

July 2021 Newsletter

Next up on Zoom
(get link on BIARC ListServe)

Saturday, July 10
Noon: BIARC Board meeting
2 p.m.: Membership gathering

Big Island Amateur Radio Club

Working hard to make Field Day a big hit on Big Island

Plans for Field Day, updates on equipment – homebrew and commercial, and assorted club business highlighted the June 12 BIARC Zoom gathering.

Vice President Jim Huntley, WH6FQI, who conducted the session, encouraged as many folks as possible to make the trip up to Mana Road for Field Day on June 26. Main thing, he said: “We want to have fun with our ham family.”

The other main goals for the annual event: To test our antennas and radios; to operate

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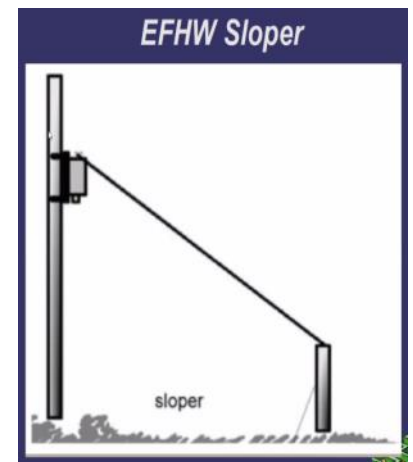


Field Day Chair Roy Kunishige, WH6FYK, shows new skeleton antenna he made as a backup for Field Day.

Wide-ranging discussion at June Zoom session

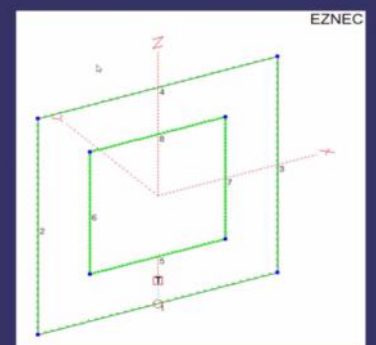
Field Day Antennas

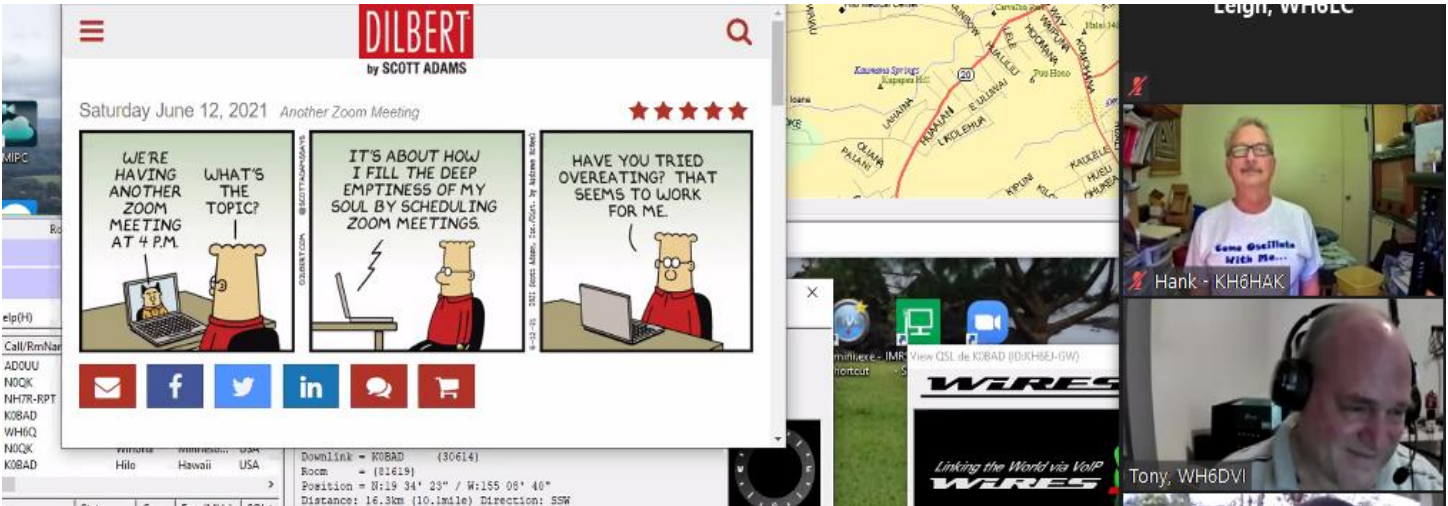
- ▷ EFHW 80-10 in a sloper configuration
- ▷ 10/6 Meter Quad Antenna
- ▷ Bring an antenna you want to test out and we can put it up to test!



From the June 12 Zoom session:
Pix of schematics of two antennas
to be used at Mana Road Field Day.

6/10 Meter Quad Sketch





Secretary Les Hittner, K0BAD, entertains the troops at June Zoom session by interjecting a bit of topical humor from the morning newspaper.

June Zoom session: Continued from previous page

one of the main stations using phone, CW or FT-8, and to encourage new hams to get their feet wet on HF.

“And we’re going to try to make a satellite contact ... at least one,” said Jim.

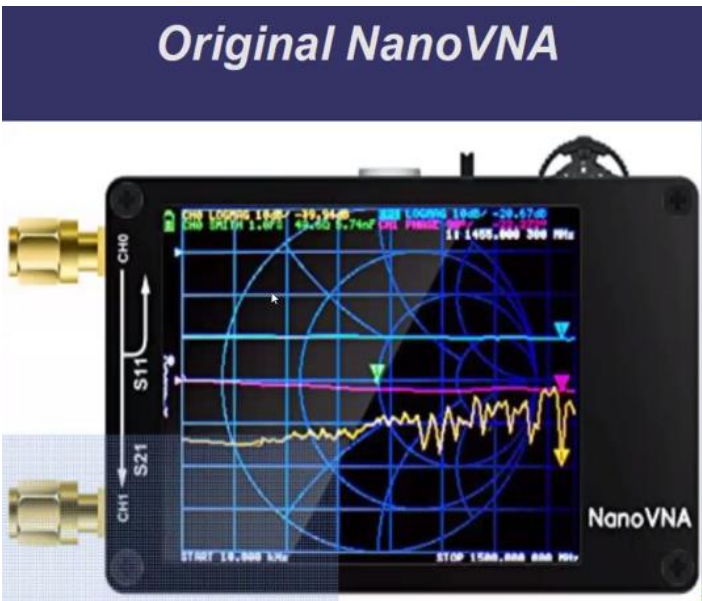
Treasurer Tony Kitchen, WH6DVI, said he was looking forward to seeing everyone in-person at Field Day.

And speaking of getting to see each other up-close: What about plans for a face-to-face meeting in the future? We aren’t able to use either Puna Covenant Church or the Keaau Community Center,



The new and improved NanoVNA (below, at right; and above, demonstrated by Roy, WH6FYK) is housed in a metal case. The original NanoVNA is enclosed in a plastic case. The NanoVNA is a vector network analyzer and antenna analyzer.

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**June Zoom session:
Continued from previous page**

so for the time being we're stuck with Zoom. Tony said he's going to speak to the bishop at the Orchidland LDS Church to see if that's an option.

Jim noted requests from some members for a hybrid meeting format using both Zoom and in-person contact. Since some folks always have had trouble making it to the Keaau meetings, even before the pandemic, such a format could increase participation, said Jim.

With the continued health of our club in mind, Tony asked that each member consider stepping up and becoming involved in club leadership roles. There are current openings on such committees as "programs," "digital" and "voice/repeater." And, in just a few months, elections will be held for new BIARC Board members.

"The committees are where the action takes place," he noted.

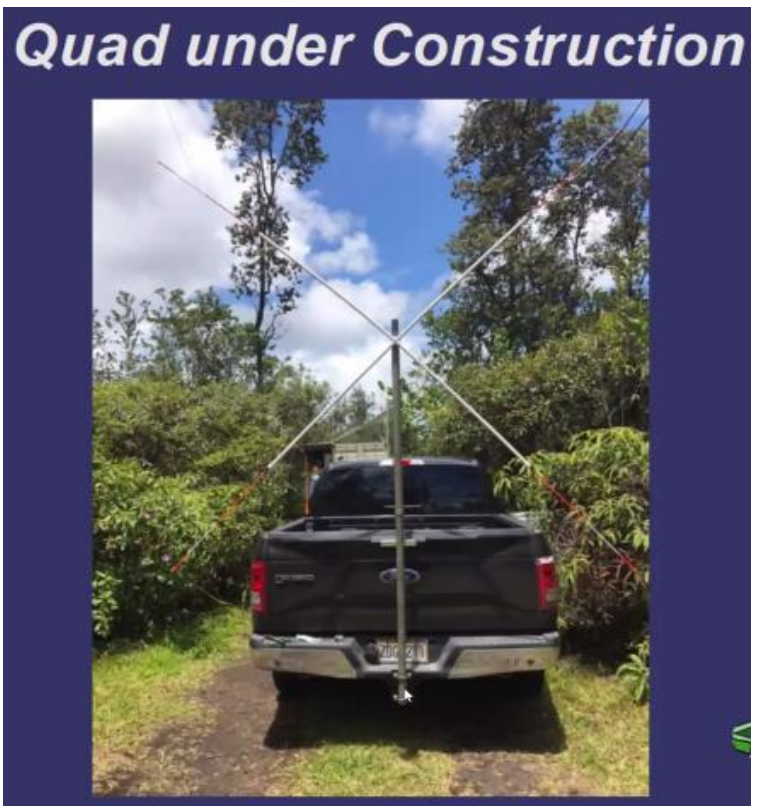
John Bush, KH6DLK, gave an update on his ongoing end-fed antenna project.

Roy Kunishige, WH6FYK, said the half-wave end-fed he put up recently is working great.

Hank Kaul, KH6HAK, talked about his arduous amplifier rebuild project (he wrote about it in the June BIARC Newsletter) which as of meeting day was still awaiting additional tweaking.

Jim announced that the club has been approached about hosting a Whisper beacon, which would be helpful to HF operators. BIARC member input is invited. The people sponsoring this worldwide network would help subsidize club expenses. The beacon transmits on five bands, traveling through them nonstop 24 hours a day, 365 days a year. Tom English, WH6EBS, noted that his neighbor in Volcano Village, Wil Tanigawa, KH6IMB, recently put up one of the beacons. (Perhaps only one of the transmitters

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Jim Huntley, WH6FQI, showed a picture of his truck with the Field Day quad under construction. Jim pointed out that he built it from readily available materials such as those available at Home Depot or Ace Hardware.



Hank Kaul, KH6HAK, shows "an interesting little gadget" he got in the mail the other day. It's a PreppComm, a CW decoder described by its manufacturer as "The DMX-40: Stand-Alone QRP or Morse companion for your station."



Treasurer Tony Kitchen, WH6DVI, at left, encourages participation in the June 19 Makani Pahili exercise. Board member Jim Sugg, AH6AE, center, explains the ARES organizational structure and how information will be handled at different levels for the statewide emergency training. And John Bush, KH6DLK, at right, gives an update on his ongoing end-fed antenna project.

June Zoom session: Continued from previous page

is needed per geographical area? Stay tuned.)

Jim showed a picture of his truck with the Field Day quad under construction. Jim pointed out that he built it from readily available materials such as those found at Home Depot or Ace Hardware.

Roy showed via Zoom the new skeleton antenna he made as a backup for Field Day.

Discussion also focused on the original NanoVNA versus the new and improved NanoVNA. The original unit is housed in a plastic case, with the updated version enclosed in a metal case.

NanoVNA is a vector network analyzer and antenna analyzer.

Hank showed us a new toy he got in the mail the other day. "It's an interesting little gadget," he reported and he's been doing some preliminary testing. It's PreppComm, a CW decoder. It's an SDR receiver.

At 3:19 p.m., a 3.6 magnitude earthquake occurred on Kilauea South Flank about 8 miles south of Volcano. We compared notes on who did or didn't feel the tremor. Peggy Gentle, KE6TIS, reported that she must have been out of range because all was quiet at her new Colorado QTH.



Peggy Gentle, KE6TIS, reports in from her new QTH in Colorado.

Tony encouraged participation in the June 19 Makani Pahili exercise. Jim Sugg, AH6AE, explained the ARES organizational structure and how information will be handled at different levels for the statewide emergency training.



Put it on your calendar!

All info at gridmadness.blogspot.com

Grid Madness is a FUN event for all hams in the State of Hawaii. Test your equipment, coverage and operating skills using simplex FM on **2 meters, 70 cm, 1.25 meters and 6 meters**. Talk to as many stations as you can, in as many Grid Squares as you can, using SIMPLEX ONLY. See who you can contact on your island, or across the water!

New for 2021: 6 meters is new this year and 1.25 meters will again be offered after a successful debut last year. For more info, see **[Make Contacts on 50 and 220 MHz](#)**. Also new -- scores will be computed using traditional amateur radio **[Contest Scoring](#)**. For details, click the links!

Comments and questions: AH6KO@arri.net

GETTING A BIRD'S-EYE VIEW IN VOLCANO



Paul Ducasse, WH7BR, like many Hawaii Island residents, doesn't have to travel far to go "birding." Paul submitted this action shot to the BIARC Newsletter and reports: "I saw these love birds were using my coax 'rain drip loop' on my VHF/UHF Diamond 200 antenna as a perch. They were there for about 15 minutes. A pretty long time considering they like to flit about."

K6K is 'huge success,' with six continents joining in fun

Michael Miller, KH6ML, offers a summary of the very successful June 11 K6K Kamehameha Day Hawaii celebration.

"Aloha and a big mahalo to all the volunteers that made K6K a huge success! The results were grand and allowed operators world-wide to contact K6K stations.

2937 QSO's
6 Continents
61 Countries
49 States (only VT Missing)



Mahalo and congratulations for making radio contact with K6K and celebrating King Kamehameha the Great and Hawai'i's rich history.

CONFIRMING QSO WITH: DATE: UTC: Mhz: MODE: RST:

40 volunteers
1497 Grids (6)
18 Hours
2129 Unique Calls
55 P2P Winlink messages received from 20 stations (OH was the DX)

"Successful radio contacts are eligible to receive a special inscribed certificate bearing

the full-color rendition of K6K: King Kamehameha Celebration. For many, it was their first time to contact Hawaii over the Radio.

"If you contacted our Special Event Station, look up your call sign on the following link and print your own certificate: <https://sites.google.com/view/k6khawaii> "

Kainoa Danes, chairman of the King Kamehameha Celebration Commission, said "I understand this served as a dual-purpose event of being part of the 149th Celebration and also giving local trained amateur radio volunteers a chance showcase their talents in our remote location of the Hawaiian Islands to communicate around the world."

He added, "It was fascinating to learn about Winlink radio email with no internet needed.

BIARC Digital Committee Report for June 2021 Board meeting

The Digital Committee did not meet in May. There are two requests from outside groups to possibly entertain as a club.

- Temporary iGate to support Science Camps of America track their weather balloon that will launch this summer from the Big Island. If only temporary, there is no cost to the club. I will lend all the materials to support the endeavor.
- WSPR beacon for the Big Island. Information on the beacon can be found at <https://github.com/HB9VOQ/WSPRBeacon>. A dedicated beacon that transmits 24/7/365 on multiple bands. Would give local hams a quick way to see if a band is open. They can filter the WSPR map for KH6EJ.

Lastly, Lawrence Bing (LB) has resigned from the digital committee, the club, and requested he be removed from the listserv and any email lists.

Jim Huntley
Digital Committee Chair

Wooden satellite to launch

The WISA Woodsat project, being sponsored by plywood supplier WISA in an unconventional public relations initiative, is poised to place a wooden satellite into orbit by the end of the year. The idea is to test the suitability of treated wood as a low-cost and widely available material for space applications.

The IARU posting for Woodsat indicates that several amateur radio experiments will be on board as well as photo downlinking, including selfies. The wooden satellite is based on a basic, versatile CubeSat format, Kitsat, which is designed with educational use in mind. It retails for just \$1,500.

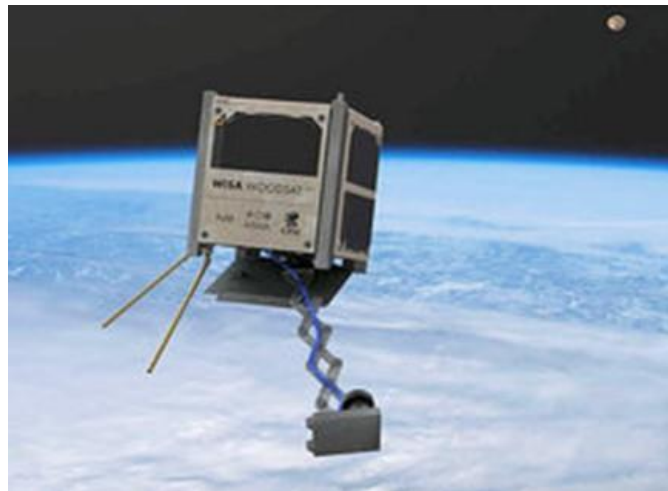
Based in Finland, the Woodsat project began with students across the country contributing parts to a CubeSat launched by balloon. The satellite will be a 10-centimeter cube weighing 1 kilogram, covered on all sides by coated birch plywood from WISA Plywood. Nine small solar cells will power the satellite, which will orbit at an altitude of 500 - 550 kilometers.

As the sponsor explained, "WISA Woodsat will go where no wood has gone before. With a mission to gather data on the behavior and durability of plywood over an extended period in the harsh temperatures, vacuum, and radiation of space in order to assess the use of wood materials in space structures."

Once in orbit, Woodsat will be able to extend a selfie stick to capture photographs of the wooden box as it hurtles through space at 40,000 kilometers (24,800 miles) per hour. This will allow the mission leaders to monitor the impact of the environment on the plywood. The satellite would downlink its telemetry and images from two cameras using amateur radio frequencies.

"The wooden satellite with a selfie stick will surely bring laughter and goodwill," added mission manager Jari Mäkinen of Arctic Astronautics.

"Essentially, this is a serious science and technology endeavor. In addition to testing plywood, the satellite will demonstrate accessible radio amateur satellite communication; host several secondary technology experiments; validate the Kitsat platform in orbit, and popularize space technology." An April 23 Engineering and Technology article has more information.



The idea of the WISA Woodsat project is to test the suitability of treated wood as a low-cost and widely available material for space applications.

For sale: Optibeam 6 L 6 meter yagi

Aloha, I have a 6 element wide spaced 6 meter yagi Optibeam antenna that I'd like to sell.

Used the antenna while living in Oregon, but since moving back here I just don't have the room for it, HOA police and all.

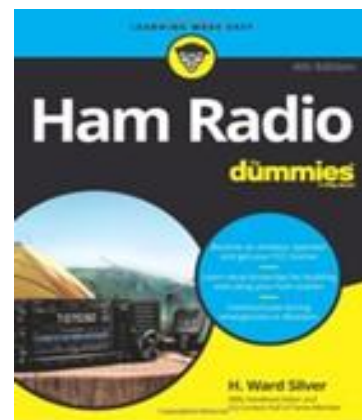
The antenna is about 10 years old. Works just fine. Have been using it on a 5 foot tripod working JA/mainland this spring, but just too big to hide. It has a 20 foot boom. Built like a tank. Only needs (if desired) replacement of two small U bolts (element to boom) and a new 1 :1 balun. I just removed the old one....which you can easily clean up....just needs a new pl-259.

New price, including shipping, is about \$850-900. Optibeam is a premium really heavy duty antenna. I'd like to sell for \$400. Currently it's still assembled but can easily be broken down and put into a station wagon/suv/etc. Hate to see it go...but just don't have the room to use it at this QTH.

Aloha es 73, Bill, AH6FC, Kamuela
(ah6fc@yahoo.com)

4th edition of ham how-to book heavily revised to address current tech and operating practices

The popular *Ham Radio for Dummies* 4th edition by Ward Silver, N0AX, has just been released. The book has been heavily revised to address current technology and operating practices. It may also serve as a training and mentoring tool for newly licensed radio amateurs. It is available from Amazon in Kindle and paperback editions, and coming soon from Ham Radio Outlet.



BIARC Executive Board Meeting

June 12, 2021

A. Begin Meeting

1. Call to order by Vice President James Huntley at 1203 HST
2. Quorum Call

Board Members: Robert Schneider, Leslie Hittner, Tony Kitchen, Jim Sugg, James Huntley, Paul Ducasse

Non-Board Club Members: Roy (WH6FYK)

3. Secretary's Report and Minutes (05/08/2021)

James Huntley **moved** and Tony **seconded** to approve the Minutes of the May Board meeting as published. Motion **passed** with no objections.

4. Treasurer's Reports

Leslie **moved** and Jim Sugg **seconded** to approve the Treasurer's Reports subject to audit. The Motion **passed** with no objections.

B. Committee Reports

1. Digital Systems – Written Report and no action items
2. Education & Outreach Committee – Written Report and no action items
3. Operating Activities – No Written Report

Tony **moved** and Paul **seconded** to allocate up to \$100 for Field Day expenses – primarily food, drinks, and water. The Motion **passed** with no objections.

4. Programs Committee – No Written Report
5. Public Service Communications Committee – Written Report and no action items
6. Voice Repeaters – No Written Report and no action items

C. Old Business

1. Mercer Insurance Equipment Update
No action was taken at this time.

D. New Business

1. Local Emergency Planning Committee – no action taken.
2. Change callsign of VOAD Repeater – may be corrected soon.
3. July Club Monthly Event in-place

From previous page

The Board agreed by **consensus** to conduct the July meeting and BIARC Monthly Activity remotely by Zoom.

Tony **moved** and Jim Sugg **seconded** that all committee reports be accepted. The motion **passed** with no objection.

E. Other Business

There was no additional business.

F. Adjourn

The meeting was adjourned by James at 1313 HST.

Respectfully Submitted,

Leslie D. Hittner

Leslie D. Hittner, Secretary

Attachments:

2021-06-09 BIARC Operating Statement

2021-06-09 BIARC Repeater Fund Summary

2021-06-12 Digital Systems Report

2021-05-08 Education and Outreach Report

PSCC Report 2021-06-07

BIARC - Repeater Fund Summary

As of: 06/09/2021

<u>Year</u>	<u>BIARC Equipment Budget</u>	<u>Donations (Credit)</u>	<u>Equipment Purchases & Maintenance Costs</u>	<u>\$ Covered By Repeater Fund</u>	<u>Repeater Fund Balance</u>
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	\$1,495.00	\$168.39	\$0.00	\$2,426.97

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

BIARC 2021 Budget & Operating Statement

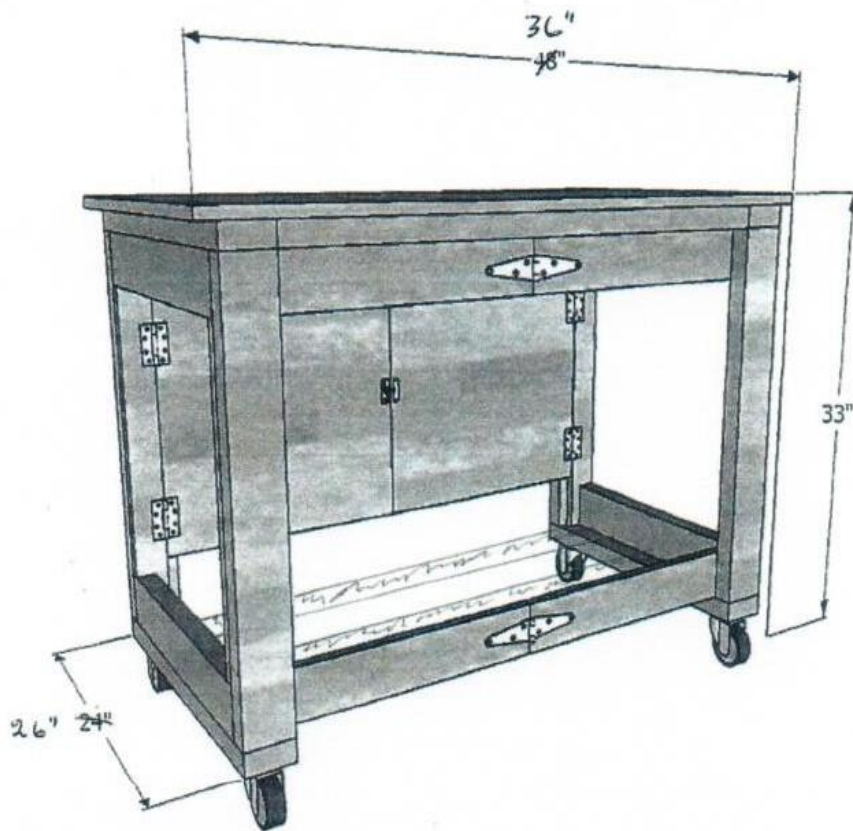
	<u>2021 Budget</u>	<u>Actual- 1/1/2021 To 6/9/2021</u>
Income:		
Dues	\$1,500.00	\$1,365.00
Repeater Fund Donations	\$500.00	\$1,495.00
On-line Payment Fees*		\$16.28
Total Income	<u>\$2,000.00</u>	<u>\$2,876.28</u>
 Expenses:		
Club Liability Insurance	\$325.00	\$323.20
Club Equipment Insurance	\$200.00	\$186.85
Donations (PCC)	\$25.00	\$0.00
Equipment	\$600.00	\$168.39
Field Day	\$370.00	\$0.00
Printing (Membership Booklet)	\$100.00	\$0.00
Annual Build Project	\$50.00	\$0.00
P. O. Box Fee	\$190.00	\$0.00
VOAD Dues	\$50.00	\$25.00
Office Supplies/Bank Fee/Misc.	\$40.00	\$0.00
Website Costs	\$50.00	\$0.00
Total Expenses	<u>\$2,000.00</u>	<u>\$703.44</u>
Excess (Deficit)		\$2,172.84
 Bank of Hawaii Balance as of: 6/09/2021		
		\$3,979.90
Deposit Pending		\$600.00
Namecheap Balance		\$11.96
Paypal Account Balance		\$1,071.87
 Fund Balances: (6/09/2021)		
Repeater Fund	\$2,426.97	
Emergency Reserves	\$1,000.00	
General Fund	\$2,236.76	
Total Funds	<u>\$5,663.73</u>	

* 10% Convenience fee for on-line dues payments minus processing fees.

Lending Library

Two big things happened with respect to the Lending Library:

1. Gus Treerwater, K2GT, made a substantial contribution of 13 books and a CD. We now have 36 books and CDs in the library.
2. Doug Wilson is making progress on a portable wooden stand for the library itself.



Doug also said that he would cover the cost of the stand as a donation to the club. The BIARC Lending Library should be ready⁶ for the big time if we start meeting in place in July.

Education and Outreach Committee Report

June 12, 2021

Tribune-Herald

The committee was not involved in the excellent article about Amateur Radio published in the Hawaii Tribune-Herald last Monday, but I did follow up on it with an email to the reporter. Here is that email and her reply:

Aloha, Leslie --

Thanks so much for reaching out! I would definitely be interested in writing about another angle of amateur radio, especially when it comes to assisting during emergencies. I know my boss was hoping that's what this first story would focus on, but that's just now how it turned out, so I think he'd be interested too. He's not in the office this week, but I can talk it over with him when he returns and touch base again.

Mahalo!

Stephanie

On Tue, Jun 8, 2021 at 10:16 AM <lhittner@hbc.com> wrote:

Aloha Stephanie,

I very much enjoyed your article about Lloyd Cabral's activities as an Amateur Radio operator. Amateur Radio is probably one of the most diverse hobbies in the world. One aspect of Amateur Radio that is mandated in the FCC Rules and Regulations, Part 97, is that amateur operators should serve as a resource for natural and civil emergencies by providing needed communications for private and public agencies during such emergencies. This is one of the most important reasons why radio amateurs come together in what we call "radio clubs."

Radio clubs finance major communications infrastructure that parallels – but does not exactly duplicate – existing non-profit, commercial and government agency communications. The hope is that if and when these day-to-day communications systems break down, which is not uncommon during emergencies, Amateur Radio will be there. For that reason – and because we also just like to play with radios – amateur radio clubs and individual amateur operators have spent tens of thousands of dollars building an independent communications infrastructure across the island – and indeed across the entire nation.

I would love to work with you to present this Amateur Radio Service role to the Hawaii Tribune-Herald readership.

There is much more about that mysterious antenna in your neighbor's back yard than "radio sport."

If you would be interested in pursuing this aspect of "Hamming it up," please let me know.

73 (That's ham lingo; an artifact from Morse Code.)
Secretary of the Big Island Amateur Radio Club.

BIARC PSCC Meeting Agenda/Minutes/Notes:

6/07/21 at 19:00 to 20:00 HST

<u>Present?</u>	<u>Name</u>	<u>Callsign</u>
	Paul Ducasse	WH7BR
X	Les Hittner	K0BAD
X	Tony Kitchen	WH6DVI
X	David Miller	KH6CZ
	Mark Watanabe	WH6FSA

- Update: ARES Makani Pahili Exercise Plan.
 - ARES has encouraged us to exercise plans using a “hub and spoke” communication model.
 - ARES encourages us to continue to support passing messages via voice, even though their focus has been on Winlink recently.
 - Hub relay stations need to be able to receive via voice and re-transmit messages via Winlink, and other modes used in each area by the various groups.
 - Hub and spoke stations and frequencies defined during drills and exercises are a starting point in defining operations during an actual emergency. We adapt to situations as needed.
- Discussion Re: Letter detailing problems and challenges in communications and coordination between groups. (From 2018 - See [Link.](#))
 - The committee determined that the best way to address challenges in communications and coordination between groups is to find a volunteer who could represent the Amateur Radio Community on the County Emergency Planning Committee, who would be accepted by the various stakeholders in the community. This representative must be familiar with all stakeholder groups, and be prepared to be a champion and advocate for an agenda that would focus on working together under the principles and structures of NIMS and ICS.

- Action: Les, K0BAD will draft an agenda item for the next Executive Board meeting, stating our intent to proceed with a plan to gather consensus and find a volunteer that can represent the Amateur Radio Community Islandwide, on the County Emergency Planning Committee.
- Action: Pending Executive Board approval, PSCC will draft a letter and develop a plan and timeline for seeking representation for the Amateur Radio Community with the County. This plan will be submitted for approval at the July 5th PSCC meeting and submitted as a recommendation to the Executive Board at the July meeting for approval.
- The groups which were identified to be included in this effort are KHRC, PERC, ARES, HealthCom, active EmComm stations on the West Side, and NWS - Skywarn. This effort is intended to be inclusive of all stakeholders. We will make our best effort to contact all stakeholders and negotiate a path forward.
- WH6DVI will confirm whether or not Hawaii Island VOAD already has a seat on the County Emergency Planning Committee.
- WH6DVI expressed that the American Red Cross, Salvation Army, Latter-Day Saints, Catholic Charities, and other groups that are a part of Hawaii Island VOAD have been working together to coordinate disaster response plans and activities. BIARC's continued participation in Hawaii Island VOAD is a workable method to enhance communication and coordination with these groups.
- Discussed: County NWS Skywarn Program as it relates to Amateur Radio Operations.