CQ CHATTER

DECEMBER 2018 VOLUME B18 •ISSUE 10

WOOD COUNTY AMATEUR RADIO CLUB

President	WB8NQW	Bob Willman
Vice President	KD8VWU	Doug Perez
Secretary	N1RB	Bob Boughton
Treasurer	KD8NJW	Jim Barnhouse
Board Member	KE8CVA	Terry Halliwill

http://wcarc.bgsu.edu

Kickoff Banquet Planned

The annual WCARC kickoff banquet will be held on Sunday, January 13th, at the Holiday Inn French Quarter, 10630 Fremont Pike (U.S. Rt. 20).

A room at J. Patrick's Restaurant and Pub has been reserved starting at 11:30. Service stops at 1:30 pm. Food is available buffet-style and payment is on a separate check basis.

Pencil in the date and take this once-a-year opportunity to have a meal and an eyeball QSO with other friends and members of the Club. ■

Program Notes for December 10th Business Meeting

The business meeting on December 10 will be followed by a presentation by Bruce, AA8HS. Bruce will fill us in on the work that he has been doing on 630 meters. This is one of the more recently obtained ham bands and is subject to certain restrictions *(see October CQ Chatter)*, and lies just below the AM commercial radio band. Because of power restrictions and other conditions, most operators employ low-power digital modes, such as WSJT-X, FT8, JT9, and WSPR. Bruce will also give a brief review of how these modes work for those who are unfamiliar with them. As he will explain, this band is perfect for the amateur who likes to do home-brew projects. ■

Net Check Ins

Oct 30	***Traffic: 0***
WB8NQW	***(NCS)***
KE8CVA/M	
W8PSK	
K8BBK	
KG8FH	
K5SFV	
WD8JWJ	
WD8LEI	
KB8QEW	
KD8NJW	
N5NYV	
N1RB	
WD8ICP	
K3RC	
K8JU	***(15)***
Nov 6	***Traffic: 0***
N1RB	***(NCS)***
KA8VNG	
KC8IFW	
K8BBK	
KE8CVA	
KC8EKT	
KG8FH	
WD8LEI	
WB8NQW	
W8PSK	
N8VNT	
KE8CUZ	***(12)***
Nov 13	***Traffic: 0***
KD8NJW	***(NCS)***
WB8NQW	
K8JU	
K8BBK	
KC8EKT	
KE8CVA	
WD8JWJ	

Brain Teasers

1. What is the minimum age that one must be to qualify as an accredited Volunteer Examiner (VE)?

a.) 12 years

b.) 18 years

c.) 21 years

d.) there is no age limit

2. Which of the following is a good indicator of the possibility of sky-wave propagation on the 6 meter band?

a.) short skip sky-wave propagation on 10m

b.) long skip sky-wave propagation on 10m

c.) severe attenuation of signals on the 10m band

d.) long delayed echoes on the 10m band

3. Why is it best not to draw the DC power for a 100W HF transceiver from a vehicle's auxiliary power socket?

a.) socket is not wired with an RF shielded cable

b.) the socket's wiring may be inadequate for the current drawn by the transceiver

c.) the DC polarity of the socket is reversed from the polarity of modern HF transceivers

d.) drawing more than 50W from this socket could cause the engine to overheat

December Contests

The contest lineup for the month of December is given below. Please note that the WARC bands (60, 30, 17 and 12 m) are never open to contesting.

Nov 30-Dec 2	*2200 to 1600 Z*	160 m
ARRL 160 m 'test		**CW**
Dec 8-9	*0000 to 2359 Z*	10 m
ARRL 10 Meter 'test		**CW SSB**
Dec 15	*0000 to 2359 Z*	80 m to 10 m
OK DX RTTY 'test		**RTTY**
Dec 15-16	*1400 to 1400 Z*	160 m to10 m
Croatian CW 'test		**CW**
Dec 16	*1800 to 2359 Z*	80 m to 10 m
ARRL Rookie Roundup		**CW**
Dec 29	*0000 to 2359 Z*	160 m to 10 m
RAC Winter 'test		**CW SSB**

Survey Seeks Direction from ARDF Enthusiasts

from ARNewsline

If you're enthusiastic about amateur radio direction finding (ARDF), here's a survey you may be interested in taking. Kenneth Harker WM5R, the new ARDF coordinator for the IARU's Region 2, is asking for feedback from the international ham community. The survey is seeking input about ARDF events and other activities related to direction-finding. Ken told Newsline that he hopes the questions will be something posted annually to help him track activity over time and to get important feedback on such issues as competitions and rules, especially with regard to coordinating with other regions of the IARU. The survey will be available through the end of November and takes about 30 minutes to complete. Find the link to the survey in the printed version of this week's Newsline script – and make your voice heard.

https://surveyhero.com/c/e215f18d ■

FCC To Implement New Registration System

from ARNewsline

The FCC is retiring its present version of the Commission Registration System, also known as CORES. As of March 1 of next year, anyone applying for an FCC Federal Registration Number, or FRN, must first create a username and password on the system before they can receive the FRN itself. That's already the case - but on the new CORES website anyone who already has an FRN from the old Commission Registration System will need to create a user name to continue managing it under the new system. You can find the website using the URL included below.

This is especially important for Volunteer Examiners while administering amateur radio license exams. FRNs are used in place of Social Security numbers. Hams who do not have Social Security Numbers must instead use their Taxpayer Identification Number to get an FRN. An FRN is required for everyone using this system.

All hams who are already licensed and wishing to conduct business with the FCC, such as renewing their license or changing their address, also need to be registered properly through the new Commission Registration System so they have access to the online Universal Licensing System. It should also be noted that individuals with a new FRN will be able to log into the FCCs Universal Licensing System and set their preferences from receiving electronic copies of their documents to getting them on paper by postal mail, if desired.

Link to CORES website:
https://apps.fcc.gov/cores/userLogin.do

■

History of the Ham Radio Callsign I

by Mike Ritz (W7VO)

ed. note: this is a fairly long article so it will appear in several parts—-

The Pioneer Years, pre 1918, "The Days of Anarchy"

The very early days of ham radio was an interesting time, not completely unlike the untamed wild west itself. Prior to 1912 there were no real laws governing the new communications medium known as "wireless", it was for the most part completely unregulated. The airwaves of the time consisted of signals emitting from crude spark gap transmitters, by a combination of governmental, commercial interests, and fledgling ham radio operators (who mostly worked for these other interests).

The Marconi Company was among the first to use three letter call signs to identify their transatlantic coastal wireless telegraph stations, and to identify their company owned shipboard stations. The coastal station call signs started either with a "**V**" (for

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WCARC Weekly Net

Tuesdays at 2100 all year

147.18 MHz 67 Hz PL

Net Control Roster

Dec 4	*WB8NQW*
Dec 11	*N1RB*
Dec 18	*KD8VWU*
Dec 25	*KD8NJW*
Jan 1	*K8OVO*
Jan 8	*WB8NQW*

NEXT MEETING

Business Meeting

Monday

December 10

TIME: 7:30/7:00pm EB

PLACE:

Sheriff's Training Room

S. Dunbridge Rd. &

E. Gypsy Lane Rd.

Bowling Green, OH

10 meter Net

informal group meets

Sunday

@ 20:30

on 28.335 MHz

Fusion Net

Thursday

@ 19:30

on 442.125 MHz

67 Hz PL on FM

discussion of all things digital

Net Check Ins

Nov 13 ***cont.***

W8PSK
N8VNT
N1RB
KD8RNO
KG8FH/M
WD8ICP ***(13)***

Nov 20 ***Traffic: 0***

N1RB ***(NCS)***
KC8EKT
KE8CVA
KG8FH
KE8CUZ
WB8NQW
WD8LEI
W8PSK
KD8RNO
N8VNT
WD8JWJ
WD8PIC ***(12)***

Nov 27 ***Traffic: 0***

K8OVO ***(NCS)***
K8BBK
WD8ICP
KD8ERC
WD8LEI
KC8EKT
KD8NJW
WB8NQW
W8PSK
KD8RNO
N8VNT
N1RB
KE8CVA ***(13)***

Brain Teaser answers: (G) 1-b, 2-a, 3-b

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"Voice of (somewhere)", or "**M**" (for "Marconi"), while the shipboard stations just used the starting letter of "**M**". Amateur radio operators for the most part started off by using just names as identifiers, such as "**BILL**" or "**MAC**", then that evolved into a combination of two or three letters, a mixture of letters and numbers, or even just numbers! It would be easy to see that there ended up being a LOT of overlap in call signs, both commercially, and among hams themselves. Was "**MAC**" a Marconi Company owned shipboard station sailing off the coast of Newfoundland, or Miles A. Cornwall (using the call sign "**MAC**"), the ham radio operator in New York? With such a limited range for the spark gap transmitter (often around a hundred miles or so), this wasn't much of an issue, (at least at first.)

However, as the airwaves became more and more congested it was clear that more needed to be done to coordinate and publish established call signs to reduce conflicts. While there were publications that listed known commercial wireless stations, the May 1908 publication of Modern Electrics magazine published one of the very first lists (a "wireless registry") of known amateur wireless radio operators, their associated call signs, and also the approximate wavelength they operated on. (One could argue that these are really the first ten documented ham radio operators!) Most of these hams used two letter identifiers signifying their initials, but one ham, Otto Curtis of Rochester, New York was simply known as "**Q**", long before the letter became associated as fictional James Bond's technical advisor.

By May of 1909 the "wireless registry" listed many more amateur wireless stations and their call signs, most listed were using three letters by now. (It's interesting to note that many used two letters fol-

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lowed by the third letter of "**M**" to denote that they were employees of Marconi Company). Some hams were listed with a combination of letters and numbers, such as J.C. Randall of Albany, New York who was listed signing as "**S4**", and F.W Harris of Renton, Washington, who signed simply as "**3B**". One special call sign listed was that of Earl C. Hawkings of Minneapolis, Minnesota who utilized the call sign of "**HAM**". I guess one could argue that he was the first *real* "ham"!

In such an unregulated environment that had many wireless stations competing, (all utilizing transmitters with very broad emission spectrums), and coupled with crude receivers on the other end, conflicts caused by both unintentional and intentional interference were commonplace. This was getting worse by the day, and one day it all came to a head. That day was April 15, 1912.

On that fateful day, the seemingly impossible happened. The "unsinkable" RMS *Titanic* (call sign: **MGY**), with 2,200 passengers aboard hit an iceberg in the North Atlantic, and was sinking fast. While there were hundreds of passengers eventually rescued by the RMS *Carpathia* (call sign: **MPA**), several problems with wireless radio communications of the day played a key role in delaying the rescue effort, and undoubtedly added to the *Titanic*'s fatality totals. For one, the shipboard wireless station aboard the *Titanic* was owned and manned by employees of Marconi Company. Marconi's main competition for the ship wireless telegraph market was bitter rival Telefunken, based in Germany. At the time Marconi Company owned stations were not allowed to have any contact with Telefunken owned stations (call signs beginning with a "**D**"), and as a result messages from the competition were largely ignored. In addition, there was both unintentional and intentional interference from other commercial stations (and hams alike), making for even a more chaotic scene.

Many thought the distress signals from the doomed ship were fake. After all, how could the "unsinkable" *Titanic* really be sinking? It must be "fake news"!

There was also a third issue. The Marconi Company early on had established the "**CQD**" ("CQ Distress"), message. The now familiar "**SOS**" ("Save Our Ship, or "Save Our Souls"), had actually been made the worldwide standard at the second International Radiotelegraphic Convention, was signed in 1906, and became effective on July 1, 1908. This was a full four years earlier than the *Titanic* sinking. Only the Marconi Company equipped ships still used "**CQD**" as the standard distress message when the *Titanic* ran aground.

While the above is a nice narrative about a well-known disaster, what does this have to do with amateur

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radio call signs? When the dust settled, the US Congress began investigations into how to keep this disaster from repeating itself. Besides the sole remaining *Titanic* wireless operator, Harold Bride, the radio pioneer and tycoon Guglielmo Marconi himself was called before Congress to explain his company's practices. The end result of these hearings became what is known as the Radio Act of 1912, written into law on August 13, 1912. This historic act had the following provisions, among others:

1.) It established a Federal law that mandated that all ships constantly monitor distress frequencies, (the primary one at that time was set at 600 meters (500 kHz))

2.) Mandated that the familiar Morse "**SOS**" be the defacto standard for distress calls

3.) Mandated that all radio stations in the US be inspected and licensed by the federal government.

4.) Provided the possibility of fines for intentional or malicious interference

5.) Limited experimenters (amateurs) to 200 meters wavelength (about 1.5 MHz) and lower, (as frequencies higher than that were considered "useless"!)

The end result of the new licensing requirements dramatically dropped the number of amateurs from about 10,000 to around 1,200 almost overnight, and almost killed off the hobby. This was a win for the Navy and commercial wireless interests, as they really didn't want any "amateurs" on the air anyway, interfering with *their* airwaves. While US stations, (including amateurs), had to be inspected and licensed by the US government, this act didn't really do much for formalizing call signs per-se.

On the international front, the International Radiotelegraph Convention of 1912 established the first internationally recognized call sign standards, based on the country. This standard replaced the random three letter call signs prevalent then. Major world powers were given single prefixes such as "**N"**, " **W",** and half of the "**K**" prefix allocations (**KDA-KZZ**) (United States), "**A"**, "**D"**, and "**KAA-KCZ"** (Germany), "**F"** (France), "**B"**, "**M"**, and "**G**" (Great Britain). The convention was signed at the International Radiotelegraph Conference in London on July 5, 1912. It is important to note that while these international standards were applied to commercial wireless stations, amateurs for the large part were still left on their own.

On May 9, 1913, the official United States Policy for Radio Call Letters was published:

"The call letters for amateur stations in the United States will be awarded by radio inspectors, each for his own district, respectively, according to the following system:

(a) The call will consist of three items; number of radio district; followed by two letters of the alphabet. Thus, the

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call of all amateur stations in New England (which comprises the first district) will be the figure "one" in Continental Morse, followed by two letters; in California (in the sixth district) the figure "six" followed by two letters; in South Carolina the figure "four" followed by two letters; in Missouri the figure "nine" followed by two letters, etc. The letters "**X**", "**Y**", "**Z**", must not be used as the first of the two letters.

(b) The three items; a given figure first, followed by two letters of the alphabet, thus may be combined in 598 different calls, which will probably suffice for the amateur sending stations in most districts for some time to come.

(c) Radio inspectors will insert amateur station calls in station licenses according to this system, and will keep a permanent chart, of 598 squares, lettered with the alphabet from left to right and from top to bottom ("**A**" to "**W**"), inserting in the appropriate square the serial license number of the station to which the call letters were awarded. Within these limitations radio inspectors will use their discretion in the award of calls, avoiding, of course, duplications.

(d) When a station is abandoned and the license canceled, or if a license shall be forfeited for violation of law, the call assigned to it may be allotted to another station.

(e) If the entire 598 calls have been exhausted, radio inspectors will issue additional calls, consisting of the figure of the district followed by three letters. From such combinations should be excluded the combination **SOS**, and **PRB**, all three-letter combinations beginning with **QR** or **QS**, all combinations involving the repetition of the same letter three times, three-letter combinations beginning with "**K**", "**N**", "**W**", "**X**", "**Y**", "**Z**", and other combinations, which, for various reasons, international, national, local, or individual, may be objectionable."

The "official" US amateur ham radio station call sign was officially born, but what is interesting to note here was that the Department of Commerce, who was responsible for these regulations, thought that 598 call signs per district were plenty "for some time to come." Little did they know that the number of US amateurs would balloon to the almost three-quarter million we have now!

Then on April 7th, 1917, the entire world of amateur radio was turned upside down, when by executive order amateurs were told to "dismantle and render inoperable radio wireless equipment, and antennas" as the United States formally entered "The Great War", World War One. This mandate applied to both receivers and transmitters, and all amateur licenses issued to date were immediately cancelled. Amateur radio was dead, and radio itself became a government monopoly utilized strictly for the war effort. To ignore this mandate could be considered an act of treason, so it was not taken lightly. ■

more to come—-

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