# Sidebands

The Newsletter of the EAST GREENBUSH AMATEUR RADIO ASSOCIATION

www.egara.club

November 2018




# EGARA Gets OK for Helderberg Repeaters

## WMHT-TV Secures Space at 1,400 Foot Elevation for Club Gear

EGARA has been given approval by public television station WMHT, Channel 17, to locate two club repeaters at its transmitter facility in the Helderberg Mountains just south of Albany. The site, with an elevation of almost 1,400 feet above sea level, will allow the club's repeaters on 146.270 and 224.800 to have extensive coverage throughout the Greater Capital Region, enhancing their usability for both regular traffic and emergency communications.

"We are extremely grateful to WMHT for the opportunity to move our repeaters to its transmitter facilities atop the Helderbergs," said EGARA Treasurer Bryan Jackson, W2RBJ, who initiated the proposal. "In particular, we want to thank WMHT's Director of Technology, Bob Cummings and Assistant Chief Engineer, Matt Saplin, both of whom worked very hard on behalf of EGARA's proposal."

The Helderberg facility is also home to all of the Capital Region's other TV stations, which consolidated their transmitter operations to a new common building as part of the transition to digital broadcasting. EGARA's proposal also received approval from all of the building's joint owners, including WNYT, WRGB, WXXA and WTEN. (continued on page 2)

# W2EGB Special Event Station to Mark EGARA 20th

The W2EGB call sign will be used by club members as a Special Event station on Saturday, December 1st to mark the 20th anniversary of EGARA. The event will run from 2 pm to 9 pm EST with members using their home stations to make contacts on 3840kz, 7240kz, 14340kz, and 28,340kz using the W2EGB call.

At the November meeting, members will be able to sign up for the shifts and frequencies they would like to work. Contacts that send a self-addressed envelope or appropriate postage will receive a Special Event QSL card from the club.

### In This Issue



ARRL has recognized the event and has listed it on its website. A listing will also appear in the December issue of QST, the League's magazine.


The idea to have a Special Event station was proposed by EGARA Vice President Nick Field, KD2JCR, as a way of recognizing the club's 20th year. The proposal was presented at the September meeting and was unanimously endorsed by the membership. Bryan Jackson, W2RBJ and Steve VanSickle, WB2HPR, traveled to the ARRL headquarters in late September to file the application to get the League's approval for the Special Event station.

**November 14th EGARA Meeting - Emergency Communications Training Presentation**

# *Club Repeaters Moving to the Helderbergs*

The EGARA proposal will also expand the club's repeater offerings by returning 224.800mhz service to the air, as well as boosting the coverage of the 146.270mhz machine. In addition to the excellent coverage area provided by the Helderberg site, there is also emergency backup power available in the building to keep the repeaters on the air during power failures.

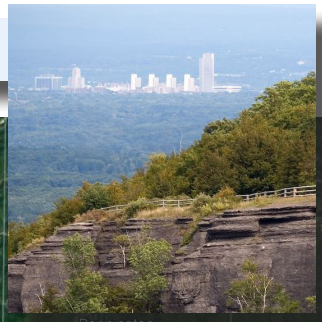
"The new site will make our repeaters more reliable and, in turn, an integral part of the region's Amateur Radio emergency communications plan," said EGARA President Tom Scorsone, KC2FCP. He noted that Amateur Radio played a crucial role during the hurricanes that plagued Puerto Rico and the Caribbean last year, and the Carolinas this year.

Under the proposal, EGARA's repeaters will be located in the "combiner room" of the building, which houses the antenna multiplexer that feeds several stations into a single antenna on the adjacent tower. The club's repeaters will be housed in racks and their antennas will be mounted separately from the tower using their own support mast located next to the building.

Steps are currently underway to coordinate the move to the new facility and to secure all of the parts that will be needed for the installation. Plans are to complete the repeater project by the end of the year.

**Emergency backup power is supplied by two massive CAT-powered generators**


**Albany from the Helderbergs**






**At nearly 1,400 feet in elevation, the Helderberg site will greatly extend the range of the EGARA repeaters.**

## *Picture Galleries --*

# Cruising Down the Hudson on a Chilly Fall Day

**October 6, 2018**


Photos by Dave Gillette & Bryan Jackson

# October Mini-Hamfest

**October 10, 2018**

# Donated Gear Provides A New Radio for A New Ham

***Newly Licensed Ham Wins Kenwood Dual Band Transceiver at Club VE Exam Session***

When Jim Harrigan came to EGARA's license exam session on October 13th he had no idea he would leave not only with his newly minted ham license but also a $350 Kenwood VHF/UHF dual band transceiver. After passing his Tech exam, he went on to pass his General at the same session.


**Jim Harrigan, KD2QQC, is given his new radio by Volunteer Examiner Dave Williams, N2VLQ**

The radio was made possible through the generous donation of used equipment by EGARA member Dave Smith, WA2WAP. The club's President Tom Scorsone and Secretary Steve Vansickle, refurbished the gear and then sold it at area Hamfests. The proceeds were used to buy the new radio.

"It's great when a new ham passes their exam, but actually getting them on the air is another thing," Tom said. "Giving away a radio is a big step toward making that happen and supports the club's goal of promoting Amateur Radio."

In addition to raffling off the new radio among those who passed their Technician test, each applicant was also given a "New Ham" starter kit produced by the club. The packet includes an overview of Tech privileges, a primer on operating guidelines, an introduction on how repeaters work, and a copy of the ARRL Band Plan.

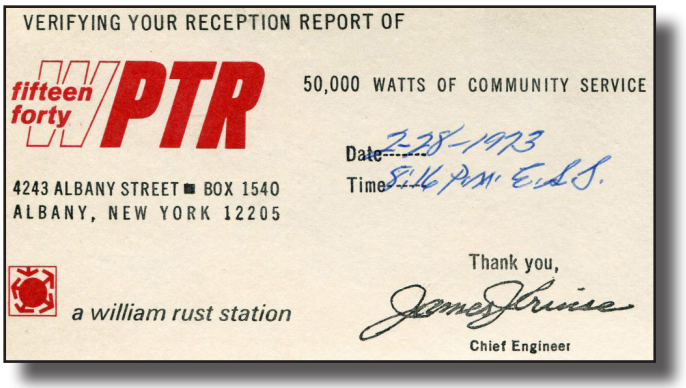
Also passing his Tech and General exams was Michael Bailey, KD2QQB, of Delanson. For Bailey, the exam session marked a return to Amateur Radio after a ten year hiatus.

Club VEs serving at the October 13th session included: Tom Scorsone, KC2FCP; Steve VanSickle, WB2HPR; Bob Stark, KA2EXK; Peggy Donnelly, KD2LMU; Russ Greenman, WB2LXC; Dave Williams, N2VLQ, Steve Sconfienza, NC2S and Bryan Jackson, W2RBJ. All hold Extra class licenses.

EGARA's next FCC exam session will be held in January on a date to be announced. The club plans to give away another new radio at that session as well.

# "Famous 1540" The Legendary Powerhouse Goes Dark Forever

Anyone who grew up in the Capital District in the 1960s well remembers WPTR as the legendary 50,000 watt king of Top 40 radio. Now, after nearly a year of being off the air because of financial challenges, the station's license has been surrendered to the FCC by its owner, Crawford Broadcasting.


VERIFYING YOUR RECEPTION REPORT OF

fifteen forty WPTR

50,000 WATTS OF COMMUNITY SERVICE

4243 ALBANY STREET ■ BOX 1540
ALBANY, NEW YORK 12205

Date 7-28-1973
Time 8:16 PM E.D.S.

a william rust station

Thank you,
James Krause
Chief Engineer

The decision to abandon the license came after the FCC rejected Crawford's request to lower the station's power to make it more economical to operate.

The "Famous 1540" had been re-branded as WDCD when Crawford bought it in 1995, although it had returned to the WPTR call letters for a while when Crawford aired its "Legends" format of popular music. For a while it even brought back well known DJ "Boom Boom Brannigan" to host the morning show. It later flipped back to WDCD and tried talk and religious programming. Unfortunately, as with many other AM stations, it was unable to find a format that generated enough revenue to make it viable.

The station first signed on as WPTR in 1948 with 10,000 watts. But because of its highly directional pattern to the northeast it was unable to fully serve the Capital District market and it was soon given permission to go to 50,000 watts.

During its rock and roll heydays in the 1960s and 1970s, the station was always top rated and was the mainstay of teenage listeners throughout the northeastern United States and Canada.

"I did the Saturday night show in the early 1970s and remember getting requests in the mail from Greenland," said EGARA Treasurer Bryan Jackson, W2RBJ. "WPTR had a flamethrower signal in that direction. At night, it was even rated number three in Boston. It's so sad to see it go dark"

There's no word yet on the future of the station's transmitter site and three tower array located on Albany Street in Colonie.

# Get Your Free Copy of a Field Guide to Simple HF Dipoles

By Dan Romanchik, KB6NU

A link to "A Field Guide to Simple HF Dipoles" (***http://www.dtic.mil/dtic/tr/fulltext/u2/684938.pdf***) was posted on the web to Reddit recently, and I liked this document so much that I thought I would share it with you. It was originally written for the military, but is now available for free from the Defense Technical Information Center.

The preface to this document reads:

*"Under project Agile, Stanford Research Institute has supplied several teams to assist operating personnel in improving the performance of field radio networks. In this work, it has been observed that U.S. military and civilian antenna manuals often contain misleading information regarding the operation of field antennas and tend to be overly complex. Consequently, this guide has been prepared to assist in training personnel concerned with the construction of simple HF antennas in the field."*

I must say that A Field Guide to Simple HF Dipoles does this very well. It not only explains how dipole antennas work, it also does a very good job of describing the basics of radio waves and propagation. And it does this without getting overly technical.

For example, Figure 10 is used to describe current flow in a dipole antenna.

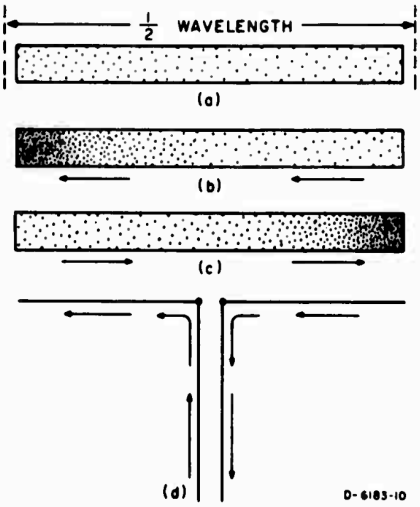


FIG. 10 CURRENT FLOW IN DIPOLE ANTENNA

The Field Guide reads:

*"Electric current in a conductor consists of the flow of small particles called electrons. Figure 10(a) represents a dipole with electrons in it. When the transmitter is turned off, the electrons distribute themselves evenly throughout the dipole, as shown. All electrons repel each other and try to get as far from each other as possible; that is how they achieve the uniform distribution show in Figure 10(a). When the transmitter is turned on, the electrons flow back and forth from end to end as shown in Figures 10(b) and 10(c). First the electrons flow to the left and crowded at one end as shown in Figure 10(b). Second, since the electrons repel each other, the push off to the right and get crowded together at the other end, as in Figure 10(c)."*

It then uses this description to talk about voltage and current distribution along a dipole antenna:

*"The difference between voltage (volts) and current (amperes) in a dipole is also illustrated by Figs. 10(b) and 10(c). You can see that the maximum flow of current is going to be in the middle of the dipole. An observer at the center of the dipole would see the electrons rush past, first one way and then the other. The center is the maximum current point. Very little current flows near the end of the dipole; in fact, at the extreme ends there is no current at all for there is no place for it to go. However, at the ends of the dipole, there is a great change of voltage; when the electrons are densely packed, this represents a negative voltages, and when there is a scarcity of electrons, it represents a positive voltage. Thus you can see that the voltage at each end swings alternately positive and and negative. An end of the dipole is a maximum voltage point."*

A Field Guide to Simple HF Dipoles is packed with all kinds of goodies like this. Download it (***http://www.dtic.mil/dtic/tr/fulltext/u2/684938.pdf***) right now to learn more.

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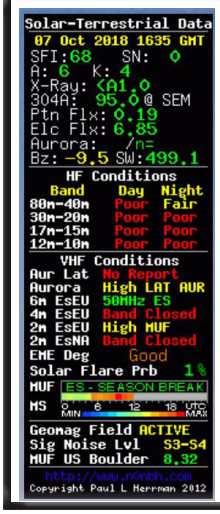
**About the Author:** When he's not working on ham radio projects, Dan blogs about amateur radio, writes exam study guides (www.kb6nu.com/study-guides), and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him at cwgeek@kb6nu.com.

# EGARA October Meeting Minutes

- The October meeting of the EGARA was replaced by the annual mini-hamfest and there was no formal meeting. However, the board met on October 8th and discussed the following items:
- Treasurer Bryan Jackson, W2RBJ, gave a brief report on the club's finances and Secretary Steve VanSickle, WB2HPR, submitted proceeds from the sale of donated equipment for deposit. The funds will be used to purchase new radios that will be raffled away at club VE sessions to a new ham;
- Bryan Jackson updated the board on plans to move two of the club's repeaters to the Helderberg Mountains, which will provide better coverage and reliability, especially for emergency communications;
- Plans were discussed regarding the Special Event station the club will operate on December 1st to celebrate EGARA's 20th anniversary;
- The board discussed October's VE exam session and reviewed the contents of a "New Ham" kit which will be provided to individuals who pass their Technician exam. The kit is provided at no charge and includes an EGARA membership form;
- Preliminary plans were discussed regarding the location of the December Christmas Holiday party;

--de Steve VanSickle WB2HPR / Secretary




# Daily Band Condition Report Now on EGARA Website

**If you're wondering about band conditions, the answer is easy to find. Just head to the home page of the EGARA website -- www.egara.club!**

**A new feature located on the left hand side of the page provides predictions for both HF and VHF based on solar activity. The predictions include day and night, as well as predicted noise levels. The solar data is provided by the Space Weather Research team at the University of Bradford and is used to provide daily updates by Paul L Herrman, N0NBH.**

**Anyone using the band data should remember that it's only a prediction based on measured solar activity and should be used only as a guide. Of course, the best way to determine actual band conditions is to fire up your rig and get on the air!**

# Emergency Communications Training is Topic of November 14th Membership


A presentation on how to become certified in Amateur Radio emergence communications will be the focus of EGARA's next general membership meeting at 7 pm on November 14th at the Masonic Temple. Bill Leue, K2WML, will conduct the session and provide an overview of how to study and prepare. He will also have study materials on hand for review.

"A major reason many people want to become Amateur operators is so they can participate in emergency communications," said Leue. "But it's more than just getting a license and a radio -- proper training and preparation is critical to knowing what to do and how to do it. That will be the centerpiece of my presentation in November."

Bill currently serves as a member of the Rensselaer County Amateur Radio Emergency Services (ARES).

# On the Beam
## News & Notes

# FCC Takes Aim at Low-Cost Illegal Radios
### Commission cracks down on marketing and sale of tech violating VHF/UHF rigs

The FCC's Enforcement Bureau has issued notice that it is cracking down on low-cost, two-way VHF/UHF radios that do not comply with the FCC's rules. The Commission says it's concerned about the expanding number of radios that are being sold by retailers -- especially those online -- that appear to violate one or more FCC technical requirements.

Federal Communications Commission

For example, it noted that some of these radios can be modified to transmit on public safety and other land mobile channels for which they are not authorized, while others are capable of prohibited wideband operations.

"Such radios are illegal, and many have the potential to negatively affect public safety, aviation, and other operations by Federal, state, and local agencies, as well as private users," the FCC said in its notice. "Because these devices must be, but have not been, authorized by the FCC, the devices may not be imported into the United States, retailers may not advertise or sell them, and no one may use them."

The Commission also noted there is an exemption for Amateur Radio. If a device is capable of operating only on frequencies that the FCC has allocated for use by Amateur Radio Service licensees, it does not require FCC equipment authorization, and an amateur licensee may use his or her license to operate such radios.

However, many two-way radios that purport to operate on amateur frequencies also operate on frequencies that extend beyond the designated amateur frequency bands. For example, the Bureau has observed two-way radios that apparently operate on frequencies 136-143 MHz, 400-419 MHz and/or 451-520 MHz, all of which are outside of the authorized amateur radio service bands. VHF/UHF radio is capable of operating outside of the amateur frequency bands, it cannot be imported, advertised, sold, or operated within the United States without an FCC equipment certification.

Violators of the Commission's marketing rules may be subject to the penalties authorized by the Communications Act, including, but not limited to, substantial monetary fines (up to $19,639 per day of marketing violations and up to $147,290 for an ongoing violation. Anyone who operates an illegal radio also faces substantial penalties.

## Radio City Closing After 36 Years

**Minnesota-based Radio City is closing after more than three decades of serving the Amateur Radio community. Owners Dan and Maline Fish plan to shut down by the end of the year, but perhaps earlier if the store's remaining inventory is sold before then. They hosting a farewell party on October 6th for their customers and employees.**

**As the Internet expanded, the business also launched an online presence offering a wide range of radios and accessories from brands such as Icom, Alinco, Yaesu, MFJ and Kenwood. Radio City also was a regular at Hamfests throughout the mid-west. In addition to selling new and used gear, Radio City also handled repairs and warranty work.**

**The Fish's said the decision to close was a difficult one, but that they felt it was time to retire, travel a bit, and have more time to get on the air themselves.**

**Close out bargains can be found on the Radio City website located at http://www.radioinc.com.**

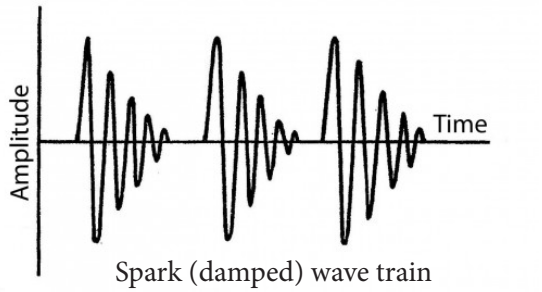
# The History of Ham Radio: Spark Radio

**Chris Codella, W2PA, author, John Pelham, W1JA, editor, Phil Johnson, W2SQ, editor**

**(Editor's note: By special arrangement with the authors, Sidebands is pleased to present this multi-part series on the history of ham radio. Subsequent chapters will be published in future monthly editions of the newsletter)**

Before tubes became available and affordable and made electronic oscillators practical, the spark gap circuit was the most widely used method for generating radio frequency (RF) signals. Its basic design and operation are simple. A capacitor is connected in series with an inductor and a pair of electrodes separated by a small distance—a spark gap. The capacitor, commonly called a condenser at the time, is charged by a high voltage supply. When this voltage reaches a critical level, a spark jumps the gap completing the circuit for a brief time, enabling the capacitor to quickly discharge through it with a high current. Since there is a large inductor in the circuit, the current keeps flowing past the point where the condenser is completely discharged, and quickly charges it back up in the opposite direction, minus a little bit lost mostly to resistance. The flow then reverses and the process continues.

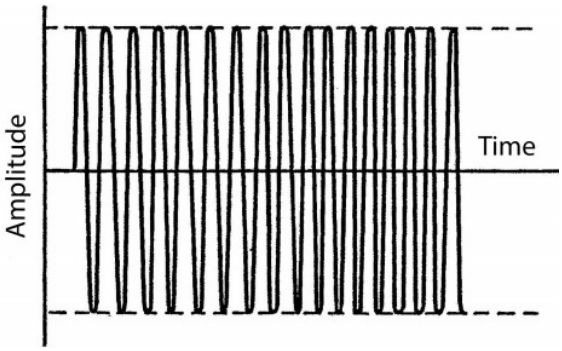
While the spark exists, which is a long time compared with the condenser's charge-discharge cycle, a current flows back and forth through the spark and the inductor, to and from the condenser plates, alternating in direction with a relatively high frequency determined by the inductance and capacitance. In this way the circuit rings under the stimulus of the capacitor's energy released all at once by the spark, just as a bell rings when struck by its clapper. Perhaps tens of cycles of RF current flow in the circuit before resistance and other effects cause the oscillation to die out, or dampen to a low level, and the spark vanishes. A spark signal was therefore also referred to as a damped wave. The capacitor is then charged up again by the high voltage supply and the process starts all over. A spark oscillator, therefore, produces a series of bursts of RF current, one each time a new spark is formed. Depending on the design of the circuit and the gap, tens to thousands of bursts can be produced each second.



Spark (damped) wave train

If we open up this closed oscillator circuit, add a long aerial wire to one end and connect the other end to ground, we now have an open oscillator circuit where the aerial is part of the circuit's distributed capacitance and inductance, and it radiates. A telegraph key inserted in the high voltage supply can be used to encode information on the signal by turning it on and off. The open oscillator is now a radiotelegraph transmitter.

An important characteristic of damped waves is the decrease in amplitude, or damping, of each successive RF cycle after a spark begins. If each cycle is of equal amplitude, the decrease is zero and the signal is said to be an undamped or continuous wave (CW). But in spark radio, this damping can be quite large. The amplitude of each successive cycle decreases by a fixed fraction of the previous one—for example, by a tenth after the first cycle, by a tenth of that reduced amplitude during the second, a tenth of that during the third and so forth. Each cycle is reduced by the same fraction, in this case a tenth, of what it started out with. This means the amplitude decrease is exponential in nature and is therefore most conveniently expressed mathematically as a power of e, the base of the natural logarithms.



Continuous (undamped) waves

For spark signals, the measurement universally adopted to describe this effect was the natural logarithm of the ratio of one RF cycle to the next successive one, and was called the logarithmic decrement, or simply the decrement. In the example above, if each successive cycle were ten percent lower than the previous one (or, equivalently, 0.9 times the previous one), the ratio of the first one to the second one would be 1.11, and the decrement would be the natural logarithm of 1.11, which equals 0.11.

(continued on page 9)

# Spark Radio continued from page 8

The radio regulations at the time of spark's heyday, specified in the 1912 law, dictated that no transmission must have a decrement larger than 0.2, which corresponds to a decrease of 18% per RF cycle.2 With 0.2 decrement, each pulse or wave train lasts for 24 cycles. Anything shorter (that is, any decrement larger than 0.2) would exhibit "undesirable tuning qualities," and 0.2 decrement was defined as the boundary between broad and sharp tuning—zero decrement (CW) being the sharpest possible.

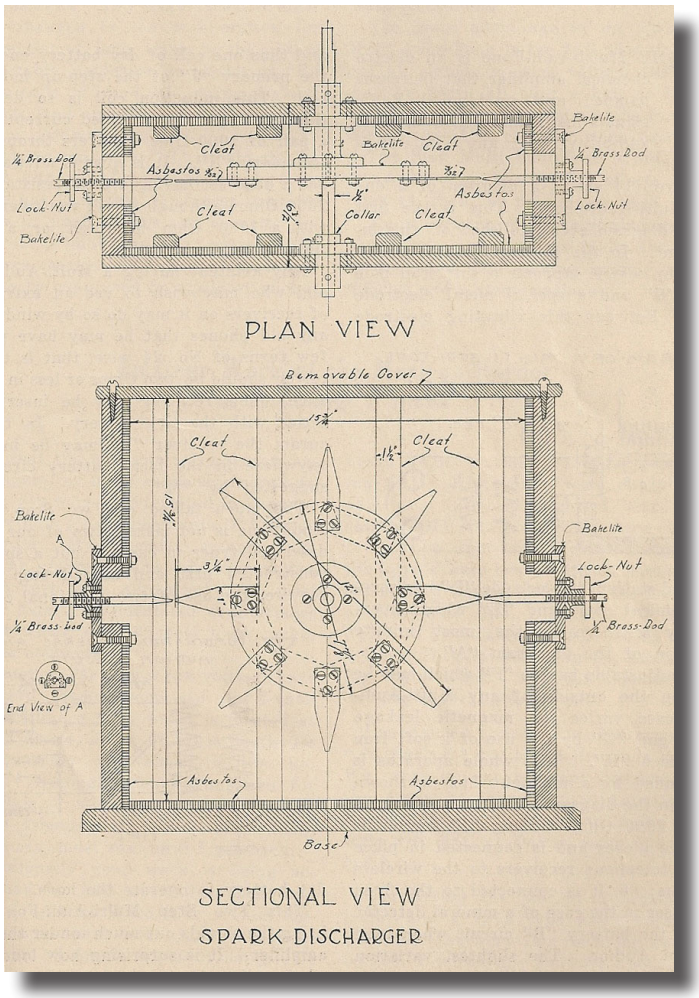
To understand why such a law was needed, think of a damped wave as a modulated CW signal as opposed to a pure one. The signal is pulsed and rapidly decreases in amplitude within each pulse. Since it is modulated, it is much broader than pure CW (there are many frequency components present besides the primary transmitted frequency). The larger the decrement, the broader the signal becomes, and the greater the chances of interference . Besides the primary radio frequency of oscillation, the other dominant component is the spark frequency, and is therefore also the pitch of the detected signal as heard in a receiver.

The decrement can be lowered by reducing the resistance of the oscillating circuit and by increasing the ratio of inductance to capacitance. This leads to a conflict. Larger capacitance gives larger energy storage capacity but also increases decrement and requires a larger inductance to resonate, leading to an increased resistance which also increases decrement. In addition, since by definition radiation through the aerial causes a loss of energy (it's radiated away), the resistance of the circuit increases and so does the decrement. Another way of looking at this is that the stronger the radiated signal, the broader it gets. Coupling the oscillator directly to the antenna makes it difficult to have a signal that was both good quality and strong at the same time.

The simple solution is to use two separate circuits—one for the oscillator and one for the antenna—and inductively couple one to the other. This way the oscillator circuit can be designed for energy storage and the antenna circuit for low decrement. With a variable coupling arrangement, the transmitter can be adjusted to radiate with low decrement by minimizing the loss of energy in the closed oscillator and preventing energy in the antenna circuit from coupling back into the oscillator. Adjustment is a matter of trading off antenna current for a sharper signal by using looser (weaker) coupling.

A spark transmitter, therefore, consisted of six basic components: capacitor (condenser), its charging circuit, oscillation inductor, spark gap, coupling to the aerial, and the aerial itself. Often, the inductor that determined the frequency of oscillation was combined with the coupling arrangement and referred to as the oscillation transformer, and a separate inductor might also be inserted in the aerial circuit for tuning. Each component could be built in a variety of ways and hams experimented broadly with all of them, individually and in combination. A number of companies sold instruments or apparatus, as equipment was called, to hams and advertised in QST from the beginning.

Of particular experimental interest was the spark gap itself, since a repeatable, uniform spark was required to produce the cleanest signal. Ideally, each spark should be the same duration and occur at the same point in each charging cycle. The simplest kind of gap consisted of two electrodes mounted in close proximity with an adjustable spacing that was fixed during operation.

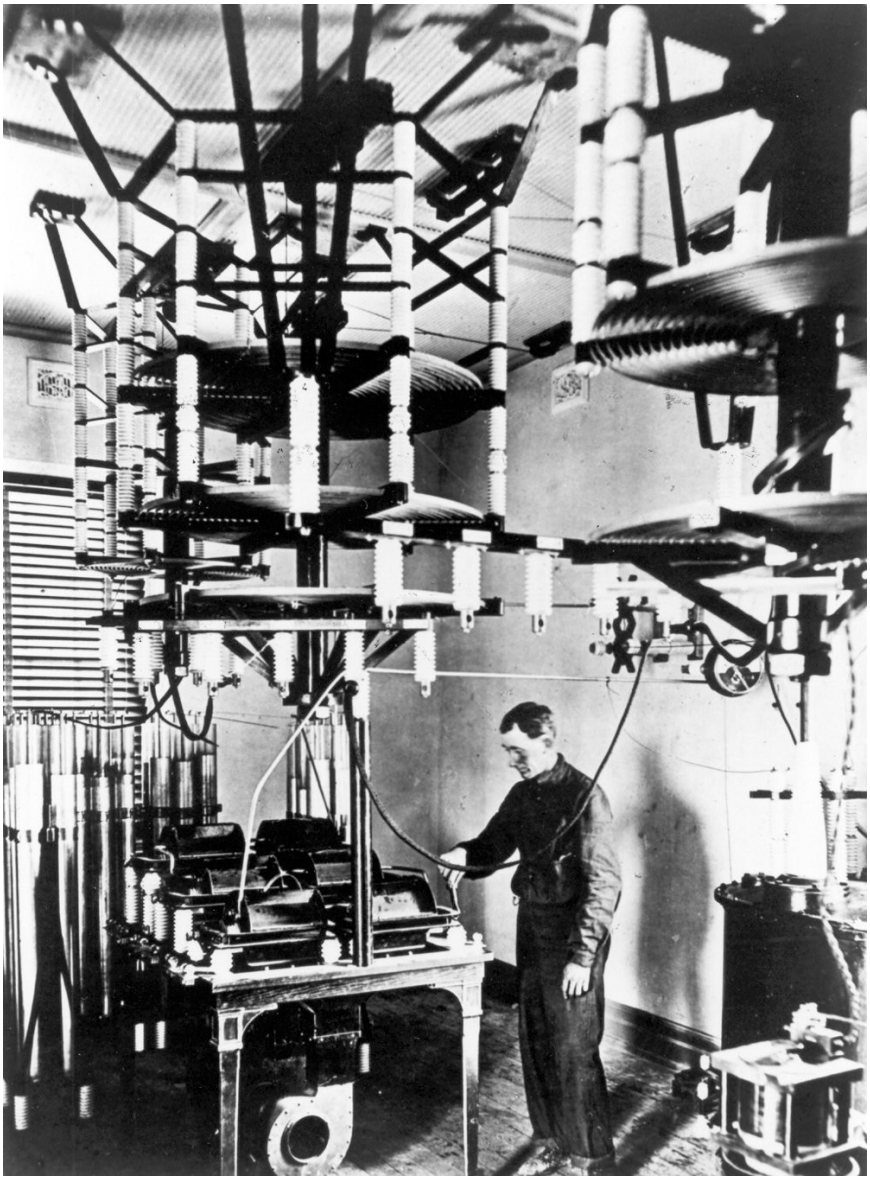



**Rotary gap design drawing**

(continued on page 10)

# Transmitting Through Brute Force -- The Spark Transmitter

**Continued from page 9**



But it required very careful adjustment of the gap to get repeatable spark discharge times and durations in each cycle.

One method of improving spark uniformity was to quench it rapidly after discharge using a blast of air or a continuous air stream. A better way that became popular was to use a fixed series of electrodes positioned around a circle with an opposing set of electrodes mounted on a motor driven rotor—forming what was called a rotary gap.

In a rotary gap, the spark could occur only when two electrodes came into close proximity during each rotation. Thus the spark frequency could be controlled independently of the charging frequency, and so it was referred to as a non-synchronous rotary gap. For example, if you built a rotary spark gap with four stationary contacts, one every 90° around the inside of a circle, and two moving contacts on opposite ends of a rotating bar inside the circle, you'd get four sparks per rotation—two simultaneous ones on opposite ends of the rotor. Spinning the rotor at a high rate of speed, say 100 rotations per second, would get you a spark frequency of 400 per second, which would translate into a major tone of 400 cycles per second in the receiver, even though the charging AC current might have been only standard 60 cycles-per-second. But being non-synchronous meant that sparks occurred at various times during the charging cycle, at a different voltage for each one, and thus were non-uniform. Therefore non-synchronous gaps were typically driven at much greater rotational speed, with more electrodes so as to get a more "musical" note, as they called it. An even better technique was to synchronize the sparks with the charging waveform in a synchronous rotary gap, the most popular design of the time.

A synchronous gap was not difficult to build. One simply made the number of electrode gap positions equal to the number of poles in an AC motor that drove the rotor and was powered by the same supply as the capacitor charging circuit. In one popular design, a disk on which a number of electrodes were mounted was spun within a frame to which stationary electrodes were fixed. The frame's angle relative to the rotor could be changed manually through some number of degrees around the disk so that the exact point in the charging cycle at which the spark occurred could be adjusted. High power (approximately 500 kW) versions used by commercial stations might typically use a disk with 20 to 30 electrodes contained within an enclosure to muffle the loud screeching noise it made when operating.

A synchronous gap that was also quenched properly ensured that each spark was uniform and short lived, preventing energy in the aerial circuit from being coupled back into the oscillator circuit, and permitting closer coupling of oscillator to aerial. You could therefore transfer higher power to the aerial and achieve a cleaner, sharper signal at the same time.

# November: This Month in Radio History


**November 1, 1926: NBC begins operations; Microsoft releases Windows 2.0**

**November 2, 1920: KDKA broadcasts election results; The first radio receivers are sold**

**November 4, 1916: Sarnoff proposes "radio music box" for radio reception**

**November 10, 1992: First AM HD Radio broadcast with audio codec**

**November 13, 1906: de Forest patents Audion tube; SBE adopts Certification Program**

**November 14, 1911: Ernst Alexanderson granted US patent for the high-frequency alternator, a 100 kHz mechanical alternator; FCC adopts EAS rules**

**November 15, 1896: Niagara Falls electric power station connects to power grid with first long-distance power transmission; Transatlantic Times receives first news by wireless; NBC makes its first network broadcast**

**November 15, 1971: Intel intros 4004 processor; Microsoft intros Windows 1.0**

**November 16, 1904: Fleming patents thermionic tube (diode tube)**

**November 18, 1883: Railroads introduce four standard time zones in the U.S.**

**November 19, 1954: First mass-market transistor pocket radio introduced, the Regency TR-1.**

**November 22, 1899: Marconi Wireless Telegraph Company of America registered**

**November 23, 1993: FCC makes C-QUAM AM stereo standard**

**November 24, 1890: Edouard Branley coins the term (radioconductor"); the first use of the word "radio"**

**November 28, 1925: The WSM Barn Dance (later renamed The Grand Ole Opry) debuts on WSM, Nashville**

**November 29, 1929: NBC begins use of the chimes, using the musical notes "G, E, C"**

# It's Thanksgiving - Thank Our Friends!

## Plan to Attend the Spaghetti Dinner Fundraiser at the East Greenbush Masonic Temple

## November 17th - 5 to 7 pm

**EGARA enjoys a special relationship with the Van Rensselaer Masonic Lodge in East Greenbush. The club holds its membership meetings at the lodge hall, as well as events such as Field Day.**

**Now EGARA members have the opportunity to return the favor by attending the Lodge's Spaghetti Dinner fundraiser on November 17th from 5 to 7 pm. Tickets are just $10 for adults -- with no charge for kids under the age of 10!**

**Please RSVP to: VRlodge87@gmail.com**

**The dinner will be held at the Masonic Lodge Hall, 710 Columbia Turnpike, East Greenbush.**



The New Year may still be a couple of months away -- but Bob and Claudia Stark, KA2EX & KC2VWO, didn't wait for the ball to drop in Times Square to pay their 2019 dues. In fact, Halloween had yet to arrive when Bob submitted the couple's check for their annual family membership.

Once again in 2019, the club will hold the line on its annual dues, with individual memberships at $15 and family memberships at $25.

"I'm pleased that we are able to keep our dues at the same levels they've been for the past few years," said club Treasurer Bryan Jackson, W2RBJ. "And when you consider everything the club provides, it's a deal you just can't beat."

In addition to supporting the club's programs, dues are used to cover the costs of its website, newsletter, refreshments, materials for projects like the antenna building party, and activities like Field Day.

To make it convenient for members, dues can be paid during a club meeting, securely on-line through the club's website, or by mail. Checks should be made out to "EGARA." Payments made by mail should be addressed to: Bryan Jackson, EGARA Treasurer, 983 Sterling Ridge Drive, Rensselaer, NY 12144.

Dues must be paid no later than March 31st for members to remain in good standing and to vote for officers in April.

**Bob holds the first check received for 2019 dues**

# CALENDAR

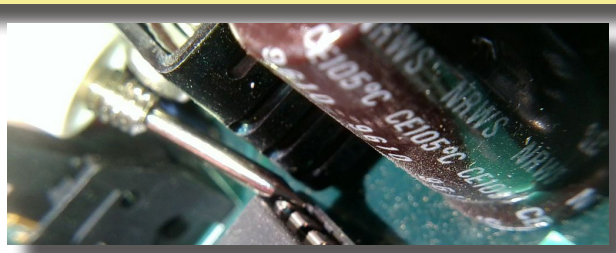
**November 14, 2018** - EGARA membership meeting, 7 pm, Masonic Temple. Topic: Emergency Communications Training.

**November 17, 2018** - Spaghetti Dinner fundraiser, Van Rensselaer #87 Masonic Temple, 5 to 7 pm. Adults $10 / Kids under 10 free.

**December 1, 2018** - EGARA Special Event Station to mark the club's 20th Anniversary. 2 pm to 9 pm EST.

**December 12, 2018** - EGARA Christmas Holiday Party, 6 pm, location to be announced.

## Pro Tip: Protect Your Meter Probes



**Has it happened to you? You're troubleshooting a powered-on board with your multimeter and the probe slips... ZAP! Noooo! Burnt components and magical smoke!**

**Use the heat shrink tubing in your parts bin to insulate everything but the very tip of your meter probes. Unless you're pushing your probes into electrical outlets there's really no reason for that much metal to be exposed.**

A better way

**This won't prevent every probe slip accident, but it will surely reduce them. A small investment of your time beats the heck out of tracing which parts you destroyed -- and then trying to source replacements.**

### 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 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 and the public.


**For Sale**

**PAR SM-50 Stressed Moxon 6 meter antenna**, aircraft grade aluminum, 1,000 watt capacity, 5.8 dBi gain, 3 Pounds, 84" x 31" rectangle. Like new. Paid $125, sell $75.

Contact: Bryan Jackson, W2RBJ
at W2RBJ@Outlook.com

**Cushcraft MA5B Antenna**, 3 element. Make a reasonable offer.

Contact: Bob Stark, KA2EXK,
518-449-2427

**Swan 700 cx** -- Immaculate condition, collector quality. Recently overhauled. Includes Shure 444 desk microphone, VX-1 VOX in factory box, very rare Model 510X external 10 pos. crystal oscillator, Model 117XC speaker/PS and original manual. Asking $700.

**Swan 250-C / TV-2C** -- Complete 6 and 2 meter station, beautiful condition & in factory box–checked for proper operation. With Model 117XC speaker/PS, (2) Model NS-1 Noise Blankers, with Swan Model TV-2C Transverter & Shure Model 404-C microphone and Swan 210 external VFO. $750.

For more info contact Steve VanSickle
by email at: svansick@nycap.rr.com

**Johnson Valiant - CW/AM transmitter,** completely restored, $500.
**Eldico R-104 RECEIVER, 80-10M**, $ 300.00.
**Hammarlund HQ-170 RECEIVER**, 160 through 6 Meter receiver. Does not cover the newer WARC bands of 60, 30, 17, and 12 Meters. $ 225.00.

For items above contact: Tom Scorsone
by email at KC2FCP@nycap.rr.com

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