

The PROPAGATOR

May, 2006

The Monthly Newsletter of South Orange Amateur Radio Association

It's Auction Time Again

Pack up all your Do Dads and thingamabobs, round up a few do-hickies and bring them to the auction! Help your club with a donation or help yourself by clearing some space in the shack or the garage. And don't forget your cash or check book; who knows what treasures await you! Remember NO RAFFLE at this meeting. If you can't make the meeting and want to sell something contact a member who is going and have them bring your items to the sale!

73

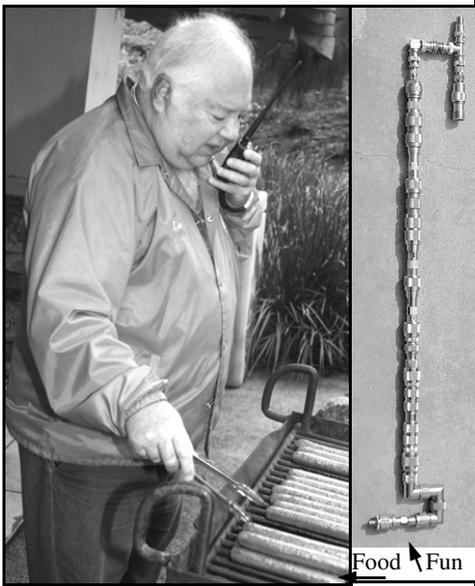
Tom, AE6SH

First Tech Day a Success

Saturday, April 15 dawned a cool and overcast morning. Still 18 or so hearty SOARA members came out to Florence Joyner Park in Mission Viejo for our first "Tech Day." Activities started with the unloading of a variety of equipment for playing various aspects of "radio." There were rigs, tuners, batteries (the big heavy ones that HF rigs like), and antennas. We had a generator for powering soldering irons and such. (it turned out that we didn't need the generator, electrical power was available in the covered picnic area that we had reserved for a few hours.)

A vertical antenna was soon up and activity on the HF rig had started. A charcoal fire for cooking hot dogs was soon started (we have our priorities straight!). After lunch the participants got active crimping "power pole" connectors, stringing antennas, and generating some interest with a very nice looking 900MHz rig (it was a modified commercial rig, apparently there aren't any "amateur" rigs produced.) There was no problem in raising the local repeaters. See the article on Page 2 by NJ6N for information on getting started on 900MHz.

Before long the sun came out, and we got more serious about getting some wire antennas up in the air. We were able to make some comparisons between the short vertical antenna and a wire dipole (40m) hoisted on three collapsible fiberglass rods. Certainly everyone seemed to enjoy the day. It was a good warm-up for Field Day. Field Day is coming soon to a park near you. Keep the dates open and plan on being there.



Food Fun

Bob Heil

Is there anyone in amateur radio who has not heard of Heil Sound's HC-4 "DX Dream Machine" microphone element? At the April general meeting SOARA was treated to a video taped talk by Bob Heil, given in 1999 to the Visalia DX Convention, in which he explains the science behind the development of that microphone element. In a very enthusiastic and energetic talk he covered a lot of the science behind sound and some interesting history as well.

Referring to a plot of the Fletcher-Munson Equal Loudness Contours, Bob pointed out that the most important frequency range for understanding speech is just that range where the ear is most sensitive. There is a dip in the Equal Loudness Contours between 2 and 5KHz (it takes less sound power in that range to produce a given "loudness" to the ear). The testimonies by DX users indicate the value of Bob's insight into the science of sound.

If you attend the South West Convention in San Diego this coming September, you will have two chances to hear Bob speak in person. He is the featured speaker on Friday evening, September 22, 2006. On Saturday Bob will be the lunch speaker. Early bird registration is available for only \$15 through the end of May.

Welcome New Officers

SOARA is pleased to announce the election of officers for a two year term. Ray, AE6H, and Steve, KR6CE, retained their positions as president and treasurer respectively. New officers are Tom Hobbs, AE6SH, as vice president, and Greg Scott, N6REG, as secretary. Heiko, AD6OI, was elected to the position of Education Director.

We all appreciate the job that the outgoing board members did during their service to SOARA. Many of the jobs are time consuming, but it is a way of promoting the club and the hobby of amateur radio.

New Members

Welcome to SOARA's newest members

Ken Rands	K6KCR
Ron Mieli	KM6MW
Dave White	N6NLD
Pete Mitchel	KI6CJN
Tom Parkes	KI6DDB



SOARA members Kriss, KR6ISS, and Greg, N6REG, operating an HF rig in the park on Tech Day.



The Way I See It: There is Amateur Radio life on 900 MHz!

Several years ago I purchased a used Motorola hand-held radio for the 900MHz band at the TRW swap meet. I was excited about operating on a new band. To my dismay, there was absolutely no activity; there weren't even any repeaters I could access from South County. Some time later, I decided that 900MHz was not all that exciting and I sold my radio on Ebay.

I recently attended the Amateur radio "tech" day that Lou, KG6FCT, organized and saw him demonstrate his 900MHz mobile rig. I figured that it was interesting to see another ham band in action but what's the point, there's no activity out there!

As it turns out, things have changed since I last tuned into the 900 MHz band! Over the past several years there has been a big increase in the number of surplus 900MHz capable equipment available through the used radio market.

Steve, N5YRJ, was at the Tech day event and filled me in on all of the recent flurry of activity in the 900 band. Steve's got a 900 MHz mobile rig and is active on the Catalina Island repeater as well as some of the others in the area.

When I got home, I did some investigation on the Internet and found out that there were a couple of dozen 900MHz repeaters located in Southern California, some of which I should even be able to use from home with a hand held and a few watts of power.

By the next weekend I had acquired a Motorola 900MHz handy-talkie from another ham on Ebay and it just so happened I still had my programming cable from when I programmed my previous one so I was able to program it for the ham band and 16 of the Southern California repeaters. I put out a call on the N6EX repeater on signal peak in Newport Beach and had my first QSO on 900 MHz. The audio was excellent and the signal very good in Laguna Niguel. It turns out that this repeater is located right under my nose a few buildings away from a commercial

Read before you buy!
A wealth of material on Motorola models here:
<http://www.repeater-builder.com/motorola/gtx/gtx-info.html>

A chart showing the band plan for 900 MHz can be found here:
<http://www.artscipub.com/repeaters/bandplans.asp?band=9>

The local 900MHz Band Plan can be found here:
<http://www.scrba.org/BandPlans/33cm.htm>

Manuals (operating and service) for discontinued equipment are available here:
<http://www.efjohnson.com/downloadmanuals.asp>

Many of the er... 'more experienced' hams will remember amateur radio transmitters with names like "Viking I". EF Johnson has been in business for over 80 years, though they no longer make amateur radio gear (well as Brian points out you can use some of their 900 MHz commercial rigs!); some of you might like to have a Johnson rig again. You can read a brief history of Edgar F. Johnson and his company here:
http://mrtmag.com/mag/radio_years_johnson/index.html

repeater that I use for work!

Repeaters

South County reachable repeaters include N6EX on Signal Peak in Newport Beach at 927.1375 MHz RX, negative offset. The standard offset (or split) on the 900 MHz repeaters is 25MHz which makes the input to the repeater 902.1375 MHz. This repeater uses "DPL" which is a digital form of the sub-audible PL used on most Amateur repeaters. This one uses DPL code 411. Another open repeater that is available is N6RTR 927.1625 MHz RX, Standard PL 151.4Hz, and it is located on Sunset Ridge.

I found several excellent lists of 900MHz repeaters by doing a Google search on the Internet for "900 MHz repeater". Some particularly good lists are these:
<http://www.ohioaprs.net/ar902/> and <http://www.scrba.org/BandPlans/Open33cmRepeaters.html>

Radios

There are quite a few inexpensive radios that can be found on the used market that work on the 900 MHz ham band. The EF Johnson model 242-8640 is a 15 watt, 10 channel

mobile rig for 900 MHz that works well. The EF Johnson model 242-8655 is a higher power mobile with more channels. Programming is available locally as well. There are several Motorola models that can be used for 900 MHz including the one I use, an MTX9000 handy-talkie. The most popular Motorola is the GTX-900 hand-held and mobile radios which require no hardware modifications to work in the ham bands.



There are other commercial radios that also work on 900 MHz from Kenwood and the other large radio vendors as well.

One word of caution: not all of the radios sold as "900 MHz" band radios will work on the ham bands. Radios that do work are readily available and usually guaranteed to work on the ham bands by their sellers. No matter which radio you buy, make sure you ask them specifically about the frequency you wish to operate on and also about their return policy.

I hope to hear you on 900 soon,

73, de NJ6N



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				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												
SOARA picnic								6				
SOARA Holiday Party												3

SOARA T-hunt Results

SOARA T-hunts are held the first Sunday of each month starting at 1:00 PM. Coordination is on the 445.660 MHz repeater. All are welcome to come out and try it.



The Great White Hunters & the Circular-Quad!!!

The monthly SOARA 'T' was held this past Sunday, the 7th, with four participants.

The transmitter was hidden in Woodbridge Community Park between Culver and Jeffery just off Barranca Pkwy in Irvine.

The results were:

Hunter	Elapsed Time (HH:MM)
Richard, K6RBS	1:07
Karl, KF6MDF	1:28
Dale, W8RRV	1:32
Matt, KE6ALM	1:30

Richard will be bringing us the next hunt on June 4th.

Howard, KG6GI

Raffle News

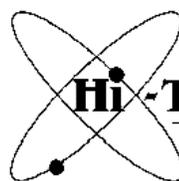
Congratulations to the lucky \$1 raffle winners in the April Raffle! Congratulations to Ken, W6KOS who was the lucky winner of the \$5 raffle prize, an FT-840 HF rig! Please remember there is no raffle at the May Auction meeting. Raffles will resume in June. I hope to see you at the next meeting, 73 NJ6N.



Looking for Volunteers.

On Monday, May 29th, the latest edition of the Saddleback Memorial Half-Marathon takes place. We (The Club) are looking for volunteers to help with communications for the event. Volunteers need to be in position by 7:00 AM and will be done about 11:00 AM. T-shirts will be given to the volunteers. Please get in touch with me at (949) 859-3868 or e-mail me at ad6oi@soara.org

Thanks
Heiko, AD6OI



Hi-Tech LIQUIDATORS

2060 Placentia Ave., Costa Mesa, CA 92627

Phone: (949) 646-1686

Hi-Tech Liquidators contributes to the the monthly club raffle.

The PROPAGATOR

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



Meeting: May 15, 2006 at 7:00 PM Spring Auction

☛ **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)

☛ **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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