom.org](http://www.wa2hom.org)), or operating CW on the HF bands. You'll find his blog at [www.kb6nu.com](http://www.kb6nu.com), or you can e-mail him at [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).

# Long-Delayed Echoes

Hello everyone and welcome to Long-Delayed Echoes for June 2011.

This month's bit of history comes from XTAL Magazine for April 1948 and it talks about "The Scarboro Amateur Radio Club" at Scarboro Bluffs, Ontario and provides details of the 1948 Executive members. How many of these folks do you remember ?

June marks the most popular Ham Radio activity of the year and that is the annual ARRL / RAC FIELD DAY that is coming up on June 25 and 26 and will be held for the first time at Heber Down Conservation Area. To all those going out this year, do have a lot of fun, makes lots of contacts and do it all safely. There is an old saying in Ham Radio and it is SAFETY FIRST !

From all accounts, SARC went out on its very first Field Day in 1946 and has been out on every Field Day since then. This year will be the Club's 65th Field Day. Congratulations all around.

And so the Long-Delayed Echoes are heard again.

73 de Gord, VE3CNA

# CLUB ACTIVITIES

We would like to call the attention of all clubs in Canada to the "Affiliated Club Bulletin" dated February 4, 1948 which was sent to all clubs affiliated with ARRL by the Communications Manager F. E. Handy. It is an eight page mimeographed bulletin containing many interesting and informative items for clubs. If you have not received your copy, send for it.

The London Amateur Radio Club, London, Ont., held a supper meeting on Jan. 8 at which Mr. P. A. Fields, chief engineer of the CFPL broadcasting studios, was guest speaker. Mr. Fields' interesting talk on propagation on the high and low frequencies was well received and a lively discussion period followed. At the Feb. 12 meeting which was held in the recreation rooms of John Labatt Ltd., Bob Wilton of the Bach-Simpson Co. gave an address on modulation meters and indicators, and Jim MacArthur, Ve3NI, St. Thomas gave a talk and demonstration of artificial respiration and its application in the resuscitation of those overcome by electric shock. At this meeting a collection was taken and \$40 contributed toward the expenses of a Winnipeg ham who underwent a series of major operations in Ottawa.

The Chatham-Kent Amateur Radio Club, Chatham, Ont., held a very successful banquet and hamfest on Jan. 24 in the William Pitt Hotel. Over 75 amateurs were present at the banquet, held in honour of the first official visit of the Canadian General Manager of A.R.R.L., Alex Reid, Ve2BE. Mr. Reid gave an enlightening address on the history of amateur radio and spoke of the present BCI problem attendant to the mass production of AC-DC receivers. Mr. Reid's address was broadcast over Radio Station CFCO. Civic greetings were brought to the gathering by His Worship the Mayor; by the industrial commissioner, Wm. M. Gray, a former ham (3FM) and one of the pioneers in radio in the Chatham-Kent district. An interesting talk on the Department of Transport's support of amateur radio was given by Tom Wylie, 3WY, and Jim MacArthur, 3NI, gave a talk and a brief demonstration of the prone pressure method for resuscitation. Out of town guests were present from London, Windsor, St. Thomas, Leamington, Clinton and many other Western Ontario points.

The Calgary Amateur Radio Association, Calgary, Alta., are planning to organize a hamfest to be held in Calgary. They are also making great plans for entry in this summer's A.R.R.L. Field Day. Ve3RK, Col. Jones, has offered the use of the R.C.E.M.E. workshop for the use of SWL's who may wish to develop their knowledge of ham radio prior to trying their ticket. The club has decided to raffle their frequency meter and turn the proceeds over to the CAROA Food for Britain Fund.

At the meeting of the Hamilton Amateur Radio Club, Hamilton, Ont., held Feb. 19 at McMaster University, a silver collection netted \$16.75 for food parcels for Britain. In the recent A.R.R.L. VHFSS contest, eleven stations scored 443 points for the club. They were Ve3KM, 3AND, 3ABP, 3BGT, 3AQG, 3AWR, 3BFF, 3BKM, 3AEZ and Ve3DC. Their club magazine will be mailed free to any other clubs who request copies. The club's address is P.O. Box 253, Hamilton, Ont.

The Scarboro Amateur Radio Club, Scarboro Bluffs, Ont., elected their 1948 executive on Feb. 17. They are: President, Jack Turner, 3NZ; vice-president, Tom MacDougall, 3BKB; secretaries, J. W. Harvey, 3AQR, and H. Langstaffe, 3FO; treasurer, K. H. Tripp; and executive, Chuck Harvey, 3ARC; Wilf Brown, 3AJO; Al Wilson, 3AMB, and Dick Roberts and Alex Clark. Meetings are held every second Tuesday at 8 p.m. at Oakridge Public School, 3375 Danforth Ave., Toronto. Code practice classes are held each Thursday at the home of the secretary, J. W. Harvey, 1227 Gerrard St. E. Six graduates of this class have already received their licences and the reward of a mounted crystal presented by the club. They are planning theory classes, code practice groups on 28 Mc and a club newspaper.

The Loyalist City Amateur Radio Club, Saint John, N.B., held their regular monthly meeting on March 8 at the Saint John Vocational Radio School as a combined meeting with the school club. Special mention was given to Ve1BB for emergency work during a recent serious fire in Shediac, N.B. Plans for a bigger and better field day are being made in the club. As a measure to avoid delays and confusion in QSL'ing, the club has registered members' names, addresses and calls with the Post Office.

The regular monthly meeting of the Winnipeg Amateur Radio Club was held in the club-rooms, Free Press building, on Feb. 28. The vice-president, Bill Sutton, 4NI, reported that GM3UU, Stewart McNicoll, was trying to locate a Winnipeg amateur who had sent him a food parcel without enclosing his name. Anyone knowing this man please contact Ve4NI. The warm letters of thanks which the British recipients of these food parcels send do the heart good. Al Jebb, 4TJ, remarked that a number of Winnipeg amateurs were receiving reports of distortion when using NFM. He recommended that amateurs cut out their AVC and listen for FM before giving distortion reports when listening with conventional receivers. Tom Betle, 4TB, reported "quiet hours" as a result of BCI where the BCL would not permit him to rectify the situation. The amateur does not wilfully cause BCI and clubs are urged to do their utmost to help this

*QSY to page 11*



# HAM TECH

Originally published in the South Jersey Radio Association newsletter Harmonics. Thanks to SJRA editor Ted W2TAG. Visit <http://www.k2aa.org/> for more information about SJRA.

Vol 2 No 3

By: JOHN - WY2J [wy2j@arrl.net](mailto:wy2j@arrl.net)

## HF Propagation & Antennas

Part 2 of 3

This month we dig into the W6EL PROP software and learn what else it will provide, where we get the values that are required to run it and how to set up the variables. But first I am going to fix the typo and errors that crept into last month's article. The typo is in the URL in paragraph 2. The correct URL is: [www.qsl.net/w6elprop](http://www.qsl.net/w6elprop).

The errors are in paragraphs 5 and 10 and are the result of my trying to make last minute changes to the manuscript to add information, in this case S units to the signal levels in Tables 1 and 2 and change the weight of each S unit from the 5 dB used in the W6EL PROP software to the more universally used 6 dB. Believe me this kind of rushed back of the envelope math will just get you into trouble every time. In paragraph 5 change 0.05 microvolts to 0.5 microvolts and replace the text in the parenthesis with the following. (S 2.33, 40 dB below S 9 on a properly calibrated S meter). In paragraph 10 make the same change from 0.05 to 0.5 microvolts and change the S value in the parenthesis from S-6 ½ to S-8.8. Now let's move on to the real subject for this month's column.

Download a copy of W6EL PROP at the URL listed above and open it. Go to the HELP tab, click and scroll down to Contents and then to Fundamentals of Ionospheric Propagation and print it out. Read it thoroughly as it contains a good summary of how HF propagation works and the terms used. It is only 3 ½ pages and well worth your time. While in the Contents section find and print out the following files: 1. W6EL Prop Frequency Map. 2. W6EL Prop Prediction Window. 3. Frequencies and Constants. and 4. Prediction Parameters, both under Options. Item 1 and 2 describe the two main ways that you use this program and items 3 and 4 give you some of the major variables that you will change frequently. But as a starting point you have to do some initialization first.

You are going to need the latitude and longitude of your QTH for the initialization process. Great accuracy is not needed so here in South Jersey you can just enter 40 00 for latitude and 75 00 for longitude. Start up W6EL PROP and click the options tab. Enter your call sign and your latitude and longitude. This is terminal A.

Click on the Frequencies and Constants tab. This window allows you to select the HF (3 to 30 MHz) bands that you use and adjust for your transmitter power on a per band basis. 0 dB is a 100 watts, +10 dB is a kilowatt, -13 dB is 5 watts QRP level and so forth. You could also include antenna gain in dB above a free space dipole, but remember from last month's column that this is not a constant but varies with the launch angle that is determined by the ionosphere. I don't advise it. Be sure to save your selections on each screen.

Click on the Prediction Parameter tab. Enter the minimum useful elevation angle for your antenna. If you don't know it enter 5 degrees. The noise bandwidth is determined by your rig and is a function of mode. I use 2400 Hz for SSB, 300 Hz for CW and 60 Hz for PSK-31. For Signal Suppression enter - 10 dB. This prevents signals that are too low to be useful from filling up your screen. The Man Made Noise selection is a guess. Pick Residential, you can change it later. Click the Suppress Zero Availability tab and save your selections.

Click User Preferences tab. For Solar Index select solar flux. For Primary Display Signal select S/N. You can

easily change it on the user screen. It is your choice of UTC or ULT for time. I recommend UTC but you need a UTC clock. Set Map Auto Upgrade to 3 minutes and Map Resolution to High. Save your selections.

You can start to use the program after you get some up to date solar data. Enter the following ftp into your web browser and save it as a favorite as you will use it every time you start up W6EL PROP.

<ftp://ftp.sec.noaa.gov/pub/latest/www.txt> This site will give you the solar flux (SF) and the geomagnetic indices A and K. You need to enter the SF and K but not A into the prediction window. Click the Prediction tab, select On Screen and enter the Solar Flux and K values.

Your QTH should be identified as Terminal A. Select the Prefix or Locator window for Terminal B and then select Atlas. Enter W5 (Dallas, TX) and click OK. The following screen will give you some stats on the path from your QTH to Dallas. Click Show Predictions. You get a table with the MUF, S/N and Availabilities coded as A thru D for each frequency band and for every half hour in the day.

Click the Graph tab and select Signals. The data in the previous table is now plotted. You can easily see the D layer absorption on 40 and 80 meters during daylight hours. Close the graph and click Advanced.

This is the main prediction screen with the most data. Click the Group By Time tab at the bottom of the screen.

You now see all of the bands for the same time and can easily see which is most favorable for making a QSO. Remember that the closer the availability comes to 1.0 (100% probability of a band opening) with a S/N of 12 dB (2 S units above noise) or greater with your antenna having at least 0 dBd gain at the listed launch angle, the better the chance of a QSO. What the QSO is not guaranteed? No! HF prediction is statistical in nature and the values in the table are mean values. For the most part they are better 50 percent of the time and worse 50 percent.

Remember that the signal data in the prediction tables are not corrected for real world antenna gains or losses. Next month we will dig into antenna predictions and corrections to W6EL PROP. In the mean time you can have a lot of fun with this piece of free software and learn a lot. Don't forget to read the help files I identified.