

# April 2016 Newsletter

## Big Island Amateur Radio Club



### *Up above, Down Under*

Richard and Barbara Darling are back at their Puna QTH after a trip Down Under. Among the highlights: In Panama, a guide took them on a nostalgic tour of sites familiar to Richard when he and his family lived there in the 1940s. On island after island, they connected with friends old and new. In Sydney, they met the son of a Micronesian ham Richard talks to almost every night. And in Blenheim at the Omaka Aviation Heritage Centre, Richard got to ride in a Vintage Bi-Plane for 20 minutes and picked up a new handle, The Red Baron. Sources close to the famed aviator report he is still on cloud nine.

## March meeting a tribute to W6ORS, W1AW

Beginning and ending with a recording of a bugler playing "Taps," President Bob Schneider, AH6J, opened the March meeting with a short ceremony of remembrance for Corky Kirk, W6ORS, a longtime Big Island ham and BIARC stalwart who died recently. Bob, the outgoing ARRL Section Manager for our area of the Pacific, also showed a video about the ARRL centennial which included a tour of W1AW HQ (at right) on the East Coast.

***Photos by Linda Quarberg***



*At home at the W6ORS shack in Hilo*



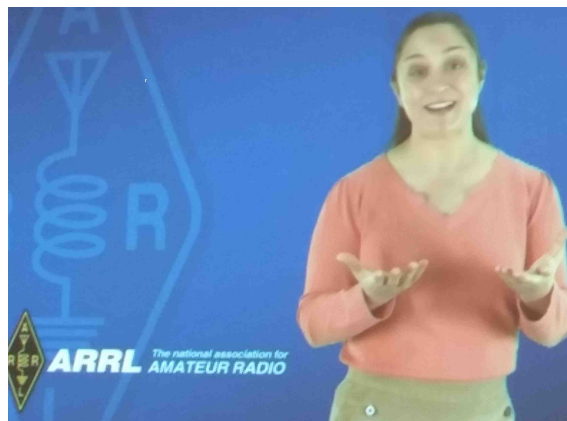
*Aloha, o'e, Corky*

*We'll miss the Old Rusty Sub!*





## **BIARC takes tour of W1AW at March meeting**



In 1914, Hiram Percy Maxim of Hartford, Connecticut, was a prominent businessman, engineer, and inventor (notably of the Maxim Silencer). He was also an active radio amateur, with one of the best-equipped stations in the Hartford area. One night in April he attempted to send a message to another ham in Springfield, Massachusetts. He had a one-kilowatt station (call 1WH), and Springfield was only 30 miles (48 km) away, well within his normal range. He was unable to make contact, and remembering that he knew another ham in Windsor Locks, about halfway, he contacted the Windsor Locks ham, and asked him to relay the message, which was successfully done. This was not the first time a message had been relayed, but it set Maxim to thinking. At that time, a great deal, perhaps most of amateur radio activity consisted of sending and receiving messages, not only between amateurs, but involving the general public as well. But at that time the maximum reliable range of a station was a few hundred miles or less, and so Maxim realized that a formally organized relay system would be of tremendous use to amateurs.

Maxim was a member of the Radio Club of Hartford, and he presented a plan for the organization of an "American Radio Relay League" (he had already decided on the name) to the club at its April 1914 meeting. The club agreed to sponsor the development of such an organization. Maxim and

Clarence Tuska, the secretary of the Hartford Radio Club, developed application forms and sent them out to every amateur station they could think of. Although they limited membership to highly qualified amateurs only, the response was tremendous. By September 1914 they had over 230 stations on the roster.

Changes over the ensuing century have been many and mind-boggling.

Now in this modern age of high-tech equipment and a world served by satellites, there are the American Radio Relay League (ARRL) and the Radio Amateurs of Canada (RAC). There are currently 71 sections in the ARRL, (United States) and 12 sections in the RAC (Canada). ARRL headquarters are in Newington, Connecticut. Today the organization has more than 161,000 members.

W1AW is both the amateur radio call sign and the primary operating station of the American Radio Relay League (ARRL). This station, which is commonly called the Hiram Percy Maxim Memorial Station, is located on the grounds of ARRL Headquarters in Newington, Connecticut. It was inspired by Maxim's 1AW callsign which predated the use of the AA-AL, K, N and W prefixes.

The station routinely transmits bulletins and Morse code practice using common amateur radio frequencies. During a communications emergency bulletins are transmitted hourly in order to keep amateur radio operators informed.

## **ARRL Section Manager's Report for March 2016**

March 31st is the last day for outgoing SM (section manager) Bob Schneider, AH6J and April 1st is the first day for the new SM Joe Speroni, AH0A. Both Joe and Bob attended the March breakfast meeting of the Honolulu Amateur Radio on

Saturday March 19th and did a small change of command introduction. Please give Joe your support. Joe is uniquely qualified in that he has a license from CNMI (AH0A) and has lived in Guam, CNMI and Japan. Since Joe now lives on Oahu, he

should be a little more available, however he, too, is plagued with land use restrictions and limited antenna availability (CC&R's).

In the Pacific Section, Speroni, AH0A, of Honolulu received 228 votes, to 103 for Kimberly Fendt, WH6KIM, of Mountain View. Speroni has been the Pacific Section's Affiliated Club Coordinator and maintains a variety of Amateur Radio-related interests. Kim was the former DEC for East Hawaii.

Schneider, of Keaau, decided not to run for another term after serving for the past 10 years. Schneider also had served earlier as Pacific SM from 1992 to 1996 and from 2002 to 2004. That is a total of 16 years as Pacific SM. When asked what stands out, he said, Iniki and getting QST delivered in a timely manner. When asked about the downside, there is only one answer: "CC&R's: They are killing us."

We want to especially thank Kim, who ran against Joe. It is always wonderful when someone is willing to volunteer for leadership positions. We look forward to a long and productive career for her and her husband, Sean. Thank you very much for being willing to "step up to the plate".

While in Honolulu, your SM used the opportunity to visit all four local offices of our congress people. The reception was cordial and some of the local staff now have a better idea about the Amateur Radio Parity act. The four Hawaii local congress people are in the federal building at 300 Ala Moana Blvd. While access is a bit of a pain, it is located right next to a bus stop. Be prepared to go through a security screening, but access is open. More people should visit the offices, because nothing beats a personal visit for impact.

The "local" addresses of our congress people are below. Please write letters NOW and send them to both the local offices and the ARRL who will hand them to the people in Washington DC. Be sure to especially contact Senator Brian Schatz's office. Ask him to support S-1685. Ask him to be a co-sponsor. He voted against the bill in committee.

Senator Brian Schatz (D-HI), 300 Ala Moana Blvd., Rm 7-212, Honolulu, HI 96850, (808) 523-2061 & Washington office (202) 224-3934; Senator Mazie Hirono (D-HI), 300 Ala Moana Blvd. Rm. 3-106, Honolulu, HI 96850, (808) 522-8970 & Washington office (202) 224-6361; Representative Tulsi Gabbard (D-HI), 300 Ala Moana Blvd. Rm. 5-105, Honolulu, HI 96850, (808) 541-1986 &

Washington office (202) 225-4906; Representative Mark Takai (D-HI), 300 Ala Moana Blvd Rm. 4-104, Honolulu, HI 96850, (808)-541-2570 & Washington office (202) 225-2726.

The non-voting members of the House may be co-sponsors of bills, so it is important to contact them also. They are: Representative Amata Coleman Radewagen (AS), 1 Fagatogo Square, Fagatogo, AS 96799, (684) 633-3601 & Washington office (202) 225-8577; Representative Gregorio Sablan (I) CMNI, Saipan Office, P.O. Box 504879, Saipan, MP 96950, (670) 323-2647/8 & Washington office: (202) 225-2646;

( If you write to Madeleine Bordallo of Guam, be sure and thank her for being a co-sponsor of the House bill. Your SM already sent a certificate of appreciation to her office. An outpouring of gratitude could go a long ways toward our goal. Representative Bordallo signed on as a cosponsor of HR-1301 on 09/16/2015. We and all the Hams in the US want to say "THANK YOU VERY MUCH".) Bordallo can be reached at: 120 Father Duenas Avenue, Suite 107, Hagåtña, Guam 96910, (671)-477-4272 & Washington office: (202)-225-1188.

The ARRL HF and VHF "Go Kits" are now back in Hawaii ready for redeployment. The kits are yet another example how the ARRL uses your dues for the general benefit of all Amateur Radio operators. In sending ARRL "Go Kits" to FSM, we've learned that transporting the kits is not easy and is expensive. There is now a second HF and VHF "Go Kit" on Guam for easier and quicker deployment to the Western Pacific.

The Cal-Pac RC upgraded the Mauna Loa site antennas and took the six meter beacon off the air. It will be back sometime in the future however it has not been decided if it will be put back at Mauna Loa. The picture of the KH6HME memorial brick at ARRL HQ is in the photo files at the bottom of the Pacific Section website along with other pictures of the Mauna Loa site. The brick was donated by BIARC member Chuck McConnell, W6DPD of Fresno.

**73 es Aloha;**  
**Outgoing ARRL Pac. Section Manager Bob**  
**Schneider, AH6J, ah6j@arrrl.org**  
**Incoming ARRL Pac. Section Manager: Joe**  
**Speroni, AH0A, ah0a@arrrl.org**

# All hams invited to sign up to kokua ARES emcomms

The Amateur Radio Emergency Service (ARES) is made up of Amateur Radio operators, who have registered their equipment and qualifications with ARES. These amateur radio operators provide volunteer communications services in times of disaster or civil emergency.

The ARES national organization is comprised of smaller regional organizations, each being within an ARRL Section. The web page listed later in this article serves the Hawaii Section, covering the entire state of Hawaii, managed by the Hawaii ARRL Section Emergency Coordinator (SEC).

Hawaii ARES is segmented into four counties, which are aligned with Hawaii Bureau of Homeland Security Regions. Each county is

organized into districts, each having an assigned District Emergency Coordinator (DEC) or Emergency Coordinator (EC).

Hawaii ARES members participate in NET (i.e. Network or on-the-air information gathering) operations, exercises and training. These activities may be organized at the statewide, county or district levels. ARES is open to all Amateur Radio operators. You don't need to be a member of the ARRL to join ARES.

Please join us! Amateur Radio operators can enroll in the Hawaii Amateur Radio Emergency Service by selecting the Register New Member menu item under the Members menu at <http://www.hawaii.ares.info/>

For more information, contact area coordinator Kim Fendt at [wh6kim@gmail.com](mailto:wh6kim@gmail.com), 430-7297 or P.O. Box 1030, Mountain View, HI 96771.

## Aloha from the Aloha Chapter of 10-10 International

Events on the 10 meter band got underway Jan. 1 at 0001UTC and will run until Dec. 31 2359UTC.

Logs from this year will be due in January 2017; only members in good standing (with dues paid) are allowed to submit logs. Let's get those logs in and put Hawaii on the map.

Don't forget, all licensed amateur radio operators, including those at Technician level, are invited to join in the HF ARES Net for Hawaii.

The statewide net is held each Tuesday at 7 p.m., HST, at 3.993.5.

Upcoming events:

Sat Apr 23, 2016 00:00 Sun  
Apr 24, 2016 23:59  
Spring Digital QSO Party  
Sat May 07, 2016 00:00 Sun  
May 08, 2016 23:59  
Spring CW QSO Party  
Sat Jun 04, 2016 00:00 Sun  
Jun 05, 2016 23:59  
Open Season QSO Party  
Mon Jul 04, 2016 00:00 Sun  
Jul 10, 2016 23:59  
Spirit of 76 QSO Party  
Sat Aug 06, 2016 00:00 Sun



Aug 07, 2016 23:59  
Summer Phone QSO Party  
Sun Oct 09, 2016 00:00  
1010 Sprint  
Sat Oct 15, 2016 00:00 Sun  
Oct 16, 2016 23:59  
Fall CW QSO Party  
Sat Nov 12, 2016 00:00 Sun  
Nov 13, 2016 23:59  
Fall Digital QSO Party

***73 and aloha,  
Irene, NH7PE***





## NPOTA

--- ARRL officials note that National Parks Week is April 16-24, a happy alignment for National Parks on the Air operators, as World Amateur Radio Day is April 18. If you plan to be on the air from an NPS site for World Amateur Radio Day, e-mail the details to [npota@arrl.org](mailto:npota@arrl.org). Follow NPOTA on Facebook and Twitter (@ARRL\_NPOTA).

## BIARC 2016 leadership roster

President Bob Schneider, AH6J, [ah6j@arrl.net](mailto:ah6j@arrl.net);  
 Vice President Peggy Gentle, KE6TIS, [radiopeg@gmail.com](mailto:radiopeg@gmail.com)  
 Secretary Beau Mills, NH7WV, [beau.mills@helcohi.com](mailto:beau.mills@helcohi.com);  
 Treasurer Doug Wilson, KH7DQ, [douscelle@aol.com](mailto:douscelle@aol.com)  
 Directors Bill Hanson, N0CAN, [whanson@co.hawaii.hi.us](mailto:whanson@co.hawaii.hi.us);  
 Barbara Darling, NH7FY, [nh7fy@yahoo.com](mailto:nh7fy@yahoo.com)  
 Richard Darling, AH6G, [ah7g@yahoo.com](mailto:ah7g@yahoo.com)  
 Ted Brattstrom, NH6YK, immediate past-president, [volcanoted@hotmail.com](mailto:volcanoted@hotmail.com);  
 and returning Directors Gus Treewater, K2GT, [gtreewater@gmail.com](mailto:gtreewater@gmail.com);  
 Dennis McCartin, WH6ELY, [dsmccar@earthlink.net](mailto:dsmccar@earthlink.net);  
 and Paul Ducasse, WH7BR, [ducasse@hawaii.rr.com](mailto:ducasse@hawaii.rr.com).  
 BIARC Program Committee co-chairs John Bush, KH6DLK (V63JB), [amsjbush@gmail.com](mailto:amsjbush@gmail.com);  
 and Les Hittner, K0BAD,

[lhittner@hbci.com](mailto:lhittner@hbci.com).  
 Repeater Committee Chair Bill Hanson, N0CAN, [whanson@co.hawaii.hi.us](mailto:whanson@co.hawaii.hi.us), assisted by Paul Ducasse, WH7BR, [ducasse@hawaii.rr.com](mailto:ducasse@hawaii.rr.com);  
 Paul Agamata, WH6FM, [sysman@xceptions.com](mailto:sysman@xceptions.com);  
 Bob Schneider, AH6J, [ah6j@arrl.net](mailto:ah6j@arrl.net); and Lopaka Lee, WH6DYN, [pakalee@gmail.com](mailto:pakalee@gmail.com).  
 Field Day Committee Chair Peggy Gentle, KE6TIS, [radiopeg@gmail.com](mailto:radiopeg@gmail.com);  
 Co-Chair Robert Oliver, NH6AH, [oliver@reotron.com](mailto:oliver@reotron.com).

## Resources of interest.

ARRL Pacific Section:  
[www.arrl.org/Groups/view/pacific-section](http://www.arrl.org/Groups/view/pacific-section)

Hawaii repeater coordination:  
[www.hawaiirepeaters.net](http://www.hawaiirepeaters.net)  
 Ron Hashiro's local happenings:  
[www.qsl.net/ah6rh/am-radio/in-hawaii.html](http://www.qsl.net/ah6rh/am-radio/in-hawaii.html) (There is a new feature telling about the history of the early repeaters in Hawaii, especially EARC Diamond Head 146.28/146.88 MHz)

## BIARC Classified Ads

### For Sale:

Heights 66' Freestanding Aluminum Crank up tower. Easy to permit. It's down. You haul away. \$300.  
 Other guyed tower available.....call.  
 Kenwood TS-450SAT 100w HF SSB-CW, Antenna tuner, full of CW filters. Matching SP-23 speaker, Original boxes, Manual, Service manual. Original owner, mint condition. \$600.  
 DK3 HF Mobile Screwdriver antenna. 80-10 (6?), SS whip, Up-Dwn Control. Manual. High

quality. Adapt mount to your vehicle or use at your apartment/condo. \$100.  
 Knight-Kit T-60 CW-AM transmitter. Complete. Good CW note. Front panel rough, manual. \$50.  
 Free used EHS guywire to someone who will really use it.  
 Misc aluminum antenna elements and parts, FREE to someone who'll really use it to build antennas. Lloyd KH6LC (808-966-7782)



*(Editor's note: Special surprise at end for all who read the whole letter!)*

**--- The Worldwide Repeater Directory now will include coverage maps for all repeaters on Earth.**

In February, the ARRL established an agreement with RFinder, the creator of a web- and app-based directory of Amateur Radio repeaters worldwide, to serve as its preferred online resource of repeater frequencies. RFinder has partnered with CloudRF.com to provide the maps.

"Our systems are busy rendering and indexing coverage maps, based on ground-path loss using the Longley-Rice irregular terrain model," explained RFinder Creator Bob Greenberg, W2CYK. "We have worked with Alex Farrant, M6ZUJ, creator of CloudRF.com, to render coverage maps for nearly the entire collection of repeaters in RFinder's database."

RFinder has downloaded and will serve as a host for KMZ (Keyhole Markup Language Zipped) overlays for Google Earth. The resulting KMZ place marker files will be viewable in Google Earth on Windows and Mac platforms (via [web.rfinder.net](http://web.rfinder.net) and [routes.rfinder.net](http://routes.rfinder.net)) and on Android and iOS versions of RFinder. The Windows and Mac versions allow the viewing of multiple coverage maps at the same time. As part of this project, RFinder will provide free access to repeater coordinators worldwide. As coordinators update repeaters with height above average terrain (HAAT), power and gain, and latitude and longitude, maps will be automatically re-rendered within a few minutes and made available to subscribers. The sign-up procedure for the repeater coordinator program will be announced later this month. The new capability is expected to ease the work of repeater coordinators, as they will easily be able to see

repeater coverage maps side by side for both coordinated and uncoordinated machines -- information critical as simplex nodes for Internet linking, cross-band repeaters, and homebrew repeaters crop up worldwide.

Users of the trial version of RFinder on Android will have access to coverage maps for a limited time, after which only subscribers will have access. An annual \$9.99 RFinder subscription provides access to repeater data worldwide.

RFinder will be an ARRL EXPO exhibitor at Dayton Hamvention®, May 20-22. Read more.

**--- The Amateur Radio on the International Space Station (ARISS) program has celebrated a milestone -- its 1000th school radio contact.**

The first ARISS contact with students on Earth took place a little more than 15 years ago. On March 10, ISS crew member Tim Kopra, KE5UDN, did the honors for number 1000 -- a contact with students from schools in North Dakota and Minnesota gathered at the University of North Dakota in Grand Forks, organized by the North Dakota Space Grant Consortium (NDSGC). The ARISS contact was the first to be hosted in North Dakota, and some 500 students and visitors were on hand for the big event. ARISS International Chair Frank Bauer, KA3HDO, congratulated the ARISS team on what he called "this phenomenal accomplishment."

"With the outstanding support of NASA and the international space agencies participating in ISS, the ISS on-orbit crew members encompassing all 48 expeditions and the hundreds of ARISS volunteers worldwide, the ARISS team has reached a tremendous

milestone: 1000 ARISS contacts between schools on the ground and the ISS crews on orbit," he said. "Since our first contact in December 2000 to today's contact in North Dakota, hundreds of thousands of students have participated in the hands-on STEM learning that ARISS affords, and many millions from the general public have witnessed human spaceflight in action through an ARISS contact."

**--- Well-known QSL manager for DX stations and a former manager of the Third Call Area QSL Bureau Mary Ann Crider, WA3HUP**, of Duncannon, Pennsylvania, died on March 12 after a period of failing health. An ARRL member, she was 91. DX chasers during the 1970s, 1980s, and 1990s likely received QSL cards from DX stations for which she handled QSLing duties.

In 2005, the ARRL Executive Committee voted unanimously to name Crider the recipient of ARRL President's Award for her contributions to the cause of international goodwill through her long service as a QSL manager and as manager of the ARRL Third Call Area Incoming QSL Bureau. When she stepped down, the National Capitol DX Association (NCDXA) took over the bureau, with noted DXer Fred Laun, K3ZO, at the helm. At the time, Laun cited Crider's "encyclopedic knowledge of DXCC entities and call sign prefixes...built by her work in the trenches, as illustrated by her DXCC confirmed total of 360 entities."

**--- ARRL Past Pacific Division Director Brad Wyatt, K6WR, of Los Gatos, California, passed away on November 10.** He was 86 and an ARRL Life Member. Wyatt served as the Pacific Division Director from 1994 until 2000. Wyatt held DXCC from four different countries. Unfortunately he became less active during his last years because of antenna restrictions in his California home.

**--- On February 12, more than 300 Amateur Radio Emergency Service (ARES) members and individual radio amateurs participated** in the first quarterly Military Auxiliary Radio System (MARS) US Department of Defense (DOD) communications exercise of 2016 (COMEX 16-

1). US Army and Air Force MARS operators across the US, Europe, and the Pacific took part in the 12-hour HF exercise, which simulated a widespread loss of telephone and Internet communication across the US. MARS operators reached out to ARES members and individual hams in as many US counties as possible to obtain status reports via radio.

"The purpose of the exercise was to give MARS operators the opportunity to demonstrate their proficiency in responding to DOD requests for simulated emergency situational awareness reports from counties across the United States," Army MARS Program Manager Paul English, WD8DBY, explained. "DOD and the MARS leadership want to thank the more than 300 Amateur Radio operators who assisted in making this exercise a success by providing local county information using VHF, UHF, and NVIS HF voice communications."

**--- The National Conference of Volunteer Examiner Coordinators (NCVEC) has released the third revision of the Amateur Extra class** (Element 4) question pool that goes into effect on July 1. This revision supplants the Element 4 question pools released on January 8 and February 5, and includes corrections, modifications, and various editorial changes. The Element 4 question pool diagrams are in a separate document.

"We would like to remind the public that users of question pool documents are free to correct minor typographical or punctuation errors, including obvious minor omissions of same," the NCVEC Question Pool Committee said in releasing this revision. "Such corrections must not cause a change in the meaning of a question or any of the proposed answers to the questions."

The QPC notes that FCC Part 97 rule citations are not a part of the exam question itself, but are included for reference purposes, and that errors in or changes to Part 97 are not considered adequate reason to remove a question from the pool. The QPC invites comments and questions.



**--- As updating of the Pave PAWS radar installation gets under way at the Cape Cod Air Force Station in Massachusetts,** the US Air Force has reached out to the Amateur Radio community to continue the positive working relationship developed between the two parties since March 2007. Pave PAWS radar installations on both coasts have required the modification of some 70 centimeter Amateur Radio systems to mitigate interference to the military radars. The Amateur Service is secondary on 70 centimeters. ARRL Regulatory Information Manager Dan Henderson, N1ND, said work now has begun to install the updated early-warning radar standards at Cape Cod.

"This is the new version of Pave PAWS and it will bring the Cape Cod radar up to the same higher standard already employed at the Beale Air Force Base Pave PAWS facility in California, as well as at others in the Space Early Warning system," Henderson said. "The radar will be a little more sensitive, so some additional mitigation is possible, but nothing like that required when the project started in 2007. This is the last Pave PAWS site to be upgraded."

In a statement, Cape Cod AFS Sixth Space Warning Squadron Crew Commander and Public Affairs Officer Lt Drew S. Dutcher said his facility recognizes and appreciates Amateur Radio's service to the community and its continued cooperation.

"In the coming months we will be undergoing upgrades to our facility which will help us improve our capabilities to locate and track satellites for entities such as NASA and SpaceX," Dutcher said. "The improvements will also ensure utilization of cutting-edge technology to protect our eastern sea border from incoming Intercontinental Ballistic Missiles and Sea Launched Ballistic Missiles. As always, we ask that you be mindful and courteous of our frequency range. We do not anticipate any interference or spurious emissions to any [Amateur Radio] frequencies." Henderson asked amateurs with questions about the project to contact him.

**--- ARRL's National Parks on the Air**

**(NPOTA) event will take center stage at Dayton Hamvention® May 20-22.** NPOTA co-managers Sean Kutzko, KX9X, and Norm Fusaro, W3IZ, will be on hand to answer your NPOTA questions, host a forum on the event, and help guide you through your activation plans. As part of the NPOTA presence at Dayton, ARRL is looking for high-quality videos or photographs of your NPOTA activities. Video should be no more than 3 minutes in length and highlight both ham radio and the NPS unit itself. You should also have the rights to any background music included in a submitted video. Help us tell the NPOTA story by sharing yours. E-mail [npota@arrl.org](mailto:npota@arrl.org) for more information.

Keep up with the latest NPOTA news on Facebook. Follow NPOTA on Twitter (@ARRL\_NPOTA).

**--- The 400 youngsters attending a suburban Washington, DC, parochial school are eagerly awaiting the day the CubeSat they constructed** will be deployed from the International Space Station. The little STMSat-1 spacecraft -- an educational project of pupils attending St Thomas More (STM) Cathedral School in Arlington, Virginia -- is equipped with a slow-scan TV (SSTV) payload that will transmit on 70 centimeters (437.800 MHz). The school won a NASA competition for the launch. The satellite is the first to be designed and built by grade-schoolers, who have been supported by NASA technical advisors. Transported to the ISS in December by an Orbital ATK Cygnus spacecraft, the kit-built 1U satellite had been scheduled for release in mid-February, but deployment was postponed.

"The STM Sat-1 mission is to perform Earth observation and engage grade-school students around the world as remote Mission Operation Centers," the STMSat-1 website explains. The satellite project is part of the school's STEM (science, technology, engineering, and mathematics) education initiatives. St Thomas More includes students from pre-kindergarten through grade 8. School Principal Eleanor McCormack is the project manager.

NASA's Technology Demonstration Office is the

space agency's sponsoring organization. The school has been working with Joseph Pellegrino at Goddard Space Flight Center in Maryland, and with the Arlington Amateur Radio Club. NASA provided the school with a mobile "cleanroom" to ensure that the construction phase met with strict guidelines and standards for launch and deployment from the ISS. NASA also provided the school with an antenna, so the school can receive the SSTV images and temperature readings the satellite sends back. The students already have tested their CubeSat by sending it aloft on a tethered balloon. The school has been working with the Arlington Amateur Radio Club.

**--- Amateur Radio is traveling with the "Great Northern Way" Arctic expedition in Russia.** Listen for R3CA/8/9/0 along the route. The historical-geographical expedition commemorates the 400th anniversary of the Northern Sea Route and will be part of a research program, "Mysteries of the Russian Arctic."

Specially equipped vehicles are being used on the Great Northern Way Arctic expedition.

Two all-terrain vehicles will carry participants along a 10,000 kilometer (approximately 6200 miles) route on frozen Siberian rivers, the open spaces of the Arctic tundra, and the land-fast and drifting ice of Russia's Arctic seas. The expedition plans to make stops of about 1 day each on some Arctic islands, which would be of interest to Islands on the Air (IOTA) enthusiasts.

Leading the expedition is the president of the Russian Geographical Society's Arktika Center and polar explorer Vladimir Chukov, R3CA. Call sign designators will indicate the location -- R3CA/8 (Yamal), R3CA/9 (Taimyr), and R3CA/0 (Yakutia, Chukotka). Operation has been on SSB in the vicinity of 14.120 and 14.130 MHz.

The radio operator is Valery Nesterov, RA9J. In Tiksi, Yuri Zaruba, UA9OBA, the president of the Russian Robinson Club, plans to join the expedition, which is carrying an Icom IC-7000 transceiver. An Icom AH2B mobile antenna will

be used while under way, but when the expedition is parked, inverted Vs will be deployed.

The expedition plans to visit sites associated with research and development of the Russian Arctic, historical monuments, and places of interest related to natural history and cultural heritage. Expedition members will conduct environmental monitoring along the Arctic coast. A series of documentaries about the history and current state of the Russian Arctic and its people is planned.

**--- Heil Sound, a name that's probably synonymous within the Amateur Radio community** for its microphones and "boom set" microphone/headset combinations, is marking its 50th anniversary this year. Heil Sound came into being in 1966 as Ye Olde Music Shoppe -- a music store in Marissa, Illinois, the hometown of its founder, Bob Heil, K9EID. The celebration -- called "50 Years of Maximum Rock N' Roll" -- kicked off at the winter NAMM show. A commemorative series of interviews, packaged as podcasts, also debuted with the new year. The series highlights the history of Heil Sound.

Bob Heil initially made a name for himself working with music performers to provide sound reinforcement for their live gigs, initially supplying full sound system packages for venues and festivals throughout the Midwest and later working with world-class acts, such as Humble Pie, The Who, The Grateful Dead, and Joe Walsh, WB6ACU. Heil said it was the Dead's Jerry Garcia who suggested changing the name of his enterprise to Heil Sound. Among other innovations, Heil created the quadraphonic sound system for The Who's "Quadrophenia" tour as well as the Heil Talk Box made famous by Joe Walsh and Peter Frampton.

By 1982, Heil Sound had curtailed the touring side of the business and began concentrating on developing products for the Amateur Radio market. Heil also launched a home theater division. Amateur Radio and professional audio came together in 2006, when Walsh suggested that Heil Sound develop microphones for concert use. Heil Sound designed and manufactured

high-quality microphones, and has gained a reputation among music performers for its professional microphone products, such as the PR30 and PR40.

Bob Heil and his wife and business partner Sarah -- who is the president of Heil Sound -- are frequent visitors at major Amateur Radio conventions and gatherings.

**--- *The schooner Bowdoin, which has a prominent place in early Amateur Radio history***, will be relaunched this spring. The vessel relied on Amateur Radio operators for communication during explorer Donald B. MacMillan's Arctic Expedition of 1923, and on the MacMillan-McDonald-Byrd Expedition of 1925. Now it's undergoing extensive renovation and refitting in Maine. Named after MacMillan's alma mater, Bowdoin College, the Bowdoin today is the official vessel of the State of Maine and the flagship of Maine Maritime Academy's Vessel Operations and Technology Program, which readied the vessel for refitting last year.

According to an article in the February 25 edition of The Ellsworth American newspaper, work is under way at a Camden, Maine, shipyard on the deck and hull of the 95-year-old schooner, built in East Boothbay, Maine, in 1921. The vessel's diesel engine -- a later amenity -- is being rebuilt by Maine Maritime Academy students. The Bowdoin is set to relaunch around June 1.

In 1923, MacMillan had turned to the ARRL for help in outfitting his expedition with better wireless gear, and, as Michael Marinaro, WN1M, explained in his June 2014 QST article, "Polar Exploration," that help "was enthusiastically provided. Hiram Percy Maxim and the Board agreed to furnish support as well as recruit an expert operator to accompany the expedition. Donald H. Mix, 1TS, of Bristol, Connecticut was chosen for the task." League Board member M.B. West custom-designed the equipment, which was built by radio amateurs at his firm, Zenith Electronics. The transmitter operated on medium-wave frequencies with a power of 100 W and used the call sign WNP -- for "Wireless North Pole." As

Marinaro explained in his article, with Mix as the ship's radio operator, "WNP transmitted weekly 500-word press releases and listings of stations worked and heard. Once received by amateur stations, these reports were delivered to local affiliated newspapers of the North American Newspaper Alliance; from there, they were distributed syndicate-wide by telegraph."

In 1925, the Bowdoin headed to Greenland. "The outstanding accomplishment of the expedition was in the sphere of radio," Marinaro wrote. "Utilizing short waves, the expedition was in consistent contact with the outside world throughout the journey, to the delight of the amateurs who were able to work them. The phenomenal success proved to the Navy that short waves were definitely superior to the long and ultra long waves on which the fleets had been relying." [Read more.](#)

**--- *Renowned Earth-Moon-Earth (EME, moonbounce) enthusiast Doug McArthur, VK3UM***, of Glenburn, Victoria, Australia, died on February 21, following a stroke. He was 74. Within the EME community, McArthur -- a radio amateur for nearly 60 years -- enjoyed a worldwide reputation for his expertise, exploits, and accomplishments.

He was well known for his 8.6 meter dish, which he used on 1296 MHz in 2006 to set a moonbounce DX record by working CT3/DL1YMK in Portugal, a distance of 18,342.3 kilometers (11,372.2 miles).

His early interest in Amateur Radio guided his choice of career in radio communication and broadcasting. VK3UM became a stalwart of the VHF bands, pursuing contacts via various scatter modes, aircraft reflection, and -- inevitably -- moonbounce on 2 meters and 70 centimeters.

**--- *The ARRL Board of Directors' HF Band Planning Committee*** is inviting input from the US Amateur Radio community regarding possible changes to the International Amateur Radio Union (IARU) Region 2 Band Plan. That band plan and other significant Amateur Radio spectrum issues will be high on the agenda at this fall's IARU Region 2 General Assembly in



Chile. Leading up to that gathering, the ARRL and other IARU member societies in the Americas will be seeking comments and suggestions regarding the Region 2 HF Band Plan. The HF Band Planning Committee will review the current plan, consider comments from the US Amateur Radio community, and recommend any changes to the ARRL Board for submission to IARU Region 2.

"The ARRL HF Band Planning Committee wants to stress that the IARU Region 2 Band Plan is a voluntary guideline and does not supersede FCC regulations related to spectrum usage," Committee Chairman and ARRL Second Vice President Brian Milesosky, N5ZGT, noted. He also pointed out two other issues for radio amateurs to consider.

Most Region 2 countries outside the US do not have the sort of detailed subband regulations contained in the FCC's Part 97. For radio amateurs in these countries, the Region 2 Band Plan may serve as the only source of guidance on spectrum usage.

The designation of a calling frequency or band segment for a particular purpose or mode in any IARU band plan does not convey any special rights or exclusivity of use. On the other hand, the absence of a calling frequency or band segment associated with a particular purpose or mode should not suggest that these have been overlooked or are viewed negatively.

The Committee is urging US radio amateurs who are considering suggesting revisions to the IARU Region 2 Band Plan first to study the existing IARU Region 2 Band Plan. They then should formulate a clear statement of any proposed changes, including a brief explanation of why each particular change would benefit all IARU Region 2 spectrum users. Participants should include name and call sign. Submit input via e-mail by June 1, 2016. Messages will be automatically acknowledged.

The 19th IARU Region 2 General Assembly will take place in mid-October in Viña del Mar, Chile. Held every 3 years, the Region 2 Conference is attended by delegations from IARU member societies in throughout the

Americas.

**--- The Society of Broadcast Engineers (SBE)** has told the FCC that the regulatory agency needs to take another tack in its efforts to tackle AM broadcast band revitalization. If the FCC takes the SBE's advice, the result could be less noise in the MF and HF Amateur Radio bands. In comments the SBE filed in response to an FCC Further Notice of Proposed Rulemaking and Notice of Inquiry (MB 13-249) proposing ways to enhance the viability of the AM broadcast service, the SBE said the Commission must "commit to a regulatory plan which, over time, will reduce the levels of man-made noise in the MF bands, and more broadly in the bands below 30 MHz." In comments it filed earlier in the proceeding, the SBE pointed out that "AM radio in particular is susceptible to interference from electronic devices of all types," and that ambient noise on the AM band is only bound to get worse with further proliferation of noise-generating electronic devices, including certain lighting devices regulated under FCC Part 15 and Part 18 rules.

"[T]he only source of regulatory reform that has a meaningful chance to positively affect the noise floor over time are regulations that create obligations on manufacturers and importers and dealers, prior to the point that the consumer or user of the device or system comes into possession of it, and before it is deployed," the SBE said. The SBE said that while the FCC has strongly supported unlicensed low-power RF devices over the years, it "apparently does not have a clear understanding of the aggregate effects" of these devices on the MF noise environment. In addition, the power grid has expanded, imposing its own family of electrical noises on the radio spectrum.

"Much unintentional interference is local in nature, but the cumulative impact can be extensive," the SBE told the FCC. "The Commission does not now have, and has never had, a complete understanding of ambient RF noise levels and trends over time." The SBE urged the FCC to better enforce some existing regulations and develop new ones to

address ambient noise in the existing AM band. "It is obvious that any interference management plan...has to be based on rules which limit RF noise before it becomes an issue, not post hoc, and those rules have to be enforced," the SBE said.

### **--- Hamvention Announces 2016 Award**

**Winners:** Nobel Laureate Joe Taylor, K1JT, of Princeton, New Jersey, has been named as the 2016 Dayton Hamvention Amateur of the Year. Hamvention announced the recipients of the Amateur of the Year, Technical Achievement, Special Achievement, and Club of the Year awards on March 18.

Taylor was awarded the Nobel Prize in Physics in 1993 for the discovery of the first orbiting pulsar, leading to observations that established the existence of gravitational waves. Licensed in 1954 as KN2ITP, Taylor served as a professor of astronomy at the University of Massachusetts from 1969 to 1981, and later as a professor of physics at Princeton University. Since his retirement, Taylor has been developing and enhancing digital protocols for weak-signal communication by Amateur Radio, including JT65 and WSPR.

John S. Burningham, W2XAB, of Morrow, Georgia, is the recipient of the Hamvention Technical Achievement Award. A radio amateur since 1970, Burningham has been involved with amateur repeaters for more than 40 years. Following positions in the aerospace industry and for Motorola, he has been in higher education for more than 20 years, and now serves as a senior lecturer in the Department of Computer Science and Information Technology at Clayton State University. A Life Member of ARRL and QCWA and a member of AMSAT and TAPR, he currently is active in the digital mobile radio community and is the author of the Amateur Radio Guide to Digital Mobile Radio. He also wrote "Introduction to Digital Mobile Radio," which appeared in the October 2015 issue of QST, and is a contributing author in the 2016 ARRL Handbook.

The 2016 Hamvention Special Achievement Award will go to Stan Horzepa, WA1LOU, of

Wolcott, Connecticut, for advocating cutting-edge technologies now commonly used in Amateur Radio. Horzepa has authored five books and written more than 1200 pieces for ARRL and TAPR, evangelizing the use of home computers, packet radio, APRS, digital signal processing and software defined radio in Amateur Radio. Licensed in 1969, Horzepa has sampled almost every entrée on the ham radio menu and has served in a slew of roles, including ARRL Connecticut Section Manager. Presently, Horzepa is a director and secretary for TAPR and serves as editor of TAPR's newsletter, PSR.

Rocky Mountain Ham Radio has been named as Hamvention Club of the Year. The organization, based in the Denver, Colorado suburbs, offers its services to other ham radio clubs and ARES groups to help them be successful. Technical assistance, classroom training on a myriad of subjects, mentoring, equipment/system design, and public service are among the services it provides. The group owns and maintains fixed analog and digital/DMR repeater assets, including one of the premier private DMR networks in the nation, which is linked with an amateur microwave network that spans the Front Range of the Rocky Mountains from Cheyenne, Wyoming, to Cañon City, Colorado. The group also owns and operates a deployable communications command post in a 26-foot trailer. Read more.

**--- Contesting luminary Gary Senesac, AL9A (ex-KC9UM),** of Wasilla, Alaska, died suddenly on March 15 while vacationing in Florida. An ARRL Life Member, he was 72. Senesac, an Illinois native, moved to Alaska in 2003 after he retired, and his was a familiar call sign in many operating events. During the ARRL Centennial in 2014, he took part in the W1AW/KL7 operation. "Gary was an avid tester," said fellow Alaskan Corliss Kimmel, AL1G, "and he was an excellent tester. He was also very technically knowledgeable and helpful to anyone who needed advice." Senesac enjoyed operating all modes but may be best known as a CW and RTTY tester. Senesac

was a member of the Matanuska Amateur Radio Association, the Fox River Radio League, the Society of Midwest Contesters, and the ARRL A1 Operators Club. In addition to his participation in the W1AW ARRL Centennial year operation, AL9A also recently took part in the KL7RST special event, and he served as a mentor to many operators. "He will be dearly missed by us all," Kimmel said. "I will miss his posts, seeing his amazing scores, and laughing at his jokes."

--- **Arlene "Buddy" Clay, KL7OT**, of Wasilla, Alaska, died on February 11. She was 103. An ARRL member, Clay was inducted into the Alaska Women's Hall of Fame in 2015 for her work in rural justice administration among the Yup'ik people. She became a ham in 1948 and began calling the Thursday night Snipers Net for

the Matanuska Amateur Radio Association, a duty she continued from her retirement community home until she died of a stroke. In 1960, after having worked for years with her husband Earl, KL7EM (SK), as an air traffic controller, she began a new career as a magistrate for the Alaska Court System, becoming responsible for 12 villages along the Kuskokwim, Yukon, and Iditarod rivers. She traveled from village to village by boat in the summer and by dog sled in the winter. In all, "Buddy" Clay spent nearly 70 years living in Alaska's wilderness. She was profiled in the August 2013 issue of QST in the article "A Radio Voice in the Wilderness," by Brenda Plessinger, AL7LX.

