

The Static

An evolving publication of the Hill
Country Amateur Radio Club



...and now a word from the prez.

Have you ever thought about this????
How much is too much? That's a good question and can apply to many things. At the moment, I am thinking about "treasure", better known as CLUTTER. Oh, I am sure you don't have any or if you do, I trust you have EVERYTHING totally organized. Is this wishful thinking or what?!?!?

My thoughts are mainly directed to our station at the Red Cross. Some of the things in the station need to find a new home. Watch for some of these "treasures" to appear on a table at the next meeting. The exchange of "treasures" can be very helpful. You will surely find something you desperately need and at the same time help with rearranging the station. After all, we need

to make room for



that appear when there is a session going on at the station. Remember, cookies provide energy for a long instructional session or a neat contest opportunity.

All teasing aside, we are going to be considering how to best make use of the space in the station. Your ideas are always welcome. As you are considering this matter, please think about our files. How much is necessary to keep before it becomes "clutter"? If you are inclined to organize history, it would be worth SEVERAL tickets for you to discuss this with me.

I look forward to seeing YOU on August 2 as I know you will surely look forward to the "treasures" that might be on display and a MUST for your shack.

73,

Marilyn

VE Test Session – A VE test session is scheduled for Saturday, August 4 at the Red Cross Building. Walk ins are welcome

Upcoming DX events

The Hellenic Amateur Radio Association of Australia is organizing a DXpedition to Campbell Island from November 28th through December 9th. Campbell Island whose prefix is Zed-L-9 is

number 15 on the current DXCC most wanted list. You can follow the planning for this one at www.zl9hr.com.

A group of operators from Switzerland known as the Radio 7 Team will be active from Rodrigues Island as 3B9SP from between October 16th and the 23rd. Most operation will be on CW and SSB with some RTTY and PSK 31. Bands mentioned are all of the HF frequencies plus 6 meters. Logs will be uploaded to Logbook of the World within 6 months after the operation concludes. QSL via HB9ACA.

The World-Wide DX Group will be on Conway Reef from September 24th to October 5th. Their announced goal is to provide as many DXers as possible with this rare DXCC entity. The group says that it will target European contacts during those periods when propagation is possible and we will ask Japan and North America to standby during those brief periods when the bands are open to Europe. The World-Wide DX Group is the same group which brought you the 3D2C Rotuma Island DXpedition in September, 2011.

Lastly, the Araucaria DX Group, in conjunction with the TX3A Team, will sponsor a DXpedition to St. Peter and St. Paul Rocks, in the late November to mid December time frame. The actual dates will depend on weather conditions. The operation will have a strong low band focus. There will be a dedicated 160 meter station operating from sunset to sunrise. A second station will be on 80 and 40 meters at night as well. During the day we will operate two stations on the higher bands including 6 meters based on conditions. RTTY will

also be supported. More on this planned operation is on-line at www.pt0s.com.

NASA Sees Sun Send out Mid-Level Solar Flare

ScienceDaily (July 19, 2012) — The sun emitted a mid-level solar flare on July 19, 2012, beginning at 1:13 AM EDT and peaking at 1:58 AM. Solar flares are gigantic bursts of radiation that cannot pass through Earth's atmosphere to harm humans on the ground; however, when strong enough, they can disrupt the atmosphere and degrade GPS and communications signals.

The flare is classified as an M7.7 flare. This means it is weaker than the largest flares, which are classified as X-class. M-class flares can cause brief radio communications blackouts at the poles.

Increased numbers of flares are currently quite common, since the sun's standard 11-year activity cycle is ramping up toward solar maximum, which is expected in 2013. It is quite normal for there to be many flares a day during the sun's peak activity.

Updates will be provided as they are available on the flare and whether there was an associated Earth-directed coronal mass ejection (CME), another solar phenomenon that can send solar particles into space and affect electronic systems in satellites and on Earth.

What is a solar flare? What is a coronal mass ejection?

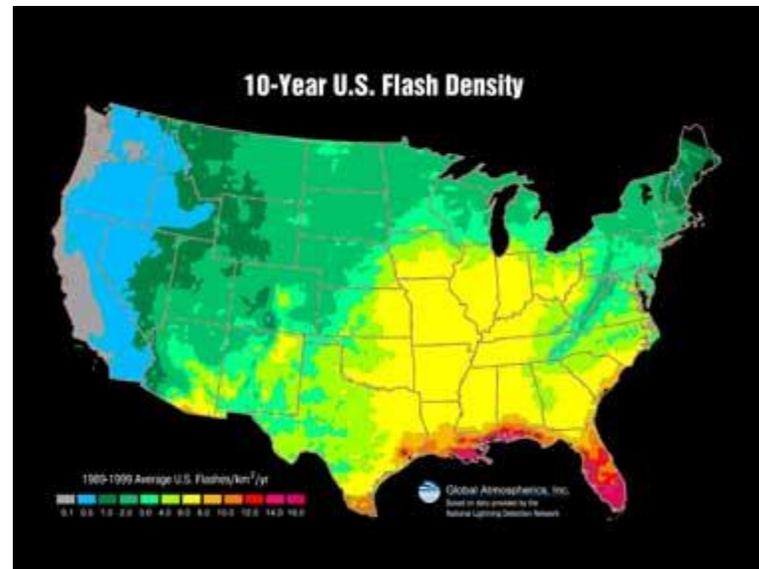
For answers to these and other space weather questions, please visit the Spaceweather Frequently Asked Questions page (http://www.nasa.gov/mission_pages/sunearth/spaceweather/index.html).

Lightning Climatology

Where does lightning usually strike?

Lightning strikes the ground somewhere in the U.S. nearly every day of the year. Thunderstorms and lightning occur most commonly in moist warm climates. Data from the National Lightning Detection Network shows that over the continental U.S. an average of 20,000,000 cloud-to-ground flashes occur every year. Around the world, lightning strikes the ground about 100 times each second, or 8 million times a day. Ground-based systems don't tell us anything about lightning over the oceans, although a few science satellites have lightning detectors on them now. There are roughly 5 to 10 times as many cloud flashes as there are to cloud-to-ground flashes, so the total amount of lightning is quite a bit higher.

These conditions most often occur in summer. In general, the US mainland has a decreasing amount of lightning toward the northwest. Over the entire year, the highest frequency of cloud-to-ground lightning is in Florida between Tampa and Orlando. This is due to the presence, on many days during the year, of a large moisture content in the atmosphere at low levels (below 5,000 feet), as well as high surface temperatures that produce strong sea breezes along the Florida coasts. The western mountains of the US also produce strong upward motions and contribute to frequent cloud-to-ground lightning. There are also high frequencies along the Gulf of Mexico coast westward to Texas, the Atlantic coast in the southeast US, and inland from the Gulf. Regions along the Pacific west coast have the least cloud-to-ground lightning.



How often do positive cloud-to-ground strikes occur?

Worldwide, over an entire year, positive lightning strikes average 4-5%. Most storms start with mainly negative flashes, then have a higher ration of positives toward the end of their life cycle. In tornadoes and super cells, large numbers of positive flashes are common, and they appear to signal severe events. Positive ground flashes are often associated with the production of large hail.

HOW DOES NSSL CONTRIBUTE?

Cell-Scale relationships

NSSL scientists have studied the relationships between the types of storm and the kind of lightning they produce.

- A simple one-pulse storm has less CG lightning than other cells.
- Cells with other lightning-producing cells nearby have more CG lightning than if there is not a nearby cell.

- Cells embedded within storm complexes have more lightning than if they are not embedded.
- The amount of CG lightning increases as the cell extends higher in altitude above the freezing level.

Hail and lightning relationships

Storms with large hail typically produce high densities of positive flashes in Oklahoma and Kansas. Lightning rates can increase to a maximum just after the start of hail.

Scientists are planning to participate in a field experiment to identify what causes inverted-polarity electrical structure to occur in severe storms. Some ideas being considered are: an unusually small concentration of frozen precipitation in the strong updraft, unusually large liquid water concentrations in the mixed phase region, fewer precipitation trajectories re-circulating through the updraft, or some other possible storm property.

NSSL scientists have reported on the climatologies of lightning in different states including AZ, FL, GA, SC, NM, KS, CO, and OK.

Here's the website for this article and it contains additional lightning topics.

http://www.nssl.noaa.gov/primer/lightning/light_detecting.html

Now for some websites of interest...

<http://www.dxe.org/links.html> will take you to the Lone Star DX Association. You'll find lots of links to other interesting and informative sites Thanks to Chuck Brainard for this link.

<http://www.rigexpert.com/index?s=articles&f=aas> This is from a Ukrainian site and presents a discussion and review on antenna analyzers.

Navy Radio System Blamed For Crippling Garage Doors

July 23, 2012 2:54 PM
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In this U.S. Navy handout image, a U.S. soldier with the 4th Psychological Operations Group (POG) edits an audio broadcast on the Deployable Audio Production System (DAPS) on March 6, 2003 in an undisclosed forward deployed location. (credit: Aaron Ansarov/U.S. Navy/Getty Images)

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HARTFORD, Conn. (CBS

Connecticut/AP) — A radio signal being transmitted out of a submarine base is likely behind reports of garage doors failing to open and close in southeastern Connecticut, the U.S. Navy said Monday.

The signal is part of the Enterprise Land Mobile Radio system, which is used by the military to coordinate responses with civil emergency workers, said Chris Zendan, a spokesman for submarine base in Groton.

The problem, first reported by The Day of New London, is that the same frequency is used at very low levels by the manufacturers of garage door openers. The signals from remote controls to open or close the doors are blocked by the signal from the base.

Overhead Door Co. of Norwich Inc. told the newspaper it has been receiving complaints from several towns near the base and has found no problem with its equipment. The Associated Press left messages with the company Monday.

Sondra Tuchman, of Montville, told the newspaper she has to get out of her car, stand in front of the door and press the remote for the opener to work. She said an installation company told her she would have to pay about \$300 to change her system to another frequency.

The garage-door companies do not need to be licensed to use the frequency because the remote controls transmit at such low levels,

Zendan said. But the homeland security needs for the signal take precedence, he said.

“Because garage door openers are unlicensed devices, they are not offered any protection from interference by licensed users in the same frequency band, and in fact are required by federal law to accept interference from licensed users,” Zendan said. “Base commanding officers do not have the authority to change those systems, and unfortunately we cannot offer compensation to the unlicensed users.”

For decades, the military has held a portion of the radio spectrum, from 138 to 450 megahertz, in reserve. But that range came back into use after the Sept. 11, 2001, terrorist attacks, when officials discovered they needed a new system to allow civil and military first responders to communicate.

The ELMR system, which uses radio frequencies between 380 and 399.9 megahertz, was developed. It began operating at the sub base last summer but is not unique to the state.

In 2006, residents around an Air Force facility in Colorado Springs, Colo., saw their garage-door remotes stop working when the 21st Space Wing began testing a frequency for use during homeland security emergencies or threats. In 2005, testing of a similar system in Fort Detrick in Maryland resulted in similar problems.

In May, Overhead Door Co. said it would offer free installation and parts to change the signal

on remote garage door openers near a naval base in Newport, R.I.

The Federal Communications Commission warned that the new radio system could cause interference like this.

“In response to the increased needs of homeland security, the Department of Defense now must make more use of these frequencies to deploy new mobile radio systems on and around certain military bases,” the FCC told the Day of New London. “Some consumers near these bases may experience interference to their garage door openers that can reduce operating range or cause the remote control to cease functioning.”

Sorry for the short issue this month. Clumsiness and gravity brought my computer to the floor and trashed the hard drive. I'm back in business but have lost a number of my sources.
-ed.