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ASST. EDITOR	BARBARA ANN TAYLOR		

CLUB STATION.....VE3 NSR

CLUB REPEATER.....VE3 OSH 147.720 MHZ IN .... 147.120 MHZ OUT

2-METER NET CONVENES EVERY THURSDAY AT 19:30 LOCAL TIME ON THE CLUB REPEATER (OSH). AS PART OF THE NET CODE PRACTICE IS PROVIDED BY BERNIE (ATI) BEGINNING AT 20:30 LOCAL.

10-METER NET - A GROUP OF LOCAL HAMS MEET SUNDAYS ON 28.200 MHZ USING CW FROM 09:00 TO 10:00 LOCAL THEN SWITCH TO SSB PHONE UNTIL EXHAUSTED OR XYLS CALL DINNER.

MARCH MEETING: A GUESTIMATED 20 PERSONS FOUND THEIR WAY TO THIS MEETING. Bernie, VE3 ATI FILLED IN FOR HARRY VE3 QG AND GAVE A TALK AND DEMONSTRATION ON THE NEW VE3 OSH REPEATER CONTROLLER. BOASTS OF 80K EPROM, 8K EEPROM AND 8K OF RAM IN ITS MICROPROCESSOR. (WHATEVER HAPPENED TO THE SOLENOID RELAY?!) ANOTHER INTERESTING PRESENTATION MISSED BY MANY, MANY MEMBERS.

NEXT MEETING: APRIL 10, 1989, 8:00 p.m. IN THE GREEN ROOM OF THE ARTS RESOURCE CENTER, CENTER STREET SOUTH, OSHAWA. (BEHIND CITY HALL)

AGENDA: GREG, VE3 GJS AND NORM, VE3 ON ARRANGED FOR ED SWYNAR, VE3CUI TO GIVE A TALK ON DXING. ED IS AN AVID DXER, HIS CALL APPEARS MANY TIMES ON THE QST DX LIST AND ED USUALLY RUNS 10 METER NET EVERY SUNDAY.

PLASTIC INSULATORS  
submitted by RAY, VE3 OUB

A simple test can provide reasonable assurance that a plastic material is suitable as an insulator at radio frequencies. Some of the plastics are very lossy at RF. To perform the test, expose a piece of plastic to radiation inside a microwave oven for two to three minutes (protect the oven by including a cup of water inside as an RF load.) Remove the plastic sample. If it is warm, it is probably too lossy for use as insulation in RF work. The warmth is more apparent if you cool the sample in a freezer for a few minutes before the test.

From World Radio Magazine, March 1989.



## A RETURN TO "THE WHISTLER"

by Edwin Taylor, VE3FRM



Nope, this is not an article about a spine chilling old time radio program, but an adventure almost as exciting!!! It's been nearly a  $\frac{1}{4}$  century since I've given this subject more than lip service.

At one time Ed, VE3FRR, Bill, ex-VE3FRG, and myself were involved in some activity related to experiments conducted by the Toronto University and the Thayer School of Technology near Algonquin Park Ontario. Since then I have seen very little interest in the subject. Recently, VE3HMG, Eric, and VE3DKW, Mike, have rekindled my enthusiasm to hear once again the Whistler's eerie lament.

A Whistler is a phenomenon that dwells deep in the inky blackness of the Extremely Low Frequencies (ELF) spectrum of the radio band. (100 to 15000 cycles). It's an audio wave that has taken on the guise of an electromagnetic wave to travel the longitudinal expanses of our globe. At one time whistlers were considered to be signals from another planet light years away, perhaps a call for help from some lonesome creature in its quest for company in the darkness of space. Today, with the aid of Canada's early "Aluette" satellite series, it is believed to be merely a phenomenon of earthly nature.

Imagine if you will, a lightning discharge (controversial) somewhere out to sea off the stormy Straights of Magellan (Cape of Storms). This electrostatic discharge creates a traveling magnetic field spiraling at the very low speed of 10 000 miles per second, following the Earth's flux lines out to space then reentering the Northern Hemisphere some 8 to 10 000 miles distant. How and through what medium Whistlers travel has been pretty well figured out by the boys in Ottawa with, as I mentioned the Aluette. Just how they are generated is still discussed and argued over many a hot toddy before a burning log at the NRC's club house. Some whistlers go pop, some swish and others sound like a warbling whistle descending from 10kc through to oblivion. A strange, almost human sound.

To tell you about another ELF phenomenon called "The Dawn Chorus", let's turn back the hands of time to a warm August night in France, 1917. The Canadian 21st Battery had been moved beyond the Boves Woods close to Amiens. For several moonless nights ammunition had been trundled quietly forward in donkey packs to stock up the big guns hungrily awaiting for the offensive to begin. It was only minutes to dawn. Crouched in the open foundation of a ruined farm house, a lonely khaki clad figure pressed a field telephone to his ear. A grim look on his blackened face as he listened intently. A forward observer would soon signal enemy positions for gun settings. Not a sound was heard only the blood coursing the veins in his head. Silly rememberences paddled through his mind during those tense moments. He could almost hear his mothers soft voice, "Listen, listen to the sea shell Tommy, you can hear the ocean waves"! Not far from his position a runner lay curled in a hollow. Between cupped hands he nervously took a drag from a badly twisted cigarette. Silence was everywhere. Suddenly, with a look of shock, Tom's steel grey eyes grew wide in amazement. He couldn't believe what he was hearing. It was like a tree full of migrating starlings amassing in the fall, all twittering and chirping, almost deafening!!! It was the "Dawn Chorus"!!!

The Dawn Chorus had been witnessed many times during the war by signallers in the field. Just what creates this phenomenon is not totally understood, but it usually occurs in the summer months and just before sunrise.

Next month we shall follow up with an article "In search of the Whistler". I will report on how a few hardy experimenters, members of NSARC, who are "tooling up" for close encounters with this phenomenon during the summer doldrums. We will have a few sketches to help you join in on the search. I will have a few excerpts of a letter from W1FG0 who assisted in experiments that took place in the Antarctic a quarter century ago.

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At Camp Debert N.S. the NCO pulled into the repair depot on his motorcycle and said curtly, " There's something wrong with my bike. Fix it."  
 The repairman gave a look and said, " There's a short circuit in the ignition."  
 "Well, lengthen it and let me get going." bellowed the NCO.





"I HOID IT "  
"THROUGH THE GRAPE VINE"  
by Ed Taylor  
VE3FRM



Al Derumaus, VE3 JV, has been having problems keeping skeds with his brother-in-law in Knoxville on 40 due to the recent magnetic storm. He reports that 80/40 have been hit pretty hard. Al is one of the founding members of NSARC but hasn't been to any meetings lately. Licensed since '31, Al built much of his gear in the early days. His first receiver was a two tube deal with an oscillating detector and audio stage. A TPTG transmitter running a single #45 brought Al his first contact and that was with a station in Austin Texas. What a thrill!!!!!! Al says the thrills are few and far between with the gear now-a-days but keeps active using an ICOM 735 and a Drake TR-4. The antenna farm consists of a pair of inverted V's for 80/40 and a mini beam for 20/15/10. With better weather on its way we may have a treat and meet Al at a meeting agin.

Bob, VE3LLZ reports 10 meters openings have greatly improved since last weeks Solar Storm.

Colin, VE3CEU keeps a sked with 6DZM in Calgary on 20 CW, 3 times weekly. Bill Gibson, VE3EWH is in the Oshawa General again. He's on the 6th floor and can receive visitors. It is sad to note that his XYL is also in the hospital.

Ed, VE3FRM HAD A NICE VISIT TO Cocoa Beach with his family and watched the Space Shuttle discovery lift off. Quite an awesome sight!!

Earle Fowler, VE3AZT and Myrtle had the Grand-kids over during the Easter weekend. Earl is still plagued by sporadics and mixing in his area on ATV.

Walter Wright, VE3DYE has been heavily into toy making this winter. I haven't seen any of his work but I'll bet they are pretty nice.

Les, VE3COV of Stoney Creek is out of the hospital after surgery and is now fit as a fiddle. Glad to hear it, we would sure miss Les if he didn't check into the 2 meter net Thursday nights.

Russ, VE3ATT has a new two piece wireless set for his van.

Glen Flintoff, VE3AEQ visited with Ron Wragg, VE3AIY over the Easter weekend. Glen is still working the Slow and Fast Scan. Ron has been rebuilding a homebrew SSB transceiver that he built 10 or 15 years ago. Many years ago Ron had an electric chair rigged up for certain guests. I wonder how Glen made out?

Ray, VE3OUB is back from Mexico and ready for another year of activity. He is going to prune the antenna farm of some superfluous wire dipoles to improve navigation for the birds. A Cush Craft 20.15/10 antenna has been modified to handle 40 also.

Bill, VE3NTI has been listed incorrectly on the membership list. He is a full member, not an associate.

Roy, VE3AAF had his son up for a visit over the Easter holidays. They worked together on an ailing computer program.

Keith, VE3GDF will now have a bit more time to spend on his computer courses now that VE3FRM has relieved him of the Bulletin chore. Keith has done a great job getting the newsletter out for the past few years.

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WANTED: A contributing author for the Grapevine column. Someone with his or her ear to the wind or eye to the keyhole. Another Hedda Hopper type person. Just one page monthly would be great!!

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CANADIAN SILENT KEYS

BY VE3FRM

As most members are aware, the CRRL has been producing it's own QST for some time now, QST Canada. This is a reasonably informative production intended solely for Canadians. It is received monthly along with ARRL QST, which is an added bonus to we Canadians.

There is one small draw back that I have noted so far,- there are no longer any Canadians listed in the ARRL QST Silent Keys column. CRRL lists Canadians Silent Keys in the Canadian magazine while the ARRL dropped Canadians from their listings. Most Canadians have, through ham radio, many friends in the U.S. and around the world. When a Canadian becomes a silent key, his or her friends outside Canada would like to know about it. Since QST is read all around the world, wouldn't it be better if the ARRL continued to list Canadian Silent Keys?

If you wish to correct this, write to:

CRRL, Tom Atkins, VE3CDM, Box 7009, Stn. "E", London, Ontario N5Y 4J9.

FULL MEMBERSHIP - \$15.00 Cdn. (10.50US) includes full voting privileges and monthly news bulletin for one calendar year (January to December, July and August excepted)

ASSOCIATE MEMBERSHIP - \$10.00 Cdn.(7.00 US) includes bulletin only and a hearty welcome to any meetings you can get to either in person, over the land line, or on the air.

2ND FAMILY MEMBER - \$5.00 Cdn. (3.50 Us) full voting privileges but no monthly bulletin (assumed living in the same house)

TO JOIN SEND CHEQUE OR MONEY ORDER TO THE REGISTRAR AT HIS HOME:  
298 Dover Street, Oshawa Ontario L1G 6G6 (Preferrably)  
OR N.S.A.R.C. , The Club Box # 171 Oshawa, Ontario L1H 7L1.

Name:----- Call-----

Street & Number----- Apt:-----

Postal or Zip Code----- Telephone-----

Membership - Full----- Assoc----- Fam----- Fee-----

Donations for repeater fund (if you desire) Amount-----

OLD RELIABLE! by VE3FRM

What with the price of towers today you may want to consider the old reliable for your antenna farm. I've had one up for 8 years now with no signs of wear. It has stood unguyed , through many a gale. I paint it white with the cheapest latex I can buy, every four years. Choose 3 good spruce 2x4's, mine were 18 feet long. I wouldn't make it much taller than 32 feet, it would be too unwieldy to handle alone. Put the 4x4 about 3 to 4 feet into the ground. Treat it with tar. Leave the bottom bolt out and pivot up into place and have XYL slide bolt in.

A suggested antenna for the old reliable is shown. Put a cross bar (12") at the top and bottom. This is a good broad band 40 meter vertical. Buy 66 feet of stranded galvanized clothes line. Buy a six foot length of copper 1/2" water pipe for ground. If soil too dry and you have lots of land run several 30 foot lengths of radials an inch or so below the sod too. Direct them towards the compass readings you wish to hear most from. Use beehive insulators at the four corners.

You can hang anything you want on the "OLD RELIABLE". It's cost isn't much more than pocket money.

