

Big Island Amateur Radio Club Newsletter

December 2014



BIARC



Holiday Hurrah

A PARTY

What: All past and present BIARC members, family and friends are invited to share holiday aloha at the club's annual Christmas party. Reminisce, laugh and eat!

Where: Tentatively scheduled for Puna Covenant Church in Keaau, since community center was already booked. Coordinating committee is ironing out details.

When: Early afternoon on Saturday, Dec. 13, with specific schedule to be emailed to membership when finalized.

The Scoops:

* Bring potluck pupu, dessert or signature dish

* Club will provide turkey, ham, plates and utensils and some beverages.

The meal will be coordinated by new Hospitality Committee co-Chairs Nancy Lakin and Sharon McCartin. Let them know by Monday, Dec. 9, which you will bring: a side dish, salad or dessert. Call 985-9438 and leave a message no later than that date. They need a head count in advance to properly plan the event.



Testing, testing, testing ...

Looking to upgrade your FCC
Amateur Radio License?

VE Testing will be offered from
7-9 p.m. on Friday, Dec. 19, at The

Village Church on Wright Road in
Volcano.

If you have any questions,
please contact Doug Wilson,

KH7DQ, at 985-9362 or
DOUSCELLE@aol.com.

There is the usual \$15 testing fee.

Election, wrapup, UAVs are the focus

MINUTES

BIARC general membership meeting

Nov. 22, 2014
Puna Covenant
Church

President Bill Hanson, N0CAN, called the meeting to order at 2:15 p.m., welcoming the membership and thanking Bob Schneider, AH6J, for arranging the use of the church for our monthly meeting, which had been postponed from the traditional second-Saturday-of-the-month schedule. Prior to the "changing of the guard," aka the annual election of officers and board members, Bill presided over a period of around-the-room self-introductions. Also present: George Bezilla, WH6EFN; Mary Brewer, WH6DYW; Don Stribling, KH6DX; Barbara Darling, NH7FY; Richard Darling, AH7G;

Mike Last, NH7JT; Robert Oliver, NH6AH; Ted Brattstrom, NH6YK; Gus Treewater, K2GT; James Krietemeyer, WH6EQK, and Ditas Gante; Mark Morabito, WH6ELW; Paul Ducasse, WH7BR; Beau Mills, NH7WV; John Buck, KH7T; Bob Schneider, AH6J; David Hafner, WH6DSL, an emergency communications systems planner for State Civil Defense; Michael Kern of the FEMA Fort Shafter office, a liaison to nonprofit volunteer groups; Sarah and Brad Matthews; Paul Lakin, WH6DYX; Nancy Lakin, WH6DYY; Leigh Critchlow, WH6DZX.

Barbara, chair of the QSL Bureau, reported that the year-to-date total is 22,035. Catching us up on the latest activity, she reported 978 in July; 11,764 in August (when Japan sent its cards for the year); 247 in September and 3,315 in October. Barbara said Joe and

These human pilots keep their distance

An unmanned aerial vehicle (UAV), commonly known as a drone -- and also referred to as an un-piloted aerial vehicle and a remotely piloted

aircraft (RPA) by the International Civil Aviation Organization (ICAO) -- is an aircraft without a human pilot aboard.

Vicky Owen will return on Dec. 8, and have agreed to sort the QSL cards while Barbara and Richard are gone from New Year's Eve until mid-March.

Barbara asked that an additional person be put on the QSL Bureau checking account. Right now, she's the only one listed on the KH6 QSL account, which stands at about \$1,400. It was decided that the new treasurer will be added to the account.

Bill announced that the program speaker would be Nicolas Turner, one of his former interns at Civil Defense. He held up a recent copy of the Hawaii

Tribune-Herald, which featured Nick and a couple of his associates from the University of Hawaii in an article about their favorite vehicle: DRONE, aka UAV, aka UAS... (see reprint of story which follows).

Nominating Committee Chair Bob Schneider conducted the annual election, in which the following individuals were chosen to lead BIARC in Calendar Year 2015: President Ted Brattstrom; Vice President Robert Oliver; Secretary Beau Mills; Treasurer Mike Last, and board members Bill Hanson (immediate past president), Bob Schneider, Dennis

McCartin, Gus Treewater and Paul Ducasse. Committee chairs will include Lopaka Lee, Repeater Committee, and Nancy Lakin and Sharon McCartin, co-chairing the Hospitality Committee.

Outgoing President Bill touched on the highlights of 2014, and said, "I feel good about what we did this year," noting work-crew visits to all of the repeater sites, including two trips to Pepeekeo. He thanked all of the members for their dedication, and especially Vice President Milt Nodacker,

**Continued
on next page**

UH-Hilo researchers and their drones assist in mapping lava flow

(Reprinted from the
Hawaii
Tribune-Herald)

By Colin Stewart
Staff Writer

Predicting where the June 27 lava flow will go next is a fluid undertaking.

In addition to the original topography of the landscape impacted by lava flows, workers with Hawaii County Civil Defense must take into account the changes made to the topography by the hardened lava left on the surface and how that will affect future flows.

That means that topographical maps used to predict the

**Continued
on next page**



COLIN STEWART/Tribune-Herald

University of Hawaii at Hilo researchers Ryan Perroy, left, Nicolas Turner, right, and Arthur Cunningham, center, spend lots of time obtaining and analyzing digital images of the June 27 lava flow. They collect the data using an unmanned aerial vehicle, or UAV.

MINUTES

From previous page

AH6I, who recently moved to Idaho. "Hats off to him," for his hard work, and devotion to training new hams -- literally hundreds over the last few years.

Bill and Ted said it's

important that we get the new hams active in the club, and on the air. Many of the new licensees have expressed interest in a class for the General License.

There was a general discussion on the im-

portance of getting kids involved in ham radio. Bill said one of his goals is to get student radio clubs established in schools.

It was decided that the annual Christmas party will be the afternoon of our regular meeting in

December, specifically Dec. 13, with Bob Schneider to check on availability of the Keauu Community Center.

Respectfully
submitted,
Leigh Critchlow,
WH6DZX

DRONES

From previous page

flows' movement must change day to day, and even hour to hour in some cases when the lava is moving quickly.

That's where a team of University of Hawaii at Hilo researchers is proving it has the right stuff. Since early September, UH-Hilo's Spatial Data Analysis and Visualization Laboratory has worked in partnership with Civil Defense and the U.S. Geological Survey Hawaiian Volcano Observatory to fly an unmanned aerial vehicle, or drone, outfitted with a high-resolution camera to map the flow.

"We first heard about the lava flow heading towards Pahoia Town and we immediately started getting (Federal Aviation Administration) permission," said Nicolas Turner, SDAV's cyber computer programming analyst. "That was one of the biggest hurdles." While many in the general public might think of the

small, remote-controlled drones as toys, the FAA takes them very seriously, explained Arthur Cunningham, the team's aeronautical science consultant.

"To the FAA, you're a pilot," he said. "You need to pass a flight physical, and be licensed. Because if something goes wrong, that vehicle could be up there without a pilot."

One factor that helped speed up the process was the fact the team's Sensefly SwingletCAM drone — which looks to be not much more than a black foam wing with a propeller — already was authorized for use on the island. They simply worked with the FAA to allow them to fly it in the area of the lava, and they were off and running — or flying.

The team's first flight was Oct. 22, according to Ryan Perroy, UH-Hilo assistant professor of geography and environmental science, and since then they've been flying every three to



COLIN STEWART/Tribune-Herald

Nicolas Turner, cyber computer programming analyst with the University of Hawaii at Hilo Spatial Data Analysis and Visualization Laboratory shows some of the data collected by a drone to map the June 27 lava flow.

seven days, sometimes making repeat flights every other hour all day long.

"We keep it within line of sight of our platform, and it flies around the area we're mapping out, making sure to get a good overlap. It takes photos every second or so," he said.

The team uses mostly off-the-shelf equipment, including a point-and-shoot Canon camera attached to the drone, to create truly stunning, three-dimensional, high-resolution

images of the lava flow.

The drone also has instruments to keep track of flight telemetry and GPS coordinates so the team knows exactly when and where photos were snapped, including the pitch of the vehicle, its speed and more.

The secret, Perroy explained, is in taking enough photos to create plenty of overlap in the areas of ground they cover, and from various perspectives. That allows the research team to stitch the photos together

using specialized software, creating large "orthomosaics," which give very precise and accurate information for Civil Defense to assess the situation on the ground.

"One of the first missions they flew was up above the Apa'a Street area, and they had done some mapping of the flow field, and that was extremely valuable," said Hawaii County Civil Defense Administrator Darryl Oliveira.

**Continued
on next page**

ARRL Kids Day Sunday Jan. 4, at KH6LC

Sunday, Jan. 4, is the 2015 ARRL Kids Day.

It starts at 8 a.m. and goes until 2 p.m. Hawaii Standard Time.

If you have, or know of any, kids who might like to participate, please contact me ASAP.

We're located in

Hawaiian Paradise Park.

There will be adults on hand to "coach" the young ops as well as kids who have participated before.

We can accommodate about 8-10 kids maximum with our 3 stations.

Breakfast and lunch will be provided.

For official event info, please visit: www.arrl.org/kids-day

We have many photographs of our past Kids Day events on our website: www.KH6LC.com.

From the homepage, click on CONTESTS, then scroll down to our

Kids Day results from past years.

Please join us for this fun event.

Thanks & Aloha,
Lloyd Cabral, KH6LC

808-966-7782
KH6LC@Hotmail.com

DRONES

From previous page

"They validated some of our measurements of where the flow was widening, and demonstrated their aircraft and program as far as what they were capable of doing."

Oliveira added the team's drone has proven to be especially useful on days when the county's helicopter has been unavailable to provide Civil Defense officials an in-person bird's eye view of the situation on the ground.

"At least twice, they (the county's

helicopters) have been unavailable because they were involved in other missions, and having a pre-arranged agreement with them (SDAV) to do surveying and mapping has been truly valuable. Not to mention the quality of their imagery is exceptional. The resolution is just phenomenal. In place of having a person up there, we're able to make the same assessment of what's happening," he said.

As for the members of the team, they say the opportunity to work on the project has been personally and

professionally rewarding.

"It's been unbelievable for me," Perroy said. "We're very aware how important this is, and we want to support the citizens of Pahoia as much as we can. And this has also been a pretty amazing opportunity for the students. ... To work on something like this is an unbelievable opportunity. We're all very humbled to contribute."

For more information about the laboratory, visit <http://spatial.uhh.hawaii.edu/>.

Deadline for January newsletter is Dec. 20

Please submit all photos and stories for the January BIARC Newsletter no later than Dec. 20. Contributions from members are welcomed. Send text and images to lcritchlow@mac.com.

Turn excess equipment into cold, hard cash!

Got extra radios, etc., cluttering up your shack ... and beyond?

Someone else just might need some of that stuff you don't want. Club members are always welcome to submit free "classified ads" for the monthly newsletter. Submit by the 20th of the month for the following month's newsletter. Send to lcritchlow@mac.com.

Editor's note: Any opinion contained in any edition of this monthly club newsletter is that only of the respective writer and not of the Big Island Amateur Radio Club or its membership.

Leigh Critchlow, WH6DZX, Editor



HF privileges open to all hams on 10 meters

All Technician Class Licensees have 10-meter privileges, so try your hand on HF!

The Aloha Chapter of Ten-Ten International Net, Inc. meets on 28.490 MHz, with an alternate frequency of 28.487MHz, every Monday evening at 6:30 p.m. HST. If you don't hear me, don't just listen, call "CQ!"

Help keep 10 meters in amateur radio hands.
Thanks and aloha.

—*Irene, NH7PE*

Ten-Ten International Net and its Aloha Chapter wish all a grand holiday

Irene, NH7PE, was authorized to operate the Ten-Ten International Club Station, W6OI, during the W6OI All Call Areas Special Event from 000Z Nov. 22 to 2400Z Nov. 23.

SSB activity was from 28.340-28.400MHz, so more stations could locate the Special Event operators, though NH7PE did move around the band.

It was another great opportunity for amateur radio operators to complete their lists of 10-10 member QSOs prior to

applying for their own 10-10 numbers. Be sure to check it all out at www.Ten-ten.org.

The year-long Anniversary QSO Party and the Meet the Volunteers QSO Party begins Jan. 1 and ends Dec. 31, 2015.

The Anniversary Party is for the 53rd year of 10-10 International Net, Inc.

All year long, log all 10-10 member QSOs with 53 in their number (for example: 5312, 14530, 75653, etc.), then send in that log before Jan. 15, 2016.

Your Ten-Ten International News will have the list of volunteers to contact in 2015, and that log, too, is due by Jan. 15, 2016!

Billy, WE6DX, will be the only 10-10 member of the group going to the Spratly Islands in April, 2015. Ten-Ten member Jeff, K0UU/VR2UU, will be in Hong Kong for two years.

He lives in a highrise and uses a K2 radio attached to a long wire. Use LoTW. Good luck on these rare catches!

How fast a year passes.

NOW is the time to plan to get that antenna up, or replace that coax cable, upgrade your secondary radio or start calling CQ on your favorite frequency more frequently!

The ARRL 10-Meter Contest will be held Dec. 13-14. Don't miss it.

Ten-Ten International Net, Inc. and the Aloha Chapter want to wish everyone a Grand Holiday Season, with all our Best Wishes in the coming year 2015!

Aloha Nui Loa,
Irene, NH7PE

Big Island Amateur Radio Club

P.O. Box 1938

Hilo, HI 96721

www.biarc.net

Officers for Calendar Year 2014

President: Bill Hanson, N0CAN, 989-4700
Vice President: Milt Nodacker, AH6I, 965-6471
Secretary: Leigh Critchlow, WH6DZX, 930-7330
Treasurer: George Bezilla, WH6EFN, 961-6323

Directors — 2014-2015

Toni Robert, N0INK, 937-2183
Barbara Darling, NH7FY, 982-9126

Directors — 2013-2014

Mary Brewer, WH6DYW, 985-9595
John Buck, KH7T, 885-9718
John Bush, KH6DLK/V63JB, 935-5500

(Club License Trustee: Paul Ducasse,
WH7BR, 985-9222)

Standing Committees (as of December, 2013)

Service/Awards: vacant
Education & Testing: Milt Nodacker, AH6I
Emergency: Paul Ducasse, WH7BR
Equipment: Milt Nodacker, AH6I
Health & Welfare: Barbara Darling, NH7FY
Membership: Richard Darling, AH7G
Hospitality: Jean Nodacker, WH7WT, 965-6471
Newsletter: Leigh Critchlow, WH6DZX
Repeater: Bob Schneider, AH6J
Webmaster: Curt Knight, AH6RE

Special Committees

Field Day Chair: Robert Oliver, NH6AH (969-9993)
Hamfest Chair: Bob Schneider, AH6J
co-Chair: Dong Wilson, KH7IXQ
QSL Bureau Chair: Barbara Darling, NH7FY

Meetings and Get-Togethers

Membership meetings: Second Saturday of each month at 2 p.m. at the Kaaunohiwi Community Center
Friday Lunches: A group meets for lunch every Friday at 11.30 a.m. at Kow's Chinese Restaurant in Hilo at 87 W. Kawailani St., just above Kinoole Street behind the Shell station.



East Hawaii Net

The East Hawai'i Net meets on Monday, Wednesday and Friday mornings at 8AM HST on the 146.76 MHz repeater.

ARES Emergency Net

Meets Saturday evening at 1900 HST on the 146.76 MHz repeater. Backup is 146.76 simplex. All are welcome to check in.

BIWARN Accessible Repeaters

Repeaters in bold font are BI WARN/MCDA linked. When operating over a link, remember to leave extra time in each transmission for the link to be established. The number in parentheses is the tone access frequency.

- 145.29- HOVE-Ka'u WH6FC (100)
- 146.66- HOVE (100)
- 146.68- Kaaunohiwi limited area KH6EJ
- 146.76- Kula KH6EJ
- 146.82- Mauna Loa ARES KH6EJ
- 146.88- Pepeekeo KH6EJ (may be linked)
- 146.92- Ka'u PD KH6EJ
- 146.94- Haleakala Maui KH6RS (110.9)
- 147.02+ Haleakala, Maui RACES KH6HPZ (103.5)
- 147.04+ Mauna Loa RACES KH6HPZ
- 147.16+ Kona (Hualalai) WH6DEW (100)
- 147.32+ Waimea Hospital NH7HI (100)
- 147.38+ Waimea-East KH7T experimental
- 442.35+ Kaanapali, Maui (136.5)
- 442.5+ Kaaunohiwi KH6EJ
- 443.40+ Ocean View KH7MS (77.0)
- 443.40+ Kona KH7MS (100.0)
- 443.65+ Ocean View Hub
- 444.225+ Haleakala, Maui KH6RS (110.9)
- 444.45+ Parker Ranch KH6EJ (88.5)
- 444.9+ Hilo WH6FM WIN system (100)
- 444.775+ Hilo WH6FM XO system (123)