

The Static

An evolving publication of the Hill Country
Amateur Radio Club

...and now a word from the Prez

Another month has flown by and is being replaced by yet another busy month.

For public service events, we start with the BPMS 150 which is a two day bike event (APR 20-21) in San Antonio. This is a big one with 13,000 cyclists participating. This event is in need of SAG drivers. Wait a minute – the last time I supported a large event as a SAG driver, I ended up as this club's president. I'd forget about this one (or at least don't take a call from a club member while responding to an emergency). Let's see, that brings us to the APR 25 Fiesta Battle of the Bands and APR 28 another bike ride, the Wild Flowers 100.

The Hill Country Amateur Radio Club is becoming more involved with the local Red Cross Chapter. March started with a Disaster Assessment Exercise. We now have a team of HCARC members ready and willing to support the Red Cross Disaster Action Team. The Hill Country Chapter was extremely pleased with our support. During the March DAT meeting, I was peppered with questions on radio communications. The local Chapter has given us a standing invitation to attend their monthly DAT meetings. The next meeting will be at the Red Cross building on APR 9 at 05:30 pm.

It would be nice if we could get a second team of volunteers to run the SkyWarn net. Interest has been lost in this net the past three or four months, Perhaps that is because the only weather report lately is –Dry! For those that may not know, during our last big chain of thunderstorms, the National Weather Bureau actually entered our SkyWarn net through EchoLink to ask us what was happening here in Kerrville. We

became their eyes on the ground. This net is important not only to the National Weather Bureau, but can also be invaluable to the Red Cross during times of disaster involving inclement weather.

On a sad note – Al Taylor N7ADU passed away on 26 March 2013 at the age of 101. Rarely was there a time that we did not hear Al giving his river flow report on the Monday night net. We also enjoyed his stories and wisdom at the Wednesday morning breakfast. We will miss you Al.

Speed of light in space is not constant

Two new studies to be published in the European Physical Journal D demonstrate that the speed of light is variable in real space. Textbook explanations of the speed of light assume that light travels in a vacuum, but space is not a vacuum.

Both Marcel Urban of the University of Paris-Sud, in Orsay, France and Gerd Leuchs and Luis L. Sanchez-Soto from the Max Planck Institute for the Physics of Light in Erlangen, Germany propose that simple changes in physics theory that alter long-held concepts and present experimental proof and analysis that support the changes Urban and his team propose that particle pairs such as electron-positron or quark-antiquark pairs can affect the speed of light. Each photon of light would be acted upon by the transitory magnetic and electrical fields of electron-positron or quark-antiquark pairs, thus producing a small variation in the speed of light which is theoretically on the order of 50 attoseconds per square meter of crossed vacuum. The difference in speed could potentially be measured with high speed lasers. Meanwhile, Leuchs and Sanchez-Soto propose that the impedance of a vacuum depends only on the sum of the square of the electric charge of particles, but not on their masses. Variations in

the speed of light would indicate the number of charged elementary particles in a given space. The researchers have proven these results experimentally. It is not expected that the small variation in the speed of light which has been found will affect the universally accepted theories of particle physics and quantum mechanics to a large extent, however, the studies are proof that the speed of light may be variable and shows that the mathematical treatments that have long been used should be revised to include the speed of light as variable and not a constant in real space. Here is the link

<http://www.clevelandleader.com/node/20608>

Note - the article refers to light traveling across a square meter. Since light travels in a straight line for the most part, the shape through which it travels should be immaterial.

Here are a couple of DX related links

<http://www.papays.com/opdx.html>

<http://www.k3lp.com/>

<https://www.comnap.aq/Members/SitePages/Home.asp>

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Thanks to Lew King W5LEW for the following.

"Machinist's Workshop" recently published information on various penetrating oils. The magazine reports they tested these products for "break out torque" on rusted nuts and bolts. A subjective test was made of popular penetrating oils, with the unit of merit being the torque required to remove the nut from a "scientifically rusted" bolt.

Average torque load to loosen nut:

No Oil used516 foot pounds

WD-40238 foot pounds

PB Blaster214 foot pounds

Liquid Wrench127 foot pounds

Kano Kroil106 foot pounds

ATF/Acetone mix..... 53 foot pounds

The ATF/Acetone mix is a "home brew" mix of 50/50 automatic transmission fluid and acetone. Note this "home brew" released bolts better than any commercial product in this one particular test.

Our local machinist group mixed up a batch, and we all now use it with equally good results. Note also that Liquid Wrench is almost as good as Kroil for 20% of the price.

ATF/Acetone mix is best, but you can also use ATF and lacquer thinner in a 50/50 mix. ATF = Any type of Automatic Transmission Fluid. This was in one of the Military Vehicle Club newsletters >>

<http://www.homeshopmachinist.net/home>

There are lots of places to get non-electronic ham gifts, name tags, coffee mugs and here is one more I ran across.

<http://www.hamcrazy.com/>

Here's the first message from Jeff Lavender for Field Day 2013.

I have asked Gary to Secure the OLH sight for this years field day. So Looks like we will be staying in Kerr patch for field day this year. I would like to get together with any one who would like to venture out to the site in mid April and take a look at the site for antenna placement and

possible station placement. We will have a basket ball court size area to set up the stations so no one will have to be too close to anyone this year. We will be using N1MM logging program again this year so anyone who is not familiar with the set up or the program I will be putting together a brief presentation on how to log contacts on the N1MM logging program. It really made tallying up the contacts last year easy. I am sure Ron was glad to give his fingers a rest from previous years, so we will be using that program again. I need to get some volunteers for equipment and assorted side items that will be needed this year. We are going to be in need of tables and chairs as last year they were provided by the fairground site.

We will also need to be thinking about some coax for the antennas. If any one remembers who offered the scissor lift to attach an antenna to that would be helpful information to pass along so we can see if we can get that and put an antenna up on it. Never to late to be thinking about chow for Saturday night. The BBQ Sloppy Joes were a great success and warmed the tummies of the over night operators. I need some one to take charge of that part of field day so again any one who would like to step up and take charge of feeding this rag tag bunch of operators please let me know. It really is not a great big job but one of the important ones. I am looking for some one to take charge of the antenna set up on Friday. Only need to be familiar with the building of projects and erector set as a small child and have direction capabilities.... Well if I can do it any one can so please don't be shy and sit back and watch the rest of us having fun step up and help out. You will feel good for doing so.

Jeff

Thanks, Jeff. We only have about 90 days to pull this off.