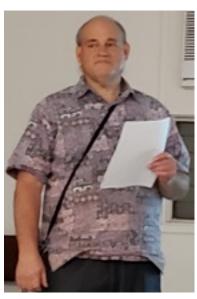
BIARC meets at 2 p.m. Saturday, March 9, at the Keaau Community Center



Club approves operating budget for 2019

	Amateur Radio Cl		
Draft Budget/O	perating Statemen	t as of 1/8/2019	
Income:	2013 Budget	Actual - 1/1/2019 To 1/31/2019	Variance
Dues			
	\$1,400.00	\$640.00	
Repeater and general donations Denetions for refreshments	\$300.00	\$60.00	
Congruents for remeshments	\$50.00		
Yotal Income	\$1,750.00	\$700.00	
Expenses:			
Club Liability Insurance	\$320.00		
Club Equipment Insurance	\$185.00		
Equipment	\$500.00		
Field Day (Food)	\$200.00		
Annual Build Project	\$100.00		
P. O. Box Fee	\$168.00	*****	
Refreshments for Christmas Party	\$50.00	\$84.00	
Monthly Meeting Refreshments	\$142.00		
VOAD Dues	\$25.00		
Bank Fees	\$10.00		
Postage/Stationary	\$50.00		
Total Expenses	\$1,750.00	\$84.00	
Excess (Deficit)	\$0.00	\$616.00	
Notes on Changes:			
1. Club equipment insurance went up from \$1	64 to \$185		
2. Changed "Antenna Build Project" to "Annua	Rulet Designs		
 Added \$50 for Postage/Stationary expenses 			
4. Reduced Monthly meeting refreshment exp	ense to balance burin		
	as of: 1/31/2019		
	as or. 1/31/2019	\$2,650.06	

At the February meeting, BIARC members approved the 2019 budget, above, proposed by the board of directors. At right, Treasurer Tony Kitchen presents the statement and answers questions prior to the vote.

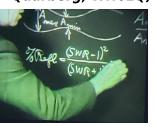






President Pascal Nelson treated members to a free movie demonstrating and discussing how all forms of waves act, and react, the same.

(Photos by Linda Quarberg, WH6LQ)



Wave action

Host John Northrup Shive was an American physicist and inventor. He made notable contributions in electronic engineering and solid-state physics during the early days of transistor development at Bell Laboratories. To view the film visit http://techchannel.a tt.com/playvideo.cfm/2011/3/7 /at&t-archivessimilarities-of-wavebehavior.



FEBRUARY MEETING ~ Members focus on a number of club-related matters at the February meeting at the Keaau Community Center.

(Photos by Linda Quarberg, WH6LQ)

Members focus on variety of matters affecting club

BIARC Meeting Minutes
Saturday, February 9,
2019

The meeting was called to order by President Pascal Nelson, AC7N, at 1400, at the Keaau Community Center.

Announcements:

Welcome to David, WH6EVR; Jarrett Kodani (new Technician) and Stan.

Barbara (NH7FY) announced that she has a considerable amount of the club's equipment that has



been stored at her place for nearly fifteen years. She would like to have it removed.

Barbara also passed along a "Hello" from John

BIARC Repeater Chair Gary Schwiter discusses status, needs and proposed work projects.

(KH6DLK/V63JB) who is on Yap and will be returning to the Big Island on March 3.

Leigh (WH6LC) announced that amateurs wishing to be involved in

Continued on next page



the Hilo Marathon on Sunday, March 17, should meet with Sean Fendt (KH6SF) after the meeting today. The Puna Emergency Radio Club (PERC) supports this activity.

Elisabeth (WH6FKT) will be passing a signup sheet around supporting REACT International's involvement in EMCOMM on the Big Island. REACTInternational, which began as a Citizens Band Radio Service emergency communications organization, has expanded to include the Amateur Radio Service, the Family Radio Service, and the Multi-Use Radio Service.

Treasurer Tony Kitchen reminded everyone that the 2019 dues are due.

Repeater Committee Report – Gary
(WH6EPS)

The status of the club's repeater systems remains unchanged (Antenna work remains to be done on the Kulani system and the UHF system down south has not been reinstalled.)

Gary is looking for the Yaesu connector for the DR-1X DC power input. Anyone who knows where it may be or who has a spare, please let Gary know.

The Pepeekeo site is in need of grass cutting and yard maintenance, which is the club's responsibility. Budget for 2019:

The club board unanimously approved the 2019 budget proposed by Treasurer Tony (WH6DVI) by email. In a brief discussion, it was noted that the "Repeater Fund" details should be tracked in our accounting system since the club has an obligation to ensure that donations to that fund are in fact spent on repeater equipment.

Four new repeaters were purchased by the club several years ago from Yaesu as a part of its initial incentive program. They are:

1) Pepeekeo (DR-1X installed)



New licensee Jarrett Kodani of Hilo attends his first BIARC meeting.



Elisabeth Green (WH6FKT) invites support for REACT International in EMCOMM on the Big Island.



Pepeekeo repeater, owned by the Big Island Amateur Radio Club.

- 2) Kulani (Upgraded to DR-2X)
- 3) Lopaka (WH6DYN) holding a DR-1X for future installation in a cabinet and transport to a site that has not yet been designated.
 4) Paul Agamata has a DR-1X at his home. It is unknown why Paul has the repeater and it is believed to be in its original unopened

Peggy ((KE6TIS) moved to approve the budget as presented. The motion was seconded by Barbara (NH7FY) and passed by a unanimous vote. Discussion:

shipping container.

Club Build Projects: A discussion concerning what should constitute a club build project arose out of the approved budget process above. The general consensus was that a club build project should be of interest to at least ten people and that if the project could be of interest to non-members – or even non-hams – appropriate invitations or public announcements should be extended.

Waimea Hamfest: Those attending the hamfest may

Continued on next page

want to take special note of the ARES Discussion Forum that will take place at noon.

Members asked that the ARES Listserve URL be published to club members via the BIARC listserve, if the ARES listserve is open.

Program Committee:
Pascal (AC7N) announced that he would like to create a functioning
Program Committee. If you are interested, please speak with him.
The meeting broke briefly for pupus at 1446.

Field Day: Pascal open the discussion about Field Day 2019. This year, it will be held during the weekend of June 29-30. Possible locations include Reed's Bay (That invitation has already been extended to the club), HPP, or Eden Roc (partnering with PERC). Pascal is looking for someone to take over this project. There were no takers at the meeting.

Pascal thanked the following club members for their roles in organizing and preparing



AC7N and AH6J.

BIARC club meetings:

Peggy Gentle - pupus and coffee.

Peggy Gentle and Bob Schneider for general meeting setup.

Leigh Critchlow for the best club newsletter ever. Bob Schneider for arranging the room reservation and

securing the room key for meetings.

Officers and board members who are all instrumental in the operations of the club. As an aside, Pascal noted that he and Debbie will be off-island during April and May and that Vice-President William Polhemus will run the club meetings during those months.

Program: The program consisted of a 28-minute video presentation ("Similarities of Wave Behavior") published by AT&T in 1959 that discussed the common behaviors of waves of all sorts. Characteristics such as transmission lines, standing waves, ¼ wave traps, etc. were described and demonstrated with a unique mechanical wave machine.

It was fascinating to learn that no-glare glasses are merely glasses with a $\frac{1}{4}$ wave trap (a very thin film) attached to the surface of the glass.

Neat!

The meeting was adjourned at 1545.

Respectfully submitted, Leslie D. Hittner, Secretary

Big Island Tech License 2019 course schedule

Doug Wilson's free Technician License course schedule is underway. The six-week classes include five training sessions, with licensing exams given on the final week.

Upcoming starting dates are: 6:30 p.m. March 14, West Hawaii Civic Center, Kona; May 23, Waimea (TBA); Oct. 17, Keaau Community Center. (Due to a scheduling conflict, the Discovery Harbor classes in Ka'u were changed to these dates: April 19, 26; May

3, 10, 17, 24.)

The classes are free, with the normal \$15 testing fee to ARRL, whose volunteer VEs (volunteer examiners) conduct the testing for the Federal Communications Commission. As always, current licensees wanting to upgrade also may take tests for advanced licenses at that time. To register for the Tech training classes, or for more info, contact Doug, KH7DQ, at douscelle@aol.com.

WH6FQI qualifies for award

Big Island ham decodes Slow Scan TV image from the Space Station

ARISS conducted another of its popular Slow Scan Television (SSTV) experiment events Feb. 15-17. SSTV is a process by which images are sent from the International Space Station (ISS) via ham radio and received by ham operators, shortwave listeners and other radio enthusiasts on Earth, similar to pictures shared on cell phones using twitter or instagram..

BIARC member Jim Huntley, WH6FQI, picked up the signal and got a good picture of what the SSTV sent on Feb. 16. (See adjacent photo.)

Jim reported: "This was with my handheld connected to my regular base antenna and holding it up to the microphone on my laptop. I need to dust off my yagi and get the actual sound interface working!"

He has qualified for an ARISS SSTV Award. To get this award one should





BIARC member Jim Huntley, WH6FQI, picked up the signal and got a good picture of what the SSTV sent on Feb. 16.

receive and decode at least one picture in the session. The quality of the received image does not have to be perfect, but good enough to be able to identify. The picture does not have to be full. It is acceptable to send just some part of the picture as well.

The award is in an electronic format (PNG). It will be sent by email.

-- Thanks to Stacy, KH6OWL

Mobile unit

Photos by Mark Watanabe, WH6FSA

Jim Tatar, WH6EMN, built this little unit to beef up reception and transmission capabilities out in the field. The small recycled cart is thought to have been a carrier for a compressed gas container, perhaps an oxygen tank. The plywood is 5/8" exterior ply to support the deep cycle battery. The radio is a dual band Yaesu FTM-100D, with a Diamond mag mount sitting on a



metal plate. The antenna has a 19' coax cable on it. Jim put connectors on the wiring so it can be hooked up to a power supply. He'll be using it at the Volcano Rainforest Runs.



Pascal Nelson, AC7N.

Field Day coordinator needed

Hello everyone. March is upon us.

I lived a lot of my life at a rather northern latitude, and this is the time of year when the day is really lengthening, and the dark of the winter solstice is clearly in the rearview mirror. It is much less evident here in the northern tropics, but it is certainly perceptible. And I, for one, am happy to see the days lengthening.

The solar conditions remain at the bottom of the barrel, but we are still having occasional openings to the rest of the world on the various HF bands. It is amazing how a contest, especially a CW or RTTY contest can still fill the band with signals.

Maybe the lesson is that if you want propagation, you have to at least put out a few calls and see if anyone is out there. You

The President's Paragraphs

may be surprised.

As we look forward to spring and summer, we should start making our plans for Summer Field Day (June 22-23).

We do not have a club coordinator for this year. We had someone who was considering it, but has since let me know that it will not work out. That means that it is now your opportunity to come forward and get this great activity planned and executed. I hope someone will step forward right away so that there is sufficient time to get everything humming.

At the March BIARC meeting we will be discussing EMCOMM (emergency communications), with some follow-up on last year's Oscar Resto KP4RF visit and the Waimea forum in February.

We will also talk about HF ionospheric propagation and what can be learned from the data provided by the Lualualei ionogram

https://lgdc.uml.edu/common/DIDBMonth ListForYearAndStation?ursiCode=LL721&y ear=2019. If you don't know what that's about, we will learn about it during the presentation time.

As always, please bring forward suggestions for what you'd like to see presented and discussed at our monthly meetings.

Hope to see you on Saturday, March 9, at 2 p.m. We should be at the Kea'au Community Center, as usual.

Aloha, Pascal ac7n





Morse Code classes underway; next one starts in April

Hi all. Again, in this new year: Here's to good propagation, interesting new communications technology and fun in training and learning from new hams.

Morse Code Classes

Alan Maenchen (AD6E/KH6TU) let us know his 2019 CW class started with three Hawaii Amateurs and two from the west coast, the preferred class size for one-on-one training.

His next class begins in April. Register

early to reserve a seat.

This is an on-line video chat meeting twice a week for eight weeks for an hour each. Exact days and time could change



depending on student availability. Since this is an internet based virtual classroom, no commute is needed. You can do this from home. Technician class hams can participate and practice their skills on their 80, 40, 15 and 10 M CW allocations.

Students must practice on-line with MorseTrainer to learn characters and numbers for an hour a day, then put them to use in an actual CW QSO. No prior CW experience required for Level 1 classes. Levels 2 and 3 classes improve CW proficiency.

More information at: https://cwops.org/cw-academy-2/ Alan can be contacted by email at his ARRL.NET address.

Follow us on: Face book https://www.facebook.com/HawaiiARRL/ Twitter - https://twitter.com/ARRLPacific Instagram-

https://www.instagram.com/pacificarrl/ Blog - https://oahuarrlnews.wordpress.com/ LinkedIn - ARRL Pacific Section

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

Aloha Chapter of 10-10 International

Local hams active on 10meters 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]

Upcoming Events Fri Mar 08, 2019 08:00 Sat Mar 09, 2019 17:00 Charlotte Hamfest

Radio operators needed for Big Island International Marathon in March

Every spring, the Puna Emergency Radio Club provides communications for the annual Big Island International Marathon in Hilo.

All licensed radio amateurs are invited to volunteer for the fun community event set for Sunday, March 17.

It's a prime opportunity to practice in-the-field radio skills, learn new operating techniques and network with fellow hams and others who help with the marathon. Setup begins at about 5 a.m.

Interested?

Contact comms coordinator Sean Fendt, KH6SF, at 430-1884, email sean@sfendt.net.

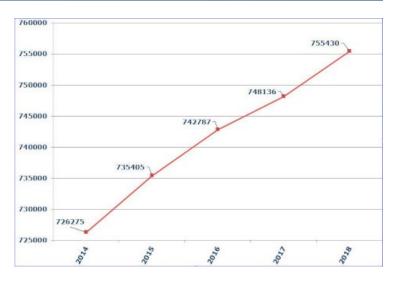
US Amateur Radio population grows slightly in 2018

The US Amateur Radio population once again grew by about 1%, based upon 2017 and 2018 year-end FCC database statistics provided by Joe Speroni, AHOA.

The 755,430 total licensees represent nearly 7,300 more license holders than those that were in the database at the end of 2017. Nearly 51% of the Amateur Radio population in the US -- 384,145 -- hold a Technician license. Generals are second with 175,949, and Amateur Extras number 147,369. Advanced and Novice licensee populations continue to decline, with 39,607 Advanced and 8,360 Novices, as the FCC no longer issues Advanced or Novice licenses. A more significant statistic is 31,576 new FCC licenses last year, although that's 620 fewer than came aboard in 2017.

"New amateur licenses granted by FCC are down 2% over last year," noted ARRL Volunteer Examiner Coordinator (VEC) Manager Maria Somma, AB1FM, "but this is the fifth year in a row the total has been greater than 31,000. I predict that the number of new licensees will be more than 30,000 at the end of this year as well, and I'm optimistic this trend will continue."

Upgrades also are down slightly, compared to last year -- 9,456 in 2018



versus 9,576 in 2017, she added. "For the fifth year in a row, we have conducted more than 7,000 Amateur Radio exam sessions in a year -- an important milestone for the ARRL VEC," Somma recounted. "Our program continues to provide outstanding service to the ARRL, its members, and the entire Amateur Radio community."

ARRL VEC filed a total 30,393 license application forms last year, compared to 31,014 in 2017. That includes new, upgrade, modification, renewal, and club station filings. At 7,035 in 2018, the number of exam sessions conducted by ARRL VEC marginally trailed the 7,075 held in 2017. ARRL VEC served 34,493 exam applicants in 2018, compared to 35,352 in 2017. Exam elements administered by ARRL decreased from 47,152 last year to 45,817 this year, Somma said. Nearly 1,800 new Volunteer Examiners (VEs) have been added to the ARRL VEC program.

The latest General-class Question Pool, effective July 1, has been released

The National Conference of Volunteer Examiner Coordinators (NCVEC) Question Pool Committee has released the 2019 - 2023 FCC Element 3 General Class Question Pool into the public domain. The 2019 - 2023 General Class (Element 3) Question Pool is available in Word, ASCII text, and PDF versions. The new Question Pool is effective for Element 3 exams administered on or after July 1, 2019. On January 6, the Question Pool Committee also released a revised diagram Figure G7-1 (PDF) (JPG), as part of the new Element 3 Question Pool. -- Thanks to NCVEC Question Pool Committee

New plan aligns ARES with the needs of served agencies

The new ARES Plan adopted by the ARRL Board of Directors at its Annual Meeting in January represents an effort to provide ARES with a clearly defined mission, goals, and objectives; specific training requirements, and a system for consistent reporting and record-keeping.

The Board's Public Service Enhancement Working Group (PSEWG) spent more than 3 years crafting the ARES Plan which, ARRL officials believe, provides a much-needed update of the program's role in public service and emergency preparedness in the 21st century.

Concerns focused on bringing ARES into alignment with the National **Incident Management** System (NIMS) and Incident Command System (ICS), and creating more consistent and standardized ARES training requirements. Given dramatic changes and upgrades in national, regional, and local emergency and disaster response organizations, ARRL faced a major challenge, said ARRL Great **Lakes Division Director Dale** Williams, WA8EFK, who chaired the PSEWG.

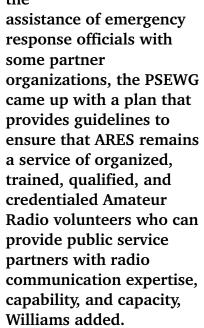
"If we didn't address these issues, such as training standards and organizational



ARRL Great Lakes Division Director Dale Williams, WA8EFK.

management, ARES faced the very real possibility that it would no longer be viewed as a valid and valuable partner in emergency and disaster relief situations," Williams said.

With input from ARES members and a peer review team, and the



Training requirements in the final ARES Plan consist of the free FEMA Professional Development Series of independent study (IS) courses, as well as the ARRL's EC-001 and EC-016 emergency communication courses. The ARRL Board approved a proposal to make the ARRL EC courses free for ARES members.

The plan highlights some additional training programs that ARES participants are encouraged to consider taking, but that are not required, such as AUXCOMM and training courses like ICS-300 and ICS-400.

The ARES Plan outlines a three-tiered membership structure based on increased responsibility levels and accompanying training

requirements. The optional tiered system serves to define three distinct ways to participate in the ARES program, leaving it up to participants to determine their level

of involvement.

The ARES Plan points out that public service events such as parades and marathons are within the realm of ARES activity and are an integral part of effective training.

The Plan notes that training requirements are ultimately the responsibility of the Section Manager, with each SM approving training for local ARES teams, as local conditions and needs dictate.

The ARES Plan also highlights the relationship between ARES and the National Traffic System (NTS).

Williams noted that, within the ARES structure, the Emergency Coordinator (EC) will continue to lead the ARES

Continued on next page

From previous page

team locally during an incident, while the District and Section Emergency Coordinators will continue to serve as resources and support for the EC. The ARES Plan stresses that ARES participants are not first responders, and it encourages ARES leaders to develop and grow their group's partnerships with state emergency management agencies and officials. Williams said the adoption of the ARES Plan is not the end of this process.

"ARES cannot remain stagnant only to be updated once every few generations," he said. "The ARES Plan, and the ARES program, must be able to evolve." Williams added that the ARRL Headquarters emergency preparedness staff will review the program annually to ensure its continued relevance.

Testing jig eases job of measuring junk box resistors

Paul Danzer, N1II, was faced with sorting a box of 100 old resistors to verify their approximate values. The



idea of attaching digital multimeter clip leads to each resistor 100 times was not very appealing. His solution was to build a fixture from thin sheet aluminum. Each leg is approximately 1 inch wide, and the tops are bent over to eliminate any sharp edges. The meter leads are clipped to each leg. To measure a resistor, all you have to do is lay it across the two legs.

If the connection seems a little less than solid, a bit of finger pressure applied to the resistor might help. Quick and easy!



Jeanne Socrates, VE0JS/ KC2IOV.

Amateur Radio is aboard during attempt to become oldest circumnavigator

Jeanne Socrates, VEOJS/KC2IOV, is used to solitude. The 76-year-old yachtswoman passed some 300 miles to the south of the southern tip of Africa on Valentine's Day as she forged on toward Australia and New Zealand in her 38-foot sailing vessel Nereida. While underway, Socrates keeps in touch with a community of friends via Amateur Radio -- although she had to yield to the ARRL International DX CW activity last weekend -- and she's sticking to a schedule of 7.160 MHz at 0230 UTC daily. Socrates reported making contact with some ham radio friends on the US west coast on February 17. She's been blogging her progress.

The retired math teacher and UK native also is no stranger to circumnavigating the globe, having already become the oldest woman to complete a solo, non-stop, unassisted round-the-world voyage. Ham radio served as her link to terra firma during her earlier adventures. Since 2013, she's made two unsuccessful attempts to become the oldest person to circumnavigate Earth, the goal she's now attempting to achieve. Socrates departed Vancouver, British Columbia, last October. -- Thanks to Southgate Amateur Radio News for some information

Microsoft Windows 10 upgrade will ease access to Linux files

Microsoft plans to make it easier for Windows 10 to access files stored by some Linux-based operating systems. The next major Windows 10 update, version 1903, due in March or April, will allow Windows 10 File Explorer to access, move, and copy files stored inside Windows Subsystem for Linux (WSL) distributions -- or "distros" in the Linux world.

"In the past, creating and changing Linux files from Windows resulted in losing files or corrupting data," Microsoft program manager Craig Loewen said in a blog post.