



April 2023

THE BIG ISLAND HAMGRAM

The newsletter of the Big Island Amateur Radio Club

THE PRESIDENT'S CORNER

Alan Okinaka,
KH6ATU



Join the BIARC Morning Nets

As everyone knows, every Monday, Wednesday, and Friday, at exactly 8 a.m., the BIARC Morning Nets are held on frequency 146.76 Mhz.

Our net controller/host/moderators are Paul Ducasse (WH7BR) on Mondays, Del Winn (WH6DEL) on Wednesdays, and Chris Allen (WH6DCC) on Fridays.

Weather reports, lawn maintenance, and riddles are reported besides the progress on an antenna project, situation with repairing a radio, announcing the next license training classes and reminding everyone of the siren test to be conducted and requesting everyone's assistance.

It is always fun and interesting to participate on these nets because of the discussion, but I always think of how more interesting it is that I have not met over half of the ham operators participating in these morning nets. When I first started joining the nets, it was more than three-fourths of the operators I "met" with

Continued on Page 3



March meeting news

— Les Hittner, K0BAD, said he's still looking for a happy home for the club's lending library.

If you have space, please let him know.

— Jim Huntley, WH6FQI, invited members to work with Keaau HS teacher John Bonewitz, KH6JB, and his students who are working on a project involving tracking

Continued on Page 3

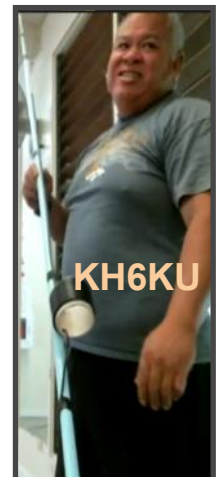


At the March get-together, Roy Kunishige, KH6KU, and Jim Huntley, WH6FQI, discuss and answer questions about a pair of home-grown antennas.

Here's how to build your own antenna

March meeting antenna-build demonstration report from Roy Kunishige, KH6KU: So we actually did two different antennas at the meeting, an antenna made entirely out of coax called a T2LT antenna, and a Delta Loop made from scrap pieces of regular household THHN wire and old RG-59 coax 75ohm (cable tv cable).

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April meeting change

Because Easter falls on the second Sunday of April, the monthly meetings of BIARC will be held on the third Sunday — April 16 — at Kamana Senior Center in Hilo.

The Executive Board will meet at noon, with the membership gathering following at 2 p.m., at 127 Kamana St.

Zoom access will be provided courtesy of Les

Hittner, K0BAD, at:
[https://us02web.zoom.us/j/5181360132?](https://us02web.zoom.us/j/5181360132?pwd=bTVFTG5HZXowYVJ6OHpFcEV1dHJRUT09)
[pwd=bTVFTG5HZXowYVJ6OHpFcEV1dHJRUT09](https://us02web.zoom.us/j/5181360132?pwd=bTVFTG5HZXowYVJ6OHpFcEV1dHJRUT09)

Build an antenna

From previous page

The specs are as follows:

6M T2LT antenna

Materials needed:

About 15' of coax, whatever is on hand: RG-58, RG-8x, etc.

Scrap piece of regular 3" PVC pipe about 2" long

(1) PL-259 coax connector

Measure 57 1/2" from one end and mark it, this is where you will strip off the outer pvc jacket and coax shield braid, leaving the insulator and center conductor intact.

Measure another 57 1/2" from where you stripped off the outer jacket down the coax and put a piece of electrical tape to save that measurement, this is the radiating element of the antenna.

From the point where you marked with the electrical tape, wrap the remainder of the coax around the 3" pvc pipe six times to form a choke, use electrical tape to hold it tight in form around the pvc pipe leaving a "pig tail" end, this is where you will attach the PL-259 connector.

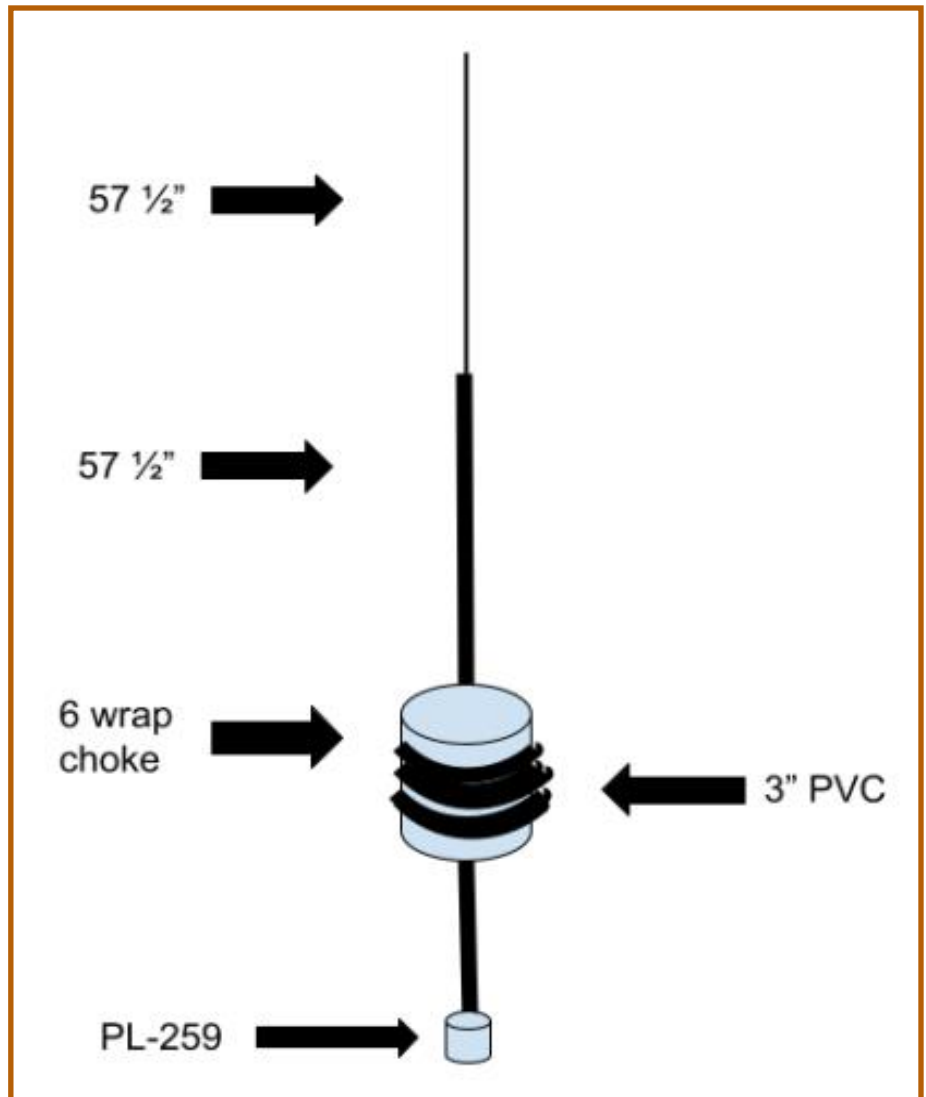
Use a barrel-type SO-239 connector to attach the antenna to your main coax line to your radio.

Using an antenna analyzer, you can fine tune the antenna for best SWR readings for desired frequency by clipping the top section of the coax with the insulation in very small increments.

That's it! You can attach a piece of paracord to the end of the coax and hang it in a tree or off of a non-metallic pole and you'll have a great vertical antenna that can be packed up and taken anywhere!

To make one for 10M, follow same instructions except you'll need about 30' of coax, the antenna measurements are 104" instead of the 57 1/2" ones. And the 3" pvc pipe should be around 4" long with at least 12 turns to form the choke; tune the antenna the same way for best SWR readings for the frequency you want.

**73s,
Roy, KH6KU**



~ 2023 BIARC Roster ~

Executive Board officers and committee chairs

President

Alan Okinaka, KH6ATU

Vice President

James Huntley, WH6FQI

Secretary

Joseph Rosenbaum, WH6FZH

Treasurer

Tony Kitchen, WH6DVI

At-Large directors

Roy Kunishige, KH6KU, and
David Miller, KH6CZ

KH6EJ station custodian

William Polhemus, NH6ET

Public Service/

Communications Committee

Chair David Miller, KH6CZ

Operating Activities Committee

Chair John Bush, KH6DLK

Education and

Outreach Committee

Chair Leslie Hittner, K0BAD

Programs Committee

Chair James Huntley, WH6FQI

Digital Systems Committee

Chair James Huntley, WH6FQI

Voice Repeaters Committee

Chair William Polhemus, NH6ET

Meeting Refreshments

Committee

Chair Robert Schneider, AH6J

BIARC Hamgram

Editor Leigh Critchlow, WH6LC

Club website: <https://biarc.net>

THE PRESIDENT'S CORNER

Continued from Page 1

just their call signs and names. There's an old adage that advises not to judge a book by its cover and this applies to the morning nets in some manner. A face is not required to confidently share stories and respond to comments.

This reminds me of something that happened in my other life ... yeah, when I was working. This was when there were no smartphones, Zoom service, or social media platforms where you could instantly see who you were talking to. I was assigned to work remotely with someone on the East Coast. He introduced himself as being of Irish ancestry and I jokingly said that I was too. My name Okinaka could be another spelling for O'Keenaka, and for some reason he really believed I was Irish.

We worked together for a whole year and an in-person meeting was held to finalize and celebrate the completion of the project. I walked up to him and introduced myself and there was a pause of a few seconds when he blurted out, "You're not Irish!" Then another few seconds and we were both laughing with ribs aching and tears flowing. We had established a good friendship working together for a year and we realized that having a face or ethnicity were not factors in this relationship.

I do hope that I get to meet everyone on the morning nets, someday. But, like this experience, not having a face to a call sign or name is not a factor in determining a good friendship. I must confess that there are times when I try to visualize what someone looks like just by their voice and comments, and I am humbled when I meet them and find out my visualization skills suck.

So, join us on the morning nets and create virtual friends.

It is fun!

Alan, KH6ATU

March meeting news

Continued from Page 1

and contacting astronauts on the International Space Station.

A silent auction for an assortment of donated ham radio equipment from a Silent Key is being conducted at the March and April membership gatherings of BIARC. Then, at the May meeting, the bids will be reviewed and the winners may claim their new toys.

Proceeds will go toward purchasing a club radio to be used for BIARC activities, said Roy Kunishige, KH6KU, the executive board member who is coordinating the activity.



Richard Turner
(formerly WH6FLH, now KL5HQ)
signs in on Zoom from Ketchikan.

A special treat at the March meeting was getting to see Richard Turner (formerly WH6FLH, now KL5HQ) signing in on Zoom from Ketchikan, Alaska.

He's in the process of relocating to Wrangell Island, about 80 miles north of Ketchikan.

Amateur Radio Included in FEMA Guide for National Emergency Preparedness

The Federal Emergency Management Agency (FEMA) has released a final version (March 2023) of the National Incident Management System (NIMS) Information and Communications Technology (ICT) Functional Guidance. The guidance, which provides a framework for communications resources within incident management, officially includes support from amateur radio operators. The expanded Communications Unit (COMU) structure now includes the Auxiliary Communicator (AUXC) role, which covers personnel from services that provide communications support to emergency management, public safety, and other government agencies. This includes amateur radio.

NIMS guides government, non-governmental organizations, and the private sector to work together to prepare for, respond to, and recover from disasters and other emergencies. "This is a major step in the recognition of the need and usefulness of amateur radio and other communications services in our national preparedness," said Josh Johnston, KE5MHV, Director of Emergency Management for ARRL The National Association for Amateur Radio®. "It also gives official guidance to pave the way for future training and education of volunteers in ARRL's Amateur Radio Emergency Service® (ARES®)," Johnston added.



The NIMS ICT guide (PDF) is available at https://www.fema.gov/sites/default/files/documents/fema_ict-functional-guidance.pdf.

Community service benefits both givers and receivers

By Joseph Rosenbaum, WH6FZH

As amateur radio operators we are an important part of our communities. We use our knowledge of radio communications to provide essential services during times of emergency, such as natural disasters and other crises. In addition to this crucial role, hams also have an opportunity to give back to their communities through community service.

I believe community service to be an important part of what we do as a club.

One example is our recent response to the Hawaii Fire Department's Auxiliary Communications team's request for the Pohakuloa Training Area. The PTA Fire Department, DA Police Department, PTA Medic Station and PTA Range control public safety agencies had been without their regular radio communications since the Mauna Loa eruption cut off the power and access to the area of the Mauna Loa Observatory.

Using club repeaters and other equipment, we restored temporary emergency communications for the public safety agencies.

Community service is an essential aspect of being a responsible and engaged citizen. It involves dedicating one's time and energy to helping others and making a positive impact on the community. For amateur radio operators, community service can take many forms. One way hams can contribute is by providing support to local events and organizations.

For example, hams can assist with communication and safety during community events such as races, parades, and festivals. They can also help support local organizations such as schools, hospitals, and charities by providing communication services and technical assistance.

Another way amateur radio operators can give back is by participating in public service activities. These activities may include disaster response and recovery efforts, search and rescue operations, and public safety initiatives. Hams are often called upon to provide communication support during emergencies and

natural disasters, and their expertise can be invaluable in helping to coordinate rescue and relief efforts.

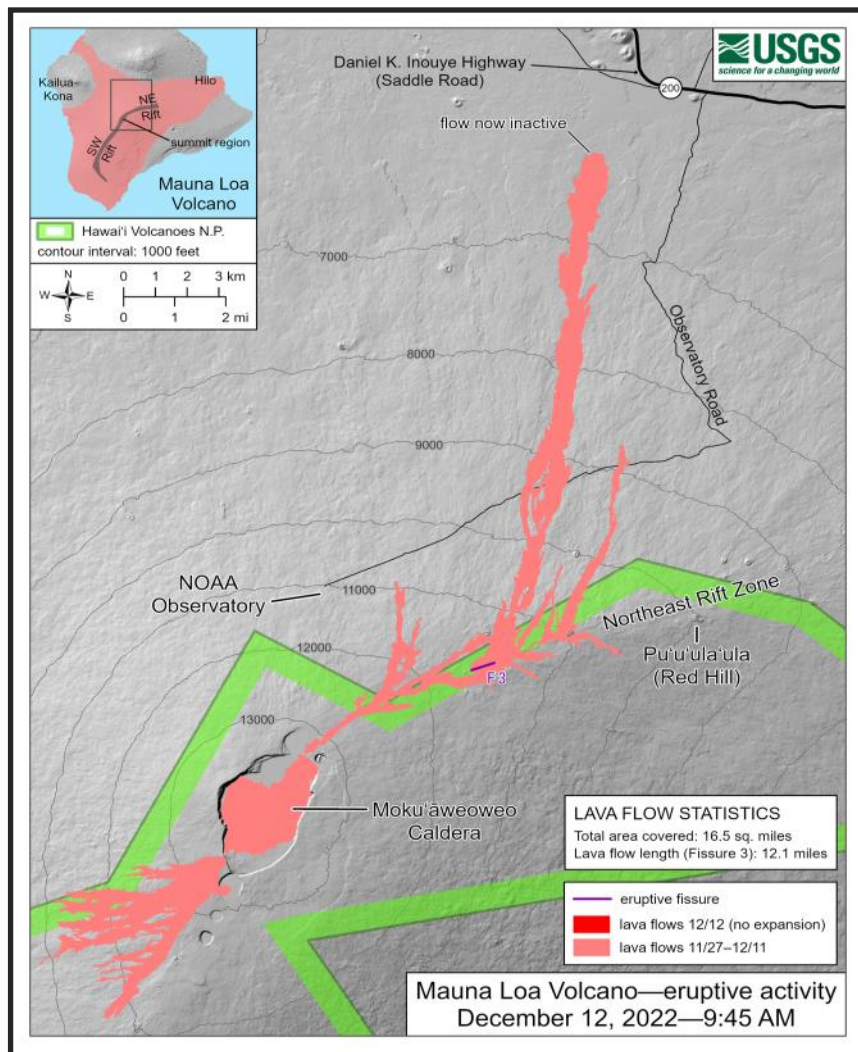
Community service also provides an opportunity for amateur radio operators to share their knowledge and expertise with others. Many hams are passionate about their hobby and enjoy sharing their love of radio communication with others. By participating in community service activities, hams can introduce others to the world of amateur radio and inspire a new generation of radio enthusiasts.

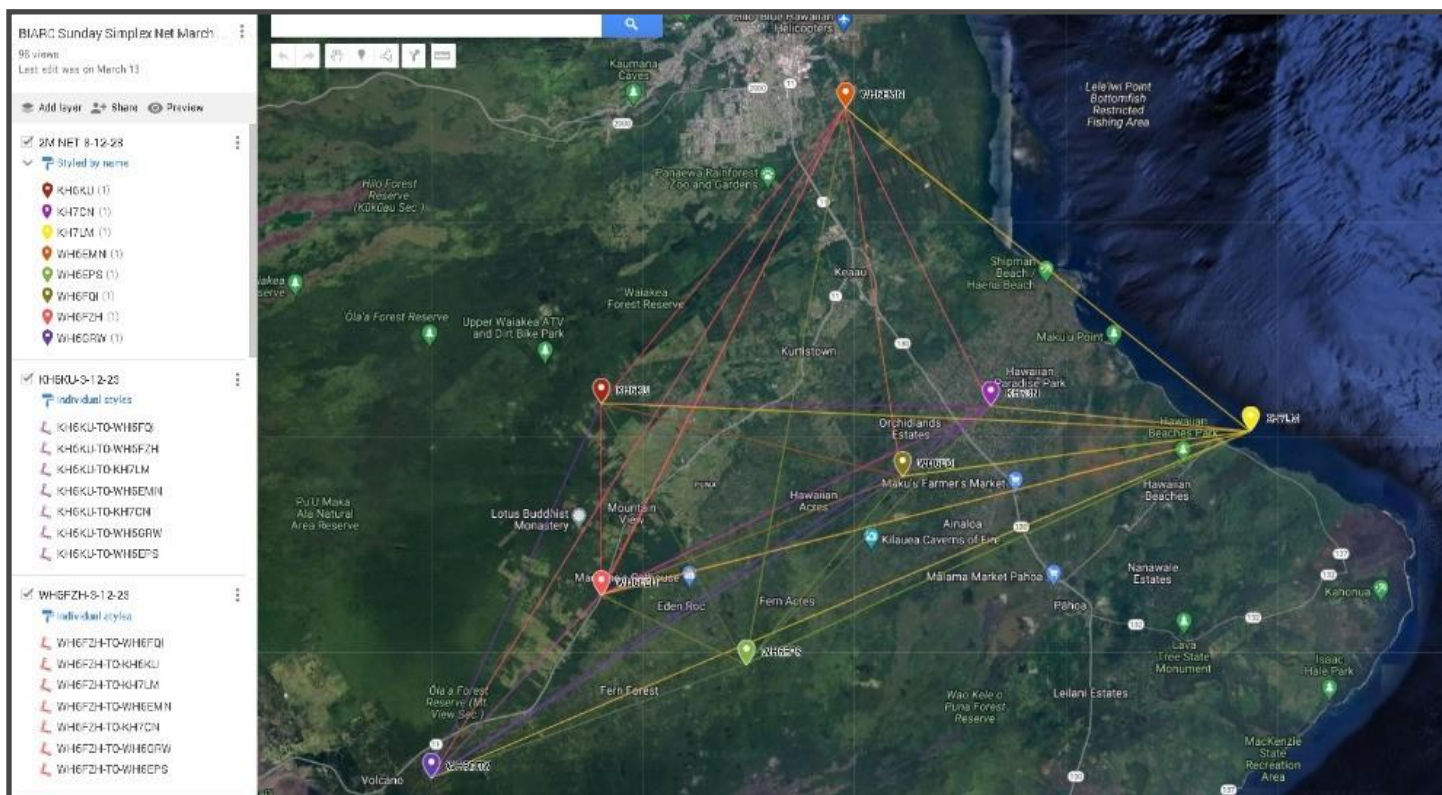
Participating in community service activities can also benefit amateur radio operators in several ways. First, it helps to build relationships within the community and can lead to new opportunities and connections. Second, it provides an opportunity for hams to develop new skills and gain valuable experience that can be applied to their

hobby and professional pursuits. Finally, community service can be a source of personal fulfillment and satisfaction, as hams see the positive impact of their efforts on the community.

In conclusion, community service is an important aspect of being an amateur radio operator.

By giving back to their communities, hams can make a positive impact on those around them and help to promote the values of citizenship and service. Whether by supporting local events and organizations, participating in public service activities, or sharing their knowledge and expertise with others, hams have a unique opportunity to make a difference and give back through community service.





Ham radio enthusiasts across East Hawaii are invited to participate in the Amateur Radio Monthly Sunday Night Simplex Net on April 16, starting at 7 p.m. HST. The net will begin on the 76 repeater and then move to the VHF simplex frequency of 146.52 for the simplex round. The net debuted March 12.

Ham operators test coverage on VHF with new Sunday Night Simplex Net

Ham radio enthusiasts across East Hawaii are invited to participate in the Amateur Radio Monthly Sunday Night Simplex Net on April 16, starting at 7 p.m. HST. The net will begin on the 76 repeater and then move to the VHF simplex frequency of 146.52 for the simplex round. The net debuted March 12.

This event provides an excellent opportunity for radio operators to test their coverage on VHF and to connect with other ham radio enthusiasts in the community. This is a good opportunity to check your equipment and operation readiness.

"We are hopeful the net will become a popular event, and are excited to welcome both new and experienced operators to participate," said net coordinator Gary Schwiter, WH6EPS. "The Sunday Night Simplex Net is a great way for ham radio operators to come together and practice their skills, while also

testing their equipment and coverage. We encourage anyone interested in amateur radio to attend and join in on the fun."

"Ham radio, also known as amateur radio, is a popular hobby that involves using radio communication to make contact with other operators around the world or in just your little part of the Island. It's a great way to learn about electronics and radio technology, as well as to develop communication skills and connect with people who share similar interests," said WH6EPS.

The net is open to all licensed amateur radio operators, and newcomers are welcome to join. To participate, simply tune in to the 76 repeater at 7 p.m. HST on Sunday April 16 and follow the instructions from the net control.

"Don't miss this opportunity to connect with other radio operators and test your coverage on VHF. We hope to see you on the airwaves!"

Next Volcano VERT Radio Check Net open to all on Saturday, April 8

Coordinator and net controller Doug Wilson, KH7DQ, invites all licensed amateur radio operators to participate in the monthly Volcano VERT Radio Check Net Saturday, April 8.

The net starts promptly at **9 a.m. on the Volcano Repeater; 147.260 MHz; (pl 103.5 on the input only, i.e., transmit only).**

"At the end of the regular two-round format on the Volcano Repeater, we will QSY to our alternate repeater **442.150 MHz (Kulani Mauka; pl 100.0)** for roll call and signal reports. We will then close this portion of the Net and QSY to the Volcano VERT **146.490 MHz** simplex frequency," said Doug.

"On our Volcano VERT simplex frequency (**146.490**

MHz) we will do a roll call and exchange signal reports with each station until all stations on this frequency have been contacted. This will conclude the Volcano VERT Radio Check Net.

"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."

Here's how to get personalized BIARC shirts

Jim Tatar, WH6EMN, announced at the March meeting that Chris Martin, owner of Big Island Screen Printing is offering some custom printing for those wanting a new BIARC T-shirt.

"For \$25, Chris will do the setup and silk screen your name and call sign on 2 shirts to be provided by you. He will also print 'BIARC' on the other breast, as shown in the sample shirt, as part of the \$25."

"Orders will be taken at the April meeting. Please specify left or right side of the shirt you want your name and call sign on 'as you're wearing the shirt,'" said Jim. A payment of \$25 per order can be made by check or cash to Chris Martin. Please bring your shirts and write down your name and call sign.

You can also contact Chris directly at his email or phone listed below for additional work.

Chris can do additional printing on a case- by-case basis.

Chris Martin, bigislandscreenprinting@gmail.com, (808) 938-8785



Orders will be taken at the April meeting for the special personalized silk screening of BIARC shirts.

"Be sure to tag your shirts with your name and call sign, and your phone number," said Jim. "Chris lives in Aloha Estates so some of you may want to make arrangements to drop off directly to him."

Updated Js8call net info

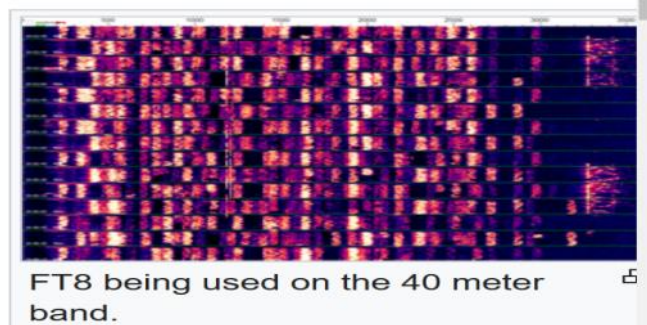
The purposes of these nets are to check that Js8call and our radio systems are working correctly. Net's frequency is 7.070 USB. Tuesday and Thursday evenings at 6:30 p.m. HST and Friday nights at 8 p.m. HST. Please use @hinet for the group, use turbo mode and sync your computer clock to an internet time server or GPS.

73 and Aloha de Joe WH6FZH

JS8Call (JS8) is an amateur radio QSO communication mode based on FT8. It is popular among amateur radio operators for its ability to send and receive messages despite challenging propagation conditions, high noise environments, low power operations (QRP), or even compromised antennas.

JS8Call turns FT8 into a "chat" mode, allowing stations to send longer messages "keyboard-to-keyboard." JS8Call can be thought of like a very weak-signal radio broadcast form of 'e-mail' (though it is not e-mail), where operators can check their message inbox and reply later. Messages can also be sent out to be relayed through other operators to reach a recipient operator. JS8Call conversations can also be had in real-time.

JS8Call was created by Jordan Sherer (KN4CRD) and first released January 04, 2019. Later releases of JS8Call added more features to the mode, such as higher-speed transmissions.



From Wikipedia, the free encyclopedia

FT8 or **Franke & Taylor 8** is a frequency shift keying digital mode of radio communication. Following release on June 29, 2017, by its creators Joe Taylor, K1JT, and Steve Franke, K9AN, along with the software package WSJT,^[1] FT8 was adopted rapidly and, in little over two years, it became the most popular digital mode on spotting networks such as PSK Reporter.^[2]

FT8 is a popular form of digital weak signal communication used primarily by amateur radio operators to communicate on amateur radio bands with a majority of traffic occurring on the HF amateur bands.^[3] The mode offers operators the ability to communicate in unfavorable environments such as during low sun spot numbers, high RF noise, or during low power operations.^[4] With advances in signal processing technology FT8 is able to decode signals with a signal to noise ratio as low as −20 dB in a 2500 Hz bandwidth, which is significantly lower than CW or SSB transmissions.

BIARC EXECUTIVE BOARD MEETING

BEGIN MEETING

- The meeting was called to order at 12:03 pm on Sunday, March 12, by Board President Alan Okinaka. Venue was the Kamana Senior Center in Hilo.

QUORUM

- Board members: Alan Okinaka, William Polhemus, James Huntley, Roy Kunishige, Tony Kitchen, Joseph Rosenbaum.
- Non-board club members: David Miller, Les Hittner and James Tatar.

Secretary's Report and Minutes

- William moved and Roy seconded that the February Board Minutes be approved as published, motion passed.

Treasurer's report

- Joe moved and William seconded to accept the treasurer's report as submitted, subject to audit. Motion passed.

Committee Reports:

Public Service Communications Report:

- Zoom account set-up for PSCC use.
- PSCC meeting held February 13, 2023 with Alan Okinaka and David Miller over Zoom.
- Committee meetings have been tentatively reassigned to 7:00 PM on the second Monday of each month. Schedule to be finalized reflecting membership wishes.
- Doug Wilson has stepped down from this committee, more committee members are needed.

Operating activities:

- In the process of securing a location for Field Day.

Programs:

- Demonstration of T2LT antenna and next month will be a presentation on Vector Network Analyzers (commonly known as VNA's.)

Voice Repeaters:

- The custom pipe-to-pipe clamp needed at the Kulani Cone repeater site for the linking project is available through the commercial manufacturer Commscope. William received a quote and is waiting on a shipping quote, therefore he has asked the board to reinstate the previous approval for purchase and to authorize up to \$500.00.
Jim moved and Roy seconded to approve up to \$500 for the clamp. Motion passed.

Education and Outreach:

- Les has been working on a tri-fold pamphlet for new amateur operators and others who wish to join the club.
- We need a storage solution for the lending library, any ideas would be welcome.

Old Business:

- Need to fill executive board vacancy.
- William moved and Joe seconded that David Miller will be the new at-large board director. Motion passed.

New Business:

- In order to support the Orchidland CERT team, we are going to let them use a currently offline BIARC repeater at their tower site. The club will do the installation and any other work that needs to be done for this project.
- William moved and David seconded that we authorize up to \$200 for incidentals such as lightning arrestors, a polyphaser, a grounding conductor, etc. needed on this repeater project. Motion passed.
- Tony moved and Jim seconded that we reimburse Bob Schneider \$38 for food, drinks, etc. for the club meeting. Motion passed.

Announcements:

- The next meeting will be on April 16, 2023 at the Kamana Senior Center in Hilo.

There being no more business Alan adjourned the meeting at 1:30 PM. HST

Respectfully submitted,

Joseph Rosenbaum, Secretary

John Gibbons, N8OBJ, introduced the Grape Version 2 at the 2023 HamSCI Workshop that was held March 17 and 18 at the University of Scranton in Pennsylvania. Grape is a high frequency (HF) Doppler receiver that is used as a low cost, personal space weather station (PSWS). The project was created for ionospheric research. The Grape collects Doppler measurements of time standard stations, like WWV in Fort Collins, Colorado. The data is used by professional and academic researchers to learn about solar flare impacts and geomagnetic storms. Grape receivers can be easily deployed by amateur radio operators. A video introducing the Grape Version 2 is available on ARRL's [YouTube channel](#).



Amateur Radio Activity Honors African American Heritage

Parks on the Air® (POTA) sites that honor African American heritage are the focus of a casual operating event organized by the OMIK Amateur Radio Association, Inc (OMIK). The [OMIK POTA Challenge 2023](#) will run from April 1 to December 31.



OMIK was founded in 1952 by black amateur radio operators. While it is still a predominately African-American organization, today it represents a multi-racial, multi-cultural organization with members from the US and around the globe. OMIK is an ARRL Affiliated Club.

The group hopes to attract at least 750 radio contacts for the program by the end of the year. All modes permitted by the POTA program are eligible. OMIK members are encouraged to activate sites using the OMIK club call sign, K0MIK. The club's call sign must be reserved at least a week in advance.

The group has a list of suggested sites that are known to have a significant role in African American history. They hope that at least five unique national parks will be activated as part of the event, contributing to a total of at least 10 successful activations.

Amateur Radio Digital Communications Awards \$420,000 to the FreeDV Project

Amateur Radio Digital Communications (ARDC) has awarded a \$420,000 grant, one of the first for 2023, to develop and document FreeDV, an open-source amateur radio technology. The grant will be used to help advance the state of the art in HF digital voice and promote its use.

FreeDV is a graphical user interface application for Windows, Linux, and macOS that allows any SSB radio to be used for low-bit-rate digital voice. Speech is compressed down to 1600 bits/second, then modulated onto a 1.25 kHz wide 16 QPSK signal, which is sent to the microphone input of an SSB radio.



World Amateur Radio Day is April 18

In less than a month, 2023 World Amateur Radio Day (WARD) will be celebrated, literally, around the world!

WARD is held on April 18 every year and is celebrated by radio amateurs and their national associations which are organized as member-societies of the International Amateur Radio Union (IARU). It was on this day in 1925 that the IARU was formed in Paris. American Radio Relay League (ARRL) Co-Founder Hiram Percy Maxim was its first president.



The IARU [announced previously](#) that Human Security for All (HS4A) will be this year's World Amateur Radio Day theme. The day is being celebrated with a 2-week operating event occurring April 11 - 25. Special event stations will be operating from around the world, making two-way radio contacts to call attention to the HS4A campaign. The United Nations Trust Fund for Human Security describes 'human security' as "a more powerful, lasting approach to the most difficult deficits in peace and development," such as poverty, war, and natural disasters.

ARRL encourages all radio amateurs to take to the airwaves for WARD, to enjoy our global friendship with other amateurs, and to show our skills and capabilities to the public.

More information about 2023 World Amateur Radio Day is available at www.arrl.org/world-amateur-radio-day and www.iau.org/on-the-air/world-amateur-radio-day.

New ARRL Club Development Program

Amateur radio clubs across the country are led by many dedicated volunteers who often give more than their share to make the club successful. They are often asked to take on rolls that may or may not line up with their personal experience. ARRL is hoping to bridge that gap with its new Club Development Program. This program consists of a series of free webinars aimed at covering the various roles that exist in clubs. Subject-matter experts from across the country are volunteering their experience to help provide training. In today's ever-changing environment, just having someone review what each role entails can be a big help.

The first online seminar will take place on Thursday, March 30, at 7 PM Eastern time. All webinars will be recorded and made available in the [ARRL Learning Center](#). The first online seminar will concentrate on the role of Club Secretary. Future seminars will look at the roles of Treasurers, Newsletter Editors, Public Information Officers, Webmasters, and others. The link to register for the webinar is below. Feel free to spread the word to others that may wish to attend.

Register in advance for this webinar:

https://us06web.zoom.us/webinar/register/WN_AzCmCTdORuOmPu5gm2W_g

After registering, you will receive a confirmation email containing information about joining the webinar.