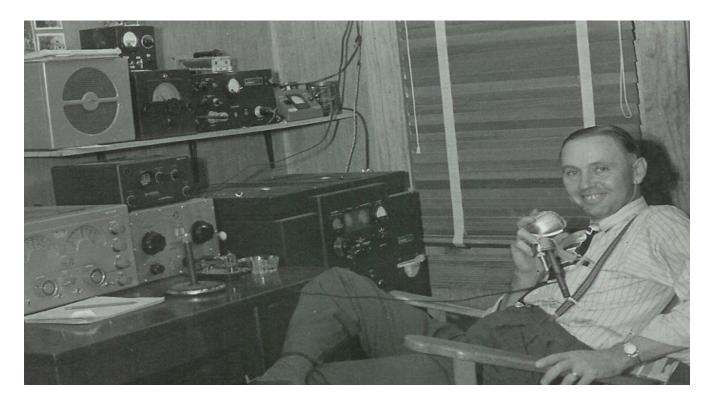


THE eQRM

APRIL 2013



5 THE HISTORY OF THE BVARA, PART 2: THE 1930s

The history of the BVARA continues into the 1930s. By Rich Soltesz, K3SOM

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CHECK INTOTHE NETS

Wednesday 2 Meter 8:30PM on 145.310 MHz

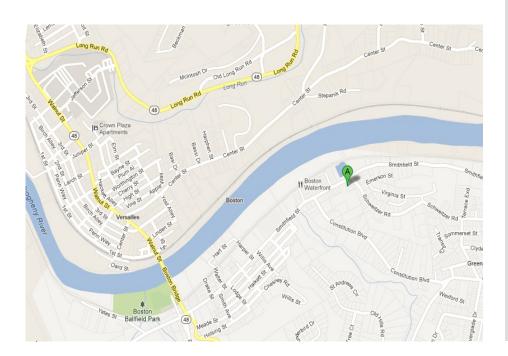
Wednesday 10 Meter 9:00PM on 28.470 MHz

Bulletins

HAMFESTS / ANNOUNCEMENTS / CLUB NEWS

Hamfest/ TRARC Hamfest 2013

Sunday, April 28, 2013. 8AM - 2PM



The Facts:

Date:

Sunday, April 28th, 2013

Time:

8:00 AM - 2:00 PM

Location:

The Spectrum 6001 Smithfield St. Boston, PA 15135

Talk-In:

146.73 MHz Repeater Mobile Check in: 146.52 MHz

Admission:

\$5.00

Sponsored By:

The Two Rivers Amateur Radio Club, Inc.

Club Event/ Special Event Station

Saturday, April 13, 2013

To commemorate the 90th anniversary of The Beaver Valley Amateur Radio
Association, our amateur radio club will be hosting a Special Event Station on
Saturday, April 13, 2013 from 9AM - 6PM. The station will be run for nine hours in honor
of our nine decades of operation. Detailed information can be found at www.w3sgj.org.

Also, be sure to look for an article about the event in the Thursday, April 11 edition of the *Pittsburgh Post-Gazette*!

Frequencies:

SSB: 3.97, 7.24, 14.28, 21.38,

(28.35) MHz

CW: 3.535, 7.030, 14.040, 21.030

and (28.030) MHz

PSK31: 3.580, 7.035, 14.070,

21.080, (28.120) MHz

Frequencies subject to change

The Month Ahead



2013 SSB Rookie Roundup Apr. 21, 2013 (SSB)

OBJECTIVE: Any operator licensed any time during 2013, 2012 or 2011 qualifies as a Rookie. Work as many stations as you can in as many different states, Canadian provinces, Mexican districts as possible. DX stations can get in on the fun. too! If you were licensed prior to 2011, get on the air and work the Rookies, help a Rookie get on the air, or help your club members put together a team.

BANDS: All Bands.

Contest Period: Sunday, April 21 from 1800 - 2359 UTC.

Log Submission: Must be submitted within 72 hours after the contest is completed.

For more information on this contest, detailed rules, and log submission addresses, please visit arrl.org/rookie-roundup -

The next test session will be at the Beaver County **Emergency Operations** Center 351 14th Street Ambridge, PA 15003

Time: 5:00 P.M. (walk-ins allowed)

Date: Thursday, April 11

All candidates wishing to take the test should bring ALL of the following: 1. Two (2) forms of identification. One should be a Photo ID. 2. A pencil and a blue or black pen. 3. Your original AND a photocopy of your current

license (if any). 4. Your original AND a photocopy of any C.S.C.E's (if any).

5. The test fee of \$15.00.

All classes of amateur radio license tests will be administered. Note: No question pool updates or releases will take place in 2013.

For more information. please contact our VE Test Coordinator: Chris Moratis, W3OUF 1199 Highland Avenue Ambridge, PA 15003 PHONE: 724-266-2866 cjmoratis@verizon.net -

Presentation Series

The BVARA Presentation Series provides a vast array of topics and discussions, with a new topic every month at our club meetings.



April 11, 2013 @ 6:30PM
At Beaver County 911 Center, 351 14th Street, Ambridge PA

Speaker: Rich Soltesz, K3SOM

Topic: The HAARP Project and HF Propagation

Including: With so much solar research activity, one would think that the mechanisms involved with propagation would be well understood. We'll look at one government program that can provide some useful information and review some favorite web sites, as well. You'll be amazed at the amount of available propagation data! We'll also take a few minutes to review the software program for our Special Event Station. If you liked the software for Field Day, you will like the North America QSO Party software from N3FJP, as well.

Rich's Background: Extra Class Ham, licensed since 1962: Volunteer Examiner (VE); B.S. Electrical Engineering

Thursday Morning Breakfast

The BVARA meets every Thursday at Steak n Shake in Center Township, by the Beaver Valley Mall, at 10:30 AM. All area amateurs are invited and encouraged to attend the Thursday Morning Breakfast. See you at Steak n Shake!



In 1931 another group of radio amateurs in Beaver County joined together and founded the Beaver Falls Amateur Radio Club.

Now there were two clubs within the area that shared their hobby for the hams within Beaver County. The world was changing and the technology for radio communication was rapidly undergoing many changes as well. During this decade,

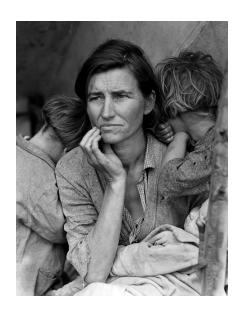
evidence of club activities, equipment, and the identification of individuals from the clubs begins to surface. We continue our high-level review of the culture, the current events at that time, both locally and globally, and some of the obstacles those

inquisitive individuals faced with radio technology. From another perspective, these were dark times - times heavily weighed down by the era of the Great Depression and other major events.

GLOBAL EVENTS IN THE 1930s

Beginning with the Stock Market Crash in October 1929 and continuing until the U.S. entry into World War II in 1941, our country was tightly in the grip of The Great Depression. From 1929 to 1932, 86,000 businesses failed and 9,000 banks went out of business. By 1934 the number of unemployed people was huge; a quarter of the U.S. work force was without jobs and many people became homeless. Droughts and the Dust Bowls of 1934 and 1936 further devastated our land. Red snow caused by this dust bowl fell in New England during the 1934-1935 winter.

The popularity of the sport of



Migrant mother and children during the dust bowl



The New York Times.

NEW YORK, MONDAY, OCTORER SL. 1988.

Radio Listeners in Panic, Taking War Drama as Fact

Many Flee Homes to Escape 'Gas Raid From Mars'-Phone Calls Swamp Police at Broadcast of Wells Fantasy

A mave of mass hypteria seized and radis, stations here and in other thomasants of radio listances calles of the United States and Centification (Centification of the Colored Last right when a boundcast of a dramatization of R. G. Welly's Instituty, "The War of the Worlds," led theoremids to believe that an interplacetary coincides the said of the Air over station WADC and Maritans spreading wide death and distriction in New Jersey and New York.

War of the Worlds radio broadcast by Orson Welles

boxing spurred the sales of radios during the 1930s. The Star Spangled Banner became our Official National Anthem in 1931. In 1936 Andrew Carnegie wrote the book "How to Win Friends and Influence People." Amelia Earhart vanished near the end of her attempted round-the-world airplane flight in 1937. In 1938 Orson Welles broadcast "The War of the Worlds" story of a Martian invasion. That same year, Walt Disney Studios gave us "Snow White and the Seven Dwarfs." In 1939, World War II began in Europe and the movie, "Gone With the Wind" premiered.

On the political front, Herbert Hoover was soundly defeated by Franklin D. Roosevelt in 1932 and Roosevelt was later elected for an unprecedented total of four terms. He campaigned on a New Deal program that eventually resulted in many new initiatives including the Federal Emergency Relief Administration, the Civil Works

Administration, the Wagner Act to promote labor unions, the Works Progress Administration (WPA), the Social Security Act, and many other programs. For most Americans, the 1930s were extremely difficult and tumultuous times.

The Great Depression had a peculiar side effect on amateur radio. With the huge loss of jobs and subsequent increase in free time, many men and boys turned to amateur radio to fill the gap in their lives. Although there were other contributing factors, the U.S. ranks of amateur radio operators swelled from 16,829 in 1929 to 46,390 in1934 resulting in a 275 percent increase. Throughout the remainder of the 1930s, the number of hams began to stabilize as daily living conditions continued in depression.

TECHNOLOGY EVENTS IN THE 1930s

In 1930 the first frozen foods of Clarence Birdseye were sold in

Massachusetts. That same year the chocolate chip cookie was accidentally developed by Ruth Wakefield. In 1930 the ARRL's Sweepstakes Contest first began. In 1932 the Panadapter display was developed by the French engineer and ham Marcel Wallace, F3HM. But it wasn't until 1936 that the ARRL recognized that the "cathode ray tube" made an excellent tuning indicator for the receiver. In 1933 3M Company marketed Scotch Tape. Also in 1933, Edwin Armstrong developed the wideband FM receiver. ARRL's Field Day began in 1933.

From September through October 1933 a three-part article appeared in a small Los Angeles magazine called "S/9" authored by Robert Moore entitled: "Single Sideband Transmission for Amateur Radiophones." Although the article chronicled an actual onthe-air modulation method, not much interest in the technology was aroused until after World War II when new experimental efforts were begun by hams. In 1934 Congress passed the Communications Act creating the Federal Communications Commission which survives today. In 1936 Kodachrome color film was developed by Eastman Kodak. That same year, regular broadcast service of HD television (then defined as at least 200 lines) was begun from the BBC. The ARRL in 1937, after extended discussion about what should be called a "country," began the DXCC award program. In September 1939 war

came again to Europe. Amateur operations halted almost immediately in most European countries. Canada, a British Commonwealth nation, also went silent for hams.

BEAVER COUNTY IN THE 1930s

In Beaver County, the St. Joseph Lead Company authorized the erection of a zinc smelter along State Rt. 18 in Potter Township in 1930. That same year, the U.S. Census reported the population of the county totals at nearly 146,889 people.

Ice jams up-river combined with heavy snowfall caused the worst flooding on record on the Ohio and Beaver Rivers in 1936. The Ohio River crested at 54.5 feet causing countless homes to be flooded and resulted in many bridge closures. All industrial plants in the county

were shut down due to high water or electrical failures.

In 1936 on the Ohio River, opposite Industry, Montgomery Island Lock and Dam were completed and dedicated, replacing several smaller dams and greatly reducing the threat of recurrent flooding in the Valley. In 1937 the last trolley car to operate in the county made its final run to Beaver Falls from Junction Park.

In a landmark case, the U. S. Supreme Court reversed a decision by the Federal Appeals Court in 1937 that had declared the NLRB Act to be unconstitutional, thereby validating grievances brought by Beaver Valley Lodge No. 200 of the Amalgamated Iron, Steel, and Tin Workers of America against the Jones & Laughlin Steel Corp. and establishing the legal basis for collective bargaining between labor



1938 view of houses and steel mills in Ambridge, Pennsylvania

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unions and employers.

The Recreational Demonstration Area (RDA) in Raccoon State Park was constructed by the Civilian Conservation Corps (CCC) in 1935 as well as the construction of three organized group camps at the park during the Great Depression.

HAM CLUB AND MEMBER ACTIVITIES

Courtesy of the November 1934 issue of QST Magazine, we find this club-related announcement: "The Beaver Valley Amateur Radio Club of Rochester, PA, announces what it hopes to be the largest hamfest ever held in Western Pennsylvania. It will be the Third Anniversary Party of the club. The date: October 27th. The place: Saxon Hall, Sixth Street, Monaca, PA."

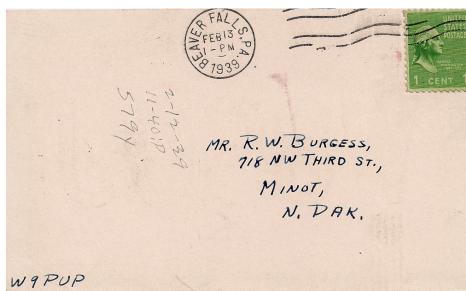
Members of the BVARA were actively involved with the United States Naval Communications Reserve. The club scheduled Ensign Burton Williams to discuss the organization of a naval reserve unit in the Beaver Valley at their September 1st 1932 club meeting.

From collectors of old QSL cards come three cards from Stanley Dobrowski, W8HXZ from Beaver Falls; Zygmund Sepanik, W8MTB from Freedom; and from John Pernal, W8HYE from Beaver Falls. All of these cards are from the mid -1930s. But perhaps the most interesting QSL card for the BVARA Club comes from Thomas W. Roney, W8SGJ of Beaver Falls from February 1939. Later in the 1950s the BVARA club call sign was changed to W3SGJ to honor his memory (see sidebar, p. 8).

THE ORIGINAL W8SGJ QSL CARD

Shown below is the QSL card of Thomas W. Roney, W8SGJ of Beaver Falls. Later in the 1950s the BVARA club call sign was changed to W3SGJ to honor his memory. Both the front and back of that card are shown.





From these and many other QSL cards from the 1930s we can gather information about typical equipment in use during this period (see sidebar, p. 9).

Perhaps the best example of

what a well-equiped ham station in Beaver County was using can be found courtesy of the August 1932 issue of QST Magazine where the station of William Wetzel, W8AXJ from Beaver Falls was described:

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"The transmitter employs the push-pull t.p.t.g. circuit (tuned-plate, tuned-grid), essentially the same as that described in both the June and September 1930, issues of QST, except that it is built rack-and-panel style. A pair of 210's are

used as oscillators with 750 volts on the plate. The entire transmitter is wired with copper tubing, and condensers (capacitors) and meters mounted on a 21" x 28" Bakelite panel. Operation is chiefly on 7250 kc (kHz)."

QSL CARDS OF THE 1930s

Below are a few more QSL cards from Western Pennsylvania.















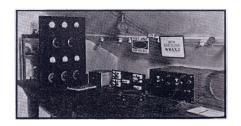


"A 750-volt Thordarson transformer furnishes the plate power, and a separate 7.5-volt transformer lights the filaments of the 210's. A third transformer handles the filaments of the 866 rectifiers. The filter consists of two 4-ufd condensers, an 18-henry and a 30-henry choke. A 50,0000-ohm bleeder resistor is used across the output of the rectifier. Voltages are regulated by Bradleystats (rheostats for voltage adjustment) in the primaries of all transformers. These are located on the switch board. A large Weston precision type meter which cannot be seen in the photograph is located just back of the main panel."

"The monitor, built in an aluminum cabinet, is very substantially made so it will retain its frequency calibration, which is regularly checked from W1XPs Standard Frequency Transmissions."

"The antenna is a 65-1/2 foot Zepp with 34-foot feeders. All U.S. districts have been worked, and W8AXJ's signals also have been heard in Australia and New Zealand."

His receiver was a superheterodyne unit and is shown at the right of the photograph. Given the economic times of the 1930s, this had to have been considered an expensive and very complex station with outstanding performance for that time period. He may well have been a member of one of the two radio clubs in Beaver County.



Station of William Wetzel, W8AXJ from Beaver Falls. Courtesy Aug 1932, QST

RADIO TECHNOLOGY IN THE 1930s

Ham receivers spanned the gamut from simple three-tube sets with a detector and audio stages to advanced superheterodyne configurations. Advances in circuit design were happening at a very rapid pace during the 1930s with the availability of newer tubes with improved performance specifications as compared to what was in use just 10 years earlier. Looking at the QSL cards tells us what many hams managed to get along with during the Great Depression era. However, if a ham were not too strapped for cash, several quality sets were available, as advertised in the pages of Radio News for June, 1936. Let's look at what was available if you had the cash.

RCA Manufacturing Company was offering the ACR-175 superheterodyne receiver, a 10-metal tube beauty with an RF and two IF amplifier stages as well as a two separate oscillators, crystal filter for selectivity down to 50 cycles, and coverage from 0.5 to 60 MHz.

National was offering the HRO Junior communications type receiver with 9 tubes, two RF stages, its famous HRO wormdrive precision condenser with large micrometer dial. This set had many of the features of its big brother, the HRO Senior but at a more affordable price.

For the ham who demanded superior receiver performance, the Hammarlund Super-Pro was being offered. This beauty offered an exclusive silver-plated, five-band cam switch that was positively foolproof and noiseless. It also sported a 12-gang band spread condenser. This one was a favorite of the government, airway, police, and other agencies.

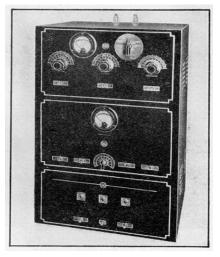
Moving down the scale,
Hallicrafters offered the Super
Skyrider with 9 metal tubes and
numerous features.
For the kit builder, Wholesale
Lafayette offered the Professional —
a 9-tube superheterodyne receiver
with the typical five-band
configuration and BFO for CW
reception. One can only wonder if
there were any boat anchor clubs
during the 1930s.

Ham transmitters advanced in complexity as well. Now kits and fully assembled transmitters were becoming available.

United Transformer
Corporation (UTC) offered a kit
transmitter consisting of three
modules in a desk-top rackmounted configuration. The first
unit consisted of a 50-watt RF
module for CW operation. The
second unit was a 50-watt plate
modulator. The third unit was a
controlled-carrier module that
enabled the power input to follow
the audio modulation for

additional power to the signal. With the third unit, the power output approached 75 watts.

As the builder accumulated more cash, a controlled-carrier Class B linear stage could be added that included a 3,000 volt DC power supply for the push-pull 852 tubes in the linear amplifier. A companion antenna tuning unit and cathode-ray oscilloscope in a separate cabinet were also available to complete the transmitter.



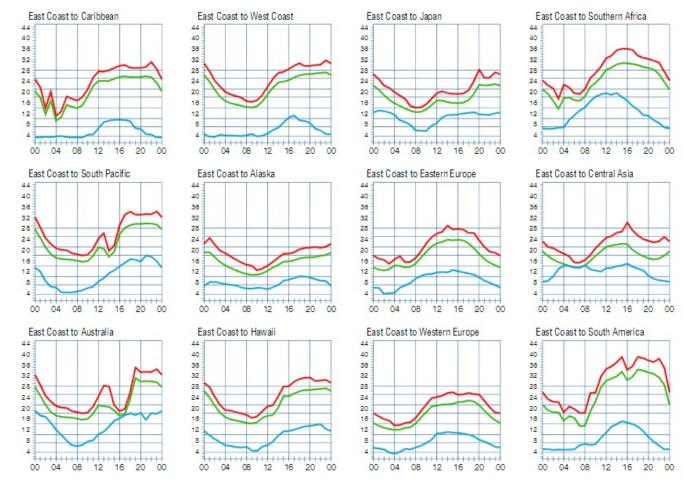
The UTC Transmitter Kit

NEXT MONTH

Next month we'll move ahead to the 1940s and continue our journey as we follow the early history of the BVARA. World War II had a significant impact on not just ham radio but on everything. We'll look at what was happening around the globe and locally during the 1940s. In addition, as technology continues to change and war surplus equipment becomes available, we'll examine the effect on ham equipment and operating practices. Stay tuned!

Propagation Charts

From the ARRI



RACES / ARES

eQRM Urges All County Hams to Participate

As a matter of editorial opinion, the eQRM urges all Beaver County licensed amateurs to participate in the County's RACES and ARES programs. Any Beaver County Amateur that is interested in participating in the RACES/ARES programs can do so by checking into the Beaver County Public Service Net which meets every Monday evening at 8:30 PM local time on the N3TN 146.850 MHz repeater (131.8 PL)

PROPAGATION

The East Coast propagation chart listed above is for April 2013.

If you would like more information on how to read these charts, or for more information on propagation in general, please visit http://arrl.org/propagation



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Who We Are

Membership Information and Club Officers

BY BECOMING A MEMBER OF THE BVARA, YOU CAN HELP SECURE THE FUTURE OF AMATEUR RADIO IN BEAVER COUNTY. ADDITIONALLY, THE BVARA RECEIVES A PORTION OF EACH ARRL AND/OR WORLD RADIO SUBSCRIPTION YOU PURCHASE!

Join the BVARA, ARRL and World Radio

Price	Quantity
20.00	
15.00	
10.00	
5.00	
39.00	
Subtotal: Donation Total: me dress ail Address	
	Exp. date
	20.00 15.00 10.00 5.00 39.00 Subtotal: Donation Total:

Make Check or Money order payable to: The Beaver Valley Amateur Radio Association, P.O. Box 424 South Heights, PA 15081

SEL CARD
Decial 90th Anniversary Edition

Signature



2013 BVARA OFFICERS

President: Jack Spencer, KZ3Z

Vice President: Jeff Waite, K3SLK

Second Vice Pres.: Mark Kavic, KB3LED

Secretary: Norm Trunick, K3NJT

Director: Adam Horniak, KG3L

Director: Denny Herbuth, KR3DX

Trustee: Rich Soltesz, K3SOM

Treasurer: Pam Spencer, W3PMS

Newsletter Editor: Grant Miller, KB3QFQ

MONTHLY MEETINGS

E-Board meetings are now held the Saturday before the monthly club meeting. VE testing begins at 5:00.

Regular meetings are at 6:30.

All meetings are held at

Beaver County

Emergency Operations Center

351 14th Street Ambridge, PA 15003

on the second Thursday of every month (unless otherwise stated).

MEETING DATES

2013

April 11

May 9

June 13

July 1

August - No meeting (Corn Roast, DateTBA)

September 12 October 10

November 14

December 7 - **BVARA Christmas Party**

2014

January 9 February 13 March 13

NEXT MONTH

MAY 2013

OUR
HISTORY
CONTINUES:
THE 1940s
AND
WORLD
WAR II