The Hamilton Amateur

The Hamilton Amateur Radio Club Newsletter - 70 Years of Amateur Radio 1932-2002

February 2002

Http://www.hwcn.org/link/harc/

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The Hamilton Amateur Radio Club
PO Box 91215, Effort Square PO
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Est. 1932 Inc. 1956

2002 Winter Olympics

The following note was submitted as e-mail to ***ve3dc@rac.ca***

The upcoming 2002 Winter Olympics may make significant use of the Amateur bands for broadcast coverage.

The FCC has granted the Salt Lake Organizing Committee a Special Temporary Authority to utilize the 13cm band (2300-2305 and 2390-2450 MHz) for broadcast auxiliary operations at Olympic venues through March 1.

While the STA does not forbid Amateur use of the band between now and then, it does authorize the Broadcast Auxiliary Service as a co-secondary user until March 1. "These types of STA's are not unusual during major broadcast events, and the Olympics Games qualify," said ARRL regulatory correspondent Brennan Price N4QX.

The FCC has designated the Salt Lake Organizing Committee as the single point of contact for coordinating operations under §74.24 of the Commission's rules through March 31, 2002, for the 2002 Winter Olympic Games and Paralympic Games to be held in Salt Lake City, Utah.

Olympic weather

The following note was submitted as e-mail to ***ve3dc@rac.ca***

With the help of local Amateur Radio operators in the Park City and Salt Lake City, Utah area, the Olympic village in Park City has 24-hour NOAA Weather Radio coverage. "There was absolutely no weather radio coverage in Park City due to the mountain range between our SLC transmitter and Park City," said Joe Lachacz KF6NHD, a NOAA Weather Radio Specialist. Steve Mainwaring NZ6Z, Don Lloyd KD7BA, and Greg Lundell K7UHP, installed the NOAA Weather Radio on Quarry Ridge in Park City. Olympic venues in Park City include bobsledding, luge and downhill skiing.

Next meeting's Speaker

February 20

Jack Summers VE3XR - "Radioworld"

Jack is the Sales Manager for Radioworld and will give a presentation on "what's hot and what's not" in Amateur equipment. And yes, he will bring some new toys to show off!

New ISS antenna

The following note was submitted as e-mail to ***ve3dc@rac.ca***

Amateur Radio on the International Space Station got a new antenna January 14, thanks to a spacewalk by Expedition 4 crew members Yuri Onufrienko RK3DUO, and Carl Walz KC5TIE. Another of new ARISS ham antenna, there are four in all, could be installed January 25.

"It was beautiful to watch," ARISS Board Chairman Frank Bauer KA3HDO, said. "It went like clockwork, everything deploying just as it was supposed to."

While crewmate Dan Bursch KD5PNU, operated the robotic arm and monitored

Club meetings – 3rd Wednesday each month (except July and August) - 8pm in the St. John's Ambulance Association building, 500 Upper Wellington Street (on the Mountain). Park behind the St. John's building, NOT the Police station. Complimentary refreshments!

and videotaped the spacewalk, or EVA, from inside the ISS, Onufrienko and Walz first relocated a Russian Strela cargo crane used to maneuver equipment and spacewalkers. Then, they installed the flexible-tape VHF-UHF Amateur Radio antenna on a handrail at the end of the Zvezda Service Module, the crew's living quarters. The new VHF-UHF antenna is the first one designed for and dedicated specifically to support ARISS operations.

Installation of the new antenna on Zvezda paves the way for two separate ham stations aboard Space Station Alpha. The ARISS initial ham station gear, single-band hand-held transceivers for 2m and 70cm, now is installed in the Zarya Functional Cargo Block.

Tentative plans call for a 2m station to remain in Zarya, while a second 70cm station will be set up in Zvezda using the newly installed antenna.

ARISS ARRL representative Rosalie White K1STO, said she, too, was pleased to see this phase of the project coming together. "We started all this in 1998, and now we have a permanent antenna on the outside of the station," she said. "Pretty cool."

Bauer congratulated the ARISS international team for their assistance in the antenna project. "We have taken our ideas, concepts and vision and transformed them into reality," he said.

ARISS is a collaboration of ARRL, AMSAT and NASA. For more information, visit the ARISS Web site, **http://ariss.gsfc.nasa.gov**.

WRTC 2002 "wild card" teams

The following note was submitted as e-mail to ***ve3dc@rac.ca***

(So you know, as you read the following article, the WRTC will again run within the IARU Championship Contest this year. While the IARU runs annually in July, the WRTC runs as scheduled, involving the "cream of the contesting crop" from many countries competing on as even a footing as possible from one location. The last WRTC was in 2000 and organizers have quickly put together another in 2002 to take advantage of the peak of the current sunspot cycle. The following names have been announced to the teams already selected for the competition...ed)

At its meeting of January 5 2002, the full WRTC2002 Organizing Committee reviewed the wild-card applications received to date and other selection related support elements to complete selection of the remaining WRTC country teams.

It was realized that the WRTC had now reached such public exposure and popular appeal that an impressive array of the world's most prominent operators were involved in the preliminary process, mindful of the constraints imposed by the current WRTC framework for facilitating all potential competitors.

Every effort will be made to bring the contesting world to Finland to join the event, not just as competitors but also to perform other duties or just share in the camaraderie of this friendly event.

The WRTC2002 Organizing Committee is pleased and honoured to welcome the following teams to Finland to compete and meet the very best in amateur radio contesting:

OE2VEL Wolfgang Klier
OE9MON Carl Maurer

DL2CC Frank Grossmann
DJ7AA Wilfried Gottschald

RA3AUU Igor Booklan
RV1AW Andrei Karpov

SP7GIQ Krzystof Sobon
SP2FAX Kazimierz Drzewiecki

S50A Tine Brajnik
S59AA Franc Bogataj

OH6EI Tomi Ylinen
OH2XX Kari LehtimÄki

ZS6EZ Chris Burger
ZS4TX Bernie van der Walt

5B4ADA Ivo Pezer
5B4WN Marios Nicolaou

Important points

Executive Meetings
The HARC Executive committee meets each month, except July and August, at Mohawk College in room E031A. All members are invited to attend and participate. The meetings are scheduled monthly to fit the schedules of the Executive members.

VE3NCF [146.760- & 444.075+ MHz]
The HARC operates VE3NCF repeater, located atop the Niagara escarpment. It's open for use by all Amateurs. Special features are a privilege of membership. VE3NCF is part of the VE3RPT link system.

Check-In and Swap nets
The HARC "check-in net" is held every Tuesday evening, except July and August, at 7:30pm. The HARC "swap net" follows at 8:00pm.

Examinations
Amateur radio licence examinations are conducted the second Wednesday each month, except July and August. Contact the voluntary examiners to make an appointment. Each test costs $3.00.

HARC Fleamarket
The HARC Fleamarket is held annually at Marritt Hall, Ancaster. Contact the Fleamarket chair for information. ***Hamfest 2002 date will be announced shortly for October 2002!*** Thanks to everyone that attended and helped with Hamfest 2001!

Membership Information
Club membership, including all privileges, is $25.00 per person, per year, September 1 to August 31. Additional memberships, for immediate family members living in the same home, are $1.00 per person. One newsletter is sent to each address.

The Hamilton Amateur
The Hamilton Amateur is published ten times each year. It is not published in July or August. The deadline for article submission is the *last Saturday* of the month for the next month's issue. The preferred format is ASCII code (.txt files). Articles will be checked for spelling and grammar, but the author is responsible for the factual content. E-mail submissions to David VE3STT at ***ve3stt@rac.ca***

UN9LW Vladimir Vinichenko
UN7LAN Alex Sytov

UA9BA Vladimir Umanets
RN9AO Nickolai Perminov

VE7SV Dale Green
VE7AHA Andrew Ponzini

K3LR Timothy J. Duffy
N9RV Patrick M. Barkey

N6KT Rich Smith
K6NA Glenn Rattmann

N6TJ James Neiger
N6AA Richard Norton

LU7DW Claudio Gabriel Fernandez
LW9EUJ Martin Monsalvo

PP5JR Sergio Lima de Almeida
PY1KN Marcelo Gomes da Silva

At the January 5 meeting, the WRTC Organizing Committee also reserved the right to add additional teams, should the circumstances so suggest, and/or should any force majeure issues arise for the teams announced hereby.

We congratulate the teams listed above and look forward to seeing them in Finland some six months from now.

January minutes

Fred VE3GCP – Secretary

Meeting was convened at the St. John Ambulance building, on upper Wellington St. at 8pm.

In the absence of our president, who was out of the country on a family matter the meeting was chaired by the Vice President Chris Cuthbert VE3PKY.

Chris began by outlining the schedule of this meeting and then asking for reports from the chairpersons.

TREASURER
Walter Bayliss VE3WWB gave out copies of his first official report, which included the information received from the previous treasurer. SECONDED by Neal Galloway. APPROVED

MEMBERSHIP
Mardy Eedson VE3QEE announced that we have about 83 paid members with another 20 or so expected. Verbal report

HARC 2000-2001 Executive

President
Emsley Mitchell VE3JAI
627-0333
eamitch@mcmail.cis.mcmaster.ca

Past President
Linda Hardwick VA3LJU
389-4091 va3lju@rac.c

Vice President
(open)

Vice President
Chris Cuthbert VE3PKY
547-3169 aj630@hwcn.org

Secretary
Fred Robinson VE3GCP
575-5197
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Treasurer
Walt Bayliss VA3WWB
bayliss@nas.net

Director
Stanley Bolibruch VE3GFE
538-4002

SECONDED by Ilona Davidson VE3UGM. APPROVED

HEALTH & WELFARE
Stan Bolibroch VE3GFE , on behalf of Mary Urbanski VE3OGQ, reported that Ken Donahue VE3KHD is now a Silent Key.

REPEATER
David Bruton VE3DWJ reported that the repeater is up and working well with auto-patch but there is no linking at this time. Some technical items have to be ironed out before we can get it on a link and emergency power. Fred Robinson VE3GCP as secretary announced that the new lease has been signed and this will assure us that we can maintain this site for the next five years, plus two further five-year options if we wish. The club insurance policy with Radio Amateurs of Canada of $2,000,000 liability also includes the repeater site.

CHRISTMAS PARTY
Linda Hardwick VE3LJU, the party convener, was not present but the meeting chairman announced that the event was a success and thanked Linda for another job well done.

CONTEST GROUP
Rick Danby VE3BK announced that we did very well in the CQ World Wide contest on December 29, 2001 but we don't have the results of that yet. There is another contest, the CQWW 160m CW contest, coming up on January 25 and 26. And the SSB event is on February 23 and 24.

EDUCATION
Brad Pearman VE3EBP announced that he has started a new basic class at Mohawk College and invited interested parties to contact him if interested.

Chris Cuthbert then introduced our guest speaker and announced that there would be the usual donuts and coffee after our speaker.

GUEST SPEAKER

2) UHF fittings are not waterproof.

3) The fittings corrode if used exposed outdoors.

4) They come loose.

dB loss in connectors Pt.2

The following note was submitted as e-mail to ***ve3dc@rac.ca***

(Finding the material above lead to another discovery of the following posting in the TowerTalk archives from Gary K7FR..ed)

Your comments made me go out and dig through the College Archives. Back in senior year at Washington State University we had to do a measurement project in Measurements Lab. Since there were two hams in the Lab we decided to measure losses in coax connectors (the Prof was a ham too).

We set up a calorimeter and measured I**2R losses from DC to 2GHz for a PL259/SO239 combo (did it for BNC and N too...hey it was a senior project).

Here are some of the results from my Lab Notes:

Input power = 1,000 watts (100V, 10A @ DC, homebrew 4-1000 .1-30MHz, borrowed USAF signal source 30-2,000MHz (black box from Fairchild AFB), Bird dummy load)

(We used a kW because neither of us had ever run more than 100w before...power trip!)

Frequency	Loss (W)	DB
0.1	1	-0.00435
1	1.2	-0.00521
10	1.3	-0.00565
20	1.5	-0.00652
30	1.8	-0.00782
50	2.2	-0.00957
100	2.6	-0.01131
200	3.5	-0.01523
300	5	-0.02177
400	7	-0.03051
500	10	-0.04365
1000	15	-0.06564
1250	18	-0.07889
1500	28	-0.12334
1750	39	-0.17277**
2000	100	-0.45757**

** Connector failed before calorimeter stabilized.

We attributed the steep upswing after 100MHz to the finish on the connector, not the connector design. Nickel plating seems to exhibit non-linearity above 100MHz. The N and BNC runs were much better. BNC went flaky above 600MHz (RG-58 size, RG-8 BNC went to 1000MHz). We were able to isolate cable loss from connector loss by building a teflon box around the connector body and only "viewing" the inside of the box with the sensor. The Department Chair was not at all happy that this teflon box cost $750 to build (teflon was rare in 1977).

As you can see from the table we experienced two failures. Both were due to the solder melting in the probe part of the connector. The 1250 and 1500MHz runs showed discoloration but no melting. The values for 1750 and 2000MHz were the calculated values at the time of failure. Each run took 1 hour, these two failed 28 and 17 minutes into the test.

We experienced a failure of an N connector at 2000MHz. We ran the output up in 100w steps until we observed a sharp up turn in losses. We were able to boil the water in the calorimeter at 15,000w and at 17,100w the fingers inside the connector relaxed and started arcing.

Before this experiment I was paranoid about my connectors. Since then I have only been concerned with the quality of the assembly and water ingress.

CW speed and marketing

The following note was submitted as e-mail to ***ve3dc@rac.ca***

(Having just completed a solo effort in the recent CQWW 160m CW Contest, from home this time instead of the usual operation with VE3DC, I became curious about the peculiarities of utilizing CW on the 160m band. With its high noise floor and the many less-than-average antennas systems used in the contest (mine being very less-than-average), my question was whether to go fast or slow? That lead to finding the following perspective on CW in general, and how it relates to making contacts on any band, be it contesting, Dxing or simply rag-chewing. The material is credited to Gerry Hull W1VE/VE1RM..ed)

When you are running in a contest, you are marketing your station. "Hey, please come work me; In and out, fast and efficient. I am a competent operator and we will be done as quickly as possible."

How do you get that message across? Here are some of the techniques I use, but probably old news for 90% on this reflector.

1) Call CQ in short bursts.

If your doing S&P, you should be tuning quickly for stations. If you hear "CQ TEST CQ TEST CQ TE..." hopefully you've tuned by that station!

2) Find the "sweet spot" of CW speed for the situation.

Somewhat contrary to some opinions, I tend to keep my speed fairly high, typically 35-37wpm. Too slow (say below 27wpm) and you'll run into the same "long CQ" problem. Too fast, and you'll limit the audience. However, I believe the top end of speed is somewhat open.

If you're a DXpedition or rare QTH, you can use speed to modulate the depth of a pileup. Faster is very good in you're managing a packet-spot pileup. Rarely do I slow down if a station is QRS. If they ASK for QRS, sure, otherwise I assume they can copy me.

Typical contest exchanges are pretty simple, other than SS. Even that is not bad. They can listen to prior QSOs to get static information. It is a rite of passage for a new contester to sit and listen to a station and figure out the call above their current copying speed. Also, I get stations responding to my 37wpm

CQ with a straight key, copying me perfectly, and replying with the technology they have.

Years ago, as a newbie, I remember listening for 15 minutes in an SSB contest before I could get the callsign "KP4AST". A rite of passage, the cost to get a new multipler.

3) Send exchanges using your computer, if you have it.

Nothing turns off S&P stations in a hurry like mistakes. Even if you're a perfect sender, use the key for fills only. Use the CQ time for other tasks. We are all human, that's why we use computers!

4) Always remember you are marketing yourself!

Have you ever noticed that many of the perennial top 10 finishers in contesting work in marketing in their professional lives? (Oh oh, I'm an engineer :-( )

US President QRV

The following note was submitted as e-mail to ***ve3dc@rac.ca***

United States President George W. Bush spoke January 31, via Amateur Radio, to members of the Northern Florida Amateur Radio Emergency Service Net (NFAN). The president was in Florida to spotlight five volunteer groups, among them the Volusia County Amateur Radio Emergency Service (ARES), for their value to the new Office of Homeland Security.

"I want to thank all the volunteers who help make sure that Florida is prepared for any kind of emergency," the president said in part, after checking in around 9:15am to a regular ARES net session. "I want to thank you all for helping your communities be prepared."

Bush spoke on the net for about 30 seconds.

Northern Florida ARRL Section Manager Rudy Hubbard WA4PUP, said

Bush spoke from a portable station set up at a Daytona Beach fire station. At the request of ARES Volusia County Emergency Coordinator Joette Barnett KG4HPN, John Schmidt AF4PU, and Clifford Fraser KE4HIY, arranged to have the station ready as a demonstration of Amateur Radio's role in emergency preparedness and in the hope that Bush would be willing to address the 75m net.

ARRL President Jim Haynie W5JBP, said he was "extremely gratified" that President Bush recognized the valuable service Amateur Radio operators provide in times of emergencies. "I know that all hams in the United States stand ready to do their part in America's Homeland Security Program," Haynie commented. Haynie has said that defining Amateur Radio's role in homeland security would top his list of initiatives for his second term.

Hubbard said a copy of proposed expanded Amateur Radio (PRB-1) antenna legislation was given to the president and to the president's brother, Florida Governor Jeb Bush, for possible introduction in next year's Florida legislative session. "We Amateur Radio operators will volunteer however we're needed, and maybe it will be seen that we can greatly help the nation if we have the antennas we need," Hubbard commented. The proposed bill would seek to extend Florida's PRB-1 law to include private deed covenants, conditions and restrictions.

Hamilton Amateur Radio Club
(Incorporated under the laws of Ontario)
Financial Statements
Year ended 31 August 2001
With comparative figures for 2000

Balance sheet

Assets	2001	2000
Bank	5,719	5,691
Repeater key deposit	100	100
Marritt Hall deposit	200	200
Receivables	72	247
Prepaid insurance	27	27
Next flea market	64	12
Total assets	6,182	6,277
Liabilities	**2001**	**2000**
Accounts payable	0	56
Unearned income:		
Unearned ad revenue	10	90
Future years membership	252	435
Total liabilities	262	581
Assets less liabilities	5,920	5,696
Equity	**2001**	**2000**
Repeater fund	940	876
Previous surplus	4,820	4,430
Surplus for the year	160	390
Total equity	5,920	5,696

Income and expenditures

Income	2001	2000
Membership	2,040	1,915
Flea market	1,609	2,481
Newsletter advertising	105	265
Total Income	3,754	4,661
Expenditures		
Newsletter	977	849
Insurance	540	567
Repeater operation	454	595
Field Day	318	445
Hospitality and Meetings	554	192
Office supplies	0	60
Bank charges	47	44
PO Box	77	77
RAC membership	40	40
Station	69	
QSL	43	20
Repeater replacement	475	1,382
Total expenditures	3,594	4,271
Surplus for the year	160	390

Schedule A to Financial Statements
Flea market results, October 2000
With comparative figures for October 1999

	2000	1999
Revenue		
Admissions	1,885	2,625
Vendors	660	790
Kitchen:		
Sales	332	337
Costs	(176)	(110)
Net	156	227
Total Revenue	2,701	3,642
Costs		
Hall	1,013	1,013
Damages	0	65
Printing	62	74
Bank charge	17	7
Bad Coin	1	0
US Exchange	0	2
Total Costs	1,093	1,161
Funds raised	1,608	2,481

Schedule B to Financial Statements
Club equipment valued at estimated replacement cost
With comparative figures for 2000

	2001	2000
Station equipment	5,883	5,883
Station furnishings	1,325	1,325
Repeater	13,950	13,950
Field equipment	4,880	4,880
Total	26,038	26,038