



THE BEAVER VALLEY AMATEUR RADIO ASSOCIATION  
WWW.W3SGJ.ORG  
BEAVER COUNTYS ONLY 75 YEAR ARRL AFFILIATED CLUB!

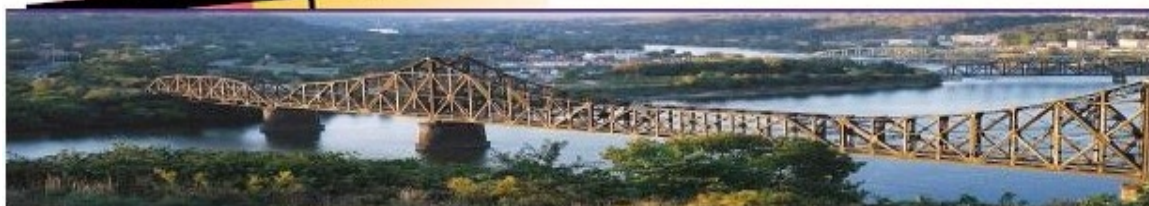
# The eQRM Newsletter

Home of W3SGJ/R  
145.310- 100 Hz PL

Volume III, Issue 1

May 2009

Grant, KB3QFQ, Editor



## DO I REALLY NEED TO BUY AN ANTENNA?

By lou giovannetti (KB2DHG)

In my 21+ years as an Amateur Radio Operator the number one topic in this wonderful hobby is antennas... OH how we can debate of what works and what doesn't... Which antenna is best to buy or build...

I was faced with the unfortunate situation where I had to move from my house to a condo and of course now had to deal with HOA regulations... Long story short I convinced the HOA to allow me one antenna so long as it would not be seen, cause any interference and not be permanently mounted.

### Inside this issue:

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I am an HF DXer. I use all modes and bands... So what can I do if I can only have one antenna? My only real choice is a multi band dipole. So I purchased a commercial built G5RV dipole.

I tried everything I could to tune this antenna to a fair SWR with very little results, at best my SWR's were 1.8 – 2.1 I could hardly hear any stations and DX was non-existent. I just wrote it off to bad band conditions. This antenna was a poor radiator and had insulated wire with cheap 300-ohm closed wire. I was getting a lot of RF in the shack and had chokes everywhere. Obviously this was not a good choice antenna. BUT I needed to have a multi band antenna and had very little options...

One day when I went on the air I could not tune the antenna up at all so I went to the roof and took a look at the antenna. Everything seemed to be ok but then I noticed that some of the insulation on the wire was cracked and it looked like moisture was underneath the insulation?

We had had heavy rains and I figured that the water was altering the performance of the antenna. A few days later with summer temperatures at a high the antenna started to act normal again. My theory was confirmed. Still performance of this antenna was poor.

I decided to do research and try another antenna.

I always heard that building your own antenna was better than a store bought one so I decided to try building one myself. **CONTINUED ON PAGE 6...**

### Letters and Emails to the Editor

The eQRM welcomes letters/e-mails to the editor. Letters must be signed and contain your contact information for verification prior to publication. Preference will be given to letters of 200 words or less. Letters are subject to editing. Unused letters will not be acknowledged or returned.

**The BVARA 10 Meter Net Lunch group will be meeting every Thursday at Kings in Center Twp at 11:00 AM. All area amateurs are invited and encouraged to attend the Thursday Morning Lunch.**

**VE TESTS are held by the W5YI VE Team at the American Red Cross in Brighton Township, Beaver, PA. IF YOU DESIRE TO TAKE A TEST, CONTACT DALE, KE3SV, FOR THE DATE OF THE NEXT TEST SESSION.**

**Report time is 6:15 sharp, to fill out 605 forms and check I.D. Testing begins at 6:45 PM. Information and registration on a test session can be obtained by calling VE Team Coordinator, Dale Neely, KE3SV after 6PM.**

**His address and phone number are as follows:**

**Dale R. Neely Jr., KE3SV**

**444 Center St.**

**Zelienople, Pa. 16063**

**Phone: 724-452-3247**

## 2009 BVARA Officers & Directors

**President: Jack Spencer, KZ3Z**

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**Director: George Caffro, N3HOJ**

**Director: Chris Moratis, W3OUF**

**Trustee: Dick Hanna, K3VVY**



## ROSSI WINERY WIRELESS SOCIETY



All area Amateur Radio Operators are invited to attend the weekly meeting of the Rossi Winery Wireless Society. The Society meets every Saturday evening at the Winery located in beautiful West Aliquippa. The meeting begins at 6:30 PM with a traditional vino toast followed by homemade Italian foods! The Winery is located on Main Avenue in the heart of West Aliquippa's Cultural & Historic District. Talk-in is on the ,31 repeater.



## RACES & ARES

**eQRM Urges ALL Beaver County Amateurs to Participate**



As a matter of editorial opinion, the eQRM urges all Beaver County licensed amateur's to participate in the County's RACES and ARES programs.

Any Beaver County Amateur that is interested in participating in the RACES/ARES programs can do so by checking into the Beaver County Public Service Net which meets every Monday evening at 8:30 PM local time on the N3TN 146.850 MHz repeater (88.5 PL).

## An Affordable Hobby in an Age of Expense

by lou giovannetti (KB2DHG)

I am a hobbyist, My hobbies range from vintage auto collecting, Auto Racing, and model building to Amateur Radio...

As the economy has gotten worse I have found that my hobbies have dwindled away...  
ALL but my Amateur Radio hobby.

In this day of huge price tags and a sour economy, I can still afford Amateur Radio.

Now, my station is filled with most everything a well stocked shack could have but I was thinking, If I had to start all over again just how much would it cost me to get back on the air?

The cheapest way I found was to shop the on web auction sites.

Here is the results of my findings...

Going on eBay, I watched a bid on a good (so the seller said) operating Kenwood TS 440 rig. the ending price was \$286.00. NOT BAD AT ALL! So I then searched for a power supply. I came across an ASTRON power supply and the final selling price for that was \$59.20 lets figure shipping for both came to \$70. The total cost of the purchase came to \$415.20 Building a simple dipole antenna using #12 wire and coax cost \$30 so for a total of \$445.20 YOU ARE ON THE AIR!

This is for a decent HF station. For the price of a new HT lets say \$200! you will be able to enjoy the hobby too. Bottom line with good shopping and ingenuity, Amateur Radio is really an affordable hobby to be involved in...

When I go racing my vintage race car the entry fee alone can cost as much as \$500.00 let alone the cost of fuel getting to the track and all the rest of the expense of the up-keep of the car and tow vehicle.

As hobbies go Amateur Radio is still the most affordable hobby anyone can have. I have even known Ham's that built their own transceivers for pennies...

If I am never able to purchase another piece of equipment again, I will always be on the air!

Yes, you don't have to spend a million bucks on the new equipment of today. The market is full of good decent performing Amateur Radio gear!

As far as antennas go, Building a dipole is so simple I just don't understand why anyone would buy one?

If you can read you can build a good antenna and hey, even a good transceiver can be built if you put your head to it!

AND THAT IS ALL PART OF THE FUN OF THIS HOBBY! To me there is nothing more rewarding than making a contact from something I put together myself!

So, even though the economy is tough and money tight, as HAM's we are fortunate that we are not confined to our wallets. Money is NOT an issue when it comes to getting on the air!

My other hobbies had to be put on a shelf;  
THANK GOD I will always have my HAM RADIO!

73 my friends and I hope to met you down the log,  
DE: KB2DHG



## THE HAM'S HOROSCOPE

BY MADAM ZELDA, S T IARS

That's Gold	I'm Happy	Can't Complain	Not Happy	Turn Down the Heat

Sign	Romance	Home & Family	Finances	Career	General
Aries					
Taurus					
Gemini					
Cancer					
Leo					
Virgo					
Libra					
Scorpio					
Sagittarius					
Capricorn					
Aquarius					
Pisces					

## Let's Take Ownership of the Bands

by KD3NVC

We have all heard it on any number of bands day and night, "legitimate" operators talking about any number of subjects, radio, family, upcoming events, DX, etc. We all enjoy a very broad range of subjects and discuss them on the air and off and this is a good thing.



Now I must keep children and the ladies out of earshot of the radio due to vulgar, crass, belligerent comments. They talk about their latest operation and all the gory little details that include bodily functions or the lack thereof.

You're saying to yourself, "Tune elsewhere OM" and I do. When I make a comment on the air, these operators inform me that "they own the band" since they were there before I was in diapers. These hams are not "newbie's" that migrated from CB since the removal of Morse Code. They are Advanced and Extra class operators.

Some people record this activity, document all the information and report to the FCC and in nearly 90% of these cases, nothing is done at all. These operators laugh and comment on the air that the FCC will do and has done nothing. So they continue to operate in this manner.

I have heard all the comments here in eHam such as, "tune elsewhere", "ignore it and it will go away", etc... You know the drill. These comments are just as bad as the operating habits of these so called elmers.

To ignore it is to condone the practice no matter who you are. The next time you hear one of these bad operators, make

**CONTINUED ON NEXT PAGE...**



## Let's Take Ownership of the Bands

Continued from Previous Page

a comment on what he or she is doing. They will curse you and make a fool of themselves but if enough people get involved in keeping our bands clean and safe of everyone, then it may change. We all have a stake in the hobby and should work to preserve it for the generations to come. I guess most of us are waiting on the FCC to step in and close all the bands to armature use before we step up and say something. You miss 100% of the shots that you do not take, so when in doubt... empty the clip.

73 to all  
Glenn Breau  
KD5NVC

<http://www.eham.net/articles/21076>



BY BECOMING A MEMBER OF THE BVARA, YOU CAN HELP  
SECURE THE FUTURE OF AMATEUR RADIO IN BEAVER COUNTY.  
ADDITIONALLY, THE BVARA RECEIVES A PORTION OF EACH  
ARRL AND/OR WORLD RADIO SUBSCRIPTION YOU PURCHASE!

### Join the BVARA, ARRL and World Radio

Sign up for:	Price	Quantity
<input type="checkbox"/> BVARA FULL MEMBERSHIP	20.00	
<input type="checkbox"/> BVARA STUDENT MEMBERSHIP	15.00	
<input type="checkbox"/> BVARA ASSOCIATE MEMBERSHIP	10.00	
<input type="checkbox"/> BVARA SPOUSE/CHILD MEMBERSHIP	5.00	
<input type="checkbox"/> ONE YEAR ARRL MEMBERSHIP	39.00	
	Subtotal:	_____
ARRL MEMBER ?    YES    NO	Donation	_____
	Total:	_____

Your License Class (if any):

- ☐ Novice  
☐ Technician  
☐ General  
☐ Advanced  
☐ Extra

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Your Call Sign: \_\_\_\_\_

Exp. date \_\_\_\_\_

Signature \_\_\_\_\_

Make Check or Money order payable to:  
The Beaver Valley Amateur Radio Association, P.O. Box 424  
South Heights, PA 15081

## STUDY GUIDES TO BE USED IN UPCOMING BVARA LICENSE CLASSES

Technician Class—*The No-Nonsense, No-Code Technician Class License Study Guide* is based on a method developed by Bruce W8BBS. What he did for the earlier question pool is to rephrase each question in the form of a statement and then organize the statements to make them readable. Bruce was unable to update his manual for the question pool that went into effect in July 2006, so he gave us permission to do it.

General Class—*The No-Nonsense, General Class License Study Guide*. This is the study guide for those taking the General Class license exam after July 1, 2007. It follows the same format as the Technician Class Study Guide. Note, though, that there are more questions in this pool, and in general, the questions are more technical than the Tech Class, so be prepared to study longer and harder than you did for the Tech test. Visit: <http://kb6nu.com/techmanual/> for more info on these guides.

## Do I Really Need to Build An Antenna?

Continued from front page

With the aid of the ARRL Antenna book I decided to build my own G5RV.

I cut 2 pieces of bear copper clad stranded #14 wire at 51 feet each making it 102 feet across as prescribed in the book, then got 34 feet of 450 ohm ladder line. I installed it as I had the previous antenna, Only 20 foot up on a mast (the roof is 88 feet off the street level) in an inverted V form.

The coax is directly attached to the ladder line, NO BALUN.

So I turn on my transceiver, I am using an MFJ artificial ground and an MFJ 949 tuner. I start at 80 meters and worked to 10 meters setting all my adjustments. RIGHT AWAY I see a difference. I am able to tune this home built antenna with no more than 1.5 SWR and even flat out 1.1 on some bands. NO MORE RF IN THE SHACK, 20 meters is 1.1 across the band.

I am hearing stations like never before and my very first contact was to Spain! I have now had this antenna up for 3 weeks now and have been working the world. DX is back and am making tons of state side QSO's. AND the conditions are not good! I can't wait till the solar cycle comes back!

I have concluded that a home built antenna is better than a store purchased one. In my last home I had a tower with a Mosley beam for 10-15 & 20 meters and several home brew dipoles for 80-40 & 30 meters I never had a problem with those antennas. So do you really have to buy a commercial built antenna? I don't think so...

Simply build it yourself. There are so many books and Internet sites that give all the formulas and instructions on how to build your own antennas... I also get a real sense of pride that I built a better antenna!

So my amateur Radio friends build it your self and enjoy!

<http://www.eham.net/articles/20197>

### MAY MEETING SCHEDULE

May 6: **Post 73 Meeting**, Baden Legion, 6PM

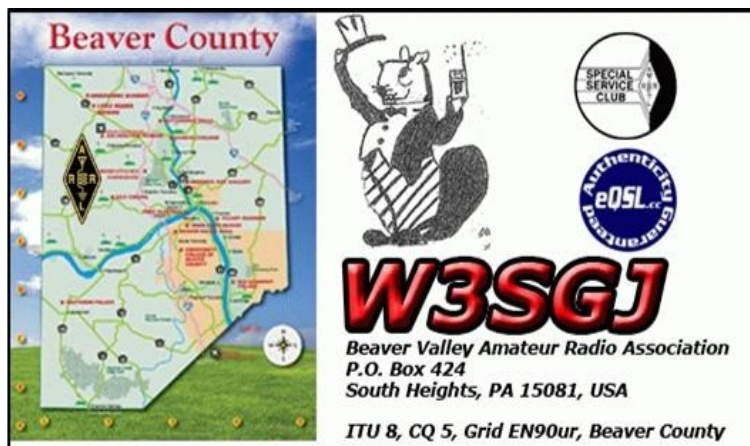
May 13: **Post 73 Meeting**, Baden Legion, 6PM

May 14: **BVARA Meeting**, 911 Center,  
Beaver, 7:30PM

May 20: **Post 73 Meeting**, Baden Legion, 6PM

May 21: **TARRA Meeting**, American Red  
Cross Building, Brighton Township, 7:30PM

May 27: **Post 73 Meeting**, Baden Legion, 6PM



**Official BVARA  
QSL Card (above)**

# Some Things Just Can't Be Explained!

(SO THEY HAVE TO BE **MAGICAL**, RIGHT?)

by Alan Applegate (K0BG)

There is nothing magical about antennas. There is nothing magical about ground planes. There is nothing magical about adjusting an antenna tuner. In fact, there is nothing magical about any part of amateur radio! If there is anything magical, it is in the eyes of the beholder! However, you'd think some things were magical reading the threads herein. My word, where's all of this misinformation come from? Here's a few examples.

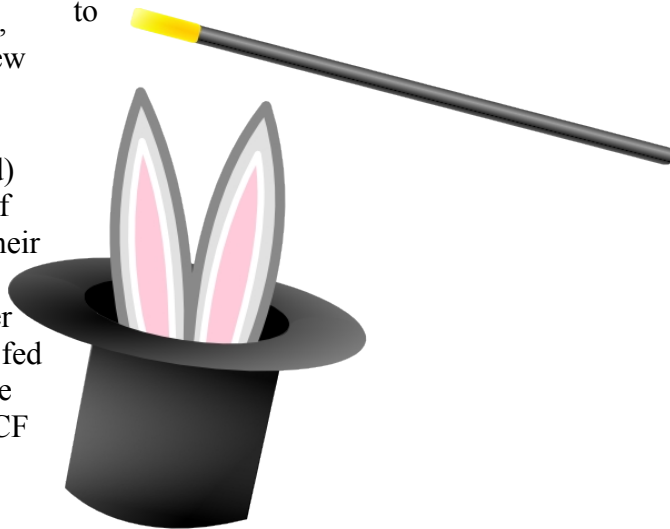
What's with all of these references to OFC (off-center fed) dipoles being the epitome of antennas Every single one of them, no matter how they are fed, result in a mismatch, their use of baluns (no matter their configuration) notwithstanding. This mismatch is so pervasive, no matter the balun type in use, that common mode currents on the feed line are a feature! In fact, in most cases the feed line is the major radiating element! Yet, on-line references about OCF dipoles would have you believe they are the ultimate, magical radiator! They're not!

A G5RV is a decent HF antenna if you except the fact that it was designed to be a three band antenna (20, 40, and 80). What it is not, is an all-band antenna. However, you'd think so by reading some of the threads about them. Just because you can use an antenna tuner to load up some object, thing, chunk of wire, or an G5RV, does not mean, in itself, that it is an efficient all-band, magical antenna!

Grounds! Grounds! Grounds! How many times have you read or heard this? *'I added a ground strap to the antenna (mount?), but the SWR is still to high!'* Geez, you think a ground strap was the answer for every single antenna problem ever encountered! I'll agree it is important to DC ground antennas and coaxial lines, for lightning and static protection. However, a ground strap is not a replacement for a ground plane! Unless of course, it's long enough to be a radial, and it isn't the only one. Please note I said *ground plane*. Perhaps you'd prefer the term image plane, but that's even harder to explain to a neophyte. What it isn't, is a counterpoise! That's a different animal altogether, regardless of the mystifying misuse of the term.

Quarter wave verticals are wonderful antennas (and

inexpensive) when properly implemented. Every single one of them requires a decent ground plane. A ground rod, a piece of pipe, a chain link fence, a metal roof, or rain gutter, isn't an adequate ground plane. It is important to



remember, a vertical is one half of a dipole, hence the (uncommon) name monopole. The missing half must be a ground plane typically made up of radial wires.

The ground plane must be adequate enough to prevent, or limit, common mode currents flowing on the feed line. Not following this rule, will often result in RFI problems, regardless of the SWR reading. Speaking of which...

Viswaritis! I don't know who coined the term, but you'd think about 75% of the amateur population suffered from it! While standing waves are an important consideration in a lot of cases, SWR alone has nothing to do with efficiency, angle of radiation, RFI levels, common mode currents, suitability of purpose, or bandwidth. This isn't magic, it's fact!

Speaking of bandwidth. There is a formula floating around the Internet that goes like this.

**CONTINUED ON NEXT PAGE**

## Some Things Just Can't Be Explained!

Continued from previous page

An antenna's Q (assumedly an antenna system, but that's not given) is equal to 360 times the operating frequency in MHz, divided by the 2:1 VSWR bandwidth in kHz. Again, an antenna's bandwidth is not in any way directly related to the SWR (nor its -3 dB points). It might be an indication perhaps, but one is in no way dependent on the other. That's not magical, that's fact!

Nowadays, almost every manual antenna is, there are two series capacitors. inductor. If your antenna tuner falls into procedure is always the same. That is to are at their greatest reactance consistent more, depending on the antenna system in use, necessarily the best tune. With that in mind, there is an issue of QST, written by Eric Nichols. He suggests that SWR indication) to adjust a "T" type network tuner, looking forward to it. Let's hope it's not magical! home just recently. Resonant antennas are nice to (if for no other reason).

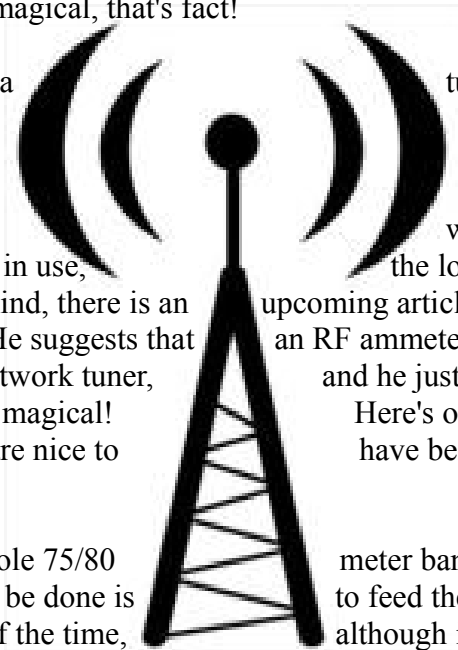
However, if you want to operate the whole 75/80 tuner. Some will argue that what should be done is through a good tuner. Good idea most of the time, that isn't a practical solution. The distracters will argue about the loss differences between *coax fed, resonant antennas, with no tuner*, versus *ladder line fed, non-resonant antennas and requisite tuner*. Well, here's a fact that's sure to rankle feathers. The overall loss in an average amateur's installation which uses coax to feed a resonant dipole antenna, versus the exact antenna fed with ladder line and a properly adjusted tuner, is in favor of the latter. While small, it is still a fact. Move off resonance, or increase the distance from the shack to the antenna by two or three times, and the difference really gets astounding. And, I didn't pull this out of a magic hat!

There are a few points to reiterate.

Antennas, feed lines, and networks all follow well-defined parameters. They possess no magical properties, regardless of the faux-pundit palaver to the contrary. When all else fails, pundits always argue that experimentation is good. Well, it isn't if you don't learn anything in the process! For example, you can't make (or assume) one measurement, and apply it to something you didn't measure. The aforementioned Q formula is a typical example.

No matter what antenna you use, or how you feed it, or how you tune it, it is what it is. But when you justify your on-air successes, signal reports, or low SWR readings, to some magic property your antenna possesses, you're fooling only yourself.

Alan, KØBG  
www.k0bg.com



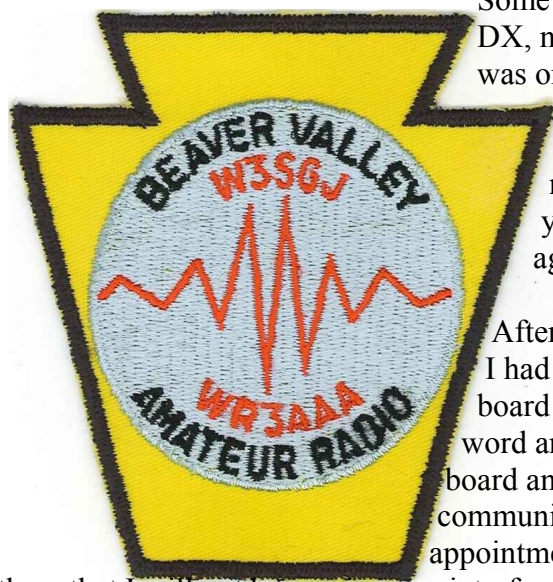
tuner is a "T" type network. That Between them is a shunt this category, then the tuning say, the one where the capacitors with a minimum SWR. What's the lowest SWR indication isn't upcoming article to appear in the February, 2009 an RF ammeter should be used (instead of an and he just might be right. I for one am Here's one magical thought brought have because they can be fed with coax

meter band, chances are you'll still need a to feed the antenna with ladder line although in some installations (like mine)



# IT CAN BE DONE

by lou giovannetti (KB2DHG)



Some of us are lucky enough to own a home and have antennas. Working DX, no problem and not having to deal with HOA's and land lords etc. I was one of those and had a station and antenna farm to rival none!

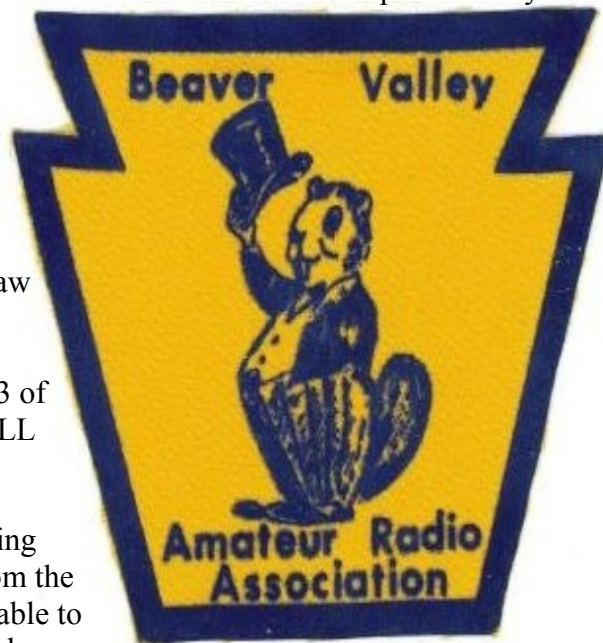
BUT my life took an unexpected turn and I was forced to move from my home QTH to a small one-bedroom condo. I was certain my beloved hobby was doomed. Not having room for a station and yes Condo board restrictions, I was certain I would never be on HF again.

After living without HAM RADIO for about a month I was going crazy! I had to get back on the air... To make a long story short, I approached the board and asked them to allow me an antenna. Before I could get the word antenna out of my mouth a BIG NO! I then went back to the drawing board and made copies and presentations of Amateur Radio and emergency communications and all we as hams do for the community. I set an appointment up to meet with the board and gave my presentation. I assured

them that I will not be causing any interference, the antenna would not be seen and it won't be permanently attached to any part of the building and all it would actually be was a thin wire stretched across the roof. I also went to the city zoning board and found that this condo was in violation of dish antenna laws. BUT I'll get to that later...

Anyway, even after my presentation they still voted NO ANTENNAS. Now with nothing else to loose I brought up the Building and Zoning laws and gave everyone a copy. Our local law prohibits installation of dish antennas to be mounted on the front side of the building. ALL ANTENNAS are to be mounted on the roof and out of sight of the front view. I counted 16 of them and 3 of them belonged to the board members. So I asked them to have ALL dishes removed and relocated to the code required locations...

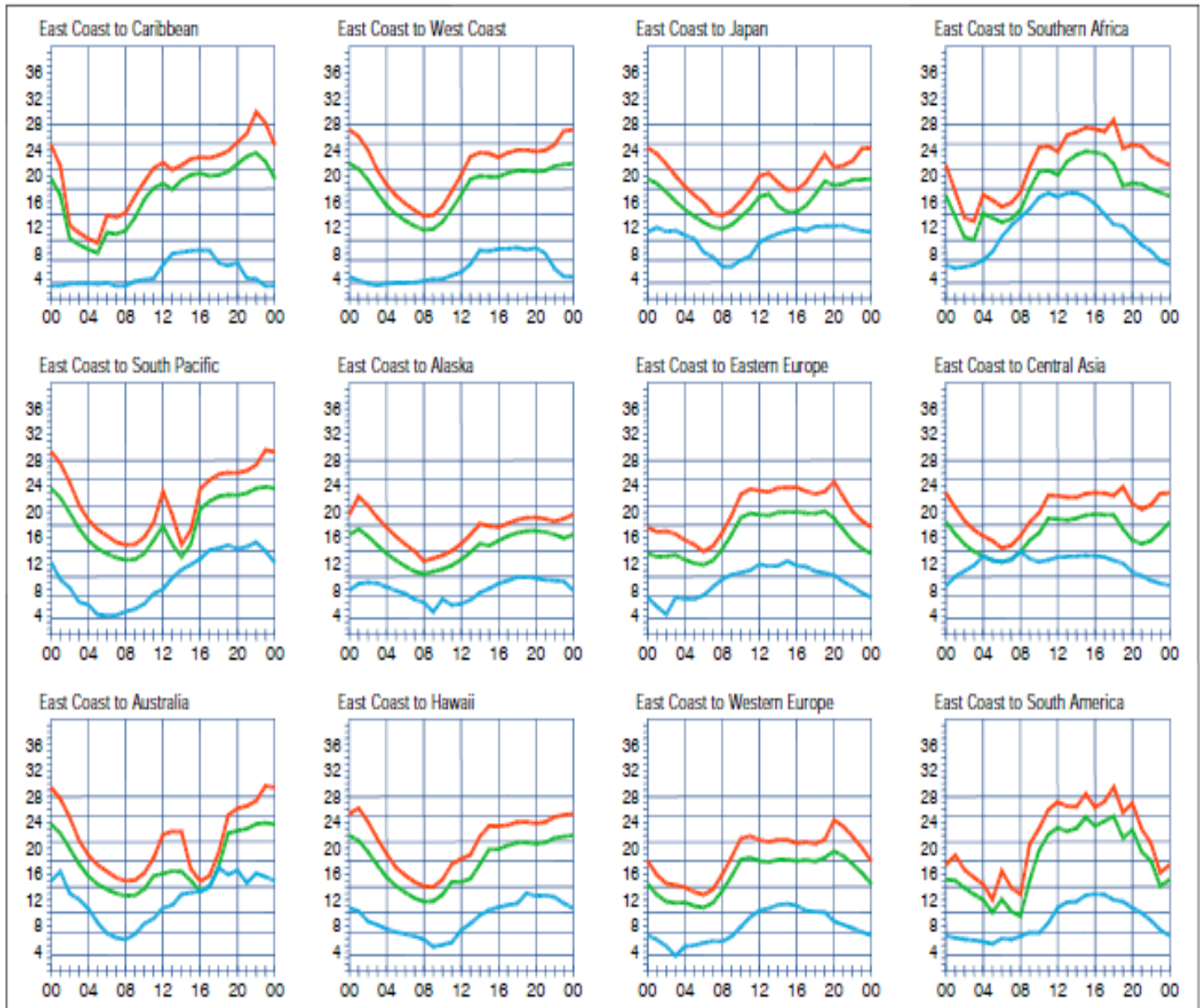
Well, as you can very well figure, no one wanted to get the building department involved so about a month later I received a letter from the condo board accepting my installation of a WIRE antenna I was able to get a G5RV antenna up and although not as great as my tower and beam I am operating and on the air! This was just my experience and story of how I got an antenna up. There are many other conditions that some of us just can't deal with. BUT I put it to you NEVER GIVE UP. Even if you have to hide a long wire out the window, there is ALWAYS a way! My station is not as big as my home station was but I learned to work with less... As it goes today learning to work with less has become a way of life... Don't let ANYONE take your right away to give up your hobby...



Old BVARA Patch Logos courtesy of Dick, K3VYY.

**Amateur Radio is a wonderful and rewarding hobby** and we all deserve the right to enjoy it. **Never give up...** Get on the air we'll be listening in for ya! Remember no matter what, **THERE IS ALWAYS A WAY!**

# QST Propagation Charts



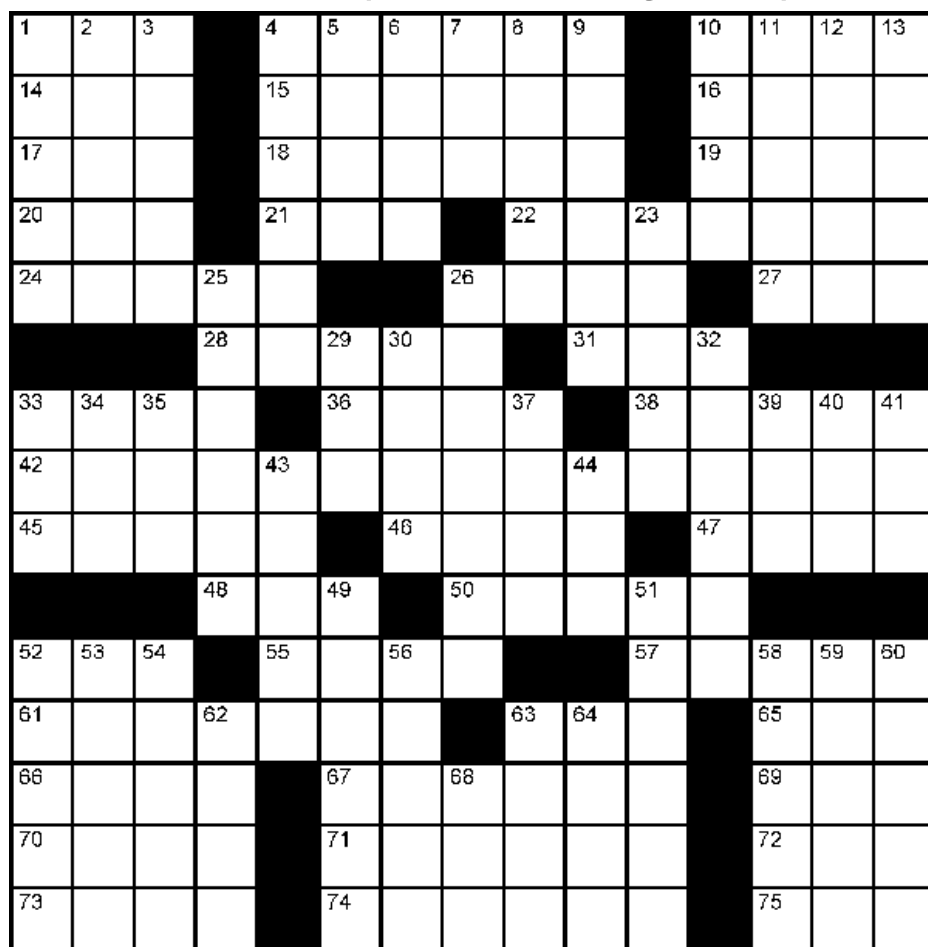
When are the bands open? These charts, generated using CAPman, show probabilities for average HF propagation in the month of **May 2009** for the paths indicated. The horizontal axes show Coordinated Universal Time (UTC), and the vertical axes frequency in MHz. On 10% of the days of this period, the highest frequencies propagated will be at least as high as the upper red curves (HPF, highest possible frequency) and on 50% of the days they will be at least as high as the green curves (MUF, classical maximum usable frequency). The blue curves show the lowest usable frequency (LUF) for a 1500-W CW transmitter. For SSB or a lower transmitter power, the LUF will be somewhat higher than the blue curves indicate. See Oct 1994 QST, pp 27-30, and Feb 1995 QST, pp 34-36, for more details. The predictions assume an observed 2800-MHz solar flux value of 84. This is a Low level of solar activity. See the detailed propagation tables on The ARRL Antenna Book CD-ROM.

**The above chart is for the month of May.**

**FOR INFORMATION ON HOW TO READ THESE CHARTS, GO TO**  
<http://www.arrl.org/qst/propcharts/hall1094.pdf>

# CROSSWORD PUZZLE - "HANDLES"

<http://www.arrl.org/news/puzzles/2009/04/10>



## Down

1. Benton Harbor lunchbox
2. Pet prefix?
3. Possible Indy prefix
4. Toledo team member
5. Say K
6. Grass shacks
7. Draft pick
8. Nutcase
9. Chemical class
10. Kind of test
11. Irish prefix
12. Inverter label
13. "Of, by and for the radio amateur", e.g.
23. Allow to be known
25. Leif Ericson's rig?
26. Like the Mystery Tour
29. Drill wielder: Abbr.
30. Zero place
32. Cochise's rig?
33. Eastern contest club
34. W6 airport
35. Brouhaha
37. IT9 erupter
39. W1 sect.
40. Batt. term.
41. ZP dir. from W2
43. Austrian prefix
44. Part of H.M.S.
49. Deep space object
51. Professor's aide
52. Big rig?
53. Moldovan prefix
54. Not 70-across
56. Spandex brand
58. Madison Avenue worker
59. 9Q-land
60. Benton Harbor lunchbox
62. Radiosport, for short
63. Math subj.
64. "Houston, \_\_\_\_ had a problem"
68. "?"

## Across

1. New year's eve party
10. Yagi, for one
15. Throat ornaments
17. Roman WARC band?
19. Horn sound
21. Bigger than mins.
24. Superman player
27. 86, 87 and 89 source
31. Pilot's prediction
36. Venetian royal
42. This puzzle's subtheme
46. Unpopular spots
48. Elephant grp.
52. Sporadic E band
57. ARES's cousin
63. Bygone airline
66. Audio characteristics
69. PQ leaders
71. Epic name for SV folks
73. What crank-up sections do
74. 25-down variety
4. 32-down companion
14. What a keeper may keep
16. 1960s kit maker
18. Demodulate
20. Top report, for short
22. Coke flavor source
26. Alternate G-land prefix
28. VU place
33. \_\_\_\_ jacket
38. 10m does it, with spots
45. Uruguay prefix
47. Final (amp) resting place?
50. "Oh no!"
55. Zero
61. With anger
65. Average name
67. Chicken
70. "No ifs, \_\_\_\_ ..."
72. Gray
75. Gate type

**For answer key,  
click here**

# HAMS LOVE TO EAT!

## Recipe of the Month: Cinnamon and Spice Cookies

### Ingredients

2 cups/500 mL all-purpose flour  
 1 1/2 tsp/7.5 mL baking soda  
 1 tsp/5 mL Purest Ground Cinnamon 6 oz.  
 1/2 tsp/2.5 mL Organic Nutmeg  
 1/2 tsp/2.5 mL salt  
 1 1/2 cups/375 mL sugar  
 12 tbsp/180 mL butter (1 1/2 sticks), softened  
 1 egg  
 1/2 tsp/2.5 mL Original Double-Strength Vanilla  
 1/4 cup/60 mL molasses



### Cooking Directions

Preheat oven to 350F/180C. In a medium bowl whisk flour, baking soda, cinnamon, nutmeg, and salt. In a shallow bowl set aside 1/2 cup/125 mL sugar.

With an electric mixer beat butter, remaining sugar, egg, vanilla, and molasses until well blended. Combine with dry ingredients until dough forms. Roll dough into 1 inch/2.5 cm balls and dip in 1/2 cup/125 mL reserved sugar.

Arrange on a baking sheet, about 3-inches/7.5-cm apart. Bake for 10 to 15 minutes. Makes 3 dozen.



This recipe is brought to you by Watkins  
[watkinsonline.com/w3sgj](http://watkinsonline.com/w3sgj)



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***The BVARA receives 16 to 35% of ALL SALES MADE THROUGH THIS SITE!***

If you buy flavorings, spices, salt, cooking oil, soup, desserts, dip mixes, moisturizers, lip balms, room fresheners, glass cleaners, cough medicines, dietary supplements, laundry detergents, or anything similar, head over to [www.watkinsonline.com/w3sgj](http://www.watkinsonline.com/w3sgj) and make the switch to Watkins today!



# Troop 405 and Post 73

## Events

### Amateur Radio Technician License Class

Every Wednesday evening at 6:00 PM  
at the Baden Legion, Baden PA



# ARMAD



ARMAD is on  
May 23 this  
year. Troop 405  
and Post 73

will once again  
meet at the Baden  
Legion and set up  
a station to  
communicate with  
the Military around  
the world. We hope  
to see you there!

A few members of  
Troop 405 and Post  
73 will be operating  
some of the Mile  
Markers at the  
**Pittsburgh Marathon**  
on May 3.

And,  
of course...

**Field Day**  
will be **June  
26-28** this  
year. More  
information  
will be  
covered in  
next month's  
issue.

