

===== ELECTED DIRECTORS =====

PRESIDENT	RAY ZAMBONELLI	VE3 OUB	416-723-2467
SECRETARY	TOM MURPHY	VE3 FMI	416-666-4204
TREASURER	MIKE SHERBA	VE3 DKW	416-723-7674
PROGRAM DIRECTOR	GREG SCHATZMANN	VE3 GJS	416-576-4655
PAST/VICE PRESIDENT	RALPH DAY	VE3 CRK	416-576-8738

===== NON-ELECTED OFFICERS (SUBJECT TO CHANGES) =====

REGISTRAR	KEITH WYARD-SCOTT	VE3 GDF	416-723-5758
SPECIAL EVENTS COORD.	RALPH DAY	VE3 CRK	416-576-8738
GET-WELL CARDS	COLIN BELL	VE3 GDF	416-723-7482
2-METER NET CONTROL	ROY MILLER	VE3 AAF	416-852-5447
MEMBERSHIP LIST & LABELS	PAUL DALE	VE3 LHZ	416-434-6741
INSTRUCTION COORD.	RICK GIBSON	VE3 ASH	416-434-2886
AUDITOR	HARRY WESTWOOD	VE3 QG	416-683-5104

=====
CLUB STATION.....VE3 NSR

CLUB REPEATER.....VE3 OSH 147.720 MHZ IN 147.120 MHZ OUT,
 2-METER NET HOSTED BY ROY (AAF) (OR A STAND-IN) CONVENES EVERY
 THURSDAY AT 19:30 LOCAL TIME ON THE CLUBS REPEATER (OSH). AS PART
 OF THE NET, CODE PRACTICE IS PROVIDED BY BERNIE (ATI) BEGINNING
 AT 20:30 LOCAL.

10-METER NET (UNOFFICIAL)- 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 XYL'S CALL DINNER

===== CONTRIBUTIONS TO NEWSLETTER =====

EDITORS-	KEITH WYARD-SCOTT	VE3 GDF	416-723-5758
	RAY ZAMBONELLI	VE3 OUB	416-723-2467
	LARRY MCKNIGHT	VE3 ASB	416-427-0893

CONTRIBUTIONS MAY BE MAILED (ATTENTION THE EDITOR) TO THE
 N.S.A.R.C., BOX #171, OSHAWA, ONT., L1H 7L1 OR, IF URGENT, CALL ONE
 OF THE EDITORS DIRECTLY.

NOTE!- OPINIONS EXPRESSED ARE THOSE OF THE WRITERS AND DO NOT, OF
 NECESSITY, REFLECT THOSE OF N.S.A.R.C. MEMBERS IN GENERAL.
 ARTICLES DEEMED TO BE DEFAMATORY WILL NOT BE ACCEPTED.

=====
NEXT MEETING - MONDAY, FEB. 13, 1989 AT 20:00 LOCAL (8:00 P.M.) IN THE
GREEN ROOM OF THE ARTS RESOURCE CENTRE (BEHIND CITY HALL
- CENTRE STREET SOUTH- OSHAWA, ONTARIO.

PROGRAM-THIS MONTH AFTER THE BUSINESS PORTION OF THE
MEETING HARRY (QG) WILL ATTEMPT TO FULFILL HIS
PREVIOUS COMMITMENT (HIS FLU GOT IN THE WAY
LAST MONTH); HE WILL GIVE US A DEMONSTRATION OF
THE NEW REPEATER CONTROLLER CAPABILITIES AS
HE CAN WITHOUT ACTUALLY BEING IN SERVICE.

=====
TRY TO REMEMBER THAT DAY IN SEPTEMBER
=====

SATURDAY, SEPT. 2, 1989 -- OUR FAVOURITE DAY AT THE EX. WE GET
TO MAN THE BOOTH AT VE3CNE. EXPERIENCE AND ENTHUSIASM ARE ESSENTIAL,
AND YOUTH IS NO DETERRENT. PARTICIPANTS WILL HAVE ENTRANCE PAID AND,
AS TIME AND WORKLOAD PERMIT, MAY VISIT OTHER PARTS OF THE EXHIBITION.

AUDITED FINANCIAL STATEMENT FOR YEAR ENDING DECEMBER 31, 1988

INCOME	-	EXPENSE	
Membership	\$1,557.00	Bulletin	\$1,163.66
50/50	45.00	Repeater	2,719.27
Rptr. Donations	190.00	Field day	393.89
Coffee Fund	36.23	Xmas party	205.14
Misc. Income	360.62	Corn Roast	253.02
Flea Market	2,726.80	Misc. Expense	1,196.31
Theory Class	11.50	Flea Market	16.88
	\$4,927.15		\$5,950.17

Reconciliation

Cash on hand and in bank (Jan.1,1988)	\$4,342.49
Add: Total Income to Dec.31,1988	4,927.15

Total Cash Available for Use	\$9,269.64
Deduct: Total Expense to Dec.31,1988	5,950.17

Total Income Less Expenses	\$3,319.47
Add: Outstanding Cheques	35.59

Cash on hand and in bank (Dec.31,1988)	\$3,355.06
	=====

WE ARE STILL IN DEBT!!!!

The word 'audited' in the above report reminds me that I have been asked to publically extend to our auditor, Harry (VE3QG), the thanks of our executive and all who now (or in the future) use the repeater for his diligence in investigating the availability of a new repeater controller and, when time was of the essence in acquiring one that became available at a good price, used his own money to make sure we did not lose it.

Harry has since been reimbursed for the cost of the controller and, I am sure, considers matter finished. However, we still owe Harry and his 'technical committee' many thanks for keeping our best chance for a quick QSO in operation and keeping an ear open for an opportunity to further up-grade the repeater.

For those of you who have not yet read page 1, Harry expects to give us a good look at our new controller and also give us a brief, if Harry's past talks are any indication, on its operational advantages. As you know, if you have attended any meetings when Harry was present, he is not given to 'long-windedness' so, if he doesn't satisfy all

Author pulls in overseas contacts easily with 6-ft. home-brew antenna

AMATEUR RADIO contacts from the west of North America to Europe are not unusual on 15 and 20 meters. But when they are made using a 6-ft (1.83-m) long coil of wire sitting on a desk as an antenna, that's something new and different. With just such an antenna, this author was able to contact Northern Ireland, France, and Costa Rica in a few short minutes—which is a little out of the ordinary.

Such an indoor ham antenna will be of great value to apartment dwellers and travellers who do not have the space in which to erect a more elaborate antenna. Add to this the fact that the antenna has a minimum of TVI and a high signal-to-noise ratio. It can be fabricated at a minimum of cost.

How to Make the Antenna. To fabricate the indoor antenna, wind 22 turns of #14 stranded wire around the outside of a 2-in. (5.08-cm) inner-diameter plastic pipe. (You can get the pipe at most hardware stores.) The pipe should be 6 ft (1.83 m) long. The preferred type of pipe to buy has holes through it and is used in septic-tank drain-line applications. You can use the holes to tie or hold the ends of the coil.

Other than winding the 22 turns of wire, there are two rules that must be observed when making the antenna: (1) The top turn must form a closed loop and be soldered to assure good electrical conductivity and mechanical strength. (2) When connected to the ground or counterpoise system, the antenna must resonate on the 20-meter band.

The second rule is the only difficult part of the fabrication process because not all ground systems are the same. In this step, you will have to use a dip oscillator to find the resonant frequency.

If you try to use this 20-meter antenna on 15 meters as well, you will find that the response is too sharp for this. However, you can tap the coil five turns up from the bottom to obtain 15-meter operation. Slide the first five turns together so that they are closely wound before completing the 20-meter antenna. The remaining turns can be randomly wound, some

as much as 8 or 10 in. (20.3 or 25.4 cm) apart.

To adjust the antenna to 20 meters, you might try sliding the top four turns close together, about 10 in. (25.4 cm) from the top. Sliding the turns down lowers the resonant frequency, as does close winding. Your own adjustments will depend on your ground system and the local capacity of the ground.

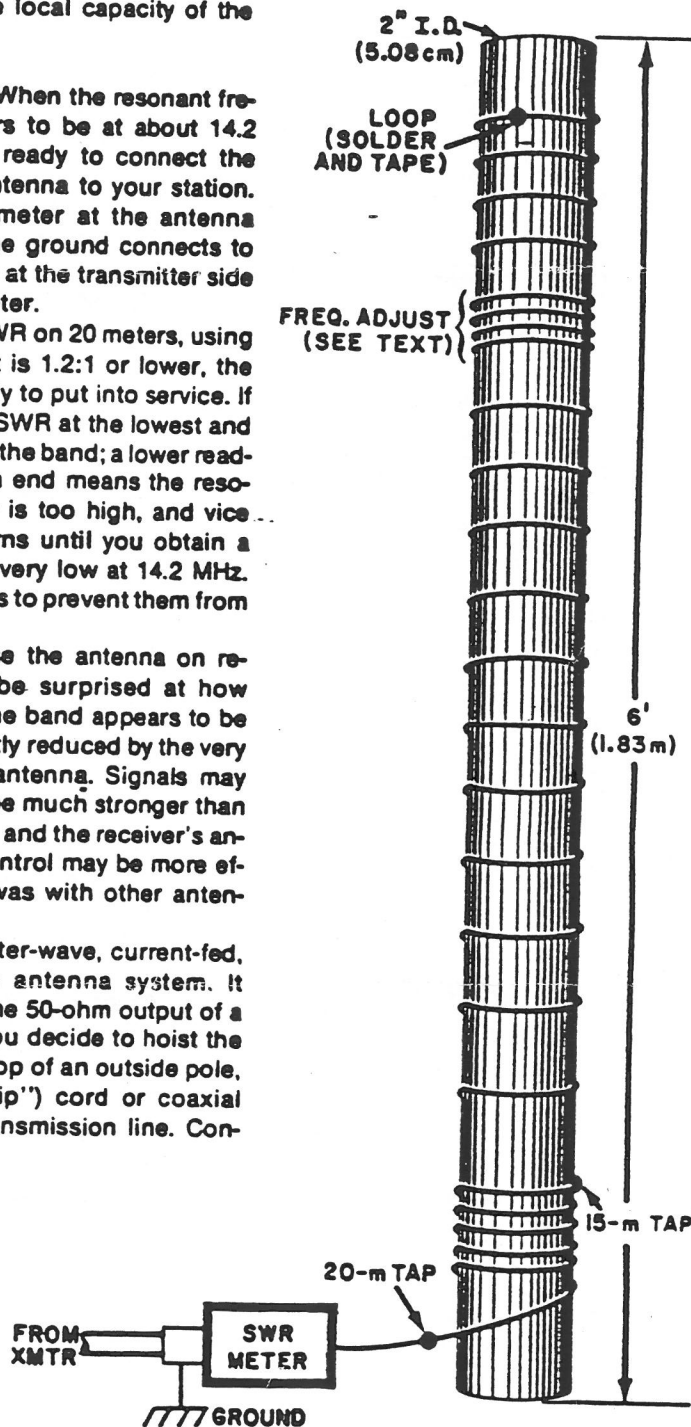
Final Steps. When the resonant frequency appears to be at about 14.2 MHz, you are ready to connect the ground and antenna to your station. Use an SWR meter at the antenna connection. The ground connects to the coax fitting at the transmitter side of the SWR meter.

Check the SWR on 20 meters, using low power. If it is 1.2:1 or lower, the antenna is ready to put into service. If not, check the SWR at the lowest and highest ends of the band; a lower reading on the high end means the resonant frequency is too high, and vice versa. Slide turns until you obtain a reading that is very low at 14.2 MHz. Tape some turns to prevent them from slipping.

When you use the antenna on receive, do not be surprised at how much quieter the band appears to be as static is greatly reduced by the very high Q of the antenna. Signals may also appear to be much stronger than you are used to, and the receiver's antenna tuning control may be more effective than it was with other antennas.

This is a quarter-wave, current-fed, low-impedance antenna system. It works best on the 50-ohm output of a transmitter. If you decide to hoist the antenna to the top of an outside pole, use ac line ("zip") cord or coaxial cable as the transmission line. Con-

nect the ground side of the transmission line to the metal pole, and use some ground radials, making each radial long enough to total 17 ft. (5.17m) when added to the length of the pole. Resonance is all-important; so, work with the antenna until it is properly resonant. ♦



North Shore Amateur Radio Club Inc.

Membership List

KAZKNZ	89 Assoc.	Ernest Richards	8607 Chatham St.	Ft. Myers	FL	33907	813-939-2026
KASRLP	89 Assoc.	Dave Logan	1228 Euclid St.	Santa Monica	CA	90404	213-395-2154
N4LEC	89 Full	William Best	885 Clonsilla Apt. 803	Peterborough	ON	K9J 5Y2	705-876-1820
SWL	89 Full	Joe Abela	194 Simcoe St. N.	Oshawa	ON	LIG 4S9	416-723-8142
SWL	88 Full	William Barak	169 Harbour Rd. Box 16	Oshawa	ON	L1H 8L1	416-725-8297
SWL	89 Full	Doug Barnes	R.R.#4	Sunderland	ON	LOC 1H0	705-357-2342
SWL	89 Full	Fred Bengel	679 Aruba Cres.	Oshawa	ON	L1J 6B7	416-576-4839
SWL	88 Full	Richard Button	342 Lorindale Dr.	Oshawa	ON	L1H 6X4	416-725-7150
SWL	Family	Denise Carre	33 Calder Cres.	Whitby	ON	L1N 6M2	416-430-0960
SWL	89 Full	Eric Carre	33 Calder Cres.	Whitby	ON	L1N 6M2	416-430-0960
SWL	89 Full	John Chave	177 Nonquon Rd. #604	Oshawa	ON	L1G 3S2	416-579-6028
SWL	89 Full	Harrinus DeVos	1079 Old Pye Ct.	Oshawa	ON	L1G 7H8	416-725-3223
SWL	89 Full	Richard Dion	22 Henderson Dr.	Whitby	ON	L1N 7Y1	416-430-1805
SWL	88 Assoc.	Robert Falzon	230 Bruce St.	Oshawa	ON	L1H 1R5	416-723-8263
SWL	89 Full	Bernard Ferris	906 Bayview Ave.	Whitby	ON	L1N 1E1	416-668-6177
SWL	Family	Leigh-Ann Garrow-Schatzmann	380 Gibb St. #219	Oshawa	ON	L1J 1Z3	416-576-4655
SWL	Family	Velora Giuson	643 Bloor St. E.	Oshawa	ON	L1H 3M4	416-434-2886
SWL	89 Full	Reynold Gillis	199 Vancouver St.	Oshawa	ON	L1J 5V6	416-576-2964
SWL	89 Assoc.	John Harkness	125 Watson St. E.	Whitby	ON	L1N 1A5	416-668-3808
SWL	89 Full	Margaret Jeffery	210 Stevenson Rd. N.	Oshawa	ON	L1J 5M5	416-725-1238
SWL	Family	Ira Linton	R.R.#2	Little Britain	ON	KON 2C0	
SWL	88 Full	Brian MacGregor	23 Harmony Rd. S. #18	Oshawa	ON	L1H 6T2	416-576-3416
SWL	89 Full	Len McKay	210 Thomas St.	Oshawa	ON	L1J 1M1	416-434-5171
SWL	88 Full	Al McPhee	386 Blackthorn St.	Oshawa	ON	L1K 1K9	416-725-4193
SWL	89 Full	Ed Nichols	24 Carruthers Dr.	Bowmanville	ON	L1C 3S2	416-623-4658
SWL	89 Full	Lorne Nowak	13 Chaucer Ave. #616	Oshawa	ON	L1H 3M4	416-436-9959
SWL	89 Full	Ken Pugh	191 Nonquon Rd. #908	Oshawa	ON	L1G 3S3	416-723-1741
SWL	88 Full	William Todd	R.R.#3 Box 2, Group 22	Bowmanville	ON	L1C 3K4	416-571-1048
SWL	88 Full	Jerry Valk	62 Dakdale Dr.	Oshawa	ON	L1H 6X1	416-728-9052
SWL	89 Assoc.	Jack Wilde	305 Garden St. #14	Whitby	ON	L1N 3M3	416-666-2745
SWL	89 Full	Bill Zubulakis	285 Highgate Ave.	Oshawa	ON	L1G 7S9	416-576-0133
VE3AAF	LF Full	Roy Miller	R.R.#4	Uxbridge	ON	LOC 1K0	416-852-5447
VE3AEG	89 Full	Glen Flintoff	52 Darlington Blvd. S.	Oshawa	ON	L1K 1A2	416-725-6408
VE3AIV	89 Full	Ron Wragg	1210 Cloverdale St.	Oshawa	ON	L1H 4E6	416-723-4925
VE3ALD	89 Full	Don DeMontmorency	32 Washington St.	Markham	ON	L3P 2R5	416-294-3136
VE3APW	89 Full	Doug Johns	454 Jane Ave.	Oshawa	ON	L1J 3L4	416-728-0402
VE3ASB	88 Full	Larry McKnight	80 Andree Rd.	Ajax	ON	L1S 3V9	416-427-0893
VE3ASH	89 Full	Rick Gibson	643 Bloor St. E.	Oshawa	ON	L1H 3M4	416-434-2886
VE3ATI	LF Full	Bernie Sandbrook	Box 526	Brooklin	ON	LOB 1C0	416-655-4156
VE3ATT	89 Full	Russ Gray	32 Forest Rd.	Ajax	ON	L1S 2N3	426-683-8418
VE3AZT	89 Full	Earle Fowler	38 Caledon Ct.	Oshawa	ON	L1G 7L6	416-434-5740
VE3BAY	88 Full	Doug Hinton	16 Plaza Square	Belleville	ON	K8N 4J3	613-966-2504
VE3BHQ	89 Full	Farney LeGresley	R.R.#3	Newcastle	ON	LOA 1H0	416-987-4511
VE3BQH	89 Full	John Crooks	194 Cellina St.	Oshawa	ON	L1H 4N6	416-725-1991
VE3CEU	89 Full	Colin Bell	74 Gladstone Ave.	Oshawa	ON	L1J 4E5	416-723-7842
VE3CMM	30 Full	Bill McPherson	1066 Finch Ave.	Pickering	ON	L1V 1J5	416-839-1437
VE3COV	89 Full	Les Donn	35 Mountain Ave. #707	Stoney Creek	ON	L8G 2V7	416-662-8783
VE3CRK	89 Full	Ralph Day	454 Holcan Ave.	Oshawa	ON	L1G 5X6	416-576-8738
VE3CYE	88 Assoc.	Bob Brown	106 Birchcliff Cres.	Hamilton	ON	L8T 4K8	416-385-3351
VE3DJ8	88 Full	Gary Anderson	31 Beech St.	Ajax	ON	L1S 1W2	416-427-6092
VE3DJ0	88 Full	Bill Kirby	R.R.#1	Alliston	ON	LOM 1A0	705-435-9100

North Shore Amateur Radio Club Inc.

Membership List

VE3DJT	88 Full	Lorne Briggs	520 Addison Ct.	Oshawa	ON	L1H 6K1	416-723-5673
VE3DKW	89 Full	Mike Sherba	411 Rossmount Ave.	Oshawa	ON	L1J 3K5	416-723-7674
VE3DPH	89 Full	Chuck Hewis	468 Mary St. N.	Oshawa	ON	L1G 5E3	416-576-7513
VE3DYE	88 Full	Walter Wright	R.R.#1	Blacksstock	ON	LOB 1B0	416-986-4818
VE3EHA	89 Assoc.	Charlie Catalano	61 Thomas St.	Oshawa	ON	L1H 3W6	416-725-9975
VE3EIS	88 Full	Lorne Mallory	Box 1384	Port Perry	ON	LOB 1N0	416-985-8935
VE3EYV	88 Full	Gary Heagle	138 Bellrock Dr.	Scarborough	ON	M1V 366	416-298-0222
VE3EJW	88 Full	Hugh Jackson	816 Helen Cres.	Pickering	ON	L1W 1V2	416-420-0126
VE3FAT	89 Full	Hessel Tot	R.R.#3 Box 61	Prescott	ON	K0E 1T0	613-925-2628
VE3FBL	89 Full	John Pluister	R.R.#1	Brooklin	ON	LOB 1C0	416-655-4269
VE3FIZ	89 Full	Joe Straberger	514 Juliana Dr.	Oshawa	ON	L1G 2E8	416-576-6562
VE3FJC	89 Assoc.	Walter Beach	R.R.#1 Grp.4-Box 9	Hampton	ON	LOB 1J0	416-263-2338
VE3FMI	89 Full	Tom Murphy	14 Ingleook Ct.	Whitby	ON	L1R 1A8	416-666-4204
VE3FOF	89 Assoc.	Bill Baker	R.R.#3	Kirkfield	ON	K0M 2B0	705-374-4557
VE3FPP	89 Assoc.	Ken Aston	General Delivery	L'Amable	ON	K0L 2L0	613-332-4728
VE3FRM	89 Full	Edwin Taylor	Box 1031	Port Perry	ON	LOB 1N0	416-985-3790
VE3GDF	89 Full	Keith Myard-Scott	298 Dover Ct.	Oshawa	ON	L1G 6G6	416-723-5758
VE3GEN	89 Full	Don Dewey	105 Reynolds St.	Whitby	ON	L1N 3W5	416-668-0577
VE3GFA	89 Assoc.	George Adams	348 Highland Ave.	Oshawa	ON	L1H 6B3	416-725-1639
VE3G6J	89 Full	Delbert Ford	2365 Kennedy Rd. #702	Agincourt-	ON	M1T 3S6	416-291-2470
VE3GJS	89 Full	Greg Schatzmann	380 Gibb St. #219	Oshawa	ON	L1J 1T3	416-576-4655
VE3GUD	89 Full	Dave Dell	201 Palace St.	Whitby	ON	L1N 561	416-668-3083
VE3GZH	89 Full	Don Foster	R.R.#1 Grp. 1 Box 9	Port Perry	ON	LOB 1N0	416-985-2668
VE3GZT	89 Full	Bill Sweeney	688 Aruba Ct.	Oshawa	ON	L1J 6B6	416-728-1342
VE3HAB	89 Full	Albrec Meinshausen	1800 Simcoe St. N.	Oshawa	ON	L1G 4X9	416-576-5603
VE3HE	88 Full	Fred Williams	55 Austin Dr. Suite 705	Unionville	ON	L3R 8H5	416-294-6108
VE3HIY	89 Assoc.	L. E. Bartholomev	R.R.#2 Box H 72	Sutton West	ON	LOE 1R0	416-722-6269
VE3I80	88 Assoc.	Charlie Bissett	517 Athol St.	Whitby	ON	L1N 3Z7	416-668-7481
VE3IHK	89 Full	Vic Naderer	106 Hazelwood Dr.	Whitby	ON	L1N 3L5	416-725-1961
VE3IHS	89 Full	Joe White	67 Roser Cres.	Bowmanville	ON	L1C 3P1	416-623-4069
VE3INB	89 Full	George Burns	1326 Lakefield Ct.	Oshawa	ON	L1J 3V6	416-579-0007
VE3IND	89 Full	Evan Heriott	8 Lindal Ave.	Scarborough	ON	M1L 1W8	416-757-4284
VE3JPB	Family	Buddy Williams	55 Austin Dr. Suite 705	Unionville	ON	L3R 8H5	416-294-6108
VE3JV	89 Full	Al Derumaux	686 Masson St.	Oshawa	ON	L1G 5A5	416-723-2137
VE3KBD	88 Full	Keith Durling	261 Viewmount St.	Oshawa	ON	L1H 7C2	416-723-1331
VE3KSP	89 Full	Neil McAlister	R.R.#2 Meadowcrest Rd.	Port Perry	ON	LOB 1N0	416-985-3634
VE3KSY	89 Full	Lew Wassenaar	100 Glenhill Dr. S.	Whitby	ON	L1N 8R4	416-430-7667
VE3KWI	88 Full	Maurice Mantle	R.R.#2	Janetville	ON	LOB 1K0	705-277-2984
VE3LCZ	89 Full	Andy Kainins	107 Frederick St.	Whitby	ON	L1N 6K1	416-668-0805
VE3LET	89 Assoc.	Cy Hamilton	R.R.#1	Bowmanville	ON	L1C 3K2	416-623-8157
VE3LHZ	89 FULL	Paul Dale	828 Donegal Ave.	Oshawa	ON	L1J 6K2	416-434-6741
VE3LIZ	89 Full	Glen Goslin	453 Juliana Dr.	Oshawa	ON	L1G 2E9	416-725-1545
VE3LLD	89 Assoc.	Steve Holland	27 Avonlea Rd.	Leaskdale	ON	LOC 1C0	416-852-3451
VE3LLZ	89 Full	Bob Leet	616 Balmoral Dr.	Oshawa	ON	L1J 3A7	416-725-1236
VE3LNF	89 Full	Garry Cubitt	479 Rembrandt Ct.	Oshawa	ON	L1G 6B4	416-723-5114
VE3LNX	89 Full	Vic Doby	R.R.#2	Orono	ON	LOB 1N0	416-983-5831
VE3LUS	88 Full	Allan Bunn	803 Hyland St.	Whitby	ON	L1N 6S1	416-668-7256
VE3M80	89 Assoc.	Wilf Haably	40 Temperance St.	Hampton	ON	LOB 1J0	416-263-2373
VE3MCO	89 Full	Grace Reader	821 Westdale St.	Oshawa	ON	L1J 5C1	416-723-4819
VE3NDV	89 Assoc.	Stan Hughes	16 Wood Cres.	Bradford	ON	L3I 2G2	416-775-7368
VE3MID	89 Full	Joe Silva	220 Darcy Ave.	Oshawa	ON	L1G 9B8	416-728-6396

ATWORLD
666-3346

North Shore Amateur Radio Club Inc.

Membership List

VE3MJS	89 Full	Martin Schaal	45 Townline Rd. S.	Oshawa	ON	L1K 1A9	416-728-8218
VE3MUR	88 Full	Randy Hill	37 Brandt Ct. "D"	Oshawa	ON	L1G 4N1	416-579-2178
VE3NBV	89 Full	Stewart Prouty	R.R.#3	Bowmanville	ON	L1C 3K4	416-725-5295
VE3NLJ	89 Full	George Owen	54 Fairway Dr. Box 1204	Newcastle	ON	LOA 1H0	416-623-8234
VE3NLR	89 Full	Ruby Reeson	527 King St. E.	Oshawa	ON	L1H 1G2	416-576-6267
VE3NLV	89 Full	Roy Cameron	10 Veterans Ave.	Bowmanville	ON	L1C 2C2	416-623-2905
VE3NTI	89 Assoc.	Bill Fortune	R.R.#2 Box H 100	Sutton West	ON	LOE 1R0	705-722-6241
VE3NZS	89 Full	Gord McCuaig	R.R.#1 Grp. Box 14	Pickering	ON	L1V 2P8	416-683-4054
VE3DHK	89 Full	Gord Currie	R.R.#2	Orono	ON	LOB 1M0	416-983-5797
VE3DHN	89 Full	Roy Norton	89 Church St.	Bowmanville	ON	L1C 1S9	416-623-7125
VE3DN	89 Full	Norm Lawton	21 Woodhouse Cres.	Ajax	ON	L1S 2N5	416-683-6794
VE3DRP	89 Full	Ron Lawrence	5 Wilson Ave.	Lindsay	ON	K9V 5S1	705-324-2711
VE3DUB	89 Full	Ray Zambonelli	33 Grassmere Ave.	Oshawa	ON	L1H 3H3	416-723-2467
VE3PAL	88 Full	Guy Charette	2 Devondale St.	Bowmanville	ON	L1C 4A9	416-436-2975
VE3PEK	89 Full	Albert Burr	828 Masson St.	Oshawa	ON	L1G 5A9	416-725-5222
VE3PXY	89 Full	Elmer Linton	R.R.#2	Little Britain	ON	K0N 2C0	705-786-2618
VE3PZL	89 Full	Gordon Lund	140 Alma St.	Oshawa	ON	L1G 2C2	
VE3QG	LF Full	Harry Westwood	50 Sherwood Rd. E.	Ajax	ON	L1T 2Y9	416-683-5104
VE3RNB	89 Full	Clarence Moore	471 Farewell St.	Oshawa	ON	L1H 5M4	416-433-8937
VE3RO	89 Assoc.	Art Walker	R.R.#1	Port Perry	ON	LOB 1N0	416-852-7017
VE3SJ	89 Full	Jack Elston	R.R.#4	Bowmanville	ON	L1C 3K5	416-623-5482
VE3VF	89 Assoc.	Lee Durling	168 Harbour Rd. Box 20	Oshawa	ON	L1H 8L1	416-728-3187
VE3YPO	89 Full	Norman Hanaka	R.R.#2	Bowmanville	ON	L1C 3K3	416-436-2410
VE6DZM	89 Full	Keith Maitland	19 Woodglen Circle S.W.	Calgary	AL	T2W 4R8	403-281-1840
WA2ACN	LF Full	Don Amis	916 Gwinn St.	Medina	NY	14103	

AT WEEK
730-690

PLEASE NOTE !!! - THE ABOVE LISTING CONTAINS THE NAMES OF MEMBERS WHO HAVE NOT YET RENEWED THEIR MEMBERSHIPS FOR 1989; THIS IS FOR THE BENEFIT OF CURRENT MEMBERS WHO MAY WANT TO CONTACT THEM. THOSE WHO HAVE '88' AFTER THEIR NAMES SHOULD BE AWARE THAT THIS WILL BE THE LAST BULLETIN THEY WILL RECEIVE UNTIL THEY RENEW.

BERMUDA CONTEST (SEE PAGE 7)

PAGE 7 IS A PAGE OUT OF, I BELIEVE, THE NIAGARA P.A.R.C. BULLETIN AND, I WOULD ASSUME, MOST OF YOU ARE AWARE OF IT AND ITS PRIZES, ETC.; BE THAT AS IT MAY, YOU ARE HEREBY ADVISED OF ITS EXISTENCE. GOOD LUCK!

FOR SWL'S AND CHICKENS (CHEAP, CHEAP)

PAGE 3 IS ALSO OUT OF ANOTHER BULLETIN AND I CANNOT VOUCH FOR ITS USEFULLNESS BUT I HAVE HAD IT FOR SOME TIME AND, BEING THE CHEAPIE THAT I AM, INTENDED TO BUILD IT FOR MY FIRST ANTENNA. I HEARD THE OTHER DAY OF A FELLOW HAM WHO JUST DIDN'T HAVE ROOM FOR A DIPOLE AND SOME WHO ARE RELUCTANT TO INSTALL OUTSIDE ANTENNAE; SO I THOUGHT THAT I WOULD REPRINT IT FOR THEIR CONSIDERATION. PERHAPS IT COULD BE PUT IN THE ATTIC. IT MIGHT NEED RADIALS; THERE DOESN'T SEEM TO BE ENOUGH INFORMATION ON A GROUND PLANE REQUIREMENT.