July 2025

The Big Island Hamgram

The newsletter of the Big Island Amateur Radio Club

Photos by KH6GM, AH6J, WH6FSA

'Keanakolu 1' deemed a rousing success

Civil Defense stages June 12 Hilo summit to enhance Auxiliary Comms Service

By Bob Schneider, AH6J

The first "Annual Keanakolu Summit" was held on Thursday June 12 from 8 a.m. to 2 p.m. HST at Aunty Sally Kaleohano's Luau Hale in Hilo.

This event was sponsored by the office of Hawaii County Civil Defense (CD). The event was mostly for Amateur Radio operators.

According to Bill Hanson, more than 60 hams attended, along with several people not yet licensed. The event included a bento lunch and light refreshments.

AH6J

The stated purpose of the summit is to enhance the Civil Defense Auxiliary Communications Service (ACS). Civil Defense administrator Talmadge Magno welcomed everyone with opening remarks.

Tracey Niimi, assistant to Mayor Kimo Alameda, spoke on behalf of the Mayor's Office in welcoming everyone. Mayor Alameda named June "Amateur Radio Month" for the County of Hawaii just as Governor Josh Green did for the State of Hawaii.

Dennis, WH6ELY, and Sharon, WH6ELV, McCartin help participants register for the Civil Defense summit.

After the opening remarks, Bill Hanson, the CD Administrative Officer, went over the agenda, timeline and goals for the meeting. Bill is a for-

Story and photos continue on Page 3

BIARC Field Day at Wailoa park full of fun and fellowship

The club's annual Field Day event was held Saturday, June 28, at the Wailoa River State Recreation Area in Hilo under the coordination of BIARC Secretary Joseph Rosenbaum, WH6JOE. Though radio comms were sketchy, the great potluck food, fun foxhunt and face-to-face personal rag-chewing made for a rewarding day.

Foxhunt champ

Club President Thomas Avila, KH6GG (right), hid a tiny transmitter in a nearby forest. Using VHF radios, the transmitter was found by Dennis McCartin, WH6ELY (left).

KH6EKD photos

Demo of an HF Go Kit (complete station) using a Xiegu transceiver.

More Field Day pics on next page

More Field Day pics from WH6JOE and KH6EKD

Change in monthly membership program format:

David Miller, KH6CZ, chair of the BIARC Education and Outreach Committee, has secured the Kamana Senior Center room for an extra hour on meeting days (for the remainder of this year.)

The format has changed: We will not have a socialization period during the club activity (which will end at 4 p.m.). Instead, from 4-5 p.m., we'll have a time to socialize and for committee meetings.

Makani Pahili exercise held June 14

The 2025 Hawaii County ARES participation in the Makani Pahili exercise was Saturday, June 14, from 9 a.m. to noon. Other organizations and emergency management agencies throughout the state of Hawaii held other exercises at various dates and times during the week of June 8.

Participants in the Hawaii County segment included: WH7WZ, WH6FRU, WH6FSI, WH6FSD, WH6GDC, WH6FQQ, WH6HBH, WH6GZZ, WH6DVI, WH6JOE, KH7BR, KH6GM, KH6RDO, KH6EKD and AH6JA.

The annual emergency communications testing and practice session is open to all licensed amateur radio operators.

Here's an updated link to get on the BIARC Discord server. The old one had expired.

https://discord.gg/U3f9wsrj

BIARC Executive Board

Thomas Avila, KH6GG, was re-elected club president at the January BIARC Executive Board meeting. Others on the 2025 leadership team are Vice President David Miller, KH6CZ, Secretary Joseph Rosenbaum, WH6JOE, and Treasurer Tony Kitchen, WH6DVI.

The seven-member board also includes two at-large directors, Mark Watanabe, WH6FSA, and Shawn Farley, WH6GXZ, and our KH6EJ station trustee, William Polhemus, NH6ET.

Members of the club are encouraged to get involved at a committee level on one or more of the BIARC standing committees. There are many ways to help, and the committee activities vary widely.

As NH6ET noted, the committee level is where things happen. And the committees need "boots on the ground." So, if you see a committee focus that interests you, hop aboard.

Here are the committees:

Digital Systems: Luke McKay WH6GRW(Chair), Gary Schwiter WH6EPS, Shawn Farley WH6GXZ, Trevor Manago KH6IM and Jason Estrella WH6GZZ

Education and Outreach: David Miller KH6CZ(Chair), Joe Rosenbaum WH6JOE, Mark Watanabe WH6FSA, Fred Fischer WH6HAA, Jim Tatar WH6EMN, Leigh Critchlow WH6LC, Les Hittner K0BAD

Operating Activities: Joseph Rosenbaum WH6JOE(Chair), John Bush KH6DLK, Tony Kitchen WH6DVI

Programs: William Polhemus NH6ET (Chair), Joseph Rosenbaum WH6JOE

Public Service Communications: Les Hittner K0BAD(chair), Jim Tatar WH6EMN

Voice Repeaters: Trevor Manago KH6IM(chair), Gary Schwiter WH6EPS, William Polhemus NH6ET, Joe Rosenbaum WH6JOE, Steve Brown KH6SB, Stefan Pommerenk NH6SP, Shawn Farley WH6GXZ, Luke McKay WH6GRW, Frank Roff KH6BFD

Meeting refreshments: Chair Jim Tatar, WH6EMN

The BIARC board meets at noon on the second Sunday of each month, followed by the 2 p.m. monthly membership program, at Kamana Senior Center in Hilo. All members are welcome at both sessions, and the meetings are accessible live via the Internet. Find the links on our website, biarc.net.

Civil Defense stages June 12 Hilo summit

From Page 1

mer president of the Big Island Amateur Radio Club and holds the Amateur Radio call N0CAN (N zero CAN). He said two of the county purchased repeaters were now in service. One is on Mauna Kea and the other in Waikoloa Village.

Bill started by explaining the word "KEANAKOLU". It is a location also known as Three Caves and is located high on Mauna Kea. Today there is a remote ranger station located there. In ancient times, war ships could be seen from there and warnings sent out.

He said it is similar to the fire signal towers in ancient Korea warning of invasion fleets from Japan. It is also like the lantern in the Old North Church tower in Boston that started Paul Revere on his famous ride to warn of the British invasion.

Bill said Keanakolu's function was also similar to the Pony Express and early telegraph lines in the United States.

At this point in the program, Bob Schneider, AH6J, brought greetings from the present ARRL Pacific Section Manager, Alan Maenchen, AD6E, of Maui. Alan thanked the Hawaii County CD for putting on this event.

The American Radio Relay League is the national organization of Amateur Radio operators with headquarters in Newington, CT. ARRL was organized more than 100 years ago. At that time in history radio messages were limited in the distance they could go, so in order to get a radio message a long distance it needed to be relayed from one station to the next. That is the reason the word "relay" is in their name.

The next presenter was Jesse Steppe, who talked about the upcoming Makani Pahili hurricane exercise.

Next, Sean Miller, from the National Weather Service, described weather forecast and procedures.

Tom Olsen of Hawaii County CD staff, gave a briefing on ongoing projects at CD.

There was a short question-and-answer period followed by a short break.

The next session was a remote presentation by Carter Davis (KH6FV), retired fire chief from Honolulu, who explained the Auxiliary Communications Operations for the State of Hawaii.

This was followed by another remote presentation by Ron Hashiro, KH6D, from his vacation spot in the mainland US. He is another Coordinator for Hawaii State Emergency Management Agency.

Ron Hashiro, KH6D, Hawaii State Emergency Management Agency coordinator, checks in online.

Tracey Niimi welcomes participants on behalf of Mayor Kimo Alameda.

At this point Bill Hanson gave a brief presentation explaining the Auxiliary Communications Operations for the County of Hawaii, for the Island of Hawaii.

The next presentation was by Doug Wilson, KH7DQ, covering the 4 basic emergency message types. Doug is also the Volunteer Examiner Coordinator for ARRL and teaches licensing classes. Amateur Radio exams are now given by volunteer examiners, not the FCC.

Next was a presentation by Janice Ikeda "Vibrant Hawaii" and the community Resilience Hubs program training classes they teach.

George Manual next gave a presentation on the State siren system. There are 95 sirens on the Island of Hawaii, maintenance is performed by technicians that travel from the Island of Oahu. They need reports of which sirens are working and not working. All radio operators are encouraged to participate in the monthly tests. (At the last check there were two sirens out of service.) Beside the DMR nets and the Mauna Kea repeater, it is also possible to send in siren reports via the CD website.

Closing remarks were mostly a call to action and outline of some of the future plans which include the completion of installation of at least six more VHF repeaters this year 2025.

Several people from the audience suggested that the new repeaters be active full time. For example, the Mauna Kea repeater is active only one hour a month or when the governor declares an emergency. This is not enough. Many other suggestions were given either verbally or on white boards posted at the entrances.

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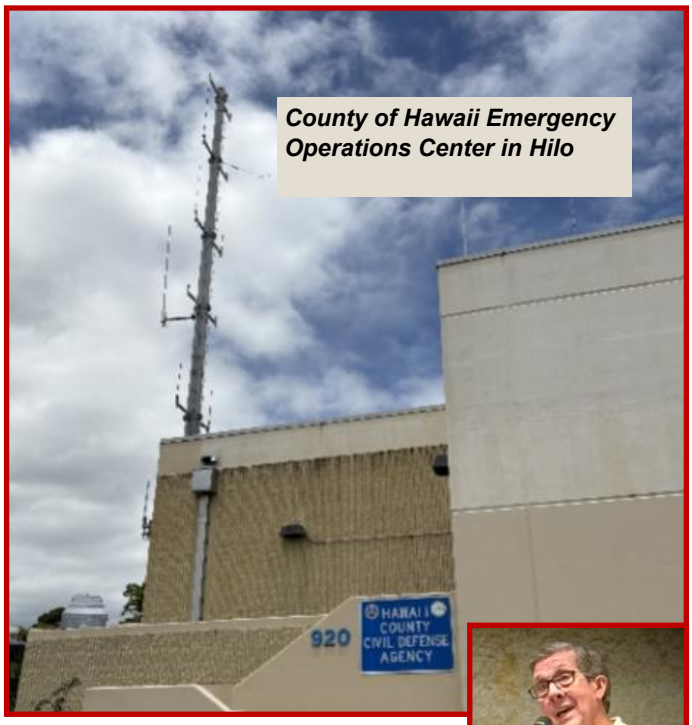
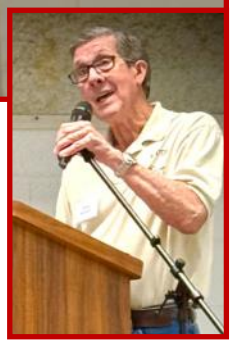


County of Hawaii Emergency Operations Center in Hilo



Doug Wilson, KH7DQ, explains the 4 basic types of emergency traffic messages.

Tom Olsen, Hawaii County Civil Defense staffer, at left, and Talmadge Magno, HCCDA administrator.

Bill Hanson, N0CAN, Civil Defense administrative officer and former BIARC president.

Continued on next page

Civil Defense stages June 12 Hilo summit

From previous page

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WH6DVI offers synopsis of Civil Defense plan for hams to support CD by using these 3 modes of comms when ACS stands up operations

Aloha all,

As Bill Hanson said at the recent Keanakolu Summit, Civil Defense is asking all amateur radio operators to support them by using the following 3 modes of amateur radio communications when their Auxiliary Communications Service (ACS) stands up operations.

HF Voice: Currently, Doug Wilson or other ACS volunteers would typically stand up their stations at their QTH when our Civil Defense Agency activates ACS. Work continues on the Amateur Radio HF Antennas at our Civil Defense Agency. They are struggling to deal with a high noise floor in their building on the HF bands, which has made HF operations challenging from within their building.

Winlink: The tactical call HCCDA through any Winlink Gateway via any mode that works for you is available. (This includes HF, VHF, or UHF) I have been present at the Civil Defense Agency over the last few years for several real world events and stood up the Winlink capability. We pass written and verbal messages directly to the EOC "war room" where the liaisons from various groups or agencies deal with it. They wish to train new volunteers to handle this HCCDA-ACS function in the future.

VHF Voice: An ACS volunteer has also been present at the Civil Defense building to handle FM voice transmissions, which may be passed to the appropriate person in the EOC "War Room."

As individual amateur operators you may use any of these methods that work for you when Civil Defense stands up ACS operations. Stations that do not have Winlink or cannot reach directly via voice can go through their regular local radio frequencies and paths, using any mode that works for them. The objective in this situation is to relay information between your station and your local "hub" station that does have the ability to reach Civil Defense using one of the methods defined above. As has always been stated, ACS is not meant to replace 911. 911 should always be attempted first during an emergency. If your phone service is down, a radio relay to another station that still has phone service is a good option to reach a 911 operator.

At the summit our Civil Defense emphasized the forms of messaging they use:

Emergency Alert Messages. (EAMs)
These are messages from our Hawaii County Civil Defense Agency that they wish to achieve the widest possible distribution. As Bill Hanson puts it the goal is to get the EAM out to the last house on the last street on the last block within every community. (And everywhere in between) These messages are typically the same message that is put out via television and radio stations, as well as via their text message emergency alert systems. They want amateur

Continued on next page

Civil Defense plans for hams to support CD by using these 3 modes of comms when ACS stands up operations

From previous page

radio operators to receive and relay them and also provide them to the media and other groups in order to get important messages out to the public.

Situation Reports. (SitReps.)

These forms are the same forms used by CERTs and Amateur Radio operators in Hawaii County for years now to receive "ground truth." We are acting as their eyes and ears to help them develop a common operating picture. Forms are available at HawaiiCert.org, under the Resources, forms links. A printable version can also be found under the following link.https://nh6tu.org/forms/ACS_SITREP_Fillable.pdf.

Requests for Assistance. (RFAs)

Also available at Hawaiicert.org, with the printable version available under the following link: https://nh6tu.org/forms/ACS_RFA_Fillable.pdf

Request for Information. (RFIs)

This form is used to follow up on a specific RFA when no response is received after a reasonable amount of time. See link: https://nh6tu.org/forms/ACS_RFI_Fillable.pdf

All stations should print out the SitRep, RFA, and RFI forms in advance, and become familiar with them. The main difference between the hawaiicert.org website and the printable versions of the form is that each question has a number next to it. This makes it easier to relay information via voice. All of the questions on each form are not necessarily relevant to every report. In your voice transmission exchange, you can refer to each relevant form item by number in the order specified on the form.This helps the person receiving the information to record and relay it quickly and accurately.

As licensed amateur radio operators, we focus on working with the Hawaii County Civil Defense Agency. By law, they are the ones who are in charge. The mayor delegates his authority under HRS 127(a) to the Director of Hawaii County Civil Defense. That agency handles things. The Civil Defense Agency is responsible and handles communications between County/State/Federal Agencies. Those communications are not the focus of most Hawaii County Amateur Radio Operators. Hawaii County ARES holds its own version of communications exercises. Hawaii County Amateur Radio Operators focus on being prepared to support our County Civil Defense Agency, exactly as described above. Our Civil Defense Agency has also expressed their intent to integrate amateur radio into their exercises. As that happens with more frequency, we will all receive the training and experience we need to be able to be as effective as possible.

The bottom line is that the HIEMA/RACES/ARES "Statewide" version of these exercises is really NOT RELEVANT to most of us. Stations can do them if they wish for added practice. However, our focus needs to remain local to our island. The Big Island Version of the Hawaii ARES Makani Pahili ComEx is published at: https://sites.google.com/view/hicoares-makani-pahili/home.

Our Hawaii County ARES Exercises are designed to match up exactly with how our Civil Defense Agency, Auxiliary Communication Services wants us to operate. In the future, we wish to simply participate directly with HC CDA-ACS exercises. Anything done separately would primarily be done in order to train new operators, so that new amateur radio operators are familiar with their radios and operating procedures, prior to HCCDA-ACS standing up their nets. It is also possible that Hawaii County ARES could initiate training and exercises if other non-governmental organizations request that we partner with and assist them in emergency communications.

73,
Tony Kitchen, WH6DVI
ARRL, Pacific Section
ARES Assistant Section
Emergency Coordinator

Aux Comm Training Course: Hilo, August 2 and 3

Invitation:

As presented on June 12 at the Aux Comm Summit, ALL HAWAII ISLAND licensed amateur radio operators who would like to participate in emergency communications on Hawaii Island are invited and welcomed.

Aux Comm Training Schedule:

Hilo:

Saturday and Sunday, August 2 and 3, 2025 Aux Comm Training Course. This training is an in-person, 2-day, 10-hour per day class, 20-hour course. This course will be conducted in Hilo. Venue TBD.

Kona:

A Kona class is being planned for later this year. Dates and venue TBD. If you are interested in attending the Kona class, please reply with your interest to participate in Kona.

Limited Seating:

Participation for both the Hilo and Kona classes is limited to 30 pax per class; 30 pax for Hilo and 30 pax for Kona. Register early!

Last-minute update:

KH6RDO reports that Bill Hanson says Civil Defense is willing to have ICS classes before the auxcom for people who want to go through a class rather than study on their own.

This is only if there is enough response. If you're interested, contact Darrell Asuka, KH6RDO, or Tony Kitchen, WH6DVI.

Personal Commitment:

All Emergency Response Operation personnel, whether professional or semi-trained volunteers, are expected to follow the FEMA Incident Command framework. Although Aux Comm operations can be very rewarding, participants will need to commit to program requirements. These areas in **BLUE** are those requirements;

Class will be 10 hours of instruction each day, for both days.

Participants are expected to complete both full days of training.

Refreshments and snacks will be provided, but please bring a personal lunch. Thank you.

FEMA requires 4 basic online incident command courses must be completed before participating in this Aux Comm Course. These classes are not directly related to the subject of Aux Comm, but to Incident Command. FEMA designated the following courses as pre-requisites to participate. My suggestion is to complete these 4 courses early! Consider taking one on each day for four days. Each will take 2 to 3 hours to complete. Pace yourself and you'll get them done, and in the process, you will be one up on Incident Command.

If you have taken FEMA courses before, make sure to have your FEMA Student ID (SID) available when requesting your certificates of completion.

If you have yet to get your FEMA SID, here is the link to start that process: https://cdp.dhs.gov/femasid/register

Aux Comm Pre-requisite Courses:

FEMA ICS Courses offered by the FEMA Independent Study Program at https://training.fema.gov/is/crslist.aspx?lang=en :

IS-100: Introduction to the Incident Command System
IS-200: Basic Incident Command System for Initial Response
IS-700: An Introduction to the National Incident Management System
IS-800: National Response Framework, An Introduction

Other Needs:

Amateur Radio License: Participants must have an FCC issued Amateur (HAM) Radio License. This is to be certified as an Auxiliary Communicator.

Adhere to ICS: Participants are to follow the National Incident Management System (NIMS) and Incident Command System (ICS) frameworks.

Background Check: Aux Comm Program participants must have a background check. Certain organizations, such as the US Military, CERT, and Red Cross, and others have a background check program. If you do affiliate with an organization that has a background check program, Civil Defense can arrange checks.

HOW TO SIGN UP:

Know that all Aux Comm Communicators across the USA fulfill these requirements. If you are willing and able to commit, please reply that you would like to participate in the upcoming Aux Comm Training. Please specify Hilo or Kona in your reply. **Please reply by emailing Bill Hanson at civildefense@hawaiicounty.gov, or call by phone or text Bill Hanson at 808-937-2181.**

Mahalo for your kind consideration. If you have any questions, please let me know.

Bill Hanson
HCCDA

NH6ET discusses Field Day and offers tutorial on how to operate multiple radios safely and cleanly

See snippets from his June 8 BIARC presentation, here, and view complete video at BIARC YouTube Channel on the club website, BIARC.net.

Direct link: https://www.youtube.com/watch?v=Res-c4U01NQ&list=PLyo3ARGq-8YDuuwcCkmjWiJsjvEU64MSI&index=1

William Polhemus NH6ET

Focus of talk is to help ham operators:

- Understand common causes of interference in multi-radio environments.
- Learn practical strategies for operating multiple radios safely and cleanly.
- Discuss filtering, planning, antenna techniques, and receiver protection.
- Highlight real-world operating scenarios — not just Field Day.
- Share lessons learned from BIARC events and personal station setups.

Field Day is Just One Use Case

- Field Day is intense — multiple stations, tents, and antennas.
- But the same challenges apply elsewhere:
  - Multi-op HF contest stations
  - Contest stations running CW + SSB + digital simultaneously
  - DXpeditions with tight setup constraints
  - Repeater sites
  - Emergency response scenarios with limited antennas
  - Dual-radio home stations
    - HF + VHF
    - Single Operator, two radios (SO2R)
    - digital + voice, One rig transmitting FT8 while another tries to listen on SSB
    - WH6EPS monitoring 2M, 70cm, ADSB, AIS, county P25, etc, while also running a Winlink node, AREDN mesh, a repeater, and ragchewing with us!
- The techniques we cover today apply to all of them.

The Contest Element

- Points are awarded for:
  - Contacts on different bands/modes
  - Power source and class
  - Public information tables, GOTA, satellite, etc.
- It's not about winning — it's about learning:
  - Logging under pressure
  - Band conditions and propagation
  - Operating efficiency and station design
- We improve by doing.

Physical Separation Still Matters*

- Move antennas as far apart as possible.
- Use cross-polarization for added isolation.
- Don't forget coax routing — separation matters there too.
- Better to have poor antennas far apart than great ones on the same mast!

Band Planning

The Second Easiest Filter. But Also Seemingly Hard.

- Assign stations to separate bands wherever possible.
- Avoid running:
  - 40m SSB and 40m CW at the same time
  - 20m digital and 15m CW — IMD hazard!
- Coordinate modes to minimize cross-talk:
  - CW and SSB are easier to separate than two SSB stations.
- Write it down. Stick to the plan.

What's the Problem?

- Multiple transmitters in close proximity can overwhelm nearby receivers.
- Common symptoms:
  - Desensitized receiver (can't hear anything)
  - Damaged receiver (can't hear anything ever again)
  - Distorted audio, hash, birdies, popping
  - Uncommanded TX behavior or data loss
- Not just a Field Day issue — it happens in contesting, DXpeditions, and shacks too.

Receiver Protection

- Even with filtering, nearby TX can damage sensitive RX stages.
- Protect your receivers using:
  - PIN diode limiters
  - Gas-discharge tubes (GDTs)
  - Schottky clamp diodes
  - RF crowbar circuits (FET or relay-based)
  - saturating transformers
- None of these are linear devices!!!
- Receiver protection is also critical for SDRs and preamps.
- RX-only antennas? Treat them like all other antennas... with limits!

Multiplexing and Shared Antennas

- When only one multiband antenna is available:
  - Use multiplexers: triplexers, band splitters, and diplexers
  - Allow multiple rigs to share a trap dipole, a cobweb, tri-band yagi, a Hexbeam, etc...
- Key points:
  - High isolation between ports is critical
  - Combine with bandpass filters for safety
  - Check power handling specs — some triplexers aren't rugged!

How Interference Happens

- Strong TX signal leaks into adjacent RX front end.
- Causes:
  - Front-end overload
  - Intermodulation distortion (IMD)
  - Shared grounds and power supplies
  - Audio coupling or RF feedback
- The more powerful and close the TX, the worse it gets.

Grounding and Isolation

- Multiple radio operation requires more than just filtering over the air signals. All of our best practices become even more important:
  - Use a single-point ground to prevent loops.
  - Float isolated equipment where needed.
  - Use common-mode chokes to block RF on shields.
  - Ferrites on everything: power, audio, mic, data.

Filtering is Your Best Friend

- Use high-Q filters to isolate stations by band.
- Options include:
  - Bandpass filters per band
  - Notch filters for specific offenders
  - High-pass, low-pass, band-pass, and notch combinations
  - Cheap coaxial resonant stubs — used at BIARC's Field Day in 2018, 2019 and 2024
    - Stubs are notch filters. But with two more pieces of coax, they can be bandpass filters.
- Filtering reduces interference before it ever reaches the rig.

The Hawaii County Siren Report for July 2025

From Darrell Asuka, KH6RDO, for the Big Island ARES Group

Location	Observer	Mode	Status	Notes
			NOT WORKING	
Kolekole (HA112)	KH6RDO	Allstar	Not Working	rotates but no sound
Waikaumalo Park Ninole (HA123)	WH6FIQ	Text	Not Working	
			WORKING	
Ainako Park (HA117)	WH6FSA	Mauna Kea	Working	
Banyan / Kam (HA104)	KH6ATU	Email	Working	
Cooper Center Volcano (HA936)	KH7DQ	Mauna Kea	Working	
Downtown Federal Bldg (HA107)	WH6HBH	Allstar	Working	
Hakalau (HA113)	WH6ECX	Allstar	Working	
Hawaiian Beaches Park #1 (HA907)	KH7LM	Mauna Kea	Working	
Honoapu (HA802)	WH6HC	DMR	Working	
Honomu (HA111)	KH6RDO	Allstar	Working	
HOVE Reef Blvd #3 (HA809)	WH6FC	DMR	Working	
HPP #1 Paradise / Ala Kai (HA925)	KH6CZ	Mauna Kea	Working	
HPP #2 4th & Awapuhi (HA912)	WH6HAA	Mauna Kea	Working	
HPP #3 6th & Makuu (HA913)	NH6OV	Mauna Kea	Working	
Kaumana School (HA125)	KH7BR	Email	Working	
Kawaihae Harbor (HA407)	WH6EHJ	Mauna Kea	Working	
Laupahoehoe Lookout (HA201)	WH6FSE	Allstar	Working	
Laupahoehoe Point (HA202)	WH6FSI	Allstar	Working	
Leleiwi (HA101)	KI6HBZ	Allstar	Working	
Malama Park (HA119)	MMI	Text	Working	
Mountain View (HA901)	WH6LC	Email	Working	
Naalehu (HA801)	WH6HC	DMR	Working	
NELHA Kona (HA611)	WH6GTD	Text	Working	
Old Kona Airport (HA609)	KH7MS	DMR	Working	
Ookala (HA304)	WH6GDC	Allstar	Working	
Pahala (HA804)	WH7BR	Allstar	Working	
Paukaa (HA115)	AH6JA	Email	Working	
Puako General Store #1 (HA405)	WH6EHJ	Mauna Kea	Working	
Shipman Park Keaau (Ha901)	AH6J	Mauna Kea	Working	
Waiaka Bridge Kamuela (HA402)	WH6EHJ	Mauna Kea	Working	
Waimea Park Kamuela (HA401)	WH6EHJ	Mauna Kea	Working	
Mohouli Park (HA120)	WH6GZZ	Allstar	Working	
Old Kona Airport (HA609)	KH6ICU	DMR	Working	

Donated Fund Summary:

As of: 6/07/2025

Year	BIARC Equipment Budget	Donations (Credit)	Equipment Purchases & Maintenance Costs	$ Covered By Fund	Repeater Fund Balance
2017	$600.00	$273.00	$932.75	$332.75	-$59.75
2018	$1,000.00	$235.00	$266.98	$0.00	$175.25
2019	$500.00	$255.00	None	$0.00	$430.25
2020	$500.00	$501.72	$436.78	$0.00	$931.97
2021	$600.00	$1,595.00	$1,548.28	$948.28	$1,578.69
2022	$950.00	$729.00	$0.00		$2,307.69
2023	$950.00	$455.75	$2,626.92	$586.84	$2,176.60
2024		$858.85	$0.00		**$3,035.45**
2025		$278.31			**$3,313.76**

Notes: This fund holds amounts donated to be used for repeater maintenance & upgrades.

Humanitarian Fund:

Year	$ Donated	Amount Spent	Balance
2022	$395.00	$140.00	$255.00
2023	$158.75	$0.00	$413.75
2024	$53.25	$0.00	$467.00
2025			

BIARC Treasurer's Report

As of 6/7/25, BIARC has 52 paid members.
There were 2 disbursements since the last treasurer's report:

- Check#1862 **$31.38** (Reimbursement to Marvin Kitchen for Apr, May, June 2025 Google Workspace Payments)
- Check#1863 **$200.00** Risk Strategy Co, ARRL Liability Insurance Policy - June 2025 to June 2026.

73,

Tony Kitchen, WH6DVI

2025 BIARC Treasurer

BIARC Operating Statement

	2025 Budget	Actual 6/07/25*
Income:		
Dues	$1,300.00	$1,175.00
Repeater and general Donations	$400.00	$278.31
Humanitarian Donations	$100.00	$0.00
PayPal Convenience Fees	$26.00	$38.44
Donated Equipment Sold		
Total Income	**$1,826.00**	**$1,491.75**
General Fund Disbursements:		
Committees		
Digital Systems	0**	$0.00
Education & Outreach	$75.00	$0.00
Operating Activities	$400.00	$38.00
Field Day ($250)		
Programs	$100.00	$0.00
Public Service Communications	$0.00	$0.00
Voice Repeaters	0**	$0.00
Club Administration		
Club Liability Insurance	$220.00	$200.00
Club Equipment Insurance	$220.00	$0.00
Equipment	$400.00	$0.00
P. O. Box Fee	$280.00	$0.00
Humanitarian Awards	$0.00	$0.00
Office Supplies/Bank Fee/Misc.	$10.00	$0.00
Online Services	$175.00	$167.56
Paypal Transaction Fees	$46.00	$18.85
Total Expenses	**$1,926.00**	**$424.41**
Net (Income - Expenses)		**$1,067.34**
Account Balances:	as of: 6/07/25	
BOH checking Account		$4,582.00
Namecheap Balance (Website)		$1.00
Paypal Account Balance		$1,810.65
Deposit Pending		$125.00
Total		**$6,518.65**
Fund Balances: (6/07/25)		
Infrastructure fund	$3,313.76	
Humanitarian Fund	$467.00	
Emergency Reserves	$1,000.00	
General Fund	$1,737.89	
Total Funds	**$6,518.65**	

* Income figures show dues and donations received for the 2025 dues year.

** Voice Repeaters & Digital Systems Projects will be funded from the Infrastructure Fund.
(Per Motion at February 15th Board Meeting)

BIARC Executive Board Regular Meeting
June 8, 2025
Kamana Senior Center

The meeting was called to order at 12:03 pm by Vice-President David Miller, with a quorum of 6 board members present.

Attendance:

- Board members David Miller, Tony Kitchen, William Polhemus, Mark Watanabe, Shawn Farley, Joseph Rosenbaum.

Secretary's Report and Minutes:

- David moved and Shawn seconded to approve the May 2025 Secretary's report. Motion passed.

Treasurer's Report:

- See attached. We welcome 5 new club members. Joe moved and Shawn seconded to approve the Treasurer's report, subject to audit. Motion passed.

Committee Reports:

Digital Systems:

- Nothing new to report.

Education and Outreach:

- See attached. Discussion was held on noise suppression at events, including noise cancellation in the immediate area and other noise related issues. Discussion was held on using a State of Hawaii release form for pictures and audio/video recording of minors at schools. We will also coordinate with the Museum of Science and Technology on this matter. Discussion was also held on possibly getting background checks for those operators who will be interacting with minors at schools and other outreach events.

Operating Activities:

- Created a Field Day pdf poster which was promoted on our social media platforms. Arrangements have been made for the use of a logging computer at Field Day.

Programs:

Today's program will be a presentation of Field day, its history and purpose. We will also talk about operating multiple rigs in close quarters and about the foxhunt we will have. The committee is working on getting approval from the Hawaii Department of Defense for a speaker from the 93rd Civil Support Team to talk about how they prepare and deploy to disasters and how they prepare for disasters in their personal lives. Discussion was held on getting Ed Fong(https://edsantennas.weebly.com/) to do a presentation for the club and possibly switching to zoom.com for his presentation.

Joe moved and David seconded to install William as the Programs committee chairperson. Motion passed.

Public Service Communications:

- A request has been made for radio operators to assist with the Veteran's Day Parade on Saturday, November 8, 2025 to help line up and make sure the various participants get out from the staging area in an orderly and timely fashion. We will be using GMRS radios which Jim Tatar will supply.

Voice Repeaters:

- Committee members did a site visit to the Peepekeo repeater site. A couple of coax cable connectors were bad so they temporarily tightened them the best they could. They will take another trip and re-terminate the coax. They suggested replacing the metal mast that the AREDN mesh sector antenna is on because the bottom is almost completely rusted out. They will work with William on the engineering necessary to replace the mast.
- ARES(https://hawaiiares.net/) has requested to hold a net on June 14, 2025 from 9 am to noon for the Hurricane Pahili exercise. William approved the request as the club Trustee.

Old Business:

- There was discussion on the proposed raffle, which we found out is not allowed by law. William suggested we reach out to Senator Joy San Buenaventura and ask her to sponsor legislation to allow limited raffles for non-profit entities. The board created an ad-hoc committee to explore this option. Jim Tatar will be the chairperson.

New Business: None

Other Business:

- William moved and Tony seconded to create an ad-hoc committee for the purposes of archiving the old version of our by-laws and constitution, codifying the changes made to both at the general membership meeting held in May 2025, and making edits where necessary and publishing. Motion passed. William will chair this committee and members will include Tony and David.

The board has decided to coordinate with the Kamana Senior Center to use the room from 12:00 pm to 5:00 pm on the second Sunday of the month for the rest of 2025 to allow for a longer socialization period and committee meetings. David will be our liaison with Kamana Senior Center and will arrange our meeting days/times with them. There are no conflicts for the rest of 2025 and David will let them know in advance if we need to change dates.

Joe moved and Tony seconded to adjourn the meeting at 1:07 pm. Motion passed.

Next meetings:

- The next meeting will be July 13 at Kamana Senior Center. The executive board meeting will be at 12:00 pm and the club activity will be at 2:00 pm. The links to attend online are at https://www.biarc.net/

Respectfully submitted,
Joseph Rosenbaum, Secretary

BIARC Education & Outreach Committee Report – July 1, 2025

Activity

June – Paused outreach to Puna Elementary schools due to summer break.

June 2 – Participated by BIARC/E&OC members in the Siren Test Net (VOAD and All Star).

June 8 – Attended BIARC Executive and Member Meetings at Kamana Center.

June 11 – Scheduled E&OC support of the Hawaii Museum of Science and Technology for repeat program in the next school year.

June 12 – Attended with BIARCE&OC in the County of Hawaii/HCCDA Auxiliary Communications Service summit meeting.

June 17 – Met with the Kamana Seniors Center and arranged, going forward, for BIARC reservation of the Kamana Center for the 2nd Sunday of each month from 1200 to 1700 for consecutive Executive and Member meetings.

June 18 – Attended HVOAD monthly Combined committee Meeting over Zoom.

June 28 – Participated in ARRL Field Day.

Scheduled

July1 – Participate in the Siren Test Net.

July 5 – Represent BIARC at the Glenwood Emergency Preparedness Meet.

July 13 – Attend BIARC Executive and Member Meetings.

July 16 – Attend HVOAD Combined Committee Meetings via Zoom

July 26 – Support Ohia Lehua Run event in Volcano in conjunction with KH6DQ.

Planned

- Further development of ham radio via Video Programming,
- Finalize "Minor" Photo Release procedures for E&OC supported events.

BIARC E&OC Membership

Leigh Critchlow WH6LC, Fred Fischer WH6HAA, David Miller KH6CZ, Joe Rosenbaum WH6JOE, Jim Tatar WH6EMN, Mark Watanabe WH6FSA, Les Hittner K0BAD

David Miller, Education and Outreach Committee, BIARC

MESH-TASTIC MODE NODE MAP GROWS EACH DAY

STATE-WIDE LISTING AS OF LATE JUNE

ID	Name	Approximate Location	Island	Device
6136	6136_5634	Waimanu Valley Ridge	Oahu	lilygo-tbeam-s3-core
6DL1	AH6DL 6DL1	Honomu	Hawaii	rak4631
03AC	Meshtastic 03ac			t-deck
0429	Meshtastic 0429	Waimea	Hawaii	
0444	Meshtastic 0444	Ala Wai	Oahu	
0534	WH6GIX	Hilo Hillside	Hawaii	tlora-v2-1-1p6
059d	Meshtastic 059d			tracker-t1000-e
0660	Meshtastic 0660			rak4631
081F	Kelan's Phone	Kawaihae Rd	Hawaii	tracker-t1000-e
0D4E	Atlavox S4		Maui	rak4631
0EBC	Solar DannyK			rak4631
1424	WH6DGM 1424			heltec-v3
128D	WH6EY-Unit1	Wailua	Kauai	rak4631
1304	WH6EY-Repeater	Wailua	Kauai	rak4631
1690	Paaulo Mauka 1609	Paaulo	Hawaii	rak4631
19F4	Poi Dog 19f4	Waipahu	Oahu	heltec-mesh-node-t114
1a27	Meshtastic 1a27			rak4631
1A8D	Meshtastic 1a8d	Kihei	Maui	tracker-t1000-e
1A8D	Meshtastic 1a8d	Kahului	Maui	tracker-t1000-e
1B64	Solar Tango	Lalamilo	Hawaii	heltec-v3
1C8E	Drone			tracker-t1000-e
2235	Meshtastic 2235	Upper Waikoloa	Hawaii	rak4631
2278	Bombtastic			sensecap-indicator
2284	SWTI 37C	East Kapolei	Oahu	rak4631
23F3	Meshtastic 23f3	Kailua	Oahu	
259d	Meshtastic 259d	Pearl Harbor	Oahu	
25F0	Meshtastic 25f0			station-g2
2660	Meshtastic 2660			
2680		2680		heltec-v3
2825	Meshtastic 2528			heltec-mesh-node-t114
2849	Meshtastic 2849			t-echo
2B0C	Nurse Dudes Vision	East Volcano	Hawaii	heltec-vision-master-t190
2BCC	Borg 2bcc	Pearlridge	Oahu	heltec-vision-master-t190
2BFE	solar kilo kekaha	Hualalai 4 Seasons	Hawaii	rak4631
2D76	Meshtastic 2d76	Waimea	Hawaii	tracker-t1000-e
2DC0	Meshtastic 2dc0	Puako	Hawaii	
2F10	Mauka Mesh	Leleiwi	Hawaii	station-g2
CCF	Cloud Castle Farm	Haiku	Maui	lilygo-tbeam-s3-core
2FC5	Meshtastic 2fc5	Lalamilo	Hawaii	rak4631
3151	Meshtastic 3151	Hilo	Hawaii	t-echo
3261	Thomas R1			rak4631
32F0	Meshtastic Haiku Makai	Haiku	Maui	Lilgo t-beam S3 core
3528	Meshtastic 3528			t-echo
3716	pmow mobile	Kihei Ridge	Maui	t-echo
3768	Solar Quebec	Lower Waimea Town	Hawaii	heltec-v3
3D49	Solar Romeo			rak4631
3E02	Foh-ENV	East Volcano	Hawaii	rak4631
WA8A	WS85 WX 4011	Olowalu	Maui	rak4631
412c	Meshtastic 412c	Pearl Harbor	Oahu	helyec-v3
4294	Meshtastic 4294			t-beam
43E0	Meshtastic 43e0			
4952	LaeLae Repeater 4952	Waimea Watershed	Hawaii	rak4631
4A6A	Wardriver (mobile)	Paaulo Mauka	Hawaii	rak4631
509E	Waikii	Waikii Waimea	Hawaii	rak4631
51D1	WH6OMG 51d1	Waialae Kahala	Oahu	tracker-t1000-e
523C	Kilohana Solar			rak4631
5584	Kalopi repeater	Kohala Mtn Rd	Hawaii	heltec-v3
5634	Meshtastic 5634	Waimanu Valley Ridge	Oahu	
570F	Meshtastic 570F	Waimea	Hawaii	rak4631
5898	Meshtastic 5898			
58F3	WH6OMG Solar 2			rak4631
59AB	Mana Road 59ab	Waimea	Hawaii	rak4631
5BA4	Borg-Server		Hawaii	station-g2
5CCC	Meshtastic 5ccc	Waipahu Uka	Oahu	
5CFC	Meshtastic 5cfc			heltec-v3
6453	Meshtastic 6453	Lalamilo	Hawaii	t-echo
64A6	CA-T1000-E-1			tracker-t1000-e
66A4	Meshtastic 66a4	Koolau	Oahu	
66C9	Meshtastic 66c9			
6A2C	Meshtastic 6a2c			heltec-v3
6C0D	Meshtastic 6c0d	Kalopa Mauka	Hawaii	t-echo
6C2F	Wardriver beta			rak4631
6C8E	Kilohana Solar 6w-3k 6c8e	Kilohana Scout	Hawaii	rak4631
6DBC	Meshtastic 6dbc	Paia	Maui	
6DL2	AH6DL Honomu T	Honomu	Hawaii	Lilgo t-beam S3 c
6DL3	AH6DL roam a05e		Hawaii	t-echo
6E34	Meshtastic 6e34			
6FA	Ranchos_meshtastic e8BB	HOVE	Hawaii	tlora-v2-1-1p6
6FC	WH6FC_Mesh_dcc6	HOVE	Hawaii	t-echo
6HHG	Meshtastic d510	Makawao	Maui	heltec-v3
6MLa	Tiki's Loft A	Kakaako	Oahu	
6MLE	KH6ML-e Echo	Kaneohe	Oahu	t-echo
6MLF	KH6ML-fox			heltec-v3
706c	Meshtastic 706C	Paia	Maui	heltec-v3
718A	WisMesh Pocket 718a	Hawaii Kai	Oahu	rak4631
7280	Meshtastic 7280			t-beam
72C0	Bender 72c0			heltec-v3
73E8	Meshtastic 73e8	Wailuku	Maui	
74C0	Waikii 74c0	Waimea	Hawaii	heltec-v3
7593	solar-huehue 7593	Kailua-Kona	Hawaii	rak4631
7738	Solar Sensor		Hawaii	rak4631
7A6F	Waimea Central 7a6f	Waimea	Hawaii	rak4631

COMPILED BY KH6RDO, continues on next page

7AFC	Meshtastic 7afc			
7BD8	Meshtastic 7bd8			heltec-v3
7C78	Meshtastic 7c78			tlora-v2-1-1p6
7D14	Meshtastic 7d14			
7F40	Randy 7f40	Wailuku	Maui	heltec-v3
7F60	S5 Trekker Bravo KH6GM	Ninole	Hawaii	heltec-wireless-tracker
8071	SWTI 37A	Kunia	Oahu	tracker-t1000-e
8176	Waikii Repeater	Waimea	Hawaii	rak4631
82FB	Waimea Homesteads	Waimea	Hawaii	rak4631
84A4	Waikii G2	Waimea	Hawaii	station-g2
8596	Hitchiker	East Volcano	Hawaii	tracker-1000-e
8824	Meshtastic 8824			
894C	WH6LC-B1	Mountain View	Hawaii	heltec-wsl-v3
89FC	Nurse Dude tdeck	East Volcano	Hawaii	t-deck
8B1F	Patches	Hana	Maui	tracker-t1000-e
8C93	Cyclops	Waimea Town	Hawaii	rak4631
8CA6	Kohala 8CA6	Hawi	Hawaii	rak4631
8D3D	WH6EY-Unit2	Wailua	Kauai	rak4631
8DE4	Nibbler 8de4			heltec-v3
8E34	Borg 8e34	Pearl Ridge	Oahu	heltec-vision-master-t190
8EA0	Farley- Server	East Volcano	Hawaii	station-g2
8FF0	Pi3-30db Kawaihae 8ff0	Kawaihae	Hawaii	portduino
90B4	Meshtastic 90b4	Ewa Plains	Oahu	t-beam
90FA	Meshtastic 90fa	Maalaea	Maui	t-echo
9124	WH6EPS-B	Mountain View	Hawaii	station-g2
922B	Solar Oscar			rak4631
9770	Norwood-Online			heltec-v3
9922	Meshtastic 9922			portduino
9C6F	solar monolith	Lower Waimea Town		rak4631
A021	Elab Pi Waveshare A021	Kailua-Kona	Hawaii	rak4631
A211	Meshtastic a211	Nuuanu Valley	Oahu	
A2E9	Meshtastic a2e9	Kilohana Scout area	Hawaii	rak4631
A4B9	PensacolaMesh05	Hilo	Hawaii	tracker-t1000-e
A55C	WH6EPS-M2	Mountain View	Hawaii	tracker-t1000-e
A5A3	Meshtastic a5a4			rak4631
A912	T-Echo a912			t-echo
A938	Meshtastic a938	Kohala Mtn Rd	Hawaii	station-g2
a978	Meshtastic a978			
AABC	KH6HHG aabc	Makawao	Maui	heltec-v3
AC9F	Hanaipoe mana ac9f	Kilohana Scout area	Hawaii	rak4631
ACE1	Meshtastic ace1	Lower Waimea Town	Hawaii	
AH6T	AH6T_Mesh_dcc6		Oahu	t-echo
AUXC	AUXC HI			heltec-v3
B14C	Elab b14c			heltec-v3
B24F	Solar November	Lower Waimea Town	Hawaii	rak4631
B668	pi4-30db-hoku desk	Waimea	Hawaii	portduino
B72C	Rook Pro			
B7DC	Meshtastic b7dc			
B870	Meshtastic b870	Ewa Forest Reserve	Oahu	t-beam
BA5A	elab router pi4-30db ba5a	Waimea	Hawaii	portduino
BA5B	HRCC Fast Node	UH West Hawaii	Hawaii	heltec-mesh-node-t114
BB30	WH6HEO-BB30	Hilo	Hawaii	heltec-v3
BB80	Nurse Dude AlphanuZ	East Volcano	Hawaii	heltec-mesh-mode-t114
be24	Meshtastic be24			heltec-v3
BEDC	PI4K-30db	Waimea	Hawaii	portduino
BEE6	WH6EPS-M	Mountain View	Hawaii	nano-g2-ultra
bfc2	PIS-waveshare bfc2			portduino
BFS1	F2PB1	Hillside Sub Hilo	Hawaii	tlora-v2-1-1p6
BOAR	AH6V-00ec	Ninole	Hawaii	heltec-v3
BOB	Robert	Haiku	Maui	t-deck
BORG	Borg-1p	East Volcano	Hawaii	heltec-mesh-node-t114
BR-1	WH7BR-M1	Volcano	Hawaii	tracker-t1000-e
BR-B	WH7BR-Base	Volcano	Hawaii	rak4631
C11C	pi3-30db-echo			portduino
C630	MIHNakoa			t-beam
C7BB	Meshtastic c78b	Keaukaha	Hawaii	tracker-t1000-e
C7A3	T-Echo c7a3			t-echo
C7FC	Meshtastic c7fc			
C918	Mesh HPP c918	Keaau	Hawaii	heltec-v3
C9A0	Mesh HPP c9a0	Keaau	Hawaii	heltec-v3
CC58	Meshtastic CC58	Kilohana Scout area		heltec-v3
CC87	Meshtastic cc87	Lalamilo	Hawaii	
CC88	Meshed Potatoes			station-g2
ce9e	Meshtastic ce9e			
CMKW	Colin Makawao	Makawao	Maui	tlora-v2-1-1p6
CNCK	Canuck	Hilo	Hawaii	rak4631
COML	COML HI			heltec-v3
CP-B	CP-Base			rak4631
CW-R	Coconutwireless CW-R			rak4631
D287	Meshtastic d287	Makawao	Maui	t-echo
D31C	HPA MQTT Gateway	Waimea	Hawaii	rak4631
D47C	Meshtastic d47c	Ewa Beach	Oahu	
D514	Meshtastic d514			heltec-v3
D88C	Meshtastic d88c			t-deck
d904	Meshtastic d904			
DAB5	Mr Boomtastic		Hawaii	heltec-mesh-node-t114
DA94	Meshtastic da94	Waianuenue Hilo	Hawaii	heltec-v3
DB70	Meshtastic db70			t-deck
DCHO	KG6hwf	Kahului	Maui	t-rcho
DD14	G008			tlora-v2-1-1p6
DD94	WH6EPS-M3	Mountain View	Hawaii	station-g2
DE01	K5DCE Base			heltec-v3
DEMO	Demo1	Hilo	Hawaii	station-g2
DEW1	Dewey nh6m	Kalaoa	Hawaii	heltec-wireless-tracker

DEW2	Makalei nh6m			heltec-v3
DQG2	Meshtastic d3a0 KH7DQ	Volcano	Hawaii	station-g2
DSTN	kg6fwf		Hawaii	heltec-v3
DWIS	kg6fwf wis			rak4631
E0C8	T-Beam S3 Alpha	Waimea Town	Hawaii	liligo-tbeam-s3-core
E152	Solar Lima	Kilohana Scout area	Hawaii	rak4631
E3B7	Meshtastic e3b7			
E3C9	Hawi Rd Waimea e3c9	Waimea	Hawaii	rak4631
E644	Solar Papa	Kawaihae Rd Waimea	Hawaii	heltec-v3
E72C	T-Beam Control	Waimea Town	Hawaii	t-beam
E8CB	Meshtastic e8cb	Makiki - Roosevelt	Oahu	
E9F0	Meshtastic e9f0			
EBS2	WH6EBS-M2		Hawaii	tracker-t1000-e
EC00	WH6ECG-00	Windward Mall area	Oahu	heltec-v3
EC15	WH6ECG-15		Oahu	heltec-v3
ECG2	WH6ECG-2		Oahu	heltec-v3
ECG7	WH6ECG-7			t-deck
ECOM	WH6GXZ-ecom		Hawaii	portduino
ee30	F2PB7	Keaau	hawaii	tlora-v2-1-1p6
EFDC	WH6HEO-Cold Xiaoer		Hawaii	seeed-xiao-s3
EMN1	WH6EMN-B	Hilo	Hawaii	station-g2
EMN2	WH6EMN-M2	Hilo	Hawaii	nano-g2-ultra
EMN3	WH6EMN-Demo-M3	Hilo	Hawaii	tracker-t1000-e
EMNM	WH6EMN-M1	Hilo	Hawaii	tracker-t1000-e
EPSD	AREDN_Data	Mountain View	Hawaii	heltec-vision-master-t190
FODD	Solar Lima	Waimea Town	Hawaii	rak4631
F28C	T-Beam Gamma			t-beam
F4E7	pi-zeroW-delta			portduino
f60f	solar node golf	Upper HOVE	Hawaii	rak4631
F728	Meshtastic f728			station-g2
F789	Orca Techo	Waikoloa Village	Hawaii	t-echo
F79F	Meshtastic f79f	Enchanted Lake	Oahu	
F8A7	Solar Pad alpha	Honokaa	Hawaii	rak4631
FA34	WH6HEO-Hot Xiaoer			seeed-xiao-s3
FA90	Solar Sierra	Kawaihae	Hawaii	heltec-v3
7o	T-Echo fbba		Oahu	t-echo
FBBF	ORCA Westside			rak4631
FC88	H2T	Lower Waimea Town	Hawaii	heltec-mesh-node-t114
FOSD	Solar Tango Mauna Lani	Mauna Lani	Hawaii	rak4631
fid	KA4NQS f57c			heltec-v3
FSA1	WH6FSA-M		Hawaii	tracker-t1000-e
FXV1	WH6FXV-1 Fixed	Kula	Maui	heltec-v3
GMB	Meshtastic 7c67		Hawaii	rak4631
GR58	GreenRed ff58	Ewa Beach	Oahu	lilygo-tbeam-s3-core
GUDP	wh6gxz-udp	East Volcano	Hawaii	portduino
GWIZ	Meshtastic 2ac1			rak4631
GX2F	WH6GZX-Fox	East Volcano	Hawaii	portduino

HA01	HA01	NELHA	Hawaii	tracker-t1000-e
HAA	WH6HAA		Hawaii	tracker-t1000-e
HAA1	WH6HAA-M1	Ainaloa	Hawaii	tracker-t1000-e
HAKB	KH6HAK-B2	Pahoa	Hawaii	station-g2
HAKM	KH6HAK-M1	Pahoa	Hawaii	tracker-t1000-e
HAPU	ORCA Hapuna			rak4631
HB01	Harbor Breeze 01			rak4631
HBM1	HBMC1	Amaulu	Hawaii	station-g2
HBR1	RAK Solar HBR 1			rak4631
HICA	HC Jumper	Kilohana Scout area	Hawaii	heltec-v3
HIJ	HiMesh Project - Moku O Keav	Waiakea Uka	Hawaii	heltec-wsl-v3
HIJ	HiMesh Project - Hilo	Panaewa	Hawaii	heltec-v3
HIJ	HiMesh Project - Oahu	Kapolei	Oahu	tracker-t1000-e
hirf	hitchiker rf	East Volcano	Hawaii	heltec-v3
hitU	hitchiker-udp	East Volcano	Hawaii	portduino
HMAP	Hawaiimeshmp			portduino
HONU	JorgeTV rak3272	Kahaluu	Oahu	rak4631
HOV2	HOV2 c318	HOVE	Hawaii	heltec-v3
HPKU	HPKU Hale Pohaku	Mauna Kea	Hawaii	station-g2
HR	Haleakala Repeater	Haleakala	Maui	rak4631
HSR	Haleakala Summit Repeater	Haleakala	Maui	rak4631
JaHo	JavaMeshHome			heltec-v3
JBS	K7IBS KOA	Kailua-Kona	Hawaii	heltec-v3
JN1	Jays Node			rak4631
JOE1	WH6JOE-M1	Mountain View	Hawaii	tracker-t1000-e
JOE2	WH6JOE-B	Mountain View	Hawaii	heltec-v3
K0DE	k0den	Mauna Lani	Hawaii	t-deck
K7MS	KH7MS-Home	HOVE	Hawaii	heltec-v3
KBTR	KB SenseCAP Tracker ca9a	Lower Palasides	Hawaii	tracker-t1000-e
KC	Kelan's Car		Hawaii	heltec-v3
KH	Kelan's House	Kawaihae Rd	Hawaii	heltec-wireless-tracker
KH6G	KH6GM bcd5	Ninole	Hawaii	tracker-t1000-e
KMQT	Kulamalu MQTT Maui			station-g2
LEV2	Meshtastic f934			heltec-v3
Llog	LM-Logging		Hawaii	portduino
LM13	LM-Rak			rak4631
LM64	LM-UDPtest			station-g2
LM68	LM-Base	East Volcano	Hawaii	station-g2
LMAC	LMTK-23ac	Mana	Hawaii	rak4631
LMEX	LM-Experimental			portduino
Luke	LMTK-7c	East Volcano	Hawaii	tracker-t1000-e
M1	M-1			rak4631
M9	M-9			rak4631
MIHT	MIHTdeck	Kahului	Maui	t-deck
Mini	N1PDG-1	Kakaako	Oahu	heltec-v3
MK81	Manoa/Tantalus mk23	Manoa	Oahu	t-beam
ML01	MLOA-01 BIARC	Mauna Loa	Hawaii	station-g2

MLC2	MLCS-2			heltec-v3
MS	msunset			t-deck
MS-2	KH7MS-M2	HOVE	Hawaii	heltec-v3
NC5	Node Collector EDC Muzi			rak4631
NHM	Ahikawa NH6M	Kalaoa	Hawaii	heltec-v3
NRW2	NorthRWest 2			
NRWB	NorthRWest Base			heltec-v3
e6d2	Meshtastic e6d2	Waikiki	Oahu	tracker-t1000-e
OCT1	Octogrid 01	Kihei	Maui	t-echo
OCT3	Octopie Base Node	Kihei	Maui	portduino
OCT6	Octogrid 6	Kihei	Maui	diy-v1
ORCA	Orcatdeck			t-deck
ORNG	Orange	Paia	Maui	liligo-tbeam-s3-core
PEPE	Pepeekeo-BIARC	Pepeekeo	Hawaii	heltec-wsl-v3
PHJR	Kalaeloa	Kalaeloa Airport	Oahu	rak4631
PHTO	PHTO	Hilo	Hawaii	rak4631
PM	PM d7e0 (mobile)	Hilo	Hawaii	tracker-t1000-e
PTCR	PatchrZero.Prime			heltec-wsl-v3
RANb	Ranches base	East Volcano	Hawaii	rak4631
RDO1	KH6RDO Hilo	Hilo	Hawaii	rak4631
RDO2	KH6RDO-Pepeekeo	Pepeekeo	Hawaii	heltec-v3
RNC2	Ranchos2	HOVE	Hawaii	nano-g2-ultra
S7	SunMesh 915a			heltec-v3
SC02	SenseCap_02			tracker-t1000-e
SCBY	Scooby Doo			heltec-v3
SENS	LM-Meshsense	East Volcano	Hawaii	heltec-v3
SLRB	SolarBaker			heltec-mesh-node-t114
SM9S	SunMesh 915a Solar		Maui	heltec-v3
SP01	Kalaoa 1490	Kaloko	Hawaii	rak4631
T-1	KH6GG			t-deck
TBS1	T_Beam_S_986c			lilygo-tbeam-s3-core
TCLT	Ewa by Gentry	Ewa Beach	Oahu	rak4631
Term	Mehtastic Terminal			rak4631
TG2N	Tav G2Nano Ultra	Makawao	Maui	nano-g2-ultra
TKv3	TK_Heltec_V3			heltec-v3
TM	Tavis Mobile	Pukalani	Maui	station-g2
TTG2	Tavis G2	Makawao	Maui	station-g2
TTKO	Tavis T-Echo	Pukalani	Maui	t-echo
UBEX	WH6GXZ-ube		Hawaii	portduino
Ulua	KH7TV Echo	Makiki - Roosevelt	Oahu	t-echo
UNSG	GBUtilitySolar 4938			rak4631
WHIZ	AH6V-6ee0	Ninole	Hawaii	heltec-v3
WR	Wailuku Repeater (MQTT)	Wailuku	Maui	station-g2
WS1	WH6OMG solar 1			rak4631
XTDK	X Tdeck			t-deck
	T-Beam Alpha			t-beam
9BC0	Meshtastic 9bc0			

MIND	WH6GZXZ Mini Mesh	East Volcano	Hawaii	portduino
5A60	WH6DGM 5a60			heltec-v3
2AEC	Meshtastic 2aec			

Meshtastic

A LILYGO TTGO T-Beam running in client mode on battery power.

International standard	Based on LoRa, Bluetooth, Wi-Fi
Compatible hardware	Supports ESP32, nRF52840 and others
Physical range	Typically 2–5 km (1.2–3.1 mi), upwards of 100 km (62 mi) possible via mesh
Website	meshtastic.org