I hope everyone was able to make it to Hamcon this past weekend. It was a great way to start September. The attendance was up from last year and it was a great chance to catch up with old friends and make some new ones. We have an auction coming up at our October meeting, so bring things to sell and get ready to buy! The Christmas party is also around the corner so make sure you mark us on the calendar because it is great fun and food and we are working on some amazing raffle prizes as well. I hope you all have a great week and see you at the meeting!

73,
Kristin
K6PEQ

A Tiny Bit of OCARC History
--- The Club Podium ---
by Ken W6HHC

If you can remember back to the days when an “audio-visual” presentation was a difficult effort to organize or to implement, then you may remember when a podium was needed for the presenter to read his “talk”.

OCARC possesses a very nice podium for our meetings. This podium was donated to our club through the generous efforts of two former club members. There was a lot off skill and patience and effort that went into handcrafting the OCARC podium. Art Sheldon K7ZE (now in Las Vegas) built the original plywood podium for the use of the club during the 1970’s. Al Toering N6TEZ (now in Anza) confessed to me that he was the one who designed and built the OCARC Podium.

See ‘Podium’ on page 5

Next Club Breakfast &
Open Board Meeting
Sat. OCT 6th 2007

SEPTEMBER PROGRAM:

Hams sometime take for granted talking to stations across the county or across the country. What about talking across the solar system?

Dave Doody, Senior Engineer with the Jet Propulsion Labs in Pasadena will be presenting a program on the Cassini spacecraft that is now in orbit around Saturn. Hear all about the scientific discoveries and photographs returned to earth by this marvelous space probe. You won’t want to miss this meeting. Bring a friend!

The next regular meeting is:
Friday, Sep 21st 2007
@ 7:00 PM

We will be meeting on the 2nd floor in the east bldg.
2007 Board of Directors:

President:  
Kristin Dankert, K6PEQ  
(714) 544-9846  
k6peq@w6ze.org

Vice President:  
Cheryl Peloquin, KG6KTT  
(714) 318-4047  
kg6ktt@w6ze.org

Secretary:  
Ken Konechy, W6HHC  
(714) 744-0217  
w6hhc@w6ze.org

Treasurer:  
Bob Eckweiler, AF6C  
(714) 639-5074  
af6c@w6ze.org

Membership:  
Steve Brody, N1AB  
(714) 974-0338  
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Activities:  
Dan Dankert, N6PEQ  
(714) 544-9846  
n6peq@w6ze.org

Publicity:  
Rich Helmick  
(714) 343-4522  
ke6wwk@w6ze.org

2007 Club Appointments:

W6ZE License Trustee:  
Ass’t Webmaster:  
Bob Eckweiler, AF6C  
(714) 639-5074  
af6c@w6ze.org

Club Historian:  
Bob Evans, WB6IXN  
(714) 543-9111  
w6ixn@w6ze.org

ARRL Assistant Director:  
Webmaster:  
Ken Konechy, W6HHC  
(714) 744-0217  
w6hhc@w6ze.org

ARRL Awards Appointee:  
Larry Beilin, K6VDP  
(714) 557-7217  
k6vdp@aol.com

OCCARO Delegate:  
Loran Dargatz, KD6LRD  
(714) 777-9081  
kd6lrd@w6ze.org

RF Editor for September:  
Bob Eckweiler, AF6C  
(714) 639-5074  
af6c@w6ze.org

Monthly Events:

General Meeting:  
Third Friday of the Month  
At 7:00 PM

American Red Cross  
600 N. Parkcenter Dr.  
(near Tustin Ave & 4th St)  
Santa Ana, CA

Club Breakfast:  
First Saturday of the month at 8:00 AM at the  
Jägerhaus Restaurant  
2525 E. Ball Rd.  
(Ball exit west off 57-Fwy)  
Anaheim, CA

Club Nets (Listen for W6ZE):  
7.086 ± MHz CW OCWN  
Sun - 9:00 AM - 10:00 AM  
Rick KF6UEB, Net Cntl.

28.375± MHz SSB  
Wed - 7:30 PM - 8:30 PM  
Bob AF6C, Net Control

146.55 MHz Simplex FM  
Wed - 8:30 PM - 9:30 PM  
Bob, WB6IXN, Net Control

VISIT OUR WEB SITE  
http://www.w6ze.org

for up-to-the-minute club information, the latest membership rosters, special activities, back issues of RF, links to ham-related sites, vendors and manufacturers, pictures of club events and much much more.

Club Dues:  
Regular Members ....... $20  
Family Members* ....... $10  
Teenage Members ...... $10  
Club Badge** ............... $3  
Dues run from January thru December & are prorated for new members.

*Additional members in the family of a regular member pay the family rate up to $30 per family.

**There is a $1 charge if you’d like to have your badge mailed to you.

Orange County Amateur Radio Club Inc.
Many of today's electronic gadgets are powered by tiny coin-cell batteries, also referred to as button-cell batteries (See Sidebar). These batteries come in numerous types of which three are common. Each type also comes in many sizes. To complicate matters, each model battery can have numerous different designations. For example, one battery can carry one or more of the following designations: 391, SR1120W, 609, L, 280-30, SB-BS, SB-ES, SR55, SG8, etc. Then there is a battery that is identical physically but has a longer shelf life and is designed for low drain that has the designations: 381, SR1120SW, 317, 280-27, SB-AS, and SB-DS. Then, just to further confuse the user there is a totally different coin battery with the same 317 designation. Whew!

The three common types referred to above are silver-oxide, alkaline and lithium. Silver oxide coin batteries first appeared in watches, and it seems that each watch manufacturer had their own designations for the different sizes. Too add to the confusion, manufacturers separately came up with their own numbering systems. One common designation for silver oxide batteries is a three digit number beginning with a three such as the 357 or 391. Another manufacturer used SR followed by a two digit number such as the SR43.

To make coin cell battery designations more consistent the IEC (International Electrotechnical Commission) put together a standard that consists of a prefix of two letters, a four digit number and a suffix of up to two letters. The first character designates the type of cell: ‘S’ for silver oxide, ‘L’ for alkaline and ‘C’ and ‘B’ for lithium. The second character is always ‘R’ (round) for a coin cell. Originally the numeric designation appears to have been an arbitrary two digit number. That soon changed to a four digit number. The first two digits are the diameter of the coin cell in millimeters and the second two are thickness in tenths of a millimeter. These values are truncated to the nearest value that can be represented by two digits. After the digit a suffix describes the electrolyte used. A ‘W’ as the final letter designates that the cell meets the IEC standard. The cell designation might be followed by a dash and another set of letters and numbers that refer to a tab configuration for soldering a cell directly to a circuit board.

Let's look at each common type of coin cell in a little more detail.

**Lithium Coin Cells - CR (and BR)**

CR Lithium cells commonly have an anode of manganese dioxide and a cathode of lithium with an organic electrolyte. The nominal voltage for the cell is 3.0V dropping to 2.0 V at the end of life. It is good for high and low drain uses. Since lithium cells came out after the IEC standard, manufacturers closely follow the standard and it is much easier to find a proper replacement for a lithium cell than the older type coin cells. Lithium cells provide a very long shelf life. After ten years on the shelf they still retain 90% of their capacity.

A less common lithium coin cell designated BR may be found in your computer as a memory backup. These cells use poly-carbon monofluoride for the anode. They provide longer life at elevated temperatures and a more constant discharge voltage. Their initial nominal voltage is a few tenths of a volt lower than the CR type. BR type cells are normally used only for low drain applications.

**Silver Oxide Coin Cells - SR:**

These coin cells use silver oxide for the anode and zinc for the cathode. The electrolyte is an alkali, either sodium hydroxide or potassium hydroxide, or an organic compound. A designator in the suffix of S or P tells which of the alkalis; no designator indicates an organic electrolyte. Silver oxide cells have a nominal voltage of 1.55V when fresh and an end-of-life voltage of 1.2V.

Unlike the newer lithium cells silver oxide coin cells came before the IEC standard. Thus they have many different part numbers for the same cell. Usually the packaging also gives the IEC number, though it often won't appear on the cell itself.

When replacing a silver-oxide cell there is one more thing to be aware of. Many cells are available in identical packages but with different electrolytes. The organic electrolyte (no character in the suffix) provides better performance under high discharge rates. In trade is has a short shelf life, losing about 10% capacity per year at 20° C. The other common choice is the sodium hydroxide electrolyte (‘S’ in the suffix). It is designed for low drain applications and offers about twice the shelf life, with about 10% less capacity. Some cells are available with a potassium electrolyte (‘P’ in the suffix) though they are rare.
With the cost of silver rising, alkaline equivalent batteries came on the market as a less expensive alternative. While less costly, they still provide high discharge rates and nearly identical shelf life as the organic silver oxide batteries, but at only about 60% of the capacity. Alkaline cells generally don't show any suffix including the IEC compliant 'W'. Like the silver oxide cells they mimic, alkaline cells come in numerous designations. Some vendors just change the 300 seriers number by adding an 'A' at the end, others change the leading three to a one. Still others use the old IEC designation LRxx or the newer LRxxxx. Another designation apparently originating in the Far East is AG1 to AG13 for the thirteen popular sizes. Are you confused?

A Common 1.5V cell:
Let's take a look at what is probably the most common 1.5V (non-lithium) button cell. It holds the IEC designation of SR1154W. This cell is 11.6 mm in diameter, 5.4 mm thick and is rated at 190 mAh. Other designations for the exact replacement are: 357, V357, D357H, 357-1W, 288, J, 280-62, SB-B9, 76, MS76, EXP76, RS76-1, SP76 and SR44W. The low drain version (175 mAh) IEC SR1154SW has the additional designations: 303, D303, V303, A, 280-08, SB-A9, 303-1W, GS14 and SR44SW. The alkaline version (110 mAh) IEC LR1154 has the additional designations: LR44, 357A, 157, PX76A, A76, CR44, and AG13. On top of that, other similar cells in the family carry designations 9, RW32, S1154E, B-A9, S76E, S1154 and numerous others. All these batteries will work. If you have a low drain cell in a high drain application, or a high drain cell in a high temperature application, then life will suffer. Alkaline will work well in high drain applications and low drain applications but won't last as long; cost is their savings.

Battery Pricing:
When you need to buy a battery four things come into play: need, convenience, cost and use. If you need it right away you will be willing to pay more. The convenience of picking it up at a local drug store or supermarket instead of driving five to ten miles to a specialty or electronics store also makes paying a higher price reasonable, especially with today's cost of fuel.

However if you know you're going to need a battery or batteries soon or use a lot of one type then cost becomes a significant factor. You also need to think about use. You don't want to to get to a local Radio Shack and pay $12 for two CR2016 cells to replace the batteries in your tiny 99¢ LED key-ring flashlight. But if you can get the batteries for 60¢ from Digi-Key, and you are attached to the flashlight, you might do that.

Button Cells vs. Coin Cells:
The original silver oxide watch batteries were given the name Button Batteries. When the larger diameter thin lithium batteries were introduced they were called Coin Batteries. Today the names are used pretty much interchangeably.

If you think the nomenclature for coin or button cells is complex, you'll find the pricing arbitrary. Take the common CR2032 coin cell. You can buy one at Radio Shack for $6 (Renata mfr.) or from Target for $3.29 (Eveready mfr.) for from Digi-Key for $0.28 each or, if you need a bunch, $2.48 for ten (Panasonic mfr.)

Recently an Eveready A67 Alkaline button cell cost $0.99 at Fry's; the same battery in the same packaging costs $10 (plus shipping) on Target's website. On the web you can also buy the equivalent LR44 battery for $0.30 each in quantities of twenty; that includes shipping! What's hard to understand is that Target has the Eveready 357 (IEC SR1154W) higher capacity silver-oxide version of the A67 for $3.29.

Radio Shack used to be a good source for batteries but their prices on silver oxide have more than doubled in the past few years to between $5.50 and $6. They used to be in the $2.50 range. Also they seem to have dropped their less expensive alkaline cells like their 357A which was their version of the LR44.

The trick to buying coin and button cell batteries is to know what different types you need for the devices you use around the house. If you use a bunch of one type then you may want to order them on the Internet. Remember that lithium batteries still have about 90% capacity after 10 years, alkaline after one year and silver oxide after one to two years. Plan accordingly. You might also check with your friends and get together for a group buy.

If you are buying lithium batteries mail order be aware that in many cases they cannot be shipped by air. Don't expect overnight delivery.

Mercury:
Mercury used to be used in batteries to absorb excess gas. It is no longer found in most batteries, silver oxide and alkaline button batteries being the exception. The quantities are small but since there is little extra room for gas to collect in these cells the government still allows them to contain traces of mercury. So be sure to follow your state's rules regarding battery disposal.
that he was the one who made the podium so heavy. In 1982, Al – N6TEZ embellished the podium with the oak and walnut trim on the exterior and added the terrific engraving of W6ZE on the front.

But, we have not needed to use the podium much in recent years. Projecting computer presentations or even Internet WEB sites onto a screen for a club program seems to just get simpler each year. So the value of a podium to a presentation continues to grow less and less. It is just a reflection of changing technologies.

Storage for the club podium recently transferred from Ken W6HHC to the QTH of Dan N6PEQ and Kristin K6PEQ. The plans are to bring it out and use the podium for the Christmas Dinner each year.

I thought you might want to know.
AUCTION !!!
AUCTION !!!
AUCTION !!!

It’s that time of year again. The OCARC annual ham radio auction is Friday, October 19th at 7:00 pm. at our general meeting location.

Bring your gear to sell. Come bid on other equipment. You need not be a club member to buy and sell.

This is always a fun event. Bring your ham radio friends too!!!

Please visit the OCARC website http://www.w6ze.org for a map and directions.

2007 OCARC AUCTION RULES:

1. Only ham radio or electronic equipment/items will be auctioned (no fishing equipment, etc.)
2. Buyers and Sellers must register at the door with the OCARC treasurer. There is NO registration fee.
3. Only 3 items from a Sellers lot will be auctioned during each turn. After auctioning 3 items, the auctioneer will move on to the next lot. After the first 3 items from every lot have been offered for bidding, the auctioneer will start the second round of auctioning with the next 3 items in Lot #1.
4. Sellers should number each item in their lot. A tag should indicate the minimum bid they expect.
5. Auction bidding will take place as follows (and at the discretion of the auctioneer):
   - $0.00-to-$5.00 bidding will take place in $0.50 increments.
   - Over $5.00-$50.00 bidding will take place in $1.00 increments.
   - Over $50.00-$100.00 bidding will take place in $5.00 increments.
   - Over $100.00 bidding will be in $10.00 increments
6. Payments for purchased items are due at the end of the auction and shall be by cash or check with the appropriate ID. No two-party checks or credit cards are allowed. Disbursements to the Sellers will be by OCARC check, only. Sellers will be charged a fee of 10% of the selling price for items sold by OCARC.
7. A special table will be set up for donated items. The proceeds of donated items will go to OCARC.
Please support the companies that support OCARC

Make sure to thank them for their support of OCARC when you order from them, or when you see them at a convention!
Ham Cuisine
Kristin Dankert - K6PEQ
k6peq@w6ze.org

Black Bean Pork Chili

Ingredients:

- 1 pound lean ground pork
- 1 medium red OR green bell pepper, chopped
- 1 medium onion, chopped
- 4 cloves garlic, minced
- 1 1/2 teaspoons ground cumin
- 2 15-oz. cans black beans, rinsed and drained
- 1 14 1/2-oz. can diced tomatoes, undrained
- 1 cup water
- 2 teaspoons dried oregano, crushed
- 1/2 teaspoon salt
- 1 teaspoon lime juice
- Shredded Cheddar cheese
- Non-stick cooking spray
- Flour tortillas (optional)

Cooking Directions:

Coat heavy, large covered pot with non-stick cooking spray. Heat over medium-high heat. Add pork, bell pepper, onion, garlic and cumin. Cook and stir until pork is brown and vegetables are tender, stirring occasionally. Drain off fat. Stir black beans, undrained tomatoes, water, oregano and salt into mixture in pot. Bring to boiling; reduce heat. Simmer, covered, for 30 minutes. Uncover; simmer about 15 minutes more or until desired consistency. Stir in lime juice. Ladle into soup bowls. Sprinkle each serving with Cheddar cheese. Serve with tortillas, if desired.

Serves 4 to 6.
ARRL SW Division Convention (Hamcon) by Bob, AF6C

Saturday morning, September 8th and I left Orange for the ARRL SW Division Convention in Torrance. Traffic was light and after about 45 minutes we pulled into the Marriott parking structure. We knew we were in the right place when seconds later Kristin – K6PEQ pulled into the parking spot next to us. She was working the ICOM booth with Dan – N6PEQ and had just finished running an errand.

A short walk to the hotel lobby led us to the convention registration. Neither Ken nor I were preregistered, but to our surprise it was just a matter of minutes (and $20 cash – no credit cards accepted) until we had our badges and tickets. My ticket number was just under 1000, so turnout to that point seemed reasonable. How can I forget the convention in Escondido a few years back when I stood in line for over an hour to get my credentials; and there I was preregistered!

In the hallway to the ballroom were tables representing various ham organizations; perhaps OCARC should consider having a table at the next convention? Club member Ken – W6KOS was manning the Hospital Disaster Support Communications System table.

Stopping at the Starbucks in the hotel lobby, we loaded up our Caffeine Support System containers and planned our course for the morning.

After a quick look at the Saturday program schedule and selecting a few to visit, Ken and I went into the ballroom where the exhibitors were set up. Almost immediately we saw the PEQ’s who were working at the ICOM booth. An IC-7800 and 7000 were on prominent display and the rest of the ICOM line was present with the exception of the new IC-7700. Dan, N6PEQ was explaining the features of the 7800 to a vast audience. ICOM is lucky to have someone so knowledgeable and enthusiastic as Dan demonstrating their 7800. Across the entrance from ICOM was the Yaesu booth with their FT-9000 on prominent display along with the rest of their line. Obvious in their absence was Kenwood, who evidently backed out late for reasons unknown to me. Other radio manufacturers with booths were Elecraft, with their K3 and series of great small kits, and Flex Radio with their 5000 series software defined radios. HRO and Jun’s had a large assortment of radios and ham accessories for sale at show prices. They both looked like they were doing a good business.

Heil Sound was present, with Bob and Chip enjoying the large crowd surrounding their booth. Some new (to me) vendors were Wired Communications and Impulse Electronics; look for them to be added to the W6ZE vendor website at the next update. Former club member Dick Hammerschlag’s Hi-Tech Liquidators was there; Dick reports he’s closed the Costa Mesa store but still is selling at swapmeets.

Sadly a lot of vendors, besides Kenwood, usually present at ARRL conventions, were absent. RF Parts, none of the battery companies [and I was planning on buying an insert for my ICOM BP-5], AA6EE with his great selection of books, Cable X-Perts, Wireman with their balun kits and others were absent.

We were constantly running into club members and even some former members. Former club president Ron – W62Q [then WA6FIT] and his wife Mary Ann – WB6IRR, were in town from Tuscon. Art Dillon – KE6WOX, Howard – WB6TIK were a few of the attendees we stopped to chat with. Of course there were a lot of ARRL officials who we got to see often. Former ARRL SW Directors Fried Heyn – WA6WZO and Art Goddard – W6XD were there as well as the current Orange SCM Carl Gardenias – WU6D and his charming wife Cathy – K6VC.

After taking in the exhibits, Ken and I headed upstairs to the listen to some talks including Bob Heil and Chip Margelli. Then after an accidental exploration of the basement while trying to take the stairs down from the second floor, we took a quick last look around the exhibit hall, made our purchases, and headed home through some heavy traffic to watch Penn State defeat Notre Dame; JoPa’s still got it!
SEPTEMBER BOARD MEETING MINUTES:

The OCARC Board meeting was held at the Jägerhaus Restaurant at 8AM on Saturday, 2007-09-01. There were a total of 10 members and visitors attending. There was a quorum of club directors present, with only Steve N1AB, Dan N6PEQ, and Loran KD6LRD absent.

DIRECTOR REPORTS:

- Treasurer - Bob-AF6C reported the club had $3,630 in the treasury.
- Activities - Dan-N6PEQ confirmed that our September meeting will be Dave Doody, a from JPL, speaking to us about the Cassini Spacecraft to Saturn., and the November meeting presentation will be Willie N8WP on PSK-31. The club AUCTION will be held instead of a October general meeting and the club Holiday Dinner will be held instead of a December general meeting.
- Publicity – Rich KE6WWK reported that OCARC AUCTION had been provided to OC RACES for inclusion in their newsletter and that Nicholas AF6CF had printed up 200 AUCTION flyers for distribution at local swap-meets.
- Membership – in the absence of our Membership chairman, Bob AF6C, our Treasurer, reported that his books show we have about 70 current members.

OLD BUSINESS:

- Newsletter “Rotating” Editors
  - Sept is Bob AF6C
  - Oct is Kristin K6PEQ
  - Nov is Ken W6HHC

- OCARC Radio Auction
  - It was reported that Dan N6PEQ has placed an OCARC AUCTION announcement on the bulletin board at HRO.
  - Nicholas AF6CF had printed up 200 AUCTION flyers for distribution at local swap-meets.
  - Ken W6HHC reported that Auction Rules are listed on the club WEB site.
  - Ken W6HHC reminded the board that members should send a list of equipment they intend to sell, so the equipment can be listed on the WEB.
  - Willie N8WP agreed to be auctioneer this year.
  - Ken W6HHC reported that a retired ham in Corona del Mar is donating his unused station to OCARC for our AUCTION.

NEW BUSINESS:

- Officer Nominations for 2008
  - The club elections for 2008 officers will be held in November after the presentation.
  - All club members are welcome to nominate themselves or others for the 2008 club offices.
  - Nicholas AF6CF volunteered to be head the Nomination Committee.

GOOD-OF-CLUB:

- Visitors - Chuck - W6MD of Anaheim visited the OCARC at the club breakfast. Chuck reported that he learned about our club though the OCARC tri-fold brochure available at HRO. He is planning on joining at the September club meeting.
- The ARRL Southwest Division Convention is Sept 7-9 in Torrance.
- Willie N8WP will act as club Secretary at the October Board meeting while Ken W6HHC is on vacation.

Submitted by, Ken W6HHC - - Secretary

AUGUST GENERAL MEETING

The OCARC General meeting was held at the Red Cross complex in Santa Ana at 7PM on Friday evening, August 17th. There were a total of 40 members and visitors present. All club directors were present except: Steve-N1AB. Therefore, there was a quorum of OCARC Directors present at the meeting.

PROGRAM:

- The OCARC July program was presented by Don Hill - KE6BXT, talking about: Amateur Fast-Scan Television (ATV)
- Don-KE6BXT had a display of ATV equipment as well as a slide presentation and video showing ATV in action. Don described the Amateur Television Network (ATN) organization and explained that much more info about local ATV efforts can be found at:
  http://www.atn-tv.org

OLD BUSINESS:

- Field Day – Kristin-K6PEQ and Dan-N6PEQ handed out a “Certificates of Appreciation” to Tom Woodard-KI6GOA of the Red Cross for all his contributions at Field Day this year.
- OC Fair Radio Booth – This year’s Ham Radio booth at the OC Fair was a great success. The OCARC staffing went smoothly. A full report and pictures are available in August Newsletter.
- Rotating Newsletter Editors – Kristin – K6PEQ thanked the July editor, Nicholas – AF6CF, for a job well done. Kristin also announced that the editor for September is Bob – AF6C

GOOD-OF-CLUB:

- Red Cross EOC – Tom- KI6GOA invited the club to tour the Emergency Operations Center (EOC) at the Red Cross during the break time.
- The ARRL Southwest Division Convention is Sept 7-9 in Torrance.

Submitted by, Ken W6HHC - - Secretary
MEETING PICTURES - by W6HHC

1. Don Hill – KE6BXT, our August guest speaker shows some of the equipment he uses for Amateur fast-scan television. On the table are various antennas and TV equipment including a complete ATV transmitter built into a hard hat!

2. In the break room Lee Evans (brother of Bob – WB6IXN) plays his guitar for some of the members. Lee is doing well recovering from knee surgery.

3. Club President Kristin – K6PEQ presents a Certificate of Appreciation to Tom Woodard – K16GOA of the Red Cross for his help in organizing Field Day.

4. During a break in the meeting Tom Woodard – K16GOA shows off the American Red Cross Emergency Operations Center to club members.
Attention Members!!!

Do you know a fellow ham that would be interested in joining OCARC? Do you have a friend that is curious about ham radio and wants to learn more about our hobby? Why not invite him or her to one of our exciting monthly meetings?!?! The meetings are fun, informative and entertaining. And don’t forget about the raffle prizes too. So bring a visitor to one of our meetings, and help your club expand!

Make sure to inform your friends of our club’s website, which is always kept up to date. Information on club meetings, activities and our newsletter archive make it a worthwhile site to surf!

http://www.w6ze.org

ORANGE COUNTY AMATEUR RADIO CLUB, INC
P.O. BOX 3454
TUSTIN, CA 92781-3454

First Class Mail

Time Dated Material. Please Expedite!!

Next RF Deadline: Oct 8th