

The Static

An evolving publication of the Hill
Country Amateur Radio Club



...and now a word from the Prez

It's time for some "star" gazing. Do you remember the verse....."Star light, star bright first star I see tonight. I wish I may I wish I might have the wish I wish tonight"? Well folks, it is the merry month of May and we certainly have a mighty powerful group of "stars" in HCARC. Have you stopped to think about how many hams are "doing the deal" to prepare for Field Day 2012? The list is endless. There are so many things to think about that it literally makes my head spin and I don't even begin to know and understand all of the technical aspects. It is going to be a great event. There will be stars in the heavens through the night as our "stars" on the ground search for contacts all over the country. We can truly count

our lucky stars for the leadership of our bright star, Jeff, N4YPT and his committee of those who are able to dream of a wonderful event. My wish for all of those working on this event is that all of you can "soar" into the realms of discovery to unfold a plan that can be put into action for all to enjoy.

73,

Marilyn KE5DDR

Jeff Lavender's Field Day update.

Just a quick up date from Monday's trip to the field day site. It was a wonderful day and a lot of planning was done in ref to the antennas and things needed to make it work. The race track in Fredericksburg is running almost due north and south with the area we are going to be setting up in to the west of the track. There is a covered roof area over the raised platform so we should be high and dry. Gale is going to have to work with his pocket fisherman i.e. Rod and Real to get a weight up and over the beams for the antenna installation, but I have been told from good sources that he has a deadly aim. We will ensure that all stand clear for the launching of the antenna weight.

Our antennas will be installed so that they work the best in a north easterly direction. There is plenty of room for the V-Beam. It will be great fun getting that antenna put up. RG8X is in high demand so please take a look around your shacks to see if you have any runs of RG8X or RG8 mini we will need 4 runs of 150 feet plus to put all the HF

antennas on line. We are also looking for 2 sections of 25G Rhone antenna tower, and rotator plate to put the UHF / VHF Station on the air with. We will be able to secure the two sections of tower to the race track inner rail and post the put the rotator on the top with the antenna and run guy wires to secure the tower. Antenna rope will also be high on the hit list so look in your closets, and dust out the old boxes of antenna items.

Many thanks to Dr Jim, Pete, Barb, James, Rose, Gale for venturing out to the site on Monday and helping with the antenna planning for field day. There is a lot of work to be done in the coming month and before you know it, it will be time to get on the air.

73s Jeff N4YPT

Thanks to Bob Nelson for his fine technical article last month on a new antenna technology. Some recent articles in the science blogs have talked about faster than light travel by photons. Since electromagnetic waves are a form of photon look for wave accelerators in the future to couple with amplifiers.

RADIO LAW: HAM GATHERING SIGNATURES ON PETITION TO VOID ANTENNA PROHIBITIONS

N4UM tells Newsline that he has begun a petition drive to the FCC. This, in an attempt to get the regulatory agency

to void antenna prohibitions by developers and Home Owners Associations.

As of this report the petition has garnered over 700 signatures. N4UM says that he is doing this now because the FCC is currently requesting formal comments on emergency communications in amateur radio. The agency also wants to know the effects of impediments to the amateur radio service as part of the Docket GN 12-91 inquiry.

Comments on this federal study close on May 17th. N4UM says that his petition will also close on this same day. You can find his petition on-line at tinyurl.com/antenna-rights (N4UM)

I don't know how much good this will do, but I can't see how it could hurt any pending efforts. At minimum it will bring some more attention to the subject by all concerned.

Here's a chance for you add your voice to this debate.

Some websites for radio topics

<http://dx-world.net/> This site will get you to many pages of information on DX topics. From U.K.

<http://ham-radio.alltop.com/> Wide ranging topics of interest to amateur operators.

<http://www.hamuniverse.com/hamnews.html> Articles and antenna projects from a guy here in Texas.

<http://www.southgatearc.org/> Amateur radio news updated daily, plus a selection of radio articles, circuits and designs selection of radio articles, circuits and designs

Skywarn Training

On Saturday morning, April 28 19 hearty souls gave up cartoons to listen to Paul Yura of the National Weather Service present a two hour program for the Skywarn program. Six members of HCARC were present along with a couple of winter Texans who are also hams. The balance of the class were members of the community at large. Yura is responsible for 34 counties in south-central Texas. The program focused largely on tornadic storms and flash floods, the two major weather events that threaten our area. Thanks to Curtis Eastwood for setting up this interesting class

. Record-Breaking Radio Waves Discovered from Ultra-Cool Star

ScienceDaily (Apr. 30, 2012) — Penn State University astronomers using the world's largest radio telescope, at Arecibo, Puerto Rico, have discovered flaring radio emissions from an ultra-cool star, not much warmer than the planet Jupiter, shattering the previous record for the lowest stellar

temperature at which radio waves were detected.

The team from Penn State's Department of Astronomy and Astrophysics and the Center for Exoplanets and Habitable Worlds, led by Alex Wolszczan, the discoverer of the first planets ever found outside our solar system, has been using the giant 305-m (1000-ft) telescope to look for radio signals from a class of objects known as brown dwarfs. These objects are small, cold stars that bridge the gap between Jupiter-like giant planets and normal, more-massive, hydrogen-fusing stars. The astronomers hit the jackpot with a star named J1047+21, a brown dwarf 33.6 light years away in the constellation Leo, in a result that could boost the odds of discovering life elsewhere in the universe.

Matthew Route, a graduate student at Penn State and the lead author of the discovery paper, said, "This object is the coolest brown dwarf ever detected emitting radio waves -- it's half the temperature of the previous record holder, making it only about five times hotter than Jupiter."

The new radio-star is much smaller and colder than our Sun. With a surface temperature not much higher than that of a giant planet, and a size comparable to Jupiter's, it is scarcely visible in optical light. Yet the radio flares seen at Arecibo show it must have a strong magnetic field, implying that the same could be true of other similar stars. Wolszczan, an Evan Pugh Professor of Astronomy and Astrophysics and the leader of the project, said, "This is a really exciting result. We hope that in the future we'll be able to detect yet colder brown dwarfs, and possibly even giant planets around other stars."

The possibility that young, hot planets around other stars could be detected in the same manner -- because they still maintain strong magnetic fields -- has implications for the chances of finding life elsewhere in our Milky Way Galaxy, Wolszczan explained. "The Earth's field protects life on its surface from harmful particles of the solar wind. Knowing whether planetary magnetic fields are common or not throughout the Galaxy will aid our efforts to understand chances that life may exist beyond the Solar System."

The discovery of radio signals from J1047+21 dramatically broadens the window through which astronomers can study the atmospheres and interiors of these tiny stars, using the radio detection of their magnetic fields as a tool. At the temperature of this brown dwarf, its atmosphere must be made of neutral gas, which would not give off radio signals like those seen. SO The energy to drive the signals is likely to come from magnetic fields deep inside the star, similar to the field that protects Earth from dangerous high-energy particles. By monitoring the radio flares from J1047+21, astronomers will be able to tell how stable the magnetic field is over time, and, from flare duration, they can infer the size of the emitter itself.

AFD Crossband Military/Amateur Radio Communications Test

1. The Army, Air Force, Navy, Marine Corps, and Coast Guard are co-sponsoring the Annual Military/Amateur Radio Communications Test in celebration of the 63rd anniversary of Armed Forces Day (AFD). Although the actual Armed Forces Day

is celebrated on Saturday, May 19, 2012, the AFD Military/Amateur Crossband Communications Test will be conducted 12 May 2012 to prevent conflict with the Dayton Hamvention (18-20 May 2012), which is the same weekend as the actual Armed Forces Day.

2. The annual celebration features traditional military to amateur cross band communications SSB voice and morse code tests. These tests give amateur radio operators and short wave listeners (SWL) an opportunity to demonstrate their individual technical skills, and to receive recognition from the appropriate military radio station for their proven expertise. QSL cards will be provided to those stations making contact with the military stations.

3. Military-to-Amateur Cross Band operations will take place on the dates/times in Zulu (UTC), and frequencies listed below for each station. Voice contacts will include operations in single sideband voice (SSB). Some stations may not operate the entire period, depending on propagation and manning. Participating military stations will transmit on selected military bands frequencies and listen for amateur radio stations in the amateur bands indicated below. The military station operator will announce the specific amateur band frequency being monitored. Duration of each voice contact should be limited to 1-2 minutes.

For the full list of participating stations, dates and rules, visit the

WGD website at www.arrlwgd.org.

(Information provided by
Gary/K7GJT/NNN0GJT)

Upcoming Hamfests and Conventions

05/05/2012 | Smithville Swapfest 2012

Location: Smithville, TX

Type: ARRL Hamfest

Sponsor: Bastrop County Amateur
Radio Club

Website: <http://www.bcarc-hams.org/>

05/12/2012 | 12th Annual

Picnic/Swapfest

Location: Amarillo, TX

Type: ARRL Hamfest

Sponsor: Panhandle Amateur Radio
Club

Website: <http://www.w5wx.org>

06/08/2012 | HamCom – West Gulf

Division Convention

Location: Plano, TX

Type: ARRL Convention

Sponsor: Ham-Com, Inc. & surrounding
clubs

Website: <http://www.hamcom.org>

07/14/2012 | 2012 TARS Hamfest

Location: Texas City, TX

Type: ARRL Hamfest

Sponsor: Tidelands Amateur Radio
Society

Website: <http://www.tidelands.org>

07/27/2012 | Ham Holiday 2012 –

Oklahoma Section Convention

Location: Oklahoma City, OK

Type: ARRL Convention

Sponsor: Central Oklahoma Radio
Amateurs

Website: <http://www.hamholiday.com>

08/03/2012 | Austin Summerfest –

Texas State Convention

Location: Austin, TX

Type: ARRL Convention

Sponsor: Austin Amateur Radio Club &
Texas VHF-FM Society

Website: <http://www.austinsummerfest.org>

08/25/2012 | Gainesville Hamfest 2012

Location: Gainesville, TX

Type: ARRL Hamfest

Sponsor: Cooke County Amateur Radio
Club

Website: <http://www.gainesvillehamfest.org>

10/26/2012 | Texoma Hamarama

Location: Ardmore, OK

Type: ARRL Hamfest

Sponsor: Texoma Hamarama
Associaton Inc.

Website: <http://texomahamarama.org>

11/10/2012 | NCTECH 2012

Location: Azle, TX

Type: ARRL Hamfest

Sponsor: Tri-County Amateur Radio
Club

Website: <http://www.wc5c.org>

That's all for this time. Comments or
suggestions may be sent to

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