

## Hams, visitors enjoy Field Day fun at Wailoa

July 'Doldrum' meeting focuses on FD recap, QSLs, upcoming plans

QSL cards and a Field Day recap were the focus Saturday, July 9, as members gathered for the annual "BIARC Doldrum Meeting" convened by President Bob Schneider shortly after 2 p.m. at the Keaau Community Center.

With tropical storms Blas and Celia headed our way, emergency communications also were on everyone's minds and Bob noted two upcoming exercises: 1) The Skywarn Hurricane Net from 9noon the next day; 2) Makani Pahili "Commex 2016" from 8:30noon on the following Saturday. He pointed out that, at last count, 127 members of the US House of Representatives and five senators have co-sponsored the Amateur Radio Parity Act. And the national association of realtors has accepted the language of the pending ARRL-proposed legislation, which is "a big feather in our cap."

Other business: Secretary's report, NA. Treasurer's report, sent by Doug via Bob: Our bank account stands at \$1,393.89, and



Photo by Peggy Gentle Field Day 2016 gets underway at Wailoa Center on Piopio Street in downtown Hilo.

we have a total of 68 members (40 full, 24 family and 4 associate members).

Barbara Darling gave an update on the ARRL Hawaii QSL Bureau and a bit of history about the important volunteer effort she has spearheaded with husband Richard since March of 2008. At that time, cards for local hams were getting hung up in a backlog on Oahu. Now Barbara oversees sorting and distribution of all of the state's cards via an interisland network of volunteers. In

## QSL Bureau volunteers handle 200,000-plus cards in 8 years

eight years, the Darlings and their dedicated helpers have handled more than 200,000 of the cards.

In June, the bureau received 445 cards, including 15 from Brazil and Chile and 430 W1AW cards from ARRL for Hawaii hams. Year-to-date total is 4,092, just more than half of the number received by this time last year. Barbara attributes the drop to other methods of verifying contacts, including Logbook of The World.

She offered a quick course in "QSL 101" for members not yet involved in high-frequency operations.

"QSL cards can be exchanged when you make a contact with a ham in another country," Barbara explained. The cards include name, date, frequency, time, mode, call sign and the signal clarity and strength report coming and going. "It's been a lot of fun," said Barbara, displaying photo albums of cards she has collected over the years. The ARRL offers awards for a variety of achievements. To make "The Honor Roll," you must contact 331 of approximately 340 DX entities. Barbara's not there, yet, but she's getting close. She shared a copy of "ARRL DXCC," which lists all of the approved locations. "Worked all States" is another worthy goal, she noted.

After the cards are shipped to BIARC from ARRL, they are sorted into prefix piles on the Darlings' dining table. Further sorting, tending, allocating and restacking continues until the cards are catalogued to perfection, then distributed via Barbara's pipeline. She hasn't computed her own contribution to the effort, in terms of tabulating volunteer



hours. If she did so, ARRL might have to come up with another award, just for her.

John Buck reported that the new repeater has been installed at the Girl Scout Camp site and that the linked repeater system is now mostly linked: Connection is now good along the network tying in Kona, Waimea and the rest of North Hawaii, Kawaihae and Haleakala. Coverage extends over to Paauilo. But there is no connection to the Mauna Loa site, which lacks emergency power supply. (Update: On the day after this meeting, links between East and West Hawaii were reconnected and the linked system was operating in fine form for the regular Monday morning net on the 146.760 repeater. The multifaceted repeater network is the result of financial and volunteer support from all of the Big Island radio clubs, their members and friends. Mahalo to one and all.)

John said the Mauna Loa repeater needs to be hooked up to one of the emergency generators purchased by Civil Defense. The current situation is "unacceptable for the cross-island linked repeater system," he said. Other business:

1) Hamfest: Consensus seems to be that most Big Island hams prefer the Waimea venue due to its central location. Bob will talk to the Kona club, offering our kokua if our friends on the west side want to continue hosting it at the Waimea Community Center.

2) Alternative club meeting location: Gary Schwiter offers the use of a good-sized meeting room, with projector and hookups, at the BISAC (Big Island Substance Abuse Council) facility where he works on Melekahiwa Street in the Shipman Industrial Park. This would be a good alternative, when we get evicted from the Keaau Community Center due to a paying client and the good folks at Puna Covenant Church aren't able to offer sanctuary to a homeless radio club seeking shelter.)

Field Day recap: Chair Peggy 3) Gentle noted that, despite certain snafus and learning-curve advances, "It all turned out well." She gave special kudos to lunch coordinator Lynn Froseth and thanked everyone for helping out in myriad ways. Suggestions for next time: Larger focus on preplanning of antennas and a bigger crew to set up infrastructure. Robert Oliver and XYL Joby called for more frequent planning meetings leading up to the annual event. Robert noted that the club's yagi antenna was in fine working order and that members made 200-300 contacts on 20 meters for KH6EJ, the club's call sign.

4) Needed for next year: Banner to put at Piopio and Pauahi streets to draw folks into the event; more publicity.

Hawaii QSL Bureau Chief Barbara Darling discusses the allvolunteer operation she has headed for the last 8 years.

#### Photo by Richard Darling

Joby said she googled and found "Field Day Made Easy" online and suggested we all take a look at the publication. A few alternative sites for the 2017 Field Day QTH also were mentioned.

5) Peggy and others noted that The First Annual Greater BIARC Fox Hunt was a roaring success. It has been suggested by several members that we stage fox hunts periodically to hone our skills, and to entertain

## Going the distance Delving into DX-ing

#### By H. Ward Silver, from 'Ham Radio For Dummies'

(To buy the book: http://www.dummies.com/howto/content/delving-into-dxing.html)

Pushing your station to make contacts over greater and greater distances (DX means distant stations) is the second oldest activity in all of ham radio. Somewhere out in the ether, a station is always just tantalizingly out of reach and the



ourselves and anyone else who might be gawking.

Bob said he'll put Field Day on the agenda for each meeting, so there will be time allotted to discuss it.

The meeting was adjourned at 3:30 p.m. The next meeting is scheduled for 2 p.m. Saturday, August 13, at the Keaau Community Center, unless otherwise announced.

Respectfully submitted, Leigh Critchlow, secretary pro tem

#### Aloha, fellow hams:

I have been sorting **MANY** QSL cards recently, especially W1AW cards for 2014 contacts.

If you expect cards, please contact me for pickup or mailing. You may send envelopes to me with "forever stamps" or set up a postage account. Send check written to KH6 Hawaii QSL Bureau to P.O. Box 1938, Hilo HI 96721.

Or, perhaps the simplest way: I always have my box of Big Island cards at the monthly BIARC meeting. Questions? Give me a call at 982-9126. If, by any chance, you decide you do not want ANY cards by the Bureau, please let me know so I can flag any further cards. Mahalo for your help igetting these cards distributed.

> 73, Barbara Darling, NH7FY, Manager of the KH6 Bureau

A Ham's Guide to RFI, Ferrites, Baluns, and Audio Interfacing (Revision 5a 5 Jun 2010 © Entire Contents) Copyright 2007-10 The Audio Systems Group, Inc.

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challenge of contacting that station is the purpose of DX-ing.

Thousands of hams across the continents and around the world like nothing better than to make contacts (QSOs) with someone far away. These hams seem to ignore all nearby stations. Their logs are filled with exotic locations. Ask them about some odd bit of geography and you are likely to find that they not only know where it is, but some of its political history and the call sign of at least one ham operator there. These hams are DXers.

Today, intercontinental contacts on the HF frequencies traditionally considered to be the shortwave bands are common but still thrilling. Cross-continental contacts on VHF and UHF once thought impossible are made in increasing numbers. Because the sun and the seasons are always changing, each day you spend DX-ing is a little (and sometimes a lot) different. Sure, you can log on to an Internet chat room or send e-mail around the world, but, like fishing, logging a QSO in the log, mastering the vagaries of the ionosphere, and getting through to a distant station is a real accomplishment non-hams can never know.

Before starting out, you need to know that even if you have a very modest home or mobile HF station, you can work DX. Skill and knowledge compensate for a great deal of disparity in equipment. Nowhere is this concept more true than in hunting the

elusive DX. The first skill to learn is not how to transmit, but how to listen.

When working DX, in all cases, start at the bottom of the band or as close as your license privileges permit. The best DX tends to collect there. Stop at each signal along the way, even those that sound like casual contacts, to determine who is on the air. Listen for obvious accents and signals with a curious, hollow, or fluttery sound.

Signals coming from far away have to make several hops off the ionosphere — sometimes as many as five or six! — to get to your antenna. These hops divide the signal into multiple paths that have slightly different travel times. The paths interfere with each other as they arrive at your antenna, smearing the signal out in time and making its strength change rapidly. Learn to recognize that sound because, for sure, it means DX is at hand!

#### Program the popular DX frequencies into your rig's memory for easy access.

Keep tuning and listening, noting what you hear and at what times. When DX-ing, experience with the characteristics of a band's propagation is the best teacher. Try to detect a pattern when signals from the different population centers appear and how the seasons affect propagation on the different bands. Soon you recognize the signals of regulars on the band, too. As usual, the key is to listen, listen, listen.

#### **Daytime DX-ing**

You must account for the fluctuations in the ionosphere when you're DX-ing. Depending on the hour, the ionosphere either absorbs a signal or reflects it over the horizon. In the daytime, the 20, 17, 15, 12, and

10-meter bands, called the High Bands, tend to be "open" (support propagation) to DX stations. Before daylight, signals begin to appear from the east, beginning with 20meters and progressing to the higher bands over a few hours. After sunset, the signals linger from the south and west for several hours with the highest frequency bands closing first in reverse order. Daytime DXers tend to follow the Maximum Useable Frequency (MUF), the highest signal the ionosphere reflects. These reflections are at a very low angle and so can travel the longest distance for a single reflection (one reflection is called a hop)and have the highest signal strengths.

#### Nighttime DX-ing

From 30-meters down in frequency are the nighttime bands of 30, 40, 60, 80, and 160-meters, known as the Low Bands. These bands are throttled during the daytime hours by absorption in the lower layers of the ionosphere. After the sun begins to set, these bands start to come alive. First, 30, 40, and 60-meters may open in late afternoon and stay open somewhat after sunrise. 80 and 160-meters, however, make fairly rapid transitions around dawn and dusk. Signals between stations operating on 80 and 160-meters often exhibit a short (15 to 30 minute) peak in signal strength when the easternmost stations are close to sunrise. This is known as the dawn enhancement. This time is good for stations with modest equipment to be on the air and take advantage of the stronger signals on these more difficult DX bands.

160-meters is known as Top Band

because it has the longest wavelength of any current amateur band. This long wavelength requires larger antennas. Add in more atmospheric noise than at higher frequencies and you have a challenging situation. That's why some of the most experienced DXers love Top Band DX-ing. Imagine trying to receive a 1 kilowatt broadcast station halfway around the world. That's what the Top Band DXer is after! As difficult as this task sounds, many of the top DXers have managed it.

#### **Contacting a DX station**

Making a call to a DX station requires a little more attention to the clarity of your speech and sending than making a call to a nearby ham. Remember: Your signal likely has the same qualities as the DX station — hollow or fluttery and weak — so speak and send extra carefully. Give the DX station's call sign using the same phonetics they are using and then repeat yours at least twice, using standard phonetics. On Morse code contacts, send the DX station's call sign once and your call sign two or three times at a speed matching that of the DX station.

DX contacts, except when signals are quite strong, tend to be shorter than contacts with nearby stations. When signals are very weak or a station very rare, a contact may consist of nothing more than a confirmation that you each have the call signs correct and a signal report. To confirm the contact, both you and the DX station must get each other's call signs correct. To do that, use standard phonetics (on voice transmissions), speak clearly, and enunciate each word. New hams often don't realize that multiple hops and skips around the world have a pretty dramatic effect on speech intelligibility,

none of it for the better. Speak relatively slowly, don't slur your words or mumble, and keep your transmissions short.

When it's time to conclude the contact, you need to let the other station know if you will be sending a QSL card to confirm that the contact occurred. Collecting these cards is a wonderful part of the hobby.

YOU DON'T NEED TO SHOUT INTO THE MICROPHONE! Shouting doesn't make you any louder at the other end! By adjusting your microphone gain and speech processor, you can create a very understandable signal at normal voice levels. Your contacts and family will thank you for doing so. Save the shouting for celebrating your latest DX contact!

If you call and call and can't get through or if the stations you contact ask for a lot of repeats and fills(in other words, if they often ask you to repeat yourself), you probably have poor audio quality. Have a nearby friend, such as a club member, meet you on the air when the bands are quiet and do some audio testing. Check to see if you have hum or noise on your audio. Noise is often the result of a broken microphone cable connection, either in the microphone itself or at the radio connector. You may not be able to tell you have a problem from the radio's power meter output, so an on-the-air check is necessary to find it. Inexpensive, old, and noncommunications microphones (such as computer microphones) often have poor fidelity. If your on-the-air friend says you sound like a bus station PA system, upgrade to a better microphone!

HI Grid Madness 2016 open to all hams Maidenhead Grid Square Aulani Hui Amateur

Repeater Club and the event organizers are happy to announce the Third Annual Hawaiian Islands Grid Madness, an event for all hams in the State of Hawaii. This VHF/UHF activity is designed for FUN, and to test your equipment, coverage and operating skills using simplex FM on 2 meters and 70 cm.

The idea is to contact as many stations as you can in as many Grid Squares as you can, using SIMPLEX ONLY. Enter in HT, Mobile, or Base class. For your calendar --Sunday, September 18th 2016 from 1300 to 1700 HST.

View/download the info packet from:



http://gridmadness.blog spot.com/ Please send comments and questions to AH6KO@arrl.net.

We are sending this early notice to leaders in the ham community. If you can, please help to make this event better -- spread the word via radio nets, meetings, newsletters, web sites, or just tell another ham! On the radio, you can provide the URL above, or just advise anyone interested to Google "Grid Madness".

Grid Squares: Find your 6-character

on the map at www.grz.com/gridmapper. Please consider using this event as part of your effort to mentor new hams, teach and practice emcomm procedures, or as an onthe-air social event.

New this year: 1) Points for relay contacts; 2) Extra points for 70 cm and interisland contacts; 3) Exchange includes serial number; 4) Club Award to club with highest total designated score.

We will send an email in early September to all interested hams. Send email addresses to us at AH6KO@arrl.net.

Thanks and 73! Stan AH6KO (Event Manager) Eric Grabowski KH6CQ (Aulani Hui ARC)

#### ~~~~Free classified ads~~~~

WH6EHF, An O'Callaghan, one of our BIARC members, has been in Florida and will be back on the Big Island July 29. She is looking for a place to stay....either a room to rent or a house/pet-sitting position. If anyone knows of a spot, please call her at 561-346-6010. Mahalo, **Barbara** Darling

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Equipment for sale 1.) Kenwood TS-450SAT HF transceiver with matching SP-23 speaker. Perfect condition. Original

owner. Both manuals. Original boxes. Loaded with INRAD cw filters. Price reduced to \$500. 2.) Small 2-section steel crank-up tower. Maybe 35 feet. Old, but functional. Good for small HF tribander or VHF-UHF antennas. \$100, delivered locally. 3.) Other Rohn guyed tower available; call for details. 4.) Misc. aluminum antenna elements good for HF verticals or antenna projects. NOT for recycling. Free, you pick up. *Lloyd Cabral*, *KH6LC*; 966-7782

(Send text for ads by 20th of month to Icritchlow@mac.com)

#### Ham needs a home

# ARRL The national association for AMATEUR RADIO The ARRL Letter

#### New Microwave, UHF Distance Records Set on Same Day around Globe, including HI

New distance records were set on 47 GHz and on 902 MHz on June 30 by stations at vastly different points on the globe -- including the 50th State.

On 47 GHz, US and Canadian operators set up on Whiteface Mountain in New York (FN34bi) and on Mont Tremblant in Quebec (FN26rf), respectively, in the effort to set a new US-Canada record on the band. The distance was calculated at 215 kilometers (133.3 miles). On the US side were Mike Seguin, N1JEZ, and Henry Ingwersen, KT1J; on the Canadian side were Rene Barbeau, VE2UG, and Ray Perrin, VE3FN.

"On this band, we usually are working line of sight," Seguin said. "We have a lot of experimentation to do, now that there are some good high-power amps available." He said the June 30 attempt marked the second 47 GHz contact for VE2UG and VE3FN. A week earlier, they had worked both KT1J and N1JEZ over a 99-kilometer (61.4 miles) path, with signals peaking almost 60 dB out of the noise.

Once everything was in place, Seguin was able to hear Barbeu's CW signal almost immediately. "Signals were not strong, with a lot of QSB," Seguin said.



The N6NB "rover" in Hawaii for the 902 MHz record.

#### Photo by Wayne Overbeck, N6NB

After aligning their dishes, each operator worked the others. Following the successful 47 GHz contacts, VE3FN and N1JEZ worked each other "easily" on 24 GHz SSB. The North American distance record on 47 GHz is 344.8 kilometers (213.8 miles), set in 2015.

Meanwhile on the Pacific side of the world, Wayne Overbeck, N6NB, and Greg Campbell, W6IT, set a new world DX record on 902 MHz between California and Hawaii. They took advantage of a transpacific tropo duct to complete a contact over a path of 4095 kilometers (2544 miles), topping the old record set more than 20 years ago of 4064 kilometers. Last year, Overbeck and Campbell set world distance records on 2.3 and 3.4 GHz over the approximately the same path.

"This record contact again underscored the degree to which these record-setting attempts involve good luck as well as planning and preparation," Overbeck said. Not since the tropo duct that allowed Campbell and Overbeck to set their microwave records last year had another occurred, until June 30. "This duct only produced good signals for a matter of a few hours," he recounted. He said he and Campbell both managed to be in the right place at the right time to set the new 902 MHz record. "Three hours later the duct dissipated and transpacific signals faded into the noise." Overbeck said.

N6NB operated from Hawaii using a suitcase portable station in a rented vehicle at 5260 feet elevation; in California, W6IT used one of N6NB's rover stations to operate 75 miles inland at 6200 feet elevation.

The ARRL Pacific Section webpage is at:

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http://www.arrl.org /Groups/view/pacific-section

#### New ISS Crew Increment with 2 Radio Amateurs Arrives on Space Station

NASA astronaut Kate Rubins, KG5FYJ, astronaut Takuya Onishi, KF5LKS, of the Japan Aerospace Exploration Agency (JAXA), and cosmonaut Anatoly Ivanishin of Roscosmos officially joined their Expedition 48 International Space Station (ISS) crew members on July 9, when the hatches opened between their Soyuz MS-01 and the space station. Four radio amateurs now are on board the ISS.

Expedition 48 Commander Jeff Williams, KD5TVQ, of NASA, and Flight Engineers Oleg Skripochka, RN3FU, and Alexey Ovchinin of Roscosmos greeted the newcomers. Rubins, Onishi, and cosmonaut Ivanishin replaced Expedition 47 Commander Tim Kopra, KE5UDN; Flight Engineer Tim Peake, KG5BVI/GB1SS, and Yuri Malenchenko, RK3DUP, who returned to Earth in mid-June after a little more than 6 months in space.

Later this summer. Williams and Rubins are scheduled to install the first of two international docking adapters, soon to launch to the ISS. The adapters will allow commercial spacecraft to dock to the station in the near future when transporting astronauts as part of NASA's Commercial Crew Program. Rubins, Ivanishin, and Onishi are scheduled to remain on station until late October. The trio launched early on July 7 from the Baikonur Cosmodrome, traveling to the ISS onboard an upgraded Soyuz MS-01 spacecraft on its maiden voyage. Williams, Skripochka, and Ovchinin will return to Earth in September.



#### Amateur Radio Parity Act Receives Favorable House Energy and Commerce Committee Report

An amended version of the Amateur Radio Parity Act, H.R. 1301, received a unanimous favorable report on July 13 from members of the US House Energy and Commerce Committee. The bill now will go to the full House for consideration. Before reporting the bill out of committee, the panel first voted to accept the amended language, "in the nature of a substitute." Rep Greg Walden, W7EQI (R-OR), who chairs the Energy and Commerce Committee's Subcommittee on Communications and Technology, said the substitute bill represented "a good balance" that came in the wake of months of meetings, hard work, and compromise, and he recommended the measure to his colleagues.

"The amendment guarantees that even in deed-restricted communities, Amateur Radio operators are able to use an effective outdoor antenna," Walden said. "Without an effective antenna Amateur Radio operators are severely limited, so this amendment ensures that amateurs are free to pursue their passion wherever they live."

At the same time, he continued, the measure protects the rights of those "who have chosen to live in deedrestricted communities and to set their Front: Kate Rubins, KG5FYJ; Anatoly Ivanishin, and Takuya Onishi, KF5LKS. Back: Oleg Skripochka, RN3FU; Alexey Ovchinin, and Commander Jeff Williams, KD5TVQ. [NASA TV image]

own aesthetic and other rules."

In early June, the ARRL and the Community Associations Institute (CAI) -- the national association of homeowners associations (HOAs) -announced that they had reached consensus on substitute language for HR 1301 in an effort to move it through committee and to overcome objections to the companion US Senate bill, S 1685. The offices of US Representatives Adam Kinzinger (R-IL), the bill's sponsor, Anna Eshoo (D-CA), and Walden mediated and offered assistance.

"While it's rare to have two groups with opposing viewpoints walk away from legislation happy, by golly, I think we've done it here," Walden concluded. He said the substitute bill represented "the best of what our committee can do when we work together in bipartisan compromise that meets the needs of all parties involved."

In her remarks, Eshoo said she was glad that an agreement had been reached on the bill's language, which she initially feared would violate the rights of homeowners associations. "We found a balance that works for all stakeholders," she said, calling the ARRL and CAI "the bookends of the effort."

Kinzinger called the amended bill "a good amendment that strikes the right balance."

#### Ham Radio Outlet to Acquire Some AES Employees, Re-Open Milwaukee Location as HRO Branch

Ham Radio Outlet (HRO) has announced plans to hire an unspecified number of Amateur Electronic Supply (AES) employees when AES shuts down its four locations in late July. In addition, the current AES Headquarters store in Milwaukee will become HRO's newest location later this summer, following renovation. On July 1, AES announced that it was going out of business and ending retail operations at its Milwaukee, Las Vegas, Cleveland, and Orlando locations. With the approval of AES management, HRO senior managers visited each AES location to interview staffers in hopes of "acquiring some of the Amateur Radio retail employee talent in each of the current AES locations," an HRO news release said.

"Together with this interview process, HRO examined what it would take to perhaps acquire one or more of the AES store locations. At the time of these interviews, many opportunities were explored with current AES senior management," the release continued. "We are very excited to announce that HRO was successful in providing offers of employment to a number of soon-tobe-former AES employees, and that to some, we have offered positions that involve HRO-sponsored and funded relocation."

HRO announced that once AES shutters its Milwaukee location at 5710 W Good Hope Road on July 28, Ham Radio Outlet will undertake an extensive remodeling project to create a new HRO Milwaukee store at the same site, which will open at the end of August.

"It is with great pleasure that we are able to continue Terry Sterman's and Phil Majerus' legacy of providing a fantastic Amateur Radio store in Milwaukee, Wisconsin," said HRO President Robert Ferrero, W6KR. "It is our immediate goal to have the largest, most well-stocked Amateur Radio retail store in North America and perhaps even the world."

After AES closes on July 28, all former AES locations' direct and tollfree telephone numbers will be redirected to the closest HRO location, and the AES website will be directed to HRO's website.

A family-owned business, HRO is the world's largest Amateur Radio dealership, with locations from New England to the West Coast.

#### CQ Contest Hall of Famer, WRTC Competitor, DXer Walter Skudlarek, DJ6QT, SK

Well-known contester and World Radiosport Team Championship (WRTC) competitor, official, and supporter Walter Skudlarek, DJ6QT, of Hirzenhain, Germany, died on July 5. He was 77 and had been a radio amateur since 1958.

Skudlarek was a member of the CQ Contest Hall of Fame as well as a founding member of the Rhein-Ruhr DX Association and active member for more than 50 years, serving at various times as president. He was a member of the RRDXA Hall of Fame.

Skudlarek was a competitor at the very first WRTC in 1990 in Seattle, as well as in 1996 in San Francisco, and 2002 in Helsinki. He served as a referee at the WRTCs in 2000 (Slovenia) and in 2006 (Brazil) and was looking forward to WRTC 2018 in Germany. His history of DXpedition operations dates from 1979, and he operated frequently from Madeira. He was one of the first single-op DXpeditioners to include RTTY as an operating mode. A frequent Dayton Hamvention® visitor, Skudlarek also was an honorary member of the Frankfort Radio Club, the North Jersey DX Association, and the Araucaria DX Group.

#### The Doctor is in, and Will See You Now!

"Propagation" was the topic of the July 14 episode of the "ARRL The Doctor is In" podcast. Listen...and learn!

Sponsored by DX Engineering, "ARRL The Doctor is In" is an informative discussion of all things technical. Listen on your computer, tablet, or smartphone -- whenever and wherever you like!

Every 2 weeks, your host, QST Editor in Chief Steve Ford, WB8IMY, and the Doctor himself, Joel Hallas, W1ZR, will discuss a broad range of technical topics. You can also e-mail your questions to doctor@arrl.org, and the Doctor may answer them in a future podcast.

Enjoy "ARRL The Doctor is In" on Apple iTunes, or by using your iPhone or iPad podcast app (just search for "ARRL The Doctor is In"). You can also listen online at Blubrry, or at Stitcher (free registration required, or browse the site as a guest) and through the free Stitcher app for iOS, Kindle, or Android devices.

If you've never listened to a podcast before, you may download a beginner's guide.

Just ahead on July 28, the subject will be "Magnetic Loops."



#### National Parks on the Air Update

July represented the halfway mark for the ARRL National Parks on the Air (NPOTA) program. With just over 5 months to go, slightly more than 490,000 contacts have been made from 431 of the 485 eligible NPS units, in 8,250 separate activations.

There's plenty of time left to get involved! With the summer vacation season in full swing, many NPS units would enjoy seeing a new NPOTA face. You can start collecting NPOTA units any time: Activators are always looking for new stations to log. With band conditions being less than spectacular lately, NPOTA offers a way to enjoy Amateur Radio as either Chaser or Activator, with plenty of domestic QSO opportunities and portable operating adventures free for the taking. Help NPOTA reach more than 1 million QSOs in 2016!

A record 68 activations were scheduled for the week of July 13-20, including Bryce Canyon National Park in Utah, and the Nez Perce National Historical Park in Idaho.

Details about these and other upcoming activations can be found on the NPOTA Activations calendar.

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

#### International Tribunal Rules Against China's Claims Over South China Sea Reefs

An international tribunal ruling discounting China's claims with respect to Scarborough Reef and the Spratlys could complicate efforts to mount another DXpedition to the rare and remote South China Sea DXCC entities. The Permanent Court of Arbitration in The Hague ruled recently in favor of the Philippines in a dispute with China over Scarborough Reef -- also known as Scarborough Shoal. The last DXpedition to Scarborough was the 2007 BS7H operation. A 2016 DXpedition has been reported to be in the works.

The tribunal said that although navigators and fishermen from China and other states have historically made use of South China Sea islands, there was no evidence that

#### China had historically exercised exclusive control. According to the tribunal, China had violated the Philippines' sovereign rights and has caused "severe harm to the coral reef environment" by building artificial islands and an air strip. China, which refused to take part in the arbitration, said it would not be bound by the tribunal's ruling. China claims almost all of the South China Sea, including reefs and islands also claimed by other countries, but the tribunal made clear that its ruling did not address issues of territorial sovereignty.

"This arbitration concerned the role of historic rights and the source of maritime entitlements in the South China Sea, the status of certain maritime features and the maritime entitlements they are capable of generating, and the lawfulness of certain actions by China."

### Winlink news part of HI SM report this month

#### By Joseph Speroni, AH0A ARRL Pacific Section Section Manager

Aloha, Hawaii ARRL members:

There are a number of news items about Winlink in the Hawaii SM report this month. Interest in digital modes is growing. HIEMA, the State Hawaii Emergency Management Agency, has shared its plan to begin testing Winlink components for the deployment of a statewide messaging system.

The two active Winlink servers on Oahu, KH6UL and KH6SP, are producing

good traffic figures that are shared with us this month.

Kona Bob (AH6GT) dropped us a note about his Internet based net management tool. Internet technology to make our communication activities more effective!

Joe (KH7AX), President of the Kona Amateur Radio Club, launched a series of monthly seminars, separate from club meetings, initially devoted to new software/hardware setup. Participants leave with equipment configured and working. Called GETKONAONTHEAIR, it's an idea worth following.

Warren (KH6WM) shared information on W1AW CW qualifying runs coming out of the west coast. A better opportunity for Hawaii hams to qualify their CW speeds. And we have Merv's (K9FD) Intruder Watch reports for May and June.

Links to the April, May and June reports are available at http://www.arrl.org/Groups/view/pacificsection.



*Irene Kubica, NH7PE, is an avid participant in 10meter activity and encourages hams at all levels to join in the fun.* 

The world of HF radio is open to all licensed amateur radio operators, including Technicians, on the 10-meter amateur radio band.

From the website of Ten-Ten International, here are the basic answers to the overriding question:

Just what is the Ten-Ten International Net? It was formed in 1962 as Ten-Ten Net of Southern California. Its purpose was to promote activity and good operating practice on the ten meter amateur band. During the first few years the organization grew slowly, but by 1975 there were 10,000 members, and the word "International" had crept into the name. To date, there have now been more than 75,000 10-10 numbers issued world wide.

## The 10-10 Connection

with NH7PE,

### 10-10 Aloha Chapter

# Activities on tap on Ten Meters:

We hope everyone enjoyed the Spirit of '76 QSO Party July 4-10.

This fun annual event ran for seven days on six modes of transmission.

Now, it's time to get prepared for the 10-10 Summer Phone QSO Party from August 6-7.

Be sure to assign your scores for all QSO Parties, except for the Sprint on October 10, to the Aloha Chapter of 10-10 International Net if you live within 150 miles of Hilo and are a 10-10 member.

Check out the newest 1010 Net: Galesburg, Illinois, on 28.120, PSK! at 2030 UTC Sundays (10:30 a.m., Hawaii time, on Sundays).

See the website, www.ten-ten.org.

73 and aloha, Irene, NH7PE

### Slow-speed CW messages helped launch Juno on trip to Jupiter

NASA's Juno spacecraft, which in 2013 listened for earthbound radio amateurs sending "HI" in coordinated, very slow-speed CW, now is circling Jupiter.

In a first-of-a kind for an interplanetary spacecraft, Juno was able to detect 10

meter Amateur Radio signals on October 9, 2013, as it looped past Earth for a gravity-assisted boost on its way to Jupiter.

At the time of the experiment in 2013, the spacecraft was about 37,500 kilometers (23,250 miles)

away, and the signals it received were reported to have been just at or above the noise level.

The object of the experiment was to see if Juno's onboard "Waves" experiment would be able to detect the collaborative RF.

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