

ORCA NewsLetter

Oakland Radio Communication Association
Oakland, California

June 4, 2005

The next meeting will be on the first Saturday, June 4, 9:00 AM at Fire Station 1 media room, 1605 Martin Luther King at 17th Street, Oakland.

Editor's Corner

Special points of interest:

- Field Day Update
- Field Day Menu
- Field Day Map and Directions

Jim is still recovering from Dayton and taking care of some family commitments, so I am filling his space for June. – Michael KG6DER

We have a couple of very exciting and fun things coming up, but under them is a serious purpose.

You have to be a very new Ham or been hiding yourself away to not know that Field Day is coming up at the end of this month on the weekend of June 25-26. ORCA's site will once again be located this year in the lovely Sequoia Arena. If you have the opportunity to camp overnight, I highly recommend it. I can't tell you how beautiful it is when the sun is first lighting the sky but not made an appearance and the fog is still filling the tops of the trees. All in our back yard in the Oak-

land Hills.

The serious part of it is that it's a dress rehearsal for when a major event happens and we have to set up a communications center independent of the power mains. For myself, I have been taking this to heart and charging my home station batteries and restocking my Go Bag that has been slowly taken apart for other uses. At the bottom of page 5 is a brief list is some of the first things you should do when something happens. And remember, we live in Earthquake country, so something will happen sooner or later. And when it does, it's too late to get ready for it.

The second event coming up is the Oakland RACES activation for the Oakland Hills Fire Patrol on the Fourth of July weekend.

Although we do have fun while doing it, this is a real activation and we are out there for a serious purpose. To try and make sure that the Firestorm that happened in 1991 does not happen again. So please come out and support RACES and our community.

And speaking of supporting our community, I would like to congratulate my fellow CORE III graduates Tom **KG6MAC**, Miles **KG6PST** and Mike **W6UAB** for making it all the way through the program.

And remember, folks who go through the CORE program are taught to find RACES members to deliver emergency information to where it needs to go. So if someone in a yellow vest

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ORCA Event Reminders

June 4th Meeting: Field Day Preparation and Planning briefing.

Please bring your enthusiasm, ideas and logging computers.

Field Day is June 25-26. On air operations start at 1100 PDT Saturday.

No meeting in July. Have a Safe and Sane July 4th Celebration!

Oakland RACES Fire Patrol is July 4th Weekend.

Editor's Corner

(Continued from page 1)

and green hard hat comes up to tell you something during an emergency, listen to what they have to say.

And I will take this chance to do a little bragging about myself. Last month I managed to upgrade my license to Extra. Something I highly recommend to all.

73s, and I'll see you in the kitchen on Field Day,
Michael **KG6DER**

Hams Wanted

The Dipsea Race, Sunday June 12. 7:00 AM to 1:00 PM
Dipsea Trail, Mill Valley to Stinson Beach. Ten to fifteen volunteers needed.

The Double Dipsea, Saturday June 25. 8:00 AM to 3:30 PM
Dipsea Trail, Stinson Beach to Mill Valley to Stinson Beach. Six volunteers needed.

Please contact me via email at ka6bqf@sbcglobal.net if you are available to help.

Thanks, Randy Jenkins **KA6BQF**

ARCA

The Amateur Radio Club of Alameda meets on the fourth Friday of the month at 7 PM in Building 522 West Midway on Alameda Point.

If you have not yet attended a meeting, please consider dropping by and visiting. Presentation topics cover a wide range and usually focus on the technical side of Ham Radio.

Please visit the ARCA website at www.arcaham.org for directions and more information.

Like your Field Day QRP?
Then you are invited to visit ARCA
at 522 West Midway
on Alameda Point.
Setup begins
0830 PDT Saturday.

The Satellite Beacon



A monthly article presented by the
Project OSCAR Amateur Radio Club

This Month's Topic – Improving Satellite Reception Part 2

By Emily Clarke, **W0EEC** – VP of Project OSCAR

Last month we discussed receivers, antennas and coax. This month topic is dedicated completely to the subject of pre-amplifiers or preamps.

Pre-amplifiers are generally the most important addition to any satellite receive subsystem. HF operators will swear "preamps only amplify noise" but they usually refer to preamps built into the rig itself and not preamps mounted at the antenna. Satellite operators always refer to preamps that are mounted on the antenna mast or boom, and are literally as close to the antenna as feasible.

The primary role of a mast-mounted preamp in a satellite station is to overcome coaxial cable losses and improve the strength of the signal. For example, if you have a 100 foot length of 9913 cable between the 70cm antenna and radio, the loss from the cable will be almost 3db (plus probably .5db for each of the connectors.) This means more than 1/2 of the signal received at the antenna will be lost by the time it reaches the radio. Considering some smaller satellites are transmitting as little as 10mw, 3db of cable loss is not trivial. By inserting a preamp it will boost the signal to overcome the loss. While preamps can increase noise, especially in urban environments, most mast-mounted preamps will help particularly if you have smaller beam antennas.

Pre-amplifiers are generally designed for a specific amateur band and optimized to receive signals only in that band. This means if you are planning on working both 2M and 70cm you will need two separate preamps. If you think about it this makes sense for two reasons. By limiting itself to a specific band it will reject out of band signals that could saturate the amplifier. It is important to select a preamp optimized for the satellite portion of the band you are using. Also, since you generally have two antennas, one for each band switching a preamp from one antenna to the other would be cumbersome.

There are a number of other factors to consider when choosing a preamp. The first is how to power the preamp, now located far from the shack. Preamps are powered by DC voltage and in many cases, DC power can be provided through the coax from either the radio or by using a bias-T to inject DC into the coax. In some cases you will be required to run DC power up to the

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ORCA Field Day, June 25-26 2005

Field Day 2005 Update

Field Day 2005 is fast approaching. The ball is rolling and the irons are in the fire!

The permit from the Oakland Department of Parks and Recreation is in the works and should be finalized by the first week of June.

David **WB6NER** and Dave **AE6PX** met again with the Metropolitan Horsemen's Association at their May Board of Directors meeting to cement our relationship. Michael **KG6DER**, David **WB6NER** and Dave **AE6PX** have visited the Sequoia site to survey any winter storm damage and it can be reported that the arena survived relatively unscathed. Some trees have toppled and there are a few hanging branches but this should present no problem with the raising of the antennas. The electricity is on and the water is running! All the site needs is some eager ham radio operators and the scene will be complete!

We hope to have a full update at the June 4 ORCA meeting at Oakland Fire Station #1 followed by a round table discussion to bounce off ideas and suggestions.

A Saturday morning breakfast is in the works to finalize plans. Details will be forthcoming.

We have a great list of volunteers and, by the looks of things, a great menu is planned! It is not too late to volunteer! Please contact Dave **AE6PX** at AE6PX@arrl.net with any questions or concerns. See you at Field Day 2005!

73 Dave **AE6PX**

Field Day Signup List

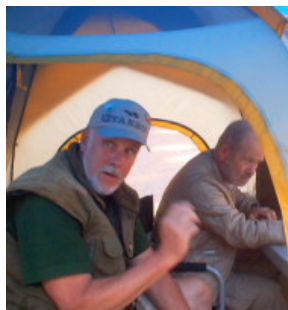
List as of 5/25.

Dave	AE6PX	Incident Commander—Operate
Miles	KG6PST	
Mike C	W6UAB	Setup Operate
Adele	KE6HKY	
Frank	K6UE	HF QRP
Vail	KE6WPJ	
Karen	KG6ADB	Operate
Selma	KG6SJX	Operate
Brian	W6LL	Food
Paul	KA6GEM	Set Up
Herb	WA6CUY	Help
Michael	KG6DER	Food and Logging
Tom	KG6MAC	Food and Everything
George	W6BUR	Setup Teardown
Bob	KE6IUE	The Usual
Jim	K6JAT	Usual Everything
David	WB6NER	Operate
Bill	KF6VOG	Set up Tear down
Michael John	KE6YRG	Set up
Slattery	KA6NZB	CW op
Chris	KE6MQW	
Jim	KGRZQ	The Usual
Alan	K6ZY	A bit of everything

Field Day 2004 in Pictures



Early Saturday Morning



Bill **KF6VOG**
and David **WB6NER**



Receiving Slow Scan image
from **WATFW**



Dave **AE6PX** operates,
while Tom **KG6MAC** logs the contacts

Field Day 2005 Menu

The 2005 Field Day kitchen is hosted by

Head Chef Tom KG6MAC
and **Sous Chef Michael KG6DER**

An assortment of beverages will be available during and between meals including: coffee, hot chocolate and sodas (diet and regular).

-Friday Dinner-

The Traditional Pizza takeout.
Plus dessert; Ice Cream and Fresh Fruit.

-Saturday Breakfast-

Omelets cooked to order with a wide range of fillings, including; bacon, mushrooms, onions, cheese and ham.
Assorted Cold Cereals with both Non-Fat & 2% milk available. Fruit salad, toast and yogurt.

-Saturday Lunch-

Build your own Sandwiches on French rolls with a wide range of fillings, including; ham, roast beef, cold cuts, lettuce, tomatoes, onions, Cheddar and Swiss cheese, mustard, mayo, ketchup, salsa.
Mixed Green Salad. Soup or Chili.

-Saturday Dinner-

Slow Cooked Smoked Meat (TBD. Possibilities include; roast beef, tri-tip or cross rib.) with a salt and pepper rub.
Assortment of side dishes; Seasoned rice. Potatoes, onions and carrots roasted on the grill.
Mixed vegetables. French bread.

-MidRats-

(Midnight Rations for through the night operations)

Left over soup or chili that's been simmering all day.
Fresh baked cinnamon buns made fresh at Field Day.

-Sunday Breakfast-

Pancakes with butter and syrup.
Cornbread sausage breakfast casserole. Hash Browns.
Ham or bacon. Assorted cold cereal, fruit and yogurt

-Sunday Lunch-

Barbeque your own burgers, hotdogs and sausages.
Rolls, condiments and chips.
Veggie burgers will be available.

We have been requested to provide vegetarian options. Please sign up in advance if you have any dietary restrictions the chefs will need to accommodate.

Please note, this menu is subject to minor revisions and substitutions.

Help us save a tree: Please bring your own tableware!

Field Day 2005 Directions

Once again the Oakland Radio Communication Association is setting up our Field Day location in the Sequoia Arena, courtesy of the Metropolitan Horsemen's Association. Setup will begin Friday evening and on air operations commence Saturday at 1100 hours PDT, running for the following 24 hours. Overnight camping in the arena is available and encouraged.

From downtown Oakland, or San Francisco:

- Go east on 980 to Highway 24 (towards Walnut Creek).
- From 24, go south on Highway 13 (Warren Freeway) towards Hayward.
- Take the Joaquin Miller/ Lincoln Avenue exit.
- Proceed up the hill on Joaquin Miller to the crest, then turn left at the signal onto the two lane portion of Skyline Blvd.
- Sequoia Arena is 1.2 miles up Skyline on the left.

From eastern Berkeley, Orinda and points East:

- From 24, go south on Highway 13 (Warren Freeway) towards Hayward.
- Take the Joaquin Miller/ Lincoln Avenue exit.
- Turn left and proceed up the hill on Joaquin Miller to the crest, then turn left at the signal onto the two lane portion of Skyline Blvd.
- Sequoia Arena is 1.2 miles up Skyline on the left.

From Hayward, Castro Valley and points South:

- Go west on 580 and take the Highway 13 (Warren Freeway) turnoff.
- Take the Joaquin Miller/Lincoln Avenue exit.
- Turn right, and proceed up the hill on Joaquin Miller to the crest, then turn left at the signal onto the two lane portion of Skyline Blvd.
- Sequoia Arena is 1.2 miles up Skyline on the left.

Approximate GPS Location of
Sequoia Arena in Joaquin Miller Park:

Latitude/Longitude
in Degrees, Minutes and Seconds:

N 37° 48' 54" W 122° 10' 52"

Maidenhead Gridsquare:

CM87VT

Take Your Handheld to Work Day

Tuesday June 21 has been designated as Take Your Handheld to Work Day. The purpose is to raise the awareness of Ham radio to fellow commuters and coworkers.

Wear your HT on your belt and keep it on your desk and during lunch or breaks make some contacts on your local repeater. Encourage non-hams to talk "on the air" and pique their interest. The idea is to get new people into the ranks of Technician operators. Talk it up and show non-hams how fun and easy getting on the air can be!

ARRL is sponsoring a contest with prizes awarded to those with the highest activity levels. Full details can be found on page 45 of the June 2005 issue of QST magazine.

73 Dave **AE6PX**

The Satellite Beacon, Continued

preamp separately.

When unpowered the preamp will generally bypass its internal electronics and switch the coax directly to the antenna. It is only when the preamp is powered up that a relay engages and switches the receive signal through the amplifier. If the preamp's delicate circuitry is not bypassed during transmission it will damage the components that are not designed to handle transmitted power. But be careful – some preamps are sold for "RX ONLY".

Some rigs will turn off power a few milliseconds before keying up it's transmitter to allow the preamp to be bypassed. This is a safety feature that allows you to transmit through the preamp while protecting the circuitry. This is also called the Push-To-Talk or PTT method. In other designs the preamp will sense RF coming from the radio and will automatically bypass itself when the power reaches a certain point (also called the VOX method). When selecting a preamp it is important to know which method your preamp uses and make sure it is matched to your rig.

The next factor in selecting a preamp is noise figure. This is the contribution of the device itself to thermal noise in the system. This is typically less than .8db for devices with GaAsFet amplifiers, but some lower cost preamps that use MMIC devices can be as much as 3.5db. I was appalled at Dayton to find that one kit vendor was selling a "Low Noise Preamp" that had a noise figure of 5.5db! That's a tremendous amount of noise for the satellite signal to overcome. Although you are overcoming 4.5db loss in your 9913, you are replacing it with 5.5db of noise! So when selecting a preamp you should consider one that has a lower noise figure. A good GaAsFet preamp will cost a bit more, but the differences are highly noticeable.

The last factor in selecting a preamp is gain. Many preamps will have 20db or more of gain, so this is not a big problem since even in the worse case (100 feet of RG-58) loss would be about 11db. However, if you have very good coax, you may want to use a preamp with a lower noise figure and lower gain. A feature in some preamps is adjustable gain, so matching gain to coaxial loss is a good strategy. I prefer to have my preamp adjusted so that the background noise level is at S-0. That way when I see an S-9 signal, I know it is S-9 over the noise level.

To my knowledge Icom is the only radio manufacturer who offers preamps that are built specifically for their radios. Most people will use an after-market preamp. Here is a list of other preamps and vendors.

Kuhne Electronic GmbH - <http://www.kuhne-electronic.de/> - low noise preamps

SSB Electronics – <http://www.ssbusa.com/>: SSB ultra low noise and distributor for Kuhne preamps

Down East Microwave (DEMI) – Low noise preamp kits (note – generally receive only.)

WiMo - <http://www.wimo.com/>: distributes SSB and MicroSet preamps

Want ORCA News and interaction more than
once a month?

Sign up for the
ORCA Yahoo Group

http://groups.yahoo.com/group/orca_races/
or email kg6der@arrl.net

What to do and what order to do it in when an emergency event happens:

1. Make sure you and your family are safe.
2. Stay where you are.
3. Get your Go Bag.
4. Check in to the Resource Net on 146.88 MHz repeater, or 146.88 MHz simplex if you cannot raise the repeater.
5. No Resource Net yet? Start one.
6. If you have checked into a Resource Net and need to leave the frequency, be sure to check out!



June Meeting: Field Day Planning

Monthly events

1st Saturdays ORCA Monthly Meeting - Oakland OES 9:00
1st Sundays Livermore Swap meet Las Positas CC
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 will continue at
Las Positas Collage thru June 2005*

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: 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

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RACES RO: Jim Tiemstra K6JAT
WW6OR trustee: Jim Tiemstra K6JAT

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
June 23rd to Michael **KG6DER** kg6der@arrl.net or
fax to 707 215-6124. Thanks again!