

# The Hamilton Amateur

## MARCH

MONTHLY MEETING  
 MARCH 17, 1973  
 HYDRO ENERGY SAVING  
 TECHNIQUES FOR  
 THE 90'S

- YAESU 203R 2MTR.HH. SM400 SPK.MIKE, Y112 HEADSET MIKE, FN1B4 BATTERY
- PLUG IN CHARGER \$195.00 or trade for CB sideband rig.
- CP2000 BASE CB 40 SIDEBAND RADIO, SUPER SIDEKICK MIKE..\$250.00

- 3 VE3NCK, BILL, (416)545-6340
- YAESU 101E SPEAKER AND CABINET \$25.00
- 2 MFJ 941-C 941-B ANTENNA TUNNERS \$75.00 EACH
- PYE-NET HOMERREW ANTENNA TUNER \$50.00
- UNIDEN SCANNER PORTABLE \$100.00
- YAESU FT-101ZD HF RIG, WARP BANDS, DIGITAL READOUT, DESKMIKE
- MATCHING SPEAKER AND PHONE PATCH, MANUAL, \$700.00
- PYRAMID 20 AMP PWR SUPPLY EXCELLENT \$150.00

ALL THE ABOVE IN EXCELLENT CONDITION  
 AS OF MAR 29/93  
 ITEMS WANTED LIST  
 ALL PRICES ARE NEGOTIABLE UNLESS OTHERWISE STATED

- 1 VE3BLQ, OZ, (416)221-1808
- YAESU 208R BATTERY CHARGER MODEL NC8A WANTED
- 1 VE3APT, BILL, (416)734-9216
- YAESU SP8 SP9 SPEAKER OR SIMILAR KWD. WANTED
- 1 VE3GFP3, STANLEY (416)528-4002
- STRAIGHT KEY WANTED
- 2 VE3CRB, JOHN, (416)244-1292
- CUSHCRAFT R7 VERTICAL, HF ANTENNA WANTED
- 2 VE3NCM, KEN, (416)336-0980
- YAESU MH-18 SPEAKER MIKE WANTED
- 3 VE3SE, JOE, (416)680-1211
- YAESU FT7 OR FT7B WANTED
- 4 VE3OKA, CARL, (416)389-4307
- PRINTER FOR IBM CLONE WANTED
- 4 VE3BOB, BOB, (416)648-6703
- KWD 9R59D RECEIVER MANUAL WANTED
- 4 VE3GTU, ANDY (416)474-1888
- DUAL BAND MOBILE [PREFERABLE ICOM] WANTED
- 4 VE3KPW, ABE (519)836-3664
- KWD 2 MTR MOBILE RIG WANTED
- 4 VE3AOG, SID, (416)389-2861
- THRUST BEARING 2 1/4" 2 1/2" FOR TOWER BOOM WANTED

HARC EXECUTIVE FOR 1992/93

PRESIDENT:	VE3OQX	Everett Englert	385-0879
PAST PRESIDENT:	VE3OQG	Flora Mangro	578-1789
VICE PRESIDENT:	VE3JAI	Emsley Mitchell	627-0333
SECRETARY:	VE3LTD	Paul Webb	574-0818
TREASURER:	VE3DWI	Dave Bruhn	383-9808
MEM BERSHIP:	VE3OCD	Joe Urbanski	388-8383
	VE3VEH	Arle Verhoog	389-9259

HARC COMMITTEE CHAIRPERSONS FOR 1992/93

AWARDS & CONTESTS:	VE3DWI	Dave Bruhn	383-9808
HISTORIAN:	VE3BIG	George Olenick	383-7338
PROPERTY:	VE3DWI	Dave Bruhn	383-9808
BULLETIN EDITOR:	VE3SON	Jim Walsh	689-6839
EDUCATION:	VE3EYK	Bernie Granby	527-7175
EMERGENCY COORD:	VE3OQG	Flora Mangro	578-1789
FIELD DAY COORD:	VE3JAI	Emsley Mitchell	627-0333
FLEA MARKET:	OPEN		
HEALTH & WELFARE:	SWL		
PROGRAMS:	VE3JAI	Ellen Reinke	549-5119
PUBLIC LIASON:	VE3GCP	Emsley Mitchell	627-0333
HOSPITAL COORD:	VE3OQG	Fred Robinson	575-5197
SWAP NET CONTROL:	VE3JWI	Mary Urbanski	388-8383
CANWARN COORD:	VE3VEH	John Johnson	578-4275
REPEATER:	VE3VEH	Arle Verhoog	389-9259
TECHNICAL:	VE3OQY	Don Graziano	560-1960
VE3DC LICENCEE:	VE3OQY	Don Graziano	560-1960
VE3NCF LICENCEE:	VE3FHQ	Glen Gibson	385-2786
VE3RCB LICENCEE:	VE3OQY	Don Graziano	560-1960
VE3WXH LICENCEE:	VE3GCP	Fred Robinson	575-5197
DESIGNATED EXAMINERS:	VE3LTD	Paul Webb	574-0818
	VE3GCP	Fred Robinson	575-5197
	VE3EYK	Bernie Granby	527-7175
	VE3IND8	Lorraine Macpherson	389-7653

ARS VE3OZY RICHARD DANBY  
 8 CLINTON STREET  
 HAMILTON ONT. L8L-3J8

HAMILTON AMATEUR RADIO CLUB SWAPSHOP LISTINGS  
AS OF MAR 293  
ITEMS FOR SALE LIST

FOR INFO CALL VE3JWJ, JOHN (416)578-4275  
TUESDAY NIGHT 8:00 P.M. VE3NCF 146,760 MHZ  
ALL PRICES ARE NEGOTIABLE UNLESS OTHERWISE STATED

- 1 VE3JSJ, GORDON (416)575-3647  
- ICOM 735 TRANSCVR, AUTO TUNER AH2, CONTROL BOX \$1175.00  
- TEN TEC ARGONAUT 509 QRP TRANSCVR. \$300.00
- 1 VE3CCF, CHRIS, (416)847-0090  
KWD, TH26AT 2M HH, TONE PAD, CTCSS BOARD, COVER, PLUG IN CHARGER, 12V CIG ADAPT, 6 MONTHS OLD \$300.00
- 1 VE3ATW, ROGER, (416)388-9142  
KANTRONICS UTU TERMINAL UNIT, CW-RTTY-ASCII-AMTOR MODES \$90.00
- 2 VE3BNW, BILL, (416)544-6563  
ZENITH Z-180 LAPTOP COMPUTER, 20 MEG HD, 888 PROC, Z-DOS, MANUAL  
3 1/2 720K FLOPPY, 1200 BAUD MODEM, SERIAL, PARALLEL PORT FOR RGB MONITOR \$300.00
- 2 VE3NYZ, FRANK, (416)389-0114  
ICOMICW2A HH, DUAL BAND, BP84 BATTERY PACK, I.C.-73 CASE, CP-13 CIG ADAPT  
HM-70 SPEAKER MIKE, OPC-288 DC POWER CABLE, BA-11 BOTTOM CAP \$775.00
- 2 VE3NYC, PAUL, (416)383-9729  
HAMMOND IKW, LINEAR AMP, WIRED FOR 220 WILL CONVERT TO 110 \$1200.00
- 2 VE3CEI, MIKE, (416)561-0453  
RS 50 CHANNEL SCANNER \$100.00
- 2 VE3APT, BILL, (416)734-9216  
ICOM SM10 MIKE, EQUALIZER, COMPRESSOR, MIN-MAX INPUT, METER  
WILL TRADE FOR SB6 OR SB8 MIKE OR \$110.00
- 2 VE3IBU, DERK, (416)545-1354  
SUPERSTAR 3900 10-11 MTR TRANSCV. MIKE, POWER SUPPLY MANUAL..\$250.00
- 2 VE3LTD, PAUL, (416)574-0108  
YAESU FT-708 70 CM HH, SPK MIKE, HARD CASE, SPARE BATTERY \$200.00
- 3 VE3LGT, ROBERT, (416)957-0403

PRESIDENTS MESSAGE

I wish to thank the membership and all who wished me well during my recent illness. A few important committees as yet have no chair-person. Health and welfare has been chaired by Ellen Reinks. Field day chair-person has now become open and also the Flea Market has not been filled from last year. I will attempt to canvass members to fill these positions in the next few weeks. I wish to thank all that attended the Feb. membership meeting February weather has not been all that balmy.

73, EY VE3OQX

IARU HF BANDS PLANS

Region 2

1800-1830	CW	10100-10130	CW
1830-1840	DIGIMODE	10130-10140	DIGIMODE
1840-1850	(DX CW window	10140-10150	PACKET/DIGIMODE
	Phone (DX		
	Phone window		
1850-2000	Phone	18068-18100	CW
		18100-18105	DIGIMODE
		18105-18110	PACKET
		18110-18168	PHONE
3500-3510	DX CW		
3510-3580	CW		
3580-3620	DIGIMODE	7000-7035	CW
3620-3635	Packet/Digimode	7035-7040	DIGIMODE
3635-3645	DIGIMODE	7040-7050	Packet/DIGIMODE
3645-3750	CW/Phone	7050-7080	Phone
3750-3775	Phone	7080-7100	DX Phone
3775-3800	DX Phone	7100-7166	Phone
3800-3840	Phone	7166-7176	SSTV/Phone
3840-3850	SSTV/Phone	7176-7300	Phone
3850-4000	Phone		

14000-14070	CW	21000-21070	CW
14070-14095	DIGIMODE	21070-21090	DIGIMODE
14095-14099	Packet	21090-21125	Packet
14099-14101	Beacons	21100-21149	CW
14101-14112	Packet/Phone	21149-21151	Beacons
14112-14225	Phone	21151-21335	Phone
14225-14235	SSTV/Phone	21335-21345	SSTV/Phone
14235-14340	Phone	21345-21440	Phone
14340-14350	Emerg/Phone	21440-21450	Emerg/Phone
24890-24920	CW	28000-28070	CW
24920-24925	DIGIMODE	28070-28120	DIGIMODE
24925-24930	Packet	28120-28189	Packet
24930-24990	Phone	28189-28201	Beacons
		28201-28675	Phone
		28675-28690	SSTV/Phone
		28690-29300	Phone
		29300-29510	Satellites
		29510-29700	FM Ph/Repeaters

Region 2

North America  
South America  
Hawaii, Johnson Island  
Midway Island

## STUART'S GUIDE TO FIELD DAY

Field day has been described as both a contest and an emergency preparedness exercise. Whatever your reason for becoming involved in this annual event, you will become a better trained operator, and you will have greater insight into our hobby.

What is field day? Every year on the last weekend of June, thousands of individuals, groups and clubs set up fully functioning amateur radio stations in the "field". The sole purpose is to test your ability to quickly set up a temporary station, and try to work as many other Canadian and American stations, also in the field. Historically the Hamilton Amateur Radio Club (H.A.R.C.) has participated in field day, and has performed quite well. The objective is not only to do well in the contest aspect of the event, but also to gain experience in the emergency nature of the day. What is a typical field day like? I will attempt to describe what happens to create a successful field day for our club.

Long before the May issue of QST reaches your mailbox, your club has been hard at work. The Field Day Coordinator position is currently held by Everett Engler VE3OQX. Does it mean that Everett will do all of the work? No way!! What Everett will do is to make sure that the key elements are in place for the day. After all, this is a club event designed to provide learning opportunities for both junior and senior club members.

For the past few years, H.A.R.C. has operated field day from the Rock Chapel site of the Royal Botanical Gardens (RBG). This means that the RBG has been contacted, and written permission has been granted to operate for the duration of the contest. Arrangements have been made for the cutting of the grass the week before the contest and for the renting of a "Porta-Potty". All of this ensures we have all the comforts of a regular campground. We usually get the key to the lock for the site, the day before the contest. But, you can only start to set up the Saturday morning of the contest.

The Field Day Coordinator will solicit for "Band Captains" for the big event. These people are seasoned operators who are responsible for putting together a team, designed to operate on one band and mode of operation. Such teams as the 40 metre phone group are a highly polished and could put together a station, without any further direction. Then, there are the rest of us. The Field Day Coordinator makes arrangements for the electrical system of generators, gas and oil, for refreshments and meals. His/her duties include publicity and ensuring that the Band Captains hand in their completed logs and dupe sheets. The Field Day Coordinator will have written to the ARRL and obtained a copy of the Field Day Package. This package will contain ideas on operation, as well as the field day summary sheet and one large dupe sheet.

So if you want to be a Band Captain or if you decide to help out in the planning process, the rest of this article will provide a guide to what you could expect to do. What band do you want, and what mode? The club has traditionally operated on 80, 40, 20, and 2 metres. Modes of operation have included CW and Phone. But you may operate on any of the other bands or modes. Packet radio has been operated occasionally, to gain the additional points for this mode.

I will assume that you will be operating 80 metre phone and you have a few operators and SWL's lined up for logging. First find out who operated your band last year. They may be willing to give you some help, or you may decide to work with

continued:->

### ANNOUNCING A BENEFIT DANCE FOR JOHN JOHNSTON VE3JWJ

SUNDAY APRIL 4 / 93  
2:00 PM TO 11:00 PM  
BUFFET AND DANCING  
CONTINENTAL CLUB  
17 GERTRUDE ST.

ADMISSION IS \$5.00  
Call for tickets or get them at the door.

For more info call  
(416)545-3067 - Georgia or Lee  
(416)662-5044 - Carmen

John was in the entertainment business in the Hamilton area for the last 25 years, and was in a serious motor vehicle accident which handicapped him severely. The musicians of the city and area are getting together to put this on for him.

Everyone is welcome to attend. There will be a large variety of bands, rock, country, etc and numerous draws.

The CONTINENTAL CLUB is located on Gertrude St. Gertrude is one block north of Beach Road off of Gage Ave. Then turn right onto Gertrude and up the street on the left about 400 feet.

There will be free food, lots of entertainers, cash bar.  
"All are welcome to come and enjoy the day"

## INTRODUCTION TO PACKET RADIO - PART 8 - by Larry Kenney, WB9LOZ

This part of the series discusses, in detail, the various parts of the packet message. The following is an example of what you see when listing messages on a BBS. On some systems the information is displayed in a different order, but the same information is given.

```
MSG# STAT SIZE TO      FROM @BBS DATE/TIME SUBJECT
4723 P 1084 WD5TLQ  WA6XYZ N5SLE 0604/1240 Software working great!
4721 BI 771 PACKET WB9LOZ ALLUSW 0604/1154 INTRODUCTION TO
PACKET
4717 BF 2387 EXAMS W6NLG ALLCAN 0604/1020 FCC Exams: June - Dec.
4715 T 275 94114 W1AAR 0604/0959 QTC San Francisco 415-821
4712 BF 918 ALL N6ZYX ALLCAN 0604/0845 9600 BAUD DEMONSTRATION
```

The MESSAGE NUMBER is assigned by the BBS program when the message is received and it cannot be changed. The numbers are assigned sequentially. The STATUS of the message includes several different bits of information. The first letter of the STATUS indicates the TYPE of message: B for Bulletin, P for Personal, or T for Traffic for the National Traffic System. Bulletins are messages of general interest to all users, and are available to be read by everyone using the system. Personal messages are listed only for the sender and the addressee, and they're the only ones that can read them. (Anyone in monitor mode could see a personal message as it's being sent over the air, of course.) The list above would have to have been requested by WA6XYZ since it lists an outgoing personal message. Traffic messages, type T, are messages used for handling traffic on the National Traffic System. (Refer to part 12 of this series for information on NTS.)

STATUS also shows if the message has been read, has already been forwarded to all designated stations, is in the process of being forwarded, or is an "old" message. You might see one of these letters: Y - yes, it has been read, F - it has been forwarded, I - it's in the process of being forwarded right now on another port, or O - the message has been on the BBS long enough to become an "old" message. "Old" can be anywhere from 2 days for an NTS message to 3 weeks for bulletins. The time frame for each message type is specified by the local sysop. The "O" is mainly used to catch the attention of the sysop.

The SIZE indicates the combined total of characters, including punctuation in the message. TO is who the message is addressed to or it can be a message category. The call of the addressee is entered for a personal message, and for bulletins it could be ALL, EBARC, USERS, etc. TO is also used to categorize bulletins by particular topics. You might find a message addressed TO AMSAT, TO PACKET or TO SALE, when it is actually a message about AMSAT, about PACKET or about equipment for SALE. For NTS messages TO is the zip code of the addressee. FROM shows the callsign of the station originating the message.

@BBS is used if you want a message to be forwarded to someone at another BBS or for general distribution using a forwarding designator. In the list shown above, the personal message would automatically be forwarded to WD5TLQ at the N5SLE BBS. By entering a special designator, such as ALLCAN, in the "@BBS" column a message can be forwarded to specific areas. (See Part 6 and 7 of this series for details on addressing messages and using forwarding designators.)

Next is the DATE and TIME when the message was received at the BBS you're using. (If the message was originated at another BBS, the date and time when the message was originally entered will be shown in the forwarding headers, as explained below, and at the top of the message when you read it.) Keep in mind that the date and time indicated can be either local time or GMT (Zulu time) depending on the time used by the BBS.

## FIELD DAY CONTINUED:

You may wish to experiment with some new combinations of antennas during field day. Most stations will bring a spare antenna as a backup, should they have problems. The second antenna can also be placed to favour propagation in another direction. This provides flexibility in working all sections.

Other equipment that you should have, includes an antenna tuner and s.w.r. bridge. To cut down on interference with the other stations, you should also include a low pass filter. This means that you will need several short runs of coax with appropriate coax connectors to interconnect all the accessories.

## TRANSCIVER:

A typical HF station will consist of a modern digital transceiver, and matching power supply. Most radios will operate off of 13.8 V DC, but our club tends to use generators and work off of 120 VAC. This will mean you need a power supply that will deliver at least 20 amperes at 13.8 VDC. Both the transceiver and power supply should be grounded. Try to bring a modern digital transceiver to field day. Your old all tube transmitter with its matching v.f.o. and separate receiver should be left at home. This is not the best time to train new operators on the fine art of "dipping the finals". Some of our visually impaired operators may prefer to bring their own rig with its audio frequency readout and automatic antenna tuner.

It is a good idea to have a separate speaker for your radio. Some operators prefer to use headphones. You may need to hook up two sets of headphones, one for the operator, and one for the logger. The best microphone for field day is a desk type, with adjustable gain. You would soon tire of using a hand microphone after 24 hours of use. Some operators also like a separate foot controlled P.T. switch. One other option is a combination headphone and boom microphone. Whatever you use, make sure it is as comfortable as possible.

For C.W. it is best that each of your operators bring their favorite hand key and electronic key. Some of the electronic keys have memory capacity to record items such as "CG FD" and to give the report "SA ON". Whatever you do, try to keep it simple. Remember that most of the electronic keys will require their own power supply as well.

## OPERATING AIDS:

You will need some sort of clock, set on U.T.C and a small 25 watt light for during the night. The best clock is a MfJ 24 hour battery clock set on both local and UTC. Just before the start of the contest, listen to WWV and accurately set your clock. It is also a good idea to set the internal clock of your laptop computer, if you are using a computer logging program. Have an ample supply of paper, pencils, pens, markers, etc.

Make sure that your station has a photocopy of the Field Day Rules. These are published in the May edition of QST. Near the start of QST is a list of all the ARRL sections. You will need to record the section in your log.

It may be a good idea to bring a copy of the ARRL antenna Book and ARRL Operating Manual to field day. You can quickly look up information, and use the books for education of junior operators. Make sure that you bring the instruction manual that came with your transceiver, antenna tuner and any other pieces of

VK4AHD @ AX4BBS.AUS.OCC

You'll note that the local area code is preceded by the octothorpe (now, how's that for a \$5 word?), better known as the number or pound sign. The reason is that the Japanese network, and possibly other areas, use routing numbers for the local area, which could get confused with zip and postal codes. Using the # on all local area codes will eliminate forwarding problems.

We need to emphasize two very important points: hierarchical addressing DOES NOT indicate a forwarding PATH, and ONLY ONE BBS call should be included in the address. A list of BBS calls separated by periods will not get your message to its destination. In fact, it can cause your message to loop between BBSs and your message probably won't be delivered. The addressing scheme is said to be one area inside another area. Using my hierarchical address as an example, WB9LOZ @ W6PW.#NOCAL.CA.USA.NA, here's how you would describe the address: "WB9LOZ at W6PW which is in Northern California which is in California which is in the USA which is in North America".

There are several BBS programs that implement hierarchical addressing now, including the WORLD, WA7MBL, AA4RE, MSYS and WD6CMU software. Check the ID block you receive when you log into your BBS. If it has an H in it, such as [RRL-1.1.1.1-CH\$] or [4RE-02.10-HM\$], your system supports it.

USING THE HIERARCHICAL ADDRESS: This next section explains how the BBS software uses the hierarchical addressing scheme. We first have to understand how the software goes about matching items in the "@ BBS" address with items in the forward file. For an example, let's say that we send a message to Tom, W3IWI, who operates his own BBS and is located near Baltimore, Maryland. We would enter: SP W3IWI @ W3IWI.MD.USA.NA If the only entries in the forward file are California BBSs plus a list of state abbreviations, let's see how the message would be forwarded. The first thing the software does is attempt to find a match between the items in the forward file and the left-most item in the address field. In our case, it would not find W3IWI. If there isn't a match, it then moves to the next section to the right. It would find MD and that match would allow

#### FOOD/WATER:

You should bring sufficient food and drink to last for the duration of the field day. The usually provides a group meal for the operators who stay for the night. A hospitality tent is usually arranged to provide relief from the contest activities. However, it is a good idea to come prepared to last the duration. There is not any drinking water at the site, so bring a container of your favorite Hamilton drinking water.

You should bring a supply of throat lozenges or candies for the phone operators. After about 1200 verses of "CG FIELD DAY", your throat begins to get a bit sore.

#### What to do after it is all over?

When field day is over, you have to take you station down. Fortunately it is usually quicker to take every thing down than to put it up. Some of the jobs can be started before the official close of field day. When the generator are turned off, you can remove your ground rods and disconnect the G.F.I. plugs. Return all of the club power box plugs and cables to the generator site. Remove all of your equipment, clean up all remaining garbage and remove all ground stakes. Just before leaving, make a quick check for any forgotten pieces of equipment and return all borrowed items to their owners. Help the other stations take down their towers and antennas. The Field Day Coordinator will need some help gathering up all of the generator, and packing away the club power cables and power distribution boxes. The Band Captain is then responsible for reviewing the log and doing the check sheet for the station. The documentation must be turned in to the Field Day Coordinator, and the score is then submitted to the ARRL. The results are usually published in the November issue of QST.

Does it sound like a lot of work to go to field day? Yes, it takes a lot of planning, but after a few field days, you too can be one of the old timers that seem to know what is going on. Have fun, visit all of the stations, try your hand at operating, logging, making coffee, caring for the generators, and organizing your band team. Field Day continues to be one of the largest club participation events, year after year. Why not participate this year and see what you can learn.

Stuart M. Fedak, VE3SMF January 11, 1993 supplied by the ARRL, or as modem as a computerized login.

So there you have it folks. Thanks to Stuart for supplying the above. Let's have a good turnout to FIELD DAY this year and start letting the coordinator know if you are interested in participating.



equipment. You probably know what every dial and connector on your rig is for, but the operator on the midnight shift will appreciate not having to wake you up to find out where the on-off switch is located.

Bonus points can be made for message origination. You will need a CRR/L/CARE/ARRL message form and instructions on how to originate a formal National Traffic System (NTS) message. This is always a lot of fun.

#### LOGGING:

Logging can be as simple as a large dupe checking log, as supplied by the ARRL, or as modern as a computerized logging program. My favorite computer logging program is by Paul Cassel, VE3SY from Kitchener. This program is ideal for any laptop computer. The older 8088 based laptops with two 720 K floppy drives and no hard drive is ideal. Such laptop computers usually operate off of power converters, and their internal batteries take over when the power drops. So you never lose your data. The program from VE3SY does all of the score sheets for the contest, checks for duplicates and is highly recommended. Whatever method of logging you use, the Band Captain has to submit the final results to the Field Day Coordinator.

#### SHELTER:

A full range of shelters have been used over the years from canvas tents, to mobile homes. Try to get the most comfortable operating environment that you can. It is best to have an operating shack, as well as a place for operators and loggers to sleep. My own favorite is my camping hard top trailer. It has sufficient room to operate, and is quick to put up and down. It would be best if one member of your team was responsible for the accommodation. Just make sure that everyone treats the temporary shack with all due respect, and help to clean up at the end of the field day. The Band Captain should ensure that sufficient garbage bags are available to keep the site as neat and clean as it was when you arrived. We want to be invited back again next year.

I strongly recommend that you take the best chairs that you can have in your operating position. A typical folding lawn chair can be quite painful after several hours. However, a folding lawn chair is a necessity in a canvas tent with a floor. Your operating position should have a sturdy desk, to hold all of the radio gear, and sufficient room for your logger.

It can get quite cold during the evening, so come prepared with heavy clothes and sleeping bags. I strongly recommend a good pair of rubber boots. The grass at the field day site can be quite long and wet when setting up your station, and often gets covered with dew during the night. So bring your high rubber boots and warm socks. If you are going to sleep overnight, have a warm sleeping bag, and the usual camping supplies. Some people set up small sleeping tents, or try to catch some sleep in their vehicle.

#### TOOLS:

Field day would not be field day if something did not go wrong. The trick is to have sufficient equipment to have backups, or to make field repairs. You should have sufficient tools to assemble all of your station, as well as to make simple repairs. Various members of your team should bring a mechanical and electrical tool kit, a volt/OHM meter, and several rolls of black tape and duct tape.

the message to be forwarded. If it had found the call W3IWI, that entry would take precedence (because it is more left in the field than MD) and would of course also ensure delivery.

Here are some comments from the ones who devised the hierarchical addressing: "There is another added benefit to this scheme. It involves Gatewaying between the BBS world and other networks, such as TCP/IP via SMTP. Much of the pioneer work in setting up the gatewaying protocols has been done by NN2Z, N3EUA, and PA0GRI, amongst others. The WORLI BBS package allows for the forwarding of mail between the BBS world and the SMTP world. Of note is the fact that the WA7MBL package has allowed such message exporting and importing for some time now. This means that we can take advantage of the the TCP/IP host-names and their domain or hierarchical format for forwarding. Thus it is possible to send mail from the BBS to VE3BTZ as ve3btz@pc.ve3btz.ampr.org or from SMTP to wOrli@wOrli.or.usa.na and not have any ambiguity. "The authors hope that this paper will serve as a starting place for improved message routing by means of implicit routing. Low-level (VHF) BBSs need only maintain state or province or country codes for distant BBSs, and route such traffic to their nearest HF Gateway. In turn, the HF station routes it to the desired state, where the receiving Gateway station would have a detailed list of the BBSs it serves."

Comments from WORLI, N6VV and VE3GYQ.

- - - -

them to get more experience. OK, what equipment will you need? There is a lot more to Field Day than just throwing a station quickly together. It has to last for at least 24 hours of continuous operation, by several operators. Your antennas and transceiver will be operating within close proximity of other equipment, sometimes in the same band. You also have to log all contacts, and eliminate all duplicate stations from your log entries. Is it possible? Yes, but it will take some planning on your part. What if it rains, or there is lightning, or the generator runs out of gas? You have to be prepared.

#### POWER SUPPLY:

The H.A.R.C. owns several gas generators, which are used for field day use. They generate 120 VAC at 60 Hz. These machines require gas, and frequent checks on the oil. Usually, once the gas consumption is determined, regular generator shut downs are planned for servicing. Some stations use their own generators, and have backup battery capacity. From the generators, heavy feed lines owned by the club, bring power to each band station. The feed line will terminate with a Ground Fault Interrupter (G.F.I.) plug, which will then be attached to your station power lines. You are now on your own for power cords and extension plugs. A ground rod and ground line should be established at each band station. All of your equipment must be grounded. This will decrease the probability for shock, as well as provide for R.F. grounding protection. The single power line into your station should be connected to a power bar with a switch. All station equipment should be connected to your power bar. Your station can then be rapidly shut down using the power bar switch. Most stations have a volt meter monitoring the voltage at the power bar, to watch for voltage spikes and other problems.

All extension cords and power bars should be of the three wire conductor type. The AC power supply will be used for powering your transceiver and a maximum of two 25 watt lights. A small laptop computer would also be acceptable. Do not try to operate other equipment such as fans, heaters and coffee pots. This will only increase the generator requirements. Remember to have spare fuses for all of the equipment in your station. This includes your main power supply, your transceiver, and accessory power supplies. Your power bar should have a circuit breaker, and should have voltage spike protection. Any computer grade power bar should be suitable for this purpose. When the power goes off during the night, it is nice to have a naphtha lamp or several heavy duty flashlights for auxiliary lighting.

#### ANTENNAS:

For H.F. operation, the most practical antenna is a resonant dipole cut for the frequency of operation. Some sort of tower or "pop-up" mast will be required. For operation on 80 or 40 metres, the ends of the dipole must also be supported. Our field day site has lots of trees, and a well placed station would not even require the use of a tower. I usually recommend about 75 - 100 feet of RG58U feed line for your antenna. This will allow for maximum height, as well as keeping your tower away from your operating position. On the HF bands, this coax cable will not result in much loss of signal strength.

Whatever antenna support you use, make sure that it is well guyed, and will not come down during a storm. Snow stakes make excellent temporary guys for towers, and should be driven well into the ground with a sledge hammer. At least three guy lines should be used on your tower or "pop-up" mast.

The SUBJECT (or TITLE) is a short line telling what the message is all about. It should be brief, but informative. For bulletin type messages, this is the information that determines whether or not a person is going to read your message when he sees it in the message list. The parts of the message mentioned so far are all included in the header of the message, and are seen when listing messages. The hierarchical address and the message ID are not shown in the normal listing. On some systems, such as those using WORL software, entering a semicolon after the list command will give you this information. (Example: LL 15 ;)

If a message has been forwarded from another BBS, forwarding headers are added at the top of the actual message text. This is information added by each BBS that was used to get the message from its origination point to the destination. Each BBS adds one line showing the time the message was received by that particular BBS, its call sign, and usually the QTH, zip code, and message number. Other information is often added, at the discretion of the sysop there. If you use the RH command, rather than just R, when reading a message, such as RH 7823, you'll receive complete headers. With just the R, headers are reduced to a list of the BBS call signs. Complete headers are useful if you want details on the path the message took to reach you or how long it took to be forwarded from system to system from the source to destination.

The TEXT of the message contains the information you want to convey to the reader. It can be of any length. When entering a message into a BBS, use carriage returns at the ends of your lines, as if you were using a typewriter. The normal screen width is 80 characters, so you should enter a carriage return prior to the 80th character on each line. Don't allow the automatic wrapping of lines to occur. A message entered without carriage returns is very difficult to read, as words are cut at improper points, lines vary drastically in length, and blank lines are often inserted. You should include your name, call and packet address at the end of the text so that the person reading your message will be able to send a return message to you if he or she wishes to do so.

You complete the text with either a Control-Z or these three characters: the "slash" (/) plus the letters "EX". These characters must be on a line by themselves. On some systems only the Control-Z will work. This tells the system that you've finished entering the message.

Messages that are going to be forwarded to several BBSs or across a long distance should be limited in size. Extremely long messages can tie up the forwarding system unnecessarily, so users are advised to break up long messages into parts, keeping them to a length of 2 - 3 K each.

Parts 9 and 10 next issue. Enjoy!



HAMILTON AMATEUR RADIO CLUB GENERAL MEETING FEB. 17, 93

The regular monthly meeting of the Hamilton Amateur Radio Club was held at the Nash Auditorium at Chedoke Hospital. The meeting began at 8:00 pm, with President Ev VE300X presiding. Ev welcomed guests to our meeting.

COMMITTEE REPORTS

Rick VE3OZY, reported the January 160 meter contest that 500 contacts were made. This contest starts at 5:00 pm Friday and ends at 11:00 am on Sunday. Fred VE3GCP asked about committee openings. The President stated that no person is in charge of Field Day or Flea Market as yet. No volunteers have come forward. NOTE: As of this issue the position of Field day has been taken by VE3JAI. Let's help out when he asks for field day captains, players (operators for CW, SSB, Packet, Phone) and equipment setup.

Fred VE3GCP thanked Ted Townsend of CHML for asking amateurs to act as Dispatchers for the Canadian Figure Championships held at Coppins Coliseum. Thanks to all who volunteered (see Fred's letter elsewhere in this issue).

Around the Bay Race has 16 volunteers and more are welcome. A planning meeting will take place before the event on March 28, 93. The Ride for Cancer on April 25, 93 requires more volunteers. Also the Salvation Army Red Shield campaign in May.

Meeting adjourned for coffee after IPARN concluded their presentation and current plans for the future. Time 9:00 pm.

BUSINESS

The secretary report started the business part of the at 9:25 pm. General meeting minutes of January were read by VE3DWW David. A motion to accept the report was made by VE3OCD, Joe and seconded by VE3JAI, Emsley. Carried. The treasurer report read by VE3OCD, Joe.

	Credit	Debit	Balance
Forward Feb 1,93			\$5,487.19
Postage Bulletin	\$25.00	\$75.06	
Membership		121.44	
			\$5,315.69

A motion to accept the report was made by Fred VE3GCP and seconded by Emsley VE3JAI. Carried. President Ev VE300X thanked the Hospitality group for doing such an out standing job this year. Membership VE3VEH stated we have 161 members.

OLD BUSINESS

The University games will not be using the services of amateurs for packet communications. Due to low numbers the advance classes will not be held. The status of the antenna system at the Red Cross Building is that more repair work needs to be done.

NEW BUSINESS

With no new business the meeting was adjourned at 9:54 pm. A motion to adjourn was made by Fred VE3GCP and seconded by VE3JAI, Emsley. Carried.

CANWARN

SPRING IS ALMOST HERE AND THAT'S THE TIME TO START THE SEASON OF CANWARN. PAUL VE3LTD WHO DID ALL THE GROUNDWORK FOR THE "SUMMER SEVERE WX WATCH" HAS PASSED THE TORCH TO ME, ARIE VE3VEH. LAST YEAR WAS A GOOD SEASON AND WE ALL DID A FINE JOB. BURLINGTON, BRANTFORD AND HAMILTON FORMED A SOLID NET AND IT WAS CERTAINLY APPRECIATED. WE NEED A FEW MORE NET CONTROLLERS AND THOSE INTERESTED CAN CALL ME AT 389-9259 OR CATCH ME ON THE PACKET. THE NEW CONTROLLERS WILL BE TRAINED FOR THE JOB.

CUL ANL 73'S . ARIE VE3VEH

////////////////////

STOLEN

ON MARCH 3, THE CAR OF RICHARD, VE3YAG WAS BROKEN INTO AND A YAESU MODEL FT R8 S/N 10661014 AND MAG MOUNT LARSEN 5/8 ANTENNA WERE STOLEN. HIS PHONE IS 572-6380.

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CRRRL AND CARF WILL HOLD THEIR FINAL BOARD MEETINGS ON MAY 1, 1933 AND FORMALIZE THEIR DISCUSSIONS. THE INAUGURAL MEETING OF RAC WILL FOLLOW ON MAY 2. QST CANADA AND TCA WILL CONTINUE SEPARATE PUBLICATIONS FOR MAY AND JUNE. A NEW AND EXPANDED "THE CANADIAN AMATEUR" WILL BE LAUNCHED ON JULY 1, 1933.

**THE HAMILTON AMATEUR RADIO CLUB**  
**P.O. BOX 91215, Effort Square Postal Outlet, Hamilton, Ontario L8N 4G4**

**CLUB MEETINGS:**

Meetings are held on the third Wednesday of each month except July and August at the Nash Auditorium, Chedoke Hospital. Start time is 8:00pm. Non-members and friends are welcome, coffee and donuts are on the house!

**EXECUTIVE MEETINGS:**

The Board of Directors meets at 7:30pm on the fourth Wednesday of each month in the Radio Room, Red Cross Building, 400 King St East, Hamilton. Members are encouraged to attend.

**CLUB STATION:**

The HARC maintains an emergency radio station in the Red Cross Building, 400 King St East, Hamilton.

**MEMBERSHIP:**

Membership in the Club costs \$25.00 per club year, 1 September to 31 August. Additional family members (no bulletin) are \$1.00 per year.

**EDUCATION and LICENSE TESTING**

Amateur radio license courses are regularly scheduled. License testing through the Club is performed on the second Tuesday of each month (by Appointment). Contact the appropriate person responsible listed on the front cover. Just testes and tester to be present at time of testing.

**REPEATER:**

VE3NCF 146.760 MHz (input-600), located on the Hamilton escarpment, is available for use by all amateurs. Special features (mailbox, link info) are privileges of membership. Part of the VE3RPT link system. Contact the executive for codes.

**FIELD-DAY:**

The HARC operates a multi-station site during Field-Day. Contact the Field-Day Coordinator on the front page for more information.

**SWAP NET:**

A swap net is held on VE3NCF every Tuesday night at 8:00pm except during the summer. The buy and sell listings are also available on the club packet BBS VE3DC operated by VE3JSJ on 145.590 or via modem 575-4745.

**FLEAMARKET:**

A fleamarket is held during September each year at the Ancaster Fairground. The 1993 fleamarket has yet to be set. The time will be 9.00am.

**BULLETIN:**

The Hamilton Amateur, the official news bulletin of the Club is published ten times a year and sent to all members (families share a bulletin).

**CRESTS:**

Anyone wanting a Club Crest or a Club Certificate contact VE3VEH Aris Verhoog.

- KWD. 702A DUALBAND, COMPLETE NEW IN BOX \$500.00
- 2 ASTATIC D104-MGB MIKES \$75.00 EACH
- DIAMOND SX-1000 SWR-PWR MTR \$390.00
  
- 3 VE3OCC, ROBERT, (416)549-6125  
HEATHKIT SB634 STATION CONTROLLER, SWR,PWR,CLOCK  
ID TIMER, PHONE PATCH \$200.00
  
- 2 VE3CRB, JOHN, (416)244-1292  
CODESTAR CODE READER, CW, RTTY, 12V PWR SPLY \$200.00
  
- 2 VE3LNX, VICTOR, (416)983-5831  
6146W TUBES - MILSPEC \$40.00 [PAIR]
  
- 3 VE3VSW, WALT, (416)544-0200  
- COMMADORE 64 COMPUTER, 1541 DRV. 1525 PRINTER, 1670  
MODEM, FLOPPIES \$300.00
  
- 3 VE3DXT, DEREK, (416)387-2936  
- ICOM ICO2AT HH. ANT, MANUAL, SPK MIKE, CHARGER, CASE  
\$300.00  
- BEARCAT 100 XL POCKET SCANNER 16CH. CASE, BATTERY,  
CHARGER, MANUAL. \$150.00  
- MFJ SWR-WATT METER MODEL 817 \$50.00  
- PALMAR TX75 SOLID STATE LINEAR AMP. 75.WATT 3MHZ TO  
30 MHZ. \$250.00
  
- 3 VE3PKY, CHRIS, (416)547-3169  
- HEATHKIT HW20 PONI 2M TRANSV. AM-CW, DUAL VFO \$60.00  
- 2 KILOWATT INLINE WATT METER 0-200 0-2000 \$75.00 OR  
TRADE FOR TUNER.
  
- 3 VE3TQ, JIM, (416)385-8245  
TR4930 2MTR 21 MEMORIES, PWR SUPPLY.  
TSH 830-S DRAKE NN4 ANT TUNNER, PHONE PATCH,  
HEATH KIT KEYS, EARPHONES, 2 COAX SWITCHES, POWER BAR  
ALL ONE OWNER, \$1100.00 MUST SELL AS PACKAGE...
  
- 3 VE3IWI, JOHN, (416)578-4275  
- JOHNSON DESK MIKE \$60.00
  
- 2 VE3WTE, WHITEY, (416)547-0515  
- HEATHKIT SWR-WATT METER HM-102 ..\$25.00  
- MFJ 1270B TNC VHF/UHF PACKET TNC \$100.00  
- SCANNER 1.5-1.5 1000 CHANNELS PORTABLE, BATTERIES  
CARRY CASE, MANUAL, LIKE NEW \$550.00 OR TRADE
  
- 4 VE3JIS, JACK (416)648-6443  
- TURNER SIDE KIK MIC \$50  
- CHANNEL MASTER ROTOR \$55  
- RS TV ROTOR \$45  
- SUPERIOR ROTOR \$60  
- PYRAMID 7 AMP POWER SUPPLY \$40.00  
- CUSHCRAFT RINGO 2MTR ANTENNA \$40.00