

The NewsFuse

The NY Hall of Science Amateur Radio Club Newsletter

February 2003

Next meeting Tuesday February 11th 8pm

Club News:

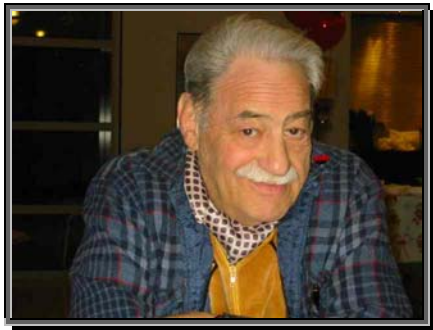
2003 dues are past due. If you have not yet paid your 2003 dues you will be dropped from the HOSARC roster.

Membership applications are available at our monthly meetings or you can download them at our web-site (www.gsl.net/hosarc) Mail the applications along with your \$20 dues to:

HOSARC
PO BOX 150131
Kew Gardens, NY 11415-0131

Senior Citizens \$15, Students under the age of 18 \$10,
Additional Family Member \$10

We had a minor flood at the shack last weekend. No club equipment was damaged.



Silent Key. Ralph Calman WB2IPO passed away on Monday January 13th. Ralph was a longtime member and contributor to HOSARC. He wrote the NewsFuse for many years. Ralph will be missed by all.

Chairmans Report:

Stephen Greenbaum WB2KDG
e-mail: WB2KDG@arrl.net
phone: 718.898.5599 (Evenings Please)

I would like to thank everyone who helped out at our club table at Ham Radio University. Our table had the most interest and I believe we may have our picture published in CQ or QST. I especially thank Ted Bicking KC2HEV and Elmar Vaheer K2EL for showing off our

upcoming kit-building project. This will be discussed at our next meeting. If you missed our last meeting Gordon West WB6NOA was there to a packed house. This was his last appearance to clubs as he is semi-retiring. At our exhibit station WB2JSM we have installed a heater due to drafts caused by the museum construction project. This and additional insulation should warm things up. Also try out PSK31 in the station. Contact me if you need any help.

73 to All Stephen Greenbaum WB2KDG

Presidents Corner:

Tom Golero KC2CBA
e-mail: tomflushing3@aol.com
phone: 718.886.3175 (Evenings Please)

I want to thank all the members who turned out for our January meeting in spite of the cold weather. At the meeting we picked up five new members: George Hrysanthopoulos N2FGX, John Healy KA2ABV, Lawrence Lin AB2PS, Arthur Breen WA2YQV, and George Kontakis. Having new members join the club, always makes a meeting worthwhile.

In the January newsletter, I asked members to provide me with feedback by any means at their disposal. As of this writing, I haven't gotten one response. I can't address any issues or ideas you might have if you don't give them to me.

There are no activities scheduled for February. Keep in mind the station needs to be staffed every weekend.

Lastly, the newsletter needs your input. It is very hard to fill this small newsletter with something interesting each month. I'm sure that some of you out there build equipment, experiment with antennas, operate portable/qrp and are involved in all aspects of amateur radio activity. I don't think an article from you would be too difficult. You can also submit photographs of your projects and radio setups if you're not into article writing. See you all at the next meeting.

73's Tom Golero KC2CBA

Chairman of the Board: Stephen Greenbaum WB2KDG
President: Tom Golero KC2CBA
Vice President: Allan Koenigsberg AE2J

Secretary: Ted Bicking KC2HEV
Treasurer: Harvey Fermaglich N2EOI
Newsletter Editor: Ted Bicking KC2HEV

HOSARC Kitbuilding Project

By Allan Koenigsberg, AE2J Vice President



The proposal to spend a club meeting involved in kit building has met with an enthusiastic response. So we are pushing ahead with our plans.

The goal of this activity is to give members the experience of building a ham radio device. Construction and kit building have long been part of the amateur tradition, we think many members would like the opportunity to get their feet wet with the assistance of experienced constructors.

We have decided to start off by having everyone construct the same kit, the "Rock-Mite" from Small Wonder Labs. A 40 meter CW QRP transceiver. Besides the joy of construction, it would encourage more low-band activity. The handout distributed at the Jan 14th meeting that described the kit is at www.smallwonderlabs.com. If you are interested in more info about this kit check out and mods that been developed go to www.radioactivehams.com/~n0rc/rm

We now need a commitment from you. The lead time for ordering the kits is at least a month or more, so we need participants to declare themselves at the next club meeting on Feb. 11th.

The cost of each kit is \$25. Money for the kits will be collected at the same meeting. I have written the manufacturer to see if there are any volume discounts. Anyone who is undecided will have to order the kit individually at a later date, but we need to know how many will participate so we can organize ourselves to make the experience as smooth as possible.

Those of you who attended the Ham Radio University saw Elmar, K2EL, one of our lead constructors, assembling the kit at the HOSARC table. There was a great deal of interest and enthusiasm among many visitors to our table.

This is also a good time to thinking about assembling a small toolkit for electronics. Obviously some soldering and small hand tools are essential. We will be preparing a checklist of essential items for you in the next month. If you wish to learn more about soldering and tools visit the <http://www.elecraft.com/> website [under Builder Resources] and you will find out a great deal of information.

I hope you are getting as excited about this as I am. If you need more information please contact me. ae2j@arrl.net or 1-718-722-7002.

Just to wet your appetite a little more, Neil Heft, KC2KY, who gives talks about kit building will be the guest speaker at our March meeting. He is going to put a 'Rock-Mite' together before then, so we will get some more good insight.

73's Allan

DX at the shack:



Contact with 7Z1AC was made on 15 meters, January 11, 2002. 7Z1AC is Joe Musachia, a government employee with The American Consulate Jeddah, Saudi Arabia. Joe's station consists of a Yaesu FT-1000 Mark v, Alpha 76 AMP and 2el 5 band quad. Jeddah is located at 21.30N Latitude and 39.15E Longitude.

By Tom Golero KC2CBA

A STORY, A PICNIC AND A RADIO

By
Tom Golero

Demonstrating our hobby in an exciting and meaningful way to the visiting public can be very challenging, given the varying ages, attention spans and time constraints of the visitors. However, if you are as resourceful as Nelson Sidman N2CKK, a good story can make all the difference. Nelson keeps a red looseleaf binder at the shack, full of clippings of interesting amateur radio stories, like that of a twelve year old girl who recently received her general licence, to students at an Oklahoma school who contacted the international space station via amateur radio.

However, the story of the "Mutiny on the Bounty" is one of his best. Nelson retells the story of the how in 1787, a mutinous crew led by Christian Fletcher, the boatswain, took control of the British frigate Bounty. Fletcher placed the ships Captain Bligh and 18 men loyal to him, on a small open life boat, which they sailed 4000 miles on the open ocean, until landing on the island of Timor and eventually, England. The Bounty sailed to Tahiti, where part of the crew landed and then the ship sailed for Pitcairn Island, where Fletcher and the remaining crew settled after burning and sinking the Bounty. The men who landed on Tahiti were captured twenty years later and brought back to England, where three were hung and the others acquitted.

Nelson uses the large wall map at the station to show visitors where the story took place and how remote Pitcairn Island actually is. Nelson ties the story to amateur radio by explaining that a fifth generation descendant of Christian Fletcher, Tom Christian, VP6TC, is an active amateur radio operator on the island of sixty inhabitants and if visitors obtain an amateur radio licence they too, can talk to him.

In June the NJDX Association hosted Tom Christian as he visited our area. Nelson and I attended a picnic held for Tom at the home of John Burgio, W2JB, and his wife Martha in North Caldwell, New Jersey. At the picnic, we got a chance to meet Tom and talk to him about the role of amateur radio on Pitcairn Island and about life on the island. Nelson and I also took a few pictures with Tom, as well as Nelson receiving an autographed Pitcairn Island cap. Nelson told Tom that he uses his family's history as one of his main presentations at the hall and that the story is well received by the many visitors who pass through the museum. Nelson also offered to donate on behalf of the club a HF radio, which he is not using at home, to the amateurs of Pitcairn (there are six including, Tom's wife Betty). Tom readily accepted the offer, and he provided Nelson with a shipping company in Texas that services Pitcairn Island. As it turns out, the company is retiring its fleet,

and Nelson is awaiting word from the company when they will have a ship ready. When that occurs, hopefully, our HF radio will be aboard, and Nelson can add a new chapter to his story. I'm sure this story is far from over, and we will keep you posted with new information as it is given to us.



From Left to Right Nelson Sidman N2CKK, Tom Christian VP6TC, and Tom Golero KC2CBA at the picnic last June

Meet the members:

John Neugebauer N2STX

John discovered ham radio as many of us did through CB radio in the 1970's. In 1975-75 John was a Boy Scout. He and two of his Scout Masters decided to take their radio hobbie to the "next level" and get their amateur radio licenses. They took a 5 week course at the Hall of Science to get their Novice license.

John is still very active with the Boy Scouts today and is the Scout Master for Troop 18 in College Point. He is actively promoting amateur radio to his Troop and currently has 5 Scouts who have taken and passed their Technician Class License exams. He has discovered a novel way to teach the scouts morse code with flashlights.

John was re-introduced to HOSARC through a twist of fate last October. The Boy Scouts have an annual event called JOTA (Jamboree On The Air) at Cunningham park. John was not scheduled to lead the event, but had to fill-in for another scout leader at the last minute. While making calls on the HOSARC repeater he met Bernie Bretton AB2GG. Bernie has re-introduced John to HOSARC and the rest is history...

John recently upgraded his license to General class and his having a lot of fun making contacts around the world with his ICOM-706 and 20 meter dipole.

Review of "Hands-on Radio" in the January and February issues of QST Magazine

By Bernie Bretton AB2GG

Beginning with the January issue of QST magazine, H. Ward Silver (N0AX) is presenting a monthly column that has the makings of a real winner. The new column is called "Hands on radio". The author promises to take us on a practical whirl-wind tour of electrical circuits. Naturally, the emphasis will be on circuits on that are practical to our hobby.

I have always wanted to improve my understanding of practical and theoretical electronics so, I've decided to follow this series and see how much I can pick up. I will regularly report on my progress as I follow what I expect to be the most exciting series of articles to hit QST since I have been reading it.

Starters

The January issue kicked things off with a list of equipment that I would need to start experimenting. Turns out that I had most of the gear necessary already at home: A digital Volt Ohm meter (VOM), an oscilloscope (got it at the last HOSARC hamfest for \$75!), a prototype board, a signal generator (borrowed Ted, KC2HEV), a power supply (My prototype board has a built in 15V supply) and of course lots of resistors, capacitors and transistors. With all that in place I eagerly waited for the February issue.

Lesson 1: The CE Amplifier

The first lesson is on what the author describes as one of the most important circuits in electronics; Using a transistor as an amplifier. The article started right in with the theory of operation. The author assumes that you are well beyond Ohm's law as he takes you from some basic transistor theory through some derivations of formulas needed to determine values of resistors needed to build the circuit.

I spent several subway rides to and from work reading the article several times until I had a good idea about what I was trying to do. Now it was time to build my first amplifier. The basic idea is to feed a signal from your signal generator into a transistor that is properly biased so that it will take the input sine wave and output an amplified version of that wave. The schematic was straightforward. Unfortunately, I did not have all the proper value resistors needed to build the circuit. Luckily, by connecting resistors in series and in parallel, I got pretty close to the values that were specified in the lab. Next, hooked up the signal source, the scope, and finally applied power to the circuit. Instantly my scope came to life. It showed that I was inputting a nice 1 KHz into the circuit. But the output

from the circuit looked quite different from what I had expected. Instead of a nice sine wave, the top of the wave was completely flat! What had gone wrong I wondered? Luckily for me, Ted, KC2HEV was on the club repeater. I told him of my problem and he suggested that I lower the power of the input sine wave. I knocked it down from a few volts down to about 1 volt. That did it! I had a beautiful amplified version of the input wave. As the article had said, it was 180 degrees out of phase. I had built my first amplifier. I spend the next hour experimenting with the circuit. I changed bias levels, tried feeding different waves into the circuit, all the time trying to understand how what I was doing was affecting the amp.

As the author suggest, I am reading the chapter on transistors in "the Art of Electronics" I have a bunch more experiments lined up. All in all, a fantastic learning experience. I'm drooling just thinking about next month's column.