

# The Link

February 2004



The Official Journal of the Buffalo Amateur Radio Repeater Association, Inc.

## The 2004 Edition of the Annual BARRA Auction is Here!



Easily the most popular event of the BARRA year, the Annual Auction is quickly approaching. Monday, February 16th is the date, and the doors will be open at 6:45 pm for setup and preview. The auction will begin at 7:30 PM sharp and our auctioneer will be the ever popular Bob "Dutch" Dutschman, K2JGI, who we believe knows every piece of electronic gear -- old or new -- out there. Dutch's wit and humor always make the Auction a fun event.

Everyone, as always, is welcome to buy or sell at the BARRA Auction. BARRA retains 10% of the selling price of each item, up to \$5 per item, as a fundraiser. There is a one dollar donation at the door and refreshments will be offered for sale. The proceeds from the entire Auction event each year traditionally are used to pay the church for our excellent meeting facilities. Bring a smile to the spouse's face and empty out those parts bins and boxes in the cellar and attic. (Just don't let her see what you buy that night!)

Don't miss the most talked-about BARRA event! See you there!

## Dues are Due

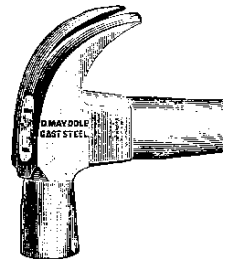
Time is running out on your membership dues renewals! At the end of the month we will have to say good-bye to those who have not sent their renewals to us. As always, the status of your dues is shown on your mailing label, or by separate e-mail if you get the newsletter electronically. And while you're at it, you might want to encourage your ham friends to join, or re-join if they are BARRA "alumni." A membership application is available on the club web site, <http://barra.hamgate.net>

## Building \* Skills \*(and other non-technical) Needed This Summer

At the February meeting of the Technical Committee, a list was started outlining the good weather projects to be done this coming spring and summer at our Cole Road repeater site. It was then realized that there is a great need for non-technical skills.

The first "physical plant" project to be undertaken as soon as the ground is firm enough to walk on (late April/early May) is to weed out and tidy up the junk pile next to and behind the shack in the brush. If we wait too long into the summer, the brush will overtake everything again, making it difficult to retrieve the items. We have rather neglected this area of the site and we are well overdue in straightening things up and spring is the perfect time to attack this.

Attention those who like to swing a hammer: "Chet's Shack" (the small white building) needs a new exterior. The Tech Committee is presently looking into our options for resheathing this building. It currently has some very well-weathered composition shingles which need replacement -- soon! While the resheathing is taking place, the replacement of the windows in the shack is being considered, and again the options are being explored. Installing small casement windows like those on the A-frame shack is looking pretty good at the moment.



If any or all of these projects "sound like fun" to you -- let us know! This is the perfect opportunity for those members not so sure of their technical skills, but are fans of "This Old House" and the DIY Channel, to try out what they've been learning. Contact a board member or Technical Committee member.

## Last Chance for 2004 Raffle

The annual BARRA Raffle will be pulled at the Auction, so time is running out for your ticket purchases! Bring your money and ticket stubs to the Auction to be entered into this year's drawing for a DVD player, provided courtesy of Crest A/V Electronics.

## Buffalo Amateur Radio Repeater Association, Inc.

### Club Officers & Directors

President	Nelson Oldfield WA2ZSJ '06 634-6394
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Activities List	Ed Swan W2EAS
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Erie County Emer. Coord.	Gary Wysocki N2WLS

### Voice Repeaters

WB2JQK	PL 107.2	29.68 -	Boston
K2ISO		145.17 -	Wethersfield
K2DSN	PL 107.2	146.73 -	Niagara Falls
W2EUP		146.91 -	Boston
N2YDM	PL 107.2	147.00 +	Kenmore
W2EUP		224.82 -	Boston
WR2AHL	PL 110.9	442.00 +	Wethersfield
WB2DSS	PL 151.4	443.925 +	Niagara Falls
WA2HKS		444.00 +	Buffalo
WB2DSS	PL 151.4	444.75 +	Kenmore

### RAWNY Net

Stop by Monday evenings at 7:00 pm and join the RAWNY club's net which meets on our 146.91 and 444.00 repeaters.

### BARRA on the Internet

<http://barra.hamgate.net>

Back issues of *The Link* and a membership application are available on our web site.

### SpaceLink

Please note that due to a serious problem with the UO-14 satellite, the SpaceLink is no longer in operation.

## Don't Forget to Get Your BARRA Mug!



These great looking, sturdy, quality ceramic mugs sport the BARRA buffalo logo, are dishwasher safe, and let you show your club colors in style!

**Only \$5.00 Each!**

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### The BARRA E-Mail List Serve

To join, send an e-mail message to:

[majordomo@hamgate.net](mailto:majordomo@hamgate.net)

with the message [subscribe barra](#) in the main body of the note.

To send a message to the list subscribers, address your e-mail to:

[barra@hamgate.net](mailto:barra@hamgate.net)

*The Link* is published eight times a year by BARRA, the Buffalo Amateur Radio Repeater Association, Inc. The opinions expressed herein, however, are not necessarily those of the Board of Directors or membership of BARRA. Letters to the editor are solicited and must be signed. Names and addresses will be withheld if requested. Material for *The Link* should be sent to the Editor:

Buffalo Amateur Radio Repeater Ass'n  
P.O. Box 507  
N. Tonawanda, NY 14120-0507

or may be submitted electronically to the editor's e-mail address: [ka2wft@arrl.net](mailto:ka2wft@arrl.net). The editor may be reached by telephone in the evenings at (716) 834-2664.

#### DISTRIBUTION

*The Link* is available in both print and electronic formats. If you wish to receive *The Link* in the Adobe cross-platform PDF format by e-mail instead of regular mail, please notify the editor at [ka2wft@arrl.net](mailto:ka2wft@arrl.net).

#### ARTICLES

Articles for the *Link* on any subject, technical or general interest, are always welcome and encouraged. When submitting material to the *Link*, please type it or submit it electronically, if possible. Remember that the editor reserves the right to make necessary changes including reformatting and condensing for space and that Full Membership may be obtained by writing articles.

#### LINK DEADLINES

All material must be submitted to the Editor by the end of the month previous to the issue (e.g. December 31st for the January issue). Of course, if the material is received earlier than that date, you will have a better chance of getting your article in the next issue. All advertising is subject to the same deadline.

#### ADVERTISING

Want-Ads are free to BARRA members and are published in the next available issue. Ads from other hams are accepted free on a space-available basis. Ads appearing in other club newsletters with which BARRA has an exchange agreement are reprinted on a space-available basis.

Display advertising is available at the prevailing rates. Business card size is currently \$2.00/mo; full page is \$16.00/mo. Contact the editor for rates for other sizes.

#### DUES

Basic membership rate: \$20.00

Family member in the same household as first member: \$3.00

Discounts from basic rate

Senior Citizen (65+): -5.00

Disabled: -5.00

Voting member: -5.00

Full-time student with ID: -5.00

Each new member recommended: -1.00

**Note:** A voting member is a member who has performed a service for BARRA (e.g. helped out at an activity, written a *Link* article, etc.).



## Hobby Highlights

*Rich Sellers, KG2OR*

If you need something to do between QSOs and other ham radio related activities then let me recommend surfing the website [www.nrao.edu](http://www.nrao.edu). The National Radio Astronomy Observatory is funded by the National Science Foundation. At this website you can learn about their antenna arrays, very large arrays, in Socorro, New Mexico, and very large baseline arrays, a group of ten radio telescopes remotely controlled from Socorro, New Mexico. Some amateur radio operators are interested in radio astronomy. Joe Taylor, K1JT, and Grote Reber, W9GFZ, are two pioneers in our hobby that have radio and astronomy in their biographies.



The National Radio Astronomy Observatory website offers amateur radio operators a vast amount of scientific information, and it also includes photographs from the Hubble Space Telescope. These photographs are superimposed with radio astronomy, and are graphically shaded to highlight waves of radio signals. The data is analyzed, and you can read about the theories and discoveries of sugar molecules, water molecules, star origins, black holes, galaxy structures, and behaviors.

From time to time I look at the stars, the constellations, moons, planets, comets and meteors. The National Radio Astronomy Observatory shows the universe as a massive and endless frontier; with an infinite amount of clouds and lights. In between your next QSO or call sign research try [www.nrao.edu](http://www.nrao.edu). It is truly creative astronomy. 73 de KG2OR.

## BARRA Apparel is Still Available!

**T-Shirts \$7.00**

**Sweatshirts \$11.00**

**Quilt Lined Jackets \$35.00**

**Flannel Lined Jackets \$25.00**

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## Thoughts About Slow Scan TV

*Bill Pike, K2ILH*

For the last few years Slow Scan Television (SSTV) has been an item of interest to me. It used to be that you had to have some specialized hardware for this mode, the most popular of which was called Robot and required a substantial investment. Some operators still use Robot equipment but the PC sound card has taken over this mode, too. There is ample software available for download from the Internet and much of it is free. A very popular free software is called MMSSTV. The interface hardware schemes are also fully covered by Internet sites so I won't bother to describe them except to say that they vary from DIY plans to fully built for sale.

SSTV is popular on HF, where bandwidth restrictions limit the data rate for digital signals. The 20 meter band frequency is 14.230 MHz. SSTV is also present on the 2 meter FM band at 144.500 MHz. Operation is normally simplex. Audio tones are generated as an image is scanned line by line similar to regular TV but not using NTSC format. These tones are used to modulate the transmitter, and are demodulated at the receiver to form the reconstructed image. Because of the limited data rate, an image transmission takes several minutes. Many transmit encoding schemes, with differing features and resolution, are available and may be selected in the software. The most frequently used in the US is called Scotty1. Automatic decoding selection is a normal software feature.

More recently another form referred to as HDSSTV has shown up on 14.233 MHz. Software for this is also available on the Internet and the same hardware interface is used. HDSSTV provides excellent image quality but is not tolerant of transmission errors. Longer transmission times (more time for errors to occur) are needed for more data. This mode is essentially a file transfer. Any file, image or text. If substantial data is lost, the file is corrupted and cannot be read.

A word about interface hardware. Many operators simply plug their audio into the sound card using a cable with appropriate connectors on each end. This works ... but not well. Best performance requires isolation. Commercial interfaces can be expected to include isolation in their design and home built designs can use inexpensive audio isolation transformers from Radio Shack. Complete isolation for PTT can be had with an opto-coupler, or some people use VOX. You will also find it very nice to have level adjustments on the interface rather than playing with sound card settings. Keep in mind that SSTV is done on voice frequencies and you will be expected to talk also. So keep your mic connected so that you can use it without swapping plugs.

As a bonus, the interface hardware is usable for other modes like PSK-31 and RTTY. My own entry into SSTV was after making the interface for RTTY. I had tried the patch cable approach for RTTY and was disappointed when comparing it to my old reliable PK-232. After building a proper interface, I found that performance was excellent and I moved into other modes.

SSTV operation is very relaxed. Images come in and are saved automatically. There are enough operators to form round-table groups and you may send only a few images. One

operator puts received images on his web site so you can see what you send immediately. Another twist is the SSTV repeater. (You knew I'd work repeaters in here somehow!) You preface your transmission with a specified tone, using your software, and the received image is sent back after you end transmission.

So if you want to do something with that digital camera you got for Christmas, or if you need another excuse to buy one, or even if you want to use images from your scanner, give SSTV a try.

## An Interesting E(cho-link)xperience

*Bill Pike, K2ILH*

A few of us who don't have to go to work in the morning usually gather on the repeater on certain days to discuss the weather and any new technological developments that have come to our attention. One thing that has come up, because of the possibility for staying in touch with those of us escaping to the sunshine state, is the use of Echo Link. I have used E-link, and its predecessor I-link, for several years. Originally, we guys connected with each other by Internet and skipped the radio, but with the recent availability of E-link on certain repeaters we have been venturing to greater accomplishment.

The usual E-link repeater experience has been for fixed computer operators to initiate a connection to a repeater. Other operators make exclusive connection, from their radio to a private fixed link, to expand their personal coverage. A less available feature is the repeater that allows radio operators to make connection to other E-link nodes.

Here in the Space Coast area of Florida is the repeater K4OHE-R on 147.36 (Node 98349) that allows DTMF entry of remote node numbers to link to other nodes. In this way, the repeater can be linked to other E-link repeaters (or other stations) to expand the coverage without limitation to geographical proximity. Since this repeater is not heavily used, the linking feature is quite useful. I had only to punch in the node number of a repeater in WNY and I could be talking home. There I was ... in Florida ...rolling down the interstate at 70 mph with the top down ... sharing the sunshine with the guys in WNY.

We learned at the annual Technical Committee Report last month that an Echo Link node for BARRA is in the works and we look forward to this added feature to our repeaters. This system works well on a seldom used repeater where more coverage is welcome and monitoring for calls is generally a quiet experience.

Articles on any ham radio topic are  
always welcome in *The Link*!



It's time for the

# Annual BARRA

Ham Radio & Electronics

# AUCTION

And Everyone's Invited to Buy or Sell!

Ham Radio Gear · Scanners · Computer Equipment · Parts  
Books · CBs · Test Equipment · More!

**Monday, February 16, 2004**

**St. Bartholomews Episcopal Church**

**Brighton & Fries Roads**

**Tonawanda, NY**

(Across from Kenmore East HS)

Doors open at 6:45 pm  
Auction begins at 7:30 pm

Auctioneer:  
Bob "Dutch" Dutschman, K2JGI

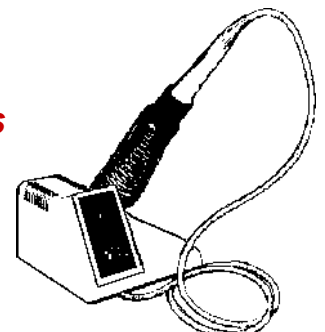
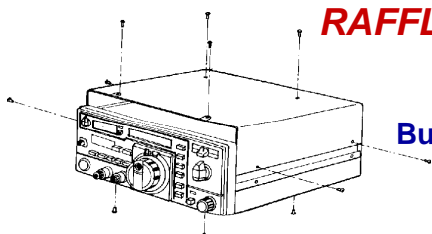
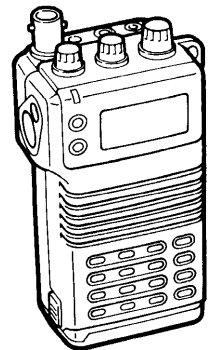
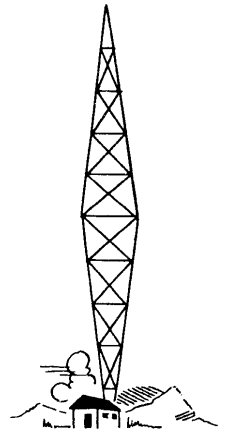
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For more information contact:  
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## Calendar of Events

### GENERAL MEETINGS

General meetings are held at St. Bartholomews Episcopal Church, Brighton and Fries Roads, Tonawanda, across from Kenmore East HS. Doors open at 7:00 pm for rag chew, business meeting at 7:30, with program following.

**Monday, February 16, 2004** -- Annual BARRA Auction! Turn trash into cash and put a smile on the spouse's face! One dollar donation at the door, and all are welcome to buy or sell. Raffle for DVD player. Doors open at 6:45 PM, auction begins at 7:30 PM sharp.

**Monday, April 19, 2004** -- Recall local ham operators and QSOs of the past with the help of the vast audio archive of Peter, K2RSK, who will regale us in an evening of reminiscences.

**Monday, June 21, 2004** -- Meeting program TBA.

**NO GENERAL MEETINGS IN MARCH,  
MAY, AUGUST OR NOVEMBER**  
The *Link* is not published in those months.

### BOARD MEETINGS

Board Meetings are held the second Monday of every month at the Athens Family Restaurant, 2801 Harlem Rd, Cheektowaga, between Genesee Street and George Urban Blvd. The meetings begin at 7:30 PM and members are always welcome to sit in on a meeting or bring concerns to the board.

### TECHNICAL COMMITTEE

The Technical Committee has formal meetings the first Friday of every month at 7:00 PM in Room 117 of the BOCES Potter Road Career and Technical Center, 705 Potter Road, West Seneca (Corner of Slade, Potter and Orchard Park Rds). Come on out to BARRA's own CCITT (Coffee & Crumpets Interrupted by Technical Talk), where progress of current projects is evaluated and new projects are planned. The meetings usually conclude with munchies at a nearby restaurant.

Don't miss the most popular event of  
the BARRA year, the Annual Auction  
Monday  
February 16th, 2004  
7:30 PM!