Zero Beat

A Publication of the Hampden County Radio Association
http://www.hcra.org
Meetings Held at: Feeding Hills Congregational Church
21 North Westfield Street
Feeding Hills, MA

Our 56th Year

February, 2002

Join Us on

February 1st

for the next

Hampden County Radio Assn. Meeting

Our Guest Speaker will be

John Ellsworth **from the**

Vintage Radio and Communications Museum

I want to thank the members of the Hampden County Radio Association for the donation made to the Venture Crew in memory of my husband, Bill W1CJK. Words alone cannot express my appreciation to each of you for this generous contribution. I know Bill would be thrilled to know that he has been honored by his fellow hams in this manner. It is comforting to me to know this donation will help to further along interest in Bill's life long hobby, Amateur Radio. Many thanks again to all the members of the Hampden County Radio Association.

Sincerely, Chestra (Skip) Werenski

For Up-To-Date HCRA News and Information, remember to visit the HCRA Club Website

http://www.hcra.org

If you haven't been there TODAY, then it has probably changed since the last time you visited!

In this months edition

NOTE:
Those members receiving electronic editions of Zero Beat will have four extra pages of articles and pictures that could not fit into the printed version.
If you don't get eZB, see the club web page to get your e-copy!

President's Corner

The W1CJK Memorial Donation

Bill, W1CJK

The members of HCRA and friends of Bill, W1CJK really showed their mettle at the last meeting. After the announcement of Bill's death and a moment of silence, Cliff, W1UWX and Cliff, W1AKB spent a few minutes relating some memories of events and adventures with Bill. Cliff, W1AKB made the suggestion we pass the hat and collect a donation to be given in Bill's name to BSA Venture Crew 510. The HCRA board also agreed the club would add the proceeds from the evening's raffle to the pot. When all was said and done, $300 was collected and will be donated to the Crew in honor of W1CJK. The presentation of the check will be made at this month's meeting.

I would like to thank both everyone at the meeting and the HCRA board for their generosity. It's unselfishness like this that continues to make our hobby so great. It's good to know that Bill's memory will live on with the Crew.

Some of the Vintage Radio & Communications Museum's extensive collection of radio history

This Month's Meeting

John Ellsworth, curator of the Vintage Radio and Communications Museum, returns for a third time with another interesting presentation. The museum has just recently moved from East Hartford to Windsor, CT. It will probably be opening soon with a much larger display in the works. John will have all the information about the museum's new location as well as some interesting artifacts for his presentation. Mark you calendar now for February 1st. In the meantime, visit their web site for a sneak preview of the museum and some of it's extensive collection of radio history.
http://www.nationalcommunicationsmuseum.org/purchase.html
If you know of anyone who would be interested in John's presentation, bring them along. There's always room for more at an HCRA meeting!

Future Home of the Museum

January VHF Sweepstakes

Stan, N1INB challenged the HCRA to take a stab at the January VHF contest as a club event at the last meeting. Although I didn't see a large amount of "hands raised" at the meeting, I heard quite a few HCRA members operating the contest this past weekend! It sounded to me like they were all having a good time too. I personally heard AA1UE, N1MUV, KB1MU, N1INB, Kx1x and the crew—just to name a few. Tom even acquired a new radio just in time for the event!

If you worked the contest, don't forget to send your log into the ARRL before February 20th **AND** list the club as "*Hampden County Radio Association*". That way your score will also count towards the aggregate club score. These are neat contests, you get your individual score listed as well as contributing to the club score.

I'd like to thank Stan for promoting the contest and all the members who participated. Watch the June QST for the results and start planning for next year's contest!

The IRLP Project

Let me turn this section over to Gary, AA1UE. Gary has been investigating a new integration of ham radio and the internet. Here's what Gary has to say about IRLP…

"This is Victor Echo Three November Tango Alpha, listening to Reflector Two"
.
"Victor Echo Three November Tango Alpha this is KD6UR. Just out here in sunny California, walking my dog. Sounds like you are in a new node."
" Break
This is VK3 Bravo Tango Golf , Name is Colin."
"KD6UR and VK3BTG this is VE3NTA, Monty in Toronto."

Sounds like the beginnings of an average qso. But not quite average. All three hams were using 2 meter handi talkies and employing a brand new method of operation. They are benefiting from IRLP the Internet Radio Linking Project. IRLP combines two meter simplex radios with a permanent voice over internet connection.

Hams in different parts of the country and the world connect to their local Node using a PL code. The through a series of DTMF tones they call up the area of the world they wish to contact. Want to talk to Australia punch in 484, France 646... Want to link two nodes together you can do that as well. There are currently three hundred and forty nodes and growing fast. The IRLP started in Canada and is beginning to spread like wildfire. It is likely to have the most significant impact on ham radio since two meter repeaters became popular. There are now two nodes in Massachusetts and two in Connecticut. But more are sure to follow quickly.

Like all new modes, IRLP has its share of critics. "It taint radio". Agh! King Spark will never die ! AM forever! Sound familiar. Stay tuned your sure to hear much more about IRLP. For more information on IRLP and to listen to the action on a live internet feed., point your browser to http://www.irlp.net.

Gary AA1UE

Thanks Gary for this interesting information. Does this sound like something neat to try or what? I'll bring some information to the next meeting and we can discuss it. Seems like a neat way to get Techs talking nation wide!

Until then...

'73...Jim, KK1W

Please

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HCRA CONTACTS

Questions, Comments, and Suggestions Can Be Directed To:

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Adult Advisor	**Biff Simpson, AA1DI**		**biff@map.com**

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CONTEST CORNER

Vermont QSO Party	**Feb 2, 0000z to Feb 3, 2400z**
New Hampshire QSO Party	**Feb 2, 0000z to Feb 3, 2400z**
10-10 Inter. Winter Contest, SSB	**Feb 2, 0000z to Feb 3, 2400z**
Minnesota QSO Party	**Feb 2, 1400z to 2400z**
Delaware QSO Party	**Feb 2, 1700z to Feb 3, 0500z and Feb 3, 1300z to Feb 4, 0100z**
North American Sprint, Phone	**Feb 3, 0000z to 0400z**
North American Sprint, CW	**Feb 10, 0000z to 0400z**
ARRL International DX, CW	**Feb 16, 0000z to Feb 17, 2400z**
CQ 160m, Phone	**Feb 22, 2200 to Feb 24, 1600z**
ARRL International DX, SSB	**Mar 2, 0000z to Mar 3, 2400z**

New 2 meter SSTV Net Debuts

If you're looking for a little fun, and haven't tried SSTV, or if you have tried SSTV and would like to send or just receive some pics, tune to the weekly SSTV net which debuted on Tuesday, January 22nd, and will be held each Tuesday evening at 7:30 PM on the KD1XP repeater (145.130(-600 kHz, 71.9 Hz CTCSS)). There were over 12 checkins on the first day, and hopefully more as news spreads! Dennis, WB1EHD, will be net control. Anyone can listen, and all classes of license Technician and above have privileges to send SSTV (image) on the 2m band.

All you need is a computer with a soundcard and a 2m radio (or VHF scanner) with a headphone socket, and the wire to connect them, along with free software to listen to (see) the pictures. Xmitting needs a little more work, but is not that hard to do, and extremely inexpensive.

There are many good SSTV programs for free on the internet, here is a link to one of the more popular ones:

http://www.qsl.net/mmhamsoft/mmsstv/index.htm

If you have any questions, please feel free to contact John at kx1x@arrl.net or Dennis at wb1ehd-3@juno.com.

Get On The Air

(*all times local*)

Mon., Tues, Thur, Fri	19:00	National Traffic System (NTS) Net	146.94 (W1TOM)
Sundays	08:45	Western Mass Emergency Net	146.94 (W1TOM)
Mondays	19:30	HCRA 10m Net	28.375
Tuesdays	19:30	Slow Scan TV (SSTV) Net	145.130 (PL 71.9hz) (KD1XP)
Wednesdays	19:30	MTARA Info net	146.94 and 147.000 (link) (W1TOM)
	20:00	MTARA Swap net	
	20:30	MTARA Tech net	
Thursdays	21:00	Weather Net (ncs K1PAI Roger)	1st Week of the Month 147.09 Every other week 147.000

Club Meetings & Testing Sessions

1st Friday of the month	19:30	HCRA Club Meeting	Feeding Hills Congregational Church 21 N. Westfield St., Feeding Hills
3rd Friday of the month	19:30	MTARA Club meeting	Red Cross building 506 Cottage St, SPFLD, MA
4th Friday of the month	18:00	MTARA License Exams	Holyoke Hospital Auditorium Beech St., Holyoke
4th Sunday of the month	19:00	NOBARC club meeting	Pittsfield MA (146.91 for talk-in)

W1NY ON THE AIR

Join us each week on the HCRA 10m Net!

Join NCS, Tom Doyle (n1muv), each Monday night at 7:30 PM (local) on 28.375 Mhz (+/- QRM)
Get the latest local word, join good friends, take part in good conversation each week!!!
Anyone (with HF privs) can join in, don't be shy!!!

*Get Your **Zero Beat** Electronically each month*

HCRA members can receive their monthly club newsletter in any or all of three ways!

1) *First Class Mail, just like you always have. This costs HCRA approximately 75 cents per copy. This is one of the benefits of your membership with HCRA.*
2) *E-mail. If you would like to get on our e-mail list, just write eZB@hcra.org from the account that you wish to receive your copy from, and request that you join our list. HCRA respects your privacy and will not under any circumstances give your e-mail address to ANYONE.*
3) *WWW.HCRA.ORG. Our new web site carries the latest copies of Zero Beat. Just click and read.*

NOTE 1: You will need Adobe Acrobat ® installed on your computer to read electronic copies of Zero Beat. Just click the button on the WWW.HCRA.ORG website, and follow the directions to get your FREE copy of Adobe Acrobat ®.

NOTE 2: There is a cost savings to the HCRA if you receive your Zero Beat electronically only. If you prefer to NOT receive your newsletter by First Class Mail, please contact John, Kx1x, Dave, KB1MU, or Jim, KK1W, to be added to the eZB only list.

Jake (son of Larry, WB1DBY) takes advantage of the "fishing" pond at last year's Field Day

Plans are already under way for

FIELD DAY

THE W1NY WAY
Dufresne Park,
Granby, MA
June 21, 22, 23
There are plenty of facilities to make this a family event:
fishing pond, swings, playscape, hiking, and more

Wear it Proudly!

HCRA Name Badges

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Jim, KK1W : jmullen@rockys.com or (413) 245-3228

A series of local Skywarn training for the area has been announced. As more are confirmed we will post them right here.

Place:
American Red Cross
Greater Hartford Chapter
209 Farmington Ave.
Farmington, CT
20 March 2002 Weds.
1900 to 2200 EST

Place:
Manchester, CT
Manchester Community College
Frederick W. Lowe Jr. Building
01 April 2002
1900 to 2200 EST

Place:
Southwick, MA
Town Hall Offices Auditorium
454 College Highway Ma.
Rt 10 U.S. 202 Southwick, Ma.
06 April 2002 Saturday
1200 to 1500 EST
(host Southwick Emerg. Managmnt Agency)

Place:
Walpole, MA
Walpole Town Hall
09 May 2002 Thursday
1900 to 2200 EST

Place:
Warwick, RI
Tollgate High School (Cafeteria)
05/28/2002 7-10PM Tollgate High School (Cafeteria)
28 May 2002 Tuesday
1900 to 2200 EST

SKYWARN

Notes from BSA Venture Crew 510

NE1C - New England's #1 Crew

BSA Venture Crew is chartered by the Hampden County Radio Association

Visit Crew DX's 100% youth designed website: http://www.qsl.net/crewdx

Crew DX "Ventures" to VERMONT for a contest weekend…

By John Cain, KB1FTX

…and had a lot of fun. This past weekend (Jan 18-20th) Venture Crew DX went to AA1YW's vacation home in Whittingham, VT for the January VHF contest and the North American QSO Party. The weekend consisted of 2 days and nights of contesting, eating, having fun, and occasionally some sleeping. Over the weekend we made over 650 QSO's on HF and 35 on VHF.

It started off with everyone meeting at the Yankee Pedlar to carpool. From there we started the one and a half hour drive to the house.

When we got there we didn't do much until John, Kx1x arrived. As soon as he got there we started setting up stations and practicing for the next day. At around 6 or 7 o'clock AM, most of us were up (NOT the adults Dave, AA1YW and John, Kx1x). But when they got up we had some work to do, set up antennas, run coax, set up the remaining rigs and make breakfast. Can you believe it took until almost 1 O'CLOCK before we ate breakfast???

After breakfast we resumed setup. The NAQP started, then the VHF contest. During the contest we had a little trouble-- Mike, KB1FWN and I, KB1FTX, started to lose our voices. That could not slow us down though… we programmed the voice keyer on the Yeasu FT 920 and off we went. As the weekend went on Mike regained his voice and did some contesting. I, on the other hand, was not so lucky as it took until Monday before I could talk again (but that's were CW comes in handy).

For dinner we had roast beef, corn, salad, baked potato and rolls. During dinner we made a toast with sparkling grape juice and weird plastic cups.

By 1 AM, the NAQP had wrapped up, but the VHF contest would last through the night. On Sunday the whole crew checked into the emergency net and gave the new snowfall report for our town (1ft).

Then it was time for take down, every one helped. The Multi-OP event included: Dave (AA1YW) John (Kx1x), Mike (KB1FWN), Eric (KB1FSU), Andy (KB1FVL), John (KB1FTX), Jeff (KB1GJR), Allan (no call) and Brian (no call).

On behalf of the crew and myself I would like to recognize AA1UE for lending us the rig, and antennas, WB1Z for the use of the amp, AA1YW for the House and equipment. Kx1x for equipment. and any one else who lent equipment or any other kind of help…. Thank You!

BSA Venture Crew 510 would like to extend its most Sincere Appreciation to the membership of the

Hampden County Radio Association

for their unselfish donations

In the Memory of

Bill Werenski W1CJK, SK

BSA VENTURE CREW 510 – CALENDAR

1/30	Ham Radio Demo for Cub Scout Pack 359, Wilbraham
2/1	HCRA Club Meeting / CrewDX Meeting @ 6:30
2/28	Crew Meeting at Pioneer Valley Council Office @ 7:00
3/1	HCRA Club Meeting (No Crew Meeting) @ 7:30
3/10	MTARA Flea Market
3/28	Crew Meeting at Pioneer Valley Council Office @ 7:00
4/6	SkyWarn Class, @ 12:NOON, Southwick Town Hall Offices Auditorium
5/31, 6/1&2	Webelos Woods Weekend-- W1W Special Event Station at Camp Moses
6/21,22,23	Field Day '02

COAX PERFORMANCE TESTING USING AN SWR BRIDGE

de Don Johnson K7UGQ

During the summer months you can usually find sections of coax cable for practically nothing at local garage sale. Having bought several 100 foot sections I was curious as to how I might be able to test the cable for quality. This article provides a very simple ways to do just that. In addition, if you want to measure losses more scientifically in decibels I'll show you how.

The importance of a good coaxial transmission line can be the difference between transmitting (or receiving) a good signal or no signal at all! As in an automobile power/drive system, the coax transmission line is similar to the transmission of the auto. If the auto transmission is highly efficient, then most of the power generated by the engine will be sent to wheels for use on the road. Likewise a highly efficient coaxial transmission line will ensure that most of the RF power will be coupled to the antenna and available for radiation into space.

Two simple methods for testing uninstalled and installed coaxial transmission lines are presented here. In addition to a signal source, (transmitter, transceiver) a stand alone SWR bridge, (must be able to switch between FORWARD and REFLECTED) and a dummy load of the same impedance of the coax line under test is required. In spite of the fact that the actual scale reads SWR, most SWR bridges indicate rectified RF voltage. These voltages are relative, not actual, and are usually read on a linear scale. This will allow us to use the SWR meter as a ratio-meter for these test.

TESTING UNINSTALLED COAX

Note: Since the operating frequency greatly effects the performance of coax, (higher the frequency, the greater the loss), it is recommended that you perform this test at the highest frequency you plan to use the coax.

- Attach one end of the coax under test to the antenna connector on the SWR bridge , the other end to a dummy load sufficient to handle the RF power. The XMIT connector of your SWR bridge should be connected directly to your transmitter/transceiver with a very, very short piece of coax or a SO239 to SO239 adapter. You will want to minimize the influence this coupling has on the results.
- Using push-to -talk (manual operation, no VOX) tune the transmitter/transceiver if necessary and using the SWR calibration control, zero the SWR bridge in the FWD position. This reading will be called V1 and be equal to 10.
- Un-key the transmitter/transceiver and remove the SWR bridge from the circuit. WARNING: DO NOT TOUCH OR CHANGE THE CAL SETTING ON THE BRIDGE.
- Insert the SWR bridge between the far end of the coax and the dummy load. Connect the close end of the coax directly to the transmitter/transceiver.
- Again apply the same amount of RF using the manual process, (tune/PTT) and note the reading on the SWR bridge meter. Label this reading V2. It should be something less than V1 was.
- The simple ratio of V2/V1 will provide a number that correlates to percentage of reflected power or if subtracted from 100 will yield percentage of useful power. Both results are considered a figure of merit.
- You compute coax line losses in decibels at the test frequency by plugging V1 and V2 into the formula listed below for installed coax line. The results of this test will provide a loss in db that may be better understood by some.

TESTING INSTALLED COAX LINE

There is a simple and accurate way to measure the losses on an installed coax line. As in the previous paragraphs, the only piece of equipment needed is an ordinary SWR meter. I'll first show the method used to test installed coaxial cable for losses, then, for those interested, a brief discussion will follow.

Connect the coax line/antenna combination to your transmitter/transceiver. Set the frequency range switch to a value as low in frequency as possible from the resonant frequency in concern. For example, if the antenna system in question is a 40 meter dipole, then set the transmitter frequency to 80 or 160 meters and as low in frequency as possible. Key your rig using only enough power to allow you to adjust for full meter deflection (100) on your SWR bridge. Quickly switch to reflected position and note the reflected value. Unkey your rig.

The rest of the test involves a little math. If you are not familiar with working with logarithms, don't let this stop your test. There are many hams with engineering/technical backgrounds that will be more than willing to help.

FORMULA:

Loss (dB)=10 x $\log_{10}$(V1/V2)

EXAMPLE: Suppose you are concerned about the quality of a coax running to your 3 element six meter beam. You apply a 40 meter signal to the antenna and record the forward and reflected ratio as 10/8.

SUBSTITUTION;

$10x\log_{10}10/8$ = d//b

$10x\log_{10}(1.25)$ = dB

10x0.097 = 0.97 dB loss

(continued next page)

COAX PERFORMANCE TESTING USING AN SWR BRIDGE (continued from previous page)

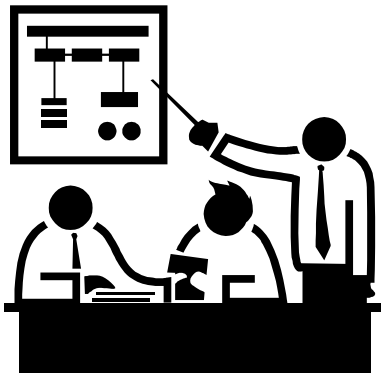
A coax loss of 0.97 dB per 50 feet; i.e., 1.94 dB per 100 feet, is not bad. Losses of up to 3dB per 100 foot, when used at lower HF frequencies, is often acceptable while VHF losses should remain below 1.5 dB per 100 feet. The antenna experts are going to take issue with me on this one; however, the above values are only a gauge.

Here's why this test method works. When the frequency of a signal is substantially lower that the resonant frequency of the antenna, the SWR at the antenna will be infinity, or close to it. To put it another way, all the energy sent to the antenna will be reflected back to the source. Now since the SWR is measured at the transmitter end of the coax, any loses exhibited because of the coax will reduce the reflected energy accordingly. A perfect 1:1 ratio indicates that all the energy going to the antenna is being reflected back to the source without any influence of the coax line.

NOTES:

Generally, coax cable losses are expressed per 100 foot segments. If, in the above example, the length of your coax was 50 feet, then you should double the value obtained in the formula if you wish to compare any losses to brand new coax. Otherwise use the direct reading for losses that apply specifically to your installation.

As a suggestion you might want to monitor coax performance over a period of time looking for indications of wear trends. Also running this test during inclement weather will reveal coax performance when it rains or snows.



&

Show & Tell

What's a "*show & tell*"? It's a chance for you to show off your latest creation and win some nice prizes to boot. It's part of our "March Madness" meeting and should be a lot of fun! You've still got a lot of time to prepare, so read on...

To enter, just show up with your project, explain it and wait for the judges decision. There will be Novice and Expert classes. All entries will be judged by an independent panel of electrical engineers from MIT & RPI :>) Entries will be judged on originality, construction quality and usefulness. So, bring your home brewed whatizit, your latest software creation, new mobile mount, portable PSK31 station, Tesla coil, etc. and let everyone else see your handiwork.

First prize in each category will be a $50 gift certificate to HRO, Second prize a tool set and Third prize a Yaesu Hat. Judges decisions will be final and you MUST bring your project back home with you!

HCRA Board Meeting Jan 9 2002

Held at the home of Larry Krainson WB1DBY

Members present Greg N1AEH, Irv W6IS, Larry K1ILZ, Larry WB1DBY, Norm W1BMK, Jim KK1W, Stan N1INB, Dave KB1MU, and John Kx1x.

Vice President K1ILZ: Larry distributed an inventory list to all present. This inventory lists all HCRA owned items. It shows item, quantity, and location. This will allow the club to track its equipment. This inventory will be updated at least yearly. It is also the responsibility of the person who has custody of each item to notify the Board if an item is lost broken, or stolen.

Larry K1ILZ and Jim KK1W briefed the board on the New England Directors Meeting they attended on Jan 5. Items discussed included the proposed changes to the 40 Meter allocation, emphasis on use of upper ham bands to minimize the possibility of re-allocation to other services, and the leagues plan to encourage school to add amateur radio information in their science and math courses. Also mentioned was the fact that local clubs will be asked to assist with the New England convention (Boxboro) that will be held on Aug 24 this year.

Treasurer N1AEH: Current balance is $3442.65. The raffle netted $169. The collection from members for W1CJK memorial netted $116.50. These two sums will be augmented by the club so as to make a $300.00 memorial donation in the name of Bill Werenski W1CJK and presented to the Venture Crew. It is the board's intention that this money be used to purchase equipment for the Venture Crew, and will be marked with a small plaque indication that it is a memorial to Bill W1CJK.

Secretary KB1MU: We have gained two additional members, making the current membership status as follows:

Regular memberships	74
Family memberships	11
Life memberships	3
Sponsors	1
Venture Crew members	10

The club will send courtesy copies of the electronic ZeroBeat to Tom Frenaye K1KI New England Director ARRL, Mike Raisback K1TWF New England Vice Director ARRL, and Bill Voedisch W1UD Section Manager ARRL. The secretary circulated a sympathy card to be signed by all board members. This card will be sent to Bill W1CJK's wife.

Program W6IS: The following meeting speakers are lined up:

Feb	John Ellsworth, Vintage Radio Museum of Connecticut
Mar	Show and Tell. (see below)
Apr	Lantzakis – WB1HKE, Space shuttle and space station with display
May	Chuck from HRO will speak
June	will be the tailgate party followed by the annual elections.

For the Show and Tell meeting, the displays will be divided into two classes, beginner and expert. A prize will be awarded for each class. The prizes will be on display at the Feb. meeting

Membership W1BMK: Norm is still not receiving from the League the listing of new licensees.

ZeroBeat Kx1x: Cutoff date for articles is Jan 19

Technical N1INB: The HCRA will participate as a club in the Jan VHF sweepstakes. Since very little advance notice of this was made, we should make an effort to talk this up whenever possible.

At Large WB1DBY: The tri-fold brochure was shown and a few small changes were suggested. A few copies will be printed. The club will attempt to have someone "clean-up" the club logo. The hand drawn copy results in a very "fuzzy" image when printed.

Old business: The club is changing the address for the call W1NY. Don W1UPH will remains trustee, but the address will be the club's P.O. Box. This will make the handling of QSL cards easier.

New business: The Field Day committee was setup. Members are:

John Kx1x	Site planning
Larry K1ILZ	Site planning (antennas)
Jim KK1W	Web operations
Dave AA1YW	Power generation
Dave KB1MU	Media and publicity
Larry WB1DBY	Band captains
Norm W1BMK	Food operations
Venture crew	Novice/Tech operation.

There will be some changes made in the novice/tech field day rules this year. These have not yet been announced.

Respectfully submitted David W. Isham KB1MU

An “Out of This World” Form of Radio

By Mike DeChristopher, KB1FWN

Once in a while a new ‘mode’ or operating procedure will come out and I’ll try it. Well, this time, I found something so good, I thought I’d share it with HCRA. Many of you have heard of SETI, the Search For Extraterrestrial Intelligence, and what they’re doing down at *THE* Antenna – The Arecibo Radio Telescope dish in Puerto Rico. Well, this article is about what you, as radio amateurs, can do to help find E.T.

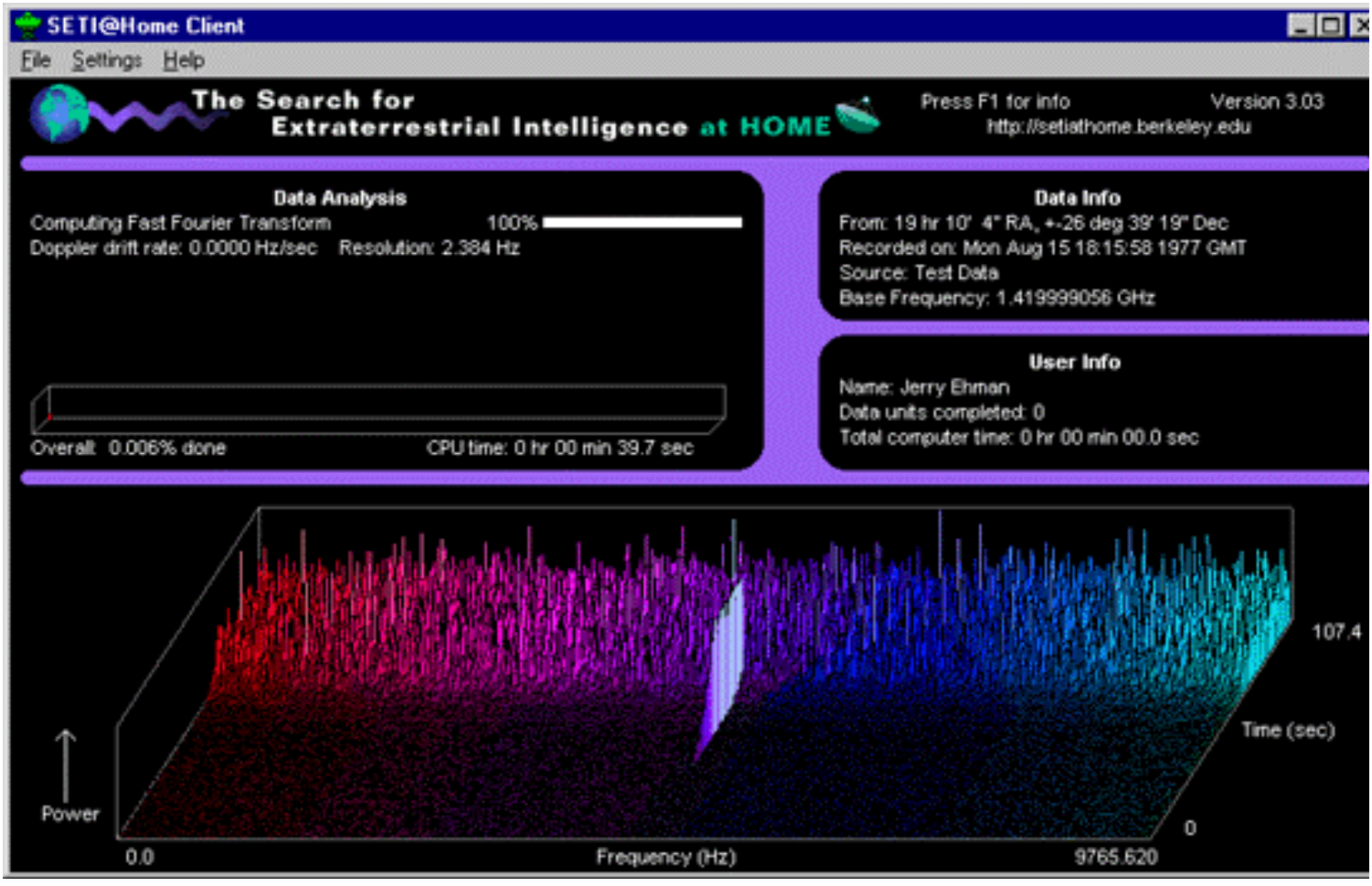
SETI was formed as a non-government funded program to help find life out of this solar system. They have SUPER sensitive receivers that could zero-beat an amateur transmission in about .03 seconds. Whenever it hears a transmission, it zero-beats on that frequency. It covers almost an entire band with one receiver due to the fact that it is almost like a Spark Gap, with no frequency selectivity until it is enabled.

This high tech equipment is okay for them, but what about us? We can’t afford stuff like that! So, I stumbled upon a FREE program that is easy to use, and you can’t kill yourself with it (Those antennas have always been a hassle)! It’s called SETI@home and is easy for the radio amateur to use. In fact, it’s easy for anyone to use!

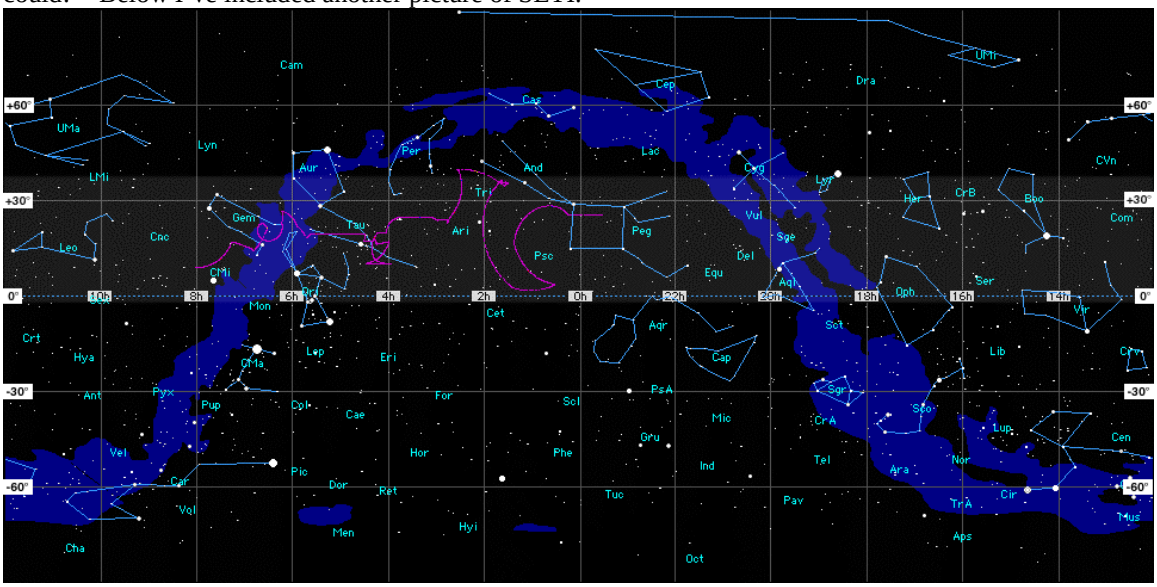
Here’s how it works. You download the program, which acts as a screensaver from http://www.setiathome.com/, and are issued one CPU Work Block. Whenever the screensaver kicks in, this program runs. It has a waterfall display that shows you what you’re hearing every step of the way. It is actually reviewing past information (mine is still on work block number one, saved from April, 2000) recorded at Arecibo. This cuts time for them, because they can lay aside a whole day (I think its every-other day) where instead of listening themselves, they just take that chunk of listening, and send it to the SETI at home users.

Because the blocks have already been issued, they have to wait until one user finishes his or her work block, at which time the program automatically sends it to the SETI team. The block will tell them if any strong ‘spikes’ have been heard. If it is true and there is a large sound recorded, then that SETI at home user gets some credit and everyone is happy. When you are done with each block and it has been sent away for evaluation, you get another one. I’m still on my first block, and I must say, sitting there watching the spikes jump about is very exciting.

However, the only problem with it is that it doesn’t have sound. All you are using is the waterfall display with your eyes. But, to make up for the sound lack, they have an excellent display for the user. I’ve included a picture on the next page. It is very simple, and took me less than five minutes to figure it out. Even if you’re computer illiterate even in this day and age (I know I am!) you’ll be able to do this extremely fast and easy. Everything is labeled. If you have questions or problems, they also have a great help service on-line, too.



This is the SETI setup. Above is what you'll see if you hear a REALLY strong signal. Notice the ridge? That's the word "WOW" in English and is so strong it shuts out the background noise. Those spikes up against the back wall would normally continue downward to the front. However, the WOW just destroyed the frequency. Will you hear anything like this? I haven't, but if you get the right block, you could! Below I've included another picture of SETI.

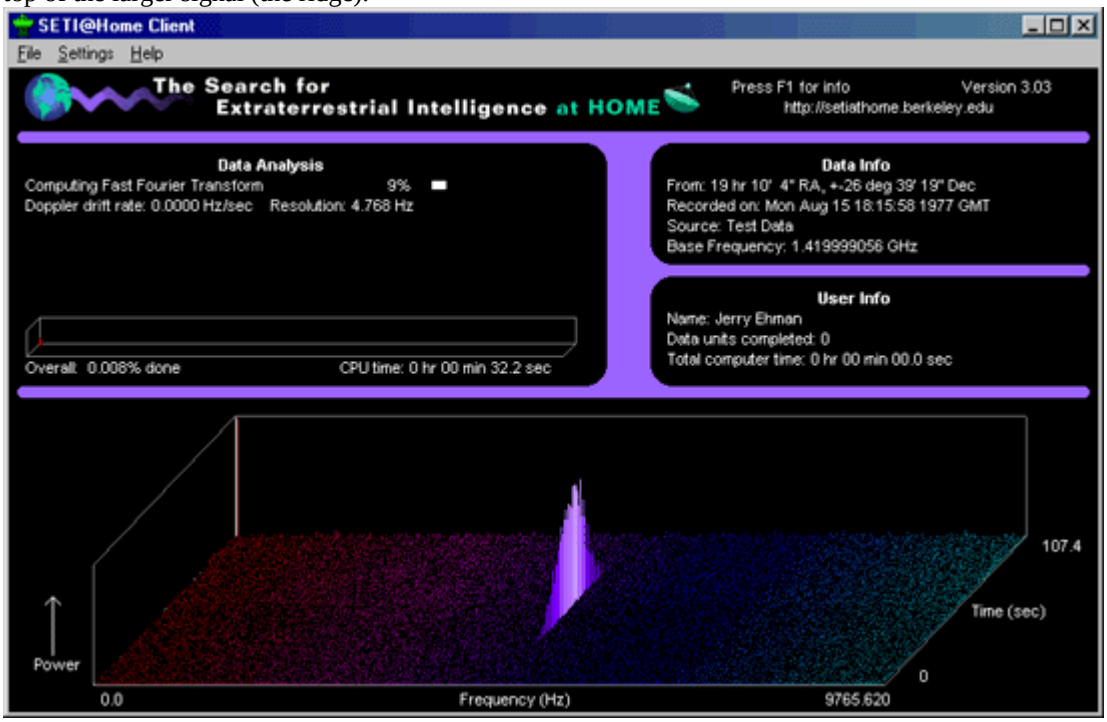


This is a sky-map of different SETI listening locations and the locations of strong spikes. If you notice the blue band, that is the sweep of the radar over a specified time period, and around it are different constellations and other notary stellar bodies. The thinner, more self-contained lines represent areas of high concentration of spikes. Red signifies extreme power, and blue signifies a "QRP" signal, as we hams would call it.

Now, what would happen on a narrow band, very refined signal? Well, some ham computer programs are around that will actually monitor a frequency and look just like the SETI display, except meant for operation within a ham band. It would look the same as that, except in our already familiar SETI arrangement.

Now, though, instead of starting at the rear wall and continuing up and destroying all the background, it starts self-contained in the center, and stands so far above the back-round, the SETI display has to orient itself to the huge height, and instead of showing all the noise, it moves up so you can see the top of the spike. This is very accommodating for you as the user, just don't get confused between a refined and a general emission that you hear.

This is what a narrow emission would look like. Please note that the background noise is gone, only the peaks visible so you can see the top of the larger signal (the ridge).



Well, I hope this has been somewhat educational and maybe now you're interested. If you bothered to read this, you really didn't have to. But I assume that when you hear E.T., you'll want to know how it works and why. If you have set up the program using this as a guide and you are sitting at your computer now, good job and happy listening! And if you haven't started yet, just think: this is the furthest DX you'll *ever* get!

73, de Mike, KB1FWN

Pictures from the NE1C Operation In Vermont
January 17, 18, 19, 2002
BSA Venture Crew 510
January VHF Contest & North American QSO Party (HF)

With Crew Flag flying high, BSA Venture crew sets up for a weekend of ham radio contesting, both on HF and VHF at the vacation QTH of AA1YW, Dave Cain. Many thanks to Dave for the use of the house during the weekend, and to HCRA for the Crew Flag!
(Note the 6m beam on top of the flagpole)

Crew Vice President, Brian, gives a call on 2m SSB during the ARRL VHF Contest. Or was he one of the MANY who checked into the Emergency net on Sunday morning??? Thanks to Gary, AA1UE, for the use of the radio and antennas during the weekend!

Plenty of CrewDX T-Shirts still on sale. See any Crew member at HCRA meetings!

Though Mike, KB1FWN, and John , KB1FTX lost their voices to laryngitis BEFORE the contests started, there was just no keeping Mike away from the HF microphone. The NE1C Multi-2 operation netted over 660 QSO's during the North American QSO Party (NAQP) contest.

If you were listening to the Emergency net on that Sunday, then I'm sure you knew that there was about 1 foot of new snow on the ground at our QTH, and ham radio wasn't the only thing to do during the weekend!!!

Of course, one of my best parts of any campout is… FOOD! And there was plenty of it at this campout, also!

Kx1x, now QRT zzzZZZzzzZZZzzzZZZ.
Some people would say that what I do best, but, well after some hefty contesting and a big breakfast, what else is there to do?

This month:

Hampden County Radio Association

Will be on Friday

February 1st, 2002

At 7:30 p.m. at the

Feeding Hills Congregational Church

Doors open at 7:00 PM

Hope to see you there!

In case of inclement weather, tune to TV Channels 22 or 40, or the 146.94 and 147.105 repeaters.

Meeting cancellation information will be given out by 6:00 PM.

HCRA
P.O. Box 562
Agawam, Massachusetts
01001

PLEASE HAND CANCEL

Friday, February 1st, 2002

Guest Speaker

John Ellsworth

from the

Vintage Radio and Communications Museum