



Big Island Amateur Radio Club

Newsletter – April 2013

President's Message April 2013

Richard and I have finally returned from our cruise and trip to New Zealand. We had a great time, but it is good to be home. There were three of us using cameras each day and Richard would download the pictures each night from all three cameras, so I figure there are a few thousand pictures for him to work with now. Our cat, Rascal, came home on Saturday. We were afraid that he might give us the cold shoulder for leaving him but he was exactly opposite. He is constantly on our laps and wanting to be petted.

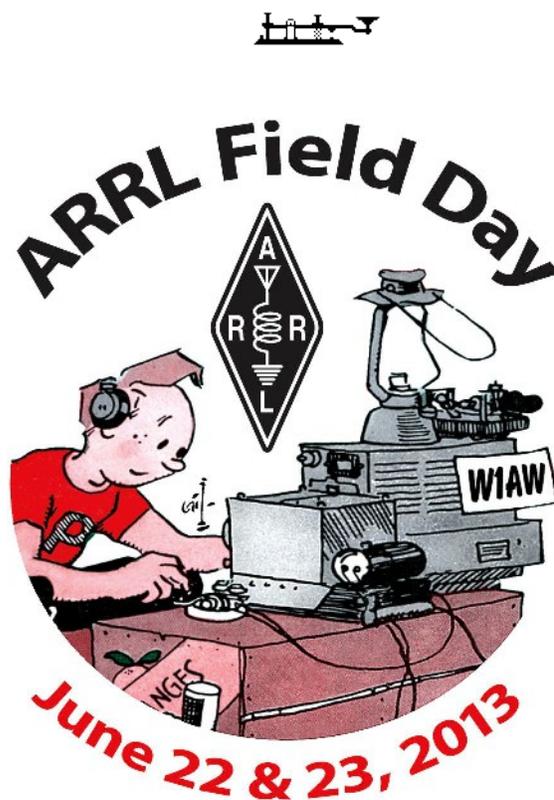
In our travels we tried to visit a few ham radio people. After leaving the North Island we did stop to see Ken ZL2HU in Alexandra on the South Island. When we arrived in Dunedin we found that the ham radio club there meets every Wednesday evening and we happened to be there on that night. We were greeted with open arms and got to meet twenty hams that night. They have their own club house and are quite an active club. Took pictures which I'll pass on later. We also got to have dinner with Ken ZL1KEN and his wife Sue when we got back to the Auckland area.

I'd really like to thank all those who covered for us while we were gone: Doug KH7DQ for acting president and Joe KH6GA and Vicki N4WV for handling the thousands of QSL cards that came in, Milt AH6I for handling the mail etc., Sherri for mailing out newsletters and I have heard nothing but good reports on the job that Lee WH6DZX is doing as secretary. I was able to read her reports and get caught up on the meetings.

Richard, Nancy, Jim and I were quite excited to fly back to Hawaii on the inaugural flight of Hawaiian Airlines between Auckland and Honolulu. They had a big party in Auckland with hula dancers, music, refreshments and blessings. Before getting off the plane the Airlines presented us each with a gift (A small wooden bowl with the info about the flight along with shortbread cookies from Big Island Candies in the bowl). In Honolulu they also presented us with a lei as we got off the plane and they had a party at that end also.

Am looking forward to seeing many of you at the April meeting.

73 Barbara NH7FY



It's time to start planning to participate in the BIARC Field Day 2013, so mark these dates in your calendar.

Big Island Amateur Radio Club

P.O. Box 1938
Hilo, HI 96721

www.biarc.net

Officers

President	Barbara Darling NH7FY	982-9126
Vice Pres.	Doug Wilson KH7DQ	985-7540
Treasurer	Milt Nodacker AH6I	965-6471
Secretary	Leigh Critchlow WH6DZX	930-7330

Two Year Directors

John Buck KH7T	885-9718
Tracy Desa WH6DYR	345-9717
Glenn Kadota WH6DVB	967-7126
Mary Brewer WH6DYW	985-9595
John Bush KH6DLK/V63JB	935-5500
Rick Gardner WH6LU	968-7524

One Year Directors

Richard Darling AH7G	982-9126
Steven Jacquier WH6DPM	907-350-2122
Paul Ducasse WH7BR	985-9222
Darryl Koon AH6TQ	968-7106

Standing Committees

Service/Awards	vacant	
Education	Milt Nodacker	AH6I
Emergency	Paul Ducasse	WH7BR
Equipment	Milt Nodacker	AH6I
Health&Welfare	Barbara Darling	NH7FY
Membership	Richard Darling	AH7G
Hospitality	Beau Mills	NH7WV
Newsletter	Curt Knight	AH6RE
Programs	Doug Wilson	KH7DQ
Repeater	Bob Schneider	AH6J
Webmaster	Curt Knight	AH6RE

Special Committees

Improvement	Vacant	
Field Day	Robert Oliver (969-9993)	NH6AH
Hamfest	Bob Schneider	AH6J
co-chair	Doug Wilson	KH7DQ
QSL Bureau	Barbara Darling	NH7FY

Meetings and Get-Togethers

Membership meetings – Second Saturday of each month at 2PM at the Kea'au Community Center

Board Meetings – will be held every other month 1 hour prior to the general membership meeting at the same location as the general meeting (January, March, May, July, September, November).

Friday Lunches – A group meets for lunch every Friday at 11:30 at the Pizza Hut near the KTA in Puainako Shopping Center.

East Hawai'i 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 repeater. Backup is 146.76 simplex. All are welcome to check in.

BIWARN Accessible Repeaters

Repeaters in **bold font** are BIWARN/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-	Kea'au limited area KH6EJ
146.76-	Kulani KH6EJ
146.82-	Mauna Loa ARES KH6EJ
146.88-	Pepe'ekeo 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+	Ka'anapali Maui (136.5)
442.5+	Kea'au 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)

Special BIARC Board/Repeater Committee Meeting February 2, 2013

Meeting agenda:

Special joint session was convened at request of membership to identify the interference problems with the 146.76 repeater, and to develop and implement solutions, including possibly changing the frequency, to eliminate the intermittent noise. One problem that has been identified: High SWR at feed line.

Four primary action steps that were agreed upon:

- 1) Bob Schneider, Paul Agamata, Milt Nodacker, Lopaka Lee, Paul Ducasse and Paul Lakin will visit the site and address this issue.
 - a) This group will also consider installing a 100Hz tone to the repeater if it helps to solve the interference problem.
 - b) Time frame: 1-2 weeks.

- 2) Distribute to at least 3 BIARC members the codes that turn the repeaters on/off and develop protocols for how, and under what circumstances, the codes are to be used.

Suggestions that were made:

- a) Distribute only the codes that allow a repeater to be turned on/off.
- b) Have at least one backup/alternate.

The next move:

- a) The Repeater Committee will come up with recommendations for giving out codes and protocols for control and use.
- b) These recommendations will be made to the board and brought to the membership for a vote.

- 3) Locate the 146.68 portable repeater and develop guidelines for its use as a stand-alone repeater for emergencies and other special uses. It's important to maintain a portable repeater for the club.

Information/comments:

- a) Paul Agamata has the portable repeater.
- b) If inoperable, should it be replaced or should we purchase a stand-alone repeater?

The next move:

- a) The BIARC Repeater Committee will:
 1. Check the repeater to see if it works;
 2. Make any repairs that are necessary;
 3. Develop and recommend protocols for its use, and
 4. Test the system regularly during the SET and other exercises to make sure it will work when needed.
- 4) Re-establish a working group made up of representatives from each active ham club on the Big Island to discuss issues of mutual interest. For example, the clubs could agree to drop a particular repeater link that is not needed for a marathon or other special event.

Information/comments:

- 1) This group initially was established as a requirement of a previous FEMA grant;
- 2) This grant paid for the Ka'u repeater and linking equipment to cover the South Point area;

- 3) The goal was to establish a backup for HF, and
- 4) If re-established, this group could discuss/agree on linking issues.

The next move:

- a) BIARC will take the lead to re-establish this group.
- b) Doug will draft a proposal letter to all Big Island amateur radio clubs for BIARC President Barbara Darling's signature.

Respectfully submitted,
Doug Wilson
BIARC vice president



BIARC General Membership Meeting Feb. 9, 2013 Keaau Community Center

Vice President Doug Wilson, KH7DQ, convened the BIARC general membership meeting at 2:04 p.m. There were 25 members and guests in attendance.

The AARL Board of Directors International Humanitarian Award Proclamation for John Bush, KH6DLK, was read. Formal presentation will be in April.

Milt Nodacker, AH6I, gave a presentation on "Amateur Radio Emergency Service –ARES Field Resources Manual." A handout with primary emergency protocols was reviewed with the members. The entire manual can be downloaded from the AARL website under *ARES Field Resources Manual: A Quick Trainer and Field Resources Guide for the Emergency Communicator*.

Following a break to enjoy refreshments that were provided by Janet, NH7AK, and Beau Mills, NH7WV, of the Refreshment Committee, Doug began the business portion of the meeting.

Minutes: It was moved, seconded and a majority approved the minutes of the general membership meeting held on Jan. 12, 2013.

Treasurer's Report: Treasurer Milt Nodacker reported that our current balance is \$4,458.63. He also reported current membership renewals for 2013 stand at 47 full, 13 family and 4 associates.

Education Committee: Milt reported that testing for new licenses and upgrades will be held on Thursday, Feb. 21, at 6:30 p.m. at the LDS Church in Hilo. A new class for General license will begin March 14 on Thursdays at 6:30 p.m., also at the Hilo LDS Church on Kilauea Avenue. Contact Milt Nodacker if you are interested. Many new people are getting their licenses, so please offer to be their Elmers and make them welcome.

Equipment Committee: No report.

Repeater Committee Meeting Report: Doug handed out a copy of the items and action steps agreed upon at the Special Board/Repeater Committee Meeting held 2-2-13. He reviewed the report with the membership and reported that he has forwarded it, along with a draft of a letter of invitation to the other ham clubs to form a working group, to our president, Barbara Darling, NH7FY. The report is attached and made a part of these minutes.

Bob Schneider, AH6J, reported on the inspection trip to the Kulani 146.76 repeater. The team cleaned up the site and weed-whacked. The site has difficult access and was in the worst flooding situation that has been observed there. The water was 1½ feet deep in places. Repairs to the repeater will be attempted within the next two weeks. He also reported that the 146.72 on Mauna Kea, which is for emergency use, has been turned off. It was moved, seconded and approved that a request be made to Paul Agamata, WH6FM, to put the 146.82 repeater back online until the 146.76 repeater has been repaired. There was a discussion on stand-alone repeaters and getting a better, more accessible location than Kulani. Paul Lakin, WH6DYX, reported that he plans to install a repeater in Volcano Village on private land at the 4,280-foot elevation on a two-story house. The owner is a nonprofit organization involved in disaster relief.

QSL Bureau: Joe Owen, KO4RR, reported that in January 2013 there were 1,785 contacts, 1,025 ARRL, 14 Chinese, 3 Canadian, 3 Iceland, 740 Czech. So far in February, there have been 2,020 from Japan. As of Feb. 9, the total received is 3,905. Since Barbara has been recording QSL cards, we have collected 131,618. Joe acknowledged what a huge task this is for Barbara. Mahalo to her!

Old Business: None.

New Business: Bob Schneider will be contacting Paul Agamata on the status of our portable repeater.

Doug asked Milt if we could get our inventory updated so we know what equipment the club currently owns, where each item is located and if any items need to be insured. Milt will contact Paul Agamata, WH6FM, to get the repeater equipment list and update it.

The American Heart Association Annual Heart Walk will be in Hilo Saturday, March 2, from 6:30 to 10:30 a.m., in conjunction with a Health Fair. Please attend if interested.

Beau Mills reported that his son's Eagle Scout project built 60 rescue spine boards to donate to Big Island CERT teams. There will be a Boy Scout Makahiki event in April. They are working on their Radio Merit Badges. Opportunity for demo table (0900 Saturday Date TBA).

Bill Hanson reported that Hawaii County Civil Defense is planning a Makani Pahili exercise June 5, 2013. This is usually held on Oahu, but this year it is being staged on Hawaii Island. The scenario is that a Cat 4 Hurricane has hit the Hamakua Coast. This is an opportunity for BIARC to build a plan for this exercise. It will be the first time that community responders will be included, if we choose to participate.

There is a plan for an Antenna Building Party for 2-meter rollup J pole antennas. Greg Datloff, WH7FC, will report next month with particulars. He will look into group purchase of supplies.

Volcano CERT and HPP CERT teams will be having a joint exercise in mid-March. The disaster scenario will assume an earthquake has affected both communities and it is now 7 days without electricity. They will examine needs and communicate on simplex frequencies from Volcano to HPP and back. Bill Hanson encouraged all club members to

create an individual personal home exercise to imagine what needs your family and neighborhood could expect to encounter in a similar situation.

Bill Hanson announced that Civil Defense has a new director, Darryl Oliveira, who is the former chief of the Hawaii County Fire Department. He is an active advocate for communities who want to build more support around the islands. We have a good opportunity to develop better relationships for sustainability. Civil Defense has challenged CERT teams to each have at least two members that are ham radio operators. We currently have teams with 50% licensed hams. We have really turned a corner in our communications abilities on the Big Island.

Meeting was adjourned at 4:46 p.m. Next meeting will be at 2 p.m. Saturday, March 9.

Respectfully submitted,
Mary Brewer, WH6DYW
Secretary pro tem



**BIARC general membership meeting
March 9, 2013**

Keaau Community Center

Call to order: Vice President Doug Wilson, KH7DQ, convened the BIARC general membership meeting at 2 p.m. There were 30 members and guests in attendance. As the club's traditional round of self-introductions proceeded around the room, it became clear once again that ham radio is alive and well on the Big Island. Veteran radiophiles of varied interests and experience and those new to the hobby reported in from various locales. Among those present were several new graduates just getting their first call signs. Doug welcomed and congratulated the new hams and the audience greeted them with rousing applause.

Announcements: Doug distributed copies of three documents for those interested — 1) County of Hawaii Ordinance No. 09 82A, amending Chapter 24 of the Hawaii County Code relating to inattention to driving and giving ham operators, among others, an exception to the law prohibiting operating a motor vehicle while using a non hands-free mobile electronic device (ordinance went into effect Jan. 1, 2010, and is attached to these minutes); 2) the band plan, and 3) the list of local repeaters.

BIARC members are invited to volunteer at the April 13 annual Boy Scout Makahiki at Kanaka'ole Stadium in Hilo. A group of scouts is interested in radio and in earning the Radio Merit Badge. Club participation in the Makahiki would be a good chance to spread the word about ham and help recruit the next generation of licensees.

Monthly special presentation: Milt Nodacker, AH6I, "back by

popular demand" after his previous month's program on the "Amateur Radio Emergency Services — ARES," gave an entertaining and educational talk on "Superheterodyne," covering its precursors and following the course of radio technology as it advanced in the early years.

The word "Heterodyne" comes from the Greek: meaning hetero, or different, and dyne, or power. Edwin Howard Armstrong, who had worked with radio direction-finding equipment in World War I and tinkered with radio in his parents' attic in New York, invented the supersonic heterodyne, or "Superheterodyne," after seeing the potential for harnessing beneficial interference. Here's how it works: The frequency of an incoming radio signal is mixed with a locally generated signal and converted to an intermediate frequency in order to facilitate amplification and the rejection of unwanted signals.

Armstrong's "Superheterodyne Principle" is used today in virtually all receivers, and in many transmitters. The inventor was a man wedded to his work, with a mind constantly coming up with ideas for advancing the technology. Dedicated, he was, indeed: Milt showed a photo of Armstrong honeymooning in Palm Beach in 1923. Posed in the picturesque shot are the man, his bride and a huge piece of radio equipment, all three resting comfortably on a stretch of sandy shoreline.

Armstrong is credited with four major inventions, including FM radio. Later, involved in a bitter patent fight with RCA, Armstrong committed suicide in despair. His widow eventually prevailed in a number of the court cases.

Using diagrams and photos, Milt offered a brief chronology of technology which led up to the superheterodyne: "In the beginning ...," he said, "was spark." That was the spark gap transmitter invented by Guglielmo Marconi, the first guy to transmit Morse Code over the ocean, sending electromagnetic waves without the need for telegraph poles. CW was transmitted by keying a blue electric spark. The resulting ozone smelled bad, but as one member commented: "It kept the germs out of the shack..." "Those were the early days of ham radio," Milt noted.

Marconi developed his own version of a coherer, essentially a "primitive semiconductor," utilizing a pair of electrodes and some iron shavings, all encased in a glass tube. The basic coherer had been invented in 1890 by Edouard Branly. Milt showed a diagram of the Marconi 1896 Receiver. He also showed some other simple coherer designs from the early days, including one employing a puddle of mercury with oil on top, and a clockwork running the wheel. Coherers later were replaced by crystal detectors. Milt showed a demonstration of one which used lead sulfide crystals.

The next big improvement in transmitting came in the form of the Poulsen Arc Transmitter, which was "like a tuned arc welder." It was, Milt said: "More pure than the spark signal, but very rich in harmonics."

Morse keying has required many a creative runaround as various inventors have moved the technology forward over the years. The next big development was the Alexanderson Alternator, which used special high-frequency alternators to generate radio frequencies. Milt noted that the U.S. Navy's alternator station in Haiku Valley on Oahu operated at 22.3Khz from 1943-1958. The Navy used 22.3 Khz to communicate with submerged submarines. As with the Poulsen Arc, an alternator couldn't be started and stopped to send Morse code. "It was a fairly primitive device, but you could generate AM with it," said Milt.

Reginald Fessenden was the first to apply the heterodyne principle to wireless communications in 1901. It was he who coined the term "heterodyne," meaning "generated by a difference." Milt also discussed current configuration and present uses of the heterodyne.

Refreshment Committee: Taking a break to digest the day's classwork, club members enjoyed coffee and tea and ice cream and cake provided by Beau, NH7WV, and Janet, NH7AK, Mills. Then, refreshments consumed and the chefs applauded, the business portion of the meeting resumed.

Treasurer's report: Milt said BIARC had \$4,529.78 in the bank as of the end of the month, with a small amount of funds in and out since then. Paid-up membership count stands at 53 full members, 14 family and two associate members. Motion: M/S (Paul Lakin, WH6DYX/Mary Brewer, WH6DYW) Treasurer's report approved by membership.

Education Committee: Milt said a record 16 candidates tested for the Technician license on Feb. 21, with 14 passing, including two who also took and passed the General test. A new General licensing class starts Thursday, March 14, at 6:30 p.m. at the LDS Church on Kilauea Avenue in Hilo. He said Volunteer Examiners will be needed for a private testing for one candidate prior to the next official testing day, which will be April 25. The candidate will be leaving for the Marquesas on a sailboat, and needs to be licensed to use ham radio.

Equipment committee: Bob Schneider, AH6J, BIARC Repeater Committee chair, responded to a question about the Feb. 2 special meeting of the BIARC Board and the Repeater Committee, the minutes for which are included in the Feb. 9 BIARC meeting minutes. Bob said the committee is still discussing the "nuts and bolts" of putting up a microwave link to tie Big Isle repeaters together. He will be attending the Kohala-Hamakua ham radio club's meeting on Sunday, March 10, and will be discussing it with North

Hawaii hams at that session. Bob noted that Paul Ducasse, WH7BR, reports that the voltage regulator at the Ka'u Police Station is working fine. Paul wants the club to duplicate it, thereby replacing the one he's letting the club borrow. Cost would be about \$220. Motion: M/S (Bob/Milt) Purchase of a new voltage regulator approved by membership.

On the pending membership request for expanded access to codes used to turn local repeaters on and off, Bob noted that there are three levels of controls: user, secondary and owner. The committee will get back to the membership later on this issue. Although present location of the club's portable repeater is not yet clear, it is 20 years old, and "we're due for an upgrade," Bob said. Milt said the duplexer connected with the portable repeater is currently being used in Kona, upon loan from BIARC. Doug asked Milt if he had made any progress with procuring and updating an inventory of equipment owned by the club. He said not yet, but he'll work on it.

Greg Datlof, WH7FC, asked what it would take for the club to put up a stand-alone VHF repeater. He wants BIARC to buy a repeater and two duplexers. He noted that five persons have volunteered to house the repeater at various sites. "The bottom line, is," said Greg: "We do not have a stand-alone repeater for rag-chewing."

Bob said the hardest part about putting up a new repeater is the preliminary paperwork (ie: permissions from pertinent authorities) required. Doug said the question is, "do we as a club want to move forward with this?" He asked that the Repeater Committee explore the proposal and come back with its recommendation. Milt said the club has budgeted \$1,000 for repeater maintenance and \$2,500 for improvements to the link system for this fiscal year. Installation of the repeater would cost in the neighborhood of \$3,000. Rick Gardner, WH6LU, said the way things are going right now, if there were a major disaster and everyone had to use the 76 repeater, "it's going to be a mess."

QSL Bureau: Joe Owen, KH6GA, said there were 2,308 cards in February and 983, thus far, in March, for a year-to-date total of 4,093. Since President Barbara Darling, NH7FY, began keeping a QSL tally, 131,806 cards have been received. Holding up a heavy bag containing some 3,000 cards generated by only two hams, Joe said he is among those club members looking forward to the March 14 return of Barbara and husband Richard, AH7G. Joe said there are between 100-120 hams in the state of Hawaii involved in QSL.

Old business: Greg has volunteered to help interested club members build portable J-poles. He showed a sample and described how well the simple apparatus works. He will

teach a workshop. About 10 members signed up. He asked that the club foot the bill so a bulk order can be arranged. He figures it would cost about \$10-\$12 per J-pole. Motion: M/S (Greg/Mary) Appropriation of funds for project approved by membership. Doug and Greg will come up with a list of suggested dates and email them to those wanting to take the class.

Doug said the club will man a BIARC table at the Boy Scout Makahiki. It will be a good opportunity to interact with the young folks and to get scouts interested in ham. Radios will be set up, and handheld transceivers will be available, so scouts and other Makahiki-goers can get a hands-on experience. Beau will be teaching the Boy Scout Radio Merit Badge Course in a short while, and this will also help encourage scouts to take his class.

Returning to the subject of the stand-alone repeater, Rick made, and Paul Lakin seconded, a motion instructing the Repeater Committee to explore the option of a stand-alone repeater at various sites. The repeater would not be affiliated with BIWARN. "We need at least one more stand-alone BIARC repeater," said Rick. The motion was unanimously approved.

Scott Bosshardt, KH7SB, asked for details on the June 1 Civil Defense statewide exercise centered around a mock disaster in Hamakua. Normally the statewide exercise is held on Oahu, and this will be the first time it is based on the Big Island. Doug said BIARC has been invited to participate, but that the details are pending. More information about the June disaster exercise will come later. In closing, and to a big round of applause, Doug again noted that Barbara and Richard Darling will be back home on the Big Island on March 14.

At the next membership meeting, on April 13, Lopaka Lee, WH6DYN, and Kevan Kamibayashi, WH6ECW, will discuss the "SuperUSGS" goings-on at the USGS Hawaiian Volcano Observatory in Hawaii Volcanoes National Park.

The meeting was adjourned shortly after 4 p.m.

Respectfully submitted,

Leigh Critchlow, WH6DZX, secretary



10-10 International Net News

The 10-10 International Net Spring Digital QSO Party will be held 0001Z April 27 through 2359Z April 28. Direct unassisted contacts only are permitted, using digital modes only (RTTY, PSK, etc.) and in the digital portion of the band. A station may be counted once only, regardless of mode. Submit your entry no later than 15 calendar days after the event's closing. Any 10-10 members within 150 miles of Hilo may assign their score to the Aloha Chapter, also. Suggested frequencies: RTTY = 28.086 MHz, PSK = 28.120 MHz. For more information check the web site www.10-10.org.

You are invited to the 10-10 Net Convention 2013, which will be held at the Sheraton Hotel at Bradley International Airport in Windsor Locks, CT between 11 July and 14 July. The hotel is also close to the ARRL's Newington, CT headquarters. There's more information on the web site.

ORDINANCE NO. 09 82^A BILL NO. 66A
(DRAFT 2)

AN ORDINANCE AMENDING CHAPTER 24, HAWAI'I COUNTY CODE 1983 (2005 EDITION, AS AMENDED), RELATING TO INATTENTION TO DRIVING.

BE IT ORDAINED BY THE COUNCIL OF THE COUNTY OF HAWAI'I:

SECTION 1. Chapter 24, article 7, division 3, Hawai'i County Code 1983 (2005 Edition, as amended), is amended by adding a new section to be appropriately designated and to read as follows:

"SECTION 24- . Use of mobile electronic devices while operating a vehicle.

(a) As used in this section, unless the context clearly requires otherwise:

"Emergency responders" include fire fighters, emergency medical service technicians, mobile intensive care technicians, civil defense workers, police officers, and federal and state law enforcement officers.

"Mobile electronic device" means any hand-held or other portable electronic equipment capable of providing wireless and/or data communication between two or more persons or of providing amusement, including but not limited to a cellular phone, text messaging device, paging device, personal digital assistant, laptop computer, video game, or digital photographic device, but does not include any audio equipment or any equipment installed in a motor vehicle for the purpose of providing navigation, emergency assistance to the operator of the motor vehicle, or video entertainment to the passengers in the rear seats of the motor vehicle.

"Operate a motor vehicle" means to drive or assume actual physical control of a vehicle upon a public way, street, road, or highway.

"Use or using" means holding a mobile electronic device while operating a motor vehicle."

(b) It shall be a violation under this section to operate a motor vehicle while using a mobile electronic device, unless used with a hands-free device. Any person convicted of violating this subsection shall be subject to a maximum fine of \$150.

(c) Whoever operates any vehicle while using a mobile electronic device, unless used with a hands-free device, in a manner as to cause a collision

with, or injury or damage to, as the case may be, any person, vehicle, or other property shall be fined not more than \$500.

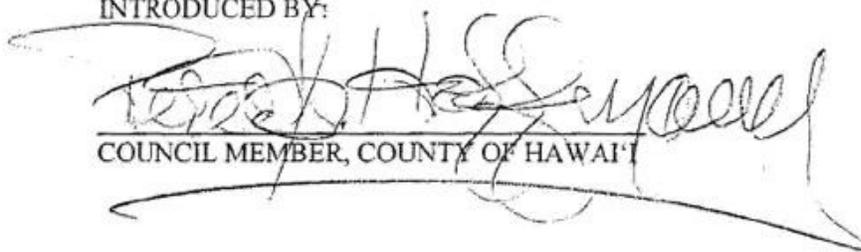
- (d) The use of a mobile electronic device for the sole purpose of making a "911" emergency communication shall be an affirmative defense to this ordinance.
- (e) The following persons shall be exempt from the provisions of subsections (b) and (c):
- (1) Emergency responders using a mobile electronic device while in the performance and scope of their official duties;
 - (2) Drivers using two-way radios while in the performance and scope of their work-related duties; and
 - (3) Drivers holding a valid amateur radio operator license issued by the federal communications commission and using half-duplex two-way radio."

SECTION 2. New material is underscored. In printing this ordinance, the underscoring need not be included.

SECTION 3. If any provision of this ordinance or the application thereof to any person or circumstance, is held invalid, the invalidity does not affect other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are severable.

SECTION 4. This ordinance shall take effect on January 1, 2010.

INTRODUCED BY:


COUNCIL MEMBER, COUNTY OF HAWAII

Hilo, Hawai'i
Date of Introduction: June 2, 2009
Date of 1st Reading: June 2, 2009
Date of 2nd Reading: August 5, 2009
Effective Date: January 1, 2010

REFERENCE: Comm. 262.11