



Meet on Zoom

Set for Saturday, September 12: Noon BIARC Board meeting, then a membership program at 2 p.m. Details on BIARC ListServe.



Kevin Bogan, AH6QO, Hawaii amateur radio Skywarn coordinator, discusses the National Weather Service and Skywarn on Aug. 8.

Zooming in on Skywarn, storm watching, NWS, MK repeater, QSO Party

Alan Maenchen, AD6E/KH6TU, kicked off the August BIARC Zoom session with a preview of the annual Hawaii QSO Party Aug 22-24 (<https://www.hawaiiqsoparty.org>). He encouraged all hams with HF capability to join in the fun.

And the afternoon wound up with an enlightening discussion about the Mauna Kea repeater moderated by the day's keynote speaker, Kevin Bogan, AH6QO.

Kevin, the Hawaii state amateur radio coordinator for Skywarn, gave the day's main presentation on

Continued on Page 5



~ AH7G, SK ~
*Aloha,
Richard.
We'll miss
you!*

He was a man of the world, well-traveled and well-connected over a lifetime of 86 years.

Though battling daily with diminishing health, Richard Darling, AH7G, recently celebrated 67 years in amateur radio.

Throughout those radioactive decades, AH7G won prestigious awards and achieved ham milestones only dreamed of by most.

A few years ago, he brought a few boxes of his treasures to a BIARC meeting, in connection with the day's program.

How cool, to see those plaques and albums and photos amid his honors for operating prowess, humanitarianism and public service.

Among the highlights: Flipping through pages of QSL cards, including one from North Korea!



Richard's favorite food, always: ICE CREAM, proven once again in this 2019 family cruise photo.

In tribute to AH7G

*By Bob Schneider,
AH6J*

It is with deep regret that we report the passing of Richard Darling, AH7G, on August 19 at home.

Richard was an active amateur radio operator for 67 years and the co-recipient of the prestigious 2016 International Humanitarian of the year award given by the American Radio Relay League (ARRL).

Continued on Page 2

From Page 1

This honor was recognized by Gov. David Ige, Mayor Harry Kim, the Hawaii County Civil Defense administrator, the Hawaii County Council and numerous other officials.

Richard received many other awards for his outstanding operating skills, including The 5BWAC (worked all continents), DXCC "honor roll" in both mixed and phone (contacted 300+ separate countries).

He had the ARRL "A1 operator award" as well as other awards. Richard was a Life member of ARRL and received a certificate for 50-plus years of continuous membership. He also received a special "Certificate of Appreciation" from BIARC for the many things he did throughout the years.

Richard and Barbara (NH7FY) Darling received the 2016 ARRL International Humanitarians of the Year award. This was a special two-person award. The main justification for this dual honor was that Richard and Barbara have been part of the support team to the award that John Bush, KH6DLK/V63JB received in 2012. Specifically, they provided support in the form of money and material which includes books, food, clothing, sanitary supplies and equipment such as hardware, and equipment like antennas and solar panels that were sent to FSM (Federated States of Micronesia).

According to Barbara, Richard was in the bathroom when he collapsed. He could not be revived, even by the medics. He had several medical problems.

Richard also is survived by a daughter, also named Barbara, and a son-in-law, Steve, who live in Salinas, CA. They are both hams. He also has a son, Richard, and



You never know what you'll learn at a BIARC meeting.



A perfect match, in so many ways.



A BIARC meeting, prior to the Zoom era.



Wherever Barbara and Richard have gone, they've made friends.

BIARC file photos by Linda Quarberg, WH6LQ

daughter-in-law, Ria, in Stafford, VA. The son is retired from the U.S. Navy.

Richard was born in 1933 in Binghamton, NY. He would have turned 87 later this year. He lived in New Jersey and Pennsylvania until 7 years old. From 1940-1943 his family lived in the Panama Canal Zone, but due to the war, moved back to the U.S. mainland. They returned to Panama from 1946-1948. His dad was an engineer who worked on the plans for a second canal.

Richard graduated high school in Arlington, VA and got his Novice license, WN4ZYV, in 1953. He attended Newark College of Engineering in Newark, NJ. After that he attended Capital Radio Engineering Institute and then joined IBM as an electronic technician. Shortly after that he was drafted into the U.S. Army for 3 1/2 years. He was in the Nike missile program, however spent a lot of time on the air from Fort Bliss, TX. After the army he was reemployed by IBM and ended up in San Jose, CA. In 1988 IBM had an RIF (reduction in force) and Richard ended up working on various projects for Lockheed. He lived in San Juan Batista, CA, where he became more active on the air. His call was WB6HGH. In 1989 his home was destroyed in the "Loma Prieta" earthquake. He then moved to El Paso, TX.

In 1995, Richard and Barbara met in Florida where Richard was caring for his ailing father. They were married in 1999. In 2000, they retired to Hawaii where Richard upgraded to Extra and got his present call, AH7G. Barbara also got her license and upgraded to Extra. They made numerous trips together, including three trips to

Continued on Page 3

From previous page



One of the many facets of ham radio is discussed at a BIARC meeting at the Keaau Community Center.

Midway Island, several Caribbean locations and several south Pacific areas including New Zealand, Australia and Christmas Island. They also did the "Inland Passage" tour of Alaska.

As a result of all the travel, Richard had several call signs, including: T32DA, Christmas Island; ZK1AR, Rarotonga; KZ5AR, Panama Canal Zone; VP2AZ, Antigua and Guantnamo Bay, Midway, British Virgin Islands and of course Hawaii.

Over the years Richard (and Barbara) provided information such as weather warnings prior to several typhoons which, most recently, included "Maysak and No ul". He also kept communications going in the aftermaths. Another disaster Richard was active in was the sinking of a 58-foot boat in Western Chuuk Lagoon. William (V63YWR) is one of the newer FSM (Federated States of Micronesia) resident hams that Richard and Barbara regularly talked to. William can get on the air now partially because of the solar panels, batteries and antennas that Richard and Barbara helped get. The health and welfare phone patches and messages went all over the United States and the emotion involved can be heard, especially since some of the people have not talked to their relatives in several years. They usually speak in one of several Micronesian languages.

Even when John Bush is in his Hawaii residence, it is difficult for him to talk to his friends and relatives in FSM because his condo, in Hilo, has strict no-antenna CC&Rs. When he does talk to them he either uses the Darlings' phone patch or his own mobile. During times of poor propagation, the only alternative was through Richard and now Barbara. This is but another reason why the Amateur Radio Parity Act is so important to get passed.

In the past Barbara was the ARRL QSL manager for Hawaii State and very active in the Big Island ARC while Richard was one of two DXCC card checkers for the State of Hawaii with over 300 countries confirmed himself. In addition, both have traveled extensively throughout the Pacific so are familiar with many islands along with the problems of both travel and communications. Richard was also a director for BIARC.

The humanitarian support does not stop with providing voice communication. Richard and Barbara regularly purchase, pack and mail care packages to Yap. These may contain food, clothing, medical supplies, diapers and other things that are not otherwise easily available to the FSM islanders. This is according to Tom English, WH6EBS.

*Silent Key -- Paul
E. Buelmann Jr.
~ KH6GKK ~*

Paul E. Buelmann Jr., an amateur extra class operator who lived in Ainaloa in the Puna District, became a silent key on July 22, 2020.

He operated under the call sign KH6GKK, or as he liked to say "King Henry Six Giant King Kong."

Paul was active in the weekly amateur radio emergency communications nets of the Church of Jesus Christ of Latter-Day Saints. Over the years he trained amateur operators and assisted them in getting their stations up and on the air.

Paul was also a node sysop on the AllStar network who established and maintained one of the early AllStar stations in East Hawaii. I have had the privilege of assisting Paul in keeping his station on-line during his final years. He will be missed.

73

*Tony Kitchen
WH6DVI*

It's just a phase

My day-to-day work seems to follow a meandering path.

I'll go months or years without having to even think one time about one topic or another, only then to suddenly spend weeks or more knee-deep in it.

I love that, especially when it's something in radio science that I love.

Much of my work recently has centered on manipulating the phase of a signal. Doing things like creating phased arrays, and using interference patterns to reject unwanted. So you might imagine that I receive a lot of blank looks when people ask me what I've been up to. You see, I get a bit giddy and geek out when I am getting to play with fun stuff. "Normal" people just don't get it.

I was visiting with another ham recently. This operator was telling me that they just aren't swept off their feet by the hobby anymore. They're bored with the hobby. I asked what they have been doing in radio land, and was told; "Oh, you know, the same stuff. But the bands are dead, and I don't do all that digital stuff."

To that, I say: Try something new! I shared what I have been doing with phased arrays and interference patterns, and related how I am using that in my personal station, too -- to increase gain while simultaneously rejecting unwanted signals.

Wouldn't you know, it struck a nerve. This operator had forgotten that a transmitted sine wave is merely a traveled circle viewed in the time domain, the circumference of which is equal to the wavelength of the signal. And that accordingly you can calculate where on the circumference you will be at when at a specific distance from the source (I got a little giddy just typing all of that.)

Some people are coping with a little downtime these days. Personally, I won't touch the stuff. But if you have some, I encourage you to enter a new phase in your ham radio life. There are so many facets to our hobby that there is always another corner to turn; another topic to explore.

Whether your reason to do so is simply to advance your general knowledge, perhaps so that you can advance your license level, or if it's something crazy like to come down and experiment in the "Dreamer's Band" -- Do it! Find a rabbit hole to explore.

Another operator, who is a friend of a friend, has found his niche. They DX Non-Directional



*William Polhemus,
NH6ET*

Beacons (NDBs) worldwide. He has had an active extra class license since before I was born, and couldn't care less about transmitting. I get that. I myself don't work sideband voice hardly at all. I am just not a rag chewer.

I didn't know such a part of our hobby as NDB DXing even existed before making this operator's acquaintance. Now I find myself hunting their signals all the time. It just took someone to spark the interest and send me down that rabbit hole.

And let me tell you, if you are interested at all in beefing up your CW skills, this is the game for you: Homing in on the signal, then catching and decoding relatively short identifiers, which are keyed at a controlled rate (getting giddy again ...). And, there is a seeming endless supply of them available. How it does it for me is that it's more than just a successful decoding, like it is with a practice app. There is a sense of DXing accomplishment. You know, getting the rig just right, pulling in that weak signal, and scratching that location off the list.

Seriously, try it. It's oddly calming and exhilarating -- all at the same time. All the while, the CW skills just seem to naturally improve.

Had we not conversed, I would be missing out on the fun. Had I not shared my phase interference fun, an operator might have been hanging up their hobby. Now I am DXing, and they are making high gain steerable null antennas. Each time, it's because someone shared a bit about one of their own passions.

This hobby is too broad to know even of the existence of every niche, let alone master them. You might light that fire for someone, and start a new phase in their hobby. Maybe they will do the same for you.

What's your passion?

William – NH6ET

The President's Corner

the National Weather Service and Skywarn.

The Hawaii Voluntary Organizations Active in Disaster (Hawaii State VOAD, known nationally as Hawaii VOAD) owns the Mauna Kea repeater. Many years ago, Catholic Charities (a member agency) secured a grant and Hawaii VOAD used part of the money to buy the repeater, said Kevin.

The Mauna Kea VOAD repeater operates under the call sign WH6FIU. The location where the VOAD repeater is housed is controlled by the University of Hawaii Institute for Astronomy, the IfA.

There is a strict operation agreement between VOAD and the IfA about activation and use of the repeater.

Kevin is also the liaison between the IfA and VOAD regarding the Mauna Kea repeater. He fielded questions about the repeater and explained the constraints we are under regarding its activation and use.

The repeater is a collaborative effort between Hawaii Island VOAD and Hawaii State VOAD. BIARC is a dues-paying member of Hawaii Island VOAD, aka BIVOAD.

Kevin would love to be able to activate the repeater more, but explained that currently we only have the one hour from noon-1p.m. on the first Saturday of the month. Under the operating agreement, in certain governor-declared emergencies that involve a need for emergency communications, and in collaboration with the POC at the IfA, he can activate the repeater. He encouraged all stations to check in during the monthly test, and we discussed some possible scenarios as to how it might



National Weather Service facility in Honolulu.

be used when activated.

"He also told us that our groups should include this repeater in our ICS-205 Comm Plans. The discussion was very helpful, helped to clear the air on the topic, and will continue," said Tony Kitchen, WH6DVI, chair, BIARC Public Service Communication Committee.

Hawaii Voluntary Organizations Active in Disaster is guided by this motto: **"*Cooperation*Communication*Coordination*Collaboration."**

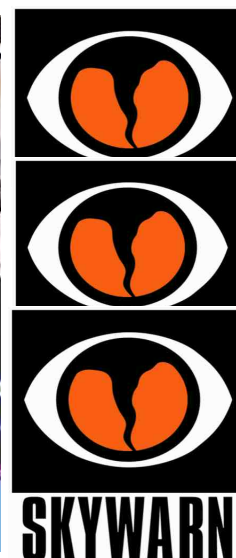
Kevin retired as an Operations & Threat Specialist (supervisor) at the State Warning Point at the State EOC/HI-EMA after almost 11 years there.

"I had to stay on top of the weather consistently and constantly. I guess that is why I'm Skywarn ham coordinator for Hawaii," he said.

"I created a dashboard (<http://www.protopage.com/ah6qodashboard>) to help me at work, but friends and co-workers found it useful, and anyone is welcome to use it."

Via Zoom, Kevin showed us how to quickly and easily assess the weather using only the authoritative NWS and NOAA resources. Why just them? Because emergency management decisions are based only on NWS and its partners, Kevin explained.

"The commercial sites Accuweather, Weather Underground and other companies/websites may be good to get an idea as to what is happening, according to your own personal tastes, but can lead to decisions inconsistent with Emergency Management decisions," he said.



Want to be involved in EmComm in Hawaii?

There are many ways that stations can become involved in emergency communications. Anyone can participate in ARES nets, which is a great start. We can all join ARES, free of charge, by visiting their website at <http://hawaii.ares.info/>. Just click on the "members" link and choose "Register New Member." Once you've created your account and password, there are some on-line forms to fill out about your station and you're in.

With ARES, most training and organization of operations will happen at the local level, through your District Emergency Coordinator. (DEC) See <http://biarc.net/areshawaii.shtml>.

You can also find out more about ARES in general at the ARRL website under the following link: <http://www.arrl.org/ares>.

ARES helps to train operators and works to establish relationships with other organizations that will allow us to assist others during times of need. In a major disasters ARES at the national level may be able to provide equipment and teams of operators to assist county and state agencies as well as non-governmental organizations with emergency communications.

For all EmComm operators, there are some basic skills that will be helpful in understanding how groups organize and work together. There are a number of courses listed at <http://biarc.net/training.shtml> which cover the basics needed to prepare you as an EmComm operator, qualified to provide service to various groups.

Where you go from here depends upon your interests, training, resources, and skills.

You might choose to volunteer directly with a particular group.



This might include organizations such as American Red Cross, Community Emergency Response Teams, Volunteer Organizations Active in Disasters, Salvation Army, religious organizations, and others.

The Hawaii County Civil Defense Agency is a critical player in organizing and implementing the response to and recovery from any disaster in our County. HC CDA coordinates with other organizations, and runs the emergency operations center (EOC) under the authority of the Mayor. They also have contact with police, fire, medical, and military personnel. HC CDA is the group that tracks where help is needed, what resources are available, establishes plans and priorities, and through mutual aid agreements may request resources from outside our County.

BIARC has entered into an MOU with HC CDA in an effort to assist with emergency communications.

Our agreement specifies that we provide them with a list of operators willing to volunteer and keep HC CDA updated with their contact information. We all realize that stations first have a duty to their homes and families, and may have obligations to other organizations during a disaster.

Each disaster is unique and might be concentrated in a specific

geographical location. By adding your station to this list, you are indicating your willingness to participate in preparation and training, and that if you are able you would be willing to respond to the call to serve.

Prior to, during, or after a disaster, HC CDA might make contact with you to seek to fill a communications related need from another organization, such as assisting a Red Cross shelter with radio communications, or they might ask a station to work directly with them in some specific capacity.

The BIARC Public Service Communications Committee is currently in the process of compiling this list. By listing your station as part of this group, you will be invited to participate in future training exercises and opportunities as they become available.

FCC licensed stations with any and all modes of operation are invited. If you have questions, or would like to be included in the list of stations BIARC presents to HC CDA, please send email to TonyKitchen808@gmail.com. Include your call sign, street address, and telephone numbers. Once the initial list is compiled, we will collect additional information about your base station and mobile capabilities, bands, and the modes of operation you are able to use.

I would like to thank all stations for being a part of the Amateur Radio Service and especially thank those who offer to serve our communities during times of emergency.

73,
Tony Kitchen, WH6DVI
Chair, BIARC Public Service
Communications Committee



Oct. 3 ARES SET exercise offers roles for all

All amateur radio operators have been invited to assist with the ARES Simulated Emergency Test (SET) from 9 a.m. to noon. on Saturday, Oct. 3.

"A primary focus of this event will be to demonstrate that amateur radio stations on our island are capable of standing up emergency communications stations and handling ARC message traffic at designated American Red Cross shelter locations," explained BIARC Treasurer Tony Kitchen, WH6DVI, who chairs the BIARC Public Service Communication Committee.

ARES has been coordinating with ARC to determine shelter locations for activation. Due to the challenges imposed upon us by the COVID-19 pandemic, ARES intends to focus on using private shelter locations, such as churches, rather than public/DOE shelter locations. If it turns out that we must use a public or DOE designated shelter location in any given area, then operations are likely to be from the parking lot, rather than indoors.

ARES has been recruiting licensed amateur radio operators willing to volunteer, said Tony. We need at least one licensed amateur operator at each location, with the ability to stand up a station, possibly on portable power. We do not expect to have a heavy volume of message traffic at each location, but at a minimum, we expect two or three messages will be sent.

"Although some stations will set up to send Winlink messages directly, those who do not have that capability would send the messages via voice to an ARES hub, which would relay the message to ARC. It is also possible that FLDIGI may be used by some. Station set up will

Last-minute volunteers welcome

The ARC Shelter operations are only one part of the SET, explained Tony Kitchen, WH6DVI, who chairs the BIARC Public Service Communication Committee.

"We always can make room for last-minute volunteers, because we want to give as many people as possible the opportunity to be involved, and sometimes people who have previously committed have something come up at the last minute and can't participate," said Tony.

"We also need to stand up ARES hubs, which will be at the QTH or possibly mobile locations. For the ARES hubs, we need one experienced operator at each location and we can pair them up with possibly 1-2 others if we have enough volunteers.

"Ideally, each ARES hub would have Voice and Winlink capability on both HF and VHF. However, if a particular hub can't handle the needed band or mode, they might have to pass the traffic to another hub that can handle it. There might be as many as 6 or 7 ARES hubs in East Hawaii district. That would provide plenty of opportunities for lots of people to participate.

"If they allow us to use repeaters and we don't have enough volunteers then we'll just have fewer hubs," said Tony. "There is also a good chance that we'll get our supply of N95 masks from FEMA through VOAD by then, so we would be able to provide those to everyone."

The ARES DEC for East Hawaii, Darrell Asuka, KH6RDO, is handling planning for this district.

"The October SET will be another collaboration between ARRL and the American Red Cross (ARC). This time, ARC wants an operator to deploy to a shelter and pass messages," said Darrell. "Keep in mind there will be only the operator, a shelter manager from ARC, and possibly a building custodian.

"There will be no clients. You will pass a message stating the shelter is open, another message containing the daily shelter report, and finally the client list. I suspect these messages will be given to you by the shelter manager, just like in real life.

"So, anyone can participate. They don't have to have Winlink capabilities; they can voice over the messages to a Winlink hub station. But I need to know who wants to participate so I can make arrangements," said Darrell.

be scheduled for 8 a.m., giving us one hour to get set up," said Tony.

If you are willing to participate, please email the ARES District Emergency Coordinator (DEC) of the district where you intend to volunteer. Also let your DEC know your call sign, preferred shelter location, what equipment you would be able to bring with you, and other relevant details.

In East Hawaii, our DEC is Darrell Asuka, KH6RDO. His email address is dhaenter@gmail.com.

In North Hawaii, our DEC is Jim Sugg, AH6AE. His email address is jimsugg7@gmail.com.

See the following link at the BIARC.net website for the DEC's in other parts of the island: <http://biarc.net/areshawaii.shtml>

Link to ARES district map of Big Isle: <https://www.hawaiiare.info/DistrictsHawaiiCounty.shtml>

Clement Jung, KH7HO, is our Pacific Section Emergency Coordinator.

ARC HI State template now in Winlink

(From Bev Gable, KH7LM:

Just thought I would share the good news for all the CERT Teams out there and those who will be participating with ARC SET 2020. 73 es aloha, Bev)

On Aug 13, Clement Jung wrote:

Thanks to Maria Lutz of the American Red Cross Pacific Island Region and Van (NH7IT), who developed the new template, we now have an ARC Hawaii Hurricane Shelter Daily Report template that meet's Hawaii's ARC needs. It is

located in the Winlink Express Standard Templates (version 1.0.130.0 - it should be an automatic update when you bring up Winlink Express).

It is listed under HI STATE forms. You will also find four Hawaii County Civil Defense Agency forms that Hawaii County uses for reporting an incident.

For those who were recently involved as shelter radio operators on Oahu for Hurricane Douglas, this new template will be much easier to use.

We will be using this new ARC Hawaii Hurricane Shelter Daily Report for the two upcoming shelter exercises on October 3, 2020 (Simulated Emergency Test) and the November 14, 2020 National ARC/ARES fall exercise.

More details will be forthcoming on these two exercises.

Clem (KH7HO)

PAC ARES SEC

chmjung4@yahoo.com

NASA's THEMIS mission investigates aurora mysteries

According to a NASA report, a special type of aurora, draped east-to-west across the night sky like a glowing pearl necklace, is helping scientists to better understand the science of auroras. Known as auroral beads, these lights often show up just before large auroral displays, which are caused by electrical storms in space called substorms.

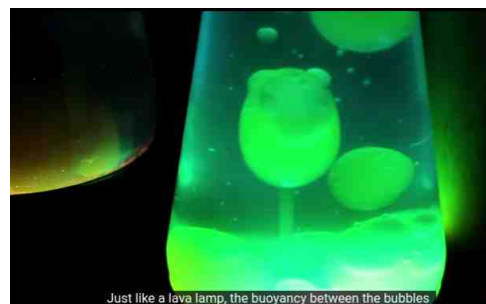
Previously, scientists weren't sure if auroral beads were somehow connected to other auroral displays as a phenomenon in space that precedes substorms, or if they are caused by disturbances closer to Earth's atmosphere.

But powerful new computer models combined with observations from NASA's Time History of Events and Macroscale Interactions during Substorms -- THEMIS -- mission have provided the first strong evidence of the events in space that lead to the appearance of these beads, and demonstrated the important role they play in our near space environment.

"Now we know for certain that the formation of these beads is part of a process that precedes the triggering of a substorm in space," said Vassilis Angelopoulos, principal investigator of THEMIS at UCLA. "This is an important new piece of the puzzle."

By providing a broader picture than can be seen with the three THEMIS spacecraft or ground observations alone, the new models have shown that auroral beads are caused by turbulence in the plasma -- a fourth state of matter, made up of gaseous and highly conductive charged particles -- surrounding Earth. The results, recently published in *Geophysical Research Letters* and *Journal of Geophysical Research: Space Physics*, will ultimately help scientists better understand the full range of swirling structures seen in the auroras.

"Now we know for certain that the formation of these beads is part of a process that precedes the triggering of a substorm in space," said Vassilis Angelopoulos, principal investigator of THEMIS at the University of California, Los Angeles. "This is an important new piece of the puzzle."



A THEMIS Spacecraft.

"THEMIS observations have now revealed turbulences in space that cause flows seen lighting up the sky as of single pearls in the glowing auroral necklace," said Evgeny Panov, lead author on one of the new papers and THEMIS scientist at the Space Research Institute of the Austrian Academy of Sciences. "These turbulences in space are initially caused by lighter and more agile electrons, moving with the weight of particles 2,000 times heavier, and which theoretically may develop to full-scale auroral substorms."

Try out the new Grid Madness option: "220 (MHz) in 2020"

Been to a beach lately? Miles of sand and five people. If you liked the beach, you may enjoy the 220 MHz ham radio band. It's yours to use, bebe.

So, if you saw the recent Grid Madness 2020 announcement email, you know where we are going with this. It's "220 in 2020." Yes, the 220 MHz band has been added to Grid Madness this year. If you already have a radio with 220 and you have been active on the band, you know all about it.

If not, ask around -- indeed, your Grid Madness Manager did just that: "Uhh say, what's happening on 220 on your island?" You guessed it -- "not much, brah." There are a few active 220 MHz repeaters on Oahu: listening ... listening.

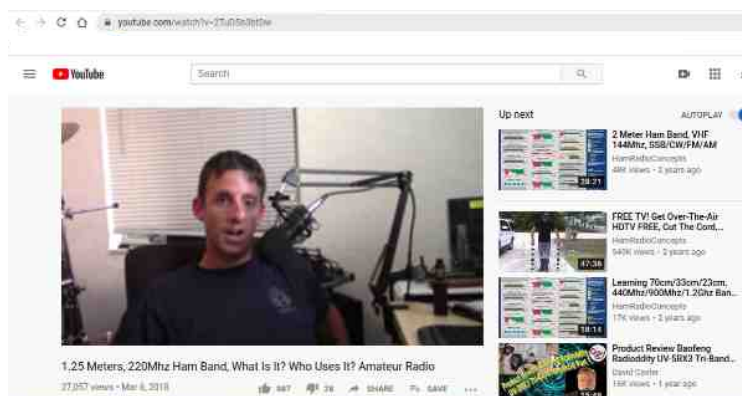
There's an interesting YouTube video about the 220 MHz band (<https://www.youtube.com/watch?v=2TuD5b3btDw>). Check it out; be sure to look at the comments. It's a few years old, but you will get a feel for the state of 220 in

Hawaiian Islands **Grid Madness 2020**
A VHF/UHF Simplex Event
Sunday, September 20th from 1300 to 1700 HST



Put it on your calendar!

All info at gridmadness.blogspot.com



There's an interesting YouTube video about the 220 MHz band (<https://www.youtube.com/watch?v=2TuD5b3btDw>).

the U.S.

A few takeaways:
~ the band is a valuable resource; we have already lost a chunk of it
~ it's not used much (quiet)
~ simplex propagation is similar to 2m and 70cm

~ to try 220, hedge your bet and get a tri-band radio (instead of a single-bander) in case you don't use it often
If you have (or can get) a 220 radio, be bold and go where no one has gone before (in Grid Madness at least).
Encourage ham

friends too -- that way you will have someone to talk to. If you have a radio to recommend, or ideas, post them here.
See you on 223.50 MHz ... September 20th gridmadness.blogspot.com.
Aloha and 73
~ Stan AH6KO

Amateur radio license video exams over Internet

Aloha,

The Hawaii team providing video supervised Internet Amateur Radio licensing exams just passed the 100-candidate mark on August 10 with a session testing 10 candidates simultaneously. Candidates from all Hawaiian Islands, Puerto Rico, Guam and US military bases in Okinawa have had an opportunity to sit for licenses.

The high pass rate of 95% is most likely due to candidates having time to prepare for the exam.

Success is due to the team of volunteer examiners that contribute their time. ZOOM meeting video lends itself to handling three candidates per session and each requires three VEs. The 1-to-1 ratio of candidates to VEs makes planning sessions important. Fortunately, the team of 15 VEs has volunteers from Oahu, Maui, the Big Island, California, and the Pacific. Frequently hams from Okinawa and Guam are helping license and upgrade hams in Hawaii.

It looks like testing opportunities for Hawaii residents will continue to be needed for a while longer. Please pass on the word that remote video testing is available and all are welcome to register for a test at: <http://hameducation.org/register>
For information on how tests are conducted, click on the link at: <https://tinyurl.com/y5sdcf52>

ARRL Pacific Section
Section Manager: Joseph Speroni,
AH0A

BIARC restarting QSL card services for members who enjoy an actual postcard

BIARC is restarting QSL card service, to be facilitated by club members working together to transport cards from the Hawaii QSL Bureau in Honolulu and distribute them to BIARC folks back on the Big Island.

"There is no fee for the service. It is part of your membership in the club," explained Darrell Asuka, KH6RDO, who has been working with treasurer Tony Kitchen, WH6DVI, and President William Polhemus, NH6ET, to re-establish the service.

Tony and William also started up the QSL outgoing service where any club member who also is an ARRL member can send out their QSL cards, and only pay for processing at 75¢ per ounce, to the ARRL outgoing service bureau, said Darrell.

Exchanging paper QSL cards to confirm a two-way contact is a tradition that dates back to the beginning of amateur radio. Today, many amateurs prefer to confirm QSOs electronically with Logbook of The World (LoTW), however there are those who like to swap paper cards.

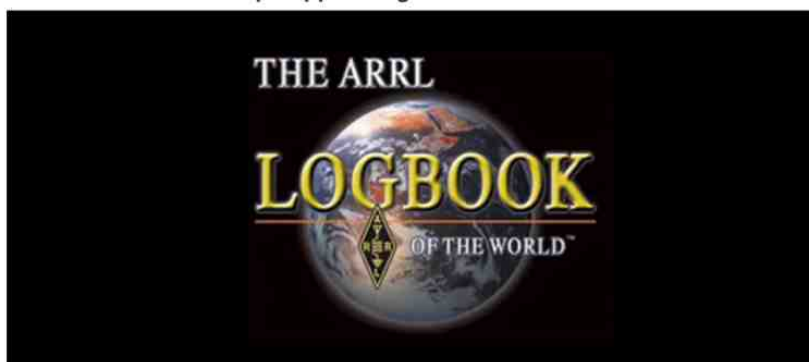
Exchanging QSL cards directly with your QSO partner can be very expensive. If you calculate the cost of postage to send an envelope overseas, plus any money enclosed to cover the return postage, a single QSL card request can cost up to \$5 or more.

According to ARRL, "Confirming QSOs electronically through LoTW is a rapid and cost-effective way to earn QSO credit for awards, but for the paper card collector, the QSL Bureau offers an alternative to the direct QSL method."

Cards sent via the QSL Bureau are sorted by the Outgoing QSL Service staff, who handle approximately 700,000 each year. Cards are shipped from HQ on a quarterly basis.

For more info, contact Darrell at dasuka001@gmail.com.

Help Support Logbook of the World!



Since 2003, Logbook of The World has provided amateur radio operators with a quick, simple way to claim and verify contacts. This verification formerly required exchange of paper QSL cards and submission of a paper application to ARRL – a slow, environmentally unfriendly, and somewhat expensive process. Using LoTW today, some digital contacts get confirmed *within minutes* of when they conclude.

Because ARRL wants there to be no barriers to stations uploading their QSOs, LoTW is available to any amateur radio operator at no cost to the user. However, there are costs incurred by ARRL for Logbook operations run by ARRL staff members including costs for programmers, equipment, web access, and user help and support.

The future of LoTW!

ARRL Headquarters staff works with a permanent committee to oversee, maintain, and improve LoTW. Some notable achievements and goals that have resulted from this work include:

- Continuous reviewing and updating of Logbook processes to facilitate ease of use
- Adding new ARRL awards as well as awards from other organizations
- Enhancing DX registration through supporting email methods
- Adding support for multiple locations within a single upload, which supports the rover and mobile communities
- Future growth including a redesign of Logbook's web presence

Today, LoTW is more important than ever!

- The worldwide COVID-19 pandemic has significantly slowed international mail.
- In some countries, the mail has been embargoed.
- Many national ham radio societies have discontinued their QSL bureaus and it's unlikely that they will reappear.

Your donation to Logbook of The World will support maintenance of the current database and expansion of the system in the future.

Visit the [ARRL Donation Page](#) to support Logbook of The World today!

Aloha Chapter of 10-10 International

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>]

BIARC Board Meeting

August 08, 2020

A. Begin Meeting

1. James Huntley called the meeting to order at 12:03.
2. The following board members were in attendance: James Huntly, Leslie Hittner, Tony Kitchen, Paul Ducasse, Mel Uchida, Bob Schneider
3. One visitor was in attendance – the presenter for the afternoon activity: Kevin Bogan
4. The Secretary's Minutes for the board meeting of 07/11/2020 were approved as read. Tony **moved** and Mel **seconded** to approved the minutes as published by email. Motion passed.
5. The Treasurer's Report was presented by Tony. He noted that we had 91 registered members and that were \$140 short of our budgeted member dues revenue. Balances reported are as follows:

Repeater fund:	\$ 911.97
Emergency Reserves:	\$1,000.00
General Fund:	\$1,854.03
Total Funds:	\$3,766.00

Tony reviewed the history of the Repeater Fund and the year-to-year balance in that fund based on readily available club records. No action to dig further into these records was taken. Jim had other questions about how the club accounts for its own, as well as donated and "loaned" equipment. Les suggested that the Repeater Committee keep track of such equipment. Official donations should be followed up with documentation from the donor and the board's official acceptance.

Les **moved** and Mel **seconded** to accept the Treasurer's Report subject to audit. Motion **passed** with a unanimous vote.

William Polhemus joined the meeting. Jim turned the meeting over to William.

B. Committee Reports

- | | | |
|--|-------------------|------------------------|
| 1. Digital Systems: | Huntley (Chair) | No Report |
| 2. Education and Outreach: | Hittner (Chair) | No Report |
| 3. Operating Activities: | Kunishige (Chair) | No Report |
| 4. Program: | Huntley (Chair) | Receive Written Report |
| 5. Public Service Communications: | Kitchen (Chair) | Receive Written Report |

Page 1 of 3

Leslie Hittner

From: <glenmio@aol.com>
Date: Sunday, August 2, 2020 07:09
To: <william.polhemus@iee.org>; <wh6fqj@gmail.com>; <lhittner@hbci.com>; <kevin.bogan@gmail.com>; <tonyeliashi@hotmail.com>; <lcritchlow@mac.com>
Subject: BIARC Club Activity Aug 8

Hello everyone,

I'm looking forward to next Saturday's weather presentation by Kevin Bogan who is the voice at the other end of the monthly VOAD repeater test. Please scroll down to see his credentials.

William, I'm assuming you will host the meeting. Since Kevin appears to have a lot of material and might be able to cover tsunamis (see below), I'm wondering if we should consider doing the roster introduction **after** Kevin's presentation. That way, if we run short of time, we can skip the individual intros.

Les, we'll be using your zoom account allowing Kevin to be co-host like we did with Jim Kennedy last month. After you send out the invite, I'll forward it to Kevin so he can log on a couple of minutes ahead of 2PM.

Kevin will be emailing me some links that folks can view ahead of the meeting. As soon as I receive those I will forward to Les and Tony for wide distribution.

I believe I've covered all the bases. If not, please let me know.

Mel
KH6EKD

-----Original Message-----
From: Kevin Bogan <kevin.bogan@gmail.com>
To: Mel Uchida <glenmio@aol.com>
Sent: Sat, Aug 1, 2020 10:42 pm
Subject: WX Zoom mtg.

Mel,
I like how you laid out 123..
That's the way I think, too.

I was thinking about having your friend host it. If he can host it, it would free me up. I request though that I be given authorization to Share a Screen.

**Continued
on next page**

- i. Tony initiated a discussion about efforts to build a comprehensive VHF band-plan chart that were described in the committee report. This proposed chart is for use on Hawaii Island and did not involve other islands at this time. The effort so far focuses on FM voice communications to allow for narrow band and wide band uses in an efficient manner. The initial plan was presented by William and given to Tony and his committee to further refine.

- ii. Les has a first attempt at Version 3 MOU for the Department of Water Supply. It was decided to look more closely at these changes by email.

- iii. Tony next discussed the upcoming SET and efforts to assign ARES members to ARC hurricane shelters and HUB locations. The next SET organizational meeting will be held on October 15. Tony hopes to place an article about the SET in the September BIARC Newsletter.

6. Voice Repeaters: Polhemus (Chair) No Written Report

- i. Not much activity this month. The Orchidland CERT oriented UHF repeater (442.500+ and 100 Hz tone) has been setup at Roy's QTH. Jim noted that they are working on the antenna placement and coverage through Kea'au seems good. The repeater also remains a general use machine erected by BIARC to assist CERT.
- ii. The Ka'u duplexer, repeater and solar panels are being serviced and upgraded by Gary, WH6EPS. The solar panels from that system will eventually be placed with the Analog/DMR UHF system on Mauna Loa.
- iii. Kulani remains on the temporary transmit antenna on the building rooftop. RF "popping" interference appears to be caused by poor metallic junctions on the tower and may be caused by the old safety-climb cable that is no longer being used and is tied off on the tower. We have permission to remove it. Permission to enter Kulani through the prison is being re-established.

C. New Business:

1. QSL Manager Responsibilities on behalf of BIARC:

Darrell, KH6RDO is willing to be the QSL manager
 After some discussion; Tony **moved** and Paul **seconded** to establish an ARRL QSL service for our ARRL members; allocate a budget of \$40; send outgoing QSL cards to the Hawaii QSL Manager; use the outgoing ARRL QSL Service as needed, and recognize Darrell Asuka, KH6RDO, as the QSL Manager for the club. Motion **passed** with a unanimous vote.

D. Old Business:

1. Club T-Shirts: No action taken
2. MOU with the County of Hawaii Department of Water Supply: Referred to Public Service Communications
3. BIARC lending library: Referred to Education & Outreach

William proposed that a tool-loan program be added to the library. Les agreed that it should be easy to add that feature. Storage is the main issue for the library.

E. Other Business:

1. Paul asked about turning Pepeekeo machine to do both analog and Digital (Fusion). William stated that the Repeater Committee is planning on creating a Fusion network with its BIARC-owned Yaesu repeaters. Possible configurations are one DR-2X running C4FM on UHF at Kulani, one DR-1X running C4FM on UHF at Pepeekeo and a VHF repeater near Mel's house. KH6FM also has a DR-1X in storage.

F. Adjourn

Respectfully Submitted,

Leslie D. Hittner

Leslie Hittner, Secretary

Enc: Written Committee Reports (Program, PSCC)

New smartphone app can identify unknown data modes

An incredible number of digital-mode radio signals occupy the spectrum, and it's not always possible to identify the particular mode of operation. CW, PSK31, and FT8 are pretty easy, but how about CIS405, STANAG, or CHIP64?

A new smartphone app can simplify things. SignalID can recognize about 20 signal modes (more may be on the way), in just 5 seconds of recording time. The app is open source and free.

Using it is simple. Once the frequency and bandwidth have been set, the user places the cell phone's microphone near the receiver's speaker, presses the large button, and waits for 5 seconds. The quieter the external environment is, the fewer errors.

**Continued
on last page**

1. In the next couple of days, I'll send out a list of links (URLs) that I will be going over if the participants want a headstart on it. At least, familiarize themselves with the website of the link.
2. Can do.
3. For this one, it would be a good idea to review the material. I have sent out before for events and/or go to the Skywarn page and review the thresholds and reporting criteria there. If they don't have it on their own, The URL for the Skywarn page will be on my list that I will send you.
4. Tsunamis is another area that is misunderstood. If we have time, I would like to touch on tsunamis, also.

I can think of many more points, but I think that what we have will be good for this presentation.

Kevin, AH6QO

Website: <http://www.protopage.com/ah6qodashboard>
Skywarn

info: <http://www.protopage.com/ah6qodashboard#Skywarn>
[Hawaii Voluntary Organizations Active in Disaster](http://www.protopage.com/ah6qodashboard#Skywarn)

*Cooperation*Communication*Coordination*Collaboration

Cell: 808.778.4697

Other: (720) 235-8172

Mel wrote:

Hi Kevin,

Now that Douglas has passed, maybe we can chat a bit more about your presentation.

We'd like to focus on 3 areas:

- 1) What tools the average ham has and how he can use them to make an intelligent forecast.
- 2) Brief summary of the inner workings of the NWS and its relationship to the state emergency network.
- 3) What spotters should look for to report in to Skywarn

Plus other areas that you think are important to the ham.

We will be meeting on Saturday, August 8, at 2PM HST. The club Secretary has a paid zoom account which we use, however, if you feel more comfortable using your own account, we can do that. You'll just have to give us the invitation ahead of time so that we can email it out on our membership network.

BIARC Public Service Communication Committee Report

Submitted by: Tony Kitchen, WH6DVI
July 10th - August 5th, 2020

Big Island Volunteer Organizations Active in Disaster: (BIVOAD)

- BIVOAD Communications Committee held meetings on 7/21 and 8/4.
- An ICS 217a Communication Resources Availability Worksheet is being developed to:
 - Be a comprehensive resource listing frequencies, repeaters, and modes for EmComm.
 - Be based upon existing infrastructure, band plans, and common modes of operation.
 - Includes a *proposed local band plan for VHF Part 97 simplex* operations which:
 - Defines 47 channels, many with a 10 kHz channel spacing, using Narrow mode FM.
 - Uses appropriate channel assignments to assure the geographical separation needed to avoid interference.
 - VHF simplex channels, proposal by William, NH6ET are as follows:

Channel	Frequency	Usage
VHF-01	144.9000 N	
VHF-02	144.9100 N	
VHF-03	144.9200 N	
VHF-04	144.9300 N	
VHF-05	144.9400 N	
VHF-06	144.9500 N	
VHF-07	144.9600 N	
VHF-08	144.9700 N	
VHF-09	144.9800 N	
VHF-10	144.9900 N	
VHF-11	145.0000 N	
VHF-12	145.0100 N	Packet / Data
VHF-13	145.0200 N	
VHF-14	145.0300 N	Packet / Data
VHF-15	145.0400 N	
VHF-16	145.0500 N	Packet / Data
VHF-17	145.0600 N	
VHF-18	145.0700 N	Packet / Data
VHF-19	145.0800 N	
VHF-20	145.0900 N	Packet / Data
VHF-21	145.1000 N	
VHF-22	146.4000 W	Crossband repeater
VHF-23	146.4200 W	
VHF-24	146.4400 W	

Channel	Frequency	Usage
VHF-25	146.4600 W	
VHF-26	146.4800 W	
VHF-27	146.5000 W	
VHF-28	146.5200 W	Calling
VHF-29	146.5400 W	
VHF-30	146.5600 W	
VHF-31	146.5800 W	
VHF-32	147.4200 N	
VHF-33	147.4300 N	
VHF-34	147.4400 N	
VHF-35	147.4500 N	
VHF-36	147.4600 N	
VHF-37	147.4700 N	
VHF-38	147.4800 N	
VHF-39	147.4900 N	
VHF-40	147.5000 N	
VHF-41	147.5100 N	
VHF-42	147.5200 N	
VHF-43	147.5300 N	
VHF-44	147.5400 N	
VHF-45	147.5500 N	
VHF-46	147.5600 N	
VHF-47	147.5700 N	

We will be attempting to work with all stakeholders, including ARES to modify this proposal as needed to achieve consensus. Comments, questions, and suggestions are welcome.

The meeting usually starts out with a word from BIARC President, William Polhemus, followed by an introduction of all participants. After that you can have an hour for your presentation, and if you need more time, please let us know and we can make adjustments.

Is there anything else we should be discussing?

Mel,

Thank you, Mel, for remembering my presentation before.

I retired as an Operations & Threat Specialist (supervisor) at the State Warning Point at the State EOC/HI-EMA after almost eleven years there.

I had to stay on top of the weather consistently and constantly. I guess that is why I am the Skywarn HAM Coordinator for Hawaii.

I created a dashboard (website address below) to help me at work, but friends and coworkers found it useful.

If you wish, I can hold a Zoom meeting on how to quickly and easily assess the weather using only the authoritative NWS and NOAA resources. Why just them? Emergency Management decisions are based only on NWS and its partners. The commercial sites Accuweather, WeatherUnderground and other companies/websites may be good to get an idea as to what is happening, according to your own personal tastes, but can lead to decisions inconsistent with Emergency Management decisions.

Tech Class via Zoom

Coordinator Doug Wilson, KH7DQ, has scheduled the next Tech Class via Zoom to start on Oct. 20.

Anyone interested in taking the course to prepare for the FCC Technician License is asked to contact Doug at douscelle@aol.com.

BIARC Public Service Communication Committee Report

Submitted by: Tony Kitchen, WH6DVI
July 10th - August 5th, 2020

The BIVOAD Communications Committee is seeking one or more radio operators who would be willing to work with the Salvation Army, as a volunteer to provide basic training on radio capabilities/use, and facilitate the ability of the Salvation Army to maintain communications when traditional modes of communication fail.

The BIVOAD Communications Committee is seeking an ARES volunteer on the Big Island who is willing to coordinate with our Big Island DECS, share BIVOAD plans, provide feedback to the committee, and assist in the resolution of any conflicts that might arise. **This is a great opportunity to become involved in the nuts and bolts of EmComm planning.**

Please contact Tony Kitchen, WH6DVI via email if you are interested in participating. (tonykitchen808@gmail.com)

Proposed MOU with County Dept. of Water Supply

No progress to report.

ARES 2020 SET:

Hawaii ARES continues to organize and prepare for the 2020 SET on Saturday, October 3rd, from 9am to noon. We need Big Island volunteers who are willing to commit their time and equipment as follows:

1. Provide radio set up and operations at one of the proposed ARC hurricane shelter locations during the exercise. Station set up would begin at 8am.
2. Act as an ARES hub location to receive and re-transmit message traffic to a served agency. ARES hub stations need to have capabilities on VHF and HF, and may operate from their QTH or possibly a remote location if needed. Served agencies may require messages to be delivered via Winlink, so either Winlink capabilities or the ability to relay voice traffic into a Winlink capable station will be needed.

Please contact Darrell Asuka, KH6RDO via email if you can participate. (daenter@gmail.com)



B.I.A.R.C
Big Island Amateur Radio Club
KH6EJ

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August 2020

The August club activity was held on Saturday the 8th at 2:00 PM via Zoom video Conference. Alan, AD6E Gave a brief talk about the [Hawaii QSO Party](#), happening August 22 – 24. This was followed by Kevin Bogan, AH6QO who provided a look into the operations and data collected by the [National Weather Service](#) (NWS) and [Skywarn](#) operations in Hawaii, followed by a discussion about the [Hawaii State VOAD](#) VHF repeater on Mauna Kea. See the [AH6QO Dashboard](#) for more information. See the [full video](#) recording of the activity on Youtube.

July 2020

The July club activity was held on Saturday the 11th, at 2:00 PM via Zoom video conference. Jim Kennedy, K6MIO and gave a presentation on alternative methods of predicting skywave propagation and the MUF during the Solar Cycle minimum. See the [full video](#) recording of the activity on Youtube.

June 2020

The June club activity was held on Saturday the 13th, at 2:00 PM via Zoom video conference. Information on field day was presented, followed by a presentation on RF data networking ([AREDN Mesh](#)) by Tony, WH6DVI, Jim, WH6FQI, and William, NH6ET.

May 2020

The May club activity was held on Saturday the May 9th, at 2:00 PM via Zoom video conference. BIARC President William Polhemus, NH6ET provided an update on the status of the Kulani Cone Repeater and the upcoming ARRL field day. Mike Cizek, W0VTT gave a great presentation on the [ARRL LOG BOOK of the World](#). See the [full video](#) recording of the activity on Youtube.

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Big Island Amateur Radio Club. P. O. Box 1938, Hilo, HI 96721-1938.

New smartphone app

From Page 11

"The algorithm is based on frequency, [so incorrect tuning] will result in an erroneous detection. The recording is limited to 5 seconds, for practical reasons. Mode recognition may require several attempts, the developer, Tortillum, said, and upgrades re already in the works. "The easiest way to try [it] is RTTY or STANAG," the developer added.

The very few comments so far

from users suggest some further work may be needed, but they praised the concept.

The developer invites additional comments. The application, which includes a complete list, could prove a valuable tool in determining the types of emissions that may stray into amateur radio bands. A demonstration video is available. -- *Thanks to Southgate Amateur Radio News via Stephen Walters, G7VFX*

