



The Link

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

January 2003

January's Meeting Program: Annual Report of the BARRA Technical Committee

Each January the BARRA Technical Committee reports formally to the membership about its activities during the preceding year. This past year found members of the committee well occupied in a number of projects, tasks, and duties.

The members of the Technical Committee have prepared a visual program of the repeater sites and work that was performed during 2002. There will also be reports about some of the projects currently "in the works" which are very exciting.

Come on out and hear first hand what's been done at the various repeater sites and equipment. Monday, January 20th is the date -- see you there! Bring a friend who's interest in ham radio and/or knows nothing about BARRA -- this is a perfect meeting to see just what it is we do.

Annual Auction is Next Month!

Starting rooting through your stuff now! The Annual BARRA Auction is coming up next month! Dig out those unused and unneeded ham radio and electronic items and bring them to the auction and turn them into CASH!

Since the Auction is a fairly big event for us, we will need some extra hands the night of February 17th. We need people to help move the tables of goodies up to the front as their time comes. We need people to help mind the kitchen for the evening. We would like to sell pizza, doughnuts and coffee the night of the Auction. The food and coffee supplies will be provided, we just need people to keep an eye on things and make sure there's enough on hand and to collect the money from the items sold.

As always, the Annual Auction promises to be a fun evening for everyone -- make it even better by lending a hand. Call a board member (phone numbers are on page 2), or drop an e-mail to your editor at ka2wft@arrl.net or our president, WA2ZSJ, at n.oldfield@verizon.net to sign up.

The BARRA E-Mail List Serve

To join, send a message to:

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

From the President...

A Fire Side Chat

Nelson Oldfield, WA2ZSJ

As another year passes by I would like to reflect on 2002 and some of my thoughts for the future.

The Christmas Party was a great time and we had 40 members and friends in attendance. I know this by the raffle stubs that were given out. The food was plenty and seeing a few of the old timers was a great feeling. Do you know who won the DVD player?



Seeing WA2OLW attend was priceless! And hopefully we can keep him active in the club. As a past president he is a man of great talent. He is also the one offering the members a discount on the t-shirts and jackets he makes (see page 7). They are a great product and help to support a local ham.

I would like to thank the handful of club members who kept the repeaters up and functioning. The repeater trustees did a marvelous job! I would like to thank the board members who keep the club running in our business affairs.

This year brings new challenges and an exciting start with the auction next month, and field trips later in the year. To those of you at home, why not come out and see some old friends and enjoy that hobby you love? We are going to take a serious look this year at the new technology that is knocking at our door.

If you attend the Lockport auction later this month and buy something you did not need, bring it to our auction and see if we can sell it for you!

I welcome your comments and suggestions for the club and you can e-mail me at n.oldfield@verizon.net.

E-Link Reminder

Members are reminded that this newsletter is available for distribution electronically in the cross-platform Adobe PDF format. The electronic version of *The Link* is in color and arrives at your e-mail in-box completely without the wrinkles, tears and stains that the paper version comes with.

The Adobe PDF reader needed to view the *E-Link* is free and a link to download it is available from the newsletter page of the BARRA web site. Also on the newsletter page are examples of the electronic *Link* so you can see what all the fuss is about.

To sign up to receive the *Link* by e-mail, drop a note to the editor at ka2wft@arrl.net.

Buffalo Amateur Radio Repeater Association, Inc.

Club Officers & Directors

President	Nelson Oldfield WA2ZSJ '03 634-6394
Vice President	Doug Alderdice KA2WFT '03 834-2664
Secretary	Brian Neri WA2CWF '05 941-5999
Treasurer	Ed Swan W2EAS '04 877-0417
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Technical	<vacant>
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Associate Link Editor	Dave Sewhuk N2GH
WNYSORC Representative Chair	Ben Bass N2YDM
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Roster & Passwords	KA2WFT, W2EAS
Activities List	Ed Swan W2EAS
ID Badges	W2EAS
Erie County Emer. Coord.	Karl Weir N2NJH

Voice Repeaters

WB2JQK	29.68 -	Boston
K2ISO	145.17 -	Wethersfield
K2DSN PL 107.2	146.73 -	Niagara Falls
W2EUP	146.91 -	Boston
N2YDM	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

UO-14 Retransmissions

The downlink of amateur satellite UO-14 is retransmitted on every pass over the Buffalo area on our 444.00 and 146.91 repeaters. For information on uplinking to the satellite, see the BARRA web page.

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.

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The BARRA E-Mail List Serve

To join, send an e-mail message to:

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

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: ka2wff@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 ka2wff@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.).

Repeaters and WNYSORC

Rich Sellers, KG2OR

The Western New York Southern Ontario Repeater Council coordinates repeater frequencies in a geographical area including east and south Ontario, Erie and Niagara Counties and the Southern Tier. It covers about 150 miles in area. It is defined in home.cogeco.ca/~wnysorc/.



Included are the bylaws, standing committee, officers, technical committee, and other functions.

Once again I have realized that amateur radio is a federally licensed hobby. Bound by laws and rules, the allocation of frequencies in the United States is a selective process. We are allowed to use different modes of operation within frequencies on certain bands. A variety of modes have developed: earth moon earth, cw, ssb, beacons, digital, sstv, fstv, repeaters, satellite, space station links, and fm simplex. If you want to learn more about the band plan or allocation of frequencies please see www.wny.hamgate.net/bandplan.html and www.arrl.org/fandes/field/regulations/allocate.html

I have spoken with AA2FZ, Dick Leach of RAWNY, and N2YDM, Ben Bass of BARRA, who are involved with WNYSORC. Dick said a major change has taken place. The FCC used to issue repeater call signs, today a personal call sign, or a club call can be used as a repeater identifier. The field studies for building a repeater site also goes through the council instead of the FCC for approval. The repeater owners have made the council to manage frequency pairs; a matter of peaceful co-existence.

Beyond QRM and QRN we must act as law abiding operators. Any performances to the contrary could complete a citation, or even loss of privileges! Accordingly, we are instructed to use minimum power to achieve our goals, use a frequency pertaining to class of license, and not interfere.

For example, people who act without approval are opposed. N2YDM, Ben Bass, the trustee of N2YDM/R 147 MHz, on Elmwood Avenue in Kenmore, presently operates at 3 watts. The repeater council approved a pair of frequencies to VE3NU, in Scarborough, Ontario, but he hasn't used that pair. He is operating on 147 mhz, running 12 watts or maybe more and is causing interference with N2YDM/R. Ben has notified Mr. Riley Hollingsworth, Special Council for Enforcement at the FCC, who is in turn communicating with Industry Canada to resolve the problem. VE3NU says he has WNYSORC approval for his pair at 147 mhz. Mr. Bass indicates VE3NU has not received the council's consent. Thus, people who act without approval are opposed. Stay tuned to N2YDM for the results.

73, KG2OR, Richard Sellers.

Articles on any topic related to amateur radio are always welcomed and encouraged in [The Link!](#)

Hobby Highlights

Rich Sellers, KG2OR

November 2002, December 2002, January 2003; what do these months have in common? Do you have an idea yet? I will explain to you my thoughts. It is all about meteor showers. Find what I have found. Tune into www.space.com for still pictures and a video of recent meteor showers. Learn about David and Wende Levy's expedition into the Arizona desert and the Leonids. In December the Geminid showers appeared. In January 2003 the Quadrantids are in the earth's path. There are more meteor showers in the family: Perseids, Delta Aquarids, Lyrids, Draconids, Orionids, and North and South Taurids. Navigate around www.meteorobs.org/showers.html#latest and www.meteorobs.org/index.html and www.nammeteors.org which is the North American Meteor Network.

Physicists and astronomers learn about our universe by analyzing these phenomena. Amateur radio operators use meteor showers to transmit and receive weak signals on UHF. Combine the two, astrophysics and amateur radio operators, and you will find K1JT, Joe Taylor. K1JT has received a "Nobel Prize in physics in 1993 for discovery of the first orbiting Pulsar" (*QST*, 12-01, pg.41). He has recently published a couple of articles in *QST*, 12-01, pgs. 36-41, and *QST*, 6-02, pgs. 81-83. In the former he describes WSJT and a FSK441 protocol, a high speed cw technique, and in the latter JT44, a high speed cw package able to detect weak signals 10dB below receiver noise. In the article dated 12-01, K1JT says he has used two and six meters for meteor scatter since the 1960's. Along with ham radio and windows computer programming he has designed WSJT software for today's radio receivers. He calls it a way to improve meteor scatter communication. He goes into great detail in this article.

Radio operators in the experience wait for "pings" and "blue whizzers" (*QST*, 12-01, pg.36). The signals are character encoded with calls and are transmitted and bounced off of meteor dust or debris. The reception of signals and the decoding process, including receiver noise, makes up much of what K1JT describes as a system for detecting information below certain decibel levels. This process can also be used for earth moon earth bounce. What about time? One tenth of a second can be decoded into twelve or fifteen characters. This is the purpose of FSK441. You do not have to own a monster shack to put this programming into work. You will need a one hundred to one hundred and fifty watt transceiver, a yagi up forty feet, and a compatible computer system and interconnections. K1JT has a thirteen page manual for FSK441 which can be downloaded. All kinds of other software are also up for grabs. If you have not already read this article then I suggest that you have missed a real learning experience. It can take five minutes to QSO calls on six meters, and thirteen minutes to QSO calls on two meters.

Meteor scatter exists about 160 miles above the earth's surface. On pg. 38, *QST* 12-01, K1JT talks about the work of W7PUA, Bob Larkin, and PUA43. This is another software system. Both K1JT and W7PUA are competing for greater efficiency. The goal is to copy more information in the high speed cw technique using character codes. According to K1JT PUA43 is an "extreme weak-signal mode...using DSP integration techniques" (*QST*, 12-01 pg. 41). In his June 2002 *QST* article K1JT created JT44, a higher version of FSK441 which detects

pings ten decibels below the receiver noise. You can go full circle in amateur radio by reading K1JT's articles. The old saying that "if you can hear a signal he can hear you" is greatly improved with WSJT, JT44, and his newer versions; given the context of meteor scatter. Incorporate www.space.com into your reading about meteor showers while K1JT's systems are working and you will embrace the new discoveries achieved in weak signal theory.

I have been keeping track of the Space Infrared Telescope Facility at www.sirtf.caltech.edu and its launch. Please read Radio Association of Western New York QSO November 2001 and May 2002 for my previous writings about SIRTf. The launch for January 2003 has been changed by NASA. It is being moved to April 2003. The name game for SIRTf has been narrowed down to six names and eleven finalists. The completion of the contest will be decided after the launch. Happy New Year, 73, KG2OR, Richard Sellers.

Get Well Wishes for K2DSN

At the beginning of January Keith Laudenslager, K2DSN, was stricken with a heart attack. He was very fortunate to receive prompt medical treatment and is back home after only a brief stay in hospital and is recovering nicely.

Our best wishes go out to Keith for a quick recovery! Anyone wishing to send Keith a greeting can do so to his email address at klaudens@pce.net or to 11698 Liberia Rd, East Aurora 14052.

WANTED: WWII & Korean Era military signal equipment. Radios, teletypes, telephones, etc. and parts. Call Brian, WA2CWF, 941-5999, or britmotors@juno.com

Don't Forget to Get Your
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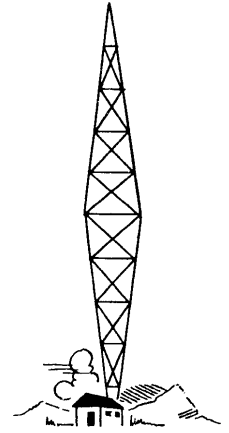
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Ham Radio & Electronics
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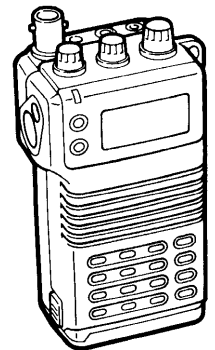
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Monday, February 17, 2003
St. Bartholomews Episcopal Church
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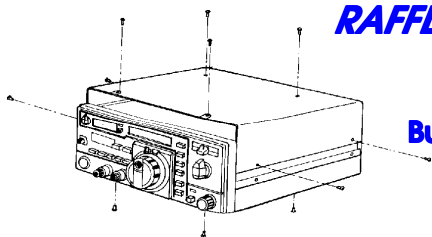
(Across from Kenmore East HS)

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

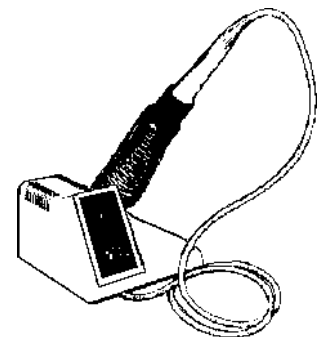


\$1.00 per person donation
Refreshments Available

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For more information contact:
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Picture Page

Some views of the 2003 BARRA Christmas Party, taken by Ben, N2YDM.



“Natasha, Mr. Big said Moose and Squirrel would be here...”



“Who’s ticket was pulled?!?”

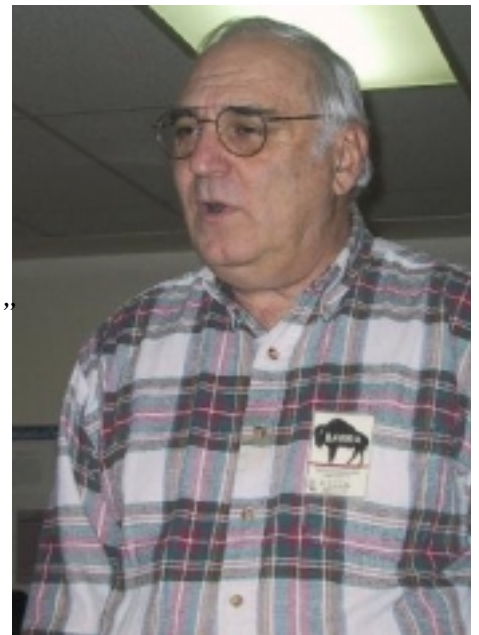


“No, Rich, how did you REALLY do that?”



The Prize Winner!

“Let’s sing carols!”



At the October general membership meeting, Rich, WB2DSS, modeled some new BARRA apparel now available through Carl Brittain at Leprechaun Graphics. These are high-quality items that let you show your club colors in style. The available items and their prices are shown below. Return this page with your payment to the address at the bottom of the page to order.

BARRACustom Imprinted Order

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T-Shirt - \$7.00



Sweatshirt - \$11.00



Jacket
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Sizes Available: Youth - Small, Medium, Large
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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, January 20, 2003 -- Annual report of the Technical Committee to the membership. Come hear and see the year in review of BARRA's repeaters, sites, and projects.

Monday, February 17, 2003 -- Annual BARRA Auction! Turn trash into treasures at BARRA's popular yearly event.

Monday, April 21, 2003 -- SKYWARN presentation by members of the NWS Buffalo office.

Monday, June 16, 2003 -- Program topic TBA.

Monday, July 21, 2003 -- Annual BARRA Mobile Clinic and Picnic at the Cole Road repeater site.

**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 Crest A/V Electronics, 1570 Main Street, Buffalo, between Michigan and Ferry Streets. 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.

Greater Buffalo Winter Hamfest

Sunday, February 23, 2003

Main-Transit Fire Hall

6777 Main St, Williamsville

Talk-in 147.255 (PL 107.2)

Open at 7:30 AM, Admission \$6, Tables \$10