

November 2016  
Newsletter

## Big Island Amateur Radio Club

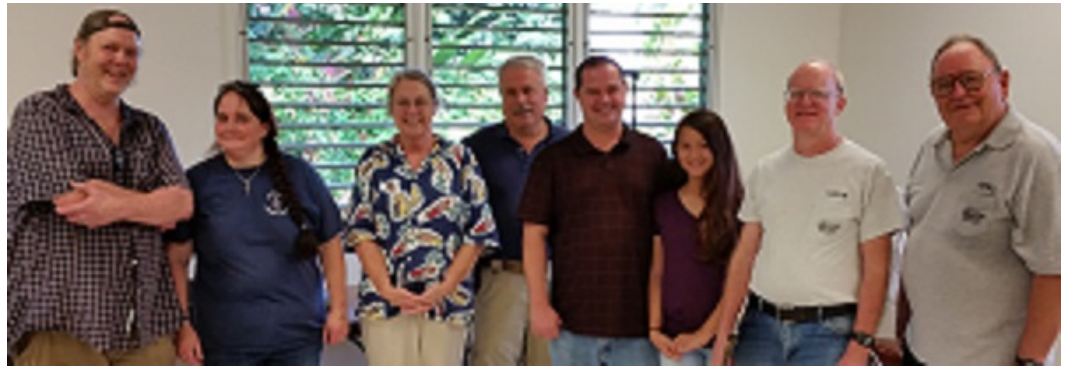
# BIARC members gear up for the New Year

### *Minutes for the Big Island Amateur Radio Club meeting October 8, 2016*

The meeting was called to order by President Bob Schneider at 2 p.m. at the Keaau Community Center.

Introductions were made. Bob S. announced that the Mauna Kea VOAD repeater is handled by an agreement between VOAD and the two organizations, Red Cross and the University of Hawaii. They are trying to change that negotiation to either BIARC and the University, or VOAD and the University.

State QSL Bureau Chair Barbara Darling reported the bureau handled fewer QSL cards than usual. "The QSL Bureau had a very slow month for September... our slowest ever," she



**Photos by Linda Quarberg**

*The club will be led next year by President Gary Schwiter, WH6EPS; Vice President Peggy Gentle, KE6TIS; Secretary Angelina Schwiter, WH6EVK; Treasurer Paul Ducasse, WH7BR; and Directors Gus Treewater, K2GT; John Bush, KH6DLK; Kim Fendt, WH6KIM; Cory Allen, KN6ZU; Barbara Darling, NH7FY; Richard Darling, AH6G; Bob Schneider, AH6J; and Bill Hanson, N0CAN. Pictured, from left: Allen, Fendt, Gentle, Ducasse, G. Schwiter, A. Schwiter, Bush and Schneider.*



**Les Hittner moderates discussion on repeaters.**

said. "We had a total of 89 cards from Netherlands, Aruba, Singapore, Canada and the 3rd call area."

In November, there will be no meeting, so everyone can go to the

ham fest/swap meet in Waimea on November 12 (see related article in this newsletter).

A quorum was determined to be present by club Treasurer Doug

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Wilson via a show of paid members' hands, and officer elections proceeded. With the help of John Bush, the slate that was nominated and seconded was voted in by acclamation. We will welcome and install the 2017 slate at our December meeting, aka The BIARC Christmas Party. The club will be led next year by President Gary Schwiter, WH6EPS; Vice President Peggy Gentle, KE6TIS; Secretary Angelina Schwiter, WH6EVK; Treasurer Paul Ducasse, WH7BR; and Directors Gus Treewater, K2GT; John Bush, KH6DLK; Kim Fendt, WH6KIM; Cory Allen, KN6ZU; Barbara Darling, NH7FY; Richard Darling, AH6G; Bob Schneider, AH6J; Bill Hanson, N0CAN.

Following the election of officers, Les Hittner did a program of discussion about the repeater system. He will be transcribing the questions and any responses, and making them available to all interested parties. (See related articles in this newsletter).

### ***Happy Holidays, Hamsters!***

The club's next meeting will be our annual holiday party at 2 p.m. Saturday, Dec. 10, at the Keaau Community Center. It will be a potluck, and all types of foodstuffs are welcomed: Homemade delicacies and store deli specials alike. Bring whatever YOU like to eat, and we'll all dine together and look forward to the new year.

More details will be published in the December BIARC Newsletter.

BIARC Program Chairmen John Bush and Les Hittner will offer a peek at what's in store at next year's meetings. Any topics you'd like to see featured? Suggestions are welcomed.

Dues payments for 2017 will be accepted, so please bring your checkbooks.

Respectfully submitted,  
***Angelina Schwiter, secretary-elect***



***Vice President Peggy Gentle refers to pertinent paperwork during October meeting as Secretary-elect Angelina Schwiter writes slate of nominations on board.***

## ***Report on repeater discussion***

### ***BIARC Moderated Discussion – Club Repeater Assets Moderated by: Leslie Hittner (KØBAD) Saturday, October 8, 2016***

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In the discussion that follows, I would ask all of you to abide by a few simple rules:

1. I will be recording this discussion to allow me to summarize its contents in writing tonight. I will then destroy the recording.
2. One person talks at a time. I will direct the discussion by recognizing each speaker. Please state your name and callsign, so that my summary will be accurate.
3. Please respect each person's right to present

his or her thoughts without interruption. If you have a question, please write it down. You will have an opportunity to ask it later. I have paper here, if you need it.

4. Please stay on topic. We are not talking about anything today except the club's repeater infrastructure.

5. Please do not talk stink. If you think the club must make changes, please tell us how. This is a club issue. No one person is to "blame" for things that you see wrong.

6. Please show me your desire to speak by raising your hand.

Are we all in agreement?

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(Everybody in attendance agreed to this plan.)

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Last week, a number of questions arose concerning the club's repeater resources, how they are being maintained, and what level of reliability we should expect in a system that seems to have designed primarily to provide emergency communications across the Big Island and – perhaps – elsewhere in the State of Hawai'i. The discussion also appeared to stray into emergency communications in general, including Civil Defense, ARES, ACS, RACES, etc. I, for one, believe there is a considerable amount of misinformation out there regarding the control structure of our emergency communications. I think that topic needs to be studied before we talk further.

So – today – I would like to keep the discussion on the hardware issues. Those are things we have control over. Those are things we can improve.

Our real experts are unavailable today, but I will carry this discussion back to them. Paul Agamata is on Oahu and Bill Hanson is involved with the Ironman this weekend. I did ask Bill where the club's operational repeaters were and he responded by email as follows: "As for BIARC owned assets, I only know of the 3 repeater sites of Na'alehu, Kulani Cone, and Ala'a Cone."

I also think there are some additional assets at what is referred to as "the Girl Scout Camp." There may be more. The club also has three new Yaesu Fusion repeaters that have not yet been installed.

As a newcomer, I too would like to know more about these systems and the way in which they are interconnected into what, I believe, is called the BIWARN system.

Any thoughts?

### **Discussion Notes**

(These are paraphrased summaries of the actual discussion.)

**Bob Schneider (AH6J):** Additionally, the Mauna Loa repeater is a part of BIWARN but is held under Paul Agamata's license (WH6FM).

**Paul Ducasse (WH7BR):** BIARC has a linked radio at Mauna Loa. There is also WH6FM's personal repeater on 82 frequency but it has nothing to do with BIARC.

**Hittner:** So, in summary, some equipment at the Mauna Loa site – specifically the link equipment – belongs to the club, but the 146.82 repeater itself is private.

**Doug Wilson (KH7DQ):** The newly created inventory of club assets includes the following on Mauna Loa: Phelps-Dodge UHF filter, Wacomm Duplexer, Vertex (Yaesu) link transceiver, Diamond power supply. If anyone knows of other assets at that site, please let Doug know.

**Cory Allen (KN6ZU):** Who is responsible for keeping track of this repeater equipment and club equipment in general? Is that Doug's responsibility.

**Paul Ducasse (WH7BR):** According to the Bylaws the club officers or board rather, are responsible to appoint members to an Inventory and Equipment Committee that has the responsibility to maintain a club equipment list. No such committee was appointed last year, so we informally put a group together to generate the updated list that Doug has referred to.

**Peggy Gentle (KE6TIS):** Is Ala'a Cone the same as Pepe'ekeo?

**Hittner:** Yes

**Cory Allen (KN6ZU):** I move that we get a formal requisition team committee together (Cory is referring to the Inventory and Equipment Committee) because it is difficult to be confident in the club's stewardship without one.

**Hittner:** Clarified the purpose of the discussion and reminded participants that this was not a business meeting and that these notes would be forwarded to the officers and directors for further action. Therefore, Cory's "motion" would move forward as a suggestion. Cory nodded in agreement.

**Kim Fendt (WH6KIM):** Other important information about each repeater – specifically about the site itself – would be important to the

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emergency plans of organizations like ARES. An example would be information on the normal and/or emergency power sources (grid, solar, battery, generator, etc.)

**Leslie Hittner (KØBAD):** I have some personal thoughts. I am concerned about the design of a complicated EMCOMM system. Is the BIWARN system the most appropriate system for this island? Or – is it a system that might be appropriate for some issues, but not for others? The system is not robust. Perhaps we need to add some simple features to the BIWARN system to improve robustness.

**Glenn Kadota (AH6IO):** I did not hear mention of an old generator that is at Mauna Loa.

**(Interrupting...) Doug Wilson (KH7DQ):** There is an Onan generator on that site.

**(Continuing...) Glenn Kadota (AH6IO):** I'd like to have that mentioned. I understand it's quite old and maybe not working. So, backup to me is also very important. I remember that the main controller for that location – Mauna Loa - failed and WH6FM converted the controller to his computer, which runs the WinLink system. So that I don't know that that controller that failed was ever replaced or that the club ever knew that it needed one. The same with the maybe not-working generator. So all this kind of information needs to be cleared up and I'm glad that you're doing this now Les. For that's crucial! It can be the weakest link. We thought it was Girl Scout Camp, but maybe not.

Kulani has...I'll wait until you get to that.

**Doug Wilson (KH7DQ):** There are two other items at Mauna Loa: Two Alinco UHF Transceivers.

**Rick Bowen (AH6RK):** The Girls Scout Camp is owned by the North Kohala group and was recently fixed and is working. Secondly, for those up on the Hamakua Coast, the Haleakala repeater on Maui (146.64) is our primary access to the BIWARN system.

**Hittner clarification:** The equipment, owned by your club is a part of BIWARN? (AH6RK: yes.) And you are not able to access 146.88? (AH6RK: No.) and where are you located? (AH6RK: at

2200 feet above Pa'auilo and that is common for people from Laupahoehoe and further north.) Hittner: Yes, I recall that when we were at the Laupahoehoe School last fall.

**John Bush (KH6DLK):** Yes, that was a year ago with Russ Roberts.

**Kim (WH6KIM):** Can you give us the frequencies for the two that are on Mauna Loa. There are two, or is that other on Mauna Kea? Unknown: 146.82 is on Mauna Loa. That is the only one. 146.72 is on Mauna Kea.

**Bob Schneider (AH6J):** There is a long history on how this (BIWARN) system grew. There are many complex components. On Mauna Loa, the original linked repeater was 146.82, and it was linked with Haleakala. The (BIWARN) system expanded from there. While we basically maintain the link to Haleakala, Paul Agamata has essentially taken over that site. At that site we also had some VHF/UHF/microwave transmitters that were used for ducting experiments that were being conducted by Paul Lee, an electrical contractor working a broadcasting company now known as Hawaii Public Radio. He did a considerable amount of work on the building. We also have an Onan 1 KW generator that sort of operates. It needs work. We haven't been able to get it down to work on it. We do not have enough volunteers to do that work.

**Cory Allen (KN6ZU):** Does that generator run on propane or gas?

**Bob Schneider (AH6J):** Gas.

**Cory Allen (KN6ZU):** Bring it down and I will fix it. I'll try my best. Is it diesel or gas?

**Bob Schneider (AH6J):** Gas. It's an Onan gas generator. It really needs to be replaced. That was the first linked repeater into the islands. The 04/02 system was put up by RACES – the group out of Honolulu. The repeater on Mauna Koa was put up by VOAD and there are a couple of other repeaters that are not tied in with BIARC or BIWARN. So it has grown over the years and it is reasonably complicated. Does that answer some of the questions?

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**Peggy Gentle (KE6TIS):** If we have spare repeaters, how come we don't have Na'alehu back on the air?

**Bob Schneider (AH6J):** With respect to repeaters, you have equipment, you have operations, and you have other external factors. In this case, the other external factors that have really been playing chaos with us are the permissions – rights of access. At the moment we are having issues with the people on the mountain. We have three permissions we have to go through right now to gain access. This introduces a time delay before we can go up on the mountain - roadblocks, in other words. For instance, at Kulani, the prison was in charge and even though we had prior permission on one trip, Robert and I were refused entry because "it's a prison." (Even though they were not there to go to the prison, but rather through the prison grounds to get to the repeater site.) So permissions and other external factors often prevent timely repairs on these repeaters. Right now we have been asking for permission to get down to South Point to install the last repeater that will tie the weak south end together into Ocean View and so far, we haven't got it. This happens all the time and it's not a hardware issue. It's an external factor such as these. We have to tiptoe lightly so as not to entirely screw up our permissions.

**Hittner – Reframing:** Some of the difficulties involve politics. Which means that what we're doing is politically sensitive. We have to play political games to be successful. Whether it is putting the hardware up or whether it is getting built into the communications plans; it is politically sensitive.

**Hittner:** That's why I elected to have this discussion here and not on the 76 repeater. That's also the reason why I will distribute my notes by email and not over the repeater. We need to be able to talk freely here amongst ourselves to decide what is the best and we don't want to be concerned about people with ears who might be in a position to be politically damaging to our goals. So we need to be able

to talk freely.

**Glenn Kadota (AH6IO):** On 146.92, please try to save the duplexer cans. Although they are old, please hold on to them if they are still functional, even if other equipment must be thrown away, because duplexers are costly.

Also, with respect to Ala'a Cone, what is the status? I know there is no courtesy tone or ID, so it doesn't have a controller and why is it not yet linked to the rest of the BIWARN system? What do we need to get to make it work? One of the things I ran across when I was a BIARC board member – and I resigned because this kind of thing often happened - when we tried to get a repeater thing going and we would hit a wall. We would try to call a board meeting and people would not show up and nothing would happen. I tried to get the people who do the repeater to have a complete system ready, especially for Kulani. The reason that Vertex there is still working over a year is because it's a newer unit. They were holding that one back and were continually going up and taking down the old unit and trying to repair it and in a few months it would break and they would go up again, pull it down and try to repair it again. Sometimes it took three trips to get it going again. It's just maddening because, as noted, it's difficult to get up there in the first place.

So, I think we should be able to put together a second system; to have a repeater, UHF link, controller, power supply, feedline and antenna. Then when you go up there, you can rest assured that whatever is broken can be fixed or replaced right away rather two months later maybe or whatever.

Unless, unless; and I think - I don't want to be a member of the board because there are people who don't want it the way I said. They want to control it the way they want to. And if that's how it's going to be because it's sort of a hobby unit, and they like working on it and they like fixing it the way they want to, then that's the way it's going to be but I don't want to pretend that it can be an emergency system to not over-promise.

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**John Bush (KH6DLK):** Do we want to remain on the ...I'd like to make a point concerning the 146.88 machine. I helped install the Yaesu Fusion, which was programmed by Paul Agamata. The problem seems to be that several broadcast transmitters are now installed at the site and they have increased the noise floor. After coming back into Hilo, we discovered that there is considerable receiver de-sense as a result. So, while the transmitter range is great, receive sensitivity is quite poor. We have not come up with a solution to that problem. I believe Paul Agamata has already installed a 5 GHz microwave link – link gear and antenna – but he still needs to do something back at this end. But, the receiver de-sense still exists and it is quite noticeable at my place.

**Hittner:** Do we need more people actively involved in repeater maintenance in this club?

**John Bush (KH6DLK):** Let me make one point on that. What we found when we went up to the site on Ala'a Cone, was that we have a number of duties at these sites. In order to get hosting permission, it turns out that we also have other obligations such as keeping the sites clear of weeds, brush, and other debris. So when we installed the fusion repeater, Bob and one or two other people worked like dogs with weed whackers while the rest of us brought up equipment, tuned, checked it and installed it. So these are situations where we need more people than just antenna engineers. On projects like these, everyone who can possibly help is welcome and needed. Everyone is welcome, because there is always a significant amount of work to be done. This is even more important because we don't get up to the sites often.

For instance, with respect, I believe, to Kulani, Blaine "kindly" notified us on behalf of TWC (Confirmed by Bob, AH6J) that we needed to get up to do our weed whacking – otherwise it would be difficult to keep the site. So we do have a lot of ancillary stuff that needs doing when we visit these sites. It's not just go up and deal with the technical issues.

**Cory Allen (KN6ZU):** I have offered go on any

of these trips to help in a non-electronical way or I can help fix a motor of a generator, or I can climb a tower. I'm not worried about heights, but I have offered that service many times, but nobody asks me for any extra help. It's like, they've got their team that goes up there in cars and there's not room for a weed whacker and weed whacking machine and it doesn't happen but we need to get that there as well as well as the electronics people to fix things. And – like Glenn said – a spare one? What a concept! Take a spare one in case you can't fix it. It might be fixable but to have that spare is super and not to throw any more equipment away. I know it's not part of the program you specifically sent him, but I would like to see more accountability, I would like to see this requisition situation become more stable. Then you might have more input by other hams or see in this mess and say "Hey, they can't keep track of their stuff." For instance, this antenna analyzer...

**(Deleted from transcript.)**

**Hittner (Interrupting):** Let's get back on the topic of the repeaters...

**John Bush (KH6DLK):** Cory, you've made some good points. Backing up to my opening comments on this – You made some good points about participation and I think – I know – that we've done some work in the past in trying to get teams together to go up the hill. I think that we probably have to work on that harder, but one of the points – Glenn had a good point on this, too. When swapping out a machine on the hill, we need a group of participants here on the ground to evaluate before and after transmit/receive performance. Because, if we swap a piece of equipment out and performance is poor, then we have a real issue that has not yet been addressed and it is the sort of thing we do not want to discover only after we have left the site.

**Hittner:** And I do think we probably have the body of operators available. It's a communications issue. Cory?

**Cory Allen (KN6ZU):** Oh, I forgot what I was

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going to say... Later...

**Hittner:** Ten more minutes.

**Peggy Gentle (KE6TIS):** And then cookies?

**Robert Oliver (NH6AH):** I would like to say this about the meter...

**Hittner (Interrupting):** I want to bring the conversation back to the repeaters. I'm sorry that I did not stop it sooner. Robert, if you have something to say about the repeaters, then you have the floor. Otherwise not...

**Robert Oliver (NH6AH):** Well thank you. As I recall, in the past the club had a portable emergency repeater you could take almost anywhere, and it served us very well when we had the Iniki Hurricane disaster in Kaua'i. The club sent the repeater over to Kaua'i and got the operational situation working. What happened to our emergency repeater?

**Hittner:** That's a good question. So, if the club still has an emergency repeater, what happened to it?

**Bob Schneider (AH6J):** Paul Agamata has it.

**Cory Allen (KN6ZU):** John, I've never seen a problem with getting people to help you down here on the floor level when you are up on the hill. That's never happened. If (the trip is announced) ahead of time, you'll certainly get a number of volunteers. Normally speaking, that has never been an issue. But if you are heading up the hill, by all means tell us that you are heading up the hill so that we know to monitor and that you'll need that help.

**Kim Fendt (WH6KIM):** A couple of things; I think that repeaters are not using (???) and incidentally, I have Sean (husband, Sean Fendt, KH6SF) who would happily go up to a repeater to do some of the electronic stuff, but he's never invited and he would like to do it to increase his knowledge of how they work. But in terms of knowledge he has a multiple background that could be a benefit.

**Gary Schwiter (WH6EPS):** I guess the first thing is to really understand the expectation of each repeater, the condition it's in, and what's it's going to be used for – either personal or emergency communications. After these

conditions are established, then we can establish the robustness of the links; either radio links or microwave links. Then we have our plan; what we have in place, what the linking capabilities are and what we need to fundraise for or what we need to put in place. I think that's the general direction we need to go.

During that timeframe, we can utilize the repeater committee to give reports on that and then provide their input and need for resources; whether it's contacting Blaine from TWC, and see what we have to do and what type of resources we need in order to set up work days where X-number of guys go up to do repeater and yard maintenance. I think we can get there but we have to go in steps by first defining expectations.

**Hittner:** I think we have the right guy in the office of President!

**John Bush (KH6DLK):** I think your points are good and I believe that Doug's inventory is a good starting point for putting together a dossier on each one of the sites.

**Cory Allen (KN6ZU):** I realize it is not a club system, but what about the 04/02 repeater link system – The RACES – system. Whose responsible for that? The State! So the state does not have the funds to repair a part of the linked repeater system? Bill Hanson said that if write Civil Defense a letter, we will get that repeater system working. Was that letter ever sent?

**Bob Schneider (AH6J):** I don't remember him saying that, but there are some very political issues involving that system. One of the engineers in Honolulu had his own system that he was putting up and I don't want to discuss it further except that he was the hold-up and still is the hold-up.

**Hittner - reframing:** That sounds like an issue that we need to take up – but it is a political issue.

**Kim Fendt (WH6KIM):** From an EMCOMM perspective, currently I don't use any of the BIWARN repeaters for emergency communications because I don't know who is

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authorized to use them in various EMCOMM situations. Sure – in an absolute emergency, I would not hesitate – but there is conflicting information about the use of each repeater, and what it is available for.

**Hittner:** As I noted at the start, that topic will be the subject of our next moderated discussion – perhaps in December or later. The controlling and management of emergency communications services – everything except the hardware – will be discussed next. It's a very important topic.

**Glenn Kadota (AH6IO):** I think that in this conversation we can discuss infrastructure that means the mode, infrastructure, etc. There is a community that is pushing for digital communications – Not FLDIGI – but rather DMR. DMR is a strong movement and perhaps that is why some of the analog equipment is not being repaired – because they want to use DMR. The DMR operates in groups and it is very tightly managed. DMR (interrupted)

**Hittner:** Are we talking about things the club has control over?

Yeah we can stay with analog FM but there has been some discussion about converting to microwave linking and linking with computer ALLSTAR computer link too, where it becomes scrambled. Do we want to stay with UHF or convert to microwave? Do we want to stay with the older analog FM units or – Maybe that's kinda why things are just hanging.

**Leslie Hittner (KØBAD):** I for one would like to go to downtown Hilo and have a full quieting signal on a handheld from some repeater. I was amazed to discover that – with all the repeater infrastructure on the island – it was not possible to easily work a repeater with a handheld from downtown Hilo – the largest community on the island. I'm just not used to that.

I think that we should take a serious look at re-directing where the three new repeaters should be sited so that we have a simple version of an emergency communications system that is one step up from simplex, but not so complicated as the BIWARN system.

Those are my thoughts.

**Cory Allen (KN6ZU):** I appreciate what we have done here today. I suggest that we next have a meeting that deals with the issues and concerns expressed here today. It seems like it's not really about the equipment so much as access to the equipment, or putting an organized effort into completely inventorying the equipment – the political end of it. So we need to have another moderated meeting like this to discuss those political issues.

And, yes, this meeting format seems to be a far better way to discuss these topics than over the air – on 76 for instance.

**Hittner:** And with that, this meeting time is over. I ask for the record that the board take these comments seriously. Understand that it will take a couple of months to deal with these issues, and to plan for and begin making the needed hardware changes.

So – perhaps – in January we can have another one of these conversations and we can talk about the political and social implications of our role in emergency communications and to get a better understanding of that. We can also discuss how we are failing in the political game and where we are winning in the political game and how to make the needed changes. I think the best way to begin that process is in conversations like we had today.

Thank you!

## ***Analysis & followup***

***By Les Hittner, KØBAD***

BIARC Program co-chair

During October's BIARC meeting we conducted a moderated discussion. The topic was the repeater assets that the club owns and manages. Here are a couple of things that I gleaned out of that discussion:

The club's assets (repeaters and website) are being managed largely by people who are not active in the club and have not been accountable to the board. This lack of accountability is not the fault of the people

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involved. It is the fault of past BIARC boards which have met infrequently, if ever.

For instance:

1. Two out of the three people who are involved in managing the repeater assets do not frequent BIARC meetings.

2. The single website manager is no longer a member of the club. The Domain (biarc.net) was apparently set up by him (for free) and he continues to be the only authorized administrator.

3. Nobody seemed to know who was responsible for non-repeater assets.

There is an intermingling of Civil Defense and BIARC repeater assets – both in design, hardware, and management. This has literally politicized the entire repeater plan on Hawai'i Island – and probably statewide for that matter. If that is the way it has to be, then it is critical that these political issues be resolved. If the club membership does not wish it to be that way, then an active plan must be created to separate these assets without damaging working relationships.

A great deal of time during the discussion was spent in trying to determine just what assets the club was responsible for. There was a call to implement a rigid asset management system. Such a system would not be limited to repeater

assets but would also track all of the equipment that the club owns – which it appears – is considerable.

In summary, I would like to say that for a club that is founded on communication, BIARC's problems are largely the result of poor communications. BIARC is not just a group of hams that comes together once a month. It is an ongoing community of people interested in amateur radio and what it can do for us as individuals and for the community collective. That makes BIARC a 24/7 operation. We need to build an organizational structure within BIARC that is up to the task.

Finally, I know that I said I would destroy the tape of this discussion, but there has been a considerable amount of talk about "what was said," so I have elected to retain it. I hope that we can have a second discussion in January. I am asking that Cory bring the small PA system that he talked about. The January recording will be made off that PA system and all speakers will be asked to approach the microphone. In this way, I hope that the recording will be able to stand for itself as the "official" record of the discussion.

Thanks for all who participated in October, and I look forward to our discussion in January.

***Leslie Hittner, KØBAD***



***President Bob Schneider conducts October meeting. Our next will be the annual holiday party at 2 p.m. Saturday, Dec. 10, at the Keaau Community Center. It will be a potluck, and all types of foodstuffs are welcomed: Homemade delicacies and store deli specials alike. Bring whatever YOU like to eat, and we'll all dine together and look forward to the new year. More details in December BIARC Newsletter.   ~~ WH6LQ photo***

# BIARC Inventory of Assets

Earlier this year, the BIARC Assets Inventory Committee (Chairman Doug Wilson and members Paul Ducasse, Les Hittner and Robert Oliver) researched the club's physical assets and presented a report to the membership. This current list reflects all updates as of October 8. Anyone with info about any other pieces of equipment is asked to contact Doug.

## Big Island Amateur Radio Club (BIARC)

Inventory of Assets as of 10/8/16

	A	B	C	D	E	F	G	H
1	Manufacturer and Item Type	Model	Serial Number	Location	Est. Value	Remarks	Date Acqd.	Cost
2								
3	Linkcomm Controller	none	none	Kulani	\$1,000	Insured		
4	Alinco UHF XCVR	DR-435	M000919	Kulani	\$290	Insured		
5	Alinco UHF XCVR	DR-435	M002136	Kulani	\$290	Insured		
6	Vertex Standard Repeater		5D800023	Kulani	\$1,200	Insured		
7	Vertex Standard Repeater	VXR-7000U	5J710080	David Lederle WH6ECV	\$1,200	Insured		
8	DB Products Pass Cavity		174491-1	David Lederle WH6ECV	\$1,000	Insured		
9	Sinclair Duplexer	F-201G	9507-52	Kulani	\$1,000	Insured		
10	Comet Duplexer	CF-4160	none	Kulani	\$1,000	Insured		
11	Diamond Power Supply	GV4000	50128859	Kulani	\$180	Insured		
12	Alinco UHF DCVR		M001246	Mauna Loa	\$290	Insured		
13	Alinco UHF XCVR	DR-435	M003206	Mauna Loa	\$290	Insured		
14	Vertex Standard Repeater	VXR-7000V	5D800030	Kulani	\$1,200	Insured		
15	Yaesu System Fusion Repeater	DR-1X	5G200275	Pepeekeo	\$500	Insured		
16	Yaesu System Fusion Repeater	DR-1X	5G200267	Paul Agamata WH6FM	\$500	Insured		
17	Yaesu System Fusion Repeater	DR-1X	5G200233	Paul Agamata WH6FM	\$500	Insured		
18	Yaesu System Fusion Repeater	DR-1X	5G200232	Paul Agamata WH6FM	\$500	Insured		
19	HP 2000 Computer	2000-353NR	5CB1404BBR	David Lederle WH6ECV				
20	Unk Duplexer	Unk	none	Bob Schneider AH6J				
21	2 - 6v Batteries	100Ah	none	Bob Schneider AH6J				
22	Powergate Power Switch	PG4DS	none	Kulani				
23	Powergate Power Switch	Low trip	none	Kulani				
24	RigRunner Power Distribution	4008	none	Kulani				
25	2 - 12v Optima Batteries	55Ah	none	Kulani				
26	General Electric VHF Repeater	Mastr II	9234039	Pepeekeo				
27	Advanced Computer Controller	RC-85	174	Pepeekeo				
28	Icom Link Transceiver	IC-04AT	7991	Pepeekeo				
29	Phelps-Dodge Duplexer	Cat #506	266	Pepeekeo				
30	Phelps-Dodge UHF Filter	Cat #638	46262	Mauna Loa				
31	Wacom Duplexer	WP-641	41397-03	Mauna Loa				
32	Vertex Link Transceiver	VX-2000	3K720174	Mauna Loa				
33	Diamond Power Supply	GZV-4000	50128860	Mauna Loa				
34	Onan Generator	1JA-1R/1E	10C629381	Mauna Loa				

## Big Island Amateur Radio Club (BIARC)

Inventory of Assets as of 10/8/16

	A	B	C	D	E	F	G	H
1	Manufacturer and Item Type	Model	Serial Number	Location	Est. Value	Remarks	Date Acqd.	Cost
35	30' Aluminum tower	none	none	Robert Oliver (NH6AH)				
36	Push-up Poles - 10 sections	none	none	Robert Oliver (NH6AH)				
37	Yaesu FT-890 Transceiver			Robert Oliver (NH6AH)		Not working		
38	PB Mike			Robert Oliver (NH6AH)		Not working		
39	Astron Power Supply			Robert Oliver (NH6AH)		Poor voltage regulation		
40	MFJ 295B w/AC adapter			Robert Oliver (NH6AH)				
41	MFJ 295B			Robert Oliver (NH6AH)		Not working		
42	90' of coax	none	none	Robert Oliver (NH6AH)				
43	60' of coax	none	none	Robert Oliver (NH6AH)				
44	100' of coax	none	none	Robert Oliver (NH6AH)				
45	Coax Filter System	none	none	Robert Oliver (NH6AH)				
46	BCR-40U (400-470MHZ) UHF Repeater		16021180	Kilohana Girl Scout Camp	\$1,535	Insured (pending)		
47	Coffee Maker				\$23			
48	SWR Analyzer	MFJ 2593	B12598	Robert Oliver (NH6AH)				
49								

# Amateur radio, BIARC in airport exercise

Once every 3 years, airports recertify their firefighting systems with the FAA. On Monday, Oct. 17, the Hilo International Airport held its 2016 Triennial Exercise. This exercise is designed to address FAA requirements and demonstrate the airport is mission-ready for an emergency. The exercise scenario was based on a scenario where a vehicle ran into a building and caught on fire requiring evacuation and injured going to the hospital.

Part of the support personnel that assisted with manning planning and operations positions were amateur radio operators, several of whom are BIARC members.

Dennis McCartin assisted in the Hilo Airport Emergency Operations Center, Planning Section. Sharon McCartin was assigned to the Documentation Unit. Steph Bath was the Planning Section Supply Unit Leader, Bob Becker was assigned as an exercise evaluator, David Miller and James Tatar were operations observers and reported back to airport EOC.



*Hawaii County Civil Defense Agency photo*

Left to right: Barry Periatt, WH6EFP; Bob Becker, WH6ESC; Steph Bath, NH7AN; Sharon McCartin, WH6ELV; Dennis McCartin, WH6ELY; David Miller, WH6EVR; Bill Hanson, N0CAN; James Tatar, WH6EMN.

***... In the event a real-life emergency need presents itself, both Hawaii Island airports view volunteers as a tremendous support pool ...***

Upon completion of the exercise, a "Hot Wash" meeting was held among the participants.

Roles, responsibilities, and how everyone did was reviewed. Steve Santiago -- Hilo Airport Manager, Stacy Rogers -- Exercise Facilitator, and Chauncey Wong -- Kona Airport Manager all recognized the participation of our amateur radio operators and the level of support these volunteers provided to a successful exercise.

The question was raised: Would volunteers perhaps be called and used in a real-life incident? The answer is "Yes,"

according to Bill Hanson of the Hawaii County Civil Defense Agency.

"The Hilo and Kona International Airports have stated and continue to have the position of trained volunteers not only in exercises, but moreover, in the event a real-life emergency need presents itself, both Hawaii Island airports view volunteers as a tremendous support pool during an operation surge to assist in making a difference."

"Thank you" to our radio operators and BIARC members for making a difference in our communities and at the Hilo Airport with their recent exercise.

# Hurricane Watch Net sets 50-year record

## *Hams respond to Hurricane Matthew*

After the longest activation in its more than 50-year history, the Hurricane Watch Net (HWN) secured operations for Hurricane Matthew on October 9 at 0400 UTC. HWN Manager Bobby Graves, KB5HAV, reported that the net was in continuous operation for 6 days, 7 hours, gathering real-time ground-truth weather data as the storm passed through the Caribbean and up along the US Eastern Seaboard, and passing the data along to WX4NHC at the National Hurricane Center (NHC). Various Amateur Radio Emergency Service (ARES) nets also activated along the East Coast. The first major hurricane of the 2016 Atlantic hurricane season and, at one point, a Category 5 storm, Matthew was downgraded to a post-tropical cyclone as it headed out into the Atlantic.

"Many have perished in Haiti and Cuba as a result of Matthew, and the death-toll rises still," Graves noted. "Many residents in the Bahamas and the US East Coast states of Florida, Georgia, South Carolina, and North Carolina felt the impact of Matthew as well."

# The Original Big Island of Hawaii International Swap meet/Ham Fest

The Big Island of Hawaii International Swap meet will be Saturday, Nov. 12, at the Waimea Community Center, next to the ballfield off Mamalahoa Highway in Waimea.

There will be a \$10 donation per table per seller, and a \$5 donation per attendee at time of registration.

## **Schedule:**

8 a.m. -- breakfast at Hawaiian Style Cafe

9 a.m. -- vendor setup

9:30 a.m. -- Doors open to public. Be sure to get your raffle tickets for the "Big Ticket items"!

12 noon – Set up for VE testing. Guest speakers at program in adjoining room.

1 p.m. -- VE testing (a good time to upgrade your license).

2 p.m. – Event comes to a close.

Guest speakers this year:

Joe Speroni, AH0A, is the ARRL Pacific Section Manager. He will give a talk entitled "The ARRL in Hawaii, a Status Report". He will discuss current cabinet appointees, the two new Hawaii websites, overview of the training session he attended in Newington, and some comments about the Pacificon. This is a good opportunity to meet and greet our new Section Manager.

Russ Roberts, KH6JRM, is the ARRL Public Information Coordinator for Hawaii County in the Pacific Section. He will give a talk on the importance of public relations to the community. He will explain what he is doing with information received from hams on the island and encourage us all to provide newsworthy items to the ARRL public information office (PIO).

Persons desiring to test for initial license or upgrade are asked to please bring a current driver's license or passport, a copy of their current FCC license or CSCE if applicable, and \$15 in exact change for the FCC fee. Any questions, please call Joe Crable, the ARRL VE liaison, at 808-987-1440 before the test date.

There will be QSL card checking, and surprise giveaways throughout the day.

**Please note:** This is a non-commercial event that promotes the trading of equipment and information between hams and the general public and to promote the open exchange of exploring ham radio as a hobby.

Talk in on 146.940 Maui Repeater and 443.650 (100 Hz tone) Kona.

This is a coordinated event of the Waimea and Kona Radio clubs. This is an islandwide event, so be sure to tell all your radio friends. See you there!

**For more information, contact Steve Milner at [wh6n@arrl.net](mailto:wh6n@arrl.net).**



Irene Kubica, NH7PE, is an avid participant in 10-meter activity and encourages hams at all levels to join in the fun.

# The 10-10 Connection

with NH7PE,

## 10-10 Aloha Chapter

The world of HF radio is open to all licensed amateur radio operators, including Technicians, on the 10-meter amateur radio band. From the website of Ten-Ten International, here are the basic answers to the overriding question:

Just what is the Ten-Ten International Net?

The Ten-Ten International Net, Inc. was formed back in 1962 as the Ten-Ten Net of Southern California. Its purpose was to promote activity and good operating practice on the ten meter amateur band. During the first few years the organization grew slowly, but by 1975 there were 10,000 members, and the word "International" had crept into the name. To date, there have now been more than 75,000 10-10 numbers issued world wide.

### \*\*\*\*\*2016 BIARC leadership\*\*\*\*\*

**President** Bob Schneider, AH6J; **Vice President** Peggy Gentle, KE6TIS; **Secretary** Beau Mills, NH7WV; **Treasurer** Doug Wilson, KH7DQ; **Directors** Bill Hanson, N0CAN; Barbara Darling, NH7FY; Richard Darling, AH6G; Ted Brattstrom, NH6YK, immediate past-president; and returning Directors Gus Treewater, K2GT; Dennis McCartin, WH6ELY, and Paul Ducasse, WH7BR. **Program Committee:** Co-chairs John Bush, KH6DLK, and Les Hittner, K0BAD. **Repeater Committee:** Chair Bill Hanson, N0CAN, with Paul Ducasse, WH7BR; Paul Agamata, WH6FM; Bob Schneider, AH6J; and Lopaka Lee, WH6DYN. **Field Day Committee:** Chair Peggy Gentle, KE6TIS, with Robert Oliver, NH6AH.

## ARRL Foundation invites scholarship applications for 2017-18

The ARRL Foundation began accepting scholarship applications on October 1 from eligible radio amateurs planning to pursue post-secondary education in the 2017-2018 academic year. Completed applications must be received by January 31, 2017. Individuals and clubs support many of the more than 80 scholarships, ranging from \$500 to \$5,000, that are awarded annually. Applicants for all scholarships must be active radio amateurs and must complete and submit the online application.

"The ARRL Foundation Board of Directors is very pleased to be entrusted with managing this program. The scholarship program is a wonderful way to encourage students to continue their Amateur Radio activities while assisting them with the costs of their higher education," says ARRL Foundation Secretary and ARRL Development Manager Lauren Clarke, KB1YDD. "All ARRL Foundation scholarships are made possible by individuals or clubs, and we

are grateful for their support."

The Foundation reported that 81 radio amateurs were the recipients of 2016-2017 academic year scholarships it administered. Awards totaled \$120,150.

### ~~~~Free classified ads~~~~

Aluminum tubing and antenna elements: Great for building antennas or HF verticals. FREE to someone who's going to BUILD ANTENNAS with it. Not for recycling. I still have one small 2 section crankup, about 35' for	\$100. Includes local delivery. Also for sale: Kenwood 2-meter radios: Kenwood TM-231A, 50w, w/mic & manual, \$80/Kenwood TM-241A, 50w, w/ mic & manual, \$80. Call Lloyd, KH6LC: 966-7782.
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(Send text for ads by 20th of month to lcritchlow@mac.com)



## **National Parks on the Air update**

With less than 2 months left in the ARRL National Parks on the Air (NPOTA) program, the push for 1 million contacts from eligible NPS units remains strong. November 1 saw the 800,000th contact uploaded to Logbook of the World, breaking 25,000 contacts for the second straight week.

NPOTA is the biggest operating event on the amateur bands this year. Tens of thousands of participants worldwide have gotten involved in NPOTA, learning a lot about the National Park Service and the country and history it preserves. There's still time to join in on the fun!

Thirty-two activations are on tap for November 3-9, including Big Bend National Park in Texas, and Everglades National Park in Florida.

ARRL Media and Public Relations Manager Sean Kutzko, KX9X, and QST Managing Editor Becky Schoenfeld, W1BXY, were interviewed by NPS Ranger Bill Urbin during their September NPOTA activation of Eleanor Roosevelt National Historic Site (NS14). Video of that interview is

available on the ARRL Facebook page.

Details about these and other upcoming activations can be found on the NPOTA Activations calendar. Keep up with the latest NPOTA news on Facebook. Follow NPOTA on Twitter (@ARRL\_NPOTA).

## **ARES/RACES featured at Joint Tribal Emergency Management Conference**

For the third year in a row, the Amateur Radio Emergency Service and the Radio Amateur Civil Emergency Service (ARES/RACES) were a featured component of the largest gathering of tribal disaster preparedness, recovery, hazard mitigation, and homeland security professionals in the US. The annual conference, held in mid-September, was organized by the National Tribal Emergency Management Council and hosted by the Tachi-Yokut Tribe at their Santa Rosa Rancheria in Lemoore,

California. Radio amateurs were prominent among the conference presenters. Two ARRL San Joaquin Valley (SVJ) Section groups, Fresno ARES/RACES and Tulare County ARES, pooled resources and set up special event station N8V, with multiple operating positions, on the lawn adjacent to the conference hotel.

## **Radio amateurs in India monitoring "Highly Suspicious" VHF communications**

Authorities in India have asked radio amateurs along the Bengal-Bangladesh border to monitor strange VHF radio transmissions that one of them has called "highly suspicious." According to an article in the Hindustan Times, the signals were being heard in the dead of night, with participants said to be in motion and speaking in some sort of code. "After we wrote a letter highlighting the strange signals to the Ministry of Communication and Information Technology, we were called in for a meeting by officials of the international monitoring station in Kolkata on September 22," recounted Ambarish Nag "Raju" Biswas, VU2JFA, the secretary of the West Bengal Amateur Radio

Club, in the report. The newspaper account said that when the Bengal hams attempted to contact the suspicious stations, the operators briefly quit transmitting.

"We were asked to continue the monitoring," the report quoted Biswas as saying. "It is a cause for concern for us all, since the location is close to the Bangladesh border, and the callers were taking in codes and words with Bangladeshi pronunciation." The operators, who were speaking in Bengali and Urdu, also used numerical codes, according to the report.

### ***The rarest of the rare is in our own backyard ...***

Of the 489 ARRL National Parks on the Air (NPOTA) units, the real stars of the event have been the National Scenic and National Historic Trails.

Added to the National Park Service official units list in the last week of 2015, the trail units have accounted for the majority of NPOTA activations this year. Nine of the top 10 most-activated NPOTA units are trails, with nearly 11 percent of all NPOTA contacts (80,580 QSOs) made from an eligible National Scenic or Historic Trail. The Lewis and Clark National Historic Trail (TR-09) leads the pack, with nearly 13,000 contacts made from numerous points along the trail.

All told, 121,650 contacts have been made from the 23 trail units in NPOTA, amounting to slightly less than 17 percent of the 720,000 total contacts.

The rarest trail unit is the Ala Kahakai National Historic Trail (TR18) in Hawaii. Only 592 contacts have been made from there.

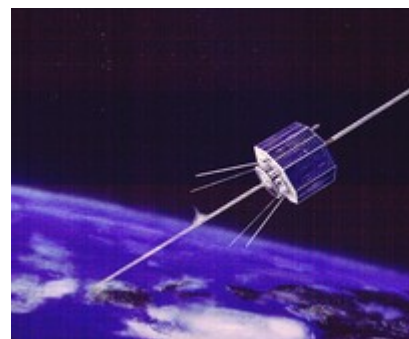
### ***AO-7 is still going strong after almost 42 years in space***

In about a week, the venerable AO-7 Amateur Radio satellite will mark 42 years in space. AMSAT says AO-7, the oldest ham radio satellite still in operation, is now switching between Mode A and Mode B on a daily basis, after coming up in Mode A on September 30.

"That suggests that the satellite is now in constant sunlight and receiving enough power from the solar cells for the 24-hour timer to stay on throughout its entire orbit," AMSAT-NA Secretary Paul Stoetzer, N8HM, said. "Expect daily mode switches between Mode A and Mode B to occur for the next 3 months or so. As AO-7's orbit precesses and the periods of constant sunlight become fewer and fewer, there will be less of an opportunity to use Mode A on a yearly basis, so enjoy it while it lasts!"

In Mode A, earthbound amateurs transmit on 2 meters and receive on 10 meters. Stoetzer said the type of 10-meter antenna isn't fussy. "Try whatever you can," he said. When continuously illuminated, AO-7's mode will alternate between Modes A and B (70 centimeters up/2 meters down) every 24 hours.

November 15 will mark 42 years since AO-7 was launched into space from Vandenberg Air Force Base in California. AO-7 was the second so-called "Phase 2"



Amateur Radio satellite that AMSAT-NA constructed and launched into low-Earth orbit. It remained in operation until a short circuit occurred in a battery in 1981. More than 20 years later, however, AO-7 unexpectedly returned to life, its 2-meter beacon showing up on 145.9775 MHz. Satellite experts speculate that AO-7's resurrection occurred when the short circuit in the battery opened up for some reason, allowing the solar cells to power the spacecraft. When the satellite goes into eclipse, it powers down.

Last February Dave Swanson, KG5CCI, of Arkansas achieved a distance milestone on AO-7 using Mode B to work Eduardo Erlemann, PY2RN (GG66lw), in Brazil -- a path of 8030.895 kilometers. -- ***Thanks to AMSAT-NA, AMSAT News Service***

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The ARRL Pacific Section  
webpage is at:

<http://www.arrl.org/Groups/view/pacific-section>

## **Retired librarian who was Maine's first female radio amateur turns 108**

Mary Cousins, ex-W1GSC, who was the first woman in Maine to obtain an Amateur Radio license, celebrated her 108th birthday on September 20. Now a resident of a care facility in the coastal fishing village of Deer Isle, Cousins was treated to a party complete with a cake decorated with images of local newspaper articles from 1908, the year she was born.

The confection also bore an image of her 1933 "Amateur First" radio license, issued to Mary Sibyl Wallace -- her maiden name -- by the old Federal Radio Commission, when Cousins was 24. The FCC came into being the following year. Cousins' old call sign has since been reissued at least once. Cousins said she operated Morse, although she does not remember the code anymore, and used to relay weather information using that mode.



***Mary Cousins, ex-W1GSC, admires her 108th birthday cake. [Island Nursing Home and Care Center photo]***

Cousins, a native of nearby Stonington, Maine, worked as the town's librarian, a school bus driver, and a telephone operator. She said she never stops learning new things.

The "Amateur First" Radio Operator License issued by the Federal Radio Commission in 1933 to Mary Sibyl Wallace.

Cousins told Bangor TV station WFVX that in the 1930s, ham radio "was something that the girls did not do, and the boys were all doing it at the time, and I said, 'I can do it too.' And I did."

Her cake also bore images of Stonington as it looked in 1908, when Teddy Roosevelt was the US president. Enlivening the party were 108 balloons and live piano music. Cousins received and read cards from many well-wishers.

Her son John told WFVX, "When she decides she's going to do something, she's going to do it. I think 100 was going to be the goal. She wanted to reach 100. She did. And then she said, 'Well, might as well go for 105.' I think she's working on 110 now."

## ***Pacific Seafarer's Net aids maritime rescue of sailors on sinking boat***

The Pacific Seafarer's Net relayed a call for help and contacted the US Coast Guard on September 28, after the SV Rafiki began taking on water some 230 miles south of Cold Bay, Alaska. At approximately 0300 UTC, Charles Houlihan, KD6SPJ, a net relay station, received the distress call from the sailboat's captain.

Houlihan, who was also at sea in SV Jacaranda, contacted Randy VanLeeuwen, KH6RC, a net relay station in Hawaii. He, in turn, got in touch with Hawaii USCG District 14

to report the incident and provide Rafiki's location.

The Hawaii USCG district then contacted the 17th USCG District in Alaska, which handled the rescue. VanLeeuwen kept in constant radio contact with the Rafiki until contact was lost. Fred Moore, W3ZU, in Florida, and Peter Mott, ZL1PWM, in New Zealand, also were on frequency and in contact with the vessel's captain until a US Coast Guard rescue helicopter arrived.