



# RF



## ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. XLIX NO. 11

P.O. BOX 3454, TUSTIN, CA 92781-3454

November 2008

### The Prez Sez.....

By Willie N8WP



### Hello Everyone !!

As winter draws near, this is when Daylight Savings Time ends. I am so not looking forward to the darkness of winter. It will be snowing soon. Well maybe it will not be snowing too much in Orange County! Cheryl and I have been traveling all over New England, we have seen quite a few spectacular vistas with brilliant fall colors.

The results from Field Day came in this week. OCARC did very well and we should all be proud. We produced the highest score in the SW Division.

I will be doing Field Day on the east coast for 2009. I hope to be back for 2010 at the OCARC site.

73,  
Willie - N8WP



\*\*\* Late News\*\*\*

Ken, W6HHC had a chance to visit Elmer – WA6PFA at the UCI Medical on Sunday Nov. 9.

Elmer is doing well and he continues to make excellent progress from his recent operation. He was very upbeat, very comfortable and expects to go home on Tuesday, Nov 11.

His only problem seems to be that he is not digesting/absorbing food very well after the operation, yet. The doctors expect this area will improve by Tuesday.

Keeping to his plan, it was good to hear Elmer check into OCARC 10M evening net on Wednesday Nov 12, from his home.

### SPECIAL ANNOUNCEMENT

**Do not miss the Board Elections at the General Meeting. As a Board member, you have the opportunity to serve the Club and help to make it even better. Nominations are listed on Pg 16. See you at the November 21st general meeting.**

### In This Issue: Page

The PREZ SEZ .....	1
CLUB Information .....	2
Attention Members .....	3
OCARC Nets .....	3
2008 Potluck Photos .....	4
Club History Part 9 .....	6
Tech Talk # 73 .....	7
Nov Prgm – TX5C DXpedition ..	8
Submit an article .....	8
November Board Minutes .....	9
OCARC Time Capsule .....	10
QSL Card Contest .....	11
OCARC Bylaws Changes .....	11
General Meeting Minutes .....	12
Holiday Party Plans .....	13
THE GRAND PRIZE.....	14
Potluck Potato Gratin Recipe ..	15
2009 Board Nominations .....	16
Heathkit of the Month .....	17
Missing Items .....	21
2008 Field Day Results .....	22
Companies that support us .....	23

The next general meeting will be:

**Friday, November 21<sup>st</sup>  
@ 7:00 PM**

We will be meeting in Room 208  
In the east Red Cross Building

**ORANGE COUNTY  
AMATEUR RADIO CLUB**  
[www.W6ZE.org](http://www.W6ZE.org)



**2008 Board of Directors:**

**President:**

Willie Peloquin, N8WP  
(714) 318-4047  
[N8WP@arrl.net](mailto:N8WP@arrl.net)

**Vice President:**

Nicholas Haban, AF6CF  
(714) 693-9778  
[AF6CF@w6ze.org](mailto:AF6CF@w6ze.org)

**Secretary:**

Ken Konechy, W6HHC  
(714) 744-0217  
[W6HHC@w6ze.org](mailto:W6HHC@w6ze.org)

**Treasurer:**

Paul Gussow, W6GMU  
(714) 624-1717  
[W6GMU@w6ze.org](mailto:W6GMU@w6ze.org)

**Membership:**

Chris Winter, W6KFW  
(714) 543-6943  
[W6KFW@w6ze.org](mailto:W6KFW@w6ze.org)

**Activities:**

Kristin Dankert, K6PEQ  
(714) 544-9846  
[K6PEQ@scdxc.org](mailto:K6PEQ@scdxc.org)

**Publicity:**

Rich Helmick, KE6WWK  
(714) 343-4522  
[KE6WWK@arrl.net](mailto:KE6WWK@arrl.net)

**Technical:**

Bob Eckweiler, AF6C  
(714) 639-5074  
[AF6C@w6ze.org](mailto:AF6C@w6ze.org)

**Member-At-Large:**

Dan Dankert, N6PEQ  
(714) 544-9846  
[N6PEQ@comcast.net](mailto:N6PEQ@comcast.net)

Hank Welch, W6HTW  
(562) 697-2239  
[W6HTW@w6ze.org](mailto:W6HTW@w6ze.org)

**2008 Club Appointments:**

**W6ZE Club License Trustee:**

Bob Eckweiler, AF6C  
(714) 639-5074  
[AF6C@w6ze.org](mailto:AF6C@w6ze.org)

**Club Historian:**

Bob Evans, WB6IXN  
(714) 543-9111  
[bobev@netzero.net](mailto:bobev@netzero.net)

**RF Editor (rotating):**

Nicholas Haban, AF6CF  
(714) 624-1717  
[AF6CF@w6ze.org](mailto:AF6CF@w6ze.org)

**WEB Master:**

Ken Konechy, W6HHC  
(714) 744-0217  
[W6HHC@w6ze.org](mailto:W6HHC@w6ze.org)

**ARRL Assistant Director:**

Ken Konechy, W6HHC  
(714) 744-0217  
[W6HHC@w6ze.org](mailto:W6HHC@w6ze.org)

**ARRL Awards Appointee:**

Larry Beilin, K6VDP  
(714) 557-7217  
[k6vdp@aol.com](mailto:k6vdp@aol.com)

**OCCARO Delegate:**

Loran Dargatz, KD6LRD  
(714) 777-9081  
[DargatzLR@msn.com](mailto:DargatzLR@msn.com)

**Monthly Events:**

**General Meeting:**

Third Friday of the month  
at 7:00 PM  
American Red Cross  
601 N. Golden Circle Dr.  
(Near Tustin Ave. & 4<sup>th</sup> St.)  
Santa Ana, CA

**Club Breakfast:**

First Saturday of the month  
at 8:00 AM  
Jagerhaus Restaurant  
2525 E. Ball Road  
(Ball exit off 57-Freeway)  
Anaheim, CA

**Club Nets (Listen for W6ZE):**

7.086 ± MHz CW **OCWN**  
Sun- 9:00 AM – 10 AM  
Rick KF6UEB, Net Control

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  
more.

**Club Dues:**

Regular Members ...\$20  
Family Members\* ...\$10  
Teenage Members ..\$10  
Club Badge\*\* .....\$3

Dues run from January thru Dec  
and are prorated for new mem-  
bers.

\*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.

# 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. Check out the upcoming events page in this newsletter to see the exciting speakers we have lined up for the next couple of months. Don't forget about the great 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>



## OCARC and Visitors

Just a reminder to come and join the OCARC Wednesday evening radio nets.

**10M net at 7:30 PM on 28.375 MHz (SSB)**

**2M net at 8:30 PM on 146.550 MHz (FM simplex)**

**Listen to the "Ham radio happenings podCast"  
!!!**



Net control station is **W6ZE**

**The OCARC WEB site is always up to date at  
[www.W6ZE.org](http://www.W6ZE.org)**

## 2008 OCARC POTLUCK EVENT

This year's Potluck event was celebrated with lots of food, fun and amateur radio, filling the house of Dan & Kristin Dankert (N6PEQ & K6PEQ). The club had a great turnout for the potluck with about 40 people coming and going throughout the afternoon. What a spread of food!

One of the many stars of the event was the Creamy Goat Cheese & Garlic Potato Gratin prepared by Kenan, N6CCE (see page 15 for recipe).



The Master Chef was Larry, K6YUI who did an outstanding job of serving hamburgers, cheeseburgers and hotdogs, all grilled to perfection.



Larry had an excellent helper, Ernie - N6HY who is a friend from the SCDXC.





Sitting around the table (L-R) are: Rich-KE6WWK, "El Vice Presidente" Nicholas-AF6CF, Tom-K6CCD, Larry-W6FUB, Fried-WA6WZO, and Bev-KI6APH (back to camera). In the back, near the grill, are (L-R) Dan-N6PEQ, Jim-N6DHz, Larry-K6YUI, and Ernie-N6HY.



Sitting indoors where the temperatures were much milder, many of the ladies gathered. L-R are Sharon-K6IRD (in wheelchair after a foot operation), Valery Weed (wife of K6CCD), Judy Welch (wife of W6HTW), Diane Konechy (wife of W6HHC), and Sandi-WA6WZN (back to camera)."

## A HISTORY OF THE ORANGE COUNTY AMATEUR RADIO CLUB - Part 9

by Bob - WB6IXN, Club Historian

### \*\*\* A NEW ERA – cont'd \*\*\*

El presidente, Frank Smith, WA6VKZ, ruled the roost in 1981. The Club decided to sponsor an Explorer Post and Vic, N6AHB; Alfred, WD6DIY; Judy, WA6HEL; and Bill, WD6ESS, volunteered to help. Lloyd Harwood, WB6ULU, was appointed the ARES Liaison to Flotilla 24 of the U.S.C.G. Auxiliary. The OCARC club breakfast moved to Miles Square Country Club. The Club held a picnic at Craig Park in April. We camped at El Toro Marine Air Station for our 24-hour Field Day on June 27-28. The USMC erected some large "base tents" for the club to use at FD. Very memorable was the hibachi grill that Kei-W6NGO set up inside one FD tent for snacks on Saturday night...the tent was full of smoke and wonderful aromas and a little sake. N6AHB, Vic, handled the new Novice Class. The Club also offered a General Class license training course.

Robin Hoff, KA6HappyNewYear, hopped to the presidency in 1982. The monthly Club breakfast and Board meeting on 1<sup>st</sup> Saturday mornings moved to the Cookbook Restaurant in Tustin. Frank Smith, VKZ, donated an ICOM-215 for a fund raiser raffle prize at Field Day! Vic Alvey, N6AHB, and Carl Rodgers, N6FYG, handled the Novice Class training for the Club. Alex, W6RE, headed up the Bike-a-thon for the American Cancer Society. Field Day was held on June 26-27, at Centennial Park in Santa Ana. Mayor Gordon Bricken of Santa Ana issued a Proclamation declaring June 26-27 "AMATEUR RADIO WEEKEND" in the City of Santa Ana! The Christmas banquet was held at Black Angus Restaurant in Garden Grove.

Al Watts, W6IBR, lit up the presidency in 1983. One thousands thanks to: Al's XYL, Dotty, W6IBP, and their YL, Jane [later to become KC6TAM], for the baked goodies at Club meetings and for the tireless hours they spent in service to the OCARC! The Club then started planning for the 1983 ARRL Southwestern Division Convention held Sept. 3-4, in Anaheim. Field Day Chmn., Frank, WA6VKZ (an ex-Marine), procured the MCAS(H) in Santa Ana for Field Day. Ernie, WA6FOW, set up and operated W6ZE for

Pony Express Days in the Garden Grove Post Office. The Christmas Banquet was enjoyed at the Tulsa Rib Company on South Bristol in Santa Ana. OCARC's share of proceeds from the ARRL Convention was \$1,268, plus return of \$200 seed money needed to prepare for the Convention.

Marine captain, Chris Breller KA6IMP [now KJ6ZH], marched to the presidency in 1984. The Club sponsored Novice Class training with over 20 students in the class...9 new novices was the result! The Club picnicked at Mile Square Park in Fountain Valley on May 20. June 23 & 24 found the OCARC camped again at a site on the USMC Helicopter Base in Santa Ana. Over the years, Ken Konechy, W6HHC, has tirelessly given a program annually on past Field Days...We owe him a debt of gratitude! Al, W6IBR; Dotty, W6IBP; and YL, Jane, arranged the Orange County Council's Radio Booth at the Orange County Fair. Also working at the booth were Chris, IMP; Lloyd, ULU; and Ernie, FOW. The booth was open from July 6 thru the 15<sup>th</sup>...And OCARC won 2<sup>nd</sup> prize!...(It was OCARC's turn to arrange & manage the Booth that year). The Club's Saturday breakfast moved to Mimi's Café in Tustin. Club members gathered at Doheny Beach for fun & games on Aug. 19. Chris Breller, IMP, started a Technician/General Class on Nov. 3. The Christmas Banquet was held in December at Victorian Broiler in Garden Grove.

In 1985, Bob Eckweiler, AF6C, assumed the presidency. Programs featured Fast-Scan ATV, OSCAR Satellite Communications, Remote Base & Cross Band Link Systems, Packet Radio, an ARRL movie "Amateur Radio's Newest Frontier", Field Day, Club History, and many others! Jane Watts received the "Good of the Club" Award. 1985 also recorded an increase in the 15m CW & Phone nets: IMP, IBR, EZU, ULU, and IXN were all heard on the CW Net on 21.175 MHz, while the Phone Net included BPX, IXN, IMP, AF6C, HHC, NGO, XO, and KG6OK on 21.375 MHz. Club members got badges once again at a cost of \$3.25 each. W6RE, K6LJA, and IXN were all involved with handling health & welfare traffic for the nuns in St. Francis Home in Santa Ana just after the Mexico City 8.2 magnitude earthquake.

(To be continued next month  
...Bob Evans, WB6IXN, Club Historian)

**Tech Talk #73****MIT Solar Energy Breakthrough**

by Rich Bowden

via [www.thetechherald.com](http://www.thetechherald.com)

Alternative energy researchers are claiming a major breakthrough in the financial viability of solar power, announcing a new method of storing energy for use when the sun isn't shining.

Delivered as part of the [Massachusetts Institute of Technology](#) (MIT) Energy Initiative scheme, a project designed to help "...transform the global energy system to meet the needs of the future and to help build a bridge to that future by improving today's energy systems," according to an MIT release, the breakthrough aims to reduce the prohibitive cost of storing solar energy for later use.

Using plants' photosynthesis as an example and an inspiration, researchers have developed a prototype that will allow energy from the sun to be used to split water into hydrogen and oxygen gases. The oxygen and hydrogen will then be recombined inside a fuel cell, creating carbon-free electricity as a power source, day or night.

"This is the nirvana of what we've been talking about for years," said Daniel Nocera, the Henry Dreyfus Professor of Energy at MIT and senior author of a paper describing the work in the July 31 issue of [Science](#). "Solar power has always been a limited, far-off solution. Now we can seriously think about solar power as unlimited and soon."

The new catalyst developed by Nocera and Matthew Kanan, a postdoctoral fellow in Nocera's lab, produces oxygen gas from water, while another produces hydrogen gas. The new catalyst consists of cobalt metal, phosphate and an electrode, placed in water. When electricity -- whether from a photovoltaic cell, a wind turbine or any other source -- runs through the electrode, the cobalt and phosphate form a thin film on the electrode, and oxygen gas is produced, according to the re-

lease.

The development has been hailed as a major achievement in the ongoing efforts towards viable alternative energy. James Barber, a leader in the study of photosynthesis (was not involved in this particular research), said the research was a huge step towards the goal of producing large scale clean, carbon-free energy. "This is a major discovery with enormous implications for the future prosperity of humankind," said Barber, the Ernst Chain Professor of Biochemistry at Imperial College London. "The importance of their discovery cannot be overstated since it opens up the door for developing new technologies for energy production thus reducing our dependence for fossil fuels and addressing the global climate change problem." Nocera claimed that, within ten years, home-owners will be able to power their homes during the day with solar energy, while using the excess to produce hydrogen and oxygen in their household fuel cell.

"This is just the beginning," said Nocera, "The scientific community is really going to run with this."





**The November Meeting Program  
will be:**

**2008 TX5C Clipperton Island DX-pedition**

**by Arnie N6HC**

**Arnie Shatz - N6HC will be our guest speaker at the OCARC November 21 general meeting. He will tell us all about the Clipperton Island DX-pedition and its trials and tribulations. This was a well planned operation that was heavily challenged by Mother Nature!**



You don't need to write like William "Bill" Shakespeare in order to write an article for the RF Newsletter. In fact, we prefer articles without the words "Thy", "Whilst", "'Tis" and "Of".

Do you have an idea for a newsletter article? Maybe you have acquired a new piece of equipment, designed or constructed a new antenna, took a trip focused around ham radio, want to share an amateur radio related experience or discuss a technical topic. Why not write an article for the monthly RF newsletter? The article can be short or long, simple or elaborate, and can even include pictures!

The RF newsletter relies on articles from our members. So why not give it try? Write an article and send it to the newsletter editor. It's fun, and at the same time, your contribution helps support our club and hobby!

If you want you can also try your hand as the newsletter editor. We have a rotating editor monthly and would love to have someone new give it a try. There is a template and it is easy and fun!!





**OCARC****Board Meeting Minutes****2008-11-01**

The OCARC Board meeting was held at the JagerHaus Restaurant in Anaheim at 8:15AM on Saturday, 2008-11-01. There were a total of 13 members and visitors attending. There was a quorum of directors participating, with the following three officers absent: Willie-N8WP (back near Boston), Dan-N6PEQ, and Chris-W6KFW.

**DIRECTOR REPORTS:**

- **Vice President** - Nicholas AF6CF reported that the following programs are planned:
  - November is Clipperton Island DXpedition
  - January is Chip-K7JA on Russian DXpedition
  - February is John-KI6MCB
  - March is a new Digital Radio DVD Tutorial
- **Treasurer** – Paul-W6GMU reported that the club currently had \$2,950 in the bank accounts.
- **Secretary** – Ken-W6HHC reported that OCARC had received a membership dues check from re-joining member Luke-W7XQ (of Orange) and also the insurance renewal for the club was turned over to the Treasurer.

**OLD BIZ:**

- **RF NewsLetter “Rotating” Editors**
  - November is Nicholas AF6CF
  - December is Bob AF6C
  - January is Ken W6HHC
  - March is Loran KD6LRD

- **Amendment to OCARC BYLAWS**

The OCARC BYLAWS currently allows all Directors to serve up to two consecutive terms, except for the Treasurer. The board members agreed that this provision does not really make sense. Any change to the OCARC BYLAWS needs to be announced to the club membership at two separate meetings. The Secretary reported that the proposed amendment found on page 11 was read and discussed at the October meeting. The membership will vote at on the amendment at the November meeting

- **Time Capsule**

The Nicholas AF6CF reported that the contents of the “OCARC Time Capsule” will be sealed at December Christmas Party:

- Current QST and CQ magazine
- Members encouraged donating old OCARC badges or other memorabilia.
- Ken-W6HHC reported he had made PDF excerpts of the three 1933 radio magazines.
- Kristin-K6PEQ has agreed to store the capsule at her office until 2033 (the 100<sup>th</sup> Anniversary)

- **Radio Auction Results**

- Paul-W6GMU reported that the auction final net profit for the club was \$ 117.00
- There was discussion that the amount of equipment brought to auction this year was down. Larry-K6YUI reported that the SC DX Club also saw a decrease in equipment brought this year at their auction. Everyone agreed the radio auction was a fun event.

- **Club QSL Design Contest**

A discussion was held that we should hold a contest to design a new QSL card for use by the OCARC and its members. Details printed on page 11.

- **FD QSL Logs Needed**

The club license trustee, Bob-AF6C, reported that he has many QSL cards from 2007 and 2008 Field Day events. He has been unable to get the FD Chairman to send him copies of the logs, so far, so that he can confirm the contacts. Kristin-K6PEQ said she would get in touch with Willie-N8WP about the logs.

- **OCARC Christmas Party**

- The OCARC Christmas Party is planned for Friday, Dec 12th. Details will appear in this issue of RF Newsletter.
- Please RSVP to Kristin-N6PEQ by Dec 06.
- Dan-N6PEQ reported that a new ICOM IC-7200 rig is the grand prize this year.

**Board Mtg Minutes – cont'd****• Morse Code Class**

Kristin-K6PEQ and Hank-W6HTW explained that a Morse Code Class is planned for a weekend in early February. The club code class is planned for Feb. 14th at the QTH of N6PEQ/K6PEQ.

**• Nomination Committee Efforts**

- Ken-W6HHC reported that he had recently spoken to Richard-KI6RBT who said he had made good progress with the nomination efforts.
- A nomination report was expected at the board meeting, but Richard did not attend. Nicholas-AF6CF will contact Richard and follow-up.
- The goal is to publish up-to-date nomination results for the November election in the RF Newsletter.

**• 2009 FD Site Efforts**

- Paul-W6GMU reported that he had made good progress and would most likely be able to secure the Los Alamitos JFTB for the club's 2009 Field Day efforts through the ACS (under OES).
- A significant factor will be to assure that we clean-up the base in a timely fashion after FD. It was noted by the base that our last clean-up took several weeks after FD.

**NEW BIZ:****• OCARC E-Mail Problems**

- The board discussed the e-mail problem that Willie-N8WP was having with a WEB-based e-mail reader when the "full club membership" is listed in the "TO" area.
- Each club member had an opportunity to discuss if he had similar problems and if he recommended going to BCC distribution lists.
- The general consensus was to use BCC to address club e-mails when full club membership was the audience.

**• Good-of-Club Award**

Nicholas-AF6C was handed the duty of organizing an OCARC "Good-of-the-Club" award to be presented at the December Christmas Dinner. All club members will be asked for their nominations for the award. The board members will vote on the winner.

Submitted by: Ken Konechy W6HHC  
Secretary

## W6ZE Time Capsule

We are getting close to sealing up the 75th anniversary W6ZE time capsule. The time capsule will be sealed at the Holiday Party on December 12th! If you would like to put a QSL card or badge in the capsule, please bring it to one of the upcoming meetings. We will be opening the time capsule at the 100th anniversary W6ZE celebration in 25 years! Also, if you have any other ideas on what you would like to be placed in the capsule, please let our VP, AF6CF-Nicholas know! We already have some projector slides of W6ZE, some magazines from the year the club was started and a few other items. Make sure you are a part of your club's history!

## W6ZE QSL Card Contest

W6ZE is holding a QSL card contest. We need new cards and it is up to you to design it and choose it! You have a month to come up with a design, draw it up and get it to a board member. We will vote on the designs at the Holiday party, December 12<sup>th</sup>! We still will need the basic contact information on it but the rest is up to you. I cannot wait to see all of the designs!

-0-

### **Proposed OCARC BYLAWS Change**

An amendment is being proposed to the BYLAWS of the Orange County Amateur Radio Club. The board has recommended changing the bylaws to remove the existing restriction that the Treasurer cannot be elected two consecutive years. It is being proposed that:

**"The officers elected to serve may hold office for two consecutive years if so elected annually by the membership. This amendment supersedes the current Amendment C that was approved in Nov 2000."**

This proposed amendment has been read and discussed at the club's October meeting and will be read, discussed, and then put to a vote at the November general meeting. In order to change the bylaws, a two-thirds affirmative vote by the membership present is required. A current copy of the OCARC BYLAWS is available for your review on the WEB site, under the "How to Join" link on the first page.



## OCARC General Meeting Minutes 2008-10-17

The OCARC October General Meeting was held at the Red Cross complex in Santa Ana at 7PM on Friday evening, Oct 17th. There were a total of 35 members and visitors present. A quorum of the club officers was present with the following club directors not attending: Willie-N8WP (moved to near Boston), Dan-N6PEQ & Kristin-K6PEQ (attending PacificCon), and Chris-W6KFW.

### OCARC BYLAWS AMENDMENT:

The OCARC Board of Directors is interested in making an amendment to the club's By-laws. Currently, the Bylaws allow all officers to hold office for two consecutive terms, except for the Treasurer. The Board has proposed the Bylaws Amendment printed in the October RF Newsletter in order to allow ALL directors to hold office for two consecutive terms, if so elected. The proposed amendment was read and discussed at the October General meeting. The amendment will be discussed and voted on at the November meeting.

### PROGRAM:

The great program was:

### “OCARC Yearly HAM Auction”

VP Nicholas-AF6CF conducted (with help from a few members) the club's yearly Ham Radio auction. A good time was had by all. Many members or visitors were able to pick up items at bargain prices. There were comments that it seemed that there were fewer items brought for auction this year, than in the past. [Note: The OCARC Treasurer Paul-W6GMU later reported that the club netted a profit of \$117 for the evening's auction.]



**Fig 1 – Nicholas-AF6CF and Rich-KE6WWK helped to conduct an auction that was enjoyed by all.**



**Fig 2 – Here is a view of just some of the radio gear that was sold during the club's auction.**

Submitted by: Ken Konechy W6HHC  
OCARC Secretary

## OCARC Holiday Party!!!!

### December 12<sup>th</sup> - Save the Date!



Come and celebrate the Holiday season with OCARC on Friday, December 12<sup>th</sup>. See Paul, W6GMU at an OCARC general meeting or OCARC club breakfast, or e-mail him at [w6gmu@w6ze.org](mailto:w6gmu@w6ze.org) to arrange purchasing your holiday party dinner tickets! Remember to bring your spouse and friends too! Dinner tickets are only \$24 per person and it includes family style food, non-alcoholic beverages and dessert. Check the club website for upcoming info and details coming soon (<http://www.w6ze.org>). We will be having a great raffle again this year. The grand prize will be an ICOM IC-7200!!!

Mark the date on your calendar!

**Friday night, December 12th at 7:00pm.**

Location: **Jagerhaus Restaurant**

2525 East Ball Road, Anaheim, CA 92806

Located on Ball Road, just west of the 57-Freeway.

[www.jagerhaus.net](http://www.jagerhaus.net) 714-520-9500

**See Kristin "K6PEQ" at the party  
to purchase your raffle tickets.**

**Take a peek on Page 14  
The tickets are only \$1 each!**



<http://www.w6ze.org/>

# THE GRAND PRIZE



**One of the attendees to the Christmas Party will be the winner of this IC-7200 HF rig that was recently announced by ICOM!**

**We will also have many other prizes, so be sure to be there...  
Dec. 12<sup>th</sup> at 7 PM**

*RSVP at the November General Meeting  
(Or before...)*



# Creamy Goat Cheese & Garlic Potato Gratin

Serves 4

## Ingredients

Butter, for baking dish

1½ cups heavy cream

5 ounces soft goat cheese, crumbled

1 garlic clove, minced

Coarse salt and ground pepper

1½ pounds baking potatoes, (about 3)



1. Preheat oven to 375 degrees. Butter an 8-inch square (2-quart) baking dish; set aside. In a large saucepan, combine cream, goat cheese, and garlic; season with salt and pepper.
2. Peel potatoes and slice crosswise 1/8 inch thick; add to cream mixture as you work. Bring to a boil. Reduce to a simmer; cook until potatoes are crisp-tender, 12 to 15 minutes.
3. Transfer mixture to prepared baking dish; using a spatula, press potatoes into cream to cover. Place dish on a rimmed baking sheet. Bake until golden and potatoes are tender, 20 to 25 minutes.

**Thanks to Kenan, N6CCE**

## OCARC 2009 Board Nominations

The Nomination Committee proposes the following members for the 2009 OCARC Board of Directors:

President:	Nicholas, AF6CF
Vice President:	Kristin, K6PEQ
Secretary:	Kristine, KC6TOD
Treasurer:	Paul, W6GMU
Activities:	Dan, N6PEQ
Membership:	Bob, AF6C
Publicity:	Ken, W6HHC
Technical:	Hank, W6HTW
Director at Large:	James, AF6DE
Director at Large:	Richard, KE6WWK

These names are proposed and nominated by the committee, and by no means are cast in stone! As per the OCARC bylaws, any member can propose him or herself at the November meeting and be considered for election to the Board of Directors.

Many thanks to the Nomination Committee Chairman Richard KI6RBT and Member Ken W6HHC for a job well done.



## Heathkit of the Month: by Bob, AF6C

### The Comanche and Cheyenne Mobile Twins:

Starting in the late fifties and into the sixties Heathkit named a lot of their ham radio equipment after Indian tribes. There was the *Pawnee* (HW-20) two-meter transceiver, the *Shawnee* (HW-10) six-meter transceiver, the *Mohican* (GC-1/1A) portable SW receiver, the *Apache* (TX-1) HF AM transmitter, the *Mohawk* (RX-1) HF receiver, the *Chippewa* (KL-1) Linear Amplifier, the *Seneca* (VHF-1) VHF transmitter, and probably others I missed.

There were also two more pieces of Indian tribe ham equipment that sold between 1959 and 1962: the *Cheyenne* (MT-1) mobile HF ham-band transmitter and the companion *Comanche* (MR-1) mobile HF ham-band receiver. These were small (for their day) radios meant to mount atop or next to each other in a vehicle for mobile operation; they could also be used in a fixed location. Each unit measured 6 1/2" H x 12 1/8" W x 9 15/16" D. Let's take a closer look at these twins:



**Heath MT-1**

#### The MT-1 Cheyenne Transmitter:

The Cheyenne transmitter runs CW and screen-grid (controlled-carrier) AM modulation on 80 through 10 meters. It runs at 90 watts peak input.

The circuitry is very close to the DX-40 and the DX-60 except the power supply was omitted and a VFO was added. A relay for switching antenna and power between transmitter and receiver was also built into the transmitter. One feature of the MT-1 is its rugged physical construction. This was necessary to assure adequate stability when operating mobile. The frequency was obtained directly from a VFO. No crystal reference and synthesizer was used, as in most of today's radios, so the components in the VFO had to be very secure. For that matter, the MT-1 did not have any provision for crystal-controlled operation. All the tubes in the MT-1 (and MR-1 too), with the exception of the final, were shielded using bayonet shields. This, was for physical security and as well as for electrical shielding.

#### **VFO:**

The MT-1 uses a 6AU6 pentode tube as a Clapp VFO. Voltage for the VFO is controlled at 150V by an 0A2 gas regulator tube. The VFO tunes 1750 - 2000 KHz on 80 meters, 7000 - 7175 KHz on 20 and 15 meters, and 7000 - 7425 KHz on 40 and 10 meters. To increase stability the tuning capacitor is a high quality dual bearing, ceramic unit and the frequency components are mounted rigidly and away from heat generating components. Temperature compensating capacitors help correct for drift from temperature. The frequency dial scales are etched on a glass cylinder that turns with the band switch to show only the dial scale for the band in use, behind the slide rule indicator. The VFO tuning capacitor is two section to allow adequate bandspread on 20 and 15 meters. It utilizes a gear drive, and when properly adjusted, has the feel of a very expensive radio. The VFO output is doubled in the 80-meter position for an output of 3500 - 4000 KHz. A SPOTTING switch allows the oscillator to run while in receive mode so the transmitting frequency can be 'spotted' on the receiver.



**Buffer:**

The output of the VFO is fed into a buffer stage consisting of a 6CL6 pentode tube. This stage provides isolation and some frequency multiplication. Output of the buffer stage is untuned on 80 meters, tuned to 40 meters when operating at 40, 20 and 15 meters, and tuned to 20 meters when operating at 10 meters.

**Driver:**

Following the buffer is the driver stage that uses a 5763 pentode tube. This stage provides frequency multiplication of two or three, depending on band, and increases the power to a level capable of driving the final amplifier. Coupling between the driver and amplifier is via a PI network. The PI network is tuned with the DRIVE tuning variable capacitor on the front panel and has fixed loading.

**Final Amplifier:**

The final amplifier uses a single, common, rugged, 6146 power tube. The amplifier runs 90 watts input on AM (peak) and CW. It uses a heavy-duty PI network output tank circuit that can drive 50 - 72 ohm loads. The final plate runs at 600V and the transmitter is tuned for 150 ma of plate current for 90 watts input power.

**Modulator:**

The modulation scheme was taken directly from the DX-40 and DX-60. A 12AX7 dual-triode amplifies audio from a high impedance push-to-talk (PTT) microphone in two cascaded stages. The audio response is shaped in these stages to favor voice frequencies. The audio is then fed into the lower power section of a 6DE7 dual dissimilar triode where it is amplified and directly coupled to the high power triode section that controls the screen-grid voltage of the 6146 final, and modulates the RF output. The microphone is included with the radio and is designed to respond only to voice frequencies needed for best communications clarity. The microphone uses a ceramic element to withstand the severe environment of an automobile. The microphone

jack is on the right side of the MT-1 and includes a PTT connection that operates the transmit - receive relay.

**CW Operation:**

In the CW mode the oscillator and buffer run continuously when in transmit mode, and the cathode of the driver and final are keyed from the key jack on the rear of the transmitter. Key up voltage at the key is on the order of 75 volts, so care should be taken to avoid a surprise shock.

**The MT-1 Front Panel:****Top Row**

- Meter
- Meter selector: **Grid – Plate** (Lever switch below meter)
- Tuning Ruler Dial

**Middle Row**

- **Spotting: OFF ON**
- **Function: OFF, Grid, Stby, Phone, CW**

**Bottom Row**

- **Final tune: 0 – 10**
- **Drive tune**
- **Band: 80, 40, 20, 15, 10**
- VFO Tune
- **Audio Gain**
- **Final Loading**

(Actual panel markings are shown in bold.)

**Rear Panel:**

Connectors on the rear panel are a 1/4" phone jack for the key, two SO-239 female UHF coax connectors - one for the antenna and one for the receiver, two six-pin Jones connectors - one for power input from the power supply and the second for power output to the receiver, and a ground post.

The Heathkit Cheyenne AM Mobile Transmitter cost \$105.95 in 1959. It was later replaced by the HX-20 SSB Mobile Transmitter which had no Indian tribe designation.



**Heath MR-1**

### **The MR-1 Comanche Receiver:**

The companion receiver to the Cheyenne MT-1 transmitter is the Comanche MR-1 receiver. Physically they are identical in size and look almost identical. The MR-1 is an eight-tube single conversion superheterodyne receiver with a 3 MHz IF. Three of the tubes are multi-section. A crystal lattice IF filter provides adequate selectivity of 3 KHz at 6 db and 10 KHz at 60 db. The receiver boasts a sensitivity of 1  $\mu$ V, par for good receivers of the day. All the HF bands of the day are covered in their entirety.

### **Front end:**

The RF amplifier of the receiver is a 6BZ6 pentode tuned-grid tuned-plate amplifier. Individual coils are switched in for each band and the front panel ANT TUNE control peaks the input of the RF amplifier. The output coils are tuned by a section of the main tuning capacitor. Output from the RF amplifier is fed into the pentode section of a 6EA8 dual tube where it is mixed with the high frequency oscillator that uses the triode section of the 6EA8. Each band has its own oscillator tuning components, using temperature compensated capacitors, so each band to be calibrated without affecting others. The voltage to the HF oscillator is regulated to 150 volts by an 0A2 gas regulator tube. This tube also

regulates the voltage to the product detector and S-meter amplifier. Surprisingly, there is no 100 KHz crystal calibrator built-in to the receiver.

### **IF:**

The intermediate frequency stages operate at a frequency of 3.0 MHz. The mixer output is coupled to the first IF through a 3 MHz crystal lattice filter that provides good selectivity before the first IF (perhaps the beginnings of the roofing filter?) Two stages of IF amplification are provided using another 6BZ6 and the pentode section of a second 6EA8.

### **Detectors:**

The output of the IF is fed either into a product detector for CW/SSB or a diode detector for AM. The product detector uses a 6BE6 penta-grid converter tube which also acts as a three MHz tunable oscillator. The oscillator frequency is varied by the BFO (beat frequency oscillator) front panel control. The product detector output is the difference between the IF and the oscillator setting. On CW this is usually a note of about 1000 Hz, adjustable by the BFO control; and on SSB this is the audio of the SSB signal when the BFO control is set properly. Marks on the front panel BFO control give proper settings for LSB and USB. For stability the voltage to the product detector is regulated by the 0A2 gas regulator tube.

AM signals are detected by one of the three diode sections of a 6T8 triode, triple diode tube. The other two diode sections provide AVC (automatic volume control) and a diode noise limiter that can be turned on or off.

### **Audio:**

The triode section of the 6T8 tube used for

AM detection provides a stage of audio amplification after either detector. That stage is coupled to a 6AQ5 audio output stage that drives an external speaker.

### AVC and S-Meter:

One diode section of the 6T8 produces a negative voltage that becomes more negative as the signal strength increases. This negative voltage reduces the gain of the RF stage and two IF stages and is also fed to the S-Meter amplifier, the triode section of the second 6EA8. The meter is in the cathode of the amplifier tube and responds to signal strength. As was common on S-Meters of the day, the meter is mounted upside-down. When the receiver is off the meter rests on the right edge of the scale. When the radio is on, the meter moves to the left to the zero mark with no signal (actually full scale) When a strong signal is received the AVC voltage reduces the current in the tube, and thus through the meter, causing the meter to move to the right. The meter amplifier also uses regulated voltage primarily for a stable zero setting.

The MR-1 requires an external power supply of 300V plus 6 or 12 volt filament voltage. If used with an MT-1 this is provided from a female 6-pin Jones connector on the back of the transmitter.

### The MR-1 Front Panel:

#### Top Row

- S-meter
- Mode: **CW/SSB - AM** (lever switch below S-Meter)
- Tuning Ruler Dial

#### Middle Row

- **AVC: OFF – ON**
- **Noise Limiter: OFF - ON**

### Bottom Row

- **BFO Tune**
- **RF Gain**
- **AF Gain/Power OFF**
- VFO Tune
- **Ant[enna] Tuning**
- **Band: 80, 40, 20, 15, 10**

The Comanche MR-1 sold for \$129.95. It was later replaced by the HR-20 Mobile Receiver which had no Indian tribe designation.

### Power Supplies:

Heathkit made three power supplies for the Cheyenne/Comanche twins. The MP-1 mobile power supply, manufactured in 1960, is designed for 12 volt operation and uses two 2N442 switching power transistors that switch at 400 Hz. It provides the needed 500 - 600V at 150 ma, and 300V at 100 ma from a 12 - 14 volt source. The power supply also provides filament voltage straight from the 12 - 14 volt source.



**Charles Fiore, K2CQK with his restored Heathkit Cheyenne and Comanche Mobile Twins.**

[Photo courtesy of the Radio Central ARC  
[www.RCarc.org](http://www.RCarc.org) ]

The MP-1 was quickly replaced by the more efficient HP-10 from 1960 - 1963. This transistor switching supply is more ruggedly packaged and includes massive heat sinks for the transistors.

Cont'd on Pg 21....



**From:** ocarc-bounces@dacooley.com **On Behalf Of** David Cooley  
**Sent:** Saturday, November 01, 2008 5:31 PM  
**To:** ocarc@dacooley.com  
**Subject:** [Ocarc] Stolen equipment...

If anyone sees any of this for sale (As a whole probably) please let me know...  
Sometime in the last few months my Storage Closet outside my apartment door was apparently broken into and ONLY my ham equipment was stolen...  
Here is the list:

## Missing Items

### Qty. Item Description

- 1 Radio shack HTX-202 2m Handheld Transceiver with Hi-Cap Battery pack
  - 1 Icom IC-03 220MHz Handheld Transceiver with Hi-Cap Battery
  - 1 Icom IC-04 440MHz Handheld Transceiver with Hi-Cap Battery
  - 1 Radio shack SWR meter 0-50W SWR/Power meter
  - 1 Radio Shack Speaker/Mic Speaker/Mic with 4 ft coiled cord
  - 2 2m/70cm antennas "rubber duck" dual band 2m/70cm antennas
  - 1 220MHz antenna "rubber duck" 220 MHz antenna
  - 2 Motorola Micor radio VHF-HI police radios tuned to 220MHz
  - 2 Motorola Micor Radio VHF-HI Police radios converted to 2m
  - 3 Power cords Cig Lighter power cords for Handheld radios
  - 2 Triplexer 2m/220MHz/440MHz Antenna triplexer for mobile use
  - 1 Comet SB-224 Tri-Band Mobile antenna – NMO mount
  - 1 3-magnet Antenna mount 3 magnet NMO antenna mount
  - ? Adapters Variety of antenna/cable adapters
- ...de David Cooley N5XMT

### Heathkit cont'd...

For fixed location operation where 120 VAC is available, Heath manufactured the HP-20 power supply. This supply uses solid-state rectifiers and was a forerunner of the HP-23(A-C) AC power supplies that powered many of the SB series transceivers into the seventies. These later power supplies could be made to work with the Cheyenne and Comanche.

Unfortunately SSB was quickly becoming the voice mode of choice so the Comanche and Cheyenne had a short life. In a future column we'll look at their replacements.

*If anyone has old Heathkit manuals or catalogs, (especially catalogs from the late fifties, sixties and seventies) that they are going to throw out, please pass them on to me. They help a lot with research on the older kits.*

de AF6C.

## **2008 FIELD DAY RESULTS**

**President Willie, N8WP has reported that  
OCARC came in:**

28th place overall with 11,316 points,  
3rd place in the 9A Category  
1st place in the ORG section  
1st place in So. Calif. (Org, LAX, S.D. plus S.B.)

Good Job OCARC.

Willie Peloquin, N8WP  
2008 Field Day Chairman

“Congratulations to all who participated in the OCARC FD.....Very  
GOOD!”

Carl Gardenias WU6D  
Orange Section Manager

## Please support the companies that support OCARC!

Make sure to thank them for their support of the OCARC when you order from them, or when you see them at a convention!

