

PRESIDENT	RICHARD BUTTON	VE3RJB	725-7150
SECRETARY	ANDY KALNINS	VE3LCZ	668-0805
TREASURER	MIKE SHERNA	VE3DKW	723-7674
PROGRAM DIRECTOR	PETER JOHNS	VE3JWZ	
VICE PRESIDENT	MARGARET JEFFERY	VE3BNN	725-1238
REGISTRAR	KEITH WYARD-SCOTT	VE3GDF	723-5758
SPECIAL EVENTS COORD.	RALPH DAY	VE3CRK	576-8738
GET WELL CARDS	COLIN BELL	VE3CEU	723-7842
2-METER NET CONTROL	ROY MILLER	VE3AAF	852-5447
LIST AND LABELS	PAUL DALE	VE3LHZ	434-6711
INSTRUCTION COORD.	RICK GIBSON	VE3JSH	434-2886
AUDITOR	HARRY WESTWOOD	VE3OG	683-5104
EDITOR	EDWIN H. TAYLOR	VE3FRH	985-3790

CLUB STATION.....	VE3NSR	
CLUB REPEATER.....	VE3OSH ..	147.72mc IN ... 147.12mc OUT
HARRY'S REPEATER.....	VE3NAA ..	448mc IN ... 443mc OUT

2-meter NET CONVENES EVERY THURSDAY AT 7:30 pm ON THE CLUB REPEATER, VE3OSH. AS PART OF THE NET, CODE PRACTICE IS PROVIDED BY BERNIE VE3ATI BEGINNING AT 8:30pm.

10-meter NET - A GROUP OF LOCAL HAMS MEET SUNDAY ON 28.200 mc USING CW FROM 9:00am TO 10:00am, THEN SWITCH TO SSB PHONE UNTIL EXHAUSTED OR HUNGRY.

CO-ORDINATORS		
NONQUAN CANOE RACES	GLEN GOSLIN, VE3LIZ	725-1545
RIDE FOR THE HANDICAPPED	RAY ZAMBONELLI, VE3OUB	723-2467
	RALPH DAY, VE3CRK	576-8738
SANTA CLAUSE PARADE	RALPH DAY, VE3CRK	576-8738
FLEA MARKET	GORD McCUAIG, VE3NZS	683-4054
CLUB INVENTORY	DOUG BARNES, VE3MJR	(705) 357-2342
VE3CNE & FIELD DAY	GREG SCHIATZMANN, VE3GJS	576-4655

CLUB MEETING The April 8th meeting was well attended by 50 or more members. The business portion although lengthy was quite interesting. The number of subjects covered were numerous and I can only quote a handful from memory. The work cut out for the committee members and executive is quite impressive and proves the yeoman service these people do for the club and community.

Flea Market: This was discussed in depth among the members, and Jack 3SJ gave a plea for more assistance. A field plan was drawn of the target area showing entrances and exits that were to be patrolled. Parking areas to be ushered. Set-up and disassembly times and duties were gone over. The effort put into the flea market by Gord McCuaig 3NZS and his assistants is most admirable. He and all those who assisted deserve a real cheer from the membership.

Ray, 3OUB mentioned participation of the club in the CNE Warrior Day festivities. If you would like to help out, contact Ray.

Ralph, 3CRK is putting something together for the 40th anniversary of the Sea Scouts. Usually 150 to 200 kids attend the outing, so if you would like to join in, contact Ralph.

The Club is organizing a bus trip to the Rochester meet in May of '92. We're too late for '91, but if you'd like to sign on for next year, contact Richard, 3RJB. They need a minimum of 40 to crew a bus.

Greg 3GJS and his crew are rigged n' ready for field day. There was some discussion of replacing the clubs aging coax cable. Also on Greg's agenda was discussion as to where to store the clubs antenna, tower and paraphernalia. Seems the place where it was stowed previously is no longer available.

Margaret 3BNN mentioned the lack of response to the equipment registration sheet which we ran in the February edition of the snooze letter. I have printed it again this month. Please fill it out and send it to the club QTH, Attn: Margaret Jeffery, VE3BNN. Starting next October, this registration form will be included with the membership form and we can update the records yearly. Perhaps Margaret will write us an article on the emergency preparedness of the club and the several programs in which she is invloved.

Durham needs emergency preparedness and it will all start with you returning the form.

John Charlton gave an outstanding deliverance on Reginald Aubrey Fessenden. The club is most grateful to John for taking the trouble to prepare the talk and for bringing himself out on a cold, rainy March evening. He was well received



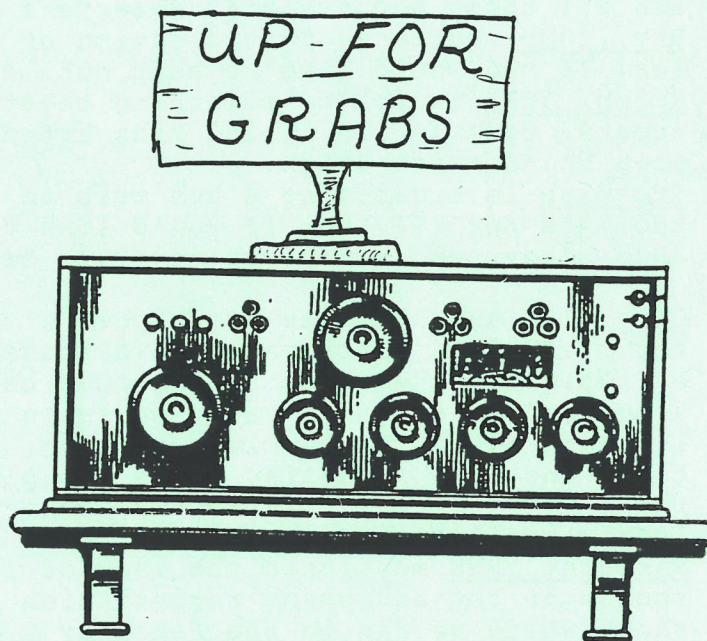
by the membership. Elmer 3PXY, gave an interesting addition to Johns talk. It seems during the years when Elmer was teaching at the Little Britain School, there hung at the back of the classroom, a picture of a Victorian looking woman. The framed countenance haunted him so, he enquired as to what station in life had this woman who held this esteemed position in his classroom. The lady, looking much like Queen Vicky herself was the mother of Fessenden, Clementine Fessenden, Founder of Empire Day and a founding member of IODE, (Independent Order of Daughters of the Empire), a loyal British subject and a Canadian through and through. It is said, she would not travel to the U.S. of A. to visit her son because the states were guilty of the traitorous act of breaking away from the British Realm. After Elmer retired it was decided the oldskule was out-dated, not befitting nor providing the needs of today's molly-caudled youth. Imagine if you will, this olde skule that once taught the three R's and did not spare the bite of the willow stick, had educated and sired inspiration into many of the districts successful men and women, was now classified as obsolete! In the shadow of the wreckers ball, an auction was held to dispose of the school's meager assets. Elmer attended and became the proud owner of the Lady who's estoric past is known to so few. She went for 50¢! Her eminence now hangs in the gallery for famous people of Ontario at the Toronto Historical Society.

VE3FRM

NEXT MEETING: Peter Melnik, 3PLM will give a talk about his experiences on the HF bands as a new amateur.

For Sale; Estate Sale of Equipment
 ICOM IC-730 asking \$800.
 Azden PCS-2000 2 meter mobile \$300.
 Kenwood TS-520 xcver base \$500.
 Yaesu Landliner Phone Patch \$100.
 USD Speech Processor \$ 50.
 Bearcat VHS Scanner 8 track \$ 50.
 Contact Peter Braun (416) 297-1696

FOR SALE: Estate Sale of Equipment
 ICOM 735 & PS 55 Power Supply \$1000.
 TR4c Drake xcvr c/w speaker \$ 350.
 Murch xmatch UT2000A \$ 225.
 SB200 Linear Amp. \$ 350.
 Drake LP filter \$ 20.
 MFJ NoiseBridge \$ 60.
 RS22-202A multimeter \$ 18.
 Allied solid state rcvr A2515 \$???.
 Contact Vic 3LNX (416) 983-5831



FOR SALE: Yaesu FT209RH, 5 watts, c/w charger, two antennas and manual. best offer! Charlie Phillips, VE3EII, (416) 852-3506

FOR SALE: Honeywell chart recorder, 10 inputs and 7 day recording. \$20. Line regulator 110 VAC \$20.00; Hi Voltage power supply suitable for running a pair of 811's, only \$30.00. Call Ed Taylor VE3FRM, (416) 985-3790.

Letter from Vic, 3LNX: Hi Ed: Thought I would drop you a few lines to let you know that most of the component packages have been distributed to the appropriate people and everybody has got the soldering irons all hot and ready to go. I think it will soon be time to start some transmitter hunts and possibly Mike VE3DKW will be able to give us all some new ideas on how to go about these transmitter hunts from the big trip down under.

73, Vic 3LNX

Special Report March 17 1978SUNSPOT CYCLE 21-THE PEAK, HOW MUCH, AND WHEN

By O. Okleshen W9RX (Propagation Editor HR Report)

Of the many methods and authors of the "how much and when" of a solar cycle maximum, the most recent and likely the most accurate method has been devised by A. I. Ohl, a soviet scientist whose first publication was reported in Solnechnaya Dannyye, # 9 pp 73-75. H.H. Sargent III, Space Environment Services Center, Boulder, Colorado, modified the Ohl theory thus enhancing the accuracy of the basic method developed by Ohl. The theory is based on the Regression of Recurrent Geomagnetic Activity Recorded From The Prior Cycle To Predict The Sunspot Maximum Of The Forthcoming Cycle.

Mr. Sargent modified the Ohl theory by taking into account finer time resolution and more accurate data than was available to Ohl. The Ohl theory, as modified, provided accuracies of maximum sunspot cycle peaks when tested against observed data within an accuracy of 1% in some cases. While not so in every case, accuracies within 5% of maximum sunspot level predictions appear to be common. Compared to any prior known methods, the Ohl/Sargent method would be, by far, a major break-through in the prediction of sunspot cycle maximum levels, when accuracy and other advantages are considered. The data used to establish and test the original Ohl theory was extracted from the last 110 years. The data before 1848 is dubious because of the information and techniques available. For that reason, some of the other used at that time to predict sunspot maximum levels may be erroneous. Many other methods have been used to activate individual and combined success to determine maximum sunspot peak levels. The IGY peak of 1957 led to anticipation of a peak level, certainly of a magnitude that would stimulate IGY research. One often used method is a "slope" technique that observes the rate of upward change at the beginning of a new cycle. This observed rate of change is then projected to a peak value. The Ohl method has two most important advantages over all other theories and methods of establishing the sun spot peak level. First, it appears to be superbly accurate, and second and probably most important, the Ohl method gives a year's earlier lead time. It is only necessary to use data from the prior decaying cycle.

The exact mechanism between the prior cycle recurrent geomagnetic behavior and the succeeding cycle sunspot maximum is not clear. However it is likely that one is directly related to the other in solar physics whereby it is even possible that a new definition of a solar cycle may have to be established. Conjecture may place some possible validity in the theory that coronal holes that relate to recurrent geomagnetic disturbances may be the birthplaces for the succeeding cycle sunspot regions. This aspect of course would have to be studied and proved.

There is no doubt that the Ohl/Sargent method has great potential, as those needing accurate sunspot predictions are and have always been confronted with widely ranging options. We know that cycle 21 predicted maximums of 50 to 60 have already been exceeded, the February 1978 smoothed sunspot level has already reached at least 90 with the cycle peak approximately two years into the future!

As for specific figures of what may be in store for amateur radio, the following highlights and numbers have been extracted from the work of Mr. Sargent.

<u>Predicted Smoothed Sunspot Maximum For Cycle 21 Ohl/Sargent</u>	153.6
<u>Approximate Arrival Date Of The Maximum</u>	early 1980
<u>Prediction Of Smooth Sunspot Level Maximum By Method Of Ratios</u>	158.0

(This method takes the average smoothed odd cycle peaks divided by the averaged smoothed even cycle peaks times the peak of cycle 20) Accuracy Of The Ohl/Sargent Method As Tested With Observed Data From Cycle 20 And Compared To Cycle 20 Sunspot Peak Level, nearly 95% Twelve Hour Periods With Geomagnetic "A" Indices Of 100 or More Expexted In The Next Ten Years

81

(AN "A" INDEX OF OVER 50 INDICATES A MAJOR GEOMAGNETIC STORM)

Monthly Smoothed Predicted Sunspot Numbers
Using The Modified Ohl method For Cycle 21

Jan 78----	58.6	Jan 79--	110.8	Jan 80--	151.5	Jan 81--	139.0
Feb 78----	64.4	Feb 79--	114.6	Feb 80--	153.4	Feb 81--	135.8
Mar 78----	69.6	Mar 79--	116.8	Mar 80--	151.4	Mar 81--	133.7
Apr 78----	75.0	Apr 79--	120.3	Apr 80--	152.0	Apr 81--	134.8
May 78----	80.6	May 79--	124.5	May 80--	153.6	May 81--	127.8
Jun 78----	85.1	Jun 79--	127.8	Jun 80--	152.2	Jun 81--	126.2
Jul 78----	89.5	Jul 79--	131.1	Jul 80--	150.9	Jul 81--	126.2
Aug 78----	93.6	Aug 79--	136.1	Aug 80--	149.8	Aug 81--	125.6--
Sep 78----	97.6	Sep 79--	138.2	Sep 80--	146.2	Sep 81--	123.4
Oct 78----	99.7	Oct 79--	140.8	Oct 80--	145.4	Oct 81--	122.3
Nov 78----	103.3	Nov 79--	145.0	Nov 80--	143.7	Nov 81--	121.2
Dec 78----	107.1	Dec 79--	148.1	Dec 80--	141.2	Dec 81--	120.6

It is clear that if the predictions hold true, cycle 21 will be a whopper and will likely parallel cycle 18 and have an impact almost as severe as cycle 19. During periods of high solar activity, many services will be detrimentally affected. Satellite damage from solar radiation is one example. Communications and power will be interrupted. VLF Omega navigation alert used on overseas aircraft would likely be affected rendering the service at times, next to useless. Worse may be the impossibility of warning users that the system is failing. Space travel and related health hazards will become a significant factor to take into account. Magnetometer survey work for natural resources will be affected to such an extent that at times, the investigations would have to be curtailed with a severe cost impact on such resources even before production. CB radio on HF will likely be sheer havoc with skip interference. And now there is new evidence to support the fact that the weather is directly affected by solar sunspot behavior and geomagnetic occurrences previously thought to be unrelated.

HR Report feels that the amateur community should be made aware of a highly accurate prediction that may well not only affect our use of the radio spectrum, but likely our daily lives and our destiny.

W9RX

This special report contains material from W9RX and extractions from a paper composed by H.H. Sargent III, Space Environment Services Center, Boulder Colorado. Mr. Sargent will be presenting his paper "A Prediction for the Next Solar Cycle" March 24th to the IEEE Vehicular Technology Group Conference in Denver.

FIRST SUPERPRIZE!!

Your entry ticket is a shot at the ALINCO HI/MED/LOW power DR-590T - 2m/70cm mobile transceiver, with detachable-head and cross band repeater ability and many other great features!

SEVENTEENTH ANNUAL ONTARIO HAMFEST®

SECOND SUPERPRIZE!!

MFJ-1278 9-mode DATA UNIT - PACKET-RTTY-CW-AMTOR FAX-ASCII & SSTV plus the Contest Memory Keyer and Navtex
SUPERPRIZE ticket is with every \$5 entry ticket!

FREE PARKING from 9 a.m.

Burlington Amateur Radio Club, Inc.
Box 85037, Burlington, Ont. L7R 4H3

CAMPSITES available from 5 p.m. Friday..write for details...OH91, c/o BARC

MILTON FAIRGROUNDS

**SATURDAY, JULY 6, 1991
STARTING AT 9:00 A.M.**

INSIDE PRODUCT DISPLAYS

-Your Favourite Distributors will be on hand inside to show you the latest in Ham gear.

SERVICE DISPLAYS

-With greater demands on our Radio Spectrum.. CARF, CRRL, IARU 2, DARF, ARES CFARS -the World wants our frequencies.....these groups prove the value of our work...see how it's done.

DEMONSTRATIONS

- We're hoping to have APLINK (data transmission to the World)...CFARS (how our troops call home for free)...PACKET (information files on just about everything....including earth satellites) ...ONTARS (the daylong communications net that covers Ontario)...ATV (a local gang is getting ready to put television into Community Service ...in colour)...ARES (how slowscan fits into disaster planning).

DOORPRIZES GALORE

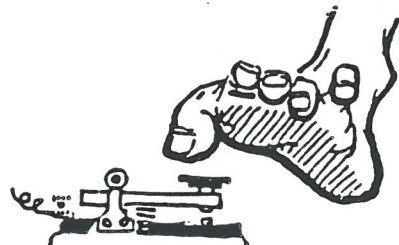
- Your ticket to enter is a gateway to win hard- and software, draws held at regular intervals. It's a Tradition at the ONTARIO HAMFEST!

BRING THE KIDS!

Jimbo the Clown will amuse them while you browse the displays or check the Fleamarket (From 9 a.m. to 1 p.m. at the Grandstand)



DIVERSION FOR THE OLDER KIDS!
Free coffee, hot beef and 807's start up a little earlier this year (bldg 2)



MORSE FORCE returns..keep that ear open for extra prizes via CW on the PA sound system between hourly Prize draws.....

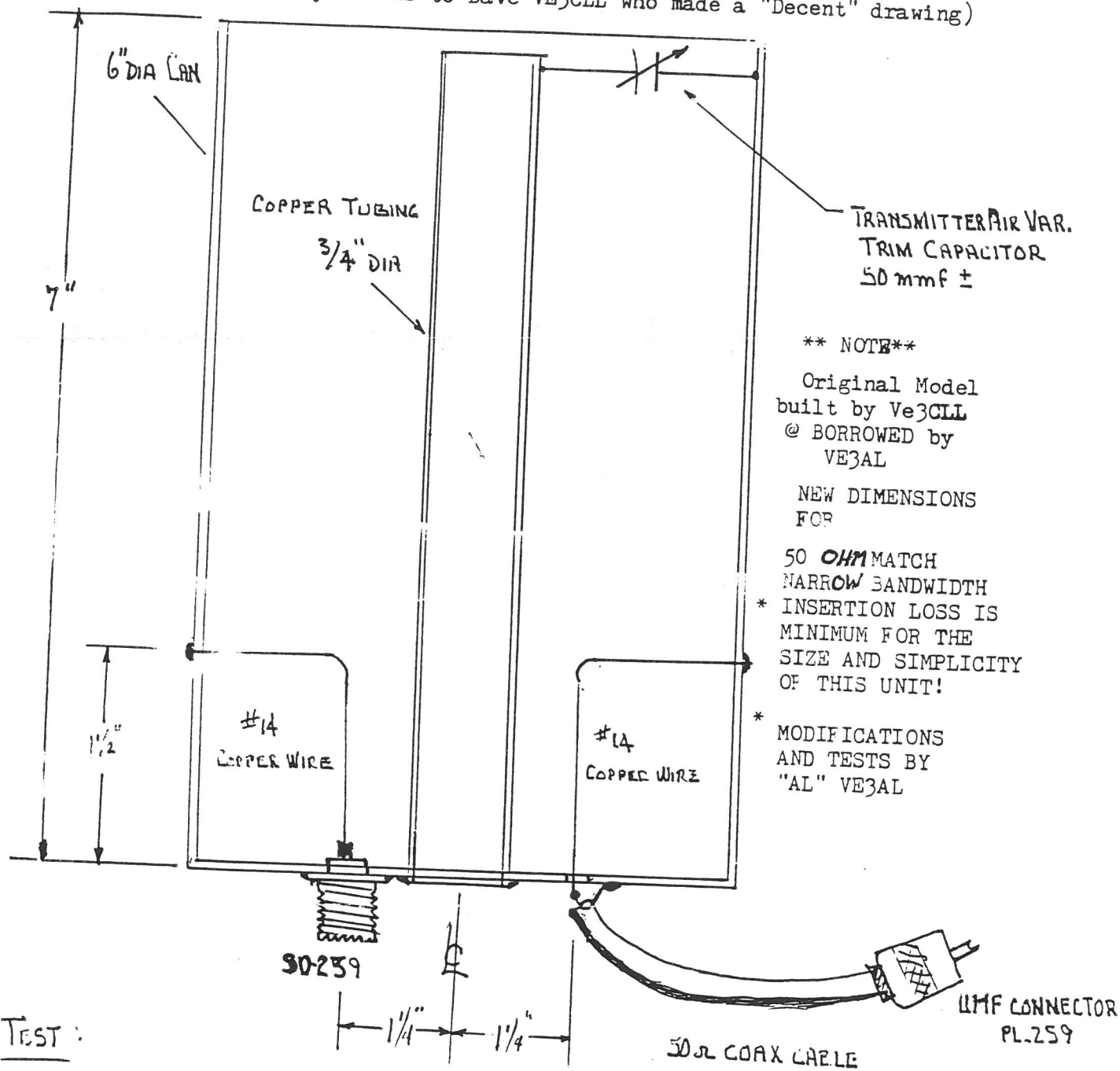
JULY 6 1991- ONTARIO HAMFEST -JULY 6 1991
9am - MILTON FAIRGROUNDS - 9am

(MAP on BACK)

THE 3AL-KAN PAGE KILLER

DE BARRIE CLUB P-7

(With Many THANKS to Dave VE3CLL who made a "Decent" drawing)



TEST :

25W IN @ 146.000 MHz - 50 OHM IN AND OUT.

SKIRTS: 144 AND 148

INSERTION LOSS 3.0 DB.

LOSS AT 600 KHZ 6 DB. POWER

25W IN	FREQUENCY	POWER	OUT
	144 MHz	1.2w	}
	145 MHz	3.0w	
	145.5 MHz	6.2w	
	146 MHz	12.6w	
	146.5 MHz	6.0w	
	147 MHz	3.1w	
	148 MHz	1.2w	

13
AL - VE3AL
705-726-2456

NORTH SHORE AMATEUR RADIO CLUB

EQUIPMENT AND AVAILABILITY FOR EMERGENCY SERVICE

EQUIPMENT	RF POWER	POWER SUPPLY	MODE
VHF BASE	110AC	12DC BATTERY	SSB CW FM PACKET
" MOBILE	110AC	12DC BATTERY	SSB CW FM PACKET
" HT	110AC	12DC BATTERY	SSB CW FM PACKET
UHF BASE	110AC	12DC BATTERY	SSB CW FM PACKET
" MOBILE	110AC	12DC BATTERY	SSB CW FM PACKET
" HT	110AC	12DC BATTERY	SSB CW FM PACKET
HF BASE	110AC	12DC BATTERY	SSB CW FM PACKET
" MOBILE	110AC	12DC BATTERY	SSB CW FM PACKET

ANTENNAS

VHF	BEAM	WIRE ANT.	OTHER.....
UHF	BEAM	WIRE ANT.	OTHER.....
80M	BEAM	WIRE ANT.	OTHER.....
40M	BEAM	WIRE ANT.	OTHER.....
20M	BEAM	WIRE ANT.	OTHER.....
15M	BEAM	WIRE ANT.	OTHER.....
10M	BEAM	WIRE ANT.	OTHER.....

EMERGENCY POWER

BATTERY BANKS.....
 GENERATOR.....
 OTHER.....

EMERGENCY AVAILABILITY NEVER EVENINGS WEEKDAYS WEEKENDS
 ANYTIME

NAME: _____

CALL: _____

ADDRESS: _____

PHONE: _____

Send completed form to: NSARC P.O. Box 171 Oshawa, Ont., L1H 7L1