

# Sidebands

The Newsletter of the EAST GREENBUSH AMATEUR RADIO ASSOCIATION



December 2015

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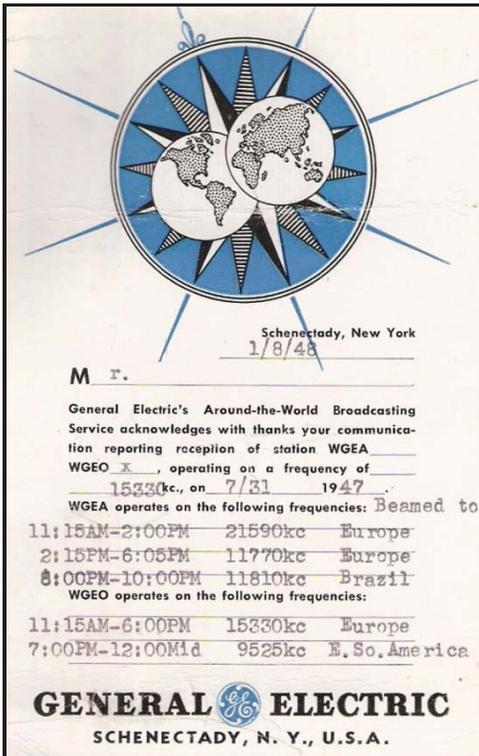
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## Capital Region Home to Shortwave Legends

Historic Stations Served the World from South Schenectady



Most everyone who lives in the Capital Region knows that Schenectady's WGY was one of the nation's first broadcast stations, taking to the air in 1922 and still going strong over 90 years later. But not many today realize that it also had a number of pioneering sister stations, including two that served the world on the shortwave bands using the calls WGEA and WGEA. But their heritage actually goes back to 1912 and a little known station with the calls 2XL.

It was on Tuesday, August 13, 1912 that the Department of Commerce in Washington, issued license number 112 for this obscure though significant early wireless station. 2XL was the first wireless station installed at the then comparatively new factory operated by the General Electric Company in Schenectady – and it became the forerunner to WGY, as well as the ancestor of WGEA and WGEA, two shortwave relay stations operated by GE for the Voice of America.

GE launched 2XL for the purpose of testing, development and improvement of wireless transmitters. The station was in intermittent use until World War I, when the vast majority of experimental wireless stations throughout the United States were closed.

Then, in November 1920, 2XI was re-issued to GE for experimental shortwave research. Two years later, GE was ready to begin regular service on the newly established broadcast band, signing on WGY at 833 khz (360 m) with a 1.5 kW transmitter. The "W" would stand for "Wireless," while the "G" would signify the first letter in General Electric. Lastly, the "Y" would signify the last letter in Schenectady, the station's home base. Prior to World War Two, the station would also operate an experimental transmitter running as much as 200 kW under the call sign W2XAG. Band reorganizations in 1928 and 1941 would have the station move to 790 khz and then to its present dial position of 810 khz.

In fact, over the years the GE transmitter facility at South Schenectady was to be home to some three dozen different call signs for experimental usage in the long-wave, medium-wave, shortwave, ultra-shortwave, FM and TV bands.

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## May Santa Find A Way



Merry Christmas & Happy Holidays  
to You and Yours from EGARA

## Repeater Etiquette

Whether you're a new ham or an Elmer, a periodic review of repeater operations is always a good idea. From the ARRL Repeater Directory --

- **Monitor** the repeater to become familiar with any peculiarities in its operation and to determine if it's in use for a special event or an emergency.
- **To initiate** a contact, simply indicate that you are on frequency. . . . Generally, "This is NU0X monitoring" will suffice. Please don't "ker-chunk" (key up without identifying yourself) the repeater just to see if it's working.
- **Identify legally** -- you must identify at the end of a transmission or series of transmissions and at least once each 10 minutes during your communication.

A few other notes from the ARRL --

After you stop transmitting, you will usually hear the unmodulated repeater carrier for a second or two. This squelch tail lets you know that the repeater is working.

Don't call CQ to initiate a conversation on a repeater. It takes longer to complete a CQ [call] than to transmit your call sign. Remember, efficient communication is the goal. You are not on HF trying to attract the attention of someone who is casually tuning across the band. In the FM mode, stations are either monitoring their favorite frequency or not. Except for scanner operation, there is not much tuning across the repeater bands.

The courtesy tones found on some repeaters prompt users to leave a space between transmissions. The beeper sounds a second or two after each transmission to permit new stations to transmit their call signs in the intervening time. The conversation may continue only after the beeper sounds. *If a station is too quick and begins transmitting before the beeper sounds, the repeater may indicate the violation, sometimes by shutting down!*

Never transmit without identifying. For example, keying your microphone to turn on the repeater without saying your station call sign is illegal. If you do not want to engage in conversation, but simply want to check if you are able to access a particular repeater, simply say "N1KB testing."

### EGARA Repeaters

- **147.33, WB2HZT (Grafton)**

PL 146.2  
Echo Link: 48899  
IRLP: 4889

- **147.27, KC2FCP (Albany)**

PL 94.8

- **145.110, KC2FCP (Troy - HVCC)**

PL 94.8

- **224.800, KC2FCP (Troy)**

PL 94.8

- **444.700, KC2FCP (New Scotland)**

PL 94.8

Clip out for handy mobile use

## Capital Region Home to Shortwave Legends

For example, call sign W2XO was on the air in the early 1930s on 12850 khz with a program relay taken from WGY. It was heard as far away as Australia. Other call signs in the pre-war era were W2XAC on 8690 khz, W2XAH with 40 kW on long-wave at 300 khz, and W2XAW on 2150 khz. In addition, GE also operated W2XAT on 9615 khz for international communications with South America.

In July 1924, GE was on the air for the first time with three transmitters in parallel. These transmitters were WGY with 5 kW on 790 khz, and two shortwave stations, on 3 mhz and 21 mhz, the highest frequencies ever in use during that era.

By the middle of the following year, 1925, GE was on the air with a total of six transmitters at the site, running one medium-wave, one long-wave and four shortwave. In June, W2XAF began a regular program relay from WGY running 40 kW, with W2XAD beginning a similar service at 25kW in July 1926. Both stations were often heard at a good levels in Europe, throughout the Americas, and also in the South Pacific. On many occasions, foreign radio stations received the broadcasts off air from the shortwave transmitters at South Schenectady and then relayed the programming live to their local audiences.

In fact, by 1926, there were 11 transmitters operating at the South Schenectady site. On one occasion in November, GE engineers placed seven of these transmitters on the air simultaneously, all carrying the same program relay from WGY. GE marked the occasion by describing its transmitter operations in South Schenectady as the most powerful shortwave facility in the world. The antenna system was a fan shaped center fed array made with 3/8 inch hemp rope over-wound with fine copper wire.

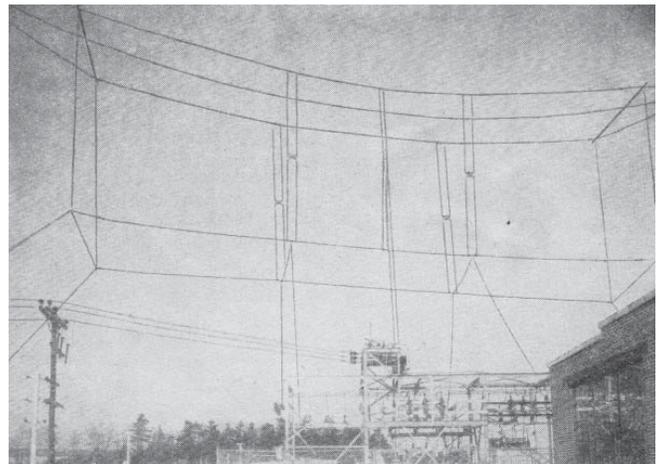
In August 1937, GE began the construction of a huge 100 kW shortwave transmitter for use in broadcasting radio programming beamed to Europe, the Americas and the South Pacific. It was intended that this new high powered transmitter would replace either W2XAD or W2XAF at times during the broadcast day, according to the requirements of on-air scheduling. A new curtain antenna system was also under construction at the same time.



W2XAF would eventually become WGEO and operate with 100,000 watts, making it the world's most powerful shortwave station in 1939.

On September 1, 1939, with the shadow of war looming over Europe, the FCC required all experimental shortwave broadcasting stations to adopt new call signs in place of the experimental calls they had previously used. With that, W2XAF and W2XAD exchanged their "X" calls for regular four-letter calls, becoming WGEO and WGEA.

With 100 kW, WGEO was the most powerful American shortwave broadcaster at the time. Both stations featured a variety of regularly scheduled news and entertainment programs.



Part of the antenna array built for the GE shortwave stations located at the South Schenectady facility.

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Soon after the outbreak of war in Europe, GE began to increase the amount of the programming beamed across the Atlantic. Much of the broadcast time was taken on relay from the NBC network, though GE did produce some of its own programming.



Aviator Amelia Earhart reads letters to Admiral Richard Byrd's expedition to Antarctica over shortwave station W2XAF on March 23, 1929.

Then, on November 1, 1942, the federal government took over all of the available shortwave stations that were still on the air in the United States. At that time GE was on the air at South Schenectady with three active shortwave transmitters, with WGEO and WGEA each running 50 kW units and sharing a 100 kW transmitter as needed to meet band conditions.

During the following year, an older 25 kW transmitter was rebuilt and taken into service as WGEX. Initially this unit, which was inaugurated on July 15, 1943, carried Voice of America news bulletins in Morse Code. However, by April 1944 it was used for the broadcast of the VOA's regular voice programming.

All three stations were also used to send "news items" disguised to contain secret messages aimed at members of the resistance forces in Europe which were active behind enemy lines.

A whole bevy of call signs, regular, new and short term, were used to identify the Schenectady transmitters during the latter part of World War Two and beyond. These included WGEC on 11847 khz, WGED on 9525 khz, WGER on 15330 khz and WGES on 11840 khz.

In May 1943, during the height of the war, there was also a strange station heard from Schenectady on 11845 khz identified only as "A." It too was likely used to send secret coded messages to overseas resistance fighters.

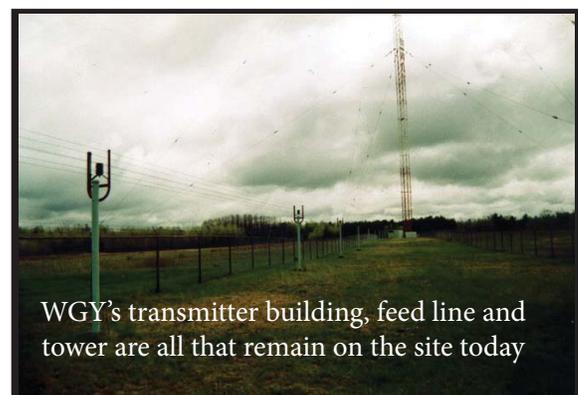
A few years after the war, in August 1950, the three regular shortwave transmitters at South Schenectady were re-designated with a new series of call signs:

- WGEO became WGEO1 operating at 100 kW;
- WGEA became WGEO2 operating at 50 kW;
- WGEX became WGEO3 operating at 25 kW.

In 1957, the use of those numeric designators was discontinued, and each of the shortwave transmitters at Schenectady was simply identified as WGEO, regardless of which unit was on the air.

General Electric was also a very reliable verifier of reception reports, issuing untold thousands of QSL cards throughout the years. There were also some special QSL cards, including a double-sized folded card in Spanish and Portuguese for Latin America listeners. In addition, thousand more QSL cards were issued by VOA headquarters from February 1943 onwards during the relay of their programming over the WGEO transmitters.

Sadly, the end came in 1963 when the old shortwave transmitters at South Schenectady were switched off for the last time. The new, large VOA station at Greenville, North Carolina was now active, and these tired and now unreliable GE units were no longer needed.



WGY's transmitter building, feed line and tower are all that remain on the site today

The transmitter building at South Schenectady was demolished, and the shortwave rhombic antenna systems were dismantled a few years later. Today, the only reminder of the facility -- and its shortwave stations -- are a few unidentified pieces of debris. Nearby are the current transmitter and tower for WGY, but the area around this historic transmitter site is either vacant or now occupied by housing developments.

## On the Beam

### News & Notes



**Club Treasurer, Steve VanSickle-WB2HPR, was the featured presenter at the November 11th membership meeting. Steve demonstrated how to adjust a manual antenna tuner for optimum performance.**

### November Membership Meeting Notes

The monthly EGARA membership meeting was held November 11th at 7 pm at the Masonic Temple with a total of 23 members turning out.

President Tom Scorsone, KC2FCP, welcomed the members and had each introduce themselves to the group. He then reminded everyone about the upcoming Christmas party at Mercato's Restaurant on December 9th and asked members to sign up if they planned to attend.

He also showed the portable dual-band VHF/UHF that will be raffled off at the party. Tickets were sold for \$2 each, or three for \$5. Additional tickets are available from any board member and will also be sold the evening of the party. The radio includes a complete package of accessories.

Tom also reminded members that the EGARA can only remain a chapter of ARRL if at least 51% of its members also belong to ARRL. For those who wish to join ARRL or renew their membership, they are reminded that it will increase annual dues by \$10

starting in January 2016 (see story on page 6), so they may wish to act before then to save money.

Treasurer Steve VanSickle, WB2HPR, provided a report on the club's finances and announced that an anonymous donation of \$150 had been received to support club activities.

Vice President Steve Sconfienza also addressed the group and called for volunteers to take leadership positions in the club.

The meeting then featured a presentation by Steve VanSickle on how to properly adjust manual antenna tuners for best transmitting and receiving performance, including a number of other useful operating tips. He also fielded several technical questions from members.

The next club meeting will be January 13, 2016 at 7 pm at the Masonic Temple and will feature an antenna building workshop.

## On the Beam

### News & Notes

#### ARRL to Increase Dues in 2016

##### Higher Costs Bring First Dues Hike in a Decade



The American Radio Relay League -- ARRL -- will increase dues for its basic yearly membership dues to \$49 starting in January 2016. The \$10 increase is the first since 2001 and is attributed to higher operating costs,

including such things as utilities, postage and insurance.

“We have done as much as we can to hold off a dues increase for over a decade, but now it is a necessity,” according to the ARRL’s website.

The increase will allow the ARRL to maintain the wide range of programs and activities it sponsors on behalf of amateur radio operators. These include:

- Advocacy to maintain meaningful access to the radio spectrum. Representation on regulatory issues at the international, federal, and state levels;
- Improved awareness for Amateur Radio by increasing liaison with federal, state and local elected officials;
- Defense of amateur radio spectrum from commercial interests and against spectrum pollution;
- Response to Antenna Restrictions – Amateur Radio Parity Act, zoning regulations;
- Recognition and partnership with several disaster relief organizations, including FEMA, the Red Cross, Salvation Army Team Emergency Response Network (SATERN) and others

ARRL programs, services and the publication of QST magazine will not be affected by the increase.

#### Amateur Radio Parity Act Approved by Senate Committee

The Amateur Radio Parity Act took an essential step forward on November 18, when the US Senate Committee on Commerce, Science, and Transportation voted to report the bill favorably and without amendment.

“Our work is not finished on the Senate side of Capitol Hill, although this is a huge step forward,” said ARRL President Kay Craigie, N3KN. She urged ARRL members to continue to write, call and e-mail their Senators about S. 1685. “We know that members’ response to the call for a communications blast last week made all the difference for some Senators on the committee.”

S. 1685 and its House twin, H.R. 1301, call on the FCC to extend the limited federal pre-emption of PRB-1 to cover private land-use restrictions such as deed covenants, conditions, and restrictions. If the legislation becomes law, radio amateurs living in antenna-restricted communities would have the opportunity to negotiate with homeowners associations to install an antenna that reasonably accommodates Amateur Radio communication.

#### The East Greenbush Amateur Radio Association

Organized in 1998, by Bert Bruins, N2FPJ, SK and Chris Linck, N2NEH, the East Greenbush Amateur Radio Association, an ARRL affiliate, is committed to providing emergency services, educational programs, and operating resources to the amateur radio operators and residents of the Capital Region of New York State. The club station is W2EGB. The club also has several VHF and UHF repeaters open to club members or the public.

# CALENDAR

December 9, 2015 @ 6 pm - Annual Christmas Party, Mercatos Restaurant, Routes 9 & 20, East Greenbush.

January 16, 2016 @ 10 am - VE Exam Session, East Greenbush Community Library.

January 13, 2016 @ 7 pm - EGARA Monthly Membership Meeting, East Greenbush Masonic Hall, 710 Columbia Turnpike (Routes 9/20).

May 14, 2016 @ 8 am to 1 pm - 13th Annual Hamfest, East Greenbush Fire House, 68 Phillips Road.

June 25-26, 2016 - 2016 Field Day - East Greenbush Masonic Temple.



## For Sale

*Vintage DRAKE ML-2* two-meter transceiver. Uses transistors and tubes, individual crystals for frequency control, NO tone, complete w/ microphone, A/C cable and DC power cord. In good working order. \$75.

*W2AU 4:1 Balun* – brand new, never used. \$20.

*Cobra Ultra-Lite* - 80-10 meter antenna, brand new never used. \$75.

Contact: Steve, WB2HPR, at 326-0902 on any of the items listed above.

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*DStar Gear for Sale* - 1st system includes: *ICOM 5100 - Bluetooth card - Bracket MBA2 - DVAP 2 Meter - RT prog sft.* 2nd system includes: *ICOM 51 Plus HT - BP271 battery - BC202 02 drop in chg - HM 75LS spk mic - Data cbl 2350LU - RT prog sft.*

Originally paid \$1,030 for 1st system and \$730 for 2nd. Both available for \$1,300! Or make a reasonable offer. Will also sell systems separately. Contact: Stan, WA2UET at WA2UET@taconic.net for info any of gear listed above. Includes manuals and software.



## Wanted to Buy

*Any old broadcast radios* for possible restoration, any brand, style, preferably tubes models. Contact: Steve WB2HPR 326-0902.

*Looking for a 6 meter radio* for around \$60.

Please contact Peter by email at: KD2JKV@arrl.net



**Looking to Buy, Sell or Swap?**  
**Send your info W2RBJ@outlook.com**



The annual EGARA Christmas Holiday party will be held Wednesday, December 9th, at 6:00 p.m. at Mercato's Restaurant. Dinner selections will be from the menu and there will be a cash bar.

*This year's party will feature a VHF/UHF radio raffle!*

Raffle tickets are on sale now for \$2 each or 3 for \$5. They are available from any club officer.

Mercato's is at 1649 Columbia Turnpike (Rts. 9 & 20) just east of the Masonic Temple, and just west of I-90.

**See You There!**