

The PROPAGATOR

January, 2006

The Monthly Newsletter of South Orange Amateur Radio Association

FEMA - US&R Talk



FEMA

Tom, AE6SH, is an Orange County native — 44 years

worth. He was originally licensed in 1975/6 as KA6GZV (novice). His first job, other than working for his parents wrought iron business, was in a Ham radio store here in Mission Viejo. Currently, Tom is a firefighter/Engineer for the Orange County Fire Authority stationed in Irvine at Fire house 55.

Tom is also Communications Specialist for California Task Force 5 Urban Search and Rescue Team. CA TF-5 is one of 28 FEMA funded teams across the US and is based here in Orange County.



In his presentation he will cover a little about the FEMA US&R system and its duties. The balance of the presentation will cover some of the challenges encountered while he was in and around New Orleans. The presentation will be illustrated with several slides, and Tom will, of course, take as many questions as time permits.

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T-hunt Gets a New Twist

Karl, KF6MDF, and Dale, W8RRV, hid the transmitter this month with a new "twist". The spot we selected was Springdale Park in Aliso Viejo. It was perfect for what we had planned. It overlooks a large park with several ball fields some distance below. The ball fields had high chain-link fences — lots of chance for signal reflections.

The first hunter to arrive was Richard, K6RBS (surprise!). He drove into the ball field parking lot below at about 1:30. When he got out of his truck with his antenna and radio it was time for us to go into action. The new ingredient in our hidden transmitter gear was a remotely controlled variable attenuator (see picture below). The plan was to vary the transmitted signal in synchronization with the hunter's antenna direction to simulate a false direction reading.

"OK, time to turn him around", and in a short time the hunter is headed away from the actual location of the transmitter. We kept K6RBS busy hunting for about a half hour. Then Dave, KG6QCI, and Tek, K6TEK, arrived and it was time to start the "misleading" all over. It was great fun for the spectators as well, I am sure, as for the hunters.

Continued on page 3

Net News & More

The Tuesday net is one of your club's selling points. This net uses three of the SOARA repeaters: the 147.645 (Laguna), 224.640 and 447.180 MHz (Santiago Peak). This gives us coverage of a whole lot of real estate here in southern California, from Malibu to San Diego, out to Catalina Island and inland to Fontana and beyond.

News line is a regular feature, but it isn't the only line on the net. We have the famous Gordon West with "News Behind The News" covering all kinds of subjects on Ham Radio. Then it's K6RBS doing "Ham Band Check" announcing all the DX to tune in on. Have you missed any of the solar flares? Probably all of them unless you are tipped of by Richard's eagle eye for detail in the heavens. Skywarn's KG6RXQ checks in each week and updates us on the weather so we can plan the forthcoming week outdoors.

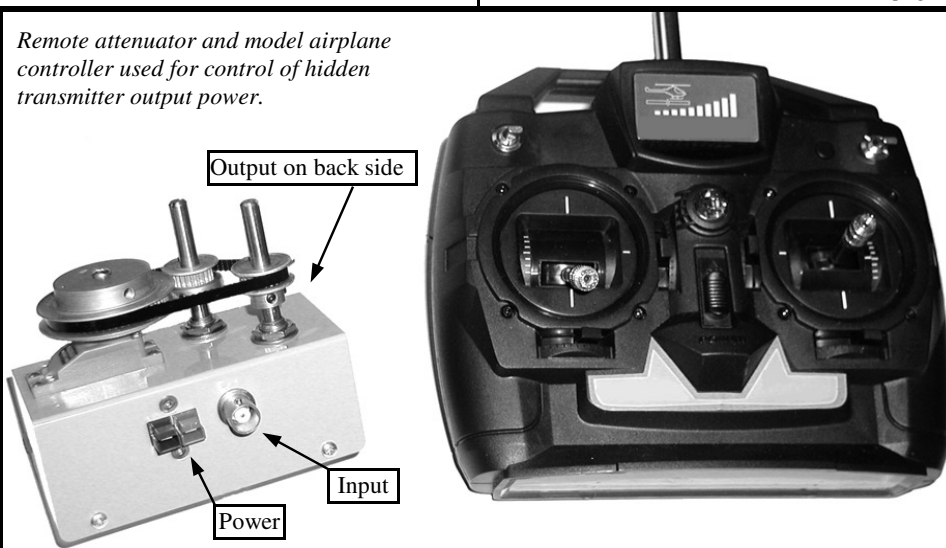
There is an occasional and welcome appearance by WA6RRK, Ray Chandos, with "The Professor is In". Ray gives a short lecture on technical topics dear to us Hams. They will be repeated, so if you missed it or wanted to pick up the fine points, stay tuned.

We do have check ins from the internet via echo link from hams around the country. Some times we are picked up by other echo link modes so you never know where in the world we may be heard, or who we will be hearing from. Who knows were KO6SY may check in from: Hong Kong, England, Africa, even from the wilds of New Jersey!

But, I must take a leave of absents from this labor of love at the end of the month. It's only for 16 weeks, and I need a stand-in. Here's your chance to yak at the membership for an hour or so every Tuesday night, and get to know the boys and girls too! So drop me a line and I'll set you up!

73, KG6QCI Dave,
Net Control for the SOARA 144, 220, 440 net

Remote attenuator and model airplane controller used for control of hidden transmitter output power.





The Way I See It: T-hunting Skills Come in Handy

For about the past month or so, every time I got up on Bake Park Way I noticed that my 2 meter connection to the Laguna repeater started to pick up some kind of static that I could not squelch out. I told myself that "some day" I would check this out.

But that day never came until I got an e-mail from Richard, K6RBS, entitled "We have an intruder". [Dave, KG6QCI]

[Here Richard, K6RBS, picks up the story] As many of you know, my rig of choice these days is my FT857D. I mainly use it on VHF and for digital modes at home and on all bands from my truck. I've loaded up all 200 memories with my favorite frequencies plus every open 2M repeater in Southern California. A few weeks back, while I was mobile and scanning through the memories, I stumbled on a loud buzzing sound on one of the 2 meter repeater outputs. At the time I thought it was a probably a repeater that had 'taken off'. Over the next couple of weeks I heard it a couple more times, both at home and out mobile.

On Sunday, December 11, I heard it again and decided to investigate its origin. I called Gordon West, WB6NOA, on the simplex frequency where he usually lurks and asked him if he could hear it too. He was about to join the West Coast weak signals net but was kind enough to get a bearing as well as ask the folks on the net if they could hear it too.

He actually came up with 2 bearings, one due north and the other due East from his QTH in Costa Mesa. It was just east of north from my house in Mission Viejo and due south from a station in Lancaster, CA. Dismissing Gordo's easterly bearing, speculating that the buzz was video not AC hum and noting the report from Lancaster, my first guess was Mt. Wilson. In the mean time, I contacted Dave, KG6QCI, and asked him if he could get a bearing from his location to my east. Dave gave me a bearing of 260. If Gordo's easterly bearing was correct, that

put it on our doorstep in Lake Forest. I was not about to drive up to Mt. Wilson at 9:00 on a weekday evening, but if it was in Lake Forest, that that was a different matter.

I threw my DF gear in the truck and off I went. Within thirty minutes or so I was on top of it. The FT857D has a couple of features that are very helpful for DF work. The RF gain reduces the sensitivity of the radio on FM and the S meter still behaved itself. (Like most HF radio, on SSB the RF gain causes the S meter to rise with the AGC voltage rendering it useless.) The other nice feature is that one can connect an external analog meter which can be used to monitor one of several user selectable parameters. I use a 1 mA Radio Shack meter to monitor received signal strength. When I left my house the noise was peaking at S9. As I drove towards Lake Forest the signal strength got stronger. Each time it hit the end stop I reduced the RF gain until it was S5. By the time I got to Empire Drive in Lake Forest, the signal was pinning the meter with the RF gain set to minimum.

I parked near where the signal seemed to be the strongest and grabbed my trusty tape measure yagi and offset attenuator. I soon realized that I'd left the attenuator powered on and the battery was totally dead. Without more attenuation, there was little more that I could do. I drove around the area for a while, mentally noting signal strengths. The 2m signal not only peaked at the west end of Empire Drive, but I could also hear the intruder's third harmonic at that end of the street.

I took another drive and walk around the area the next day. But with just the mobile and my HT, I was unable to isolate it down to a building.

Anyone who knows me knows that I don't give up easily. The following morning I headed back to Empire Drive armed with all my gear and a fresh battery in my KOOV offset attenuator. Within a few minutes, not only did I know which building it was coming from, I pretty much knew which corner of the building. I threw my gear back in the truck and proceeded to the building's reception area.

The locked door was monitored by security cameras and the sign on the door asked visitors to knock to get in. I knocked on the

door and a few seconds later it was open by a gentlemen from within. I said something like: "This is going to sound strange but do you manufacture anything here, and is there a chance that something inside your building could be causing radio frequency interference?" He answered yes to both and invited me in. After I introduced myself and told him about the noise, he asked me to wait while he went and got the VP of engineering. I went back outside and grabbed my HT.

The VP of engineering listened to my story and guessed that the probable culprit was a new satellite system that they were using. I removed the antenna from my HT and demonstrated how strong the signal was without the antenna. I could even hear the 3rd harmonic from outside the building and the main signal had been causing interference from San Diego to Lancaster. He phoned one of his engineers and asked him to shut the satellite link off. A few seconds later the HT went silent. He then turned the link back on and the noise returned.

The system is new and not yet in production so he had no problem in leaving it turned off. He said that he would contact the manufacturer and get them to fix it. He said the device was made by Orbcomm. Looking at their website, they make a 5 watt satellite modem that operates in the 148-150 MHz range. The system communicates with LEO satellites using omni directional antennas. It seems to have features similar to our amateur APRS and WINLINK systems.

The good news is that the noise has gone and at least to my ears, the noise floor on 2 meters is lower than it's been in ages. We were very fortunate that the system was not in production and the Vice President was so cooperative in turning it off. I've searched the web and can find no other references to Orbcomm devices causing similar problems. So there is a very good chance that this is an isolated incident and we won't hear from Orbcomm again.

P.S.

I've spoken to the local company several times since my visit and their equipment is back on (with modifications), and I can no longer hear the QRM."

Dave, KG6QCI, & Richard, K6RBS

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		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						24/25						
SOARA picnic								6				
SOARA Holiday Party												3

Thanks to Antenna Party Volunteers

The tower raising on Sunday the 15th actually started with a request from Ron Weaver, W6OM, to remove a 20 ft section of tower for SOARA use. Ray, AE6H, my cousin Ingo and I picked it up along with a couple of station master antennas donated to the club by Alan, WB6T. Thanks Alan.

When Ron asked if we could help him with a tower I volunteered our services. We gathered at Ron's house in Irvine and after several small setbacks (the bolts were

too short) we raised the tower manually and bolted it into place. Ray worked from the top of the house and Vlad, KI6BLP, and Tom, AE6SH, worked on the base aligning and tightening. Bill, KI6FB, and Patti, AD6OH, helped with tower support. Dana, K6NR, Ron, W6OM, and Brian, NJ6N, aided in raising the tower and general moral support.

Thanks to all for the help.
Heiko, AD6OI

Raffle News

This month's \$5 raffle radio is a Yaesu FT-7800 dual band mobile rig. Let me know if you have ideas for other \$5 prizes for future meetings.

Brian, NJ6N



T-Hunt *continued from P. 1.*

Dave and Tek had a respectable time of 2:45 for finding the transmitter. On his way home from the antenna raising party in Costa Mesa (which took several of our potential hunters), Tom, AE6SH, stopped by for a quick hunt and a snack. Since it was late and we had invited any of Heiko's helpers to come by, it didn't seem fair to torment Tom by playing with the transmitter signal strength.

The hunt for February is scheduled for Sunday the 5th, which is Super Bowl Sunday. To avoid any conflict we will start the hunt at 12 Noon, an hour earlier than normal.

73, and happy hunting.
Dale & Karl



SOARA Volunteers Provide Marathon Communications



On Sunday the 8th of January before daylight an intrepid group of volunteers headed forth to do battle with the elements and the traffic. Patti, AD6OH, and Randy (RND Running), KG6KYH, went to Fashion Island to shadow the general overall director Bill Sumner. Richard, K6RBS, went to mark the first mile, Joe W6BGR Mile 2 and Kriss, KG6UOS, (now KR6ISS) at mile 4. They all ran into fog when they got close to the coast and had to feel their way around. In the mean time Vlad, KI6BLP, and Bill, K6WIL, went to the finish of the marathon to shadow Jodi Book who was directing the finish of the races. They spent the morning

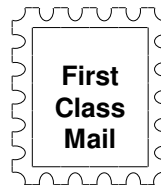
chasing Jodi all over the Irvine Spectrum area.

In the mean time,, I had the cushy job of backing up Dave, WA8EOH, and Pete, W6PJ, at the Irvine emergency operations center. The race and the day went about as smoothly as could be hoped for with a minimum of accidents and incidents. The next Saturday we all got together for dinner at a local restaurant and a good time was had there.

My thanks to all who volunteered their time and skill.
Heiko, AD6O

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



Meeting: January 23, 2006 at 7:00 PM
Tom Hobbs, AE6SH, on FEMA/US&R

☛ **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 7:30 AM.

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