



# SOARC Wireless Gnus

Issue 173

November 2007

MONTHLY NEWSLETTER OF THE SOUTHERN OREGON AMATEUR RADIO CLUB

SOARC, P.O. BOX 1164, GRANTS PASS, OREGON 97528  
VISIT THE SOARC WEBSITE AT: <http://www.qsl.net/soar/SOARC/index.html>  
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If you have anything to be considered for publication in the *Wireless Gnus*, please contact the editor.  
The deadline is 10 days before the next meeting.

## November meeting

The October meeting of the SOARC will be held at 7 p.m. on Tuesday, November 20<sup>th</sup> at the Fruitdale Grange on Rogue River Highway. The board meets at 6 p.m.

Are you interested in helping your radio club by running for an office or serving on the board of directors? If you want to learn more about opportunities to serve our club, please speak to any board member at the November meeting or come to our board meeting which starts one hour before the regular club meeting.

Remember that we would love to see something you built yourself, interesting QSL cards, or other things, so bring 'em to the meeting! You are never too old for "show and tell".

At the October we heard an interesting discussion about wire antennas used for multiple bands, which was presented by club member Carter Rose, KD6GN from Golden.

See you on Tuesday, November 20<sup>th</sup>.

*Jim W7PUP*

## Next VEC session to be held November 23

If you are interested in taking an FCC amateur radio test the next exam session will be held on Friday November 23<sup>rd</sup> at the Fruitdale Grange (same location as our radio club meets). Exam sessions start at 6:30 and end at 8 p.m. Please see the article on VE sessions near the end of this newsletter.



## SOARC to hold Christmas party on Tuesday, December 18

As we normally meet on the third Tuesday of the month, our December meeting will be held on Tuesday, Dec 18<sup>th</sup>. The board decided last month to make this our Christmas Party. We will move our meeting time up so that things start at 6 p.m. The club will provide turkey, ham and coffee. Members are invited to bring a guest and a desert, salad or side dish to share.

Santa Claus will be present and help conduct a gift exchange. Members are asked to bring an inexpensive gift for the exchange. The gift should be wrapped for the gift exchange to work properly.

*Jim W7PUP*

## Hints & tips

The New York Times ran a good article [www.nytimes.com/2006/12/27/business/27morse.html](http://www.nytimes.com/2006/12/27/business/27morse.html) called "A Fading Signal". It features WZ8C, W6LD, and W6NL and captures some of CW's mystique and attraction to hams. (Thanks, John N2NC)

Where's the Real DX? Look up - and out! The latest issue of Microwaves & RF magazine contains an overview of the new ALMA millimeter-wave radio telescope <http://tinyurl.com/y4hapb> that is under construction in the northern Chilean desert. There will be 66 dishes operating from 31.3 - 950 GHz! CQ Dog-Xray!

To really impress your friends, and keep CW alive in the bargain, you need Morse Code ring tones for your phone! You can even get the phone to send the call of the person calling with a little trickery. For the Motorola Q phones and possibly others, try <http://tinyurl.com/yjnlkg>. (Thanks, Lynn N7CFO)

From Slashdot [www slashdot.com](http://www slashdot.com) comes word of a free 2007 astronomical naked-eye observing calendar [www.astrowhatsup.com/download-the-book](http://www.astrowhatsup.com/download-the-book) by Tammy Plotner, called "What's Up? 365 Days of Skywatching". Hams tend to have a passing interest in skyward events so this might be an interesting item to have on one's hard drive.

Trying to keep one's mind on the job is difficult in almost any competition, but in radio contesting, it's crucial. For a whole collection of ideas, browse to the January 2007 archives of cq-contest at <http://lists.contesting.com/archives/html/CQ-Contest/> then click "Thread" and search for "Improving Concentration". Thanks to Marc W6ZZZ for the idea!

The HF Systems section of the Australian Government IPS Radio and Space Systems Web site [www.ips.gov.au/HF\\_Systems](http://www.ips.gov.au/HF_Systems) makes quite a bit of tasty ionospheric and propagation data available with a couple of mouse clicks. The North America section will be of interest to most Rate Sheet readers, but the coverage is worldwide. Of particular interest at the HAP charts that indicate the preferred band to contact mobile stations from a particular city, a situation typical of most contest operations.

Lots of answers to questions about RFI are addressed in the tutorial that has just been published by Jim K9YC. He says it's not finished, but far enough along to publish. Grab a copy at <http://audiosystemsgroup.com/RFI-Ham.pdf> (Thanks, Jim K9YC)

Here's a source for small hobby tools - "Micro-Mart" < <http://micromart.com> > - and they also carry PC board supplies such as ferric chloride and carbide drill bit assortments. (Thanks, Steve KD1JV)

Roy W7EL's EZNEC antenna modeling program [www.eznec.com](http://www.eznec.com) was upgraded to version 5.0 at the

## Wireless Gnu

Hamvention! The new version can model transformers, L networks, and transmission line loss, extending its scope to the entire antenna system. The new version also supports higher-precision calculation, import and of NEC-format wire files, circular polarization, more SWR type displays, more frequency sweep steps, and other improvements. There are five versions with various capabilities, including a free demo package, depending on your needs.

Another interesting software product, RadioCom 6, was released by Bonito. It performs DSP and signal decoding functions on a PC. The program handles a plethora of signal types, all sorts of interesting analysis functions including oscilloscope-like displays, and has full-featured memory management. It's easy to see how one could dive into the world of signal decoding and never come back up!

Lightning poses a definite hazard in many areas of the USA this time of year. Getting advance warning of potential (no pun intended) lightning in the area is a valuable safety improvement. There are numerous lightning detectors, but not so many portable ones that we can take with us to the top of the tower or to the campsite. Thomas KN4LF recommends the Strike Alert portable lightning detector [www.strikealert.com](http://www.strikealert.com) from Ambient Weather [www.ambientweather.com](http://www.ambientweather.com) and other vendors.

Here's an interesting report [www.nema.org/gov/ehs/committees/drybat/upload/Sound\\_Environmental\\_Management\\_10\\_01.doc](http://www.nema.org/gov/ehs/committees/drybat/upload/Sound_Environmental_Management_10_01.doc) on the environmental consequences of battery recycling and disposal. Hams do tend to use a lot of batteries and knowing which require special attention and which don't can save time and money. (Thanks, Jim KR1S)

Need a replacement copy of your paper license? [http://wireless.fcc.gov/services/index.htm?job=cft&id=amateur&page=cft\\_replace\\_amateur](http://wireless.fcc.gov/services/index.htm?job=cft&id=amateur&page=cft_replace_amateur) (Thanks, John K1AR)

David K3KY has updated his Web page [www.anglefire.com/md/k3ky/page37.html](http://www.anglefire.com/md/k3ky/page37.html) of links to articles and other sites with information on low-band Flag and Pennant articles. This topic has become broad and deep with new contributions continually being added over the past nine years.

Everybody needs a battery charger and here's a page of Li-Ion chargers [www.batteryspace.com/index.asp?PageAction=VIEWCATS&Category=1026](http://www.batteryspace.com/index.asp?PageAction=VIEWCATS&Category=1026) that address a variety of needs and configurations. (Thanks, Bill AB1AV)

Archie KX5X has written a detailed set of notes for making printed circuit boards by the "toner transfer" process. This process eliminates photographic equipment and chemicals by using transparencies and laser printers or copiers that use powdered toners. You can download the full article at [www.la3pna.net/kx5x](http://www.la3pna.net/kx5x) Leon G1HSM points out that there is an active Yahoo! Group [http://tech.groups.yahoo.com/group/Homebrew\\_PCBs](http://tech.groups.yahoo.com/group/Homebrew_PCBs) on making your own PCBs.

### 3

Looking through a parts catalog can lead to a lot of confusion, particularly for capacitors. Trimmer caps variations can be extremely obscure. Unless one has access to good articles like "Evaluating Trimmer Capacitor Choices" [www.mwrf.com/Articles/ArticleID/15568/15568.html](http://www.mwrf.com/Articles/ArticleID/15568/15568.html) in the May issue of "Microwaves & RF". The article focuses on small caps you're likely to encounter in VHF+ and upper HF circuits, but the descriptions of materials and construction is of broad interest.

Tim K3HX wrote to share a nifty bearing-distance calculator <http://tinyurl.com/3xhqza> for those who are really serious about such things. The initial distance answer is in km but there is a function to show a Google map path as a line on a map with each terminal noted.

#### Operating tip

If the band has turned to a mush of interference, splatter, and spurious signals, make sure your preamp and noise blanker are off. These circuits make the receiver highly susceptible to overload and distortion by strong signals. Further, reduce RF gain and add attenuation to clean up the band even more. Remember to maximize signal-to-noise ratio instead of absolute signal volume. If you can hear the stations you want to work, that's all the gain you need!

Tomas NW7US explores the question of whether HF propagation is reciprocal in a recent CQ Magazine "Propagation" column. The important parts of the text have been posted at <http://hfradio.org/ace-hf-reciprocal.html>. A similar column covering basic HF propagation concepts can be found at <http://hfradio.org/acc-hf/ace-hf-demystified.html> - a good resource for someone new to HF operation.

In perfect cables, there is no way for energy on the outside of a coax shield to transfer to the center conductor. However, all shields have a transfer impedance, where the current on one side of the shield causes a voltage drop over some length of the cable and that voltage drop is seen on the other side of the shield. Here is a link to Belden's paper on transfer impedance. [www.belden.com/pdfs/TechInfo/TechTransfer.htm](http://www.belden.com/pdfs/TechInfo/TechTransfer.htm) Note the charts at the bottom of the page comparing different amounts of shielding and frequency. (Thanks, Gary K4FMX)

Bob N6TV's one-tower, city lot antenna farm recently received a makeover. Take a look at <http://tinyurl.com/2orqo3> to see how the work was done within the confines of the available space.

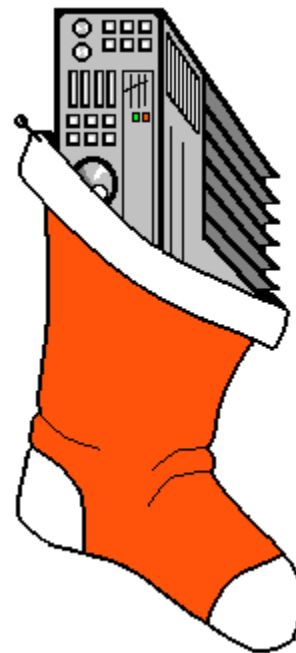
The Spokane DX Association's Web site [www.sdxa.org](http://www.sdxa.org) has a link to a set of impedance measurements of bead and solenoid baluns at different frequencies. Click 'DX Tips' to find the measurements. (Thanks, Dan N5AR)

Tower building is a popular summer pastime and grounding is quite important. Here are some pictures <http://groups.msn.com/hamtech/shoobox.msnw?albumlist=2> of a cell site ground system under construction near N6IJ.

## Wireless Gnus

Cadweld techniques are used for conductor bonding and are reviewed at these sites: [www.k2ut.org/cadweld.htm](http://www.k2ut.org/cadweld.htm)  
[www.rogerhalstead.com/ham\\_files/ground.htm](http://www.rogerhalstead.com/ham_files/ground.htm)  
<http://tinyurl.com/22sgz8.HTM>  
(Thanks, Pat AA6EG)

*That's it for November. 73 W6IGK Elmer*



## Events & contests

- Annual NASCAR Day 10/20 1300Z to 1730Z 7.268 & 14.270 MHz
- U.S.S. Midway 10/20 1600Z to 2300Z 7.260 & 14.325 MHz
- Jamboree on the AIR 100 Years of Scouting 10/20 1600Z to 10/21 0500Z W6Y
- Illinois QSO Party CW/SSB 10/20 1700Z to 10/22 0100Z
- W/VE Islands QSO Party 10/20 1600Z to 10/21 2359Z
- Worked All Germany CW/SSB 10/20 1500Z to 10/21 1459Z
- Asia/Pacific Sprint CW 10/21 0000Z to 0200Z
- 140th Anniversary of the Chisholm Trail 10/27 & 10/28 1400Z to 2300Z daily
- CQWW DX Contest SSB 10/27 0000Z to 10/28 2400Z 160 thru 10M. If you ever wanted to work some DX this is your opportunity.
- 10-10 International CW/Digital 10/27 0001Z to 10/28 2359Z

## 4

Here's your chance to work 10 meters again. There should be a lot of activity.

- ARRL November Sweepstakes CW 11/3 2100Z to 11/5 0300Z
- Ukrainian DX Contest 11/3 1200Z to 11/4 1200Z
- Veterans Day 11/9 to 11/12 1400Z to 2000Z daily 3.985, 7.030, 7.283, 14.235 and 21.375 MHz
- Marine Corps Birthday 11/10 1600Z to 2300Z 7.240 & 14.240 MHz
- Japan International DX Contest SSB 11/10 0700Z to 11/11 1300Z
- Kentucky QSO Party CW/SSB 11/10 1400Z to 11/11 0600Z
- OK-OM Contest CW 11/10 1200Z to 11/11 1200Z 160 through 10M
- LZ DX Contest CW 11/17 2100Z to 11/18 0100Z
- RSBG 1.8 MHz Contest 11/17 2100Z to 11/18 0100Z
- CQWW DX Contest CW 11/24 0000Z to 11/25 2400Z 160 through 10M

*See you on the airwaves. 73 Elmer W6IGK*

## Grow your club with new hams

By Norm Fusaro, W3IZ

One of the most frequently asked questions that we hear from ARRL affiliated clubs is "How can we increase membership in our club?" On the surface the solution is a simple one - make more hams. A foundation of active Amateur Radio operators is required in order to maintain a healthy Amateur Radio club. If you lack a sufficient pool of licensed hams in your area then create some. Clubs that conduct licensing classes where they make recruitment part of the lesson continually increase membership. It does not matter if the course is an eight week program or a weekend crash course, a good instructor will pepper the syllabus with the advantages of membership in the local club and the Radio Amateur's national association -- ARRL.

Providing a license course for those people in the community who are interested in learning about Amateur Radio demonstrates the club's commitment to helping people.

Reinforcing Amateur Radio's tradition of helping each other let's the new hams know that they are not just getting a license to operate a radio but that they are also earning a ticket to

## Wireless Gnus

become part of a worldwide society whose existence is built on mutual contact. Whether on the air or in the community Amateur Radio has always been a two-way function.

From the moment the license class begins new hams need to know that your club is there to help them as they begin their Amateur Radio journey. This relationship begins not in the classroom but at the time of registration or when that first contact is made whether in person or on the telephone or through the internet.

As the class progresses the new ham is made aware of the reciprocal bond between hams and while the novice may not believe that he or she has something to offer at the moment, their attendance and a desire to belong is sufficient contribution. As long as the club maintains a friendly environment that encourages participation and supports activities the novice will soon become the Elmer to the next group of new hams and will eventually take on leadership positions in the club. However, a club is destined to fade away if they choose to adopt the attitude "build it and they will come."

Be sure to invite the new licensees to your next club meeting. Using written invitations is a nice touch and sends a message that you really want them to attend. The focus of this meeting should be on your new hams and getting them into the mainstream. Several clubs have organized the meeting following a license class using the "Ham Radio 101" format where the entire evening's programming is to show the novices the basics of operating. Have refreshments on hand and be ready to talk about the fun activities such as Field Day or a community activity that your club is involved in. This is not the meeting where want to discuss politics or topics that will embattle the membership. Keep it light and focused on the needs of the newcomers.

New hams are thirsty for information no matter how basic. When and where are the club meetings held? How do I get on the air? What does this or that term mean? Be prepared to answer the simplest questions and provide details when you do. The Mt. Baker club in Bellingham Washington has developed a great handout for new hams that helps answer some of these questions. With Mt. Baker's permission ARRL has made this booklet available to download and customize for your use. The modified version provides a place for your club to insert club and local information.

<http://www.arrl.org/news/features/2005/03/06/1/MBARC-Info-Pack.pdf>

Use this brochure or develop one of your own but in any case be sure to give your new hams something informative to take home with them.

A closing thought when working with new hams, one person's favorite activity is not all that ham radio has to offer. Meeting programs and mentor sessions should stimulate new hams to explore the many options offered to the licensed radio amateur. Organizing and teaching an Amateur Radio license class where

## 5

the students are encouraged to be a part of the fabric of ham radio and invited to participate in club activities is guaranteed to increase your club's membership with active hams.

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ARRL has resources for instructors

The Instructor's Manual

<http://www.arrl.org/catalog/?item=9817>

includes lesson plans for teaching a Technician license course and a CD ROM with visual aids for the classroom.

Instructors can advertise their classes on the ARRL website so that interested people can locate a class in their area. Visit the instructor support page for more information.

<http://www.arrl.org/FandES/ead/instructor/>

To become a registered instructor please contact ARRL Educational Assistant, Rose-Anne Lawrence, KB1DMW at [rlawrence@arrl.org](mailto:rlawrence@arrl.org) or 860-594-0263

### ARRL awards program for clubs

Looking for an exciting way to challenge your club? Try earning DXCC, Worked All States (WAS) or VUCC award for your club. ARRL affiliated clubs are eligible to participate in all of the ARRL awards programs. If your club does not have a station then use the club call from a member's station. Operate portable ala Field Day and activate a rare grid square. Use your imagination to come up with ideas to activate your club call and involve your members in chasing some very nice operating awards.

Complete information on the ARRL awards program is available on the web at: <http://www.arrl.org/awards/>

For information on obtaining a club call sign: <http://www.arrl.org/arrlvec/605ins.html#club>

Clubs can use Logbook of The World.

<http://www.arrl.org/lotw/>

<https://p1k.arrl.org/lotw/faq#clubcall>

*Information above from the ARRL Club Newsletter, Nov 10, 2007.*

### Items for sale

If you have something for sale please send description to Jim W7PUP via [W7PUP@arrl.net](mailto:W7PUP@arrl.net).

## Wireless Gnus



### Motorola to acquire controlling interest in parent company of Yaesu

Motorola issued a press release earlier this week stating that its subsidiary, Motorola USA, will "launch a tender offer to acquire a controlling interest in Vertex Standard Co., Ltd." Vertex Standard is the parent company of Yaesu. Upon successful completion of the tender offer and subsequent restructuring process, Motorola will own 80 percent of Vertex Standard; Tokogiken, a privately held Japanese company, controlled by current President and CEO of Vertex Standard Jun Hasegawa, will retain 20 percent, forming a joint venture. The total purchase price for 80 percent of the outstanding shares on a fully diluted basis will be approximately 12.3 billion yen (approximately US \$108 million).

The bid will start November 6 and end on December 26. If the bid succeeds, shares of Vertex would be delisted from the Jasdaq Securities Exchange in Japan.

According to Dennis Motschenbacher, K7BV, Yaesu's Executive Vice President for Amateur Radio Sales in North America, "I thought that the happiest and proudest day of my 45-plus years in Amateur Radio was when I was offered the opportunity to lead the Yaesu North American sales effort; however, being able to now announce this news to my fellow Amateur Radio operators takes over as the top life thrill for me! I am certain the good fortune that put me in this leadership chair at Yaesu now promises opportunities for me to do more for the technological future of Amateur Radio than I ever dreamed possible. I do not pretend to know the full extent of the positive impact this Motorola/Vertex Standard business arrangement will have on Amateur Radio -- I just know it is going to be terrific for all of us who love Amateur Radio for its public service and entertainment value, as well as its potential

## 6

for us to make lifelong friendships in our neighborhoods and around the world."

Saying that hams should not expect to see a line of Motorola Amateur Radio products, Motschenbacher said he sees the joint venture between Motorola and Vertex Standard "as a very good thing for Amateur Radio in general and Yaesu customers in particular. I hope our loyal customers will readily see this business venture for what it is, an opportunity to make a solid 50-plus year old Yaesu company even stronger and more formidable than is already the case. There is absolutely no reason to have the slightest concern about equipment warranties and the continuation of support for our products. I am really excited to see what the joint engineering capabilities of these two huge communications companies will bring in the way of new technology advancement for the Amateur Radio service."

Motorola said that the joint venture "will develop and sell Vertex Standard branded products and develop select Motorola branded products. The Motorola brand will continue to focus on higher featured, higher tier products and continue to utilize existing Motorola distribution channels. Vertex Standard's strength in the Amateur, Marine and Airband (Avionics) segments will also provide Motorola with access to new business opportunities. In addition, Vertex Standard's solutions are highly complementary with Motorola's products and will add greater depth and breadth to Motorola's Government and Public Safety business." According to Hasegawa, "The joint venture will give Vertex Standard access to Motorola's global distribution channels, presenting considerable opportunities for Vertex Standard to drive growth. We also expect to reduce costs, as we will benefit from Motorola's global scale and resources. With Motorola, Vertex Standard will be stronger and better positioned to deliver new and innovative 2-way radio solutions for professionals and consumers around the world."

Motschenbacher said, "There is a unique aspect of business that comes with Amateur Radio. It's not just about a radio. It's the relationship between the ham, the radio itself and the company that makes that radio. This relationship in Amateur Radio is far different than it is, say, between a buyer of a HDTV, the TV and the TV manufacturer. The relationship in Amateur Radio is far more personal and 'bonding,' per se. I am certain that we will do our utmost to ensure that Motorola understands this delicate bond. Since Motorola is leaving the day-to-day management of Yaesu in the hands of my boss, Jun Hasegawa, President of Vertex Standard, we can expect our longtime relationship with hams to remain intact."

Calling the joint venture "a good thing," Motschenbacher said, "Before working in the business side of Amateur Radio, my old business partner and I purchased a number of small companies in our line of business. More often than not, we found that bringing these new acquisitions into our existing family of companies added more to the overall success of the total group than expected. Therefore, I believe that this joint venture is not just a  $1 + 1 = 2$  equation -- I am positive that the outcome for our Amateur Radio customers is going to feel more like

## Wireless Gnus

$1+1=3$  and that's a good thing!"

*From the ARRL Letter, Nov 9, 2007*

### SOARC nets & repeaters

SOARC Repeaters, K7LIX, 146.640(-) and on 147.300(+).  
(The 64 machine may be down for maintenance).

SOARC ARES/NTS Net: Monday evenings at 7:30 p.m. on 147.300(+) repeater.

ORCA Swapnet - Wednesday evenings at 8 p.m. on the ORCA system.



In 2007, exams will be given on Friday evenings from 6:30 p.m. to 8 p.m. at the Fruitdale Grange (VEC people come at 6 p.m.). The dates remaining for 2007 are as follows:

August 24

November 23

Currently the fee for exams is \$14.00.

Remember to visit the [www.arrl.org](http://www.arrl.org) website to get the latest information about testing, requirements, new changes that are coming down the pike. The website for Grants Pass exam schedules is <http://www.arrl.org/arrlvec/examsearch.phtml>. If you will notice the right hand side contains lots of hyperlinks covering most of the questions about exam sessions. A copy of this completed schedule has been sent to the VEC and should appear at this site very soon.

73, Bill (WX7U), VE and Liaison.



The Southern Oregon Amateur Radio Club is a general-purpose ham radio club and is affiliated with the American Radio Relay League. Anyone interested in amateur radio is welcome to attend our meetings. We operate the ARRL-sponsored field day each June and support emergency communications. We also promote volunteer exams for those interested in becoming licensed by the FCC. For more information contact one of the board members listed below.

SOARC, PO Box 1164, Grants Pass, OR 97528

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## 2006 SOARC officers and board members

**President:** Dennis Recla, WA5KTC, Tel. 955-1704  
Email: [recla@magick.net](mailto:recla@magick.net)

**Vice President:** Richard J. Huttenga, KD7WIA,  
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**Secretary:** Jim Woods, W7PUP, Tel. 956-5287  
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**Treasurer:** John Stubbe, K7VSU, Tel. 479-3718  
Email: [k7vsu@arrl.net](mailto:k7vsu@arrl.net)

### Board of Directors:

Officers, listed above plus:

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Galen Kelm, KE7LM, Tel. 582-2267  
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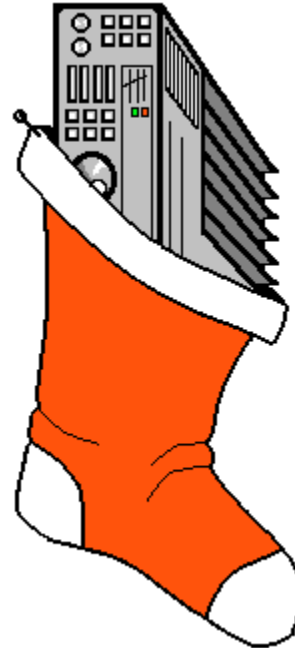
Robert Goff, W7MKA, Tel. 476-2064  
E-mail: [robert.h.goff@gmail.com](mailto:robert.h.goff@gmail.com)

## Wireless Gnus

### Photographs

We can now include photographs in the *Wireless Gnus*. What works best is a jpg or gif file. 72 dpi looks good without the file size taking up too much room. Please include a caption, if possible. E-mail pictures to [W7PUP@arrl.net](mailto:W7PUP@arrl.net).

*Thanks and 73, Jim W7PUP*



### Change of address

Cy Potts, W7MQL recently moved and has a new address. It is 1700 Kellenbeck, Apt 318, Grants Pass, OR 97527.