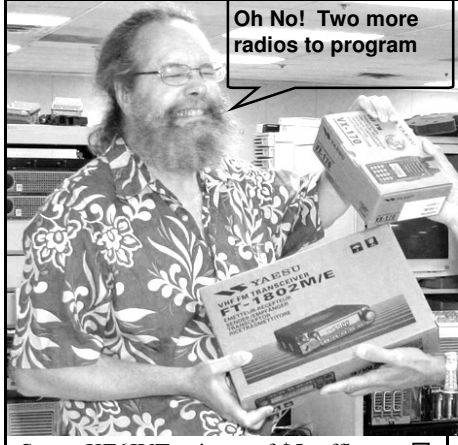


# The PROPAGATOR

August, 2006

The Monthly Newsletter of South Orange Amateur Radio Association

Event Communications	Classes Scheduled	July Look at Education
<p>Max Bauer, AB6NS, and fellow hams will be the speakers at the August meeting. These radio operators and their buddies use voice and packet to provide for runner health and welfare for the Angeles Cress 100 mile (on foot) endurance race that has been held annually in mid to late September for 20 years. The runners follow trails that crisscross the highway, climbing some of the peaks, such as Mt. Baden-Powell.</p> <p>Max and her co-speakers will describe the organization of radio operators, packet repeaters and antennas, packet database, net control, and the wide variety of antennas to provide radio communications at 16 checkpoints strung out roughly following Highway 2 (Angeles Crest Highway), starting at 5 AM at Wrightwood and finishing at 3 PM the following day at the Rose Bowl. Come to the meeting and learn about the use of bungee cords and duct tape for constructing antennas!</p>	<p>In September SOARA will offer entry level and upgrade license classes. The Technician license class is scheduled to start on September 19, and run for 8 weeks. Class sessions will start at 7:00 PM and last for two hours. The location is the Community Center where the general meetings are held. Room assignments will be announced.</p> <p>The text book to be used is <i>Now You are Talking</i>. Cost for the class will not exceed \$40 and will include the text book and the FCC examination fee. Have anyone who is interested in obtaining a license contact Heiko, AD6OI, at 859-3868 or via e-mail at <a href="mailto:ad6oi@soara.org">ad6oi@soara.org</a>.</p> <p>Details for an upgrade (General) class will be announced soon. Also, anyone wishing to help with teaching please see Heiko. <input type="checkbox"/></p>	<p>Our speaker at the July meeting was Hal Silverman, WB6WXO, who, along with SOARA member Knute, K6HIV, teaches Electronics Technology classes at Saddleback College. The available course offerings were reviewed, with some insights into the topics covered and the laboratory work involved. Although the program is designed to lead to a Certificate, the courses may be taken to enhance one's enjoyment of the amateur radio hobby. Courses are available as evening classes and are, of course, local. The cost is modest. Information is available at the web site: <a href="http://www.saddleback.edu/ap/atas/">www.saddleback.edu/ap/atas/</a>. <input type="checkbox"/></p>
 <p>Steve, KF6JVT, winner of \$5 raffle. <input type="checkbox"/></p>	<p><b>First Ham Radio Oscars ever presented!</b></p> <p>Deserving hams from field day had special recognition for their outstanding efforts from Ron, W6OM. The Field Day Oscars were all Ron's idea with no notice to anyone. He coyly asked for a little time at the meeting and sprung the entire thing on the unsuspecting crowd assembled at the July 21st SOARA meeting.</p> <p>First up was <i>Most Outstanding CW Operator</i>—Tak, W6SI          Next it was <i>Most Outstanding SSB Operator</i> — Bill, K6BWZ          Then coming forth was <i>Most Persistent at Satellites</i> — Vlad, KI6BLP          Followed by the King for <i>Most Mysterious Antennas</i> — Richard, K6RBS          And then the Hot Dog of the show (kosher of course): Lou ,KG6FCT, for <i>Outstanding Chairman Award</i>. What a wallop amount of work Lou put into this years field day prep!</p> <p>Congratulations to everyone and special thanks to Ron for the nice surprise.          By Dave, KG6QCI <input type="checkbox"/></p>	<p><b>Fun in the Sun at Club Picnic</b></p> <p>The Weatherman cooperated and Sunday, August 6, was a nice day for a picnic. The previous few weekends had been very hot, and we had changed the picnic location from the beach in Dana Point to Florence Joyner Olympiad Park in Mission Viejo.</p> <p>Our ever resourceful Activities Chair, Lou, KG6FCT, provided BBQ'd chicken and hot dogs for the main dish. Beans, chips, salads and a variety of desserts made for a delightful picnic lunch.</p> <p>For entertainment and enlightenment Karl, KF6MDR, and Dale, W8RRV, organized a game requiring the teams of participants to wander over much of the park looking for answers to questions about the park and some of the MV Olympic medalists honored by the park. A portion of the park is dedicated to garden areas and that proved to be a pleasant location to explore on a sunny Sunday afternoon.</p> <p>Finishing the day's activities was an on-foot T-hunt, with two hidden transmitters located within the park. Howard, KG6GI, and Brian, NJ6N, hid the transmitters. Matt, KF6ALM, was the winner of the hunt and will have the honor of hiding the "T" for the hunt on September 3. <input type="checkbox"/></p>
<p><b>New Members</b></p> <p>Welcome to SOARA's newest members</p> <p>Scott Lolmaugh    WD8ICK          Boris Boyko        KI6EPJ          Mike Morgan        KE6IBH</p>		



## The Way I See It: Digital Em

Having dabbled a little with PSK31 over the past couple of years I've never really considered it a suitable mode for passing traffic during an emergency. My main reason for thinking that way was that PSK has no error correction — a fact that is painfully obvious when watching marginal PSK signals on HF. A little QSB plus some noise and the copy rapidly degrades into random gibberish.

Factor, packet or any other mode with error correction seems to be a better choice, however; the downside is those modes usually require the addition of an expensive TNC at both ends.

SSTV presents a different problem on HF; signals need to be well above the noise for the picture to be clear. A few static crashes, some splatter from the DX-er 3 kHz down plus some ignition noise, and the picture can get really fuzzy. Higher power and bigger antennas help, but neither are likely to be available during an emergency.

Over the weekend I was asked to help put on a demonstration of SSTV and PSK. The plan was for Bill, K6ACJ, to take his radio equipped RV along to Costa Mesa Library where Gordon West was giving a technician class to 60 emergency first responders. Bill would pretend that he was at the Red Cross

chapter, and I would pretend that I was at a shelter with a priority message from the shelter manager. The big question was which band to use. Bill and I could hardly hear each other on 40 meters. We tried dropping down to 75/80 where copy was better, although we weren't convinced that it would be good enough at the planned time of the test. We then wondered if we could manage to do the test on 2 meters?

Bill was located in Huntington Beach and I was at home in Mission Viejo - a distance of about 20 miles. For the demonstration, Bill would be at Costa Mesa - about 6 miles closer.

At my end I have an FT857D, 50W on 2M with a Ringo Ranger ( $2 \times 5/8 \lambda$ ) at 20 feet. Bill was using a typical mobile setup with 40W and a  $5/8 \lambda$  antenna. We started on 144.330 FM where the signals were roughly R5 S2. The software we used was MMSSTV and DIGIPAN. We exchanged a couple of pictures and were surprised at how clear the results were despite the weak signals. Next we dropped down to 144.220 USB and tried sending text to each other using PSK31.

I had prepared a test message that pretended to be from the 'shelter manager'. I adjusted the transmit audio level so that the output was just below the ALC threshold (about 25 watts) and sent my message. A few seconds later I heard Bill's signal come up and my message started to re-appear on my laptop screen. Bill had simply cut and pasted my text and sent it back to me. Even though the signals were relatively noisy, the copy was 100% error free! Next we tried the same test using PSK63 (similar to PSK31 but twice the speed and twice the bandwidth). Again, the

copy was error free but this time the text flowed MUCH faster.

We repeated the test the following day — this time with an audience of Gordon West and 60 first responders. I'd tried to make the message content somewhat realistic by including a shelter status report and a list of items that would typically be needed during a fire. Once again the copy was 100% error free. I understand that we really got the attention of everyone in the class who, until that moment, had little idea of PSK63's capabilities.

For the SSTV demo I sent about 10 pictures in SCOTTY2 mode showing images of California brush fires that I'd found on the internet. Once again, the received picture quality was excellent.

When I first offered to help with this demonstration I was skeptical about how useful PSK and SSTV would really be in an emergency situation. I'm now a believer — PSK63 on 2 meters is magic !

Richard, K6RBS

From the editor:

Thanks to Richard for looking into this topic. The importance of accuracy in emergency communications can not be over emphasized. If we can use non-voice modes to transfer information, we obtain maximum accuracy and generally gain speed as well. I hope this piece encourages the local emergency groups in their search for effective modes of communications. I believe 2 meter packet has become a thing of the past. We need to find and use the modes of the future.

## What's going on out there?

Ever wonder what is going on around the world on our bands? Curious about the term "Cluster" you might hear occasionally on the repeater or interested in listening in on DX-Peditions to exotic locations around the world?

If you answered yes to any of the above, I have good news for you, and it's FREE to any licensed Amateur Operator. With your computer, high speed connection VE7CC software you can watch all the action and use the same system the "Big Guns" around the

world use for finding and contacting Hams in exotic locations or down the street.

First go to [www.ve7cc.net](http://www.ve7cc.net) and download the "Cluster Spider" shareware. Run the install, and when finished, open it up. Select Telnet for your connection, then choose a local node in California, (I use WB6JAR) and connect to it. Finally enter your location, name and call, and you are done!

It's really that simple and now you can see your fellow hams around the world

exchanging information, DX frequencies, locations, Satellite information, 6 meter openings, propagation status and even how to get a QSL card from that exotic DX station you worked recently.

It is your window to the world; enjoy, learn and expand your horizons. If you have any problems setting the program up just give me a call, and I'll walk you through it.

Good DX  
Ron - W6OM

Year 2006	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
General Meeting 7:00 PM	23	27	20	17	15	19	17	21	18	16	20	No meeting
Program	AE6SH	WU6D	W6RHM Spark- Gap Xmtr	K9EID Bob Heil Video	Spring Auction	F.D. Prep.	WB6WXO	AB6NS AC-100	ATV		Fall Auction	—
VEC Testing	23	27	20	17	15	24	17	21	18	16	20	—
SOARA T-Hunt	8	5	5	2	7	4	2	6	3	8	5	3
Board Meeting	30	3/6	27	24	22	24	24	28	25	23	27	
ARRL Field Day						24/25						
SOARA picnic								6				
SOARA Holiday Party												3

### SOARA Club Project

Ever wanted to try your hand at building a Solid State Linear Amplifier for HF at a fraction of the cost of a commercial linear Amplifier? Like to solder and tinker around with circuits and/or just want to learn about HF circuits and have something to show for it when you're finished? If so, you're invited to join several of the SOARA members in a friendly educational setting while we begin our Club Project to build a Solid State Linear Amplifier for the HF frequencies.

If this sounds interesting to you, simply add your call and name to the sign up list on the Membership table at the meeting on Monday. I will take it from there. After the meeting I will send out the schematic, parts list and projected prices of the project so you know what to expect; lots of fun, learning and more power in the pile ups.

73, Ron W6OM

### Activities Report

☞ Don't forget the 2006 ARRL Southwest Division Convention in San Diego. The dates are September 22, 23, and 24. SOARA member Malcolm, KO6SY, is one of the presenters. His topic is PSK-31.

☞ SOARA will participate in staffing an amateur radio booth at the 2006 Southern California Electronics Expo to be held on September 20, at the Orange County Fair grounds in Costa Mesa. Many local engineers in the electronics industry will attend. See Lou, KG6FCT, if you would like to participate.

☞ Thanks to all who worked at the Amateur Radio booth at the Orange County Fair this summer. The booth was outstanding and SOARA's support was very generous. This Fair exhibit has proved to be a good recruiting tool for amateur radio.



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### Raffle Update

Congratulations to the many winners of last month's one-dollar raffle and to Steve, KF6JVT, who won last month's dual prize of a Yaesu FT-1802/M mobile 2 meter mobile transceiver and VX-170 2 meter handi-talkie in the five-dollar raffle!

The August 21st meeting five-dollar raffle prize is an Alinco DR-235 222MHz mobile rig AND Larsen 222MHz 5/8 wave mobile antenna complete



with mounting base and coax! SOARA operates two 222 MHz repeaters in South Orange County, and there are many other open 222 repeaters available including linked repeater systems such as CONDOR where you can communicate with hams all over the Western United States.

Thanks to *Hi Tech Liquidators* for their ongoing contributions of prizes to our \$1 raffle, and for the discount they give the

club for raffle prize purchases, and thanks to *Ham Radio Outlet*, Anaheim, for the club discount they give us on the prizes we buy from them. The raffle helps support the many activities SOARA members enjoy throughout the year and the support of these vendors helps make the raffle more of a success.

Remember, you could be the next winner! I look forward to seeing everyone at the next meeting. Best of luck to everyone,  
73, NJ6N

# The PROPAGATOR

South Orange Amateur Radio Association  
P.O. Box 2545  
Mission Viejo, CA 92690



## Meeting: August 21, 2006 at 7:00 PM Max, AB6NS, on AC-100 Comm.

☛ **SOARA** meets at the Mission Viejo Community Center, 26932 Veterans Way, Mission Viejo, the third Monday of every month at 7:00 PM. Changes to the meeting time or place are announced in this newsletter and on the 147.645 two-meter repeater.

☛ **License Exams:** Amateur License Exams are given prior to SOARA meetings. Exams are from 5:00 to 7:00 PM. Walk-in applicants are welcome. For information call Paul Levey, NZ1M, at 949-481-5454.

☛ **Contacting SOARA:** Questions about SOARA? Send e-mail to: [info@soara.org](mailto:info@soara.org), or leave a message at 949-249-1373.

☛ **Web Site:** SOARA maintains a web site with current club information. The URL is: <http://www.soara.org>.

☛ **Repeaters:** The Laguna Beach, San Clemente, and Trabuco repeaters are open. The Santiago Peak repeaters are closed. For details or questions on the repeaters contact the Repeater director, KG6GI.

2m — 147.645 - (110.9) Laguna Beach  
2m — 146.025 + (110.9) San Clemente  
2m — 145.240 - (110.9) Trabuco  
220 — 224.100 - (110.9) Laguna Beach  
220 — 224.640 - (123.0) Santiago Pk. (C) 440 —  
445.660 - (110.9) Laguna Beach  
440 — 447.180 - (131.8) Santiago Pk. (C)

☛ **Nets:** SOARA 2 m repeater open net is held Tuesday 8:00 PM  
40 meter HF net (7.250 MHz +/- for QRM), Sunday 8:00 AM.

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