



Newsletter – September 2012

President's Message

The shirt order is completed and is being dropped off tomorrow morning (August 22) at Creative Arts. They said it would take up to three weeks before the order is completed. We are ordering 59 shirts which is the biggest order that we have done in quite some time.

The picnic at Wailoa Park had a great turn out. The weather was beautiful and the food was outstanding. What a great selection we had, as usual. A good turn out of our Volcano hams who are the newest members of the club. Thanks again to Dean KH6B for making sure the pavilion was reserved again this year. We've already told him to do it again for next year as everyone seemed to have a good time. John Buck KH7T had his new radio there to demonstrate and John Bush KH6DLK had his hex beam, which is mounted on the back of his pickup truck, to show everyone. I had made a picture board of Paul Lieb KH6HME which I was asked to take to his memorial service on Thursday. Dean also had a booklet that he had made of Paul's activities.

Paul's memorial service was on Thursday at St. Josephs Church in Hilo. His nephew from California was there along with members of the family that live here on the Big Island. The ham radio community was well represented. After the service the family invited everyone to lunch at the Seaside Restaurant. I will have the picture board at the next meeting and also again at the Hamfest.

KH6 Hawaii QSL Bureau had 3270 cards for July for a year to date total of 19,049.

The memorial service for Joe Day NH7LP will be held on September 2nd at 12:15 at the Lutheran Church on Kapiolani Street.

Our September program will be given by Ted Brattstrom NH6YK. His topic will be his trip to Malaysia/Sarawak. Hope to see many of you there.

Don't forget the 2012 Hawaii QSO Party being held August 25th to August 27th. Stations can only work on 10, 15, 20, 40, 80 and 160 meters. Four modes are allowed SSB, CW, RTTY and PSK. The purpose is to promote contacts between as many Hawaii and non-Hawaii stations as possible. The party starts at 04:00 UTC on the 25th and ends at 04:00 UTC on the 27th.

Barbara NH7FY



At Field Day 2012 – photo Scott Bosshardt KH7SB

Big Island Amateur Radio Club
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www.biarc.net

Officers

President	Barbara Darling NH7FY	982-9126
Vice Pres.	Doug Wilson WH6DTD	985-7540
Treasurer	Milt Nodacker AH6I	965-6471
Secretary	Bob Schneider AH6J	966-8146

One Year Directors

Beau Mills NH7WV	968-1271
Richard Fetchen KH6WE	982-7426
Paul Agamata WH6FM	315-7156
Elizabeth Yoes WH7CU	965-5429
Chuck Epperson AH6SC	966-4698
Rick Gardner WH6LU	

Two 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	Ron Phillips	AH6HN
Education	Milt Nodacker	AH6I
Emergency	Paul Ducasse	WH7BR
Equipment	Vacant	
Health&Welfare	Barbara Darling	NH7FY
Membership	Richard Darling	AH7G
Hospitality	Beau Mills	NH7WV
Newsletter	Curt Knight	AH6RE
Programs	Doug Wilson	WH6DTD
Repeater	Paul Ducasse	WH7BR
Webmaster	Curt Knight	AH6RE

Special Committees

Improvement	Vacant	
Field Day	Robert Oliver	NH6AH
Hamfest	Bob Schneider	AH6J
co-chair	John Buck	KH7T
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 AH6JA (103.5)
147.04+	Mauna Loa RACES AH6JA
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)

2012 Field Day Report

by Robert Oliver, NH6AH, FD Chair

photographs by Scott Bosshardt KH7SB

Many thanks to all participants. Sixty people signed in which was greater than last years count of 43 persons. This event was a huge success due to the turnout.



Lloyd KH6LC

The Tribune Herald newspaper sent a reporter.

Volunteers Merit Certificates were earned by:

John Buck, KH7T, Lloyd Cabral, KH7LC, Richard Darling AH7G & Barbara Darling, NH7FY, Robert Gomez, KB6EGA, Paul Larkin, WH6DYX, Beau Mills NH7WJ, Janet Mills, NH7AK, Russ Roberts, KH6JRM, Jo?B Spence, XYL, Milton Nodacker, AH6I, Bob Schneider, AH6J.



John KH7T operating

If you did not get yours contact me. I'll have them at the next meeting too.

Our station's contacts as listed for points:

Band	CW	Phone
80	0	4
40	15	3
20	0	15
15	16	27
6	0	1

TOTAL 31 50 TOTAL CONTACTS = 81
CW CONTACTS and MULTIPLIER 31 x 2 = 62 POINTS
PHONE CONTACTS and MULTIPLIER = 50 x 1 = 50 POINTS
TOTAL POINTS 112 POINTS
LOW POWER MULTIPLIER: 2 x 112 = 224 POINTS TOTAL
CONTACT SCORE

BONUS POINTS:

YES ___ 100% Emergency power (100)
YES ___ Media Publicity (100)
YES ___ Set-up in Public Place (100)
YES ___ Information Booth (100)
___ NTS message to ARRL SM/SEC (100)
___ W1AW Field Day Message (100)
___ Formal NTS messages handled (100)
___ Satellite QSO completed (100)
YES ___ Natural power QSOs completed (100)
___ Site visit by invited elected official (100)
YES ___ Site visit by served agency official (100)
YES ___ Educational Activity Bonus (100)
___ Youth Element achieved (100)
___ GOTA Bonus (100)
YES ___ Submitted using the b4h.net applet (50)
OUR TOTAL BONUS POINTS = 850 OUR FINAL SCORE = 1074



Assistant antenna engineers at work

For the new year, we should focus on improving our bonus point score. We need more operators for the late night time session. We should form new subcommittees early: Antenna crew, Set-up and cleanup. Late night time Operators, Phone and CW, others ideas are open to suggestion, such as, a political action group on bonus points.



Mascots Lucy and Ricky standing by for duty

A new item that the club needs are two coaxial band filters, so that our two stations can operate on the same band, phone and CW. This would be a must for the coming year. They can be hand made and I have a design manual.



Antennas ready to go up

We will stage our next FD again at the Wailoa Center on 25 June 2013, as per a unanimous vote this past club meeting.



Next year will be a great event. We need more volunteers. Remember this is a historic public event greater than oneself so participation brings a huge reward. 73.



Two New Towers in Puna

Two towers have sprouted in Puna in recent months.



Here is Joe Owen KO4RR tightening the last screws on his and Vicki N4WV's new log periodic beam at their place in Seaview Estates.



And here is the finished product rising in their back yard. Lloyd KH6LC did the heavy lifting.



Lloyd and Rob NH6V at the freshly poured base of Lloyd's fourth (or fifth, or even eighth, depending on how you count) tower. Rob is handy with the shovel in the foreground, but Lloyd is displaying the one indispensable tool for a project like this: a checkbook! There are 7 cubic yards of concrete under those bolts.



Here is the tower on the base. It's a crankup, and in this picture it's only showing about a third of its ultimate height. It will carry a 40 meter yagi and a tribander in the fall contest season.

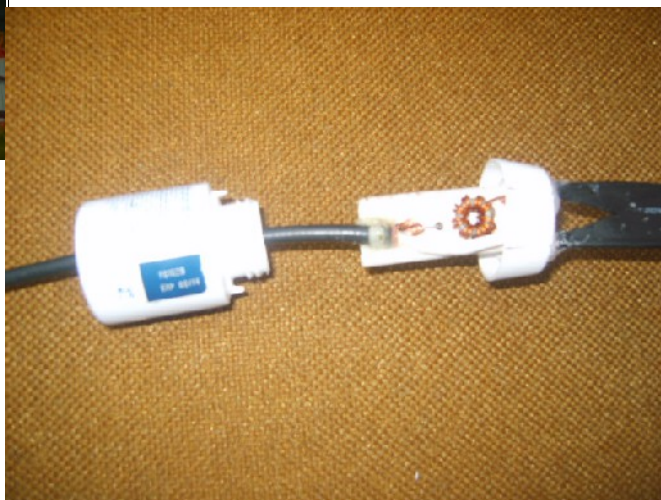


A Homebrew 6 meter Expanded Delta Quad Beam Robert E. Oliver NH6AH



quad was good since the beam and mast will serve also as a reflector to my 40-10 meter vertical ground plane 18 feet away. A short boom length of 5 feet provides 0.1 wavelength on 17 meters and .25 wavelength on 6 meters. The beam boom does not over-hang the property line. The vertical 75° delta is formed by 12 foot long fiberglass fishing poles (from Walmart) and look smaller as they rise up. The poles bend toward each other. The horizontal portion on top of the delta is 6.5' on each side of the insulator for the driven element, and 7.0' on each side of the insulator for the reflector. The neighbors liked the use of fishing poles; they thought it creative, and reminded some of a Hawaiian crab catcher.

A green enamel solid 20 gauge copper wire was wrapped around each pole to form the element. It is adequate for low power. Each half of the driven element is 19.5' long, and each reflector half is 21' long. The high impedance driven element is feed with a tuned 3/4 wave length 13'-5" 450 ohm ladder-line to a 4 to 1 balun transformer which is wound on a T-50 ferrite toroid core (ref 4) salvaged from a old computer board. The "ADVIL" plastic bottle makes a good housing for the balun, since it's top is a one turn locking cap which will not unscrew itself in the wind.



The 6 meter "Bi-Square" (ref 3) Delta Quad is a two element array that has harmonic relationships with other bands below its design frequency, such as 15 and 17 meters. Bill Orr W6SAI explains "Expanded Quad (X-Q) is derived from Lazy-H array. Ends of the "H" are folded back and its crossover feed system is eliminated. The X-Q Loop provides a power gain of about 5 decibels over a reference dipole. A Two element X-Q array provides power gain of 9.5 decibels over a dipole." (ref 1)

The form of the delta quad was ideal for my location in Hilo, because of limited lot size and adjacent neighbor's house only 8 feet away. The vertical accent of the delta

After having the beam up in the air for a week I noticed that a hose clamp had loosened up and fallen from the pole down on the aluminum frame. After taking it down and replacing the clamp, I added a 12 Ga. copper wire section with a insulator to the frame to strengthen the feed point of the driven element, since the 20 Ga. was touching the frame at one point. Now, the antenna will be up there for a while.

The operational report so far is that 6 meters has not opened and only local contacts have been made, but antenna gain seems high. On 17 meters, I worked Russia, Japan, and other dx stations. The antenna hears better than my ground plane and has much less

noise. Overall cost was very low, less than 3 figures. I hope this article inspires others to make their own beam antennas and enjoy the dx out there at the peak of this sun spot cycle. The listed references are from my old library; newer editions may have this information too. There's lots of very helpful info out there for designing your own new antenna. 73.

References:

1 "All about the Cubical Quad," 2nd Ed. William I. Orr, W6SAI, 1977, Radio Publications Inc. Wilton Conn, 06897. USA, Page 53 -59 (X-Q).

2 " 25 Simple Amateur Band Aerials" Edward M. Noll, 1983, Bernard Babani (publishing) Ltd. The Grampians, Shepherds Bush Road, London W6 &NF England, Page 3, (triangle antenna).

3 "The ARRL Antenna Book" 20 Ed. 2005, David Sumner, K1ZZ, EVP, American Radio Relay League, Newington, Conn. USA. Page 8-47, 26-28, (Bi-square).

4 "The ARRL Handbook 1994" ,David Sumner, K1ZZ, EVP, Newington, Conn. USA. Page 35-4, 35-5. (Ferrite core info Tables)



Ten-Ten International Net will have a sprint QSO Party from 0001Z to 2359Z, 10 October 2012.

To get your own 10-10 number, contact ten 10-10 members, collecting the callsign, 10-10 number, and QTH (S/P/C). The sprint is a good time to accomplish this. Send the info to membership@ten-ten.org according to the instructions you will find on the web site www.ten-ten.org.

Remember that the local Aloha chapter meets on the air at 6:30 PM HST every Monday night on 28.490 or alternately 28.487 MHz.

There is no QSO Party during the month of September, so let's have a local event and encourage our new Technicians to get on the air on HF. Try, especially in September, to get on 10 meters and particularly to join

the Aloha chapter net. If you can't hear NH7PE on Mondays, you can go to the alternate frequency and call a net yourself.

-Irene NH7PE



Late Breaking T-shirt News

The tee shirt order has been placed with Creative Arts. Instead of three weeks it will be more like four as they are in the process of doing their first run of 3,000 Merry Monarch shirts for next year. There were stacks of them on the counter being checked when I dropped off our order. Barbara NH7FY