

WELCOME NEW SUBSCRIBERS & READERS

John Rodgers- N3MSE, ARRL WPA Section Manager is a miracle worker! In his first monthly WPA Section Report, he made mention of my desire to create a newsletter and information exchange program. I never dreamed that this would attract over 50 new subscribers! WOW!!!

Additionally, I have taken the liberty of adding a few ARRL WPA club email addresses to my mailing list database. So, if you are receiving this newsletter for the first time and did not subscribe, I hope you will find it of value and give it a read. Also, feel free to forward it to fellow hams that may find it of interest.

If you do not wish to continue to receive this newsletter, simply send me an e-mail at: wa3zrm@yahoo.com with the subject: UN-SUBSCRIBE. I will be happy to remove you from the database.

I am very excited about John's positive attitude towards hosting "...a one day meeting to develop methods to interest new members and to get current members of clubs to become more active." I am looking forward to this meeting and hope to see many of you there.

If your club has either an e-mail or print newsletter, I would be interested in receiving a copy. You can find my contact info on <u>www.qrz.com</u>. Just do a callsign search for WA3ZRM.

Thanks for your interest and welcome. Please feel free to e-mail me if you have any questions.

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Newsletter & Information Exchange

- Have your club's latest news and happenings printed here for FREE!
- Is your club having a VE session or classes? Let me know and I'll help spread the word!
- Planning a Hamfest? Drop me a line and get some FREE PR in the eQRM!
- Having an ARRL night, special speaker or program? The eQRM can help by spreading the news within our region!

NEWSLETTER & INFORMATION EXCHANGE

Although the eQRM is affiliated with the Beaver Valley Amateur Radio Association, this does not mean that information contained herein is strictly for local dissemination. Our primary mission is to help grow and expand our hobby for future generations.

Communication and the sharing of ideas is key to the success of any organization. Amateur radio is no different. As a subscriber to this publication, I encourage you to help promote our hobby by sharing your club's latest news and information with me. By working together, we can make a difference in the future of our hobby.

VOLUME 1, ISSUE 10



OVEMBER 2007

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	Dinner 3
4	5	6	Nets 7	Lunch 8	Meeting 9	Dinner 10
11	12	13	Nets 14	Lunch 15	16	Dinner 17
18	19	20	Nets 21	22	23	Dinner 24
25	26	27	Nets 28	Lunch29	30	

The Beaver Valley Amateur Radio Association meets at the Beaver County Emergency Operations Center located at 250 East End Avenue, Beaver, PA on the second Thursday of every month at 7:30 PM. Everyone is welcome.

Don't forget to listen to the BVARA club nets every Wednesday Night! 2 Meter Net on 145.31MHz 100Hz PL at 8:30PM and the 10 Meter Net 28.370 QSY +/-10 at 9:00PM. Also, don't forget the Rip Vanwinkle Net on 2 meters at 7:00AM daily.

The BVARA 10 Meter Net Lunch group will not be meeting this Thursday due to Thanksgiving. The Saturday Dinner group will be meeting at the Maple Restaurant in Ambridge on Saturday, November 24 at 6:30 PM. All area amateurs are invited. **DON'T FORGET THE BVARA CHRISTMAS PARTY TO BE HELD AT FIRE MOUNTAIN ON FRIDAY DECEMBER 14 AT 7:00 pm. THERE WILL BE A \$5.00 GRAB BAG! ANY CLUB MEMBER THAT WOULD LIKE TO PARTICIPATE IN THE GRAB BAG EXCHANGE IS ASKED TO BRING A WRAPPED GIFT WITH A VALUE OF \$5.00.**

DECEMBER VE TEST SESSION: The BVARA will sponsor ARRL VE examinations at the Community College of Beaver County's Aviation Science building, 125 Cessna Drive, (Chippewa Twp.) Beaver Falls , PA , on December 1, 2007. For more info on the test session, contact Tony, KE3ED @ 724-774-4173 or by e-mail at KE3ED@arrl.net.

2008 BVARA OFFICERS & DIRECTORS

President: Gary Hutchinson, KA3TYK First Vice President: Robert DeMarco, WA3ZRM Second Vice President: Debbie Mehutcs, KB3EAQ Acting Secretary: Phyliss Pander, N3KUG Secretary Elect: Norm Trunick (Call Sign Pending) Treasurer: Shawn Hastwell, KB8UDE Director: Chris Moratis, W3OUF Director: Jack Spencer, WB1BSU Trustee: Tony Petruccelli, KE3ED/W3SGJ Chief Engineer: David Heim, KA3SMF



CLUB NOTES

- The next BVARA e-Board meeting date has yet to be announced. KA3TYK's e-mail has been down and I have been unable to touch-base with him.
- WB1BSU reports that the Boy Scout classes in Baden are going well. Hopefully, the club will launch a Tech Class open to the general public in early 2008.
- There are still some openings for ARRL SSC positions within the club. To learn more about these positions, click on the links below:
- Official Emergency Station
- Official Relay Station
- <u>Technical Specialist</u>
- Public Information Officer
- Local Government Liaison
- Official Observer
- <u>Assistant Section Manager</u>

COMMENTARY FROM QRZ & EHAM FORUMS

Kick / Bite / Scratch & Cuss

Posted by W4XKE

The local club decided to conduct license testing and there were about 7 or 8 VEs who could participate. The VEs had a split in their ranks concerning FCC rules:

Group A protested when an unlicensed relative of a new ham talked on the local repeater, using a HT (in the presence of the licensed "control" operator. They publicly humiliated the offending party on the air, saying they would report anyone doing this to Riley.

Group B said nobody was violating FCC rules by allowing unlicensed friends to use the repeater via their HT because the control operator was present. They pointed out that if this practice is illegal, we would have to stop unlicensed persons from talking on the radio at field day also.

The 2 VE groups disagreed vehemently and the issue was never resolved. Most people didn't want to get involved in the war (particularly the new hams) so the licensing exam program didn't fly very long. The repeaters are predominately silent now.

The club decided to publish a newsletter. Several members said we didn't have enough news to report to justify the cost of printing and mailing it. Those in favor won out but the newsletter editor received unending flack for consuming the treasury money to publish & distribute a newsletter that was not necessary. About 80 percent of the members received their newsletter electronically. After a couple of years of complaints, the newsletter team closed the press to the disdain of some and the glee of many. There is no newsletter.

The club decided to emphasize emergency operations and emergency training exercises. This planning activity bored and provoked a number of members who had no interest in it and it hampered their socializing at the meetings. The emergency folks managed to acquire a non-profit status for the club that was not appreciated by most. The cost of the 501 and the record keeping didn't amuse most of the members.

The emergency hams formed a special interest group and set up a separate meeting night. They needed the 501 to encourage donations of equipment to prepare and train. The regular club members were angry that club money funded the 501 program and they decided they would not do the public service activities that the program required. "What do we want a 501 for? We're radio operators, not public service workers."

At the end of the fiscal year, the emergency group sent in the 501 paperwork with the emergency group's name on the header instead of the regular club name that it was registered under. They reasoned that it was necessary to do this because the regular club had decided not to perform any of the required qualification activities and they didn't want to lose the charter.

The regular club members said the emergency group stole their 501 that they had paid for. While they didn't want the 501, they still thought it was very wrong for the other group to steal it from them. They threatened to file criminal charges against the leaders of the emergency group and try their best to obtain prison sentences for the emergency hams.

The white heat dissipated from the confrontation but a determined hatred remains. There's a proud attitude in the south that says, "If you ever make me mad, I'll never forget it and I'll make sure my grandkids never forget it either." Sooner or later the Hatfields and the McCoys will polarize (or in this case the EmComms and the Good ol' Boys). You cannot be neutral. You either join the fight with us or else you're one of them. Hard lines are drawn and the only way to avoid the clash is to avoid local amateur radio altogether and forget being involved with either group.

Nobody wants to talk on the local repeaters because they don't want their enemies to hear anything they have to say. The local "communications specialists" have chosen not to communicate and have resorted to just listening.

The emergency group trains regularly for tornadoes, floods and health incidents that they will never be allowed to assist in this county. They definitely had the disadvantage since their goal is to win the cooperation of the local county emergency management officials and to develop an effective organization.

The regular local club has no aspirations of seeing growth or change. This group doesn't have to do anything to meet their goal, except to discourage any new plans. Indeed, a good argument or fight is adequate stimulation to keep the attendance up. A comment at a recent meeting: "I don't care if anyone else joins or not, especially if we're talking about more outsiders coming in."

Some newly licensed hams talked about a meeting they attended. "We won't be doing THAT anytime again soon!" A few hams belong to both groups but they are considered to be spies for one group or the other. Plans are often met with counter-plans from the adversaries and quenched rather quickly.

The emergency group did mange to send the communications trailer with some of their operators to the Katrina disaster. They can be utilized out-ofstate okay but not anywhere around here where they are blacklisted. They finally gave up trying to talk with the locals and took the county identifiers off their logo and changed their name. Instead of "county" they now are affili-(Continued on Page 4)

PAGE 3

THE HAM'S HOROSCOPE BY MADAM ZELDA, STIARS

That's Gold		I'm Happy		Can't C	Complain	No	ot Happy	Turn down the heat		
Sign	R	omance		ne & mily	Financ	es	Career	General		
Aries										
Taurus										
Gemini										
Cancer										
Leo										
Virgo										
Libra										
Scorpio										
Sagittarius										
Capricorn										
Aquarius										
Pisces										

This week's moon phase again brings a dynamic energy to play for the Fixed signs, **Taurus, Leo, Scorpio and Aquarius**. This is quite a positive energy for the water signs, **Scorpio, Cancer and Pisces**. These same signs should find words come easier this week, so by all means tell people what you think but maybe more importantly how you **feel**! There is a difficult combination of Mars and Venus that can have an impact on relationships, especially for **Cancer** and **Libra**. Good DXing is in store for **Libra** and **Scorpio**. **Sagittarius** should go QRT for the week! **Libra, Aquarius and Pisces** should consider upgrading their licenses this week. **LUCKY NUMBERS FOR ALL HAM'S THIS WEEK: 1, 3, 7, 22, 37 AND 10.**

QRZ & EHAM FORUMS CONTINUED

-ated with the Tennessee State emergency organizations. This county doesn't participate in the state emergency functions or procedures.

More than a few hams have said they have lived in different parts of the country and have been involved in various amateur radio clubs but they have never seen such a situation as exists here. Camaraderie? Well, between 1 or 2 here and maybe 2 or 3 there. I think I'll join the IOTA club where they're not affected by politics.

Dying Club Needs Help de AG5T in Houston, Texas

I am the club president of a group called the Houston ECHO Society in Houston, Texas (ECHO is an acronym for Emergency Communications by Ham Operators). Our club has faded from a total of nearly 200 members about 10 years ago to about a dozen active members. Most of the members attribute the problem to the loss of several good repeater sites. They say that without an open autopatch long range repeater that the club will die and there will be no new members. By long range they mean county-wide. In Houston we don't have the luxury of 10,000 feet or even 2,000 feet mountaintop repeater sites. We used to have free sites on towers and on top of buildings, but that's basically a thing of the past as most repeater sites in this area are extremely expensive now as businesses now charge for these locations. If a newcomer with an HT tries to talk to someone on a repeater that has poor range and sometimes audio problems, I can see why they would be discouraged. But, I would like to know from others, is a repeater really necessary? Can some good topics and presentations at club meetings help revive the group? What is the best way to recruit? Who should we try to recruit? Should we spend our entire budget on

(Continued on Page 5)

QRZ & EHAM FORUMS CONTINUED

an expensive (long range) repeater site for one year and then call it quits if that doesn't attract more members? I am looking for any ideas on what would attract a newcomer to a radio club and any suggestions on how to revive a club that is quickly fading. Thanks in advance for your suggestions.

Reply de WN3VAW

1. Stop thinking of it as a "dying" club. In trouble, yes, but if you think of it as terminal, you're starting in a deep hole.

2. Sit down with the remaining active membership and hammer out who you are, why you exist, and how you plan to accomplish that. It doesn't have to be detailed, but a "mission statement" like this can stand as a goal to strive towards and helps define the group.

3. Start or revive a club newsletter. Send it to any former members (except Silent Key's of course) and any other area hams you can find who potentially might be interested. Emphasize your purpose. Emphasize where and when you get together. Emphasize other things. And the little things count -- do you get together on a particular repeater or repeaters during drive time? Do some of you meet for dinner before, or coffee after, the meeting? Be positive without being syrupy. See www.washarc.org or www.qsl.net/~wm0g for examples of newsletters that fit the bill.

4. You can't be all things to all comers. Don't try. Concentrate on your mission statement.

5. Recruit, recruit, recruit. Going to a hamfest? Have a table with flyers and newsletters. Operating an event? Ditto if allowed. Get an embroidered shirt with the club logo on it (I know some-one who does them for about \$20 each) and WEAR IT at Amateur Radio events. If people know you exist, they'll be interested.

6. Be patient. It won't happen overnight and it won't be easy.

Three years ago, my club had some hard times. But a few of us refused to let it wither away (I swore that we might end up the "Ron's Radio Room ARC" but we weren't going to fold up and blow away) Today, we're growing, our hamfest is growing, our 2M simplex contest has been used as a model by several other clubs (and even got mentioned in CQ magazine), and I keep hearing lots of nice things. So believe me when I tell you that it **CAN** be done **IF** you're willing to do it.



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

Join the BVARA, ARRL and World Radio

Sign up tor.	Filce Qualitity	
BVARA FULL MEMBERSHIP	20.00	
BVARA STUDENT MEMBERSHIP	15.00	
BVARA ASSOCIATE MEMBERSHIP	10.00	
BVARA SPOUSE/CHILD MEMBERSHIP	5.00	
ONE YEAR ARRL MEMBERSHIP	39.00	
WORLD RADIO SUBSCRIPTION	21.00	
ARRL MEMBER ? YES No	Subtotal: Donation Total:	
our License Class (if any):		
Novice	Name	
Technician	Address	
General		
Advanced		
Extra	Phone	
Your Call Sign:		Exp. date
Signature		

The Beaver Valley Amateur Radio Association P.O. Box 424 South Heights, PA. 15081

Propagation de K7RA

Another quiet week, but strangely, like the previous week there was just a single sunspot appearing for one day, and it was also on a Tuesday. Just like the previous week, the daily sunspot number was11, and then it went back to 0 when the spot disappeared. No spots expected in the near future.

Geomagnetic indices have been quiet, but may become unsettled in the near term. Geophysical Institute Prague predicts quiet to unsettled conditions for November 16, quiet November 17, quiet to unsettled November 18, quiet November 20, unsettled to active November 21, and unsettled November 22. The NOAA Space Weather Prediction Center sees a planetary A index of 10 for November 16, 5 for November 17-19, 10 for November 20, 15 for November 21, and 10 for November 22.

Many interesting emails this week, and one came from Bob Marston, K6TR of Fremont, California. He mentioned the theory about magnetic polarity of sunspots, and how we expect them to shift as we move into a new cycle. But some time back a reverse polarity spot appeared, and was hailed by some as the first spot of Cycle 24, but it turned out this wasn't the case. Bob says about 3 percent of the spots in any cycle are rogue spots with reverse orientation. What will be significant is when we start to see spots appearing away from the equator.

Bob continued, "The second topic I want to address is the item Carl Luetzelschwab, K9LA, brought up referencing his communication with Mike Keane, K1MK. The 30.4 nm resonance line is the best indicator for gauging the state of ionization of the ionosphere. What I would like to point out is the future of the Solar and Heliospheric Observatory (SOHO). SOHO was originally intended to last a few years when it was launched in 1995 and has lasted four times as long. It has done yeoman's service and done more to increase man's understanding of the Sun than any other space-based solar observatory. But it is getting long in the tooth and in need of replacement."

He goes on to say, "To that end, NASA will launch a replacement satellite observatory called the Solar Dynamics Observatory (SDO). It is currently undergoing final assembly at NASA's Goddard Space Flight Center near Greenbelt, Maryland. Launch date is currently scheduled for no earlier than December 1, 2008 and it is expected to be operational within 90 days of launch. "The assembly team is in the early stages of construction with the first of three instruments delivered last month. That instrument is the Extreme Ultraviolet Variability Experiment (EVE). It is the analogous instrument to the SEM on SOHO. When you check out the specs of the new instrument, it is readily apparent the jump in capability the new instrument offers over the SEM on SOHO."

He continues, "Unlike SOHO, SDO will be placed into a geosynchronous orbit around the Earth. That is to provide better communications to handle the higher data rate coming from the new satellite. Images that are updated every five minutes on SOHO will be updated once a second on SDO. SOHO orbits the Sun at a Lagrange point, one million miles from Earth. This provides uninterrupted observation of the Sun. SDO will have two 90 day periods per year where its observations will be interrupted for a maximum of 72 minutes while it passes behind the Earth."

Bob ends by saying, "You might want to remind your readers, especially the younger ones, that while conditions may be challenging right now they will get better. And the set of new tools coming online in the next year and a half will provide us with the information to exploit F layer ionospheric propagation like never before, regardless of what the sunspot count at the peak of Cycle 24."

SDO Home Page: <u>http://sdo.gsfc.nasa.gov/</u>.

SDO Mission Page: http://sdo.gsfc.nasa.gov/mission/about. php.

SDO Instrument Page: http://sdo.gsfc.nasa.gov/mission/instru ments.php.

SDO EVE Overview Page: http://lasp.colorado.edu/eve/instrument/ eve_instrument.htm.

Thanks, Bob for the great information. This week several people wrote in about an article from NASA about ion plumes, titled "Strange Space Weather Over Africa." You can read it at http://tinyurl.com/3vyok8. The article mentions a site at, <u>http://www.swpc.noaa.gov/ustec/</u> in which users can look at changing electron content in the ionosphere over North America. Note that you can look at animations of the shifting patterns of electron content over 24 hours.

Jose Nunes, CT1BOH of Lisbon, Portugal sent in a link to an article about the cycle minimum at, <u>http://sohowww.nascom.nasa.gov/pick</u> <u>oftheweek/old/05oct2007</u>.

Next week we hope to have more details on some unusual long path propagation on 80 meters from the West Coast to South Africa, while both ends of the path were in daylight. Don't forget ARRL Phone Sweepstakes this weekend. Conditions should be fine for this domestic contest.

If you would like to make a comment or have a tip for our readers, email the author at, <u>k7ra@arrl.net</u>.

For more information concerning radio propagation, see the ARRL Technical Information Service at, <u>http://www.arrl.org/tis/info/propagation</u>.<u>html</u>. For a detailed explanation of the numbers used in this bulletin see,

http://www.arrl.org/tis/info/k9laprop.html. An archive of past propagation bulletins is at, http://www.arrl.org/wlaw/prop/. Monthly propagation charts between four USA regions and twelve overseas locations are at,

http://www.arrl.org/qst/propcharts/.

Sunspot numbers for November 8 through 14 were 0, 0, 0, 0, 0, 0, 11 and 0 with a mean of 1.6. 10.7 cm flux was 69.7, 69.5, 69.8, 69, 69.7, 69.9, and 70.4 with a mean of 69.7. Estimated planetary A indices were 3, 2, 3, 1, 2, 8 and 9 with a mean of 4 Estimated midlatitude A indices were 3, 2, 2, 1, 2, 7 and 9, with a mean of 3.7.



DX NEWS VIA THE ARRL

This weeks bulletin was made possible with information provided by NC1L, the OPDX Bulletin, DXNL, 425 DX News, The Daily DX, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites. Thanks to all.

GHANA, 9G. Alan, G3XAQ is QRV as 9G5XA from Accra until November 26. Activity is mainly on 30 and 17 meters using CW only. He also expects to be active in the upcoming CQ WW CW contest. QSL via G3SWH.

BAHAMAS, C6. Kenny, K2KW will be QRV as C6ATA from November 18 to 26. He will be active mainly on 160 to 30 meters. This includes an entry in the upcoming CQ WW CW contest. QSL via WA4WTG.

MOZAMBIQUE, C9. Wayne, W5KDJ is QRV as C91KDJ until November 28. Activity is on the HF bands using mainly CW with some RTTY, and with an emphasis on 160 and 80 meters. He plans to be active in the upcoming CQ WW CW contest. QSL to home call.

SAN ANDRES AND PROVIDENCIA, HK0. Tom, K3WT, Vlad, N0STL, William, W0OR and Ron, N0AT will be QRV as HK0/homecalls from San Andres, IOTA NA-033, from November 19 to 27. Activity will be on 160 to 10 meters. They plan to be active as 5J0A in the upcoming CQ WW CW contest. QSL contest call via W0JAR and all others to home calls. In addition, Gerd, DL7VOG is QRV as HK0GU from Providencia, IOTA NA-049, until December 1. Activity is on 160 to 10 meters using CW, SSB and RTTY. QSL to home call.

VATICAN, HV. Members of Carabinieri On The Air plan to be QRV as HV5PUL from Pontifical Lateran University station from November 19 to 21. Activity will be on all HF bands, and 6 meters, using all modes.

SAUDI ARABIA, HZ. Ahmed, HZ1AN is normally QRV on 40, 20 and 15 meters between 1230 to 1600z. QSL via DJ9ZB.

ST. VINCENT, J8. Dave, G3TBK will be QRV as J88DR from November 21 to 29. Activity will be on all HF bands, especially 30, 17 and 12 meters using mostly CW. He will also be active in the upcoming CQ WW CW contest. QSL to home call. JAPAN, JA. Hiro, JA6WFM will be QRV as JF6YME/6 from Yoron Island, IOTA AS-023, in the Amami Island Group, from November 21 to 24. Activity will be on the HF bands using CW, SSB and RTTY. QSL via bureau.

BONAIRE, CURACAO, PJ2. Jeff, KU8E, John, K4BAI and Larry, K5OT will be QRV as PJ4/homecall from Bonaire, IOTA SA-006, from November 20 to 27. They will also be active as PJ4A in the upcoming CQ WW CW contest. Activity is on the HF bands. QSL all calls via K4BAI.

BANGLADESH, S2. Stig, LA7JO is QRV as S2ZJO. He will also be active in the upcoming CQ WW CW contest. QSL via HS0ZGD.

SEYCHELLES, S7. Andy, UA3AB and Harry, RA3AUU will be QRV as S79AB and S79UU, respectively, from November 19 to 28. Activity will be on 160 to 10 meters. This includes an entry in the upcoming CQ WW CW contest. QSL via UA3DX.

PALAU, T8. Osamu, JR8VSE will be QRV as T88SE from November 18 to 21. Activity will be on the HF bands using CW, SSB, RTTY, PSK31 and SSTV. QSL to home call.

NAMIBIA, V5. Klaus, DJ4SO is QRV as V5/DJ4SO while working from a farm in Matunda until December 3. Activity is on 160 to 6 meters using CW, RTTY and PSK31 with some SSB. He will also be active in the upcoming CQ WW CW contest.

COCOS KEELING ISLANDS, VK9C. Bernd, VK2IA and Jan, DJ8NK, will be QRV as VK9AA and VK9CCC, respectively, from November 18 to 26. Activity will be on 160 to 10 meters using CW, SSB and RTTY. They will be active as VK9AA in the upcoming CQ WW CW contest. QSL VK9AA via DL8YR and VK9CCC via DJ8NK.

INDIA, VU. Special event callsign AT7CD is active until November 17 from Bangalore during the National Disaster Reduction Day. QSL via VU2LCI.

LAOS, XW. Bruce, AA4XR is QRV as XW1B. Activity is on all bands and modes. QSL via E21EIC.

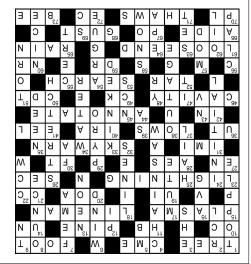
THIS WEEKEND ON THE RADIO. The ARRL SSB Sweepstakes Contest,

SARL Field Day Contest, NCCC CW Sprint, YO International PSK31 Contest, LZ DX Contest, Feld Hell Sprint, All Austrian 160-Meter Contest, RSGB 2nd 1.8 MHz CW Contest, North American Collegiate ARC SSB Championship and the EU PSK63 QSO Party will certainly keep contesters busy this weekend. The Run for the Bacon QRP CW Contest is scheduled for November 19. Please see November QST, page 101,and the ARRL and WA7BNM contest web sites for details.



The Amateur Radio Crossword Puzzler By H. Ward Silver, NOAX

This past few weeks have seen some rather severe weather sprinkled around North America, including the puzzle author's home town of Seattle! As usual, hams have risen to the occasion, providing emergency communications and support to the public and public safety organizations. Good job, all of you! While you're warming up, here's a windy weather puzzle that won't blow you away. And happy holidays to all my loyal boxfillers out there! See next page



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Weather Or Not

Across

- 1. What falls on guy wires
- 4. Burp from the sun
- 7. Unit of length
- 10. Not centered (abbr)
- 11. Made it yourself (abbr)
- 12. A type of 1 Across
- 14. Prefix meaning "not"
- 15. Type of hot matter18. The guy that brings the
- electricity back 19. What the user uses (abbr)
- **20.** Equipment that doesn't work when you get it
- 21. Send a copy to (abbr)
- **23.** Strike from the sky
- **26.** Manages ARES in an ARRL section
- **27.** Makes "R" in Morse (two letters)
- **28.** Chain of ham radio stores (initials)
- 30. Abbreviation for 7 Across
- **31.** Question mark prosign **32.** NOAA weather monitor
- organization **36**. Home to the Great Salt Lake (postal code)
- **37.** Air pressure has these as well as highs
- **40.** Tax-free savings account
- **41.** Electric animal
- 42. Not out
- **44.** To add notes and discussion
- 46. Tuned hollow enclosure
- **49.** Number of words in radio-
- gram text (abbr) **50.** Time zone in Chicago dur-
- ing the summer (abbr)
- **52.** Patches a roof
- **53.** Look for
- **59.** Tends to the injured (abbr)
- **60.** Number (abbr)
- **61**. Task left undone (two words)
- **65.** Precipitation
- **66.** Assistant
- 67. Output power (abbr)
- 68. Sudden peak in wind
- speed
- 70. Subaudible tone (abbr)
- 71. After freezing
- 72. Local ARES leader
- 73. Makes nests in towers and

1	2		3		4	5			6		7		8	9
10					11			12		13			14	\square
15		16		17			18		\vdash					
				19					20				21	22
23	24		25									26		\vdash
27			28						29		30			
	31						32	33		34			35	
36			37	38		39		40				41		
	42	43				44	45							
46			47		48		49					50	+	51
			52				53		54		55			
56		57				58		59	\vdash				60	┡
61	62		63		64						65			+
66					67			68		69				
70			71						72			73		

stings climbers

Down

- 1. Push over
- 2. The three primary electronic
- components (abbr)
- 3. Type of guy wire
- 4. Used to remove 1 Across
- 5. Postal code for VE4
- 6. Moving air
- **7.** Government emergency agency
- 8. Unit of weight
- **9.** Home to Nashville (postal code)
- **12.** Inductive reactance over 2 x freq x inductance
- **13.** Glowing gas used in lights and signs
- 16. Average (abbr)
- 17. Cut off audio
- 18. These carry electricity
- 22. Opposite of CW
- 24. First instance
- **25.** Falling ice balls
- 26. Make longer by pulling
- 29. One who enjoys fire
- (slang)
- 30. Comes before la-la-la-la-la

33. How copperweld seems to always be

- **34.** Makes dirt into mud
- **35.** To require something
- **38.** Absence of service
- **39.** Continent attached to NA
- 43. Home to Las Vegas (postal
- code)

45. Station that runs a net (abbr)

- 47. Work .. first, worry later
- 48. 365 days (abbr)
- 51. Ripped
- **54**. Dispute loudly
- **55.** Citizen volunteer response organization
- **56.** A sound of thunder
- 57. Change or redesign (abbr)
- 58. Frozen 65 Across
- **60.** The weather for antenna work
- 62. Lubricating liquid
- **63.** A complete range of similar tools
- **64.** ARRL section for Philadel-
- phia
- **69.** Between NC and GA
- (postal code)