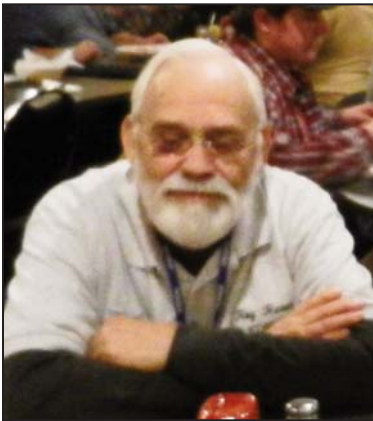


# The Wave Bender

January 2014

## PRESIDENT'S MESSAGE



This is my first article as new president of the WRARC. As we start a new year with our club, I want to wish everybody a very happy new year as we continue to grow and prosper. Tentatively, we will have our first board meeting on Tuesday, January 7 at 7:00 P.M. at Eat-N-Park in Boardman, before our holiday dinner so that we can discuss items of interest. I hope all officers will attend. Come at 6:00 if you are going to have dinner. If there are any changes, I will notify everyone. Also, our after holiday dinner will be at

A-la-carte in Canfield on January 12 at 3:00 P.M.. We always have good food and good times. I hope to see everybody there.

Until then 73, Roy KD8IJF



**Officer's Meeting:** Tuesday, January 7. 7:00 P.M. at Eat 'N Park, Boardman  
**Regular Meeting:** January 12 3:00 P.M. A La Carte Catering 429 Lisbon St., Canfield, OH

**Topic:** Installation Dinner for the new Officers

### 2014 Officers:

President:	Roy Haren, KD8IJF	harens@juno.com
VP:	Joe Wojtowicz KD8RCC	jtwojo@sbcglobal.net
Secretary:	Kevin Stein, KD8NXS	kcstein@zoominternet.net
Treasurer:	Maureen Stein, KD8NXS	mfstein@zoominternet.net
Trustees:	Steve Fabry, KC8SOY	kc8soy@yahoo.com
	Chris Monske, KD8ELY	mastermix79@sbcglobal.net
	Harry Harker, KD8PQK	hharker@cisne.com
Appointed Positions:		
Social:	Maureen Stein, KD8NXS	mfstein@zoominternet.net
Publicity:	Joe Wojtowicz, KD8RCC	jtwojo@sbcglobal.net
Newsletter/Web:	Jane Avnet K8JAA	k8jaa@arrl.net
Badges.Facebook::	John Fabry, KC8SPF	JohnnyJukebox@sbcglobal.net

<http://www.wrarc.net/>

DUES ARE DUE



It's that time again. If you haven't already renewed your membership for 2014, now is the time. January 31 is the deadline. If you aren't a member and would like to be one, or you are a renewing member whose information has changed, use the membership app on page 14.

We have some exciting programs and speakers lined up for the coming year. Don't miss out. Send your dues to our Treasurer, Maureen Stein. Her address is on the application.

WHAT'S COMING UP?

5 January	Last chance to make your reservation for the After the Holidays dinner/meeting
9 January	Extra Class start - Books ahead of time a must
10 January	Board meeting
12 January	Fourth Annual After the Holidays Dinner/Installation/Meeting/Party
22 January	No Meeting
31 January	Dues deadline
18 February	Meeting at Davidson's
28 - 30 March	Greater Youngstown Home and Garden Show



**Map to After the Holidays Dinner/Meeting  
January 12, 3PM**

DECEMBER TEST SESSION



We had three Hams testing at our December Test Session. John Tinsley, KD8WCJ, passed his General. He recently passed his Tech, so recent his call sign had not been issued. Warren Drescher, KD8WDK, passed his Tech. Congratulations to both of you.

Hams that came out to administer the tests were Al AB8AA contact VE for ARRL; Roy, KD8IJF; Dave, KC8WY; Wes W8IZC; Jane K8JAA; Dave KD8NZF. Thanks for your help.

Challenge WRARC Elmers with your Questions - [questions@wrarc.net](mailto:questions@wrarc.net)



Used with permission

Avnet, Allan AB8AA	Antennas, radio setup, mobile, grounding, classes, anything	<a href="mailto:ab8aa@arrl.net">ab8aa@arrl.net</a>
Beatty, Dave KC8WY	anything	<a href="mailto:kc8wy@zoominternet.net">kc8wy@zoominternet.net</a>
Fabry, Steve KC8SOY	Yaesu FT8900, FT8800, Mobile	<a href="mailto:kc8soy@yahoo.com">kc8soy@yahoo.com</a>
Haren, Roy KD8IJF	???	<a href="mailto:harens@juno.com">harens@juno.com</a>
Webster, Robert WR8RW	erecting antennas	<a href="mailto:wr8rw@arrl.net">wr8rw@arrl.net</a>
Williams, Russ NR8W	Electrician,tele-data, Amateur Extra	<a href="mailto:wiliams@neo.rr.com">wiliams@neo.rr.com</a>

If you don't ask, you won't learn

**WRARC Communications Unit Net Friday Nites 8:00P.M.  
145.270, PL -110.9  
Net Control will be rotated**

**Join us for the WRARC Friday night Net 9:00 P.M.  
145.270, PL -110.9**

**Upcoming Net Control Operators**

Jan. 03 Dave KC8WY  
Jan. 10 Chris KD8ELY  
Jan. 17 Roy KD8JMO  
Jan. 24 Dennis KD8SNA  
Jan. 31 Joe KD8RCC  
Feb. 21 Dennis KD8SNA



**Contact Steve, KC8SOY to take a turn at Net Control  
330-774-6346**

**Ask The Elmer Net Right after the Friday Night Net  
KC8SOY Moderator**

**Mahoning County ARES® Nets**

**1<sup>st</sup> Monday 8.30 PM ET W8QLY Repeater - 146.745 (PL 110.9)  
&**

**3<sup>rd</sup> Monday 8.30 PM ET W8QLY Repeater - 146.745 (PL 110.9)  
We thank MVARA for the use of their repeater**

**W8SGT is facilitating The Ohio HF net every Tuesday - 7:00 PM  
The net is run from the State of Ohio EOC on the  
Ohio ARES Admin frequency 3875 kHz LSB  
moves to 7240 Khz after 20-min.  
All are welcome to check in.**



**The Ohio ARES/OES Digital Emergency Net held every Tuesday at 8:00PM.  
held on 3585 kHz USB.**

**Please note all digital communications are Upper Side Band.  
<http://www.http://ohden.org/> for net details. Net Manager Gary NJ8BB**

**COLUMBIANA COUNTY DIGITAL NET**

**Wednesdays 8:30 pm - 9:30 pm  
145.510 MHZ SIMPLEX**

**NBEMS/FLDIGI is being used training on the message handling  
capabilities of FLDIGI/FLMSG. Start with BPSK-125 other modes may be used for testing**

**First Wednesday of the Month Mahoning County Skywarn Net  
is held on the W8QLY repeater 146.745 (-) at 8:30P.M.**

Thanks & 73

All of our members (and others) look forward (hopefully) to getting this newsletter every month, so keep sending those articles, jokes, and suggestions!

Thanks goes out to this month's contributors; AB8AA, KC8SOY, KB8UUZ, W8IZC, W8DEC, N8SY, W5YI, the ARRL and the World-Wide Web.

## ARRL GRANTED USE OF W1ØØAW FOR LEAGUE'S CENTENNIAL

To all radio amateurs

The FCC has authorized the Maxim Memorial Station W1AW to also use the call sign W1ØØAW during 2014, the ARRL's centennial year. Contacts made from the Maxim Memorial Station in Newington, from regional Centennial conventions, and during the IARU HF Championship will use W1ØØAW, with portable designators as appropriate. The "W1AW WAS" operations throughout 2014 from each of the 50 states will use W1AW, not W1ØØAW.

Bulletins and code practice transmissions during 2014 also will still use W1AW. Contacts with W1ØØAW will be worth 100 points in the ARRL Centennial QSO Party. To help kick off the ARRL Centennial, special W1ØØAW activity will begin at 0500 UTC on January 1, 2014 (midnight in Newington), and will include participation in ARRL's Straight Key Night; one CW station will use Hiram Percy Maxim's straight key. Activity will continue throughout New Year's Day.

ZCZC AX13

QST de W1AW

Special Bulletin 13 ARLX013

From ARRL Headquarters

Newington CT December 5, 2013



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 For those of you who don't get the ARRL Letter or check the ARRL website, there is an event taking place in 2014 that we can't wait to participate in. 2014 is the 100th anniversary of the ARRL and they are going to be on the air with a special event callsign from EVERY STATE in the US. You are going to be able to get WAS from this one callsign in all 50 states. And as a matter of local interest, West Virginia is going to be one of the first two states on the air on January Here is the info from the ARRL Website:

-----  
 As part of the mix of events marking the League's 100th anniversary, the ARRL Centennial QSO Party gets underway at 0001 UTC on January 1. This is a year-long operating event, in which participants can accumulate points and win awards, as well as work new stations and make new friends. During 2014 W1AW will be on the air at least twice from every US state and from most US territories, and it will be easy to work all states solely by contacting W1AW portable operations. This will be the first ARRL-sponsored operating event for which every member is worth at least one point. The event is open to all, although only ARRL members and appointees, elected officials, HQ staff and W1AW are worth points. Working ARRL's president, for example, earns 300 points!

To qualify for points all contacts must be two-way (no cross-band or cross-mode contacts), using CW, phone (FM, SSB, AM, digital voice), digital (any digital mode, such as PSK31, RTTY) on 160, 80, 40, 30, 20, 17, 15, 12, 10, 6, 2 and 1.25 meters, plus 70 centimeters and satellite. Stations exchange signal report and ARRL abbreviation. Contacts do not have to be contest-style, and providing ARRL organizational information is not required. A centennial database will assign point values to all logs submitted electronically. Those not submitting electronically, however, will need to obtain the QSO information during the contact. Since this is not a contest, participants may make contacts in any fashion they prefer.

The Centennial QSO Party is scored by totaling the values of all eligible contacts. There are no multipliers or bonus points. Logs submitted via Logbook of the World (LoTW) will be scored automatically.

#### Awards

Worked all States with W1AW: Work W1AW operating portable from all 50 states. Working W1AW or W100AW in Connecticut does not count for Connecticut, however. Participants can earn W1AW Connecticut credit only for working W1AW/1 in Connecticut. A W1AW WAS certificate and plaque will be available for a fee. For an extra challenge, work all 100 W1AW portable operations — essentially a double WAS with W1AW!

Endorse the W1AW WAS Certificate with the Territorial Stickers for working W1AW/KH2, *Continued page 5*



## ARRL CENTENIAL - CONTINUED FROM PAGE 4

W1AW/KP4, W1AW/KP2, and any others that may be active, and also endorse with W1AW/3 from the District of Columbia (stickers are \$1 each).

**Centennial Points Challenge**

To compete in the Centennial Points Challenge, submit logs via Logbook of the World (LoTW). The system will automatically look for points-qualifying contacts from submitted logs and apply them to each participant's Centennial QSO Points table. QSOs do not have to be matched in LoTW for points to be achieved — this is an honor-based event. No paper forms or information will be accepted for the Centennial Points Challenge, however. Some points worth noting:

- ARRL-affiliated club call signs count for points.
- Repeater contacts are not valid for credit .
- Mobile and portable operations are okay but do not count for points in addition to home operation unless the operation takes place from another DXCC entity — ie, a contact with K0GW counts for K0GW, whether it is made with K0GW/4, or K0GW/m. A contact with PJ4/K0GW, however, counts for points separately, as this operation would be from the DXCC entity of Bonaire.
- Stations outside of the US may also count for points. More than 10,000 ARRL members live outside the US, and some of these are also volunteer examiners or DXCC card checkers. ARRL appointees, staffers, and officers should choose for their contact exchange the appointment or office held that offers the highest point value (this is how the database will work also). For example, K19XX is an ARRL Life Member (a LM is worth 2 points), a Volunteer Examiner (VE is worth 5 points) and a State Government Liaison (SGL is worth 30 points), so K19XX should use "SGL," since that offers the highest point value. In any event, the database will give credit for the proper point value.

The top-scoring operator from each ARRL Section, Canadian Province and DXCC entity will receive a First Place certificate. The Top Five overall point scorers will receive awards. There is a charge for award certifi

For full information, visit the ARRL Centennial QSO Party webpage. <http://www.arrl.org/centennial-qso-party>

**NARROW BAND EMERGENCY MESSAGING SOFTWARE**

Until recently manual/help files for fldigi have only been available in html (web) format and required doing screen prints for a printed version. The fldigi team just announced on the Yahoo groups site than an Adobe pdf version is now available. Information can be found below.

fldigi manuals Adobe pdf: [http://www.w1hkj.com/fldigi-help-new/Fldigi\\_User\\_Manual.pdf](http://www.w1hkj.com/fldigi-help-new/Fldigi_User_Manual.pdf)

fldigi manuals Html on-line format: <http://www.w1hkj.com/fldigi-help-new/html/index.html>

Rick K8CAV

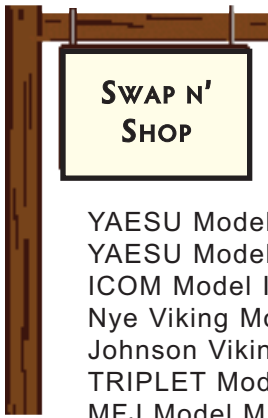
Rick Kruis <[rick.kruis@outlook.com](mailto:rick.kruis@outlook.com)>

Rick is a member of PCARS and the NBEMS Yahoo group from which he received this information. "Membership in that group gets you lots of current info on NBEMS/fldigi. The link to this site is: <http://groups.yahoo.com/neo/groups/NBEMSham/info> where you can request membership."

More from ARRL: <http://www.arrl.org/nbems> - Narrow Band Emergency Messaging Software (NBEMS) is an Open Source software suite that allows amateur radio operators to reliably send and receive data using nearly any computer (Windows, Mac, and Linux) and any analog radio without requiring a dedicated digital infrastructure or specialized modem hardware. NBEMS works on both VHF/UHF FM and on HF. In this presentation you will learn the basics of sending and receiving data using Fldigi. You will also see how to easily send and receive verified files and forms using Flmsg. NBEMS is the standard digital emcomm package for Western PA ARES.

Articles from members for the Wave Bender are encouraged. They must be received by the editor three days before the end of the month. Please send your articles to: [k8jaa@arrl.net](mailto:k8jaa@arrl.net), and put WRARC on the subject line of your email. You may also send your articles to the editor: Jane Avnet, 2050 E. South Range Rd., New Springfield, OH 44443

AB8AA, EQUIPMENT FOR SALE LIST



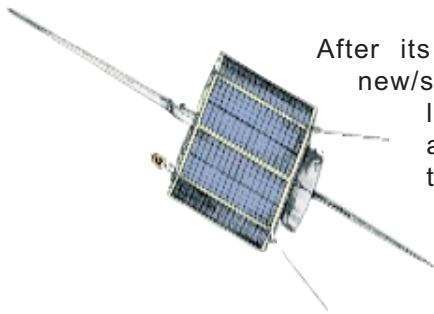
Heathkit Model IM-11 VTVM	\$40
4 - ASTATIC Model D-104 Microphone w/ TUG8 Stands (Lollypop)	
1 Excellent-	\$70
3 good-	\$40 ea
YAESU Model FT-11R 2Mtr FM HH w/Spkr Mic and Charger-	\$60
YAESU Model NC-50 Charger-	\$35
ICOM Model IC-V80 2Mtr FM HH w/ Extra Battery and Charger-	\$90
Nye Viking Model B V A, Antenna Tuner-	\$425
Johnson Viking Kilowatt Matchbox Model 250-30-	\$85
TRIPLET Model 630 VOM-	\$45
MFJ Model MF-J-250 50 ohm oil dummy load-	\$40
MFJ Model MFJ407B Electronic Keyer-	\$40
Heil Model HM10 4-5 Microphone with Stand-	\$50
Standard C1208DA 2 mtr FM Mobile	\$150
2 - MFJ-1702C, 2 Pos Coax Switch-	\$20 ea
Radio Shack Model 22-223 VOM-	\$10
Astron Model RS-12 12 Amp Power Supply-	\$45
Bencher BY-2 Paddle-	\$75
ASTATIC Model 10-D w/G Stand-	\$50
Electro Voice Model 664-	\$50
2ea- Electro Voice Model 638-	\$50
Shure Microphone and stand-	\$20
HUBBELL Outdoor Light Model PUL-0100S-118-120/208/240/277 volt, uses S54 Bulb	\$25
W1FFL Ladder-LOC-	\$10
Kenwood TL-922 linear -	\$1,500

All equipment is in top shape. Call or e-mail Al Avnet AB8AA, 330-207-3296 Email ab8aa@arrl.net

**HAM RADIO IN SPACE: HAPPY BIRTHDAY TO AO-7!**

The AO-7 Amateur Radio satellite turned 39 years old on November 15. Launched in 1974 from Vandenberg Air Force Base in California as the second AMSAT Phase 2 ham satellite, AO-7 continues to amaze.

AO-7 made the cover of the April 1974 edition of QST.



After its batteries succumbed to old age, AO-7 ([http://www.amsat.org/amsat-new/satellites/sat\\_summary/ao7.php](http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php)) went silent in 1981, only to spring back to life in 2002, although some believe it may have resurrected itself as much as a year earlier. AMSAT describes the Mode A/B bird as "semi-operational" and "almost certainly" running solely from its solar panels.

The ham satellite organization theorizes that AO-7's batteries shorted when they failed, but the short circuit subsequently opened, allowing the satellite regain some functionality. This means AO-7 only works when it receives direct sunlight, and it shuts down when in eclipse. Since the satellite returned, terrestrial users have enjoyed numerous contacts via AO-7.

AMSAT-NA this week offered its congratulations to all involved in the designing, building, launching, and operating the satellite, adding, "It's an amazing achievement that, other than the batteries, most of the circuitry continues to function normally 39 years after launch."

AMSAT newsletters from the 1970s and early 1980s are available, courtesy of KA9Q. N4HY offers a photo gallery depicting AO-7's construction and launch of AO-7. -- Thanks to Paul Stoetzer, N8HM, via AMSAT News Service

**If you don't pay your exorcist you can get repossessed.**

## WRARC AT THE GREATER YOUNGSTOWN HOME AND GARDEN SHOW

March 28,29,30, 2014 at the Austintown Expo Center, Mahoning Ave. - Save the dates. WRARC will again have a booth thanks to John KD8SPF. We will be looking for **volunteers** to help with the booth. This show is the official start of spring in the Youngstown area! The show now in it's 8th year gives patrons one last chance to see hundreds of exhibitors featuring season home show specials. Check their web page for more info about the show.

<http://www.ohiohomeshow.net/greateryoungstown.html>

The Greater Youngstown Home Show is always a highly attended event. A fun weekend for WRARC volunteers, the wonderful mix of exhibitors and fabulous landscaping displays make for a great home show experience. Parking is free at the Austintown Expo Center.



## WHAT'S ON THE AIRWAVES FOR JANUARY.

Taken from the web

2013 Dec20 to 2014 Jan 01, Bonaire, PJ4 by K9HZ as PJ4/K9HZ; 80-6m; QSL also OK via K9HZ and eQSL  
 2013 Dec21 to 2014 Jan10, Temotu, H40FN, by DK9FN fm Nendo I (OC-100); QSL OK via DARC Buro or direct

2013 Dec24 to 2014 Jan08, Namibia, V5, by DL3DXX

2013 Dec31 to 2014 Jan06, Namibia, V5, by DH3WO; holiday style operation

2014 Jan01 to 2014 Jan31, Bahamas, C6A, By 9H5G as 9H5G/C6A fm Stocking I (NA-001); 160-10m; SSB + digital; QSL also OK via NI5DX direct

2014 Jan02 to 2014 Jan07, SMO Malta, 1A0KM, By IK0FVC I0JBL IK0FTA IK0PRG IW0BYL I0ZY I0GOJ I0HCJ IK0DWN IK0XFD IK5HHA IZ0IEN IZ0NRG DK7PE DJ9ZB OH1VR S53R VE7NY; QSL also OK via IK0FTA

2014 Jan02 to 2014 Jan18, Namibia, V5, By DL9NDS as V5/DL9NDS and DJ2BQ as V5/DJ2BQ

2014 Jan03, to 2014 Jan21, Senegal, 6W7SK, By F6BLP; 160-10m; QSL also OK via F6BLP, REF Buro or direct + eQSL

2014 Jan09, to 2014 Jan14, Cambodia, XU7AE, By M6CFW fm Phonm Penh; HF; SSB

2014 Jan11, to 2014 Jan12, Martinique, FM, By SP7VC as FM/SP7VC, SP3IPB, SQ7OYL likewise

2014 Jan11, to 2014 Jan19, Cayman Is, ZF2PG, By K8PGJ; focus on 17 12 10m; QSL also OK via K8PGJ direct

2014 Jan13, to 2014 Jan19, Martinique, TO3JA, By JA3ARJ and JA1CJA fm NA-107 (DIFO FM-001, WLOTA 1041); call sign requested

2014 Jan15, to 2014 Jan16, Dominica, J79, By SP7VC SP3IPB SQ7OYL as J79VC and J79PB

2014 Jan17, to 2014 Jan18, Guadeloupe, FM, By SP7VC as FG/SP7VC, SP3IPB, SQ7OYL likewise

2014 Jan18, to 2014 Jan22, Montserrat, VP2M, By SP7VC SP3IPB SQ7OYL as VP2MPG and VP2MTK

2014 Jan21, to 2014 Feb21, St Kitts & Nevis, V47AJ, By N3ME W3UR fm St Kitts; 160-10m; focus on RTTY, some CW SSB

2014 Jan21, to 2014 Jan27, South Cook Is, E51CDW, By BA4DW fm Rarotonga I; HF

2014 Jan23, to 2014 Jan29, Dominica, J79, By SP7VC SP3IPB SQ7OYL as J79VC and J79PB

2014 Jan24, to 2014 Feb12, Amsterdam I, FT5ZM, By 9V1YC EY8MM FM5CD HK1R K4UEE K9CT LA6VM N4GRN N6HC VE3EJ VE7CT W6IZT WB9Z K0IR VA7DX UA3AB; dates planned

2014 Jan26, to 2014 Feb28, Burkina Faso, XT2AW, By DF2WO fm Ouagadougou; CW SSB; holiday style operation

2014 Jan15, to 2014 Jan16, Dominica, J79JG, By AD8J; mainly CW; QSL also OK via AD8J; holiday style operation

2014 Jan29, to 2014 Feb09, Guadeloupe, FG, By F6ITD as FG/F6ITD fm Basse Terre I (NA-102, FK96ch); HF; SSB + digital; QSL also OK via F6ITD (see qrz.com)

Have lots of good DX  
 AB8AA

## REGULATORY: PLANS ANNOUNCED TO UPDATE THE COMMUNICATIONS ACT OF 1934

The ARRL Letter for December 5, 2013 - The US House Communications and Technology Subcommittee has announced (below) plans for a multi-year effort to examine and update the Communications Act of 1934, the overarching law under which the FCC functions. The subcommittee, part of the US House Energy and Commerce Committee, is chaired by Oregon Republican Greg Walden, W7EQI. Walden and Energy and Commerce Committee Chair Fred Upton of Michigan made the announcement December 3.

"Today we are launching a multi-year effort to examine our nation's communications laws and update them for the Internet era," Upton said. "The United States has been the global leader in innovation and growth of the Internet, but unfortunately, our communications laws have failed to keep pace."



ARRL CEO David Sumner, K1ZZ, noted that the most recent significant update of the Communications Act was in 1996. "Under the leadership of Greg Walden, the subcommittee and its staff are well equipped to take up the challenge," Sumner said. "The ARRL will be monitoring the work closely as it goes forward next year and beyond." US Representatives Greg Walden, W7EQI (left), and Fred Upton announce plans via Google Hangout to update the Communications Act.

The plan was made public via Google Hangout, <<https://plus.google.com/events/cer3s9l6j41e9ml99d6in7v9m4k>> where the committee leaders were joined by former FCC Commissioner Robert McDowell, who said he was "delighted" to learn of the update plans. Upton explained that the process, to start in 2014, will involve a series of white papers and hearings focusing on what might be done "to improve the laws surrounding the communications marketplace as well as a robust conversation utilizing all platforms of digital media." He suggested a bill would be ready by 2015.

Walden said, "A lot has happened since the last update" and that the Communications Act is "now painfully out of date." He said he wants to open the discussion to input from everyone, and that interested parties may follow the plan's progress via Twitter. "It's important for people to have an opportunity to weigh in," he said. "This is really a public process to get better public policy."

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Upton and Walden Announce Plans to Update the Communications Act  
December 3, 2013

WASHINGTON, DC – House Energy and Commerce Committee Chairman Fred Upton (R-MI) and Communications and Technology Subcommittee Chairman Greg Walden (R-OR) today announced plans for the committee to examine and update the Communications Act. Upton and Walden made the announcement via Google Hangout, where the committee leaders were joined by former FCC Commissioner Robert McDowell as they outlined the need to update the law to better fit the communications marketplace of today.

"Today we are launching a multi-year effort to examine our nation's communications laws and update them for the Internet era," explained Upton. "The United States has been the global leader in innovation and growth of the Internet, but unfortunately, our communications laws have failed to keep pace. Throughout the recent economic downturn and recovery, the communications and technology sectors have remained stalwarts of our national economy - providing services that consumers demand while investing, innovating, and producing the high-quality jobs that all Americans strive for. We must ensure that our laws make sense for today but are also ready for the innovations of tomorrow."

"When the Communications Act was updated almost 18 years ago, no one could have dreamed of the many innovations and advancements that make the Internet what it is today. Written during the Great Depression and last updated when 56 kilobits per second via dial-up modem was state of the art, the Communications Act is now painfully out of date," said Walden. "We plan to look at the Communications Act and all of the changes that have been made piecemeal over the last 89 years and ask the simple question: 'Is this working for today's communications marketplace?' Our goal is to make sure this critical sector of our economy thrives because of the laws around it, not in spite of them."

*Continued page 9*



## UPDATE THE COMMUNICATIONS ACT - CONTINUED FROM PAGE 8

**Background**

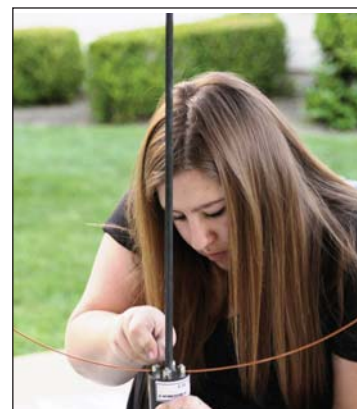
The Communications and Technology Subcommittee will begin a multi-year effort to examine and update the Communications Act. This process will involve a series of white papers asking questions about what can be done to improve the laws surrounding the communications marketplace as well as a robust conversation utilizing all platforms of digital media.

Keep up with the committee's efforts on Twitter using the hashtag #CommActUpdate.

- See more at: <http://energycommerce.house.gov/press-release/upton-and-walden-announce-plans-update-communications-act#sthash.CENvi7ha.dpuf>

**HAM RADIO IN SPACE**

High Schooler Returns to Her Elementary Alma Mater to Lead ISS Contact  
Sixteen-year-old Rebecca "Becca" Rubsamen, KJ6TWM, recently returned to her elementary school alma mater to help youngsters there speak via Amateur Radio with astronaut Mike Hopkins, KF5LJG, at the helm of NA1SS aboard the International Space Station. The November 13 event at Rancho Romero Elementary School in Alamo, California, was sponsored by the Amateur Radio on the International Space Station (ARISS) program. Becca Rubsamen, KJ6TWM, holds the mic as pupils at Rancho Romero Elementary School take turns asking questions of astronaut Mike Hopkins, KF5LJG, aboard the ISS.



"Becca approached Rancho Romero Elementary School, her alma mater, with the idea to do an ARISS contact there," her dad, Reid Rubsamen, N6APC, told ARRL. "She drafted the application, helped develop the curriculum, and convinced astronaut James Van Hoften to come to Science Night to help promote the contact. Becca and I were very excited about the whole thing!"

Becca assembled from a kit the Elecraft K3 and 2 meter transverter she used for the ARISS contact. "I built the antennas in my backyard," she explained on her website, which includes audio of the contact. "It took a flat bed truck and a fork lift to put them on the roof at Rancho!"

During the approximately 8 minute contact, the youngsters at the school posed a wide array of questions to Hopkins, who, responding to one student's query, explained that the ISS orbits Earth 16 times a day, making it hard to keep track of time. "We have a great group on the ground that helps up keep track of time and lets us know when it's time to go to bed," he said. Hopkins told the students that the crew members are "the guinea pigs" for some of the science experiments in space that are aimed at determining how humans fare in the spacecraft's microgravity environment, which, he pointed out, takes a toll on muscles and bones. "We exercise about 2 hours a day to try to counteract that bone loss," he said. But, he added, "You're never going to forget what it's like to float." Becca works on a VHF antenna in her backyard.

Becca's is a nearly all-ham family. Her mother, Amy, is KJ6WMF, and her 13-year-old brother Mike is KJ6WMG. Only her 7-year-old brother is not yet licensed. According to her dad, Becca believes the CubeSats may be "the next big thing" to promote ham radio and STEM (science, technology, engineering, mathematics) education. "She is going to install a permanent UHF/VHF ground station at Rancho Romero to help this happen," he told the League.

Tim Bosma, W6MU, served as the ARISS mentor for the contact. He told the Contra Costa Times newspaper that Becca was among the youngest people to act as a lead operator" for a school contact. "It's very impressive," he said, adding that it was something he had not seen in his 30 years as a mentor for the program. He is working with Becca as they plan the installation of a VHF/UHF ground station at Rancho Romero to work Amateur Radio satellites.

ARISS is an international educational outreach with participation from ARRL, NASA, ESA, the Russian Space Agency (ROSCOSMOS), CNES, JAXA, CSA and AMSAT.

## RADIO SHACK'S LOSSES MORE THAN DOUBLE

I get emails all the time from customers waxing fondly about the days of old when Radio Shack was more than just a store, but a place where people who loved electronics would hang out. Those days are long gone and when I recently saw the headline "Radio Shack's Losses More Than Double" part of me was sad that this chapter in electronics component history appears to be quickly closing.

There was a time when the future of electronics was easy to predict. Components would keep getting smaller and harder for those of us with fat fingers to work with. Electronics as a hobby was quickly dying and many were predicting it would die out as the old hobbyists died off.



"Radio Shack was founded back in 1921 to service the ham radio market, but in the 1960s and 70s, with the help of Charles Tandy, Radio Shack emerged as everyone's neighborhood electronic components store. But at some point in the 1990s that all changed. The component section got smaller and smaller until it virtually disappeared. The emergence of consumer electronics began to dominate and squeeze out the folks who thought a screwdriver in their shirt pocket was a fashion statement.

Many people I've spoken to remember Radio Shack not as a store but as a destination where they could meet and discuss the hobby that they loved. Radio Shack was a community and that's why for many the evolution was so frustrating.

But something happened in the new millennium. I can't say anyone at Jameco was smart enough to predict the electronics hobbyist market would reverse course and start to grow, but when it did we certainly recognized the void left by Radio Shack. We did our best to support Radio Shack's old customers, and we even tried to create a bit of that old community with our newsletters, products and programs.

What's most surprising about the resurgence in electronics as a hobby is that it has been driven by young people. From middle schools to high schools and universities, we're seeing a new breed of electronics hobbyists with exciting new energy. It's also heart-warming to see grandfathers and grandsons finding that they have electronics as a hobby in common (plus a few grandmothers and granddaughters). It's curious that in many cases the love for electronics seems to have skipped a generation.

There is a lot of passion wrapped up in both electronics as a hobby as well in Radio Shack and its evolution. Jameco sees plenty of future growth to come in this area, and from our pricing strategies to our product offering to our new Club Jameco website, we're doing everything we can to fuel passion for electronics as a hobby.

Do you miss the good old Radio Shack days? Take a moment to drop me a note and tell me your favorite Radio Shack memory and, if we get some good ones, we'll publish the best stories in next month's newsletter. Send your submission to [MyStory@Jameco.com](mailto:MyStory@Jameco.com).

Greg Harris [Greg@Jameco.com](mailto:Greg@Jameco.com)  
Vice President, Marketing  
Jameco Electronics <http://www.jameco.com/>

## ARLB036 ARRL FILES COMMENTS ON ITS "SYMBOL RATE" PETITION

The ARRL has filed comments with the FCC on its own Petition for Rule Making RM-11708 (plus Erratum) - the so-called "symbol rate" petition. Although the League rarely files formal comments on its own petitions, ARRL General Counsel Chris Imlay, W3KD, citing the high level of interest in the proceeding, said, "[T]his is clearly an exceptional circumstance." RM-11708 proposes to drop the symbol rate limit in Â§97.307(f) of the FCC Amateur Service rules, substituting a maximum occupied bandwidth of 2.8 kHz for HF *Continued page 11*

## ARLB036 - CONTINUED FROM PAGE 10

data emissions.

The comments may be found on the web at, <http://apps.fcc.gov/ecfs/document/view?id=7521063715>. "More than 700 comments have been filed thus far, which is a large number indicating that the issue of data communications is an important one in the Amateur Radio Service," the ARRL commented. "It is also gratifying that the majority of the filed comments are supportive of the proposals in the Petition." Imlay said the League also would file reply comments - ie, comments on filed comments - on its petition by the January 7, 2014, deadline, "dealing specifically with the arguments of substance contained in opposing comments."

The ARRL's comments to the FCC echo the points it made in a briefing memorandum made public in mid-December. The memo attempted to clarify just what it is - and is not - asking the FCC to do. The League said some comments filed in opposition to its petition "are premised on certain recurring misconceptions or errors" that, the ARRL allowed, were "understandable" given that the rules governing Amateur Radio MF and HF emissions "are not entirely straightforward or intuitive."

In general, the ARRL said, the petition would have no effect on HF subbands where phone and image emissions are now allowed. "The petition would not permit digital voice transmissions in the data and RTTY subbands, because digital voice is defined in the Commission's rules as voice (ie, phone), not data," the ARRL stressed in its comments. The petition would have no effect on CW operation in the HF bands either, and restrictions on automatically controlled digital stations would remain unchanged as well.

"It is hoped that those who have filed comments in this proceeding or who anticipate doing so will review the above summary of what the Petition in this proceeding does and does not propose, and that they will find it helpful in evaluating the proposal for themselves, unhindered by any misconceptions about the existing rules or the proposed changes," the ARRL said in its comments.

The ARRL comments also took pains to address the proposed 2.8 kHz maximum bandwidth for HF data emissions. "Some comments say that bandwidths greater than 2.8 kilohertz for data emissions should be permitted in order to permit a wider array of data emissions now and in the future," the ARRL said. "Others argue that 2.8 kHz is too wide, potentially allowing usurpation of the band to the detriment of CW and other narrow-bandwidth emissions."

The recommended 2.8 kHz maximum, the ARRL said, was an attempt to balance two competing objectives - facilitating the use of current and future data emissions and protecting against a situation where a few data stations take over a band.

"Some bandwidth limit is necessary, if the outdated symbol rate limit is eliminated, as it should be," the League argued, adding that it would be "undesirable" to permit an environment where "a few data stations using large swaths of spectrum could operate to the detriment of other modes in the very narrow HF amateur allocations." Nor would it be possible, the League said, to drop the maximum HF data emission bandwidth much below 2.8 kHz without prohibiting permitted data modes already in use.

The League's petition now tops the FCC's "Most Active Proceedings" list. As of the December 23 comment deadline, more than 850 comments had been filed.

### I GET EMAILS

Don Kalinowski, NJ2E of Cary, North Carolina sent a tip on space weather coverage by the British Met (Meteorological) Office, which will begin in Spring 2014. You can read about it here:

<http://www.bbc.co.uk/news/science-environment-25517466>

And here:

<http://www.metoffice.gov.uk/news/releases/archive/2013/space-weather-forecasts>

Don also sent a link to this interesting video from NASA:

<http://www.youtube.com/watch?v=kS57VH3QN1g>

Propagation Forecast Bulletin 53  
From Tad Cook, K7RA

STOLEN FROM PCARS

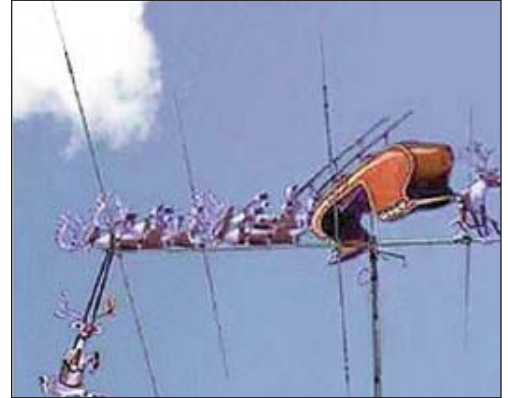
**Christmas Delivery Delays**

If anyone didn't get their gifts on time for Christmas, I think we found out why. It was not that UPS or FedEx was overloaded. This picture was snapped showing what appears to be the actual reason that Santa was late in getting all that amateur radio gear delivered on time.

We also found out that the high SWR is what makes Rudolph's nose light up. I guess he had an overload.

Daryl, WX1DER

Photo courtesy of Rick, KA2BSM



**YOU'RE INVITED**

to a very special PCARS meeting Monday, February 10, 2014, 7:00P.M.. PCARS will be hosting a live Skype presentation with Bob Heil K6EID. PCARS meets at Stringz & Wingz - Located at 1543 State Route 303 in Streetsboro, Ohio

**Cost of QSLing to Go Up - Again**

Mailing a letter (with a QSL Card) will cost one cent more, or 47 cents, starting on January 26th. The Postal Regulatory Commission ruled that the agency can raise the price in keeping with the cost of inflation. Prices could go even higher as the commission is considering a postal service proposal to raise money. The U.S. Postal Service had asked for a total price hike of another 3 three cents, which would ultimately make first-class mail stamps cost 49 cents. The price of sending a QSL card (postcard) would remain the same, at 33 cents, although the postal service is seeking to hike rates to 34 cents as part of its broader rate hike request.

**Stainless Steel Hardware - Thread Galling**

Occasionally a DX Engineering customer will call with a problem about the stainless steel hardware sent with our products. Usually the complaint is the hardware "seized" or "froze up". When that happens, the only thing that can usually be done is to cut the clamp or bolt apart to get it loose. So why do we use the hardware that freezes up?

There is nothing wrong with the hardware. What is wrong is how users unknowingly mistreat it. The hardware we use is top quality stainless steel. We use stainless steel for a few reasons: it's tough, it lasts a long time and it won't corrode over time. If the hardware was common steel, it would corrode which can make disassembly nearly impossible. So why does stainless steel hardware freeze up? The problem is called "Thread Galling". Thread galling is common with fasteners made of stainless steel, aluminum, titanium, and other alloys which self-generate an oxide surface film for corrosion protection. During tightening, as pressure builds between the contacting and sliding thread surfaces, protective oxides are broken, possibly wiped off, and interface metal high points shear or lock together. This cumulative clog-ging-shearing-locking action causes increasing adhesion. In the extreme, galling leads to seizing - the actual freezing together of the threads. If tightening is continued, the fastener can be twisted off or its threads ripped out. Sometimes this is referred to as "cold welding".



Anyone who has had or seen a bolt and nut with this problem can understand this description. It's not cheap hardware; it's the lack of common preventative measures that should be taken when using stainless steel hardware.. So, what can we do to eliminate the possibility of galling? Lubricating the threads frequently eliminates thread galling. The suggested lubricants for our stainless steel hardware are Anti-Seize or Never-Seez® products available from DX Engineering. Using a thread lubricant on new stainless steel hardware is a must. We have seen a stainless steel V-bolt seize up even when putting the hardware on by hand! Just spinning on the nut produced enough heat between the threads to cause them to freeze up! Using a good Anti-Seize or Never-Seez® on all stainless steel hardware is a must. A small amount of this lubricant on the threads will do the job and you will not have to 'break your knuckles' getting frozen hardware removed.

*Continued page 13*



STOLEN - CONTINUED FROM PAGE 12

**Freeze Your Acorns Off**

**Feb 15, 1500Z-2100Z, K8BF/FYAO, Kent, OH.  
Portage County Amateur Radio Service.  
28.350 21.300 14.250 3.875 EchoLink thru the K8SRR Node.**

**Certificate. Robert Hewett , K8FEY, 3670 Sea Ray Cv, Reminderville, OH 44202.  
FYAO Stations will use their own call/FYAO. For 8x10 color Certificate, send appropriate sized SASE.  
www.portcars.org**

My Thanks to Parky, editor of the award winning PCARS Radiogram Jan.,14 issue - ed

**HEATHKIT**

A number of our fans have found some ingenious and unexpected methods of sending in inquiries, suggestions, and even resumes to the Heathkit team, as well as sharing with us wonderful childhood memories of kit-building. We're very excited to see such an outpouring of support.

On Friday 20-December-2013, we took a brief pause in our own soldering to answer your questions on Reddit in an "Ask Me Anything" session, a sort of town hall meeting where you could pose questions and read our answers. One of our Board Members fielded your questions about Heathkit.

The link to the Reddit AMA session Blog is:

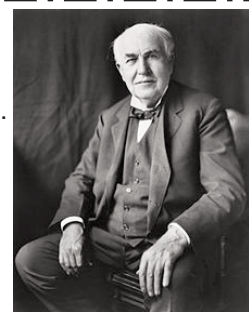
<http://jefftranter.blogspot.com/2013/12/heathkit-ask-me-anything-session.html>

<http://www.heathkit.com/>

Celebrating the Birth and Birthplace of Thomas Edison

Feb 8-Feb 9, 1500Z-2100Z, NI8G, Milan, OH. The Thomas Edison Memorial Radio Club.  
28.370 21.270 14.270 7.270.

Certificate & QSL. Jack Hubbard, 13113 River Rd, Milan, OH 44846.  
SASE required; e-QSL available.

**THE LAST WORD****We Need Your Help**

WRARC is an organization where everyone is critical to the success of the club. When WRARC was first started, we said that it was important that everyone who ever comes to any of our events or meetings needs to feel like they are a welcome part of what is going on. I believe that that has been one of the hallmark that set WRARC apart from others. But, this is not just a task for the president, or the officers, this is the responsibility of every WRARC member. Unfortunately, as time goes on, we sometimes forget what it was that made us successful in the beginning and fall into bad habits.

We come to the meeting and look around. There's a guy who didn't seem pleasant to me once, I'm going to avoid him. That group didn't embrace my good idea and make it a part of the operation, forget them. Here's a table with a few of my friends, I'll just sit there and enjoy their company. Pretty soon, we can end up with a lot of little cliques and a club that is fragmented. My hope is that this will never happen at WRARC. PLEASE – make a conscious effort to be a friend to all of our members. Greet them and welcome them to any of our events. We're all just human, give us a break!

Does this really happen? Can hams, especially those who are recently licensed, be turned off to the hobby or a club because of the way they are treated? I've seen it happen, I hope it never happen here.

**WESTERN RESERVE AMATEUR RADIO CLUB**

**MEMBERSHIP APPLICATION**

Mail to: Maureen Stein KD8NXS  
3088 Southwind Tr., Poland, OH 44514

PLEASE PRINT LEGIBLY

Check one:  New Membership  Membership Renewal Today's Date \_\_\_/\_\_\_/20\_\_\_

Applicant Name 1: \_\_\_\_\_ Birth Date: m\_\_\_/d\_\_\_ M  F

Call: \_\_\_\_\_ Class: \_\_\_\_\_ Expires: \_\_\_/\_\_\_/\_\_\_ Member # \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Home Phone: (\_\_\_\_) \_\_\_\_\_ Cell: (\_\_\_\_) \_\_\_\_\_ Work: (\_\_\_\_) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ ARRL Member: Y N Date Expires \_\_\_\_\_

Applicant Name 2: \_\_\_\_\_ Birth Date: m\_\_\_/d\_\_\_ M  F

Call: \_\_\_\_\_ Class: \_\_\_\_\_ Expires: \_\_\_/\_\_\_/\_\_\_ Member # \_\_\_\_\_

Home Phone: (\_\_\_\_) \_\_\_\_\_ Cell: (\_\_\_\_) \_\_\_\_\_ Work: (\_\_\_\_) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ ARRL Member: Y N Date Expires \_\_\_\_\_

Publish phone numbers in membership roster?  Email?

What are your interests? \_\_\_\_\_

Bands Worked? \_\_\_\_\_

\_\_\_\_\_ SkyWarn (\_\_\_\_) \_\_\_\_\_ RACES (\_\_\_\_) \_\_\_\_\_ ARES (\_\_\_\_) \_\_\_\_\_ EMA (\_\_\_\_) \_\_\_\_\_ CPR (\_\_\_\_)

A \$5.00 initiation fee will be assessed in the first year of membership for all new members. Membership year is Jan 1 - Dec 31. Dues are due no later than Jan 31 for the following year. Dues are as follows: Example - Regular Member Pays on Jan 1 \$20 for entire year. If paid on July 1 or after, \$10 for remaining portion of the year.

\$ \_\_\_\_\_ Initiation Fee \$5.00 (Payable first year only or late renewal)

\$ \_\_\_\_\_ Full Membership (\$20.00 full year, \$10.00 If paid in July or later)

\$ \_\_\_\_\_ Additional Family Members, same address (\$5.00 ea).

\$ \_\_\_\_\_ Associate Membership (\$20.00 full year, \$10.00 half year)

\$ \_\_\_\_\_ Senior Membership 65+ (\$16.00 full year, \$8.00 half year)

\$ \_\_\_\_\_ Total Enclosed.



Please do not write below this line. Date Voted \_\_\_/\_\_\_/20\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_/\_\_\_/20\_\_\_

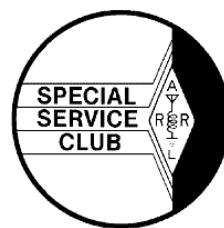
Database updated \_\_\_/\_\_\_/20\_\_\_ By \_\_\_\_\_ MA1/18/13





DECEMBER MEETING



# January 2014



12/29	12/30	12/31	1 Skywarn Net 8:30 P.M. 146.745	2	3 Comm Unit net 8:00 PM 145.270 WRARC Net 9:00PM 145.270	4
5 After the Holidays Annual Meeting Reservation Deadline	6 ARES Net 8:30 PM 146.745 PL 110.9	7	8	9	10 Comm Unit net 8:00 PM 145.270 WRARC Net 9:00PM 145.270	11
12 After the Holidays Annual Meeting 3:00P.M. A La Cart	13	14 Eat'n Park Boardman 8:30 A.M. Ham Community Breakfas	15	16	17 Comm Unit net 8:00 PM 145.270 WRARC Net 9:00PM 145.270	18
19	20 ARES Net 8:30 PM 146.745 PL 110.9	21	22	23	24 Comm Unit net 8:00 PM 145.270 WRARC Net 9:00PM 145.270	25 Comm Unit Meeting 9:00 AM
26	27	28 Eat'n Park Boardman 8:30 A.M. Ham Community Breakfast	29  WaveBender Articles Due	30	31  Happy Birthday KC8WUX KC8WY KD8DWV	2/1 Comm Unit net 8:00 PM 145.270 WRARC Net 9:00PM 145.270