April Meeting, Friday the 21st

How to Get on 6 Meters - Cheap!

by Chris Breller KJ6ZH

Six Meters is one of those "other" ham bands. You know, it's not one of the popular bands like 2 Meters or 440 Mhz or the HF bands. It's close to TV Channel 2 so it has a reputation for causing TVI. And it's only good for short distance communications, right? And to get an all mode rig costs as much as that small HF rig in your shack and all that for only one band, right?

WRONG! Here is an opportunity to get on 6 Meters with an all mode rig and a 4 element beam for as little as $130.00. How, might you ask? TenTec, that last great manufacturer of American Built Ham Radios now offers a 6 Meter Transverter Kit for $99.00. This kit comes complete and has an instruction manual reminiscent of Heath Kit. It takes about 12 hours to build but if you are not into kit building, TenTec offers this transverter fully assembled and tested for about $150.00 (Still pretty cheap!). This transverter puts out 8 watts. Input is 5 watts or less on 14,000 MHz. It uses RF sensing to switch in and out so you only need to connect the coax between your HF rig and the transverter and provide 12 volts at 2 amps. You must keep the input to 5 watts maximum or else you will burn up this unit. About 7 days after placing my order with TenTec, my transverter arrived.

In the mean time, I had to come up with an antenna. Although a lot of stations use simple vertical antennas on 6, I opted for a 4 element Yagi beam similar to the 5 element design in the ARRL Antenna Handbook. All I did was eliminate the the third director. For materials, I went to Home Depot. The elements and boom are made of 1/2 inch thin wall metal electrical conduit. The element mounting plates and the boom to mast plate are made of 4 inch square metal electrical junction box covers. To secure the elements to the mounting plate and the mounting plate to the boom, I used 3/4 inch U-bolts. The Gamma match consisted of 14 inches of 1/4 " copper tubing, a 20-100 pf air variable capacitor (a compression trimmer should work for < 75 watts) both left over from other projects, some galvanized flashing, and a plastic project enclosure, an SO-239 chassis connector, and two 1-1/2 inch antenna U-bolts from Radio Shack. After drilling holes in the mounting plates (be sure to oversize the holes slightly so you can adjust element alignment) for the U-bolts and cutting the boom and elements to length, I spaced the elements at .2 wavelengths and secured them with the 3/4 " U-bolts. After drilling holes in both ends of the plastic box, I installed the SO-239 connector on the plastic box with screws, inserted the copper tubing, secured the tubing with a rubber grommet for stress relief, and soldered the capacitor in series with the center conductor of the SO-239 and the tubing. This box was attached to the driven element with another U-bolt and the 3/4 " wide Gamma Shunting Bar, made from the flashing and a small nut and bolt, was attached to the far end of the copper tubing and the driven element. I used a conductive grease to ensure good electrical contact. A piece of coax braid was connected between the shield side of the SO-239 and one of the U-bolts on the driven element mounting plate. Tune up was accomplished by adjusting the capacitor for minimum SWR (1.3 : 1 in my case). I mounted it on an existing 19' mast I use to 2 Meter packet. Total cost for the antenna was $22.00.

So how does it work? Well on 8 watts, I've worked into Santa Barbara and Paris (Ca., not France). The TenTec transverter has a good receive preamp built in and if I can hear 'em, I can work 'em! I also found that I can get into the FM repeaters as well. This has been a fun project with no TVI complaints from the neighbors. I can't wait for the Sporadic E season to start and to work 6 Meter DX!
RF April 1995

Good of the Club

Will Gatusha is seriously ill. Please send a card to his home address.

Jane Breller - KC6TAM will be having major surgery and needs O+ blood. If you are willing to donate, please contact her.

1995 Board of Directors

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RF Editor .......... Cindy Hughes ....... KC6OPI ....... 971-3448
Refreshments ....... Club Historian ....... Bob Evans ....... WB6XKN ....... 543-9111

Treasurer's Report

Month of: March 1995

Income:

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Financial Summary Year to Date March 31, 1995

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Beginning Balance: $314.30
Income YTD $908.17
Less Expenses YTD $774.63
Current Balance: $447.84

DUES

Regular Member $12.00 Additional Family Members $6.00
Teenage Member ....... 6.00 Optional Club Badge ....... 6.00

Dues for new members are prorated quarterly from January of each year. Family members must reside at the address of a Regular Member. One RF is sent per household.
RF April 1995

NETNEWS

3/1 15m phone net - W6ZE/AF6C checks in NGO, COJ, HHC, & IXN. COJ announces that N6UC's XYL passed away v y suddenly wid a severe stroke. NGO suggests OPs send a Club letter of condolence. OPs trx COJ fer K6ZE's presentation at last Club meeting. Maybe COJ will hve K6ZE bk at a Club meeting to talk abt his trip up the Amazon River. HHC, bk frm San Jose on a business trip, tells AF6C he has sum AC hum on his sigs. COJ says the Denny's Restaurant at Grand & 17th is available fer Sat. Club Basts if needed. And HHC works Kaaaz on 15m. IXN believes certain sigs frm Crystal Seismometer, in the San Gabriels, tells him when land is moving without an earthquake!

3/1 2m phone net - W6ZE/IXN checks in JSV, HHC, RE, ZH & TAM, VDP, QW, FUZ, & VFC. IXN relates the passing of N6UC's XYL to the Net. JSV & EAS clean house, wid loads of junk to the G-man...Anybody need a horse wif a clock in the middle, or, a cracked sea shell frm Catalina?! Hi! RE announces that Geo. Wilson is slowly recuperating frm a severe stroke. And for those interested in solar reports, Scott, WA4ITK, has a windows version of Solar Graphics Program for the asking. Send a formatted HD disk wid mailer & return postage to Scott at 409 Jessie Dr., Nashville, TN. 37211-3534. Tx, Alex. HHC gives all OPs guid sigs rpts tonele. And Ken asks if any OPs are familiar wif a financial records program called Quicken. ZH & TAM heard abt, but didn't feel anything frm the 3.8 event this morning. Chris, not feeling well, rests frm a day of work & plays amid OSCAR 13. The Docs are still trying to discover TAM's medical problems! VDP picks up a new toy at the TRW Swap Meet, an MFJ CW keyboard fer 25 bucks. Now Larry awaits an operating manual! And VFC & VDP get new crystals for the 6m HTs. Dennis & Larry will play wif the trimmer caps to tweak up power, etc. And Dennis makes successful 6m contacts in Huntington Beach, Palos Verdes, Clairmont & Fontana. QW picks up one more county in MO., leaving only 3 left in KY for the WAC! Wid the whole house painted & all ham gear moved downstairs, Rolf is ready to sell the QTH anytime! And QW & VDP unsuccessfully search for a QRN source that travels slowly across the 20m band at the QTH. FUZ attends a T. of Roses meeting and will bring applications for volunteer help to next Club meeting. And Rob supplies emergency communications at a car fire near Ball Rd & West Streets.

3/8 15m phone net - W6ZE/AF6C checks in NGO, HHC, & IXN. 'Nine Gallons Output' contemplates a muddy 'back 40' frm the next storm. And Ken finishes a welding project fer Ken. IXN works wid depths of earthquakes frm the program SEISMIC. And AF6C collects 4" of rain in the guage frm the last storm! HHC offers to replace Kei's welding rods used on the Project. And Ken watches the next big storm approaching on PRODIGY, as he prepares to enjoy the storm reading two new paperbacks!

3/8 2m phone net - W6ZE/IXN checks in BPX, NG7D, RE, VDP, QW, HHC, FUZ, BVF, TWA, & BWH. BPX, wid leg trouble, misses last net, but Wyatt collects 2 3/4" of rain frm the last storm. And Wyatt still has a little throat trouble frm the stroke. BWH has Newsline already to roll as ZE checks him in! And IXN doesn't think to call Bob on the landline & tell him Newsline has weak audio! NG7D, bothered wid moisture & allergies, hasn't felt well fer past 3 days! However, John manages to work Niles, J88CX, on Bequia Is. off the coast of Venezuela on 15m! And NG7D collects a doz. new stations on the RS-12, bringing his total near 200 stations worked! When John gets 3 states confirmed, and the 6 remaining states worked, he'll apply for his RS-12 WAS! RE collects 4" of rain in the guage, wid a total near 23" for the year! Alex reads ARRL bulls., announcing that Vanity Call Sign forms will be available after May 1. To get a Form 610V, send an SASE to: ARRL VEC, ARRL Hqts., 225 Main Street, Newington, CT. 06111, requesting a form 610V. VDP is tired of the rain, gets the 6m HT tweaked up, plans to talk to NG7D abt his comedy bits collection, sells sum of RV'S equipment, & chats wif BVF abt beam antennas! QW has rain damage in the house at Big Bear. And the QTH is ready fer a buyer anytime! And Rolf is still searching for a vy annoying source of QRN at the QTH (or in the neighborhood)! FUZ loses the voice a couple of days ago. IXN had somewhat of a similar problem abt a year ago. Rob starts the Spring planting as the XYL gets ready to test fer her 1st ham ticket! BVF considers a beam for HF work, experiences sum problems wid the MFJ ant tuner, and enjoys
RF April 1995

working for the WAS on 20 & 40 meters! IXN asks TWA abt SA River height during last storm. Charles says water is high & running abt 32 mi/hr. But there isn't any debris in the water. TWA doubts the golf course will be able to open by July! Charles & XYL miss all the rain in the last storm. They were in Laughlin, NV. doing a little gambling & watching 1st-run movies!

3/15 15m phone net - W6ZE/AF6C checks in NGO, COJ, HHC, IXN, & NG7D. NGO, wid wet ground, & HHC's guy poles finished, contemplates the Club East on April Fool's day! COJ asks AF6C if the Newsletter has been mailed yet, & if the Marine Base in Santa Ana has been contacted for FD yet. Bob tells Dave to wait for 2m net for answer to Newsletter question. Dave says he has a copy of a former letter to the Marine Base that cud be used agin if we change dates! And Bob tells COJ that Global Positioning Systems will be topic at next Club meeting Fri eve. AF6C opens the car roof & lets the sunshine in today! HHC answers IXN's inquiry abt the guy poles Ken completed for Ken's 'War of the Worlds' tower! And NG7D has 41 states confirmed for a WAS on the RS-12. (the Russian Satellite, Radio Sport 12)

3/15 2m phone net - W6ZE/IXN checks in BPX, ZH & TAM, FUZ, RE, QW, VDP, BWH/m, VFC, & KD6UBK, Del, at the El Toro Air Station. BPX gets 1 1/2" of rain frm the last storm, while IXN gets abt 2" of rain in SA. Wyatt looks over exercise bikes, while Blanche checks out curtain rods at Target. And AAA helps BPX change a dead battery in the auto. ZH works the Contest over last weekend, & Chris alerts OPs to 3D2 calls frm Conway Reef in a week! TAM busies herself making goodies for Club Meeting Fri eve. 'Speechless Rob' finally got his voice back, and FUZ will be at Meeting Fri eve. wid TORAJ Positioning Systems for those who wish to work the Rose Parade in Pasadena! RE didn't hear BWH/m check in frm the Freeway wid the HT wid ducky ant. Alex, wid a NEW gardener, left 9 bags of trash for the G-man! Alex handles sum MARS traffic, reads a propagation bulletin, & informs OPs that Cindy, Op, is working the Red Cross! BWH, after airing Newsletter, informs OPs that Cindy left 'RF' wid Bud, VFF, before leaving S. CA. QW still needs 3 counties for the WAC. And 20m is still bad wid the buzzing QRN that Roll has not yet isolated! And, abt Apr. 15, QW & XYL will be off for Spokane to check on developments wrenched the new QTH! VDP replaces old plumbing on the bathtub drain, & LARRY runs into trouble trouble trouble! VDP hears on the 220 Cluster, that a Special Events station wid a GB8 call is on 15m. Larry tunes to 15m & works the OP 'just like that'! VFC brings b' old college day memories to IXN as Dennis tells OPs abt listening to short wave stations around the world on an old Gonset receiver he just picked up! And VFC will be down for 3 or 4 days next week wid a new 'skin graft' on his knee.

3/22 15m phone net - W6ZE/AF6C checks in IXN, NGO, & HHC. NGO & HHC still hears hum on AF6C's sigs, but IXN still can't hear any hum on Bob's audio! Bob is examined by the medics & given a clean bill of health on the esophagus. Meantime, he watches his alma mater, Penn State, beat Nebraska on the B-ball court! NGO & Bob discuss what color HHC should paint the guy posts for the tower, and NGO has a 15m contact wid Kaz 'across the puddle' this afternoon! Now, HHC is preparing the QTH for sand blasting & painting!

3/22 2m phone net - W6ZE/IXN checks in RE, ZH & TAM, OPI, NG7D, VDP, BPX, HHC, QW, BWH, UBK, & FMX. RE cleans up the 'back forty' vy quickly wid the new gardeners, and Alex will disconnect the rig to prevent lightning damage before retiring for the night! RE airs the ARRL Bulls, and leaves the net at 9 pm to pass MARS net traffic. BPX gets 3/4" of rain frm the last storm and Wyatt finds the 'back swamp' too wet fer weeding! OPI checks in via landline at ZH & TAM's QTH. Cindy & IXN talk abt the Seismographs in Menlo Park. OPI is on flood duty wid the Red Cross in Northern CA. NG7D notifies OPs that the Coast Guard will cease CW operations on Apr. 1! Their last message will be a commemorative message rewarde with a certificate to OPs who copy the message on 5870, 8.471, 12.178.5, or, 16.976 MHz, at (what time, John?) Send your copied message to: USCG CAMSLANT, % MSLG Northwest, Chesapeake, VA 23322 Attn: TC3 S. Morales, KP4FFW. Like BPX, VDP wud like sun dry time to get the yard work done. And LARRY asks NG7D where he got the CG bulletin abt CW cessation. And VDP says VFC had a 'hot' opening (Kuwait) on 17m this morning! QW 'gets a bite' on the house in Big Bear, as he & the XYL prepare to visit the new QTH site in Spokane. Roll still needs 3 Counties fer WAC, he can't get rid of the 'wandering QRN' at the QTH!
RF April 1995

3/29 15m phone net - W6ZE/AP6C checks in NGO, IXN, NG7D, & HHHC. NGO, having finished a lil snooze, hears IXN well. Kei has a gud contact wid Kaz at 3 pm today on 15 & 20m. NG7D & IXN discuss the clandestine radio station on 1660 KHz! HHHC surveys the mess after the sandblasting crew finishes the QTH! And Ken puts up the shutters on the QTH in preparation for the painters. HHHC unsuccessfully tries to hear Kei contact Kaz last Sun. And Ken tnx AF6C fer a 3mm screw that was just right fer the computer!

3/29 2m phone net - W6ZE/IXN checks in RE, BPX, NG7D, BWH, KW, BVF, DZL, VDP, UBK, FUZ, & SBP. Nice check-in, OPs! BPX gets 1 1/2" of rain out of the last storm! Now Wyatt pays fer it wid an army of weeds on the back 40! BPX visits the Doc tomorrow to have a rash checked out. BWH, loud & crisp at IXN's QTH, airs an interesting Newsline. RE is diagnosed wid a cataract in one eye...more Doc appts. in May & June! And Alex says get-well cards fer W40YI can be sent to 1649 Griffith Ave., Owensboro, KY. 42301. NG7D tells OPs abt clandestine radio station on 1660 KHz. And John gets Rhode Island on the RS-12 at 00:05 hrs...only 8 states left fer an RS-12 WAS! KW finds the source of his QRN!...a touch lamp!! And tomorrow, Rolf will try to pick up his missing counties wid a lil help from a roving OP! Congrats to Mel, BVF, on picking up his Advanced class license last week! And DZL perks up VDP's ears wid the installation of a 6m module in the rig! VDP is painting his mother's blown down, repaired fence. And Larry hears the Clandestine radio station shut down at 9:29 pm local time! Talk abt luck...VDP plans to build a crystal tester, goes to the Swap Meet and finds one-a-kind black box homebrew model of his crystal tester project already built, which Larry purchases immediately!...(And it works!) UBK puts in booming sigs at OP QTHs as Del works the Net firm the 3rd floor of a lighter-than-air hanger at the Marine Helicopter Station in Tustin, wid a telescoping 1/2 wave ant. on the rig. FUZ plans to win the rig the Club will soon auction! And FUZ's XYL, Elvia, KE6SHP, gets congrats firm OPs on her first net operation. Elvia announces that daughter Eve, also got her ticket, KE6BPO! Congrats to Eve, who had to go to bed...school tomorrow! And, VDP announces sale of Govt. Surplus at the El Toro Marine Air Station! Go to Main Entrance at Tustin & Grand Canyon. Have your driver's license & proof of auto insurance for admittance to the Base. Times: Mon. thru Wed., 9 am to 1 pm., every week. And, 8 am to 2 pm the 3rd Sat. of the month! Tnx, Larry!

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Riverside, CA 92501-4001

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(Listen for W6ZE, Net Control) * Plus or Minus QRM

**General Meeting**

General Meeting is the 3rd Friday of each month at 7:30 pm.
AMERICAN RED CROSS

- **April 21**
  - 601 N. Golden Circle, Santa Ana, CA
- **May 19**
  - Talk-in Freq. 146.550 Simplex
- **June 16**
  - Major Cross Streets: Fourth St. & Tustin Ave.

**Board Breakfast**

Board Meeting is the 1st Saturday of each month at 8:00 am.
THE WILDFLOWER RESTAURANT - Members & Visitors are welcome. Grand Ave., Santa Ana, CA

- **May 6**
  - Exit the 5 Freeway at 17th Street, go west, or exit the 5 Freeway at 17th Street, go east to Grand, go north on Grand; or exit the 22 Freeway at Grand Ave., go south.
- **June 3**
- **July 1**

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Orange County Amateur Radio Club, Inc.
P.O. Box 3454
Tustin, CA 92681

*First Class Mail*

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Time-Dated Material.
Please Rush!