

The PROPAGATOR

September, 2006

The Monthly Newsletter of South Orange Amateur Radio Association

Going Digital in Sept.

It seems that any respectable modern HF rig today makes use of digital signal processing (DSP). Software defined radios are just around the corner. Many of their functions are identical to those of the more standard "analog" models. While there are some functions that would be difficult to implement in analog circuitry, a big advantage of DSP is the lower cost and the ability to change the parameters. Making a few connections to the sound card in your PC and downloading some free software is easier than building the equipment to allow you to operate PSK31.

At the September meeting Dale Griffith, W8RRV, will present some of the fundamental considerations that are unique to DSP. The emphasis will be on understanding the behavior rather than mastering math and formulas. You will have a better feeling for what DSP can do and how it does it.

Soara T-Hunt 9/3/06

As an alternative to the traditional "drive until you find it" T-hunt, I decided it might be interesting to have an on-foot hunt, both to save everyone some gasoline and to add a little variety. The format was a modified version of a traditional International style hunt. I used four transmitters instead of the traditional five, and I put them on two different frequencies so they would be on the air every other minute, instead of once every four. I chose Serrano Creek Park as the location, since it is fairly large though it is somewhat narrow.

Richard, K6RBS, had sent a copy of the email advertising the hunt to Joe Moell, K0OV. This brought a couple of extra hunters to the

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New Members

Welcome to SOARA's newest member

Hal Silverman

WB6WXO

The Importance of Belonging

As we approach the date for our annual club dues renewal, I want to draw your attention to the importance of "belonging." In a world increasingly depersonalized, even inside the Amateur Radio Community, it is the club and its active members that gives us a sense of belonging to a group of like minded individuals.

Monthly programs, social outings, field day, annual Christmas party, "T" hunts, auctions, OC fair, classes, repeaters, DX, public service events, the list goes on and on. Belonging gives us a place to connect, build friendships, expand our knowledge base, increase our operator skills and simply have more fun with our hobby.

One of the benchmarks of SOARA is the constant outreach to the community to be of service. A good case is when the SOARA club heard that I was erecting a new tower. I was paid a surprise visit by several of the team, and in about an hour a 60 foot tower was up in the air. I did not know many of them but I knew I wanted to be part of a group like this.

If you have been a ham for 30 years or 3 months and seen the fun and felt the excitement of the annual ARRL Field Day, you know what I mean. The intensity of the SOARA "T" hunts is the subject of weekly banter and never ending new ideas for antennas and techniques.

Under the steady leadership of Ray, AE6H, and supported by his board, SOARA has achieved several milestones and will continue to do so in the future. Diversity is what makes us strong, and different modes, license class and capabilities all come together in SOARA where everyone has a place to share and express their areas of expertise.

When you see the renewal letter in your mail box, please do not hesitate to re connect and renew your membership. Your club has many exciting programs for next year, a bit of

August Program a Hit

Max Bauer, AB6NS, provided us with an overview of the Angeles Crest 100 endurance race and the challenges of providing communications. With the help of other ham volunteers the presentation took us through the challenges of the race and introduced the very efficient system they use to track the runners. Using packet stations and software developed for the event a complete picture of the race status is available at all times.

Many thanks to Maxine and her helpers for an enjoyable and informative presentation.

Technicians wanted!

The South Orange Amateur Radio Association is looking for people who would like to get their ham radio licenses (technician grade). Starting on Tuesday the 19th of September and the next 7 Tuesday's we will be giving a technician level amateur radio class from 7:00 PM to 9:00 PM at the Norman P Murray community center. The cost for the class is \$40 and it includes the ARRL book and the V.E. Testing at the last meeting. Our chief instructors will be Knute, K6HIV, and Hal, WB6WXO. They are both electronics instructors in the Saddleback Junior College system. If there is interest we will also include morse code practice by Ron, W6OM.

If you are interested please call Heiko at (949) 859-3868 or e-mail at ad6oi@soara.org

friendly competition between operators during some contests and of course our on going community outreach through public service at races and numerous other events.

We all need a place to belong. SOARA is a club that recognizes the individual with unique talents and is the reason we are strong and continue to grow.

73, Ron, W6OM



The Way I See It:

Moving a Repeater

Can you hear me now?



View from the repeater site

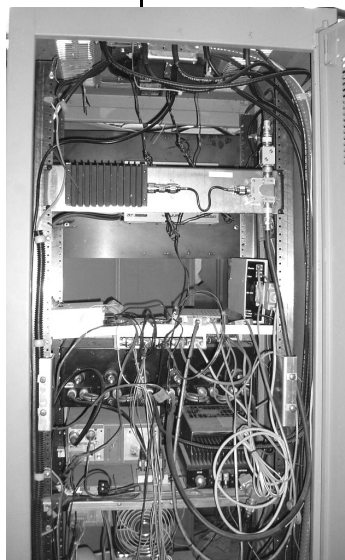
Background: SOARA was recently informed that we would have to move our repeaters on Santiago Peak to a new building. We didn't know when the move would take place. Planning for the move was completed, and when the word came to make the move SOARA was ready. Here is a first hand account by Brian, NJ6N, who also provided the pictures.

The 447.180 and the 224.640 repeaters will be off the air pending the completion of the antenna installation. Come to Monday's meeting to hear more details.

On Sunday, September 10th, four SOARA members, Howard, KG6GI, Bob, W6CIC, Tom, AE6SH, and Brian, NJ6N, ventured into the mountains to Santiago Peak to relocate our two high-level repeaters to a new building.

I've never been up to this mountain before and was surprised at the rugged trails that we had to ascend to get to the top of mountain! Howard and Tom have rugged four wheel drive vehicles that had no trouble carrying us safely to the top of the mountain.

Once we reached the repeater



Back of old rack cabinet



Howard emptying the old rack cabinet.

site, we divided up the work of documenting the current installation, labeling cables, identifying our antennas, and carefully dismantling the current repeater installation. The working space is quite small at the repeater site so we had to coordinate our efforts to efficiently complete the removal of the repeaters.

In a couple of hours we had the 220 and 440 repeater systems dismantled and loaded into the back of Tom's 4x4 truck. We took a short trip to the new site and began the task of unloading the equipment and preparing it for re-installation. Howard, Bob, and I soon began the process of re-assembling the repeater systems into the new rack while Tom assisted the tower crew with taking down all of the antennas from the previous site tower, including the antennas owned by SOARA.

Due to the high value of space for radio systems at this site, our equipment would be going into a smaller rack space than we had in the previous building. The new rack is actually a 19" wide equipment mounting frame of about 4" in depth compared to the previous building's fully enclosed cabinet. This meant that pre-planning was necessary. Howard was up to the task and spent many hours ahead of time carefully planning our installation and drawing up a detailed diagram of where everything would fit into the new rack. This greatly simplified the process of re-installation.



Tom's truck with the equipment loaded.

Armed with detailed drawings of the new rack locations, we re-assembled the repeaters, duplexers, power supply, and other necessary equipment neatly into the new rack, installing new custom cables and connectors as we went along.

At the end of the day we were unable to bring the repeater systems back up due to a broken connector, a bracket that needs to be fabricated, duplexers that need to be mounted and antennas that need to be installed by the site maintainer. Once we complete the fabrication and repair tasks we will be planning another trip back up the mountain to finish the installation.

73, NJ6N



Has anyone seen Bob since the move?



Empty antenna mounts at new site.

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	AC100 AB6NS	D S P W8RRV	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

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T-hunt

event: Jay Thompson, W6JAY, from Santa Ana and Jay Hennigan, WB6RDV, all the way from Santa Barbara. Both Jays are hard-core competitors in the on-foot T-hunting arena, and have won several international championships between them. We also had six other SOARA hunters joining in: Richard, K6RBS; Dave, KG6QCI; Dale, W8RRV; Brian, NJ6N; Howard, KG6GI; and Karl, KF6MDF.

The winner of the hunt was Jay, W6JAY, who was in constant motion from the time the transmitters went on the air at 1:15 until 22 minutes later, when he returned with his punch card proving that he had found all four transmitters. Next in was Jay, WB6RDV, with Richard, K6RBS, literally on his heels with a time of 29 minutes. The next hunter in was Dave, KG6QCI, with a time of 44 minutes. All agreed that it was a very fun hunt, though a bit more tiring than expected due to the heat.

Thanks to all who attended!

de Matt Mendenhall, KE6ALM

SOARA Club Project Update

Thanks to all who signed up for our Solid State Amplifier project. The excitement is building and fun of doing it together as a group will also build friendships as we exchange ideas and techniques. Here is the list of participants so far, N6REG, KG6FCT, KG6IGZ, AE6H, KA6MOK, KA6MKU, AD6OH, AD6OI, NJ6N, KD7JHR, KA6DRC, WK6C, WW6MM, KB6FAS, KG6GI, KO6SY and AD6HT. Including myself that's 18 so I will budget the project for 20 kits to get a price break. Aaron, KA6MKU, has graciously offered to assist with the kitting process, and Carmine, WK6C, has offered the use of some excellent test equipment.

How much is this project going to cost me? If you live on a tight budget like I do holding cost down is important. Now that we have a solid list I am pricing out the components this week and should have the price for each amp/PS late this week. The next question I hear is: "I have several power supplies, do I need to build another one?" The answer is NO. If you already have the appropriate current and voltage this project will be a snap for you to complete quickly. 73, Ron W6OM

Activities News

The next major SOARA activity is the annual holiday party in December. That may seem a long time off, but the planning must start soon. This is an invitation to join in on the fun and help with the planning and decorating. To be a member of the holiday party committee contact Lou Frank, KG6FCT, at the meeting or use e-mail kg6fct@soara.org.

The first holiday party committee meeting will be at Lou's house on Thursday, October 5th at 7:00 PM.

Needed

Radio operators are needed for the 7th of October to support a marathon race in the Santa Ana Mountains. Joe Lopez is coordinating this event and he is looking for volunteers.

If you would like to spend a day where the view and the scenery are magnificent, contact Joe at: w6bgr@soara.org

Thanks
Heiko


Raffle News

Congratulations to the winners of last month's \$1 raffle! We didn't sell enough tickets to be able to raffle off the \$5 raffle prize, an Alinco DR-235T 222MHz transceiver and Larsen 220 Mobile antenna. I'm confident that we'll sell enough additional tickets to raffle the rig and antenna off at our upcoming meeting on the 18th. I would like to thank Hi-Tech Liquidators for their continued support of our \$1 raffle. Best of luck to everyone and I hope to see you all at the next meeting! 73, NJ6N

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South Orange Amateur Radio Association
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**Hi-Tech LIQUIDATORS**
2060 Placentia Ave., Costa Mesa, CA 92627

A very special thanks to Hi-Tech Liquidators for their monthly donations to the club raffle.

Located at 2060 Placentia Ave, in
Costa Mesa, CA 92627

Phone: (949) 646-1686

Meeting: September 18, 2006, at 7:00 PM W8RRV: DSP Fundamentals

☛ **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, 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)

TEMP QRT

TEMP QRT

☛ **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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