

# The PROPAGATOR

January, 2002

The Monthly Newsletter of South Orange Amateur Radio Association



## Happy New Year 2002



### Practical Antennas for Apartment Dwellers

### Membership Manual

*Malcolm Levy, KO6SY, — always an entertaining and informative speaker — will present the program for the January general meeting on the 28th. Here are some notes on his talk.*

As an apartment dweller in Lake Forest, I have had to come up with many ways to hide antennas. Here are a few simple ideas.

1) A loop around the balcony fed with 300 twin lead and tuned with a balanced tuner near the rig. If you can make the loop resonant on one band even better, but if not, use as much wire as possible and try to keep it away from metal. This is the number one preferred method.

2) If the balcony has iron railings, design a mounting bracket to hold a telescopic antenna that can be retracted when not in use. I have used a commercial product that is available from HRO called the AP- 10A from Barker & Williamson. It is complete with all the mounting hardware. If you want to build one yourself, go to their web site and see how it is built: <http://www.bwantennas.com/>

**At the next meeting I will be showing you how to build one of these antennas for about \$10 or less!**

3) Use a method similar to 2 above but mount a mobile antenna, like a HAM STICK, that can be taken down when not in use.

4) There are designs using "slinky coils" that produce a lot of wire in a small space. These can be fed from balanced tuners and matched to any band.

5) If all you have is a window, then you need to open it and push a telescopic antenna out, counter balance the antenna so it stays horizontal, and again go through a tuner to the rig. I have worked a lot of stations using this

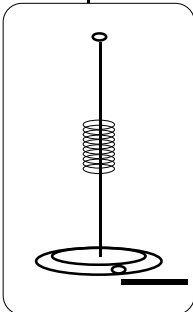
method from hotel rooms.

6) A better method than a base loaded whip is to build your own center loaded device antenna.

*Some ideas on this will be presented at the January club meeting.*

7) The expensive magnetic loops do work, but they are very expensive for what they do. If space is limited, this may be your last hope.

8) When operating portable, all of these variants work well but even better are wires fastened to kites or balloons. If that isn't feasible, then a wire over some local tree is extremely effective.



With all of the whip solutions don't forget to attach a counterpoise. This should be tuned to the band you are working and can be thrown out anywhere. To find out more on this go to the following web site and search

<http://www.hfpack.com> for counterpoise. Also, the best antenna will be the one with the most wire or metal out there! So a wire loop will usually work much better than any loaded antenna.

Remember, that in an apartment your signal is likely to be getting into every one else's apartment. I had a situation, when running 100 watts, that on certain modulation peaks the neighbors garage door would open. I never did let them know how I could do that! So keep the power down until you know what damage you are doing. PSK 31 and CW work well in these low power situations.

You will never know what works until you try it. That's what HAM radio is all about; that's how we learn more about our interesting hobby.

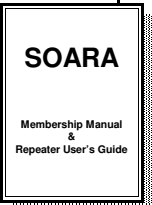
73 & Good Luck,

Everything you ever wanted to know about the SOARA repeaters . . . , well, the info on how to use all of the advanced features of the repeaters is here. That and a lot more is included in the 2002 SOARA membership manual. Those who have paid their dues for 2002 will find the manual in the mail with this issue of the Propagator.

Howard Brown, KG6GI, SOARA's Repeater Director, deserves the credit for producing this handsome and useful book. In addition to a concise explanation of the operating procedures for the repeaters, he has included:

- ⇒ The 2002 schedule of meetings.
- ⇒ SOARA's Constitution and By Laws.
- ⇒ Membership Roster.
- ⇒ Other useful information.

Although SOARA's most popular repeaters are open (any licensed ham is welcome to use them), the advanced features such as the phone patch are not "open." A control code is required to access these features, and that code is not made public. The use of that code is explained in the Membership Manual. You will want to have the manual handy as a reference when you start to use the advanced features. Please do not share the information with non-members. If the occasion should arise where a non-member has a real need to use the phone patch, you, as a member could place the call via your radio. The non-member could then conduct his conversation via the repeater. You should monitor the conversation in order to return the repeater to normal operation at the end of the "patch." Also, please be mindful to identify your station at the start and end of any advanced operation. With increased use it is important to follow good operating procedures. Enjoy your new privileges. □





Happy New Year!

Another year has started. What new aspect of Amateur Radio will you pursue this year? Certainly "ham" radio is a hobby with enough facets that an inquisitive person can always find something new to learn or some new operating mode in which to acquire the requisite skills.

Amateur Radio how do I love thee — let me count the ways: Let's see, there is CW, ah the brass pounders are a vanishing breed. Or are they? Even though the code requirement is practically gone, there are lots of folks brushing up their skills. Ask around as there are SOARA members who hold on the air practice CW QSOs. You could join them.

Even AM phone operation hasn't vanished. You can find amplitude modulation QSOs on the 80 meter band. Some hams claim that the audio fidelity of AM makes the contacts more satisfying.

Most HF operators have sophisticated SSB rigs. (Well, yes, my rig will do CW and even AM, at least that is what the owners manual indicates — and I trust it; I don't feel the need to check it out). That makes us pretty up-to-date. There is talk of digital voice communications. The internet has made that concept pretty familiar (at least digital music) so it is a pretty sure bet that things are going to change in the future. Have you noticed — as high tech gets higher, the future gets here quicker!

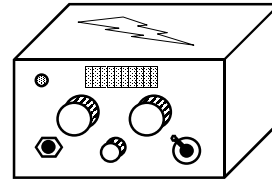
But I have just scratched the surface. There is ATV (amateur TV). One reason there is an item on the next page about TORRA (Tournament of Roses Radio Amateurs) is that a friend told me of his experience New Year's Day operating an ATV camera at the Rose Parade.

## The Way I See It:



The "Seeing Eye Dog" float which broke down and had to be towed had some wheels locked. Parade officials were skeptical until the ATV camera showed the skid marks it was leaving on the road.

For those not in a hurry there is slow scan TV. The entire alphabet soup of digital modes follows. The latest entry here is PSK-31 which has created quite a bit of interest lately. It takes very little in the way of equipment beyond the basic SSB rig and a computer with a sound card. In the latest issue of QST look at the *QRP Power* column for information on a QRP kit for a PSK-31 rig. (Only \$45 plus shipping.)



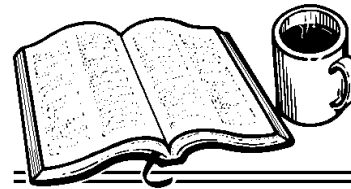
equipment. The grand old days of Heathkits is past, but there are lots of smaller companies who sell high quality kits. You can build a complete HF rig from a kit. Several of our members have done just that.

If advanced kit building interests you, ask around and talk to those who have completed a kit for their comments. For a first kit construction project choose something less complex. After you have developed your construction skills, you can move up to something more complex.

There has been some talk of a club project to provide an opportunity to get started in "rolling your own." Antennas are a very popular subject for construction projects. Unlike electronics, the parts for antennas don't keep shrinking (just as my eyesight is getting weaker!)

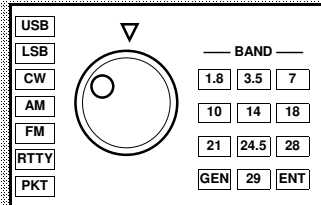
Whatever your interest in amateur radio, there are good resources for learning more about it. SOARA's web page has links to information on the internet. The ARRL publishes a wide range of books, all of them high quality. If you don't have a collection of books on amateur radio the one to start with is *The ARRL Handbook for Radio Amateurs*. This book is an incredible value for the price. For your second book you

should consider *The ARRL Operating Manual*. For more in-depth information on understanding and constructing antennas it is hard to beat *The ARRL Antenna Book*.



From there you can follow your interests. We are fortunate in this area that there are local stores dedicated to serving the needs of radio amateurs. Ham Radio Outlet carries a good collection of books so you can look at them before you buy. They also carry the monthly magazines that can keep you up to date.

Hams seem to like to talk so I should mention the weekly nets that SOARA runs (Tuesday evenings at 8:00 PM on 147.645, and Sunday mornings at 7:30 on 40 meters. On Fridays at noon there is an informal lunch at Karl's Jr. on La Paz at Marguerite. For many of us the highlight of the month is the general meeting. See you there. 73 ☐



We all use FM on the VHF and UHF bands, don't we? There is some exciting work done on SSB in these bands.

EME (earth — moon — earth) is pretty exotic, but contacts via satellite or contacts with the space

station are not out of the question.

Whatever bands or modes you work, there are contests and certificates to pursue. If competition isn't your thing, then the cooperation of providing communications for public events or training for emergency communications may attract you.

If you like your wires really short and your transmission lines hollow, then you may find the microwave bands to be your cup of tea (maybe even magic - T) [a little inside  $\mu$ wave joke]. Those Gigahertz bands are not crowded, and you can buy or build some *really* high gain antennas.

APRS (Automatic Packet/Position Reporting System) is such a nifty system that it won't be long before it is available commercially through your cell phone (or is it available already?) Interesting — in some things we are ahead of consumer acceptance, and in some things (digital voice transmission used on the newest cell phones) we are behind.

The above is only about operating modes. Lots of hams like to experiment and build

Year 2002	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
General Meeting 7:00 PM	28	25	18	15	20 Auction	17	15	19	23	21	18 Auction	No meeting
VEC Testing 5:30 PM	28	—	18	—	20	22	15	—	23	—	18	—
Propagator Deadline												
Board Meeting	2/4	3/4	25	22	27	24	22	26	30	28	25	
Spring Auction					20							
ARRL Field Day						22 - 23						
SOARA picnic								3				
Fall Auction											18	
SOARA Holiday Party												1

### Classes start January 29!

SOARA is starting the year off with an Introductory level class leading to the Technician license. The first class is Tuesday, Jan. 29. If you have friends or family who would be interested in taking the class, contact Mike Mullard, KF6HVO.

Mike also has some openings for instructors. If you would like to contribute one evening teaching a subject, send Mike an e-mail at [kf6hvo@soara.org](mailto:kf6hvo@soara.org) for a list of topics and dates that are open.

Check the SOARA web site for more details. [www.soara.org](http://www.soara.org)

### Scientists decode the first confirmed alien transmission from outer space . . .

"This really works! Just send  $5 \cdot 10^{20}$  hydrogen atoms to each of the five star systems listed below. Then, add your own system to the top of the list, delete the system at the bottom, and send out copies of this message to 100 other solar systems. If you follow these instructions, within 0.25 of a galactic rotation you are guaranteed to receive enough hydrogen in return to power your civilization until entropy reaches its maximum!"

### WHAT IS TORRA?

T.O.R.R.A. stands for the Tournament of Roses Radio Amateurs. It is an organization of Amateur Radio operators who have an important role in the Tournament of Roses Parade held on New Year's Day in Pasadena, California. They began in the early 1970's supporting the Parade from the law enforcement side. Since then, support for the Tournament of Roses has continued to grow. The "Hams" involved formalized as a club, TORRA, in the early 1980's and today have more than 300 active members.

The purpose of TORRA is to provide quick and efficient radio communications for Tournament officials upon their request. They are a support communications organization that responds to specific requests of the Tournament to the best of their abilities and within the confines of the legalities of Amateur Radio.

The Tournament of Roses is composed of committees that have rotating chairs with aides (called White Suiters). It is to these White Suiters that TORRA responds. TORRA assignments begin on New Year's Eve when the floats are brought into the formation area. During the parade, TORRA

members are everywhere that they are needed, usually accompanying a White Suiter on the streets.

In addition to voice communications, TORRA also uses Amateur Television. ATV supplies Tournament officials with a visual image of the parade and any problems that may occur along the parade route. Packet Radio is used during the post-parade float viewing to keep data and assist with "Lost Persons." For the 1997 Parade, TORRA added APRS (Automated Packet Reporting System) to track float convoys.



### VOLUNTEERS NEEDED!

If you are a Ham Radio Operator in the Southern California area, please consider volunteering some time doing a great public service for the best parade in the world.

The TORRA net can be heard in Southern California on 147.27Mhz +600. It begins in September on the last Thursday of the month at 7:27 P.M. It is active until New Year's Eve.

If you would like to participate in supporting this world famous parade visit the TORRA web site: [www.torra.org](http://www.torra.org).

# The PROPAGATOR

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## Meeting: January 28, 2002 at 7:00 PM KO6SY on "Apartment Antennas"

☛ **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 two-meter repeater.

☛ **License Exams:** Amateur License Exams are given prior to SOARA meetings every other month. Exams are from 5:30 to 7:30 PM. You must make an appointment at least a week in advance. Call Lou Parker, KA6BJO, at 951-0336. (No calls after 9:00 PM please.)

☛ **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 SOARA 2-meter and 70 cm repeaters are open to all licensed hams.

SOARA 2m — 147.645 - (110.9)

SOARA 2m — 145.240 - (110.9)

SOARA 440 — 445.660 - (110.9)

The SOARA 220 and HROC 440 repeaters are shared by members of both clubs. Each machine is subject to the operating rules of its respective club. Call KG6GI for details.

SOARA 220 — 224.100 - (110.9)

SOARA 220 — 224.640 - (123.0)

HROC 440 — 447.180 - (131.8)

☛ **Nets:** SOARA 2 m repeater open net is held Tuesday 8:00 PM 40 meter HF net (7.268 MHz +/- for QRM), Sunday 7:30 AM.

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