

The Static

An evolving publication of the Hill
Country Amateur Radio Club

Welcome to the re-establishment of *The Static*. I will try to bring items of interest to members of the Hill Country Amateur Radio Club. Please address comments or questions to me at bob.k5yb@yahoo.com. My hope is that the publication improves as my skills evolve.

Bob Richie, Editor

HCARC officers for 2012

Marilyn Vordenbaum	President
Don Murray	Vice President
Gale Heise	Secretary
Bill Anderson	Treasurer

The Executive Board and committees are appointed by the president and will be announced later.

Greetings from the KE5DDR area...

Yes, this is KE5DDR, also known as Marilyn Vordenbaum and president of HCARC.

I am so pleased we have a Static editor. It has been a long time since this area of HCARC has been active. Thanks so much K5YB, Bob, for assuming this responsibility.

Let me also say thanks to all those who are serving on a committee as

chairperson or as committee member. This is a great way to become acquainted with club members and learn more and more about various areas of ham radio.

If you are new to the hobby, please speak out and ask questions. I can help with net control activity and information. This is one area where you don't need to be real technical to "do the deal". There are others who can help with the technical areas.

I'm excited about the upcoming year and look forward to getting to know the new folks better.

HCARC Christmas Party

As has been our custom over the past several years, we will have a Christmas Party in lieu of our regular meeting. The event will take place at noon, December 3 at the Windmill Ridge Clubhouse. See the club website www.kerrhams.org and click on the "Special Announcement" tab on the top left for details.

VE Test Session Results

The Club held a VE Test Session on November 5, 2011. Eight people took exams and we had a 100% success rate. Charley Robinson, KF5JTH upgraded to Extra Class. Sherry Noble, KC5CIK upgraded to General. Our new Technicians are:

Michael Connor KF5NHP

Alan Cone KF5NHO

Linda Ransom KF5NHN
Calvin Noble KF5NHM
Sylvia Horton KF5 NHL
Terry Hipskind KF5NHX

We welcome these new hams to the wonderful world of wadio (sic – couldn't help it) and wish them success in finding their respective niches. Don't forget, new hams, you have HF privileges on 10 meters from 28.300 to 28.500 and that band is hopping right now with plenty of DX opportunities. We should have good propagation through 2013 and into 2014 so there is plenty of time to study for your General class upgrade and take advantage of the other HF bands. Come early to the club meetings and get tips on technical topics, operating your new rigs and just get to know all the others who were once in your position. We'll be glad to share our knowledge and enthusiasm of amateur radio with you. We also thank Dale Gaudier and Fred Gilmore for teaching the course at Club Ed that resulted in the new operators.

Notes from Others

I have a friend (KL7JR) who has a part time condo in the Dominican Republic that is subject strict CCRs. He has built a pretty stealthy vertical 20 meter loop and uses a Wilson FGT 2 CB antenna to work 10 meters. He says the CB antenna gives him about 2 S units better reception than the loop. Thanks to John for the following:

A Limited Space Stealthy Antenna Farm

by John Reisenauer, Jr.
HI3/KL7JR

Cramped for space? Landlord says no antennas? Don't let that stop you from enjoying Amateur Radio!

There's nothing wrong with quarter wave antennas, mono-band capability or antennas that have to be pointed. I just wanted more for our antenna farm! My XYL Claire WL7MY and I traded in our snow boots for flip flops as we kicked off our retirement in the beautiful Dominican Republic. Our condo on the north shore of Hispaniola Island is on the 3rd (top) floor of an ocean-facing complex. The only place for outdoor antennas is on the patio which is 16 feet long by 8 feet wide with a 15 feet high ceiling (of course covenants say no antennas and no transmitting equipment!). Our window of free space measures about 8 feet high x 15 feet long and everything else (walls and ceiling) is loaded with structural rebar and concrete which may be another challenge besides trying to be as "unseen" as possible!

For our antennas, I opted for at least half wave antenna performance and omni-directional coverage which is

always important to me- now we're talking more bang for the buck! We have a huge ground plane about 120 feet off the patio begging to be part of our antenna farm, so "hola Mr. Ocean"! Our antenna farm consists of a 54 feet long square loop in the vertical position for 10-40m (when bottom corner fed produces omni-directional coverage and some gain!), a TAK-tenna 80 meter half wave dipole and 40 meters as well (when used vertically, the dipole exhibits omni-directional coverage!) and in the future, a half wave 6 meter suspended vertical monopole using coils as well to fit our space and give me the omni-directional coverage I sought.

TAK-tenna 80 Meter

Vertical Dipole.

There you go, at least half-wave and omni-directional coverage from all 3 antennas! I use air chokes on all my feed lines as it eliminates stray RF in and outside of the shack (this I know from experience!). Using insulated white colored stranded #14 wire against a white patio back ground make my antennas hard to spot from below! I got the idea of the monopole from an article in August 2011 QST. Pushing the envelope by adding coils to make a longer antenna fit in a smaller footprint intrigued me. Installing our square loop vertically gives me space inside the loop to nest the 6m monopole! When your footprint is tiny you have to get creative. I know my loop with coils

works great from previous KL7 and HI3 experience, but would the coil technique also work with verticals and vertical dipoles? With an ATU, our 3/4 wavelength 20m loop works like a charm 10-20m with 2 each 2 foot long wound coils giving us a total length of 54 feet. Using the formula 1005 divided by frequency in MHz which is 14.250 in my case, we get 70.5 feet times .75 (for 3/4 wavelength) equals about 53 feet required for a 3/4 wavelength 20 meter loop. My loop turned out to be "almost" square measuring 13 feet on the top and bottom and 12 feet on each side which included a 2 foot long coil giving me a total of 54 feet long.

In the first month of use, the omni-directional loop on 10, 12, 15, 17 and 20 meters worked; England, Spain, Quebec, Ontario, British Columbia, Alberta, Alaska, Australia, New Zealand, Columbia, Peru, Argentina, Japan, Arctic Russia, France, Bahamas, Cuba, Trinidad, Latvia, Austria, Italy, Venezuela, Bermuda, Germany, Kuwait, Jordan, Netherlands, Cyprus etc. etc. plus many states! The loop may even work on 6 meters but does not on 40m as it is solid S9 noise there. Note that if I did a little pruning I'm sure they'd be better but I installed the loop to fit the

space fully knowing my tuner would come to the rescue!

The above article will appear in a future issue of **QST** magazine. John has written several articles for the magazine and some interesting books on his radio adventures are available from www.lulu.com. He also has several articles on home-brewing antennas on www.hamuniverse.com. If you are not familiar with this site it has a wealth of information so check it out.

Don't try this at home...

We all have a ton of wall warts hanging around and while they look like they might be interchangeable that may not be the case. Fred Gilmore suggests you check for the following. Does the unit have AC or DC output? Make sure you have the right one because DC units do not like AC input. Also make sure the unit has the proper polarity. It is usually printed on the transformer case in letters almost big enough to read.

Future VE sessions

For your planning purposes the following dates for VE sessions have been scheduled for 2012. All sessions will be held at 10 A.M. in Classroom B at the American Red Cross building, 333 Earl Garrett St., Kerrville.

February 4

May 5

August 4

November 3

If you are interested in studying for an upgrade, or know some one who is interested in the Technician test here are some online resources.

<http://www.hamradiolicenseexam.com/?gclid=CJuC3f6HsqwCFYHu7Qod31j-Hw>. There is a charge to enroll in this course.

You can take free online practice tests at www.qrz.com

You can find other sources by doing a Google search of "ham radio study guides"

Club Reflector

The club has a "Reflector" which forwards e-mails to all who are signed up for it. You can elect to receive every posting or a daily extract of activity. There is a tab on the home page of the Club website to sign up. This is a good way to keep up with the goings on of club members between meetings. It can also be used to post items for sale of interest to hams.

2012: Killer Solar Flares Are a Physical Impossibility, Experts Say

ScienceDaily (Nov. 11, 2011) — Given a legitimate need to protect Earth from the most intense forms of space weather -- great bursts of electromagnetic energy and particles that can sometimes stream from the sun -- some people worry that a gigantic "killer solar flare" could hurl enough energy to destroy Earth. Citing the accurate fact that solar activity is currently ramping up in its standard 11-year cycle, there are those who believe

that 2012 could be coincident with such a flare.

But this same solar cycle has occurred over millennia. Anyone over the age of 11 has already lived through such a solar maximum with no harm. In addition, the next solar maximum is predicted to occur in late 2013 or early 2014, not 2012.

Most importantly, however, there simply isn't enough energy in the sun to send a killer fireball 93 million miles to destroy Earth.

This is not to say that space weather can't affect our planet. The explosive heat of a solar flare can't make it all the way to our globe, but electromagnetic radiation and energetic particles certainly can. Solar flares can temporarily alter the upper atmosphere creating disruptions with signal transmission from, say, a GPS satellite to Earth causing it to be off by many yards. Another phenomenon produced by the sun could be even more disruptive. Known as a coronal mass ejection (CME), these solar explosions propel bursts of particles and electromagnetic fluctuations into Earth's atmosphere. Those fluctuations could induce electric fluctuations at ground level that could blow out transformers in power grids. The CME's particles can also collide with crucial electronics onboard a satellite and disrupt its systems.

In an increasingly technological world, where almost everyone relies on cell phones and GPS controls not just your in-car map system, but also airplane navigation and the extremely accurate clocks that govern financial transactions, space weather is a serious matter. But it is a problem the same way hurricanes are a problem. One can protect oneself with advance information

and proper precautions. During a hurricane watch, a homeowner can stay put . . . or he can seal up the house, turn off the electronics and get out of the way. Similarly, scientists at NASA and NOAA give warnings to electric companies, spacecraft operators, and airline pilots before a CME comes to Earth so that these groups can take proper precautions. Improving these predictive abilities the same way weather prediction has improved over the last few decades is one of the reasons NASA studies the sun and space weather. We can't ignore space weather, but we can take appropriate measures to protect ourselves. And, even at their worst, the sun's flares are not physically capable of destroying Earth.

The above article appeared in www.sciencenewsdaily.com You can get this as an RSS feed and it usually has several articles of scientific interest daily.

A shameless plug for the club website

As an initial instruction for new members and a reminder to those who have forgotten more than I will ever know, please remember to check out the club website at www.kerrhams.org. Ron Drumheller does a great job of keeping this up to date. Also check out the Elmer list to find folks who will be glad to help you with knotty little problem.

Benediction That's all for this issue. Have a Happy Thanksgiving. GL and gud DX for the rest of the year. 73