

Big Island Amateur Radio Club Newsletter

October 2019

Next BIARC meeting
is at 2 p.m.
Saturday, Oct. 12,
at Keaau
Community Center



For the keiki

Recruiting the next generation of hams

BIARC members Doug Wilson (KH7DQ), Linda Quarberg, (WH6LQ), Jim Tatar (WH6EMN) and Mark Watanabe (WH6FSA) set up a ham radio info and demonstration table for the EB DeSilva Elementary Science Night on Aug. 28. "There seemed to be lots of interest among the students and parents, and we're hopeful several youngsters will be signing up for the next Technician License Preparation Class," said Doug.



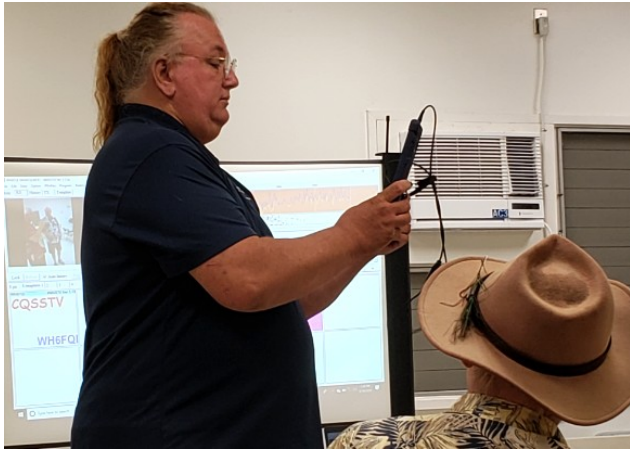
September slow scan demo is fun and educational

Photos courtesy of Linda Quarberg, WH6LQ, and Gary Miller, KK6GM

Jim Huntley, WH6FQI, facilitated a fun demonstration of slow scan TV at the September BIARC meeting, transmitting photos and info from the session while the subjects watched themselves on the screen.

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At left, Jim Huntley, WH6FQI, conducts slow scan demo at the September meeting. Above, President William Polhemus, NH6ET, and John Bonewitz, KH6JB, assist Joe Rosenbaum, WH6FZH, with an off-frequency Ten-Tec."



Gary Schwiter, WH6EPS, and Peggy Gentle, KE6TIS.

... slow scan, continued

The American Radio Relay League defines slow scan television as "a way of sending video over a voice bandwidth channel -- this can make it practical to send video over thousands of miles via ionospheric propagation."

Modern computers make this once rare and expensive mode readily available to the average ham."

The ARRL website also offers info on additional ways to work with images over radio.



At left, President William Polhemus, NH6ET, and, below, Treasurer Tony Kitchen, WH6DVI, address members.



2019 Grid Madness: Another crazy success

Again this year, Hawaii hams made Grid Madness happen. Simplex event manager Stan AH6KO is still processing 44 submitted logs, and expecting more in the mail.

"We had 37 logs at this time last year, so it looks like we may again see a modest increase in participation," he said at presstime.

Stan promises lots of details in the Summary and Results (ETA late October).



At September BIARC meeting, Stan Froseth, AH6KO, invites all hams to join in Grid Madness.

including a contact with (old timer) Steve KH6WG -- 126 miles away on Oahu.

Remember, this is simplex! Another first timer, Mel KH6EKD, was in the middle of the aforementioned Hamakua activity. Mel also made several contacts with Maui (directly with Tom NH6Y) and by relay to Oahu with yet another newcomer, Jason WH6GBX. Good going, Jason!

The mountain-topping tradition continues. Steve KH6WG appeared again in the mountains of BL01wj above Makakilo. Also on Oahu, a convivial group set up in the switchback heights of BL11ch (Roundtop Drive, Tantalus Lookout). This grid square was again the most active in the state, by far. On Haleakala, Maui, Robert KH7FX had a superb radio view from BL10uq. Nearby, Tom NH6Y set up on the



Photo by N7BMD: "Upcountry Lavender Farm BL10UR."

But in the meantime, he offers a few interesting factoids:

On the Big Island, hams activated the Hamakua Coast for the first time in the history of the event, thanks to the organizing efforts of Ceri AH6CS, Rick AH6RK and many others from the BigIslandRADIO group.

Around the state, many hams joined in for the first time. Brad N7BMD sent in an impressive first log from Maui,

Hawaiian Islands Grid Madness 2019 - Log Sheet

My Class (check one) JT Mobile Base

CONTACT	GRID	BAND 2m or 70cm	TIME HST	CONTACTED STATION'S EXCHANGE CALL SIGN	CONTACT NUMBER	GRID	If Relay Used RELAY STATION CALL SIGN
WH6FAM	BL10UR	2m	13:00	WB6FLH	1	BK29FM	
		2m	13:01	WB6FLH	2	BK29FM	
		2m	13:09	NH6MD	3	BL10UR	
		2m	13:15	WB6FZH	3	BK29FM	
		2m	13:15	WB6FZH	4	BK29FM	
		2m	13:17	WB6FZH	5	BK29FM	
		2m	13:19	WB6FZH	6	BK29FM	
		2m	13:21	WB6DVI	2	BK29FM	
		2m	13:20	WB6DVI	4	BK29FM	
		2m	13:25	WB6FLH	6	BK29FM	
		2m	13:25	WB6FLH	7	BK29FM	
		2m	13:26	NH6Y	25	BL10UR	
		2m	13:27	NH6Y	26	BL10UR	
		2m	13:27	NH6Y	27	BL10UR	
		2m	13:28	NH6Y	28	BL10UR	
		2m	13:28	NH6Y	29	BL10UR	
		2m	13:29	NH6Y	30	BL10UR	
		2m	13:29	NH6Y	31	BL10UR	
		2m	13:30	NH6Y	32	BL10UR	

Photo by WH6FAM: "Mobile Log."

boundary between BL10uq and BL10ur, to great effect! (Details later.) On the Big Island, Darrell KH6RDO mobiled mauka above Honomu to reach Hamakua, Hilo, and Upper Puna, scoring twelve grids.

Finally, Big Island hams Jim WH6FQI, Richard WH6FLH, Tony WH6DVI and Joe WH6FZH carpoled to the end of the Mauna Loa Observatory Road at 11,000 feet. The famous BK29fm was on the air once again -- clear channel!

To be added to the Grid Madness email list, send a note to AH6KO@arrl.net.

Stan says "Mahalo Nui to all!"

Kudos for kokua at Ka'u Coffee Trail Run

Blake Stene (KH7MS), the Big Island ARRL South DEC, passed along information on this year's "Ka'u Coffee Trail Run", now in its sixth year. Beside the participating amateur volunteers recognized in this story, the Ocean View CERT and South Hawaii ARES teams participated.

The volunteers arrived early Saturday morning, September 21. They had a briefing around 6 a.m. and the ham radio volunteers deployed to their stations before the race started at 7 a.m. It finished around 1 p.m.

Most of the stations were remote. Cell phone coverage was sketchy at best or non-existent. They setup a portable repeater and also used analog simplex and DMR simplex for tactical point to point communications.

After the event, Blake told the group, "I just wanted to thank all the volunteers for a job well done!!! We had no injuries to report, and everyone made it back down safely. It turned out to be a great joint exercise for ARES and CERT.

I especially want to thank Larry Hultberg, WH6DYI, "Rover 1" and Jinx Enos from Ocean view CERT for helping this year; transporting the cadets up to their stations, and back down, delivering water, responding to a medical call at Station 2 (runner 189), and for assisting Francis Blas, WH6CVG, when he got his truck stuck by station 4. I also want to thank Sandy Shelton, WH6FVD, and Marty Marsh, WH6FVA, for being at the Medical tent. And Tim Reed, WH6FVC, Ocean view CERT team lead, for getting his team involved in the race. I hope to see everyone next year".

**ARRL Pacific Section
Section Manager
Joseph Speroni, AH0A
ah0a@arrl.org**

KH6TOB's Resto documentary now on YouTube

At October's BIARC meeting, Tim Bryan (KH6TOB) will brief the membership on the documentary he did on Puerto Rican ARRL Section Manager Oscar Resto's (KP4RF) mission last year to the 50th state.

Oscar was key in the vital ham response to Puerto Rico's devastating hurricane Maria. Tim will explain how to access the video on YouTube and describe some of the highlights.

Tech License course schedule

Doug Wilson's annual county-wide free Technician License course schedule wraps up in October. The six-week courses include five training sessions, with licensing exams given on the final week. The last session of the year begins Oct. 17 at the Keaau Community Center. The classes are free, with the normal \$15 testing fee to ARRL, whose VEs (volunteer examiners) conduct the testing for the Federal Communications Commission. As always, current licensees wanting to upgrade also may take tests for advanced licenses at that time. To register for the classes, or for more info, contact Doug, KH7DQ, at douscelle@aol.com.

Health Net to provide emergency link for hospitals

At the October meeting, Jim Tatar, WH6EMN, will briefly discuss the Health Net he and others are setting up to provide an emergency radio link between most of the hospitals and

major medical centers in Hawaii. "This will be for use in the event of a major communications failure in any or all of the affected

locations. We are trying to form a club right now to get a call sign for the club members when working the net," said Jim.

The Health Net

Mission Statement

HealthComm is dedicated to enhancing the emergency communications of participating institutions of the Hawaii Healthcare Association of Hawaii in times of emergency when normal means of communications are overwhelmed, failing, or non-existent.

Statewide Overview

While most neighbor island hospitals use the HF band for statewide communications and VHF/UHF for communications to their individual islands EOC, most of the hospitals on Oahu use VHF/UHF for a direct link to each other and the Oahu EOC.

Hawaii Island Overview

Hilo Community Hospital (HMC), North Hawaii Community Hospital, Kona Community Hospital and K'au Hospital on the island of Hawaii are participating hospitals.

"Kohala Hospital is not participating in the Health Net at this time".

Hilo (HMC) Overview

Our main communications links is on HF with Net Control on Oahu and all of the hospitals statewide that staff HF radio operators. We are also in the process of establishing the VHF/UHF link with the County Civil Defense EOC for better co-ordination of patient transfers via the HAH representative there.

HMC Information

Net control in Honolulu would prefer that operators come to the hospital when the net is activated. Preferably an operator with a General or higher license would be the operator so they can cover all the frequencies used in the net, HF and VHF/UHF.

If needed an operator with a Technician license could staff the Hospital station and relay information via VHF/UHF in SIMPLEX mode to the EOC/HAH and or Civil Defense representative and to another radio operator who could relay via HF to net control or other stations as needed.

We also want to establish a VHF/UHF simplex link to the dialysis center in Hilo. Possibly on the same frequency as the EOC.

Remember an emergency could occur at any time when one of the other localities suffers major damage and communications are damaged or destroyed. It's not just when we have a disaster here.

Club Information

Jack Tsujimura the state coordinator has requested that we form a club so we can use the club call sign whether we are in the hospital or operating from our own radio shacks.

- a) Anyone with a Technician license or above is welcome as a member of the club.
- b) We will need a minimum of 4 members to form a club.
- c) Call me Jim Tatar if you are interested in being a club member at 960-1545

1921 solar event may have been bigger than Carrington Event

Scientific American reports that, according to new data, the "New York Railroad Storm" of 1921 may have surpassed the intensity of the famous Carrington Event of 1859.

In his paper published in the journal *Space Weather*, Jeffrey Love of the US Geological Survey and his colleagues reexamined the intensity of the 1921 event in greater detail than previously.

Although different measures of intensity exist, geomagnetic storms are often rated on an index called disturbance storm time (D_{st}) -- a way of gauging global magnetic activity by averaging out values for the strength of Earth's magnetic field measured at multiple locations. Earth's baseline D_{st} level is about -20 nanoteslas (nT), with a "superstorm" condition occurring when levels fall below -250 nT.

Studies of the very limited magnetic data from the Carrington Event peg its intensity at anywhere from -850 to -1,050 nT.



According to Love's study, the 1921 storm came in at about -907 nT.

Peter Ward in his 2017 *New York History Blog* article "Strange Phenomena: The New York Railroad Storm" recounted that theatre-goers in New York City "marveled at the spectacle" of an iridescent cloud that was brighter than the moon. "On the roof of the Times Building, reporters, having discovered the telegraph lines to be curiously blocked, gathered to watch the aerial kaleidoscope," he wrote. As with the earlier Carrington Event, telegraph operators experienced wild fluctuations in the current on their circuits, while wireless propagation was enhanced. "The next day, papers reported that the Central New England railroad station (also home to the telegraph switchboard) had burned to the ground." Railroad officials later blamed the fire

on the aurora.

According to Ward's article, the lights were visible in New York, California, and Nevada. Especially in rural areas, "the lights were said to be brighter, appear closer to the ground, and even move with a swishing sound."

Railroad and telegraph service were restored the following week, although one Western Union transatlantic cable showed signs of damage. "Delays and damage lead to some referring to it as the New York Railroad Storm," Ward wrote. A dramatic description of the event on SolarStorms.org said, "At 7:04 AM on May 15, the entire signal and switching system of the New York Central Railroad below 125th Street was put out of operation, followed by a fire in the control tower at 57th Street and Park Avenue."

The short article said a telegraph operator reported being driven away from his station by flames that enveloped his switchboard and set the building on fire. "In Sweden a telephone station was reported to have been 'burned out,' and the storm interfered with telephone, telegraph, and cable traffic over most of Europe."

ARRL and IARU President Emeritus Larry Price, SK

ARRL and International Amateur Radio Union (IARU) President Emeritus Larry E. Price, W4RA, of Statesboro, Georgia, died on Sept. 10. An ARRL Life Member, he was 85. Price was licensed in 1951 at age 16 as WN5TIA, one of the early US Novice licenses. An Army veteran, Price held BSEE, MBA and doctoral degrees. He spent most of his career as a professor of finance and economics at Georgia Southern University.



Larry Price

"His accomplishments as president of ARRL and the IARU are too many to list, but neither would be what it is today without his vision, dedication, and hard work," said former ARRL CEO David Sumner, K1ZZ.

"Amateur Radio... has lost a valued colleague," said IARU President Tim Ellam, VE6SH. Price not only helped achieve great success for the radio services, "but the respect of those we work with in the International Telecommunication Union," said Ellam.

Hurricane Watch Net sets new activation record

During Dorian, Hurricane Watch Net volunteers set a new record for total hours activated during a single storm. The net was active for 157 hours -- 139 hours of which were continuous.

HWN Manager Bobby Graves, KB5HAV, said the continuous activation record stands at 151 hours for Hurricane Matthew in 2018.

"During this marathon activation, members of the Hurricane Watch Net collected and forwarded countless surface reports to the National Hurricane Center in Miami," Graves noted.



QST congratulates its key contest winners

Ingenuity and craftsmanship abound within the Amateur Radio community, as shown in the results of the 2019 QST Key Competition. Hams have been building their own Morse keys since the dawn of Amateur Radio, and some creations have become legend. The competition sought Morse key and paddle designs in four categories: Straight key, semiautomatic key (bug), paddle, and sideswiper.

The winning straight key by Ron Spooner, W6FIF, was inspired by



Winning straight key, by Ron Spooner, W6FIF.

"steampunk" aesthetics.

Each was a mechanical work of art, but there could only be four winners, who were chosen based on ingenuity of design, ergonomics of operation, and overall craftsmanship.

Participants had to submit their individual keys, which were returned following judging, as well as detailed construction drawings with dimensions, lists of materials,

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QST key contest winners, continued

photos, and written descriptions.

More than two dozen entries were submitted, and the judges gathered in late July to evaluate them. The winner in each category will receive \$250. The key competition winners' creations appear in this month's issue of QST.



Juergen Malner, NV1Q, won his category with these skillfully machined paddles.



Gary Johnson, NA60, topped the field with his semi-automatic key (bug) design.

10-10 International Aloha Chapter

Local hams active on 10-meters encourage amateur radio licensees at all levels to join in the fun. [More info on the world of Ten-Ten is available on Facebook and at <https://www.ten-ten.org>]



Stan Levandowski, WB2LQF, won in the sideswiper category.

BIARC Board Meeting

September 14, 2019

3 Meeting called to order

Role Call (7) Quorum (6)

Board Members:

William Polhemus – President
Leslie Hittner, Secretary
Tony Kitchen, Treasurer
Mel Uchida
James Huntley – Vice President
Paul Ducasse – Station Custodian

Non-Board Members in attendance:

Bob Schneider

Minutes of last Board meeting: Regular meeting on 08/10/2019.

William **moved** and James **seconded** that the minutes of last meeting be approved as published. Motion **passed**.

Treasurer's Report: The treasurer's report was submitted in writing. In summary, the current bank balance is \$2648 and there are 77 members in the club.

William **moved** and Mel **seconded** to accept the Treasurer's Report subject to audit. Motion **passed**.

Committee Reports:

- (1) **Digital Systems (Mel/James):** (No written Report) LoPaka Lee (WH6DYN) has been invited to join the committee as its chair.
- (2) **Education and Outreach:** (No written Report) Les suggested that licensing courses (Technician and above) might be presented on the internet using ZOOM. The goal is to target high school students and other young people who might find it difficult to go to a classroom on weekday nights. He will look into this further. William suggested that testing sessions and class schedules be publicized on the BIARC and ARRL websites. Mewl suggested that club activity notices be sent out 8-10 days prior to the monthly (Second Saturday) club activities. Tony will look into using the gmail address list for this purpose, but would look for the actual notice to be prepared by the Program Committee.
- (3) **Operating Activities:** (No written report) Committee members at this point are: John Bush (KH6DLK), Roy Kunishige (WH6FYK), and John Bonewitz (KH6JB). John recently managed the Grid Madness event and John is a teacher at Keau High School.
- (4) **Program:** (No written report) James presented the following list of monthly activities: October – SKYWARN? November – Annual Meeting

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Mel suggested a program on mobile equipment installations and recommended John (KH6DLK), Roy (WH6FYK) and, Joe (WH6FZH) as possible presenters.

(5) Public Service Communications: (Written report attached) The report was received with no action taken. Tony added that organization for the upcoming SET continues with a ZOOM meeting just prior to this board meeting. ACS (HCCD) will participate in the SET from an exercise location in Volcano. There will also be an ACS Winlink HF station at that site.

Tom Olson, from HCCD has asked for amateur radio assistance. They need volunteers in a number of different locations throughout the County to report the success of emergency siren tests. There are upgrades to the siren system being installed and each needs to be certified as functioning during a testing process. These reports could be relayed by radio or by other means. Tony will build a list of available hams who are willing to participate and present it to Tom Olson.

(6) Voice Repeaters: (Written report attached) Les **moved** that \$125 be allocated to be used for clamps for the installation of the new antenna and coax at the Kulani Cone repeater (146.16/76). Paul **seconded** the motion, which **passed** with a unanimous voice vote. Les **moved** to accept the donation offered by Pacific Wireless Communications and documented in its correspondence (attached) dated September 01, 2019. Tony **seconded** the motion, which **passed** with a unanimous voice vote.

William suggested that one of the donated MTR2000 repeaters (analog devices) be modified with the addition of a Multi-Media Digital Voice Modem (MMDVM) so as to become a DMR repeater. The repeater would be installed on the PBS tower on Mauna Loa. Such a repeater would cover South Hilo and Puna. Tony **moved** to allocate up to \$150 to cover the cost of the MMDVM). William **seconded** the motion, which **passed** with a unanimous voice vote.

(7) Ad Hoc - Membership Booklet: (No written report) Les stated that he anticipated having the membership booklet ready to be presented to members at the November Annual Meeting. This means the booklet must be ready for board approval at the October meeting.

At this point the Secretary asked that committees who have action items please phrase the motions to carry out the action as a part of their reports. This will provide the board members with starting points for discussion and shorten the decision-making process.

Business:

Records Retention Policy: William **moved** and Mell **seconded** to establish an Ad Hoc Committee to write a Records Retention Policy. The motion **passed** with a voice vote. William named Les (Chair) and Tony (member) of the committee.

Marketing Plan: William **moved** and Les **seconded** to refer this item to the Education and Outreach Committee. The motion **passed** with a voice vote.

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New Business:

Hospital callsign use:

Peggy Gentle resignation from the BIARC board: William moved and Tony seconded a motion to accept the resignation of Peggy Gentle from the BIARC Board with regret. The motion **passed** with a voice vote.

Procedure for appointing new board member: William moved and Mel seconded a motion to announce the board vacancy immediately. The motion **passed** with a voice vote.

Create and task an Ad Hoc Elections Committee: William moved to establish an Ad Hoc Elections Committee chaired by Paul with Les as a member. The motion was **seconded** by Tony and **passed** with a voice vote.

Name Chair for Education and Outreach: William moved that Les chair the Education and Outreach Committee. The motion was **seconded** by Mel and **passed** with a voice vote.

Other Business: None.

Adjourn: There being no further business, William adjourned the meeting at 13:16.

Respectfully Submitted,



Leslie Hittner, Secretary

Enc: Voice Repeaters Committee Report
Public Service Communications Committee Report
Letter of Donation from Pacific Wireless Communications

BIARC Repeater Committee Report

Thursday September 5, 2019

Prepared by W.A. Polhemus – NH6ET

- The BIARC Repeater Committee met on Wednesday September 5, 2019.
 - The following committee members were in attendance:
 - William Polhemus – Chair
 - Paul DuCasse – Station Trustee
 - Gary Schwiter – Committee Member
 - The following additional BIARD members were in attendance:
 - Jim Huntley – Vice President
 - Joe Rosenbaum – Member

What follows as the repeater committee report, also serves as the Repeater Committee meeting minutes:

- Paul received a third hand report that the Kulani site may be losing power permanently on October 1st.
 - Further investigation has revealed that this is likely not the case.
 - PBS will be vacating the suite that we share with them. They will be de-energizing their circuit when they remove their equipment.
 - We do not believe that we share the same circuit, and have confirmed with Spectrum that the power to the suite is not being reenergized.
 - William will trace the power within the next two weeks, and verify the source of our circuit.
 - Resolving this is the committee's first priority.
- Kulani antenna replacement
 - The antenna has been received. The parts are being staged now, by William.
 - Two to four universal type pipe-to-pipe clamps will be needed. They are approximately \$42.00 each, plus shipping.
 - Replacing this antenna, and hardening this installation, is the committee's second priority.
- Kulani Access.
 - The prison has changed the rules of the access. Certain electronics, such as cell phones, are not allowed to be carried through the prison to Kulani cone anymore.

BIARC Interim Executive Board
Public Service Communications Committee Report
September 11, 2019

Activities this month involved working with the ARES leadership in each Big Island district, and other groups to discuss and develop communication plans for the 2019 SET exercise, and emergency communications in general. The following activities are on-going:

- Coordination with Joe Tabrah, KH6FHI, ARES Assistant Section Emergency Coordinator for Hawaii, Maui. This includes developing our ICS 205 which will coordinate East Hawaii VHF/UHF frequencies, and HF frequencies in Hawaii County and statewide for SET.
- Developing the ICS 217a as a resource for quickly creating ICS 205 plans for use in training, future operating activities, and during an emergency.
- Reaching out to CERT leadership to invite their teams to participate in SET and future amateur radio EmComm training exercises.
- Encouraging the setup and testing of Winlink HF, and VHF modes island-wide, and the adoption of the use of VARA. Testing and training exercises are scheduled for Saturday, September 21st, and September 28th, from 9:00 – 11:00 AM.
- Emails have been sent to Bill Hanson of HC CDA from KH7MS, South ARES DEC, and KH6FHI inviting HC CDA and ACS to participate in the 2019 SET. Bob, AH6J has also attempted to make contact. There has been no response so far.
- HealthCom: Working through KH6FHI to move either HealthCom or SkyWarn to another HF frequency, so they do not conflict with each other. WH6FQI and WH6EMN are arranging for the Hilo Hospital to operate a VHF net during SET which will allow local operators to pass traffic through the Hilo Hospital station, to a local HF hub with Winlink for relay to the HealthCom station on Oahu via HF. (The HF antenna at Hilo Hospital is not currently up.)
- WH6FQI, WH6DVI, and WH6FZH traveled to Waimea to attend the KHRC club meeting where we were given time to discuss EmComm planning exercises, Winlink, and organizing the 2019 SET.
- Planning and coordination is on-going via the BIARC list serve, KHRC reflector, and the 7:00 PM Tuesday night EmComm net on the Hawaii/Mainland AllStar network and DMR talk-group 31158.



September 1, 2019

To: The Big Island Amateur Radio Club
C/O Jim Huntley – Vice President
P. O. Box 1938
Hilo, HI 96721-1938

From: William Polhemus
Director of Technical Services
Pacific Wireless Communications
188 Wiwoole Street
Hilo, HI 96720

RE: Donation of surplus depreciated radio equipment

Mr. Huntley,

Pacific Wireless Communications (PWC) is a communications systems contractor and vendor, primarily supporting local and federal government agencies in the Pacific region. PWC was contracted by the State of Hawaii to upgrade a simulcast radio system on Hawaii Island. Subordinate to that work, PWC was contracted to dispose of the depreciated radio equipment. The method of disposal was not prescribed, except that the disposal of this depreciated equipment was to be conducted by PWC, and would not be conducted by the State Procurement Office, Surplus Property Director. Typically, in cases like this, the depreciated equipment would be destroyed, and then recycled.

The depreciated equipment is "Surplus personal property", as defined in §103D-1101 of the Hawaii Revised Statute. That definition is:

"§103D-1101 Definitions. As used in this part, unless the context clearly requires otherwise:

"Personal property" means all tangible goods, including equipment, materials and supplies, except land, buildings, and improvement to the land.

"Surplus personal property" means any personal property that no longer has any use to this State or personal property acquired from the United States government. "Surplus personal property" includes obsolete, scrap, and excess personal property that has completed its useful life cycle. (L 1994, c 186, pt of §1)"

My determination, as an industry expert, is that each of the devices listed below is no longer of use to the State of Hawaii. These devices are not capable of the P25 digital mode in use by the state agency

188 Wiwoole Street, Hilo, HI 96720 Main 808.935.6445 Fax 808.934.7073



which replaced them. No other state agency is operating an analog radio system in the frequency ranges in which these devices operate, so they are of no value to any other state agency. These devices are not capable of, or directly compatible with the IP over Ethernet, IP over SONET based backhaul in use by the various state agency radio systems. Therefore, these devices cannot be integrated into those systems. These devices rely on antiquated computers for preprogramming and maintenance. Modern computers will not operate the software required to program and maintain these devices. The software required to program many of these devices is no longer available from the manufacturer. These devices have been discontinued by the manufacturer, and that manufacturer does not offer service for them anymore. Based on these and other facts, I find that these devices are obsolete, and have completed their useful life cycle in a public safety application.

Though these devices have completed their useful cycle in a public safety application, they are likely of great value and use to an organization supporting public safety in an auxiliary communications capacity, such as the Big Island Amateur Radio Club (BIARC.) The shortcomings of these devices are likely able to be overcome, using methods which may be permissible under Part 97 of the United States Code, which would not be permissible under Part 90 of the United States Code. The facts above, supporting their declaration of obsolescence, are likely not to impact the usefulness in a Part 97 deployment, for use by the Amateur Radio Service.

Whereas, PWC desires to divert electronic waste from landfill bound waste streams, PWC seeks to identify an environmentally friendly method of disposal for these electronics.

Whereas, PWC desires to support the communities in the State of Hawaii, such as the communities served by BIARC, PWC would prefer that items of use serve the community rather than be destroyed.

Whereas, PWC desires to see that useful equipment, even when depreciated and obsolete, be repurposed, as opposed to recycled, PWC seeks to identify down cycle options for devices to be repurposed, whenever possible; as opposed to recycling them as electronic waste.

Hereby, it is on these above tenants that PWC has chosen the preference of donation of surplus equipment, whenever possible. Although this equipment was flagged for disposal, the state statutes governing the disposal of surplus equipment by the State Procurement Office, Surplus Property Director, defines donation as a form of disposal. Though the statutes dictating the methods and requirements for donation by the State Procurement Office, Surplus Property Director, do not apply in this case, because the state designated PWC to conduct the disposal; I wish to otherwise ensure application of the state statute requirements. It is through these requirements that PWC seeks to donate these devices to BIARC.

189 Wilwoole Street, Hilo, HI 96720 | Main 908.936.5445 | Fax 908.934.7073



§103D-1201 of the Hawaii revised status imposes additional definitions defining the status of surplus state property:

"§103D-1201 Definitions. As used in this part, unless the context clearly requires otherwise:

"Administrator of the state procurement office" means the chief procurement officer for the governmental bodies of the executive branch of the State, other than the University of Hawaii, department of education, the several counties, and those governmental bodies administratively attached thereto.

"Excess property" means any property which has a remaining useful life but which is no longer required by the using agency in possession of the property.

"Expendable property" means all property other than nonexpendable property. "Nonexpendable property" means all property having a unit cost and useful life which is set by rules adopted by the policy board.

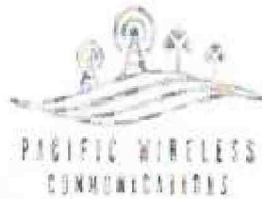
"Property" means all goods, including equipment, materials, supplies, land, buildings, and other improvements to the land, also non-tangible items such as patents, inventions, and copyrights.

"Surplus property" means any property that no longer has any use to the State. "Surplus property" includes obsolete, scrap, and nonexpendable property that has completed its useful life cycle. [L 1994, c. 186, pt of §1; am L 1997, c. 352, §23]

When these definitions are applied, it is clear that in light of the facts stated above, supporting the obsolescence of these devices, that the devices listed below are classifiable as "excess property" and/or "surplus property." The methods of disposal of these items would therefore be guided by the rules adopted under Title 3, Subtitle 11, Chapter 129 of the Hawaii Administrative Rules, if these devices were to be disposed of by the State Procurement Office, Surplus Property Director.

§3-129-2 of the Hawaii Administrative rules defines "donees" eligible to receive surplus property. BIARC, being a nonprofit tax-exempt organization, engaged in the education of amateur radio operators, appears eligible to receive these items as surplus property:

"§3-129-2 Definitions. As used in this chapter: 129-1 "Donee" means a service educational activity; a state, political subdivision, municipality, or tax supported institution acting on behalf of a public airport; a public agency using surplus personal property in carrying out or promoting for the residents of a given political area one or more public purposes, §3-129-2 such as conservation, economic development, education, parks and recreation, public health, and public safety; an eligible nonprofit tax-exempt educational or public health institution or organization; the American National Red Cross; a public body; a charitable institution; or any state or local government agency, and any nonprofit organization or institution, which receives funds appropriated for programs for older individuals under the Older Americans Act of 1965, as amended, under Title IV or Title XX of the Social Security Act, or under Titles VIII and X of the Economic Opportunity Act of 1964 and the Community Services Block Grant Act. [Eff DEC 15



1995; comp 6/9/01; comp 11/15/01; comp 11/8/02 | (Auth: HRS §103D-202) (Imp: HRS §103D-1101)"

This determination is further supported by §3-129-4(1) of the Hawaii Administrative Rules:

§3-129-4 Donee certification and agreements.

(a) To be eligible for surplus property a donee certifies that: (1) It is a public agency or a nonprofit institution or organization exempt from taxation under section 501 of the Internal Revenue Code of 1954 within the meaning of Section 203 (j) of the Federal Property and Administrative Services Act of 1949, as amended, and regulations of the administrator of General Services Administration."

BIARC, being a 501(c)(7) tax exempt Federal entity seemingly qualifies as a donee under this rule. BIARC would therefore be eligible to receive these devices by donation, should the State Procurement Office, Surplus Property Director have conducted their disposal.

In light of the above, Pacific Wireless Communications offers a donation to the Big Island Amateur Radio Club, consisting of the below described depreciated, obsolete, surplus devices, which have completed their useful life cycle. These devices are offered for donation without any warranty, implied or expressed, as to their function, quality, and/or condition. These devices are incomplete. Namely they are missing required cables, software, and/or accessories. Pacific Wireless communications makes no guarantee to the function of these devices, now and in the future.

I have personally changed the programming of each of the repeaters and mobile radios described below to ensure that these devices will not interfere with public safety radio systems. The public safety frequencies have been removed, and were replaced with frequencies within the "70 centimeter" Amateur Radio Service spectrum allocation authorized by the Federal Communications Commission, under Part 97 of the United States Code. I request that a member of BIARC verify that these devices are not programmed to transmit on any public safety frequency.



The devices being offered for donation are:

Serial number	Manufacturer	Model
103TEQ4762	Motorola	MAM25RHD9AAN2AN
623CCS0102	Motorola	M01RLN9PW6BN
623CCS0131	Motorola	M01RLN9PW6BN
623CEG0904	Motorola	M01RLN9PW6BN
623CEG0905	Motorola	M01RLN9PW6BN
623CEG0907	Motorola	M01RLN9PW6BN
623CEG0908	Motorola	M01RLN9PW6BN
623CEG0909	Motorola	M01RLN9PW6BN
623CEG0910	Motorola	M01RLN9PW6BN
623CEG0911	Motorola	M01RLN9PW6BN
518CMD0656	Motorola	M21QSM9PWLAN
474GCP0041	Motorola	T5544A
474CKV0096	Motorola	T5544A
474GCP0040	Motorola	T5544A
474GCP0042	Motorola	T5544A
512CXR0120	Motorola	T5544A
512CZR0122	Motorola	T5544A
512CZR124	Motorola	T5544A
736586	Pyramid	SVR-200V
736587	Pyramid	SVR-200V
736632	Pyramid	SVR-200V
738685	Pyramid	SVR-200V
738686	Pyramid	SVR-200V
738687	Pyramid	SVR-200V
738688	Pyramid	SVR-200V
738689	Pyramid	SVR-200V
738962	Pyramid	SVR-200V
738963	Pyramid	SVR-200V
745360	Pyramid	SVR-200V

188 Wireless Street, Hilo, HI 96720 Phone 808-930-9445 Fax 808-934-7073



Donation offered by:

William A. Polhemus

Signature
William Polhemus
Director of Technical Services
Pacific Wireless Communications

09/14/19
Date

Donation accepted by:

Jim Huntley

Signature
Jim Huntley
Vice-President
Big Island Amateur Radio Club

9/14/2019
Date