CQ CHATTER

VOLUME B12 • Issue #2 WOOD COUNTY AMATEUR RADIO CLUB MARCH 2011
P.O. BOX 534, Bowling Green, OH http://wcarc.bgsu.edu

President	WB8NQW	Bob Willman
Vice President	K8NEA	Duane Ashbaucher
Secretary	N1RB	Bob Boughton
Treasurer	WD8JWJ	Bill Wilkins

Minutes

WCARC Meeting

February 14, 2011

Present: WB8NQW-Bob, Wd8ICP-Chuck, N8QMV-Esther, Cap, WB8VUL-Hoot, K8JU-Jim, N1RB-Bob, K8BBK-Steve, Wd8JWJ-Bill, K8OVO-Don

Meeting called to order at 7:30 pm.
Pledge of Allegiance.
Secretary Report approved. Treasurer report approved.

Old Business:
Craig, KD8NJZ, had his application for erecting a tower in his yard turned down.

New Business:
Bob, WB8NQW, reported on what was discussed at the Board meeting of Feb. 5th.

- Increase membership and participation: He noted that there are 76 hams in the Bowling Green zip code. He appointed a membership committee to be headed up by Steve, K8BBK, along with Bob, N1RB, Jim, W8JU, and possibly Craig, KD8NJZ.
- Meeting refreshments: In the past the membership would adjourn to a nearby restaurant after the meeting. Another suggestion is to have members rotate in providing refreshments at the meeting.
- School presence: It is a consensus that we should focus on the junior high age group. Steve mentioned that W8CXU knows a club in Washington state that

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WCARC Weekly Net:
Tuesdays at 2030 EST
(0130 Z year-round)
147.18 MHz 67 Hz PL

Breakfast Meeting
Saturday, March 5th
TIME: 9:00 am
PLACE: Edgewood Inn
Rts. 6 and 199,
Pemberville

Net Check Ins

February 1

K8OVO (NC)
N8QMV
K8BBK
KG8FH
KD8NJZ
WD8JWJ
WB8NQW
N1RB
WD8PIC
KD8PZX (10)

February 8

N8QMV (NC)
N1RB
WB8NQW
KD8BIN
N8YAE
K8BBK (6)

February 15

WB8NQW (NC)
K8OVO
WB8VUL (3)

February 22

N1RB (NC)
K8BBK
WD8JWJ
WB8NQW
KD8NJZ
WB8VUL
K8OVO
WD8LEI
N1LB (9)

WCARC

2 m Net Control Roster

Net meets every Tuesday at
2030 EST/0130 Z

Mar	**1**	**KD8NJZ**
Mar	**8**	**K8OVO**
Mar	**15**	**N8QMV**
Mar	**22**	**WB8NQW**
Mar	**29**	**N1RB**
Apr	**5**	**KD8NJZ**

Brain Teasers

1. Starting at a positive peak, how many times does a sine wave cross the zero axis in one cycle?

a.) 180 b.) 4
c.) 2 d.) 360

2. Which type of filter would be the best to use in a 2 meter repeater duplexer?

a.) a crystal filter
b.) a cavity filter
c.) a DSP filter
d.) an L-C filter

3. Why is the resistance of a conductor different for rf currents than for direct currents?

a.) the insulation conducts current at high frequencies
b.) because of the Heisenberg effect
c.) because of the skin effect
d.) because conductors are non-linear devices

March Contests

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

Mar 5-6	*0000 to 2400 Z*	160 m to 10 m
ARRL Int'l DX 'test		**SSB**
Mar 12-13	*1300 to 0300 Z*	80 m to 10 m
EA PSK31 'test		**PSK31**
Mar 12-13	*1900 to 1900 Z*	160 m to 10 m
Idaho QSO Party		**all modes**
Mar 13-14	*1800 to 0100 Z*	80 m to 10 m
Wisconsin QSO Party		**all modes**
Mar 19-20	*1200 to 1200 Z*	160 m to 10 m
Russian DX 'test		**all modes**
Mar 19	*1800 to 1759 Z*	80 m to 10 m
Oklahoma QSO Party		**all modes**
Mar 19-20	*1800 to 1800 Z*	160 m to 10 m
North Dakota QSO Party		**all modes**
Mar 19-21	*1800 to 0100 Z*	160 m to 10 m
Virginia QSO Party		**all modes**
Mar 26-27	*0000 to 2400 Z*	160 m to 10 m
CQ WPX 'test		**SSB**

It's Time to Renew!

Club Dues for 2011---Payable to WCARC

P. O. Box 534, Bowling Green, OH 43402

March Hamfests

Mar 20 **Toledo Mobile Radio Assn.** Annual Hamfest and Computer Fair. Owens Community College, Student Activity Center. Call Brian, WD8MXR, (419)385-5624.
e-mail: wd8mxr@gmail.com **web:** http://www.tmrahamradio.org

Apr 9 **Cuyahoga Falls ARC.** Annual Hamfest. Emidion & Sons Party Center, Cuyahoga Falls, OH. Contact Ted, W8TTS, (330) 688-2013.
web: http://www.cfarc.org/hamfest2011.html

Special Notice

From: **Bob Schumann, W8NYY, Wood County ARES**
Event Announcement: **Skywarn Spotter Training**
Date: **Wednesday, March 2nd**
Time: **6:00pm**
Location: In the auditorium of the Perrysburg Schools Administration (Commodore) Building on the corner of Indiana Avenue and Louisiana Ave in downtown Perrysburg.
Google Map Link:
http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=Way+Public+Library,+East+Indiana+Avenue,+Perrysburg,+OH&aq=0&sll=41.555947,-83.623188&sspn=0.011079,0.019248&ie=UTF8&hq=Way+Public+Library,&hnear=E+Indiana+Ave,+Perrysburg,+Wood,+Ohio+43551&ll=41.557151,-83.627737&spn=0.011079,0.019248&z=16
Hope to see you there.

DON'T FORGET!
10 meter informal SSB net
meets
Sunday at 2030 EST
on 28.335 MHz
Brass Pounders at 1930 EST

Letter from the President

March 2011

Thanks to Bill Wilkins, WD8JWJ, for showing us his QRP set-up at the February meeting.

The Board of Directors met February 5. We discussed a number of topics but the most time was spent with ways to increase our membership numbers and increase their participation in club activities. There are over 70 hams in the 43402 zip code, and over 350 in Wood County. Steve, K8BBK, Bob, N1RB, Jim, K8JU, and Craig, KD8NJZ, have volunteered to find ways to attract those hams to WCARC. One idea is for each of us to contact a ham who is not a member and invite him/her to a meeting or club event. 2014 will be WCARC's 60th anniversary. Perhaps we could put a Special Event station on the air that year with a unique call sign. If you have any ideas please pass them to these committee members.

See you at breakfast March 05 at Edgewood.

73, Bob, WB8NQW ■

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has been very successful with getting 9-12 year olds and their families licensed. Perhaps we could set up a Skype interviews with them.

- Construction projects at meetings: several suggestions included making simple antennas or code practice monitors.

Bob mentioned that he will be trying to have a program at every meeting, and suggested that we could also include hobby type activities other than radio-connected demonstrations.

Don, K8OVO, brought up a discussion among a few members who would like to start up a slow speed CW net so that beginners can get a start with the code under no-pressure conditions. Bob, N1RB, suggested that we try it on Sundays just before the 10 meter SSB net at 7:30 pm on the same frequency of 28.335 MHz.

Bob asked whether we wanted to have a Field Day presence again this year. All comments were favorable and it was agreed that the County Museum site is quite suitable. Bob will report at a later date. He also recommended that we give thought to what kind of chow would be served.

Some random questions were raised about putting Echolink on the repeater. Chuck, WD8ICP, thought that BGSU's firewall would not permit it, so some thought will be given to connecting Brett Luna's repeater to Echolink. Jim will look into it.

Bob asked if anybody was using the Autopatch/Speedial on the repeater. No-

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Brain Teaser answers: 1-c, 2-b, 3-c

New QRS CW Net To Form

A new slow speed CW net will be started on 10 meters. The object of the net is to help those hams who are learning CW to get some practice with actual QSOs. It is fairly easy to get a hold of programs that send CW and grade your keying, and of course, there are the code practice transmissions from W1AW.

However, the actual transmission of information from one station to another can only be done over the air. The net will be held on Sunday evenings at 7:30 pm on the same frequency as the informal SSB net that follows one hour later, 28.335 MHz.

So, even if you are a bit nervous about making mistakes, check in to the net and get into the conversation. Practicing live is the only way to improve. Remember, QRS means "send more slowly". All participants will comply with that request. So, check in and have some brass-pounding fun! ■

February Solar Flare Not So Impressive

from Wired

When the largest flare in four years erupted from the sun Feb. 14, sky watchers across the Northern Hemisphere braced themselves for a geomagnetic storm. Space weather experts predicted that jets of charged particles smacking into the Earth's magnetic field could disrupt navigation and communication systems, and spark a bonus of bright northern lights dancing across the ionosphere.

Instead, nothing much happened. "There were some nice displays of aurora, but you had to live in Finland, northern Canada or Alaska to see them," said Joe Kunches, a forecaster at the National Oceanic and Atmospheric Administration's Space Weather Prediction Center. "This one was the lowest storm category that we even pay any attention to."

The storm was so weak because the flare's magnetic field happened to be aligned parallel to the Earth's. When the sun sends a mass of hot plasma hurtling toward the planet in a coronal mass ejection, the plasma is imprinted with its own magnetic field separate from the sun's. Astronomers can't predict the direction of the plasma's magnetic field until the burst hits Earth.

If the plasma's magnetic field is parallel to the Earth's, the incoming charged particles are effectively blocked from entering Earth's magnetosphere. An identical flare with a perpendicular magnetic field would have triggered a much stronger storm.

"If the magnetic fields are parallel, then the shields are up. We are well protected," said space weather expert Juha-Pekka Luntama of the European Space Agency Feb. 19 at the meeting of the American Association for the Advancement of Science in Washington, DC.

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But next time we might not be as lucky with alignment, and we can expect up to 1,700 more storms like last week's in the coming months as the sun wakes back up.

NOAA ranks geomagnetic storms on a scale from G1, minor storms that spark auroras in Michigan and Maine, to G5, extreme storms that can shut down power grids and cause northern lights as far south as Florida. The ranking is based on how much more active the local magnetic field is than a normal, quiet day.

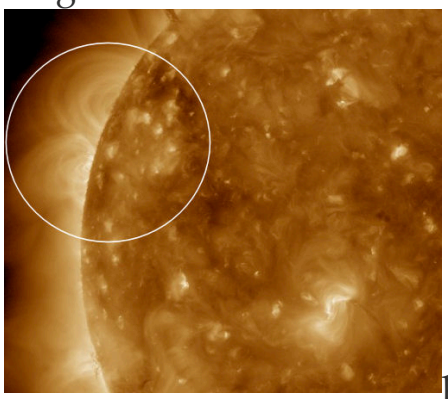
The Feb. 14 storm turned out to be a G1, meaning "it wasn't that big a deal," Kunches said. The storm was mostly notable for being the first of the new solar cycle, Kunches said. The sun goes through periods of relative violence and calm every 11 years or so. This last solar minimum was longer and quieter than astronomers expected. Many predict that the ensuing solar maximum, when magnetic activity on the sun will cause more frequent and severe flares, will also be relatively serene.

But space-weather experts are more nervous about this solar maximum than ever before. Since the last solar maximum in 2000, society has grown more dependent on systems that can be knocked out by a strong solar flare. "Things have changed a lot since 2000," Tom Bogdan, director of NOAA's Space Weather Prediction Center, told reporters Feb. 19 at AAAS. "What's at stake are the advanced technologies that underlie our lives."

A strong flare would send ultraviolet and X-ray radiation to the sunlit side of the Earth, ionizing the upper atmosphere and potentially shutting down GPS satellites. Losing GPS would cause chaos in more than just car navigation systems, Bogdan said.

"GPS is involved in everything we do," he said, including financial transactions. Prices fluctuate so quickly that traders need a time stamp accurate to a millionth of a second every time they buy or sell something. Every time you swipe your credit card at the gas station or buy a bag of oranges, Bogdan said, it goes through a GPS satellite.

Ten to 20 minutes after the flare, a burst of high-energy protons would enter the Earth's magnetic field at the poles, causing processing errors in other satellites. About half an hour later, the hot cloud of plasma that the sun spit out with the flare would bump into the Earth's magnetic field. If it's strong enough, the plasma's magnetic field can induce currents in electric



Side view of solar flare taken from SOHO satellite on Sun's eastern limb

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body present indicated that they used this facility.

Bob mentioned that the fallback frequency to use in case 28.335 MHz is occupied for the Sunday night 10 meter net is to look up +5 KHz. This might be a problem now that 10 meters is experiencing some openings.

Bob reminded everyone that the next meeting is at Edgewood Inn on March 5th.

Motion to adjourn by Bob and seconded by Jim at 8:20 pm.

Program:

Jim brought in his new panoramic analyzer for people to check out the accuracy of their handhelds. Bill, WD8JWJ, brought in his 40 meter QRP station which he put together from kit form. It was hooked up to the HF antenna and many stations were heard. An attempt to start a QSO was made, but no luck. The rf that the transmitter put out was monitored by Jim's analyzer, so we know it all works! ■

flare--from p.7

transmission lines, which could cause widespread blackouts. The most powerful solar flare in recorded history, the Carrington flare in September 1859, sent currents through telegraph wires and even set a few buildings on fire.

Bogdan noted that that storm and the next-strongest storm in 1921 both happened during particularly weak solar cycles. Still, he said, "don't panic." Many satellites and transmission lines are already fitted with shields to prevent the worst of the damage from a strong flare. Others can be shut down preemptively. Sun-observing satellites give space weather experts about 20 hours to come up with a plan to deal with an impending storm, during which NOAA sends out detailed alerts.

"This recent solar flare really illustrates that we need to pay attention to space weather," said NOAA administrator Jane Lubchenco at the AAAS meeting. "The watchword is, predict and prepare."

Interested sky watchers can sign up to receive space-weather alerts on their phones, and watch for more flares in the next two years. NOAA predicts 100 storms that will spark auroras as far south as Alabama. ■

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