

June 2022

THE BIG ISLAND HAMGRAM

The newsletter of the Big Island Amateur Radio Club



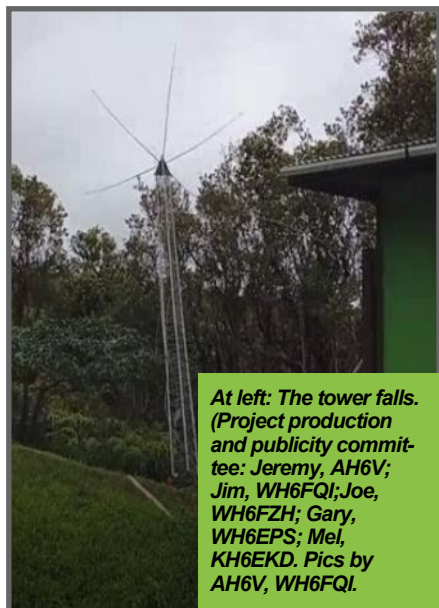
Going to a good home



At top: In Ninole, Jeremy Storm, AH6V, says aloha to his tower recently before it was lowered, dismantled and transported to its new home at the Orchidland QTH of Jim Huntley, WH6FQI.



Above: Undoing all of the hard work that kept the antenna standing for years.



At left: The tower falls. (Project production and publicity committee: Jeremy, AH6V; Jim, WH6FQI; Joe, WH6FZH; Gary, WH6EPS; Mel, KH6EKD. Pics by AH6V, WH6FQI.

Ready, set, go! Field Day on tap June 25 at Wailoa Park

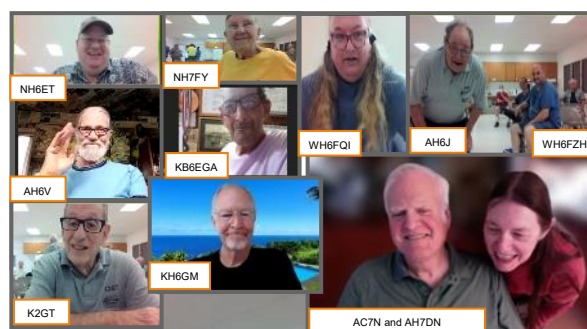
Calling all amateur radio enthusiasts: This fun event is just for you!

Club coordinators invite everyone to come out for the BIARC Field Day event Saturday, June 25, in Hilo.

"We are excited to be back and operating this annual event in a group setting after a long Covid lockdown," said BIARC Vice President and event chair Gary Schwiter, WH6EPS. "We hope to have a full day of operating activities, food and talk-story.

"If you have never set up an HF rig or antenna, this is your opportunity to come out early and volunteer

Continued on Page 2



The gang gathers in Keaau and on Zoom May 14.



A fine blend of venues

Next meeting is Saturday, June 11

The Big Island Amateur Radio Club will continue with in-person meetings at the Keaau Community Center at 2 p.m. on Saturday, June 11.

In addition to each face-to-face session, our interactive meetings are being shown on Zoom. A Zoom invite and website link will be sent out on the BIARC Listserve on Friday, June 10.

All Amateur Radio operators are invited. The BIARC Board will meet at noon on Saturday, also on Zoom.

THE PRESIDENT'S CORNER



K0BAD

A real live Field Day?

By Leslie Hittner, K0BAD

It looks like BIARC may be able to sponsor a real live Field Day this year. That means arranging a club integrated set-up of equipment, scheduling operators for a productive operating period,

preparing to operate only on emergency power, publicizing this "contest" as an exercise in preparing for communications during emergencies, and surrounding ourselves with community leaders and politicians.

We can do this. YOU can do this. BIARC can do this. It has been several years, and many of our newer club members have NEVER done this – which is precisely why it is needed.

Our new Executive Board member, Gary Schwiter (WH6EPS), seems to be taking the lead on this effort, but he will need a lot of help from all of you.

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Photo by Lopaka Lee, WH6DYN

In 2018, BIARC Field Day went all night. From left: Darrell Asuka, KH6RDO (who coordinated our use of the facilities at Hilo Reeds Bay Hotel on Banyan Drive with genial owner Don Inouye); visiting ham and Red Cross volunteer Marianna Bacilla, K6ANA, of California, here to assist Puna lava flow victims; and Elisabeth Green, WH6FKT.

FIELD DAY, continued from Page 1

with the setup crew. There will be a few Nano VNA on hand to check the SWR and operations of the antennas."

This year's event will be held on the grass at the Wailoa River State Park (see adjacent map). Setup will be from 0800-0900.

"We hope to be on the air by 0900 with the HF bands. If you're looking to secure time

on the rig, there will be an operating schedule with 30-minute blocks. Bring your favorite CW key, headphones, FT8 Computer. The primary rig will be an ICOM 7300 on battery power.

"We are looking at two main activities. The first is a repeater contact with the International Space Station,

so bring your favorite satellite antenna or just try your luck with the Baofeng. There is a good pass at 11:51 a.m. till noon; a Maui contact or mainland is possible, you may have a second try during lunch at 1:29 p.m.," said Gary.

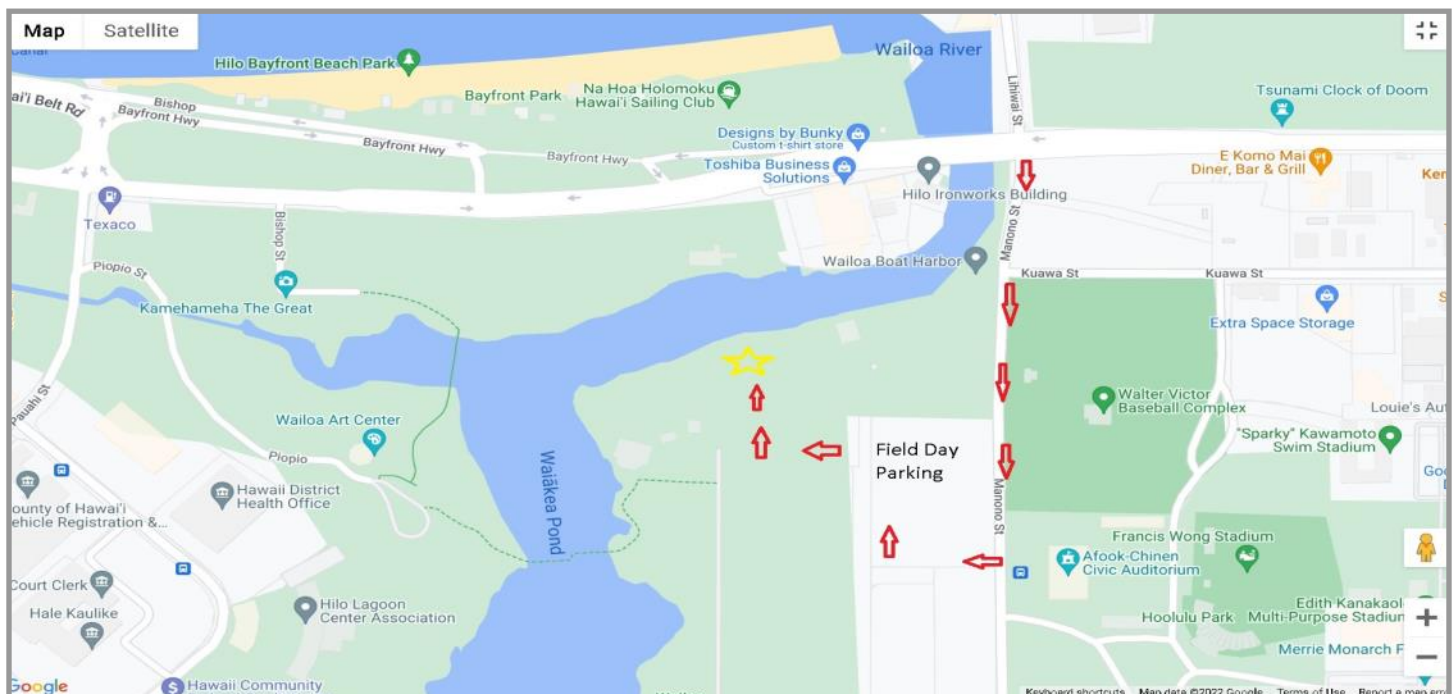
The second activity is a fox hunt scheduled to start around 2:30 p.m. Bring your direction-finding game, a favorite antenna, attenuator, or just use harmonics – it's up to you. To give you a head start, the fox will be on 146.58 2M.

"For the social hour, we are looking for good food and conversation, with the potluck starting at 1 p.m. Bring your favorite dish or some take-out from your favorite restaurant," said Gary. "We are looking for volunteers to help with food setup. Please sign up at the Saturday, June 11, 2 p.m. club activity at the Keaau Community Center (also live on Zoom).

"We hope to operate until just after sunset, taking advantage of gray line to make those East Coast contacts."

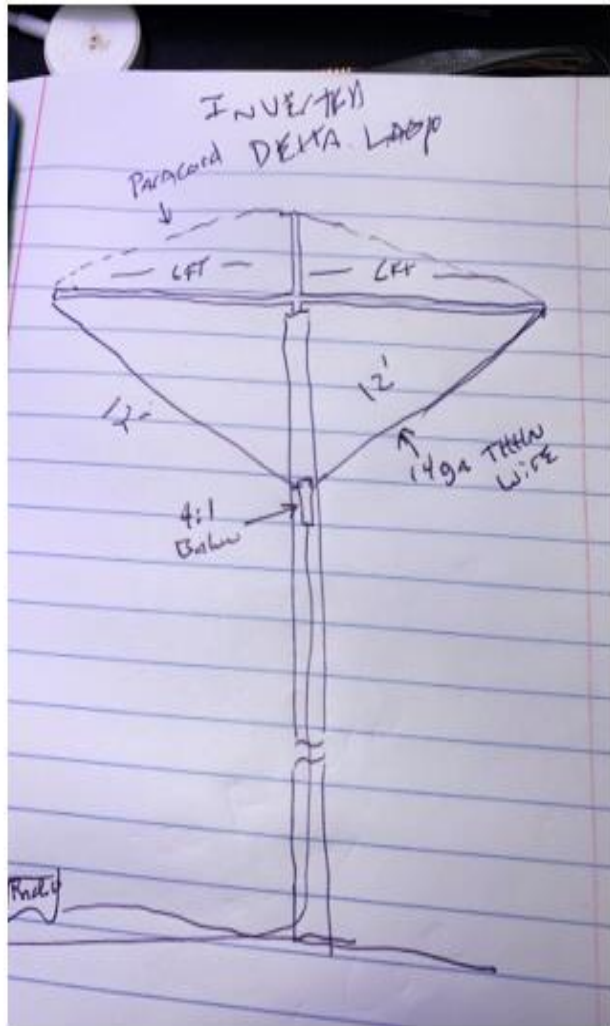
To help the multifaceted event run smoothly, Gary and his crew are looking for a few volunteers throughout the day to handle antenna, radio and site setup, assist at an information and outreach booth, coordinate food setup, kokua with an afternoon cleanup and evening breakdown from 1930-2000, and "best of all -- dedicated operators."

ARRL Field Day is ham radio's open house. Every June, more than 40,000 hams throughout North America, and beyond, set up temporary transmitting stations in public places to demonstrate ham radio's science, skill and service to our communities and our nation. It combines public service, emergency preparedness, community outreach, and technical skills all in a single event. Field Day began in 1933, and remains the most popular event in ham radio. Plan your participation now. Visit www.arrl.org/FieldDay for rules and resources.



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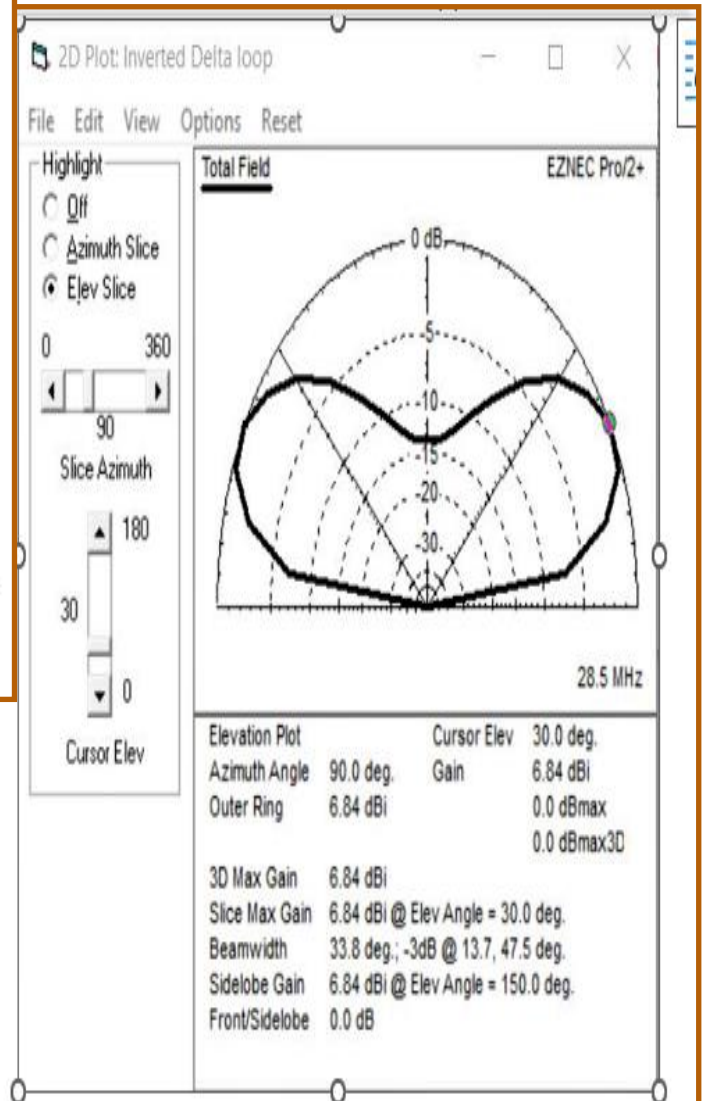
10 Meter Inverted Delta Loop



This antenna is based on an 11 meter antenna that Roy KH6KU built. His antenna is not inverted and is fed from a corner. I am using a 4:1 balun at the feed point. You can also use a $\frac{1}{4}$ wave matching section of 75 ohm coax instead of a balun. When it is inverted and fed at the bottom, the antenna has gain as seen below:



Check out this sneak peek at what WH6FQI is bringing to the BIARC Field Day:



If the antenna is not inverted and fed from a bottom corner, it becomes omni-directional. I plan on using this as my ARRL Field Day antenna for 2022 on 10 meters.

What is ARRL Field Day?

Field Day is a picnic, a campout, practice for emergencies, an informal contest and, most of all, FUN!

ARRL Field Day is the single most popular on-the-air event held annually in the US and Canada. On the fourth weekend of June of each year, more than 35,000 radio amateurs gather with their clubs, groups or simply with friends to operate from remote locations.

It is a time when many aspects of Amateur Radio come together to highlight our many roles. While some will treat it as a contest, other groups use the opportunity to practice their emergency response capabilities. It is an excellent opportunity to demonstrate Amateur Radio to the organizations that Amateur Radio might serve in an emergency, as well as to the general public. For many clubs, ARRL Field Day is one of the highlights of their annual calendar.

The contest part simply involves contacting as many other stations as possible while learning to operate our radio gear in abnormal situations and less than optimal conditions.

We use these same skills when we help with events such as marathons and bike-a-thons; fund-raisers such as walk-a-thons; celebrations such as parades; and exhibits at fairs, malls and museums—these are all large, preplanned, non-emergency activities.

But despite the development of very complex, modern communications systems—or maybe because they ARE so complex—ham radio has been called into action again and again to provide communications in crises when it really matters. Amateur Radio operators (also called “hams”) are well known for our communications support in real disaster and post-disaster situations.

What is the ARRL?

With more than 160,000 members, the ARRL is the national association for Amateur Radio in the USA. ARRL is the primary source of information about what is going on in ham radio. It provides books, news, support and information for individuals and clubs, special events, continuing education classes and other benefits for its members.

What is Amateur Radio?

Often called “ham radio,” the Amateur Radio Service is a worldwide community of licensed operators using the airwaves with every conceivable means of communications technology. It is made up of people who enjoy learning and being able to transmit voice, data and pictures through the air to places both near and far without depending on commercial systems.

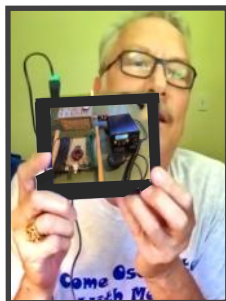
The Amateur Radio frequencies are the last remaining place in the usable radio spectrum where you as an individual can develop and experiment with wireless communications. Hams not only can build and modify their equipment, but we create whole new ways to communicate via the airwaves.



ARRL The National Association for
Amateur Radio®

arrrl.org/FieldDay

MORE TECH TOYS ...



By Hank Kaul, KH6HAK

I have a "Tactical Torch" LED flashlight that is powered by four type 18650 Li-Ion cells. It recently needed recharging, and I decided some spare batteries would be in order, so the search was on. I recall these cells being quite expensive when I first got the flashlight... over ten bucks as I recall. So I was pleasantly surprised to find them available from WIREDCO.COM for only \$2.95 apiece.

The 18650 lithium rechargeable battery is rated at 3.7 volts at 5000mAh for high current draws, and my QRP 'radio mind' immediately began thinking of a small ham battery pack. So I ordered about ten of these cells, and some three- and four-pack battery holders for the 18650 battery.



First I was thinking that four 3.7 volt cells would give me 14.8 volts for the radio, but.... I'm glad I checked with fully charged batteries first. Four cells, fully charged, put out 16.8 volts. More than I wanted to plug into a radio, for sure. Each fully charged battery is actually 4.2 volts.

So now I downsized the battery packs to three each, and now I have 12.6 volts fully charged. I put two of the 3-packs back-to-back and taped them together, connected in parallel like this:

This is 12.6 volts at a total of 30 Amp-Hours in a small lightweight package. Perfect for portable QRP



operations. Batteries are individually removable and rechargeable.

I have one more project for these 18650 batteries. I have a digital clock in my ham shack that illuminates when I turn on the master 13.8 volt power supply. When off, there is a small 3v button cell that keeps the clock time. But it is not designed for long 'off' periods and goes dead, blowing the time settings. So my next hack will be to replace the button cell with one of these massive 18650 batteries mounted next to the clock that should keep it on time for a year or more, and can be quickly replaced with a freshly re-charged battery.

Last time (May 2022 BIARC Hamgram) I showed my little QRP rig with a wire antenna and tuner. But what if you are somewhere with no vertical supports, no trees, nowhere to hang up an antenna wire?



A ham friend of mine in Texas came up with a "Manpack" system in a backpack.

He used an interesting mobile-type antenna called the Harvest OUTBACK 2000 that he mounted to the metal frame backpack for the gear. Amazon and eBay have them for about \$69. This antenna will cover 80 thru 6 meters, one band at a time. It does require setup on each individual band you use, so is not for rapid band switching. The loading coil base has banana-jack taps, one for each band. There is a banana plug jumper wire you connect to the proper tap and



set the length of the whip stub on top to tune the antenna.

The antenna base is a very solid PL-259 plug designed to screw the antenna securely onto an SO-239 socket that is bulkhead mounted to a metal plate. I made a copper metal plate with a 1/4-20 brass nut soldered over the hole to use a camera tripod mount. I put a coax bulkhead connector on it as well as a brass bolt and thumbscrew for connecting a ground/counterpoise wire to the antenna.

I would recommend about 20 feet of counterpoise wire, at least. This will vary with band in use, and you can experiment around to get the lowest SWR on the antenna. I found it useful to mark the whip length for commonly used frequencies, like 7.088 MHz. Use a tiny triangular file to put a small notch in the whip where it enters the collar below. Now you can find the whip setting in the dark by feel. And you can go portable virtually anywhere you can carry a tripod.



THE PRESIDENT'S CORNER

Continued from Page 1

Tony Kitchen (WH6DVI) is assisting with the preliminary permissions needed in order to set up and operate in the Wailoa State Recreation Area.

The same conditions that are allowing BIARC to sponsor its first on-site Field Day operation in at least three years are allowing Jo and me to re-

turn to our regular summer visits to Minnesota this summer. That means I will miss BIARC's Field Day.

Or not...

Trust me, if you guys are up and running – especially at night – I will be looking for you – on CW from the callsign W0NE.

Forty meters anyone?

www.arrl.org

Aloha,

Here's an interesting OTA challenge event for Hawaii Amateurs recognizing a piece of Americana history.

The "Lewis and Clark Trail On The Air" goes from June 4 – 19, 2022.

There will be activators across the country from the 16 states that Lewis & Clark traveled through.

For all you hunters out there, get more information on the website <http://LCTOTA.org>.

Those that contact all 16 states will be eligible to receive a Expedition Partner certificate and those that contact from 1-15 states, a Trail Companion certificate.

This event is a way of honoring Lewis & Clark, and the Corps of Discovery, and their contribution to American history.

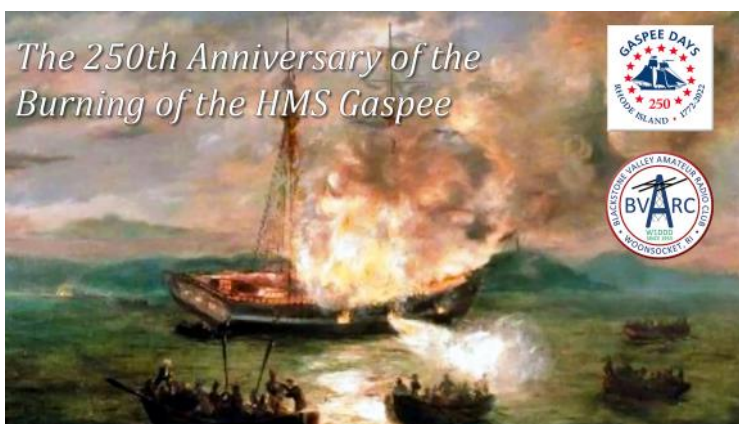
LCTOTA is put on by Clark County Amateur Radio Club in Vancouver WA.

Joseph Speroni, AH0A

ARRL Pacific Section

Section Manager

ah0a@arrrl.org



Take a page from history

On June 12, 2022, the Blackstone Valley Amateur Radio Club (BVARC) will mark the 250th anniversary of the burning of the British tax collection ship HMS Gaspee in Narragansett Bay, Rhode Island. The club will operate a special event station from the site at Gaspee Point on June 11, and two stations, W1G and K1G from June 4 - 20. The BVARC team will provide a special certificate to anyone who works both W1G and K1G. There is no charge for postage or certificate. Details available at www.w1ddd.org.

Check out this YouTube presentation on Tactical Communications

Although most stations likely have a good understanding of this topic, I am hoping that some will find the following video helpful. This presentation is aimed at a general audience of radio operators interested in emergency communications.

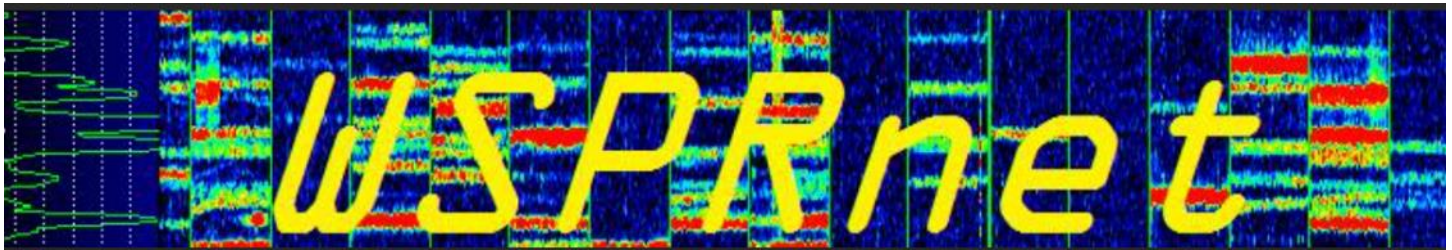
The information presented fits in well with CERT operations, ICS, and disaster communications in general. The video provides a complete picture of the purpose and use of tactical call signs, how it fits together with the use of our FCC call sign, and some information about how the amateur radio community fits together with the public service community.

Duration: 38 minutes, **Skill level:** Beginner

See <https://www.youtube.com/watch?v=NvHLYCgU4cA>

73,

Tony Kitchen, WH6DVI



BIARC beacon No. 2 in WSPR world!

Jim Huntley, WH6FQI, delivers the latest update on the great International WSPR Beacon Project: "FYI, KH6EJ is number 2 on the list of stations for uptime," he reported Sunday, June 5. And FQI forwards the official status update (below) made earlier that day by **HB9VQQ** (roland@hb9vqq.ch).

Tony Kitchen, WH6DVI (tonykitchen808@gmail.com), responded:

"This is a great success. If the data from this or other projects can be used to determine real-time band conditions, it would be great to see a presentation at a club activity about it."

And Paul Ducasse, WH7BR (ducasse123@gmail.com), wrote:

"Good work guys!"

Jim (wh6fqi@gmail.com) shares the official report from HB9VQQ (roland@hb9vqq.ch):

Dear WSPR Beacon friends,

I am very glad to see an increasing number of Stations with an outstanding Uptime. 24 Beacons showing 90% or more in a 6 month period! Well done guys!

I am super happy seeing VY0ERC reaching 90%, very likely the toughest unmanned environment you can think of to run a HF Beacon!

The Project has celebrated its first anniversary on May-17 2022 and the Beacons have generated Millions of WSPR Spots revealing very interesting patterns and insights. Have a look at Arne's fantastic Dashboards

We will have 3 new WSPR Beacons installed:

--TF3D – Benni TF3T (Beacon HW already arrived)

--BX6AP – Rex (Beacon Hardware in Transit)

--PY7ZC – Marco (Beacon Hardware lost in Transit, 2nd Hardware finally arrived... Thanks to Alejandro HP1COO)
Thank you Marco, Benni and Rex for your commitment!

The installation of the Beacon on Gogh Island is planned for August/September 2022. It was quite a challenge to get permissions and equipment approved for ZD9SSS. Big Thank You to Jon ZS1JON @SANSa to make this possible!

Last but not least a quick hint to an interesting Project. Edward K3WRG is working on an autonomous solar-powered WSPR Beacon Transmitter.

If for any reason you should encounter a Beacon downtime, planned or unplanned, please update the [Google Spreadsheet](#).

Don't forget to join our WSPR group Chat on [Telegram](#) for latest info and hot Topics. Currently 44 members in the Chat group.

**73,
Roland
HB9VQQ**

[Donations for the Project](#)
[Grafana Beacon Dashboards](#)
[Discussion Group on groups.io](#)
[Intl WSPR Beacon Project on Twitter](#)
[WSPR Beacon Map](#)
[Project Website on Github](#)

sign	Total Uptime	Uptime last 30 days	Uptime last 6 months ↓
IU2PJI	44.4 week	100.0%	100.0%
KH6EJ	41.1 week	100.0%	99.9%
GM1BAN	45.2 week	100.0%	99.9%
HB9T	47.3 week	100.0%	99.9%
PY1IFF	31.4 week	100.0%	99.7%
DU1EV	37.6 week	99.2%	99.7%
RT9K	44.6 week	100.0%	99.7%
M0JUJ	34 week	98.3%	99.6%
WB6YRW	45.8 week	96.7%	99.3%
VU2OB	38.8 week	97.5%	99.2%
VK4BA	42.0 week	100.0%	99.2%
HS0AC	38.0 week	100.0%	98.9%
CP6AA	39.0 week	100.0%	98.9%
CE3WSP	35.8 week	100.0%	98.4%
N6UA	36.5 week	99.2%	97.9%
HP1GDP	45.6 week	90.8%	97.7%
LU4AA	34.5 week	100.0%	97.1%
KL2R	35.3 week	95.8%	96.3%
CE7UPK	30.3 week	90.8%	95.7%
K3WRG	38.8 week	100.0%	95.6%
W9VW	36.4 week	91.7%	94.4%
4Z4SI	32.1 week	100.0%	91.1%
VY0ERC	25.0 week	100.0%	90.0%

BIARC Executive Board Meeting

May14, 2022

A Begin Meeting

● Call to Order –

- The meeting was called to order at 12:00 pm by Board President Les Hittner via zoom.

● Quorum Call

- Present: Leslie Hittner, James Huntley, Jim Sugg, Tony Kitchen, William Polhemus.

● Secretary's Report and Minutes (4/09/2022)

- William **moved** and Jim S. **seconded** that the April BIARC Board Minutes be approved as published. Motion **passed**.

● Treasurer's Report

- William **moved** and Jim H. **seconded** that the Operating Statement and the Funds Summary be approved, subject to audit, without changes. Motion **passed**.

B Member Input and more

- Members present: Bob Schneider (AH6J), Gary Schwiter (WH6EPS), and Gerald (WH6GOG). No input given.

C Committee Reports

- Jim S. **moved** and William **Seconded** that the committee reports be delayed until the membership meeting. Motion Passed.

D Old Business

- None

E New Business

● Resignation of Roy Kunishige.

- William **moved** and Tony **Seconded** that we accept Roy's resignation. Motion passed.
- William **moved** and Tony **Seconded** that we appoint Gary Schwiter to Roy's Board position along with his two roles of VP and Operating Activities Chair: Motion passed.

From previous page

- **Equipment Donation**

- William **moved** and Jim S. **seconded** that we accept the donation of equipment (UPS) made by Jim Huntley. Motion passed.

- **Membership Meeting Snacks**

- Tony moved and Paul **seconded** that the board would buy snacks for upcoming in-person Membership Meeting out of the board members pockets, not through club funds: Motion passed.

There being no further business, William **moved** and Jim S. **seconded** that Les adjourn the meeting at 12:30 pm HST: Motion passed.

Respectfully Submitted,

James R. Huntley, Secretary