



The

Propagator

The Monthly Newsletter of the South Orange Amateur Radio Association

February, 2009

Antenna Topic Continues this Month

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Meeting:
February
23
7:00 PM

N.P.
Murray
Center

Veterans
Way
Mission Viejo

The program for the February meeting will be a continuation of last month's. The discussion will move from techniques and equipment to feed an antenna system to the design and installation of the antenna.

W6OM will dip into his vast store of information and guide us through the construction of some simple but effective antennas. There is an antenna suitable for each situation and Ron will help us find it.



QST, QST de AE6H

Antenna Installation Safety

Antennas being our current January and February topics with W6OM, Ron's informative presentations, coupled with my recent escapades (more about that later), I thought a blurb about antenna installation safety might be appropriate.

Most antenna designs tend to work best in elevated locations with minimum nearby objects causing near field influences. Even ground mount designs, such as some HF verticals, can usually be elevated, with appropriate counterpoise, or radials. This elevation is often necessary to enhance aesthetics and physical as well as RF safety. A ground mount vertical smack dab in the center of the back lawn often doesn't work out well, safety wise, nor pass the spouse restriction test. Also, most designs perform better if fine tuned, tweaked, or pruned, once they are in or very near their final operating location.

All the above almost always involves the use of a ladder or ladders of some sort (Ah, yes, the tie-in). Many of you already

know that I had a recent unfortunate incident involving a step ladder, resulting with my left arm now being in a cast, a condition which will last for several more weeks. While I wasn't doing anything as noble as antenna installation or tuning, the ladder safety principles I violated, resulting in my tumble, are the same. Even more ironic and inexcusable is the fact that in my former life, I received many hours of instruction on ladder safety and was even responsible for enforcing those safety rules. I'll share my observations here in hopes others can avoid my plight.

First and foremost, make sure you are using a sturdy, well designed ladder of the appropriate length for the job at hand and in excellent condition. Inspect your ladder before each use. Older ladders, regardless of their construction, tend to become wobbly with time and use. If you have a ladder that is in questionable condition, don't hesitate: throw it away! A new ladder is far less expensive than orthopedic surgeon and hospital bills, say nothing of lost work time, etc. Buy a new ladder! This is no place to exercise that traditional ham tendency toward frugality. Ladders are rated by American National Standards In-

(Continued on page 4)



Events:

There is an General Class upgrade class in progress, and it will be repeated in September.

Watch for the announcement of another series of Measurements seminars. See **Education** on page 5

A hidden transmitter hunt is scheduled for the first Sunday of each month.

The next hunt is scheduled for March 1 2009, at 1:00 PM.

If you would like to receive the e-mail announcements related to the hunts contact Gray Bickford, WA6BJY or Richard, K6RBS, to have your name added to the list of those interested in hunting.

Each Friday at noon there is an informal lunch at the Carl's Jr. at the corner of La Paz and Marguerite in Mission Viejo. All are welcome.

From the Ambassador:

We started the year with the Surf City Marathon on Super Sunday Feb. 1st. The gang showed up in Huntington Beach about 5:00 a.m. and by 6:00 a.m. we were coordinating the parking at the State Beach. We used primarily 450 MHz commercial radios but backed them up with 2m simplex (144.350). The gang consisted of Joe, W6BGR, Tom, KI6DDB, Douglas, KI6KSA, Kathryn, KI6LWM, Brian, KI6MKG, Patti, AD6OH, and myself. We worked there until 8:00 a.m. and then went to breakfast and on to the Super Bowl.



The next Saturday Tom P., Richard, K6RBS, Patti and I met at O'Neill Park and supported a trail run in the park but on the pavement because of the rain. I was at HRO by 9:30 a.m. and the rest were done by 10:30a.m. We used 2m simplex to support the race and the whole event went off smoothly in spite of the weather. Another of these races will take place on the 8th of March (volunteers please send an e-mail to AD6OI@soara.org).

On a different note, this is the year that I'm changing the emphasis of my radio related activities. I am working on setting up an H.F. station, not sure where yet, and doing more contest work. Also, mother and the mountain bike racing circuit will keep me busy most of the year.

Therefore, I plan to retire from event communications coordination and auctioneering as well as coordinating the picnic and the holiday party. So all of you who are interested in doing any or all of these things please feel free to talk to the board and express your interest in taking over the coordination of any of the above activities

Thanks to All

Heiko, Ambassador

Yes that is really a 1949 GMC fire truck and its still very functional.



Holy Jim fire barn & equipment

Hi All, here is an up-date on the repeater for the Holy Jim Fire Dept and residence. I had the great opportunity to meet and train with the Holly Jim Fire Dept at their regular training day which is the last Saturday of the month. Under the direction of Chief Mike Milligan, I was able to assess and watch the Dept in action. You are all supporting a very viable fire fighting group. You can see the full video report on www.YouTube.com. Call up:: Fire-Horse454 and click on **Holy Jim**.

Communications is currently restricted to simplex. As soon as the President of their improvement association signs the FFC application papers (currently in her possession), the FCC will issue the license and the installation of the repeater can begin.

Thanks Again for your help in this endeavor,

BPL EMC Standard

Amateurs who are IEEE members can help ensure that radio communications interests are well represented as the IEEE BPL EMC standard goes to ballot. If you are also a member of the IEEE Standards Association, you can join the balloting group for free. If you are not an SA member, you can join for a relatively modest fee and help ballot this, or any other, IEEE standard.

Welcome

New members:
this month

Welcome to
Laura Ammermon,
KI6VOZ

Spencer Ammermon,
KI6URT;

Brian Lettieri,
KI6VPF

Mark Maddrell,
N6XOV.

We're glad you've joined us and look forward to your involvement and talking on the radio. Your badges and handbooks are ready for you to receive at our meeting on the 23rd.

Our membership total is 201 at the present.

Please e-mail us at
HYPERLINK

[:membership@soara.org](mailto:membership@soara.org)

about changes in your call sign, e-mail address, home address, telephone number and licensing upgrades so we can have the right contact information for you.

Horst and Marie Zitzmann, KD7JHR and KD7JHS

Dots and dashes forever?

Say you come across a magazine article called "Dots and dashes forever?" What would you think of it? Would you think "I'm no brass pounder so - so what?" How about; "I remember dots and dashes - their "forever" came to an end because, thank God, I no longer need to take the code test. One more reason for putting off taking Hal Silverman's, WB6WXO, General ticket upgrade class has been removed." Maybe you're thinking that real Hams use nothing but code, and voice is for CB and cell phone wienies. Whatever you're thinking, Morse code was the first radio mode and is still with us today.

The May 2006 *Trains* magazine article, "Dots and dashes forever?", by Jim Wrinn (Page 76) should be appreciated by all hams because it tells about some of the very important contributions that railroad-ing made to ham radio. Mid 19th century railroading and Civil War intelligence was how most of our Morse code communications was developed. Railroad safety made a quantum leap improvement when telegraphed train orders based on actual train locations and track conditions were used instead of relying on often erroneous schedule assumptions.

The article also explains how the Philip's code was developed by railroad telegraphers as a CW shorthand. We get our "73" for "regards", "88" for "hugs and kisses" and the journalistic "30" for "the end" from this Philip's code shorthand first used by railroad telegraphers.

It was an easy transition from telegraph to wireless communication for Morse code mainly because Continuous Wave (CW)



is the easiest mode to apply to radio waves. Voice requires much more technology to transmit all the variations in the sound spectrum than the "on and off" of CW telegraphy. It's interesting that our modern computer and communications technology is also based on a similar on/off binary technology, only on steroids.

The answer to my February 2, Tuesday Night SOARA Net impromptu homework assignment is also in this article. Technology passed Morse

code and class 1 railroad telegraphy came to an end on May 6, 1982. The following final message was sent on the Burlington Northern railroad between Milwaukee and the Twin Cities:

No. 117, Eng 1995 run extra Whitehall to Logan.

A seemingly unassuming message except that it and countless millions of other telegraphed train order messages allowed trains to avoid disastrous collisions for more than a century.

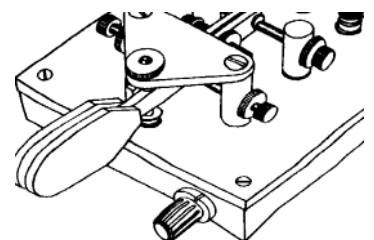
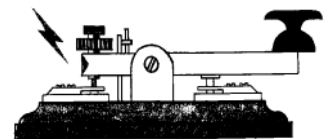
Consider using that CW capability in your HF rig which, by the way, you've already paid for. Check out:

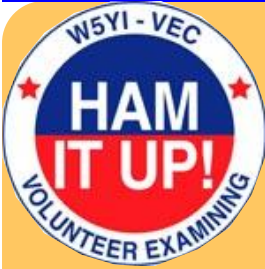
www.morsetelegraphclub.org

to see how the Morse Telegraph Club of Port Coquitlam, BC, Canada is keeping the "forever" connected to the "dots and dashes".

73, 88 and 30.

Tom Parkes,
KI6DDB





Testing

The results of testing on January 26, 2009 are:

Upgraded to
General:

Stephen Sherman
KI6FZV
Clynton P. Yarter
KI6UMT

Passed both **Tech**
and **General:**

Patrick K. McCourt
KI6VPH

Technicians:

Laura Ammermon
KI6VOZ

Jeffrey G. Cowell
KI6VPA

Brian Dayley
KI6VPB

Eusebio P. Garate
KI6VPC

Alana N. Kirkham
KI6VPD

Spencer Kirkham
KI6VPE

Brian A. Lettieri
KI6VPF

Edward Martinet
KI6VPG

Frank J. Mendoza
KI6VPI

Antoinette
Napoli-Pugh
KI6VPJ

Craig Wexelberg
KI6VPK

Jesse White
KB1RTN

(Continued from page 1) *QST de AE6H*

stitute (ANSI) Class duty ratings: type IA, I, II, and III. These duty classes are clearly noted on required labels, usually located on the ladder side. Most of you probably have type III, or household rated ladders. These are only rated for 200 lbs., light duty, and in my opinion should be avoided. Opt instead for a minimum of type II, *commercial*, 225 lb., medium duty rating. Obviously, type I or IA industrial, 250 and 300 lb. rated ladders would be better still. Look for a ladder design that has a wide stance; that is, there is extra width between the legs or rails to give the ladder a broader, more stable base.

Second, adhere to the right tool for the job rule. Make certain that your ladder is long or tall enough to safely reach your goal. Observe the safety labels warning about never stepping higher than a particular rung or step. Don't use a ladder that is too short .

Third, use the buddy system. Always have someone who can steady the ladder to prevent the ladder from slipping or tipping as you climb and work. Also, then there's someone to call for help if you get into trouble.

Fourth, don't be lazy or hurried. Don't over reach. Move the ladder to a better or closer position, even if only a foot or more, so you are not working over-extended or off balance. Keep your center of gravity centered between the legs or side rails of the ladder. Also, take the time to be sure that the spreaders of a step ladder or the dogs and pawls of an extension ladder are securely locked in position. Tying off the rope halyard of an extension ladder is also another safety measure against the ladder accidentally retracting.

Fifth, be certain the legs of the ladder are on firm, secure, and level footing. Don't use small pieces of wood, rocks, or the like as levelers. Use only large, sturdy, stable objects, and then, carefully,

and only if absolutely necessary.

Consider electrical safety whenever working with ladders and antennas. Use a non conductive ladder whenever possible. I personally prefer fiberglass ladders for their strength, durability, and non conductive properties. We generally don't have the non-conductive option with antennas, so we must be extremely aware of the electric shock hazard here as well. Both with ladders and antennas be aware of, and be sure to avoid overhead obstacles, especially electrical wires, power lines, and the like. Also be aware of where and what that ladder or antenna could reach if it tipped, fell, or was blown over by the wind while you are handling it.

Most of the above is likely obvious and well known by you, as it was by me. Still, in a careless moment, just doing a "simple little job" I was lulled into complacency and carelessness, allowing myself to violate several of the above, and the result, while potentially much worse, hasn't been fun. Don't let it happen to you!

73, Ray, AE6H

Since the invention of the IC (integrated circuit) in 1958, by Jack Kilby at Texas Instruments, the transistor count on one chip has risen dramatically!

Part	Year	Transistor count
Kilby	1958	1
RTL gate	1961	4
8080	1974	5,000
8086	1978	29,000
68000	1979	68,000
386	1985	275,000
AMD386	1991	200,000
PPC601	1993	2,800,000
Pentium	1993	3,100,000
Pentium 4	2000	42,000,000
Core 2 Duo	2007	410,000,000
Core i7	2008	731,000,000

Make a visitor feel welcome!

At each regular SOARA meeting we have a few, or perhaps several, visitors. These are often hams who are looking us over to see if they will enjoy being a member of the club.

Do we appear to be a friendly group or do we come across as a group with no room for new members? That is really difficult to tell if you are an long time regular. But let's assume that we have room for improvement.

If you see a new face at a meeting make an effort to greet that person. Visitors often have the temporary stick-on name badges, so they are easy to spot.

If you hear a new call sign on the repeater, take the time to have a chat. Invite them to attend a club meeting. SOARA is really a friendly club —lets make sure that every visitor discovers that! .



Education

We have started a class for those who want to upgrade their license from Technician to General. About 13 or 14 SOARA members are enrolled in the class. As of this writing we have completed two of the four classes. The main thrust of the class has been to concentrate on the technical requirements of the license. Much of the first classes were a review of the rules and regulations as well as the frequency allocations and the power limitations of the general class license. I plan to offer the class again in September and add at least one week to the length of the class.

I would also like to offer the measurements class again. The goals of the class are to learn how to use an oscilloscope, a DMM and to compare the resolution of an analog meter with that of a digital meter. We will also look at several building blocks that go into a simple transceiver. After looking at my schedule I will organize the class and announce the dates.

If there any comments or corrections, please let me know, at WB6WXO@SOARA.org

Raffle Update

Congratulations to Ken, W6KOS, the lucky winner of the DJ-496T 440 handie talkie in the January five-dollar raffle. Ken is active in the Hospital Disaster Communications group so I'm sure the rig will get some good use. Congratulations to all of the lucky winners in the one-dollar raffle as well. The next five-dollar raffle prize is a Yaesu VX-6R triple-band handie talkie. This radio is capable of making use of FM repeaters on the 2m, 222, and 440 bands. The VX-6R is submersible, features a 1.5Ah Lithium-Ion battery pack, 900 alphanumeric memory channels and is very rugged. Best of luck to everyone in the February Raffles.



Brian, NJ6N

Thought for the Day

For the computer programmers in SOARA
*Programming can be fun,
 so can cryptography;
 however they should not be combined.*

Year 2009	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
General Meeting 7:00 PM	26	23	16	20	18	15	20	17	21	19	16	—
Program	Antennas W6OM et al. part 1	Antennas W6OM et al. part 2										—
VEC Testing	26	23	16	20	18	27	20	17	21	19	16	—
SOARA T-Hunt	4	1	1	?	3	7	5	2	6	4	1	6
Board Meeting	Feb 2	Mar 2	23	27	Jun 1	22	27	24	28	26	23	28
Special Events		General upgrade class Thursdays		Earthquake Preparedness Month	2: Repeater Work Party 13:HamCon Dayton, OH							
ARRL Field Day						27-28						
SOARA picnic								2				
SOARA Holiday Party												6

☛ **SOARA** meets at the Mission Viejo Community Center, 26932 Veterans Way, Mission Viejo, the third Monday of every month at 7:00 PM. For the months of January and February the third Monday is a holiday and the meeting is held on the fourth Monday.

☛ **License Exams:** Amateur License Exams are given prior to SOARA meetings. Exams are from 5:30 to 7:00 PM. Prior registration is encouraged, but walk-in applicants are welcome. For information call Ernie Senser, W6ETS, at 949-458-2504.

☛ **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, KG6GL.

- | | | | | | | |
|--------|------|---|----------|---|-----------|------------------|
| | 2m | — | 147.645 | — | (110.9) | Laguna Beach |
| | 2m | — | 146.025 | + | (110.9) | San Clemente |
| | 2m | — | 145.240 | — | (110.9) | Trabuco |
| D-Star | 2m | — | 146.115 | + | (K6SOA C) | Laguna Beach |
| | 220 | — | 224.100 | — | (110.9) | Laguna Beach |
| | 220 | — | 224.640 | — | (123.0) | Santiago Pk. (C) |
| D-Star | 440 | — | 445.660 | — | (K6SOA B) | Laguna Beach |
| | 440 | — | 447.180 | — | (131.8) | Santiago Pk. (C) |
| D-Star | 1.2G | — | 1282.600 | — | (K6SOA A) | Laguna Beach |

☛ **Nets:** SOARA UHF/VHF 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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