

ORCA NewsLetter

Oakland Radio Communication Association
Oakland, California

January 7, 2006

The next meeting will be on the first Saturday, January 7, 9:00 AM at Fire Station 1 media room, 1605 Martin Luther King at 17th Street, Oakland.

President's Corner

Special points of interest:

- **WB6NDJ** Repeater Update
- 2005 Leap Second

Net Control:

- Jan 5 - **KG6MAC** Tom
- Jan 12 - **AE6PX** Dave
- Jan 19 - **KE6HKY** Adele
- Jan 26 - **KF6YRG** Michael
John

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It's that time again. An old year has passed and a new one is emerging, a clean slate ready to be filled in with anything we wish.

2005 was a fun, rewarding and exciting year for all ORCA members. We started the year in great team fashion, refurbishing ECHO equipment in many Oakland Fire stations over the course of several weekends. Anyone who participated was treated to hands on demonstrations of Anderson power poles, battery chargers and wiring. Our presence at these stations reinforced our image and commitment to the members of OFD who witnessed our work.

Field Day was a great success due to the hard work, teamwork, cooperation and planning that is required to stage an event of



this magnitude. Anyone who operated or visited had a great time and were availed the opportunity to communicate with other hams using a great variety of modes, ranging from the very old to the very new. Having the best food this side of the prime meridian prepared and served was a great plus and an added treat!

We had many fine speak-

ers and demonstrations at our Saturday meetings. We had several opportunities to participate in simulated drills and exercises, again proving that ORCA and ham radio are viable parts of emergency communications in Oakland.

Some of our members moved away. Their experience and leadership will be missed. But we gained new members whose enthusiasm and knowledge will be of much benefit to ORCA in the years to come.

As we look forward to 2006, let's take a look back just for fun. Let's go back 100 years to the year 1906. Sounds pretty ancient but I will bet that most of us knew someone who was alive at that time, the dawn of the

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ORCA Calendar

Meeting at the EOC on January 7th—*Basic RACES Training* by Sandy **KO6JF**. All RACES Members should attend!

2006 ORCA Board Meeting Dates: 1/24, 4/25, 7/25, 10/24

2006 ORCA/EBARC VE Sessions: 1/22, 4/23, 7/23, 10/22

2006 Field Day June 24-25

President's Corner

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new century, whether it be a parent or grandparent or childhood neighbor. Wireless communication was in its infancy. Those mysterious dits and dahs began penetrating the airwaves, bringing the world closer together. The Wright brothers had proven that heavier than air flight was possible and were busy at work at the old drawing board, designing the next generation of aeroplane. The automobile industry was perfecting mass production techniques, but the vehicles that came off those lines were still a novelty. Horses and carriages still filled the streets, in more ways than one.

Let's jump back 79 years from today. Philo Farnsworth transmitted the first television image at his laboratory on Sansome and Green in San Francisco. That building still stands and houses an electronics company to this day. Every time I ride past I stop and read the plaque that has been placed there to commemorate the event that occurred on that September day in 1927.

Can we imagine living in a world without these "everyday conveniences"? Better yet, can we imagine what everyday conveniences might be like 79 and 100 years in the future?

Will the internet, with its broadband connections be the "wireless" of 1906? Will the International Space Station and the space shuttle be the "flying machines" of that era? What we take for granted was once unimaginable and, in that world of the future, what we cannot imagine will be commonplace.

I spent a portion of my time ushering in 2006 communicating with other hams using an antiquated, yet useful and fun mode, CW, those dits and dahs that amazed folks at the turn of the last century, logging the details of each contact with pencil and paper. I will then confirm the addresses of those contacts using the internet, the information being displayed instantly on a flat panel LCD. To make the circuit complete I will mail a postcard containing that info, using a 23 cent stamp, and soon a return card will arrive in my mail box, confirming mine. A wonderful mix of old and new, of "new fangled" and "old fangled", of past and present. A fun concept to embrace and enjoy.

73, Dave **AE6PX**

WB6NDJ Repeater Update

by Tom **KG6MAC** and Michael **KG6DER**

As most of you know, extensive work has been ongoing with the 2 meter repeater. Less than 24 hours after the installation of the new controller was stamped "Done" by Tom **KG6MAC** and Michael **KG6DER**, the transmitter on the VXR-7000 suffered from a mechanical failure. Output was measured at 5 milliwatts, and considering the quality of the signal reports with that output, we have a very good antenna system. The VXR-7000 has now been taken out of service for repair. Currently an FT-5200 with 18 watts of output is acting as the transmitter and an FT-817 is the receiver.

Due to issues with the antenna mount, the 2 meter transmit antenna has been replaced by Sherrick **KA6NZB**. A new antenna with a reengineered mounting system was installed.

2005 Leap Second/Galileo

by Jim **KG6RZQ**

There is a discrepancy between atomic time and astronomical time that caused 2005 to end with the addition of a "Leap Second", making the final minute 61 seconds long.

An article in the 12/27/2005 edition of the S.F. Chronicle outlined possible problems this discrepancy may eventually cause for software and other technological programs that require precise timing, and eventually for us and our descendants. Somehow the problems don't seem all that alarming.

The discrepancy in time is caused by two different definitions of a second. Atomic time defines a second as the time it takes a Cesium 133 atom to tick off 9,192,621 cycles. Astronomical time defines a second as 1/86,400 of a "mean solar day". These two definitions are "approximately" the same, but are slowly getting out of synchronization because the length of the "average solar day" is slowly increasing due to the effect of tides on the earth's rotational speed. To remedy this, the ITU (International Telecommunication Union) stipulated that "Coordinated Universal Time", an atomic time used as the world standard, could not diverge from astronomical time by more than 0.9 seconds.

Doesn't this sound vaguely like past legislative attempts to pass a law making pi an exact 3.14?

I wonder if the Europeans have taken these problems into consideration in the design of Galileo, their new Global Positioning System?

For those of you not familiar with Galileo, it is planned to be a rival to the U.S. GPS satellite system. It is being built by the British company Surrey Satellite Technology Ltd. and is a joint venture between the European Union and the European Space Agency. The first Galileo satellite of the new system, named GIOVE-A, was successfully launched on 12/28/2005. It will be used to initially secure the frequencies for the system, as well as testing of the hardware.

The Galileo system is expected to become fully operational by 2010, maybe not a second too late.

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Oakland Radio Communication Association

Club: WW6OR, N6ORC
Repeater: WB6NDJ

New Membership and Renewal Form

New Member Renewal

Family membership—number of additional Hams: _____

Name _____

Call _____ License: E__ A__ G__ T+__ T__ N__

Address _____

City _____ State__ Zip _____

Email _____

Newsletters will be emailed only to members who specifically request them. All others will receive them by mail. Email?

Best Phone (_____) _____ Alternate Phone (_____) _____

Best is a: cell work home Alternate is a: cell work home

Are you an ARRL Member? Yes No

Family Hams name/call sign/license class:

Please remit a photocopy of your FCC license (and any Family Ham licenses) with a check payable to "ORCA" to

ORCA

P.O. Box 21305

Oakland, CA 94620-1305

2006 new members: \$30.00 up to March 31, 2006

2005 members renewing for 2006: \$30.00 due by February 28, 2006

[\$22.50: 4/1/06-6/30/06; \$15: 7/1/06-9/30/06; \$7.50: 10/1/06-12/31/06]

2006 additional family Hams: \$5 each other Family Ham (not prorated)

2007 dues will be accepted: \$30, plus \$5 each other Family Ham

Final acceptance of this application and membership in ORCA with repeater privileges is subject to review and/or approval by the ORCA Board.

I agree, for myself and for any Family members included in this application, to abide by the rules and regulations set forth in the ORCA Bylaws and the applicable repeater operating procedures.

Date: _____ Signature: _____

ORCA Meeting – 12/3/2005

by Tom **KG6MAC** Meeting Recorder

An administrative note by Coleen Bell: The goodies, coffee cakes, etc. were day olds donated by Starbucks.

The sign-in sheet was passed around as well a list of information for a club directory. People were asked to indicate if they wished to have personal information withheld due to privacy concerns.

Vice President, Michael **KG6DER**: Michael has met with Bobbi Bond from the Commission on Aging. She is very excited about ham radio and wants to get seniors licensed and stations (VHF/UHF only) into senior's buildings. She is concerned with both emergency communications and recreational uses of ham radio. We are considering putting on classes for seniors who want to get licenses.

Treasurer, Bill **KF6VOG**: The treasury is in fine shape. No changes since last month. We are starting to receive dues checks. The holiday dinner is coming up. The checking account currently has \$6175.92 with some expenditures coming in: quarterly postage, batteries, PG&E and phone bills for the repeater site.

Bob **KE6IUE** made a motion to reimburse David **WB6NER** for new batteries for the repeater of up to \$300. The motion was seconded and passed unanimously.

Holiday Dinner, Bill **KF6VOG**: The location is the Pier 29 restaurant, the same as last year. Date and time are 1800 on Wednesday, Dec. 14. There will be door prizes and a special raffle for a Yeasu VX-2 dual band micro handheld for \$5 per ticket.

Membership Survey, David **WB6NER**: David was attending the ARRL meeting, inconveniently scheduled at the same time as our meeting, but wishes everybody to fill out the surveys that came out with the current newsletter and return them to him.

Web Site, Tom **KG6MAC**: The web site had gotten pretty badly out of date, but has been updated and is current with info on the holiday dinner, club meetings, VE test sessions and board meetings. The next project is a web page on the repeaters with pictures and descriptions of the equipment.

Chabot Space and Science Center: The people at Chabot currently seem to have little interest in putting together a display. We have made our pitch, but have not gotten any response. We are currently waiting for some kind of reply on their part.

Echo System: No update. No status change on Fire Stations 8 or 10. It was noted that the microphones for the "station in a box" should be changed out.

ORCA and ARCA (Amateur Radio Club of Alameda): If there is interest, the two clubs may join forces for the VHF-UHF contest in January.

Other Business: A Repeater Report was given. Karen **KG6ADB** commented on November 19th drill.

Chris **KE6MQW**: A Million dollars has been approved for

building an AC Transit Mobile Command Center. Mike Malone **K6OR**, extra class operator, wants to get in touch with somebody knowledgeable with RACES and the current status of ham radio.

Sad news: Jim Ploss **KB6MYV** is near death from cancer. Kaiser sent him home with pain control medication. He is not in shape for visitors. A memorial service will be held when appropriate. [*Ed. Note: Sadly, he has since passed away.*]

Next VE Exam is Sunday Jan 22, 2006 at the Kaiser building on Franklin. Also, EBARC will be running a Tech class in the spring at West Contra Costa Adult Education school.

Net Control Assignments for January: Jan 5 **KG6MAC**, Tom, Jan 12 **AE6PX**, Dave, Jan 19 **KE6HKY**, Adele, Jan 26, **KF6YRG**, Michael John

Golden Guardian Report: This drill was held on Nov. 15 and included a mock gas attack at the Coliseum and other terrorist activity at the Oakland Army Base. Net control at the EOC deployed an SSTV team to the Coliseum. There was a full contingent of media trucks as well as Berkeley and Oakland Fire Depts. Simulated victims were suffering from poison gas exposure and shrapnel wounds. Mike **W6UAB** and Dave **AE6PX** sent slow scan images from the scene back to the EOC. The pictures came up on the big screen monitor in the Operations Center and were quite impressive. A full briefing with the fire and police departments was held. The capabilities of the radio room were demonstrated. Michael **KG6DER** also talked about the Echo system and WinLink e-mail. Adele **KE6HKY** mentioned her work with moulages (simulated wounds) for the Coliseum "victims".

There was a combined CORE and RACES drill held on Saturday, Dec. 19. On the comms side, there were two drills. The first one was unannounced and consisted of having no net control station on line when people started checking in. Karen **KG6ADB** took over and started a resource net on the repeater from her fire station until a better equipped station could take over. After that, stations were shifted to a tactical net on simplex for most of the rest of the drill. The main emphasis was passing messages from the CORE drill participants to the EOC. A couple of notes of the drill: People need to know our secondary frequency and it should not be mentioned over the air so jammers cannot follow. If there is a self-activating event, the first person who can get on the repeater should open up a resource net. This is what our weekly nets are. Also, try to keep everything as brief and concise as possible so the person on the other end will have time to write it down. If you can, write it down yourself before you send it. That way you will be forced to keep it brief, and will not get confused while talking on the radio. We will be doing more training in the future, some of it outside of regular meetings.

Adele **KE6HKY**: She ran a drill at Kelton Ct. and fire department personnel showed up and helped out with the drill. FRS radios worked very well there, in spite of it being a concrete and steel building. Chief Ferrel came by and they agreed that the drill seemed to be going well.

There is a blood bank net run by the Red Cross on 40 or 80 meters on the first Wednesday of each month. Art **W6THD** and Doug **N6TQS** joined the net last time and talked with Sacramento, San Diego, and Bakersfield. The Red Cross personnel did not know there was a radio station was there.

Repeater Update Continued

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The batteries in the backup power system have been replaced by David **WB6NER** as the previous ones were no longer holding a charge, and a temporary replacement charging system is in place.

In the near future, when the 70 cm repeater is moved to the new controller, a permanent charging system consisting of the existing 70 cm power supply and a West Mountain Radio Super PowerGate will be installed.

We are currently looking at making some upgrades at the repeater site. First, we are planning to replace the transmitter and receiver of the 440 MHz repeater when we connect it to the new controller. Second, we are still working on getting telephone autopatch up and working. This is being delayed due to problems with our telephone line at the repeater site.

Some longer term projects we are working on: Voice Over Internet (VoIP), probably either Echolink or Internet Radio Linking Project (IRLP), which will allow repeater users to connect to other repeaters around the world using the internet. DX from a handheld!

We are also looking at installing a packet station at the repeater site. Ideally we would like to attach this to the internet to allow users to send and receive internet E-Mail via packet radio.

If you have questions, comments or suggestions, please email Tom at KG6MAC@arrl.net or Michael at KG6DER@arrl.net, or talk to us at the January meeting.

WB6NDJ Repeater Site Photos



*Left: The "top" of the 2 meter transmit antenna. Photo by Sherrick **KA6NZB**, taken while atop the antenna pole*

*Right: Base of the 70 cm repeater antenna. Photo by Sherrick **KA6NZB**, taken while atop the antenna pole*



*Right: Repeater racks holding the **WB6NDJ** 2 meter and 70 cm repeaters, manual boxes and workbench. Photo by David **WB6NER***



*Left: "The Box on the Hill" holding the **WB6NDJ** 2 meter and 70 cm repeaters. Photo by David **WB6NER***

*Right: View of the repeater antennas from the ground. Photo by David **WB6NER***





Topic: RACES Basic Training

Monthly events

1st Saturdays	ORCA Monthly Meeting - Oakland OES 9:00
1st Sundays	Livermore Swap meet Robertson Park
2nd Fridays	East Bay Amateur Radio Club
2nd Saturdays	Electronics Flea Market in Sunnyvale
3rd Fridays	Hayward Radio Club
3rd Fridays	Mount Diablo Amateur Radio Club
4th Fridays	Amateur Radio Club of Alameda

Amateur Radio Club of Alameda meets 7:00 PM at Building 522
West Midway on Alameda Point.

East Bay Amateur Radio Club meets at 7:30 PM at the
Salvation Army, 4600 Appian Way, El Sobrante.

Hayward Radio Club meets at 7:30 PM 1401 West Winton Ave.
in Hayward behind Hayward Fire Station 6, next to the
Hayward Air National Guard Base.

Mount Diablo Amateur Radio Club meets at 7:30 PM
at Our Savior Lutheran Church,
1035 Carol Lane, Lafayette.

*Note: The Swap meet has a new location at
Robertson Park, Livermore
For more info*

<http://www.livermoreark.org/swap/swap.html>

**ORCA on the web:
ww6or.com**

Weekly Nets

Thursdays	Oakland ARES/RACES Net
7:30 PM	146.88 MHz minus PL 77
Thursdays	Alameda Emergency Preparedness
7:00 PM	146.88 MHz minus PL 77
Thursdays	NALCO ARES/RACES
7:15 PM	147.480 MHz simplex
Mondays	Hayward RACES
7:30 PM	145.130 MHz minus PL 127.3

ORCA Officers and Board

President:	Dave Clemes	AE6PX
Vice Pres.:	Michael Hole	KG6DER
Treasurer:	Bill Hardy	KF6VOG
Secretary:	Tom Tazelaar	KG6MAC

Director:	Adele Bertaud	KE6HKY
Director:	Robert Firehock	KE6IUE
Director:	Art McLaughlin	W6THD
Director:	David Otey	WB6NER
Director:	Brian Treusch	W6LL

Ex-Officio Directors:

ARES Liaison:	Mark Violet	N6RCG
Repeater Trustee:	David Otey	WB6NER
RACES RO:	Jim Tiemstra	K6JAT
WW6OR trustee:	Jim Tiemstra	K6JAT
N6ORC trustee:	Michael Hole	KG6DER

The ORCA NewsLetter is published monthly. Any articles can be used with attribution. Articles, news and photos submitted make for a more interesting newsletter; thank you!

Please submit materials for the next issue by Jan. 26 to Michael **KG6DER** kg6der@arrl.net or fax to 707 215-6124. Thanks again!