

ORCA NewsLetter

Oakland Radio Communication Association
Oakland, California

February 5, 2005

The next meeting will be on the first Saturday, February 5, 9:00 AM at Fire Station 1 media room, 1605 Martin Luther King at 17th Street, Oakland.

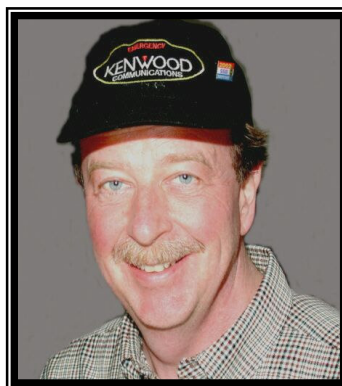
President's Corner

Special points of interest:

- **Please Renew! Dues go to \$33 after February 28!**
- CORE I Class February 5th
- All Oakland ECHO Net
March 5th 1000 Local
- AE6PX's First CW Contact
- Satellite Beacon
- New Web Address

Looks like we've started off the year with a bang! On January 22, nine members showed up to re-install radios in the newly upgraded and refurbished EOC Radio Room. It looks great! Integrated desktops and shelves in Birchwood veneer, red tabletops and ergonomic chairs. Thanks to the OES! Members involved in the installation included Tom, **KG6MAC**; George, **W6BUR**; Michael, **KG6DER**; Michael-John, **KG6YRG**; Dave, **AE6PX**; Alan, **K6ZY**; Mike, **W6UAB**; David, **WB6NER**; and Jim, **K6JAT**.

There has been lots of activity already in the new year with meetings with the OES, participation on the Emergency Management Board, and the ORCA Board of Directors meeting. Reports will follow at the meet-



ing on February 5, 2005.

Back to the hobby, I've lost track of **KB6TQB**. I hope he hasn't sunk. There have been no reported tsunamis in the Caribbean since my trip to Fiji on 12/31, so I don't know what has happened to him. I'm still trying to reach him on Winlink and might try thru East Coast Maritime nets if I don't have any success.

Anyway, traveling to 3D2 was great fun even though I didn't make many QSOs (about 50). I was the only one on the resort who had access to international news and was able to report the status of the tsunami to the other guests at dinner. I also was able to hear the disaster communications on Amateur Radio in the Indian Ocean which were comprised primarily of requests for medical supplies. They were operating on very low power due to emergency conditions.

The February meeting looks to be a great event with a talk by **KY6R** on wire antennas for DX and other fun followed by Adele's (**KE6HYK**) CORE class.

C U then es 73, Jim **K6JAT**

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This Months Meeting

DX-ing with Wire by Rich Holoch **KY6R**

After the meeting, Adele, **KF6HKY**, has volunteered to teach the first block of CORE training. Bring a lunch or snack and stay for the training.

If you have not already done so, please remember to send in your club dues! Dues for the year go to \$33 if paid after February 28th! There is a handy membership form on page 5.

All Oakland ECHO Net March 5, 2004 - 10 AM

By David, **WB6NER**

To demonstrate Oakland RACES all Oakland Firestations' refreshed radio communications capability, Amateur Radio Operators will deploy to Firestations visited in the third quarter of 2004 and the OES RACES Radio Room to conduct an ECHO Net at 10 AM. The Fire Chief is scheduled to observe this event at the OES. Thereafter, the plan is to have all operators then come to the OES for a lunch and short business meeting and celebrate our success!

Please come to the February 5 meeting prepared to adopt a Oakland Fire Station and schedule yourself for an appearance there on March 5.

ORCA'S Website has a New Home and Address! ww6or.com

By Alan, **K6ZY**

We outgrew the QSL.NET site that we have been using so we are moving to our new site. The new web address (which has been an alias for the old site for a while) is www.ww6or.com. You will recognize this as the club call sign: "Whiskey Whiskey 6 Oakland Radio". I hope migration to the new site is finished prior to the publication of this newsletter. Thanks to the folks at QSL.NET for their hosting for several years.

Thanks to Nathan James and his company Natann for hosting our site at a bargain rate. www.natann.com

First Straight Key Night

New Years Eve is a special day, a day of newness and oldness, a day to look forward and back, a day for out with the old and in with the new. But this year I wanted to put a twist on New Years activities. I wanted to try a little in with the old!

Since upgrading my license I have continued practicing CW, trying maintain that skill and increase my WPM. The ferry ride to work was a perfect place to plug in the increase your speed CD and eventually I could copy 15-18 WPM. The practice key was tapped constantly and I used the ARRL practice files to work on new and faster messages every week. Each passing license plate became fair game for coding. I had seen experienced fists in action and admired their dexterity. Yet, I had never made an on air contact!

Straight Key Night is the perfect opportunity to jump into the CW waters, whether it be a tyro like me or an old hand wishing to get the rust off the knuckles. And so, at 4:00 (0000 UTC), I sat down at the radio with pencil and pad at the ready and prepared to plumb sections of the ham bands where I had previously never ventured.

I listened a lot at first (rule of thumb). Soon I caught the rhythm of most messages and began copying with increasing speed and confidence. Hey! I can do this! This sounds a lot like all the practice tapes!

After awhile I was ready to respond to CQ. I found a comfortable call, waited, then tapped out the senders call de me and waited for what seemed a very long time. Was my signal getting out? Had I bungled the call? Was I being ignored? Was I about to get an on the air scolding for my ineptitude?

Finally, a signal replied and I began to copy. A-E-6-P-X. That sounds mighty familiar — wait a second! That's me!!

Now what?!? Nervous, I tapped back and waited. Perhaps I was not going to get 86'd from the airwaves after all. Soon I was engaged in a real live QSO with a real live person, using an antique mode of communication to converse with someone hundreds of miles away! On the brink of the 5th year of the 21st century I was humbled and hooked at the same time. I finally realized the true magic of radio. This is what they had meant. Once more I thought I was beginning to understand.

I spent about 4 hours of the next 24 on the air, enjoying, listening, copying, and making contacts. I started calling CQ myself and I learned a lot. One gentleman was using a circa 1905 key. Another was using a key from a WW I submarine. And I learned there was a lot of friendly folks out there willing to share their knowledge of a timeless mode.

I had 8 QSO's that day. I entered each into my log (paper of course!) and engaged in the courtesy of QSL cards. Since then I have spent most of my time on the lower portions of the HF bands, trying to increase my speed and agility. I ordered custom QSL cards and I try to make at least one new CW QSO a day. I remember reading about hams who have been on the air for 30-40-50 years with never owning a microphone. How could that be? Now I know!

As with anything in ham radio, the more you learn the more you need to learn. And that is a good thing. I look forward to honing my CW skills if for no other reason than it is FUN! It is using a new musical instrument to play a new language by ear.

Calling CQ on CW is like inviting yourself to a party that has been ongoing for over 100 years. You want to make sure you wipe your feet before entering, and make sure you don't spill your drink while you are there!

The Satellite Beacon ●●●● ●● ●●●● ●● ●●●● ●● ●●●● ●● ●●●● ●●



This Month's Topic – Kids and Amateur Satellites

By Arundathie (Aruni) Kumari Perera **VE4WMK** – Project OSCAR Team Member

[At age 11, Aruni is the youngest member of the Project OSCAR team. She lives in Winnipeg, MB and attends the 6th grade. Her Dad, Kumara Perera VE4WKP is also a Project OSCAR member and active on Amateur Satellites.]

Amateur radio is a wonderful hobby with no age limit. It is not only a “fun” hobby but also a hobby with great benefits for our school studies such as science, math and social studies, as well as for our day-to-day life. Amateur satellite communication is the most fascinating and technically challenging part of this hobby in the modern world.

What are these Amateur Satellites or “birds” (the pet name for Amateur satellites)? What we can learn from this as school children if we become young Amateur satellite operators?

Understanding the basics of Amateur satellites is very beneficial for us as school children. Amateur satellites are built on the ground by Radio Amateurs and sent into space around the earth by powerful rockets. They carry transmitters and receivers to communicate with Radio Amateurs on the ground helping them to exchange radio contacts from long distances covering large ground areas. Their paths or “orbits” around the earth are about 400 Km to 2000 Km high above the earth. They travel on these “orbits” at a speed of about 28,500 Km per hour. Such speed keeps satellites from falling back to earth due to gravity. This is a very important principle of physics in science we learn in our later grades.

We learn how to send radio signals to these moving satellites by tracking or following their paths accurately while they travel above our ground stations. There are computer “satellite tracking programs” to help predict these paths for us. We can learn some interesting geographical terms such as Horizon, Azimuth, Elevation, Latitude, Longitude, which are related to these computer programs. We also learn about the earth's time zones when we learn how to convert our local time to the Universal time UTC (Universal Time Coordinate).

(Continued on page 4)

Call for Papers

Project OSCAR, the world's oldest amateur radio club devoted exclusively to amateur satellites, in partnership with the Electronics Department of the College of San Mateo, is pleased to issue a call for papers for it's 2005 West Coast Space Symposium. The Symposium is devoted to a broad range of topics that range from current satellite construction projects, satellite operations and general technical discussions.

The Symposium will be held on May 7th, 2005 at the College of San Mateo in San Mateo, California. The College of San Mateo is located off the 92 freeway, 1/2 way between the 101 and 280 freeways. It is approximately 10 miles south of San Francisco International Airport, 12 miles west of Oakland International and 25 miles north of San Jose International.

The Symposium will begin with registration, coffee and donuts at 8:00am. Presentations will start promptly at 9:00am and run until 5:30pm. Registration cost is \$15 which includes lunch and parking. Cost for students is \$8.

We are particularly interested in any presentations that might address the following topics:

- Software Defined Radio
- Amateur Radio on the ISS (ARISS)
- Digital (packet) Operations
- C-Band Groundstation Constructions
- Dish Feed Designs
- 10 GHz and Above
- Linear Transponder Design Techniques
- Telemetry and Sensor Design
- Orbital Debris Mitigation Techniques for Small Satellites*
- Future Launch Options and Costs
- Battery and Charging Technology
- Amateur Satellites' Role in Emergency Communications*

(Continued on page 4)

The Satellite Beacon, continued

(Continued from page 3)

To know the exact angle the satellite entering from our "Horizon", we must learn how to measure various angles. We learn how the "Compass" works and how to find the "Azimuth" or the geographical angle of the satellite's path using the Compass. Elevation is also an angle we should understand to locate these "birds". These are good homework for our math studies.

We satellite operators, exchange contacts through these satellites using base stations, mobile stations with equipment mounted in cars or even like myself operate with inexpensive portable transceivers and handheld antennas. When we use our radio equipment and portable antennas for satellite communication, we learn the basics of modern communication equipment and radio transmission principles. It's a great opportunity for us to learn how to program the various functions such as transmit and receive frequencies, tones, transmit power levels etc in modern transceivers. We also learn how to care about our basic electronic equipment and how to maintain their rechargeable batteries.

As satellite operators, we follow certain routines in order to share this fun with other operators. Since these satellites travel above our stations only for about 15 minutes, we learn to be patient to make a contact with a station in order not to interfere with on going communications. We also learn to follow the "Golden rule" - not to send transmissions to the satellite until we hear other stations. This is to make sure our receiving setup is working properly before we transmit. These are good manners and disciplines that are even useful to our daily life.

We also learn to keep records of all the satellite contacts we make to exchange official "QSL cards" to confirm our contacts. These records includes all necessary details about these contacts including date, time, station call signs, grid locations, frequencies, equipment, antennas etc. These records can be used to apply for various satellite communication awards. Recently I won my first such award of "Oscar Satellite Communication Achievement Award" for the satellite contacts I made through 20 individual US states including 3 Canadian provinces. This is one of the things we earn from Amateur Satellite operations that we can be proud of when we grow up. Since I started keeping records of my satellite contacts, I also started maintaining a record about the history of my daily activities before I go to bed. This is a good example of a great habit, which I learned from being a Radio Amateur.

I hope many more kids join with this exciting hobby, benefit from the experience, which will help to build their future successfully.

Hear you on the "birds" soon!

73,

Aruni **VE4WMK**

Member of WARC (Winnipeg Amateur Radio Club)

Member of RAC (Radio Amateurs of Canada)

Member of CLARA (Canadian Ladies Amateur Radio Association)

Member of AMSAT (Amateur Satellite Organization)

Call for Papers, continued

(Continued from page 3)

- Youth and Amateur Satellites*
- Improving Field Day for Satellite Operations*

* Possible panel discussion topics

The Symposium has been moved to a different facility on campus that will also allow us to have room to put up antennas for live demonstrations.

For additional information please visit the Project OSCAR website at: <http://www.projectoscar.net> or contact the co-chairs Emily Clarke, W0EEC@projectoscar.net and Alan Bowker, WA6DNR@projectoscar.net



Oakland Radio Communication Association

Club: WW6OR
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

2005 new members: \$30.00 up to March 31, 2005
2004 members renewing for 2005: \$30.00 due by February 28, 2005
[\$22.50: 4/1/05-6/30/05; \$15: 7/1/05-9/30/05; \$7.50: 10/1/05-12/31/05]
2005 additional family Hams: \$5 each other Family Ham (not prorated)
2006 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: _____



Feb. 5th Meeting: DX-ing with Wire by Rich Holoch KY6R

Please Renew! Dues go up to \$33 February 28!

Monthly events

1st Sundays	Livermore Swap meet Las Positas CC
1st Saturdays	ORCA ARES - Oakland OES 9:00
2nd Saturdays	Electronics Flea Market in Sunnyvale
2nd Fridays	East Bay Amateur Radio Club
3rd Fridays	Mount Diablo Amateur Radio Club
3rd Fridays	Hayward Radio Club
3rd Wednesdays	Rocky Ridge Repeater Group
4 th Fridays	Amateur Radio Club of Alameda

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

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

Amateur Radio Club of Alameda meets 7pm at Building 522
West Midway on Alameda Point.

Mount Diablo Amateur Radio Club and the Rocky Ridge
Repeater Group meet at Our Savior Lutheran Church,
1035 Carol Lane, Lafayette.

Nets

Thursdays 7:30 PM	Oakland ARES/RACES Net 146.88 MHz minus PL 77
Thursdays 7:00 PM	Alameda ARES/RACES Net 146.88 MHz minus PL 77
Thursdays 7:15 PM	NALCO ARES/RACES 147.480 MHz simplex

ORCA Officers and Board

President:	Jim Tiemstra	K6JAT
Vice Pres.:	Dave Clemes	AE6PX
Treasurer:	Bill Hardy	KF6VOG
Secretary:	Art McLaughlin	W6THD
Director:	Adele Bertaud	KE6HKY
Director:	Michael E. Hole	KG6DER
Director:	David Otey	WB6NER
Director:	Brian Treusch	W6LL
Director:	Alan Whitman	K6ZY

Ex-Officio Directors:

ARES Liaison	Mark Violet	N6RCG
Repeater Trustee	David Otey	WB6NER
RACES RO	Jim Tiemstra	K6JAT
WW6OR trustee	Jim Tiemstra	K6JAT

ORCA on the web:

ww6or.com

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 Feb. 21 to Michael **KG6DER** kg6der@arrl.net or fax to 707 215-6124. Thanks again!