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BARA Facts

Newsletter of the Binghamton Amateur Radio Association

April 2004

Website: <http://www.wtsn.binghamton.edu/bara>

Somebody Ought to Do Something!

I don't care about apathy and indecision leaves me feeling uncertain, but it does get under my skin when people spend more time complaining about problems than they do finding solutions.

And I have to say that in this organization of ours we have a number of Members who pull their fair share of work (and then some). These guys and gals may not always be the first to volunteer when a new project comes up (because they are plenty busy already), but you can bet that they are there to put their shoulder to the wheel and move things along whenever there is a job to be done. You can also be pretty sure that if a "chief" does not volunteer, then one or the other of this core will be there to nudge things along.

Friends, these people need some help, and if they are going to get it, well some of you are going to have to start dipping your oar in the water to help paddle this boat! There is more than enough work to go around and nobody is so all-powerful and superior that he or she is going to say "no thanks, sport!" to a honest offer of help.

Scan the articles in this issue and give the matter some thought. There are one or two places where a request for help is just leaping off the page. Consider jumping on board and helping us to make some steam!

And to the bleacher-warmers who would rather sit around and wait for us to fail.... There **are** a few well-chosen words that **could** be fired off, but 'taint worth the effort to do it, nor the gunpowder to... well, 'taint the time nor the place for **that** kind of language!

Non-Profit Status

We thank our members for the fine turnout at our March General Meeting. We had a first reading of the amendment to our Bylaws. Basically we remain a Radio Club, but the wording now explicitly states that

Bob, WS2U, and Hedy, AA2MU, are our Hamfest co-chairs this year and with the help of

we are not for profit and organized for charitable or religious or scientific purposes. The exact wording is IRS-required "boilerplate". We will continue with the required Readings and after two subsequent Readings we will formally vote on the change.

Our original understanding was that we would actually vote in March, however our Lawyer informed the Directors (after the **BARA Facts** went to press) that the Officers could approve the wording for the Application and that the Club could subsequently ratify their decision. Be that as it may, our Officers continue to navigate through this process and we will keep our Members posted as additional details become available.

There will be further discussion at our General Meetings and all Members are invited to attend. In particular, we hope for clarification to several questions as to what the changes in wording and status mean to our day-to-day Club Activities.

Skywarn Training

The program for our General Meeting on 21 April is our annual Skywarn Training Session presented by the staff of the National Weather Service Office at the Binghamton Regional Airport. The material has been updated annually for the last few years and it is well worth attending whether for the first time or as a refresher. Please also consider bringing a guest (Ham or non-Ham) to introduce them to this interesting and very significant Public Service.

As always, we begin at 7:30 PM at our new location, the Town of Binghamton Town Hall at 279 Park Avenue.

Owego Hamfest

On Saturday, 1 May the 2004 BARA Hamfest will be held at Marvin Park in Owego. This is our club's main fund-raiser and a lot of fun as well, so we ask each and every member to consider giving an hour or so of time to help with the festivities.

N2NCB's famous "Hamfest Bible" planning is well underway, but we still need many hands to pull off the

event in our usual BARA style.

On Friday, 30 April we will meet at the Marvin Park 4-H building between Noon and 1:00 PM to sweep the facilities, set up tables for the inside vendors, and move those famous Picnic Tables out in the field. If you are free, please stop by with your broom and lend a hand.

We also need help with Tickets, Parking, and similar jobs during the Hamfest itself. Sign up for an early shift, and then spend the rest of the day browsing through the goodies in the Flea Market!

Around 1:00 PM on Saturday we begin to strike the tents (so to speak) and the Cleanup Crew swings into action. This is a great way to end the day and every bit of help is appreciated!

If you are at the General Meeting in April, please let Bob or Hedy know where you would like to help out or else contact them on the air (or off). Please lend a hand and make the 2004 BARA Hamfest the best ever!

Possible Shack Site

At our March Meeting Ron, N2RWK, reported on a potential Shack Site located just over the border in Pennsylvania. Preliminary information on the site (which is located on a private Summer Campground) is positive and it sounds as if electricity, water, and sanitary facilities would be available throughout the year, although the situation in the “off season” (Winter) needs some clarification. We understand that Towers, Radials, and Antennas would present no problem and we thank Ron for bringing this site to our attention.

Further information will be presented at our Club Meetings and in the *BARA Facts* as it becomes available and if our Site Evaluators present a favorable report we will likely schedule a Site Visit.

Empire State Games 2004

What Do I Do?

I know some of you are hesitant to volunteer for a communications assignment during the 2004 Empire State Games because you don't know what the task involves. Well here is the skinny. As a registered communicator (the result of filling out the ESG 2004 application) you will be identified by your distinctive colored cap and Tee-Shirt (supplied at no charge by ESG). Armed with your 2004 ESG venue pass, HT,

The MS Walk is always a fun event and helping out is a good way to spend a Sunday Morning. You get some time in the sun and fresh air (such as it is in Binghamton) and an opportunity to practice your skills in Tactical Communications. If you have never done

spare charged battery, headphones, BNC/TNC/SMA-to-PL239 adapter, note pad, pencil, and whatever personal items you might require (sunglasses, sun screen, water, bug spray, ear plugs, etc.) you'll arrive at your assigned venue about a half hour before the start of your shift. You'll identify yourself to the venue director as his ham radio communicator (record his name and time of contact in your note book for later reference). Locate your operating position per the venue director's instruction or lacking such direction locate yourself in his/her immediate vicinity and never out of his/her sight. You are at the venue director's service to handle emergency communications and other logistic communications that may become necessary as requested by the venue director or ESG control.

At a few venues, (as determined by a pre-event technical survey) you may be able to monitor the ESG 2004 control frequency without being able to effectively communicate. At those locations there will be an installed outside antenna and its termination point will be identified to you so that you can interconnect to it as may be required (that's why the adapter is so important). During the communication event the communicator is to be seen (Re: the colored cap and shirt) but not heard — thus the need for headphones or earplug so as not to disturb those around you as well as to improve your reception since many of the venues are noisy. This might be a good time to experiment developing a noise canceling mike. A single layer of sponge type material over the microphone will greatly reduce background noise without destroying your communication audio quality.

Oh, one more thing. You may possibly learn something about the sport in progress at your venue, make a few new friends, and actually have a good time providing this very visible public service. Why not pick up an application and get on the communicator list today? It really is a lot of fun. — *Jack, WB2GHH*

MS Walk

On Sunday, 2 May our local Ham Community will once again provide communications for the yearly MS Walk.

Ford, AB2HS, will be coordinating communications for this event and can be contacted on the 146.82 machine if you would like to volunteer or if you would like further details on what the job involves.

this before, rest assured that Ford and the other local Hams will coach you through the job and that this exercise is great training for the Empire State Games. If you feel unsure of your skills and want a little extra training, the MS Walk is a fun and effective way to

hone your skills!

Please consider helping out with the MS Walk. It's easy, it's fun, and it's a great way to put our best foot forward as Hams and build some good will in our community!

Field Days

June will soon be upon us and with it Field Days. Offers to chair a BARA effort will be gratefully accepted as will ideas and a concrete commitment to help. It would be nice if we — as a Club — could mount an effort this year, but nothing will happen unless there is sufficient interest and a commitment to pull off the event.

Supporting the Team

With the Hamfest Season upon us it seems pertinent to note that Hamfests are the main source of revenue for our local Amateur Radio Clubs. Your attendance at these events helps keep these organizations afloat and your support is always appreciated.

At the same time, let's remember that the Commercial Vendors at these events make it possible to look over and actually try the latest offerings from the manufacturers. Seeing the gear there on the table is quite different from looking at a picture online or in a catalogue. It's true that a smaller dealer might not be able to offer the same discount as an Internet Dealer, but he *is* the one who drives the distance to bring the gear to *your* Hamfest. Keep this in mind as you are browsing the stalls and take the time to thank our dealers and maybe consider making a purchase from them even if it costs a bit more — he did, after all, come to show his wares to you!

New Directions in Communications

We understand through the Amateur Press that some Hams have been experimenting with new types of modulation in an effort to overcome the shortcomings inherent in Single Sideband (SSB) communication.

One of the more promising trials in this direction has been heard on the Amateur Bands and although technical details are sketchy some details have emerged. This brief article summarizes what is known of this new and promising avenue of experimentation.

Single Sideband Modulation — as most of us know — is an effective mode for communications, but it suffers from several serious deficiencies the chief of which is distortion and a loss of fidelity, especially in the presence of atmospheric noise (static). Moreover, when used near the Maximum Usable Frequency (MUF) or during frequency-dependent propagation anomalies portions of a SSB signal may be absorbed or

distorted thus hampering effective communication. An additional (though admittedly minor) problem occurs when through accident or carelessness the wrong Sideband is selected for transmission or reception.

A new technique of Modulation offers relief of all the above problems. Based on analysis of signals modulated using this new technique it appears that certain well-known principles of redundancy and error-correction used in Digital Networks have been expanded to the realm of Analog Voice. Specifically, it appears that an ordinary SSB signal can be subjected to analysis and inverted thus presenting a mirror-image of the original Sideband. This signal is then input into a second SSB Exciter which is locked at a frequency above the original LSB signal (or below the original USB signal). The two signals are then transmitted (in phase) several kilohertz apart and can be considered Symmetrical Reflected Sidebands (SRSs).

Thus far there seems little benefit in this mode, but the really clever insight is to transmit an additional (third) Reference Continuous Wave (RCW) tuned to the average of the Integrated Sideband Frequencies (ISFs). The RCW is easily boosted in power since it is — after all — Continuous Wave and no Power-Averaging takes place. The RCW thus provides a fixed reference against which one or the other of the SRSs may be averaged and demodulated. Moreover, effects of fading and propagation may be minimized by careful selection of the SRS selected for averaging.

The results thus far seem encouraging although we note that the expense and complexity of maintaining three separate Radio-Frequency Exciters locked closely in frequency and the addition of the Analysis Circuitry required to generate the SRSs will likely preclude the use of this new technique by any but the most dedicated Amateur (and possibly Commercial) users. — *adapted from the Journal of the Bialystock Institute*

Pre-Meeting Dinner

We understand that there is an informal gathering of BARA Hams at the Park Diner (on Conklin Avenue) in Binghamton before our BARA General Meetings. Anyone who would like to stop by for a bite to eat is welcome. No reservations are needed, just stop by and look for familiar faces