CQ CHATTER

OCTOBER 2017 **VOLUME B17 • ISSUE 8**

WOOD COUNTY AMATEUR RADIO CLUB

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

http://wcarc.bgsu.edu

Foxhunt Report

The WCARC foxhunt was held on September 9th, immediately following the bimonthly breakfast. Eric, WD8LEI, was the fox, and hid out in the Otsego High School parking lot.

Eric made transmissions at a regular rate every 5 minutes on the 5 minute mark. As time moved on, he reduced power from about 40W (high power) to 20W (medium power) and to 5W (low power).

The first hounds to find the fox were the team of Eban-KD8NJZ and Craig-NM8W. They reached the prize after 23 minutes of searching. Second place went to Bob-N1RB, after 27 minutes, and third place to Bob-WB8NQW, after 39 minutes. Next came Hoot-WB8VUL and Terry-KE8CVA. Chuck-WD8ICP had to check out due to another engagement.

With 8 participants (counting the fox) it is fair to say that this was a very successful foxhunt. Many different styles of direction finding were employed, with loops and yagis; window mounts and tailgate installations being used. A good time was had by all. ■

Hams Connecting the Caribbean after Maria

from Motherboard

The storm silenced much of Puerto Rico and the Virgin Islands. But a volunteer network of hams are helping people reach their loved ones.

"Let me just see if we got any answers to the relays."

"'Whiskey Papa Three Radio'—listening," said Ángel Vázquez over radio. When Hurricane Maria hit Puerto Rico with devastating force, making landfall

Staff preparing Arecibo Observatory for Hurricane Maria. Image: Arecibo Observatory

continued---on p. 7

Net Check Ins

Sep 5 Traffic: 0

WB8NQW (NCS)
KE8CVA
KG8FH
K8JI
W8PSK
N1RB
KD8VWU
KA8VNG
K3RC
KD8FRL
KC8NKC
WD8LEI
KD8RNO (13)

Sep 12 Traffic: 0

N1RB (NCS)
KE8CUZ
KE8CVA
KC8EKT
KG8FH
KD8VWU
WD8LEI
WB8NQW
KD8NJW
W8PSK
KD8RNO
KA8VNG
N8VNT
K3RC (14)

Sep 19 Traffic: 0

KD8VWU (NCS)
KA8VNG
KD8RNO
KE8CVA

Brain Teasers

1. What is the significance of the sunspot number with regard to HF propagation?

a.) higher numbers generally indicate a greater probability of good propagation at higher frequencies

b.) lower sunspot numbers generally indicate greater probability of sporadic E propagation

c.) zero sunspot number indicates radio propagation is not possible on any band

d.) all of these choices are correct

2. What is the reason to use Automatic Level Control (ALC) with an RF power amplifier?

a.) to balance the transmitter audio frequency response

b.) to reduce harmonic radiation

c.) to reduce distortion due to excessive drive

d.) to increase overall efficiency

3. What frequency range is occupied by a 3 kHz LSB signal when the displayed carrier frequency is 7.178 MHz?

a.) 7.178 to 7.181 MHz

b.) 7.178 to 7.184 MHz

c.) 7.175 to 7.178 MHz

d.) 7.1765 to 7.1795 MHz

October Contests

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

Oct 6-8	*1400 to 0200 Z*	160 m to10 m
YL DX/NA Anniversary 'test		**all modes**
Oct 7-8	*0800 to 0800 Z*	160 m to 10 m
Oceania DX 'test		**SSB**
Oct 7-8	*1600 to 2200 Z*	160 m to 10 m
California QSO Party		**all modes**
Oct 14-15	*0800 to 0800 Z*	160 m to 10 m
Oceania DX 'test		**CW**
Oct 14-15	*1600 to 2200 Z*	160 m to 10 m
Pennsylvania QSO Party		**all modes**
Oct 14-15	*1600 to 2359 Z*	160 m to 10 m
Arizona QSO Party		**all modes**
Oct 16-20	*1300 to 2359 Z*	160 m to 10 m
ARRL School Club Roundup		**SSB/CW**
Oct 21-22	*1400 to 0200 Z*	160 m to 10 m
New York QSO Party		**all modes**
Oct 21-22	*1500 to 1459 Z*	80 m to 10 m
Worked All Germany 'test		**SSB/CW**
Oct 21-22	*1800 to 1800 Z*	160 m to 6 m
South Dakota QSO Party		**all modes**
Oct 22-23	*1700 to 0100 Z*	160 m to 10 m
Illinois QSO Party		**all modes**
Oct 28-29	*0000 to 2359 Z*	160 m to 10 m
CQ WW DX 'test		**SSB**

FCC Opens 630 m and 2200 m Bands

ARRL Letter

The FCC has announced that the Office of Management and Budget has approved, for 3 years, the information-collection requirement of the Commission's March 29 Report and Order (R&O) that spelled out Amateur Radio service rules for the two new bands — 630 meters and 2200 meters. Notice of the action appears in today's edition of the Federal Register. Before using either band, stations must notify the Utilities Technology Council (UTC), formerly the Utilities Telecom Council, that they plan to do so, and if UTC does not respond within 30 days, they may commence operation.

Last March 27, the FCC adopted the 2012 World Radiocommunication Conference (WRC-12) implementation Report and Order (ET Docket 15-99), amending its Amateur Radio rules to — in the FCC's words — "provide for frequency-sharing requirements in the 135.7-137.8 kHz (2200-meter) and 472-479 kHz (630-meter) bands."

Section 97.313(g)(2) of those rules requires that, prior to starting operation in either band, radio amateurs must notify UTC that they intend operate by submitting their call signs, intended band(s) of operation, and the coordinates of their antenna's fixed location. The new rules do not permit any mobile operation.

"Amateur stations will be permitted to commence operations after a 30-day period, unless UTC notifies the station that its fixed location is located within 1 kilometer of Power Line Carrier (PLC) systems operating on the same or overlapping frequencies," the FCC said. PLC systems are unlicensed. "This notification process will ensure that amateur stations seeking to operate [on 630 or 2200 meters] are located beyond a minimum separation distance from PLC transmission lines, which will help ensure the compatibility and coexistence of amateur and PLC operations, and promote shared use of the bands."

The FCC announced that it is making effective immediately the Part 97 rule amendments, § 97.3, 97.15(c), 97.301(b) through (d), 97.303(g), 97.305(c), and 97.313(k) and (l), which do not require OMB approval

Click HERE to access the UTC notification website. ■

Ionic Response to Solar Flares

report by HAMSCI*

Amateur radio reporting networks, such as the Reverse Beacon Network (RBN), PSKReporter, and the Weak Signal Propagation Network, are powerful tools for remote sensing the ionosphere. These voluntarily constructed and operated networks provide real-time and archival data that could be used for space weather operations, forecasting, and research. The potential exists for the study of both global and localized effects. The capability of one such network to detect space weather disturbances is demonstrated by examining the impacts on RBN-observed HF propagation paths of an X2.9 class solar flare detected by the GOES 15 satellite. Prior to the solar

continued---on p. 6

WCARC Weekly Net

Tuesdays at 2100 all year

147.18 MHz 67 Hz PL

Net Control Roster

Oct 3	***NM8W***
Oct 10	***K8OVO***
Oct 17	***W8PSK***
Oct 24	***WB8NQW***
Oct 31	***N1RB***
Nov 7	***W8PSK***
Nov 14	***KD8VWU***

NEXT MEETING

Business Meeting

Monday, Oct. 9th

TIME: 7:30/7:00 pm

PLACE:

Sheriff's Training Rm

E. Gypsy Lane

& Dunbridge Rd.

Bowling Green, OH

October Hamfests

Oct 29 Utica-Shelby ECA. Annual Hamfest. United Food and Commercial Workers Hall, Madison Heights, MI. **web:** http://www.usecaarc.com

Oct 29 Massillon ARC. Annual Hamfest. Massillon Boy's and Girl's Club, Massillon, OH.
web: http://www.w8np.org

DON'T FORGET!

10 meter Net meets

Sunday@ 2030

on 28.335 MHz

Fusion (C4FM) Net

meets

Thursday @1930

on 442.125+

Net Check Ins

Sep 19 cont.

KG8FH
KD8NJW
WB8NQW
N1RB
WD8JWJ
KC8EKT
KG8FU (11)

Sep 26 Traffic: 0

W8PSK (NCS)
K8BBK
KC8EKT
WD8LEI
WD8JWJ
KD8RNO
WB8NQW
N1RB
K3RC
KD8VWU
KG8FH
KC8NKC
KE8CVA (13)

Oct 3 Traffic: 0

NM8W (NCS)
K8JU
KD8RNO
WB8NQW
WD8JWJ
KE8CVA
W8PSK
N1RB
KC8NKC
KD8VWU
KG8FH
WD8ICP
WD8LEI/P
N8VNT
KC8EKT (14)

Brain Teaser answers: (E) 1-a, 2-c, 3-c

flares---from p. 4

flare, the RBN observed strong HF propagation conditions between multiple continents, primarily Europe, North America, and South America. Immediately following the GOES 15 detection of the solar flare, the number of reported global RBN propagation paths dropped to less than 35% that of prior observations. After the flare, the RBN showed the gradual recovery of HF propagation conditions.

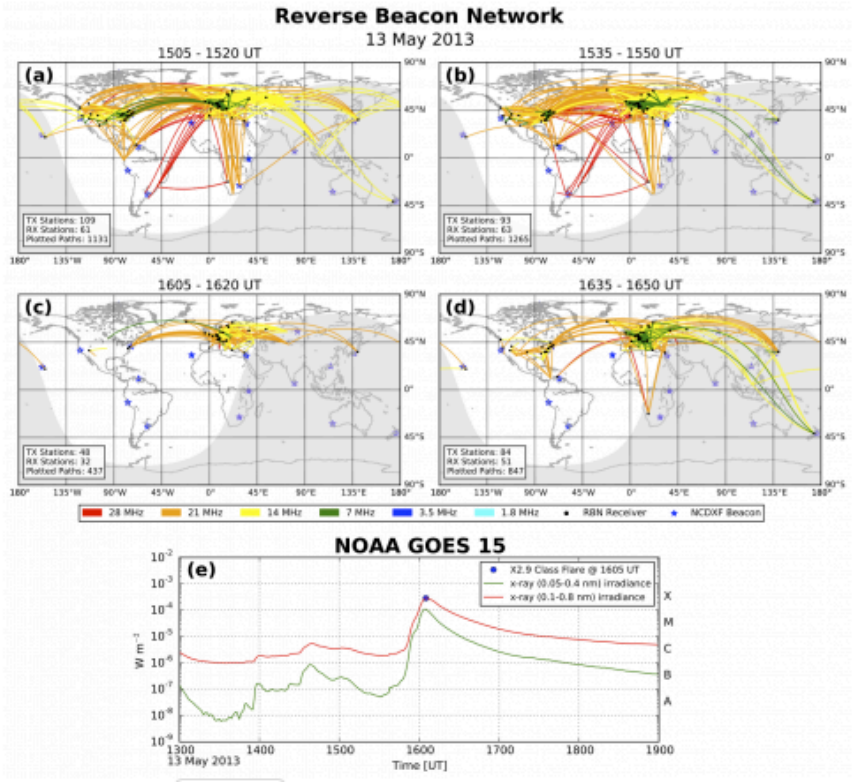

Figure showing world HF propagation paths before, during and after the solar flare on May 13th, 2013. The NOAA GOES satellite picked up the flare at 1600 UTC.

**** What is HAMSCI? The acronym stands for Ham Radio Science Citizen investigation. It was started by ham-scientists who study upper atmospheric and space physics. These scientists recognized that projects such as the Reverse Beacon Network, WSPRNet, PSKReporter, DX Cluster, ClubLog, and more are generating big data sets that could provide useful observations of the Earth's ionosphere and***

continued---on p. 7

flares---from p. 6

related systems. Last month, they participated in a research project to study changes in propagation for hf paths straddling the path of the recent solar eclipse. The mission of HAMSCI is given below:

Since the beginning of the United States amateur radio service in 1912, amateur radio operators have made significant contributions to radio technology and the understanding of radio science. This work must be continued today, as Part 97 of the FCC rules states that a primary purpose of the amateur radio service is the "Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art." Recent advances in the fields of computing, software defined radio, and signal processing provide unprecedented opportunities to meet this mandate, specifically in the field of radio science. These opportunities are already beginning to be realized with the advent of systems such as the **Reverse Beacon Network** (RBN), the **Weak Signal Propagation Reporting Network** (WSPRNet), and **PSKReporter**. In addition, enabling amateurs to make and contribute legitimate scientific observations will expose amateur radio to a wider community of people interested in science around the world.

"Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art." Recent advances in the fields of computing, software defined radio, and signal processing provide unprecedented opportunities to meet this mandate, specifically in the field of radio science. These opportunities are already beginning to be realized with the advent of systems such as the **Reverse Beacon Network** (RBN), the **Weak Signal Propagation Reporting Network** (WSPRNet), and **PSKReporter**. In addition, enabling amateurs to make and contribute legitimate scientific observations will expose amateur radio to a wider community of people interested in science around the world. ■

Maria---from p. 1

on September 20, Vázquez was hunkered down at home. On a normal day, he would've been at work; not far away, at the Arecibo Observatory, the world's second-largest radio telescope. There, Vázquez is Director of Telescope Operations.

The 1,000-foot-wide dish has beamed SETI messages into deep space, and detected far-flung planets. Today, some of the only radio signals coming from Arecibo Observatory belong to Vázquez, and concern purely terrestrial matters.

After the storm barreled through the island, the Universities Space Research Association, which operates the facility out of Maryland, lost contact with its crew there. But within 36 hours, Vázquez could be heard on the airwaves, thanks to a ham radio rig in his house.

Everyone who sheltered at the observatory was safe, he said. A 96-foot-long antenna had crashed into the enormous dish, leaving gaping holes. One smaller dish had been lost.

The Category 4 tempest killed at least 10 people in Puerto Rico. An estimated 700 more were rescued from deadly floodwaters. Officials at the government-owned power corporation said it could take months to re-establish electricity across the country. Most Puerto Ricans are just trying to reach family members. Few have access to Wi-Fi hotspots or electrical outlets. Sustained winds of 155 mph obliterated 95 percent of Puerto Rico's wireless cell sites, leaving much of the country a dead zone. In the past week, Puerto Rico's government has received more than 110,000 outside calls, many, no doubt, from panicked relatives. ■

FOR SALE

Elecraft KX3 transceiver and Hardrock 50 W Amp. They go together. KX3 has the ATU, filter board, 2m module, internal bat charger/clock w/batteries, microphone.

Amp has ATU, QSK. (qsk not installed). Many extra cables & plugs.
Includes aluminum stand that will hold KX3 and PX3.
All manuals included.
Price $1300.

Contact:

Bill Wilkins, WD8JWJ, wd8jwj@amplex.net

WOOD COUNTY ARC
P.O.BOX 534
BOWLING GREEN, OH
43402