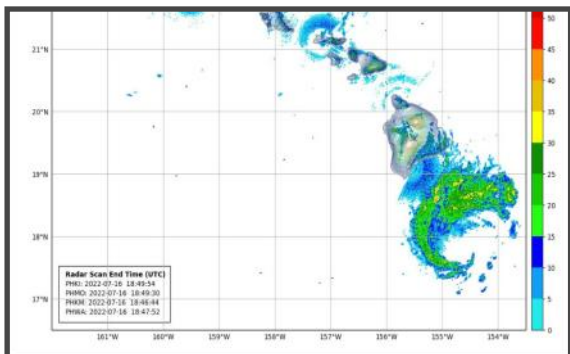




August 2022

THE BIG ISLAND HAMGRAM

The newsletter of the Big Island Amateur Radio Club



On Saturday, July 16, the day of the statewide Makani 'Ino ARES Hurricane Drill, Hank Kaul, KH6HAK, captured this radar screen shot as Tropical Storm Darby moved past, south of the Big Island.

Hams across state step up for ARES July hurricane drill

Licensed amateur radio operators from across the Hawaiian Islands joined in the latest Hawaii ARES emergency communications exercise the morning of Saturday, July 16. The session was open to all isle hams, with a role for everyone. Focus was on using voice and/or Winlink to prepare and practice sending messages during a catastrophic hurricane when normal communications have failed.

Elements of the exercise included check-ins, check-outs, field situation reports, damage reports, requests for assistance and shelter reports, said Joe Speroni, AHOA, section manager, ARRL Pacific Section.

An "ARES COMEX

After-Action Report" is scheduled to be presented on Aug. 20 at the next Hawaii ARES management meeting, said Tony Kitchen, WH6DVI, Hawaii ARES ASEC-Hawaii & Maui County Ops.

At that time, coordinators will focus on overall results and narrow in on specifics of what worked, what didn't, and streamline the system to get everyone on the same page and prepped for the next exercise and – of course -- the possibility of a real disaster comms callout.

Stay tuned for the September BIARC Hamgram, which will feature the wrapup report and details on the next such exercise to be planned for the 50th State.



Vice President Gary Schwiter, WH6EPS, opens the July 9 session at Keaau Community Center.



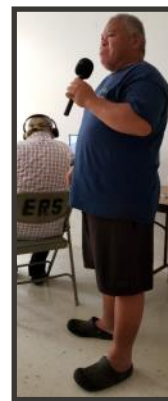
William Polhemus, NH6ET, foreground, watches as Jimmy Love, WH6GEM, checks in on Zoom.

Photos by Linda Quarberg, WH6LQ

July: Reconnecting again, ham-to-ham, together as a club

The BIARC membership gathered on Zoom and in-person at the Keaau Community Center again on July 9. And that will be the setup again this month, with noon board meeting and 2 p.m. gathering on Saturday, Aug. 13. As usual, the online link will be provided on the BIARC Listserve prior to that day.

Continued on next page



Roy Kunishige, KH6KU, discusses aspects of Field Day.





From previous page

Club gathers in July, online and in Keaau

At our July session, Tony WH6DVI and Jim AH6AE discussed the upcoming Hawaii Amateur Radio Emergency Service (ARES) Makani 'Ino Commex and encouraged all hams to sign up to participate in the July 16 statewide exercise to demonstrate how amateur radio can, and does, make valuable contributions to our communities.

Gary WH6EPS, who chaired the recent Field Day event at Reeds Bay, offered a brief recap. "Overall, I think Field Day turned out well," he said, and thanked all who played a role in making it a success. He touched on some of the highlights, including the Fox Hunt, and brought the raspberry pi-powered bright yellow "Fox" for show-and-tell.

He invited Jim WH6FQI, on Zoom, and Roy KH6KU, in the Keaau meeting room, to share their thoughts on Field Day as well.

Gary said he's thinking about staging another Fox Hunt in the fall. Details pending.

Gary then presented an illustrated talk on Winlink and hybrid networks. He gave credit and thanks to Stan Froseth, AH6KO, for being his Winlink mentor and elmer several years ago.

Joe WH6FZH and Tony brought and set up equipment, then demonstrated peer-to-peer connecting using VHF and Baofeng radios.



Jim FQI showed a photo of his off-grid Winlink station and described the various components and their functions. He then demonstrated, on screen, the process of connecting with another station using the VARA FM system.

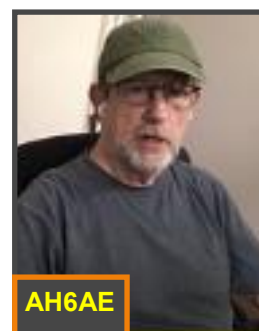
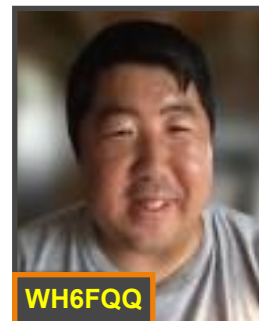
Around 30 members attended the July meeting, about half online and the other half in Keaau.

Gary introduced Joe FZH as the newest member of the BIARC board of directors. He takes the place of William NH6ET, who moved into the slot of Repeater Trustee, a non-voting board position filled with much skill and dedication for many years by Paul Ducasse

WH7BR.

Gary had opened the monthly meeting by going around the room, and around the array of folks on Zoom, to let everyone speak. One of the now-rare contacts made: Jimmy Love, WH6GEM, reporting in from his vehicle near the Hoosier National Forest. "Aloha, everyone," he said, with a huge grin. When asked for an update on his world away from the Big Island, he noted that his is a "life fraught with challenges and rewards."

Bob AH6J brought in a copy to share of a hurricane preparedness advice document he had picked up from the Hawaii County Civil Defense Agency. It was also noted, during a brief discussion



on hurricane season, that Hawaiian Electric also offers good info on how to prepare for a possible hurricane and what to do before, during and after such a disaster.

Winlink Express & Hybrid Radio-Only Network Overview in Hawaii

July 09th, 2022

Big Island Amateur Radio Club
By Gary WH6EPS

A special thanks to Stan AH6KO

WinLink Technology Training

Hardware modems, Software modems

- AX.25 Packet / HF robust Packet (KISS AOWPE)
- VARA FM / VARA HF
- ARDOP
- PACKTOR 1-3 and PACKTOR 4

WinLink Technology Training

Client Programs

- Winlink Express - (Windows OS)
- Pat - Cross platform winlink client (Linux, MacOS and Windows)
- WinAD - Winlink functionality to your Android device
- PFKeys, Outpost, AirMail, Packet-Unix, PacketLink

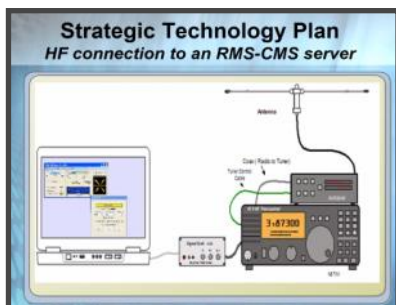
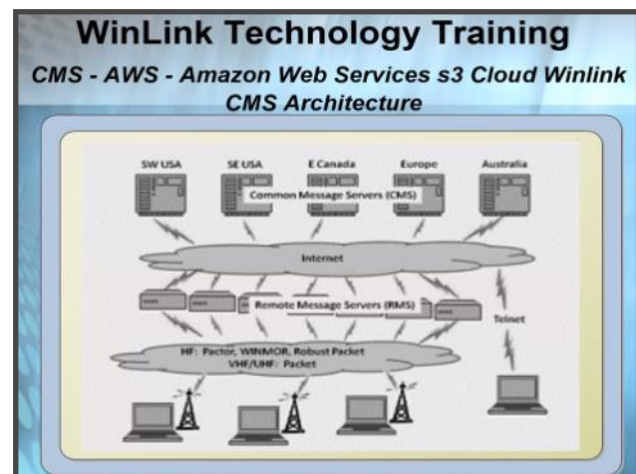
WinLink Technology Training

CMS - AWS - Amazon Web Services s3 Cloud Winlink CMS Architecture

- The CMS is composed of several programs (Windows services) that handle different functions: (Handling) radio connections, Receiving Internet mail, Forwarding mail to the Internet, Processing position reports, performing database maintenance, providing web services, etc.
- The Winlink system consists of two CMSs (generally) which are hosted in the Amazon cloud (to ensure Amazon availability) across The fail-over backup system can be located anywhere but it must be easily accessible and highly available. At present that server is in San Diego.
- Daily backups are performed and held in AWS S3 storage for 7 days. An additional database backup is performed daily and stored off-site on a dedicated server not on Amazon ecosystem. These backups are held for 30 days. This off-site server also contains a complete set of all programs and services to create a stand-alone CMS. It can be brought on-line quickly in case of catastrophic failure of all Amazon resources.
- Take Away, your email on the winlink is relatively safe as long as you login once a year (Actually 900 days)

Discussion Items

- Hybrid and Radio-Only Network using CMS, UHF, VHF, HF and Packet over ARDOP
- Setting up RMS Express and Basic Operation
- Examples of "Winlink operation for everyday use and in emergencies"



WinLink Technology Training

UHF / VHF connection to an RMS-CMS Server Client side

- Packet through Soundmodem(UZ7HO) or hardware TNC / RA-25/DRA-45 boards
- VARA FM

The diagram shows a portable station connected to a PC server via a radio. The radio is labeled '1.200 baud'.

In July, Jim FQI showed a photo of his off-grid Winlink station and talked about its makeup and how it functions.

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At the July membership gathering, Gary WH6EPS presented an illustrated talk on Winlink and hybrid networks. He gave credit and thanks to Stan Froseth, AH6KO, for being his Winlink mentor and elmer several years ago.

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Contact !

Chapter Two

QSLs FROM SPACE

*By Hank Kaul
KH6HAK*

Seven Eleven was the day my QSL card arrived from the ISS.

Surprising how fast the ARISS volunteers turn the logs around.

I am also pleased to see the latest QSL is different from my first one... sixty-five missions and 21 years ago.

I'm gonna need a bigger frame for them both now.

The QSL notes "Crew - Lindgren KO5MOS". So I looked up the present crew aboard the ISS and found that I contacted not just an astronaut, but the Mission Commander of Expedition 67 presently aboard!

Mission Commander Kjell Lindgren. I talked to the boss!

Per the publisher's request, I made sure to get a picture this time. Also note how his callsign looks like "KOSMOS".

I still cannot believe my dumb luck in making this contact when I least expected it. Like any good DX, it is about being in the right place at the right time... and calling!

For those of you who would like to try to raise a live astronaut on the ISS, here are some tips: The crew works on UTC for their daily schedule from 0730 to 1730; their work time is programmed in five minute blocks, and they are kept busy. You will not find them working the radios during these times.

After 1730 UTC daily... until they choose to go to sleep... is their personal time and you might find them on the radio then. Also most weekends they are available to work the radios if they want.

Practice with the cross-band repeater! Look for ISS passes with high elevations that are easy to hit. Uplink is 145.990 MHz with a 67Hz PL tone. Downlink is 437.800 MHz. If you can trigger the repeater and hear yourself come back on the downlink, just give a call for NA1SS sometime if no one else responds on the repeater. Just maybe they might be listening to the radio up there and respond!

You will never know unless you try.



***ISS Expedition #67
Mission
Commander
Kjell Lindgren,
KO5MOS, above
(working the ham
radios on the ISS),
and at right.***



KH6HAK holds his two QSL cards from the International Space Station. The interlude between: 65 missions and 21 years.

Hams at Hilo's Liberty Dialysis assist amateur radio portion of RIMPAC event

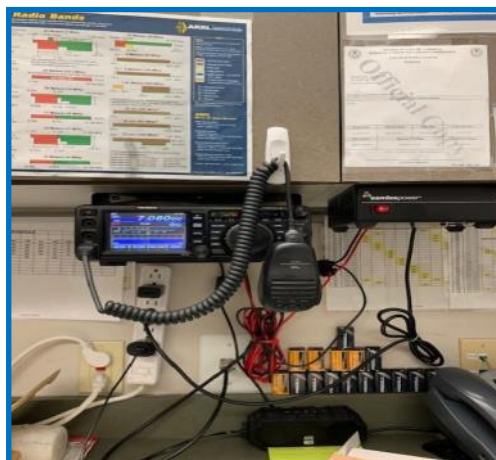
All Liberty Dialysis clinics in Hawaii participated in RIMPAC (Rim of the Pacific) via Hawaii Healthcare Emergency Management (HHEM). All the island hospitals as well as many long-term care facilities also participated.

"Hilo Dialysis participated in the amateur radio portion of the exercise," explained BIARC Secretary Jim Huntley, WH6FQI, an employee. "We sent a variety of critical information via Winlink Point-Point to HHEM.

"We used the check-in, check-out, ICS-309, and ICS-213 forms. Voice communications were poor and we wouldn't have been able to get the messages delivered had it not been for VARA and Winlink.

"I threw up an EFHW in the parking lot attached to my truck. We used a FT-991A and a MYantennas EFHW, as shown at right. We had three hams on site. I operated since we were working on the 40-meter band. My co-worker David, WH6GCJ, and our director of operations, Nancy, WH6FEL, are both Technicians.

"Our participation has spurred other clinics to want to get on board with ham radio!" said Jim.



U.S. Navy photo
An Indonesian Navy frigate arrives at Joint Base Pearl Harbor-Hickam on June 26 to participate in the Rim of the Pacific (RIMPAC) 2022.

U.S. hosts RIMPAC exercise near Hawaii, So. California

A total of 21 United States partner nation ships, including one submarine, from 14 countries docked at Joint Base Pearl Harbor-Hickam Hawaii for the Rim of the Pacific 2022 (RIMPAC 2022) exercise that kicked off June 29.

Twenty-six nations, including the United States as the host, took part in the exercise through Aug. 4 in and near the Hawaiian Islands and Southern California.

The largest contingent was from the Republic of Korea (ROK), which sent three ships and one submarine, followed by the Royal Australian Navy, with three ships. Canada, Japan and Mexico sent two ships each, while Chile, France, India, Indonesia, Malaysia, New Zealand, Peru, the Philippines and Singapore each sent one.

Several of the event's participating ships included embarked helicopters for the biennial drills.

Thirty-eight surface ships, four submarines, nine national land forces, over 170 aircraft and about 25,000 personnel joined in the drills, according to a U.S. 3rd Fleet spokesman.

All hams invited to sign in to monthly Volcano CERT/VERT Radio Check Net

All licensed amateur radio operators are invited to sign in to the Volcano CERT/VERT Radio Check Net at 9 a.m. on the second Saturday of each month. Format: The net starts promptly on **the Volcano Repeater at 147.260 MHz; (pl 103.5 on the input**

only, i.e., transmit only).

At the end of the regular two-round format, participants QSY to the net's alternate repeater, **442.150 MHz (Kulani Mauka; pl 100.0)**, for roll call and signal reports.

"We then close this portion of the net and QSY to the Volcano CERT/VERT **146.490 MHz** simplex frequency for another roll call and signal reports," explained coordinator Doug Wilson, KH7DQ, who serves as net control.

"The purpose of this net is to 1) check our equipment, 2) test your ability to reach the Volcano Repeater, 3) check signals from various locations in the Volcano area and the East side of Hawaii Island, 4) have a short open discussion in a 'normal' two-round net format, and 5) practice switching to our alternate emergency frequencies.

"Everyone should make sure that their radios are programmed with the above frequencies, offsets and pl tones," said Doug. "See you on the air."



Hams help with comms for Volcano runs

As is tradition, on Saturday, July 30, an organized unit of local hams showed up early -- before the runners -- to help with coordination and communications for the annual 'Ohia Lehua half-marathon and 5K runs in Volcano.

"We had 11 hams at various stations positioned around the race course," reported Doug Wilson, KH7DQ, who headed the group and served as net control at the finish-line QTH. "Our ham radio operators once again stepped up to the plate and performed this important community service."

"It was a very successful event, with 353 runners participating and no reported injuries," said Doug. "The ham radio operators demonstrated their expertise and radio skills by keeping track of runners as they made their way around the course and providing real-time status reports from the field into race headquarters."

Other volunteer radio operators were Paul Ducasse (WH7BR) at Aid Station #1, Joe Rosenbaum (WH6FZH) at Aid Station #2, Ellen

Photos by Linda Quarberg, WH6LQ

O'Dunn (WH6FRV) with Course Marshal #2, Jim Tatar (WH6EMN) with Course Marshal #3, Bob Becker (WH6ESC) with Course Marshall #4, Linda Quarberg (WH6LQ) at the 5k Turnaround, Tom Fischer (KH6TD) at the Haunani Turnaround, Marc Bender (WH6FBK) with Police Officer #1, Francis Blas (WH6CVG) with Police Officer #2 and Brev Blas (NH7WP), at the Old Volcano Road and Highway 11 Roadblock.



Set aside 5 minutes to learn about Hawaii VOAD — and other acronyms



Hawaii VOAD is an important partner to Emergency Management Agencies, non-profit organizations and anyone involved in preparing for, responding to, or recovering from a natural or man made disaster.

Please watch the following 5 minute video that introduces you to VOAD. <https://www.youtube.com/watch?v=qhurBdMXraM>

Try this...When you see the animations of the people, notice the 3 letter abbreviations on the front of their shirts. Although the Incident Command

System (ICS) specifies that we are all to use plain English and not jargon or acronyms, human nature is that we will continue to use it.

This goes double for the government agencies and the military. Fire, police, Amateur Radio, and even NGOs all have them.

The quicker we become familiar with each group's acronyms the better we'll be able to understand each other during an exercise or a disaster response. If someone uses one you don't know, don't be shy about asking what

it is. Unless we do, we quickly find ourselves in a position where we don't really understand what is happening.

Example: A fire department employee might be presented with the following situation: His BC tells him to give the status report to the ARES guy handling VOAD comms at the EOC to advise them that the ARC shelter needs to be moved.

While this example is easy for us to understand, the fire department employee might not know

who his BC was asking him to give the message to.

If he knows what ARES stands for, he has a much better chance of quickly spotting the right person.

Although this is a simple example, I've heard sentences where you might just scratch your head and not have a clue what is being said. Parties on all sides would be well advised to get to know each other's terminology better.

73,
Tony Kitchen, WH6DVI

Hawaii QSO Party will be Aug. 27-29

The fun starts at 6 p.m. Hawaii time on Friday, Aug. 26.
(Note: 48-hour event is set on Zulu Time, starting at 0400Z on the 27th, ending at 0359Z on the 29th.)

The **H**awaii **Q**SO **P**arty (**HQP**) is an event to promote HF operation from the unique Hawaii destination in the Pacific. Hawaii is an ARRL DXCC entity as well as the nation's 50th state needed for the ARRL WAS Award.

Details: www.hawaiiqsoparty.org.

BIARC Executive Board Meeting

July 9, 2022

A Begin Meeting

● Call to Order –

- The meeting was called to order at 12:11 pm by Board Vice President Gary Schwiter.

● Quorum Call

- Vice Present: Gary Schwiter, James Huntley, Jim Sugg, Tony Kitchen, and William Polhemus.

● Secretary's Report and Minutes (6/11/2022)

- William **moved** and Tony **seconded** that the June BIARC Board Minutes be approved as published. Motion **passed**.

● Treasurer's Report

- No written report. We received on annual membership fee. Only expenses were field day food expenses and Annual PO box fee.
- William **moved** and Jim H. **seconded** that the report be approved be approved, subject to audit, without changes. Motion **passed**.

B Members Present

- Members present: Joe WH6FZH, Bob AH6J. Glenn AH6EI and Roy via Zoom.

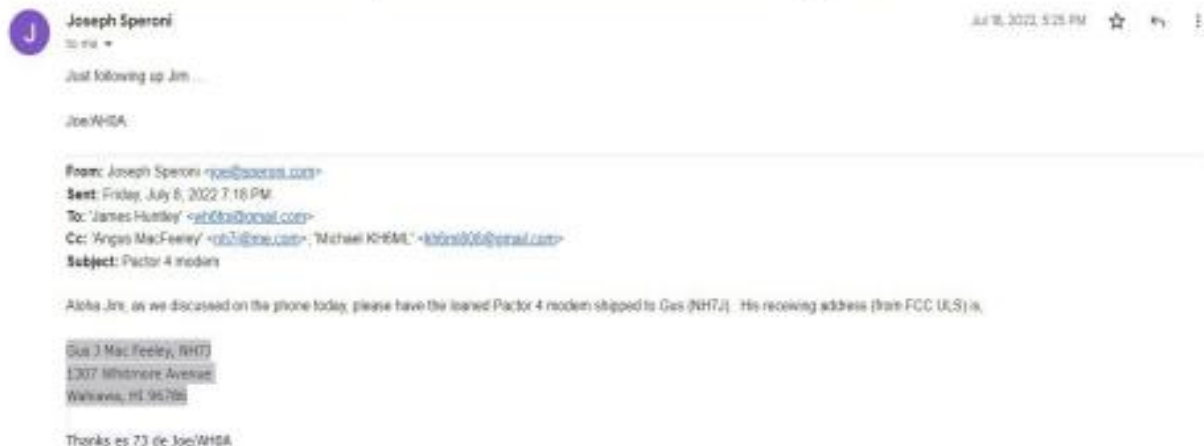
- Bob mentioned they are trying to get Deans call (KH6B) assigned to the the QRP club.

C Committee Reports

- Digital Systems verbal report.

- The Pactor modem belonging to HERDN Group needs to be shipped to: Gus J Mac Feeley, NH7J, 1307 Whitmore Avenue, Wahiawa, HI 96786

● Shown below is the request for the unit to be shipped:



- William **moved** and Tony seconded that the board authorize payment for shipping and tracking to be reimbursed. Motion **passed**.
- Education and Outreach, no report
- Operating Activities (verbal report)
 - Field day went well even though we had to use the backup location. Parking was an issue which may have cut down on the number of people attending.
 - Jim H will submit the club field day log.
 - A field day committee should be created for next years field day.
 - Table the discussion of changing insurance companies until next meeting.
- Program Committee
 - This months program is on Winlink and September will be AREDN.
 - William would like to do a program on radio direction finding(October?).
- Public Service Committee, No written report.
 - Reminder of ARES COMMEM on Saturday July16th.
- Voice Repeater Committee, no written report
 - Kulani C4 repeater was reset on Field Day
 - There is a request in process to have a little network access on State Microwave to allow us to be able to reset the repeater remotely.
 - The design for channelized multi coupler is pending drawings but has been white boarded.
 - A different design that will be easier to fabricate for a new antenna standoff will be used. William will pay for the material and submit a receipt for reimbursement.

D Old Business

● Equipment Donation

- The UPS that was to be donated is defective. The new batteries will be paired with an old UPS that William has been storing.

E New Business

● Filling vacated Board position

- Tony **moved** William **seconded** that Joe WH6FZH be appointed to fill the empty position until the next election. Motion **passed**.
- William is officially the new station trustee.
- We would like to thank Paul for his years of services as the trustee.
- Gary will reach out to the membership to find someone to take possession of the lending library.
- Discussion of lending library tabled to next meeting.
- Gary **moved** William **seconded** for Education and outreach to explore partnerships with educational institutions. Motion **passed**.

There being no further business, Gary adjourned the meeting at 13:07 pm HST.

Respectfully Submitted,

James R. Huntley, Secretary

Sign up for CWops

The CW Operators' Club (CWops) reports that their spring 2022 CW Academy program is complete, and 314 students completed courses to learn Morse code or improve their CW skills. The next eight-week session begins in September. CW Academy's goal is to increase the number of competent CW operators on the HF CW subbands. It addresses all levels of enthusiasts, from those aspiring to become licensed operators, those

who want to learn and use Morse code, to veteran operators who want to increase their CW skills, speed, and activity. The CW Academy classes are offered three times a year and consist of students from around the world. Classes typically have four to six students led by an experienced advisor who helps them with exercises and encouragement to learn and have a little fun along the way. There are four class levels of training offered that range from students who want to learn Morse code and have no experience to licensed operators who

have on-air CW experience and desire to increase their speed or become more comfortable with contests, casual contacts, portable operating, or other on-air activities. The CW Academy emphasizes head-copy skills, along with effortless sending. There is no fee involved and classes are held twice a week using Zoom or Skype. More information about signing up for a class, or how to become volunteer, can be found at <https://cwops.org/cw-academy/cw-academy-options>.



ARRL Chief Executive Officer David Minster, NA2AA (left) presents the 2021 ARRL Technical Innovation Award plaque for Wojciech Kaczmarski, SP5WWP, to Ed Wilson, N2XDD, the M17 Project Community Manager, at ARRL Headquarters. [

Alex Norstrom, KC1RMO, photo]

ARRL Tech Innovation Award honors SP5WWP for M17 digital protocol

The 2021 ARRL Technical Innovation Award honors Wojciech Kaczmarski, SP5WWP, for developing a new digital radio communication protocol, M17, for the good of amateur radio.

M17 is a new open-source and patent-free digital radio protocol with a goal to provide a fully sustainable option for digital radios in the future.

ARRL member Ed Wilson, N2XDD, the Community Manager of the M17 Project, accepted the 2021 Technical Innovation Award plaque on behalf of Kaczmarski when Wilson visited ARRL Headquarters on July 12.

The award plaque is being shipped to Kaczmarski in Poland. The efforts of Kaczmarski and other M17 community team members have led to the development of DroidStar, an Android application by Doug McLain, AD8DP. The protocol has also been incorporated within other amateur radio-related projects to help advance the radio art.

Virtual Ham Expo set for Sept. 17-18

The next QSO Today Virtual Ham Expo, a full featured virtual ham radio convention, is September 17-18. The online event includes speakers and presentations, fully interactive video lounges where participants can meet each other and chat, and an exhibit hall full of vendors and organizations.

While the Ham Expo was originally created in August 2020 as an alternative to canceled in-person ham radio conventions due to the COVID-19 pandemic, it has evolved into a regularly-held event for amateur radio learning through peer submitted presentations on nearly every amateur radio subject, lively discussion, and interaction.

Sponsor and exhibitor opportunities are still available. The \$10 ticket for the Expo will go on sale in August. Anyone can attend the Expo from anywhere in the world, over the internet. For more information go to qsotodayhamexpo.com.



New Digital Chat Software

Aloha,

Amateur Radio software developments continue to surprise. There is a lot of talent among us. In August 2021, Irad Deutsch (4Z1AC) released a BETA version of VARAC based on the VARA software modem many in Hawaii are familiar with. In just a year with 18 updates, the user base has exploded and irad's contribution to digital QSOs has garnered a lot of attention. With an ARQ transport layer, chats provide error free texting, just like Internet applications.

The VARAC website is well done and provides many solutions to issues that have limited Amateur Radio texting of longer messages. VARAC may be one answer to: "cell phone style" texting sought by newer younger hams.

Interested in digital and newer solutions? Take a look and see what you think. A number of Hawaii Amateurs are already working DX using VARAC. <https://www.varac-hamradio.com/>

ARRL Pacific Section

Section Manager: Joseph Speroni, AH0A
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