



February 2024

THE BIG ISLAND HAMGRAM

The newsletter of the Big Island Amateur Radio Club

We're into the second year of a rewarding outreach effort **Club's school science fair volunteers set to go Feb. 7**

By David Miller, KH6CZ
Chair, BIARC Public Service
Communications Committee

Our BIARC Public Service Communications Committee will be sponsoring our participation in the first Science Fair event of 2024, which is planned by the Hawaii Science and Technology Museum.

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Mark Watanabe, WH6FSA,
at a previous science night.

Because of Super Bowl Sunday, BIARC monthly meetings (noon: board; 2 p.m.: membership) will be one week later, on Sunday, Feb. 18, at Kamana Sr. Center.

Mahalo and aloha, WH6FQI



Photo by Mark Watanabe, WH6FSA

At the January meeting, 2023 BIARC President Alan Okinaka, KH6ATU, at right, presents a Special Appreciation Award for "years of generous service to the club and community" to James Huntley, WH6FQI, who is leaving the Big Island. Members followed with personal stories of the many ways that FQI has helped his fellow hams and the public.



THE PRESIDENT'S CORNER

By Thomas Avila, WH6GWL

To the BIARC community:
My name is Thomas Avila, WH6GWL, and as of January 14th, 2024 I have been deemed the President of BIARC.

I was born in the Bay Area of California, raised in Honokaa Hawaii and have always had a penchant for electronics. I attended Hawaii Community College with the intent of getting my Associate's degree in electronics.

I had the luck of having Harvey Motomura, AH6JA,

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It's a tradition in BIARC President Thomas Avila's family to give Mom a rooster for any holiday as a gift. Here, WH6GWL poses with the festive model which was a Christmas/birthday present for his mother. The decades-long running family joke is based on a Portuguese fable of a rooster that saved a village, says Thomas.

THE PRESIDENT'S CORNER

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who showed the importance of radio and how it affects the world. That was when myself and a few of the nursing majors decided to get our Technician licenses.

I originally got my ticket in 2010, which unfortunately expired during the pandemic. After learning about all of the changes in the wild world of Ham radio, I realized much of it has remained unchanged, except for the cost of entry level gear.

When I found a Baofeng UV-5R for \$25 on craigslist, I jumped back into Ham radio by almost immediately getting my technician license.

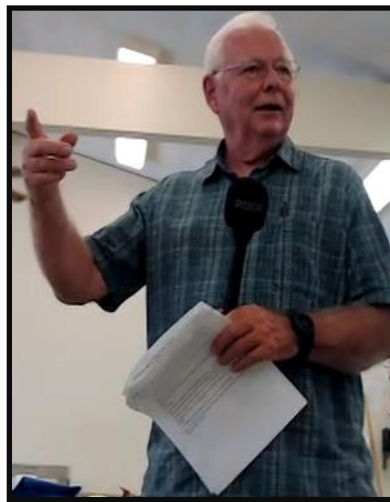
Since then I have slowly been looking into all aspects of what this group is about and what it will become.

I know I have met and shaken hands with a majority of the members (and I can't wait to meet everyone), but I wanted to write just a little about myself. I look forward to what we will accomplish as far as teaching each other and further helping the community.

I am very happy and proud to be a part of this great group of people. I see great things coming as far as reaching our youth, bringing more people into Ham radio, and helping during any potential disaster that might arise.

Aloha.

Thomas Avila, WH6GWL



At a recent BIARC meeting, David Miller, KH6CZ, explains the club's commitment to help introduce the wonders of amateur radio to the younger generation. David, chair of the BIARC Public Service Communications Committee, reports on another successful event in the "Science Night" series at Hilo schools coordinated by the Hawaii Science and Technology Museum. Amateur radio has been shared with many keiki and their parents in a fun, educational way.

BIARC outreach at student science nights

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We attended these events at four Hilo area schools last year and made many friends. Dialogue with students, parents, and teachers benefitted our club and hopefully, we will have planted the seeds of future ham radio operators.

Our regular on-site "BIARC Crew" is composed of Joe Rosenbaum (WH6JOE), Jim Tatar (WH6EMN), Mark Watanabe (WH6FSA) and me (KH6CZ). Les Hittner (K0BAD) has joined in as well. Of course, if anyone wants to join us on-site, email us.

During these events, we appreciated the presence of BIARC operators on the Kulani repeater, who supported communication with the students. We will use the repeater on the evening of February 7 to reach out from the Kaumana Elementary School. Anyone who is monitoring and has the opportunity during the 5 to 6:30 p.m. window, your come-back will be appreciated. In the past, we have had William, Paul, Tony, Thomas, and others provide their support from their stations.

Along with our FM presence, we will also be exercising the club's new ft991A, which was purchased last year, and we now have a large-scale expandable poster that we will use to advertise our presence at these events. Thanks to Mark for designing and getting the poster for BIARC, and thanks to Les for creating the BIARC tri-fold pamphlets that are distributed for students to take away. Jim will have his usual selection of equipment on hand, which is greatly appreciated.

We're looking forward to the first Science Fair of the year. Details follow:

Kaumana Elementary School

Date: Wednesday, February 7, 2024

Time: 5:00pm - 6:30pm

Setup Start Time: 4:00pm

Location: Covered Court

Tables: will be provided

Electricity: please let me know if you will be needing electricity

Parking: 1 parking stall per organization will be reserved/coned off



Stefan NH6SP trying to make a QSO.

BIARC Winter Field Day a hit Jan. 27 at Kuhio Kalaniana'ole Park in Hilo



Standing on the left is Trevor KH6IM who drove over from Kona. William NH6ET, with his back to the camera. Gary WH6EPS, standing. Jim WH6EMN, sitting. Joe WH6JOE, also standing.

Photos by Mel Uchida, KH6EKD



Tailor-made field unit

Jim Tatar, WH6EMN, brought this cool mobile unit to the Winter Field Day. He explains: "This is my portable 2m/70cm radio. I have the battery in the bottom with room for most any size base station. Right now it's a FTM7250 w/50 power out. and a mag mount antenna on top. You can

barely see the metal plate to hold the antenna in place. There's also a pocket for my HT right behind the antenna. I have used it at the Hilo Bay and Volcano marathon runs. With a 24 KH battery it's capable of extended use without recharging." And, he added: "It will get a paint job before the next marathon."



Joe, WH6JOE, and William, NH6ET, work the new club radio.



New club Yaesu Atlas antenna.



Glen KH6EI at the controls with Stefan NH6SP from Kona.

2024 Technician License Preparation Classes

Breaking news: Dates have been confirmed for the following classes. The Zoom Class begins on February 14, and the Accelerated Class is scheduled for March 23-24.

The Technician License Preparation classes will begin again soon, says Doug Wilson (KH7DQ). Two classes will be offered. One will be held over a six-week period via Zoom and the other will be an accelerated in-person version. Both classes are free except for the \$15 exam fee at the end of each class.

Technician License Preparation

Class via Zoom (6-weeks)

This class will be conducted twice-a-week for an hour each, over a six-week period via Zoom. Instructors will cover all of the questions in the Technician License question pool, explain each question-and-answer, and answer student questions. All materials will be provided, including all of the questions in the question pool and additional study materials and related references.

Accelerated Technician License preparation Class (2 days)

This 2-day course is not for the faint of heart. It requires students to do considerable self-preparation work prior to the 2-day class. This Includes taking multiple on-line practice exams, prior to the 2-day concentrated class



License Preparation Classes

sessions. During the in-person class sessions, the instructors will review all of the questions in the Technician License question pool, explain each question-and-answer, and answer student questions. This will be followed by a review of the presented materials prior to taking the exam on the second day.

Please contact Doug at douscelle@aol.com to get more information about these classes, and to sign up.



Hams Down Under

KH7DQ and WH6LQ recently took a trip Down Under, bringing back home to Volcano many great memories. For DQ, his favorite is the visit to Bono-rong Wildlife Sanctuary, a 9.7-hectare wildlife sanctuary located in Brighton, Tasmania, Australia. He got to meet a real-life Tasmanian Devil. "It was the highlight of my trip!" said Doug.

Editor's Note: This little news blurb is included in this month's Hamgram in response to folks on a recent BIARC Morning Net. After they heard the story, they wanted to see the pictures ...



KH7DQ, below, and his new friend, above.



Emergency Prep & Response in 21st Century Hawaii: Call to action for volunteers

By Tony Kitchen

Secretary, Hawaii Island
VOAD

Emergency preparedness begins at home but flourishes through community and statewide coordination.

Hawaii's challenges often overwhelm local resources, highlighting the importance of the National Incident Management System (NIMS) and the State of Hawaii's Emergency Operations Plan (HI-EOP). These frameworks, along with the National Response Framework's Emergency Support Functions (ESFs), guide our collective response to emergencies.

The HI-EOP, supported by the Hawaii Department of Health and other agencies, lays the groundwork for state assistance in local emergencies. Key to this is the establishment of Emergency Operations Centers (EOCs) by County EMAs, ensuring a unified response to crises.

Central to NIMS is the "Whole of Community" approach, advocating for collaboration among government agencies, NGOs, community groups, and private entities. This includes the invaluable contributions of the Amateur Radio Emergency Service® and other volunteer organizations. Hawaii

Voluntary Organizations Active in Disaster (VOAD) exemplifies this approach, fostering cooperation, communication, coordination, and collaboration among various entities.

Local bodies like the Citizens Corps Council in Hawaii County play a pivotal role, supporting community programs like Emergency Response Teams and Neighborhood Watch. Crucially, these efforts are underpinned by formal and informal agreements established during non-emergency times.

What sets NIMS apart is its systematic, inclusive approach to incident management, encompassing everything from the Incident Command System (ICS) to Joint Information Systems (JIS). JIS, in particular, is about building trust and sharing information effectively, often through systems like Hawaii's WebEOC.

In Hawaii, organizations like ARES, BIARC, and Hawaii VOAD are making strides in developing cloud-based information systems. These systems are designed to ensure continuous access to crucial data, even offline, syncing when connectivity resumes.



The key challenge lies in the two-way sharing of sensitive information with larger entities. While technology facilitates this, the human element – building trust and navigating through policies – often poses hurdles.

In summary, Hawaii's emergency preparedness and response are evolving towards greater inclusiveness and effectiveness. The fusion of advanced technology and strong community relationships, guided by frameworks like NIMS, paves the way for a more resilient society. Our biggest barriers are not technological, but attitudinal – a resistance to sharing information and a tendency towards organizational silos. By embracing a spirit of cooperation and utilizing advanced technology, we can transform emergency management in Hawaii, making it a model for well-coordinated, effective disaster response and recovery.

By Tony Kitchen, WH6DVI & ChatGPT

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The mission of the Big Island Amateur Radio Club (BIARC) is to recruit, educate and help committed Ham Radio operators carry on the traditions of amateur radio by using our network of technical resources and expertise to provide equipment, skilled operators and emergency services. When called upon in time of need we assist and protect the citizens in the communities in which we live and serve. BIARC is dedicated to community service and providing education to the general public about the history, operation, functions, and benefits of the Amateur Radio Service. BIARC members adhere to the Radio Amateur's Code and are good citizens.

Amateur Radio Operators prepare and train for disaster communications:

- When phones and internet fail, our licensed volunteers facilitate voice and digital communications.
- We maintain equipment and infrastructure available for emergency use.
- We are equipped with off grid, backup power systems and communications gear.

What do we do in a disaster?

- Maintain situational awareness within and between communities.
- Assist others by passing message traffic, and requests for assistance and resources.
- We can deploy to locations where we are needed.

Who do we work with?

- ARES: Amateur Radio Emergency Service (ARES®):
- Hawaii County Civil Defense, and other agencies.
- Hawaii VOAD: (And its member organizations)
- Anyone who wants to get their FCC license, and become a part of the amateur radio service.



The main entrance. On the left, Steve WH6N, president of KHRC.



Some vintage radios were being given away.

The Original Big Island of Hawaii International Swap Meet / Ham Fest

Photos by Mel Uchida, KH6EKD



John KH7T with his back to the camera. Norm NH7UA sitting on the right. Sidik WH6FUS examining a scope on the left.

At the back wall in the black shirt is Pono WH6CPH who flew in from Honolulu. Also shown is Roy KH6KU.



ARRL acting Section Manager Alan Maenchen, AD6E/KH6TU, was the guest speaker at The Original Big Island of Hawaii International Swap Meet / Ham Fest on Saturday, January 20, at the Waimea Community Center. The annual event is sponsored by the Kohala Hamakua Radio Club.



Sellers' tables drew browsers hunting for just that right ham component.

~ 2023 BIARC Roster ~

Executive Board officers and committee chairs

President

Thomas Avila, WH6GWL

Vice President

Les Hittner, K0BAD

Secretary

Joseph Rosenbaum,
WH6JOE

Treasurer

Tony Kitchen, WH6DVI

At-Large directors

Mark Watanabe, WH6FSA,
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 Les Hittner, K0BAD

Programs Committee

TBA

Digital Systems Committee

TBA

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>

[HawaiiARES]

Winlink practice

A Winlink practice is open to all. Please check your Winlink account for instructions.

If you are not a member of this net and are interested in joining the Winlink practice, please send me a Winlink message (NH7IT).

To learn more about Winlink, check out

[https://
wavetalkers.com/
resources/digital/
winlink.php](https://wavetalkers.com/resources/digital/winlink.php)

-- Van NH7IT ASEC-Pac

BIARC monthly meeting info

The club now gets together on the second Sunday of the month at Kamana Senior Center at 127 Kamana St. in Hilo.

The Executive Board meets at noon, with the

membership gathering following at 2 p.m. Zoom access is provided. The link will be shared on the BIARC Listserve forum prior to the meeting.

Change for this month only: See Page 1

Volcano VERT Radio Check Net open to all on second Saturday of month

Coordinator and net controller Doug Wilson, KH7DQ, invites all licensed amateur radio operators to participate in the Volcano VERT Radio Check Net on the second Saturday of each month.

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 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.”



Honolulu HamFest | March 2, 2024

HONOLULU, Hawai'i — The *Emergency Amateur Radio Club of Hawai'i* (EARC-HI) invites the public to attend its annual *Honolulu HamFest* on Saturday, March 2, 2024, from 9:00 a.m. to 12:00 p.m. at the National Guard Association Center, located at [891 Valkenburgh Street Honolulu, Hawai'i 96818](#).

The *Honolulu HamFest* is an event that showcases the hobby that is amateur or ham radio: electronics, equipment, experimenting, contesting and others. There's lots happening at this year's event!

- Buy, sell, trade or giveaway related items during the swap meet that will last through the entire duration.
- Learn more about radio communications, how to get into amateur radio, and sign up for a future class.
- Support the EARC-HI by purchasing some of our merchandise or bid on some priceless equipment in the silent auction.

Interested in becoming a vendor, presenter, donor, or volunteer? Register at [linktr.ee/earc_hi](#) or contact wh6cph@gmail.com.

Additional details are forthcoming — save the date and follow us on [Facebook](#)!

BIARC EXECUTIVE BOARD MEETING

Begin Meeting

The meeting was called to order at 12:11 pm on Sunday, January 14th by Vice-President Jim Huntley. Venue was the Kamana Senior Center in Hilo.

Quorum

Board Members: Thomas Avila, Les Hittner, Tony Kitchen, Joseph Rosenbaum, David Miller and Mark Watanabe

- Tony moved and Joe seconded that we discuss and select officers for 2024. Motion passed.
 - Les moved and David seconded to nominate Tony as Treasurer. Motion passed.
 - David moved to nominate Les as President, Les declined.
 - Tony moved and David seconded to nominate Les as Vice-President. Motion passed.
 - Les moved and Jim seconded to appoint Thomas Avila as President. Motion passed.
- Les moved and David seconded to nominate Joe Rosenbaum as Secretary. Motion passed.

New Business:

David moved and Les seconded to reimburse Mark Watanabe \$157 for the new club sign (which will be the club's property.) Motion passed.

Les moved and Tony seconded to adjourn the meeting. Motion passed.

The next meeting will be on February 11th at the Kamana Senior Center in Hilo at 12:00 pm for the board meeting and 2:00 for the club meeting.

Respectfully submitted,
Joseph Rosenbaum, secretary



BIG ISLAND MONTHLY SIREN NET

The [Big Island Monthly Siren Net](#) serves as a vital practice drill to ensure the island's readiness for emergencies, including natural disasters such as hurricanes, tsunamis, and volcanic eruptions. During the monthly siren testing, amateur radio volunteers send siren status reports from dozens of locations across the island using the [Hawaii AllStar Network](#), or via email, text, relay and Winlink.

Mahalo to those who participate and for supporting efforts of the Hawaii County Civil Defense Agency. Additional volunteers are always welcomed.

73 es aloha,

Bev

KH7LM

(For details about the Siren Net, go to nh6tu.org › forms › Big-IslandMonthlySirenNet)

**February 1,
2024
official report
from
volunteers
stationed around
the Island of
Hawaii**

We had another great net with 29 check-ins and 37 siren status reports. Well done everyone, and special thanks to Sookyung WH6GBS (NCS), who did an outstanding job dealing with another record breaker!

Ainaloa, HOVE #1 (Leilani Circle), HOVE #2 (Shopping Center), all three were not working. Laupahoehoe Lookout continues to sound for 30 seconds, and Ookala squawked loudly (not a normal tone) for 8 seconds, then stopped abruptly per Denning (WH6GDC).

Mahalo everyone, for being so diligent with your reports, especially those behind the scenes who keep me sane when things start to fall apart on my end.

***73 es aloha,
Bev, KH7LM***

Morse Code Is Alive and Well at KPH

Historic maritime radio station in California recently held an over-the-air cryptographic challenge

BY ELLE KEHRES
RADIOWORLD

On Saturday, January 20, more than 150 listeners across the U.S., Italy, France and Japan huddled by their radios to decipher a series of Morse Code transmitted by the Maritime Radio Historical Society.

MRHS was formed on July 12, 1999, the date of the supposed last commercial Morse transmission in the U.S.

Today, the group operates stations KPH, KFS, KSM and, on amateur frequencies, K6KPH. In addition to honoring the craft of maritime radio, KPH also hosts a number of events — most recently, an over-the-air cryptographic challenge.

A Quick History Lesson

During the Cold War era, “numbers stations” were frequently heard on the shortwave bands by radio amateurs and SWLs (shortwave listening). Using voice or Morse Code, these stations would broadcast encrypted messages in the form of five-letter groups of numbers.

The encryption methods used by number stations are widely believed to use a one-time pad (OTP) procedure: the simple addition (or subtraction) of a set of random numbers from the OTP to encode (or decode) the plaintext. Once used, the OTP key was never re-used and destroyed after use.

“Number stations still offer a powerful advantage in our modern world: provably unbreakable security and complete anonymity,” says MRHS on its website. “All the recipient needs are the OTP, a shortwave radio and to be on the right frequency at the right time.”

KPH’s Crypto Transmission

On Jan. 20, KPH transmitted a coded message consisting of five-digit groups. The message was encrypted using typical Cold War numbers station cryptographic procedures. All KPH listeners were invited to try their hand at receiving and decrypting the message.

To recap the event, and to learn more about KPH, Radio World chatted via email with Bill Ruck, one of KPH’s passionate volunteers.

Radio World: Can you share a little bit about KPH’s history?

Bill Ruck: When the maritime business collapsed the [former KPH] licensee sold the license and shut down the transmitters. The founders of the Maritime Radio Historical Society went to Point Reyes National Seashore with a proposal to operate the station. They accepted the proposal and now we operate, maintain and interpret the station for visitors in partnership with Point Reyes National Seashore. It is now a National Park Service Historical Site and on its way — very slowly — to becoming a NPS Museum.

RW: How and why did you get involved at the station?

Ruck: Long story. One of my high school friends worked for Radio Corporation of America (RCA) in downtown San Francisco part time at night. When he graduated he became the teletype operator at Point Reyes. I used to hang out with him while he worked and saw KPH in full operation about 50 years ago. Then, years later, a mutual friend invited me to join, not knowing my previous experience at KPH. It was too easy to get sucked in.

I have an active interest in the history of technology, especially radio, and to be involved in a radio station that dates back to 1905 is heaven for me.



Members of the Maritime Radio Historical Society.

RADIOWORLD