



The STATIC

May 2017

The monthly newsletter for members and associates of the Hill Country Amateur Radio Club
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The Presidents Message

Involvement. It's something we talk a lot about. Involvement in our community, involvement with our church, involvement with our family, involvement with our hobbies and activities.

Ham radio is a hobby that demands involvement - as I like to tell the students in my license course: Ham radio is not a spectator sport.

How are you involved in our hobby? What are you doing? How are you improving?

Club Calendar

May 4th - 7pm: General Meeting of HCARC.

May 13th - 1pm: License Testing Session following the Tech Class at the Red Cross

June 1st - 7pm: General Meeting of HCARC.

June 24th & 25th: Field Day Events

One of our recent speakers at the club made a good point that we need to continue to learn and grow in our hobby. Learn a new aspect of the hobby; try a mode you are unfamiliar with; challenge yourself to contact 100 countries over a contest weekend; work some emergency service events; mentor a new ham; get SKYWARN training; join ARES; get those final QSOs and QSLs for Honor Roll; upgrade if you're not an Extra.

One of the benefits of membership in the Hill Country Amateur Radio Club is the many opportunities for involvement with the club and its members. Look around: we need members to help with Field Day planning; training new members; station and repeater improvements; VE testing; SKYWARN reporting; ARES training.

How will you be involved?

73 and good DX,
Dale - K4DG

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[Welcome to our Newest Members](#)

A warm Hill Country welcome to our newest members:

None to announce this month

Congratulations to the new Licensees and Upgrades
A Hill Country Cheer to our latest new and upgrades:

Jerry Rhodes has obtained his old call back after upgrading last month.
It is WB5SHH

Steve Briggs has successfully upgraded to General.
Steve's call is KG5RSV

Steve Schwin passed his Tech exam.
Steve's call is KG5SUN

Radio History to Remember

The Original Digital



The Hill Country Amateur Radio Club has decided to resurrect our Newsletter the "STATIC" which was created along with the club itself many years ago. Like many of the things in the hobby, changes take place whether we agree or not. When computers started coming of age in the 70's ARRL position was "We are a Radio Club, not a Computer club." When the ARRL supported the elimination of the code requirement I vigorously opposed it. Times change, ARRL now supports computers in the hamshack, and the no code license and so do I. I still believe CW can get though when nothing else will. But, I do support the no code license and the ARRL.

The following is a story about using CW to save lives. I remember years ago when I was setting in the chair which copied these messages. Adrenalin does flow. One thing I can

say for sure, when the ship at sea is sending an SOS the operator is not going to try and see how fast he can send the message to you. If you copy a 7 for a 6 or 8 in a position report, you just sent the rescue ship about 60 miles in the wrong direction. Simply put, it's not how fast, but how accurate you can be.

The Sinking of the Prinsendam/callsign PJTA

In 1980, the United States Coast Guard Cutter (USCGC) *Mellon* assisted in the rescue of 520 passengers and crewmembers from the burning luxury liner *Prinsendam*, operated by Holland America Line. The *Prinsendam* was a 427-foot-long cruise liner built in 1973 at Shipyard de Merwede in the Netherlands. The liner was transiting through Gulf of Alaska waters, approximately 120 miles south of Yakutat, Alaska, at midnight on October 4, 1980, when fire broke out in the engine room. The vessel's master declared the fire out of control one hour later and the *Prinsendam* sent a distress call requesting immediate assistance. The Coast Guard's rescue coordination center in Juneau received the message and began to organize a rescue effort. Aircraft were immediately sortied to the scene, including an HH-3 helicopter and a C-130 turbo prop maritime patrol aircraft. At the time, CGC *Mellon* was on patrol near Vancouver, BC, a distance of 550 nautical miles from *Prinsendam*. CGC *Mellon* and other cutters diverted to assist. The 1000-foot supertanker, *Williamsburgh*, also diverted to render assistance.

The master of the *Prinsendam*, Captain Cornelius Wabeke, ordered the vessel abandoned at approximately 0630. The crew and passengers of the cruise liner filled the lifeboats with only 15 passengers and 25 crewmembers remaining on the *Prinsendam*. *Williamsburgh* arrived at 0745 and immediately passengers and crew were transferred from the lifeboats into the helicopter and then to the deck of the supertanker. The remaining crew and passengers from the surrounding lifeboats were transferred to the *Williamsburgh*. Sometime in the mid-afternoon the USCGC *Boutwell* arrived to assist. Those in critical condition were transferred to the USCGC *Boutwell* and taken to Sitka for treatment. CGC *Mellon* arrived around 1830 that night and dispatched a team to provide medical assistance onboard the *Williamsburgh*. At around 2100, 20 passengers and 2 Air Force aviator technicians were still reported missing in one of the *Prinsendam*'s lifeboats. The Coast Guard Command in Juneau directed the USCGC *Boutwell* and an HC-130 Hercules to search for the missing lifeboat. At around 0100 the next morning, some 18 hours after the ordeal had begun, the *Boutwell* spotted a flare from the lifeboat. Shortly thereafter,

the lifeboat's passengers were recovered and the rescue was over with no deaths or serious injuries and all passengers and crew from the *Prinsendam* accounted for.

On October 11, 1980, the *Prinsendam* capsized and sank, only 7 years after being built.

To listen to the actual SOS recorded at CGRADSTA Kodiak (NOJ) go to this web site:

https://archive.org/details/SosMsPrinsendamOctober41980/prinsendam_sos.mp3

The first minute of the recording is the auto alarm used by ships. A series of 12 - 4 second dashes with 1 second between to alert everyone listening.

Link to web article: <http://www.explorenorth.com/library/ships/prinsendam-1980.html>

73,

Fred - W0LPD/ZUT595

Let us know if you would like to see more stories like this in the newsletter.

[Radio Tech to Learn](#)

Discussion of ARRL Propagation message.

N5BAA asked about the ARRL propagation Message sent out weekly. Let's take a look at its contents. First we'll consider sunspot numbers and solar flux. First, neither sunspots nor the 2800 MHz solar flux has anything to do with the ionosphere. The ionosphere is ionized by EUV and X-rays. It turns out that long term averages of sunspot numbers and long term averages of solar flux can be related to long term averages of EUV flux. Reasonable periods of averaging are between a couple weeks to 90 days to 12 months. Daily values of sunspot number and 2800 MHz solar are close to meaningless. One of the problems with sunspot numbers is the solar astronomers use techniques and optical instruments that may have been available to Galileo and pride themselves on it! Effectively this means the sunspot number used is a fraction of the real number. A good telescope today will see at least 50% more sunspots than the number actually used. A second problem is that modern techniques are significantly



better at what actually determines a sunspot group than the techniques used to determine the number of sunspot groups to make up the sunspot number than in the early days. The equation is sunspot number = number of individual sunspots plus 10 times the number of sunspot groups. Using magnetic splitting of the spectral line of radiation from an emission line from the sun, one can determine the magnetic field polarity for a small region on the sun. This allows you to determine the number of groups when the groups are intermingled as well as which cycle a particular group belongs to. The purely visual techniques used to determine the sunspot number can not identify the number of groups when there are intermingled sunspots from different groups. The main advantage of the sunspot number is providing continuity back to the early solar observers.

The solar flux has a slightly different problem. The solar flux index is a measurement of the total 2800 Mhz output of the sun. It is measured and recorded 2 times a day. The measured value from 2000 UT is the number reported. If there is a significant flare in progress at the measurement time the measurement will be corrupted. It may be 2 or 3 times what it should be. At times I've seen an "estimated value" but how good the estimation is - I don't know.

There are several different magnetic field indices used. The ARRL message includes 2: the planetary A-index and the mid-latitude A-index. The A-index is an average of 8 measurements, one made every three hours. The location of the measurement will be identified, for example Boulder K-index and Boulder A-index. The relationship between the A-index and the K-index is a semi-logarithmic relationship. The K indices are single digit numbers. Each value of K has a value of A associated with it. The A-index numbers associated with the 8 K's are averaged and that becomes the daily A-index. If the A-indices are geographically averaged over a certain set of worldwide geomagnetic observatories, then it is called the Planetary A-Index. The K- and A-indices tell you the state of the geomagnetic field. The k-index is closer to real time, it is no later than 3 hours, and I think it is a better indicator of a magnetic storm than the A-index. The SWPC posts the k indices every 3 hours usually about 3 hours after the

measurement. The A index is usually posted about 30 minutes after the start of the new UT day.

The sun has numerous cycles besides the 11 year cycle. One is the 27 day solar rotation cycle. Every 27 days we see the same longitude on the sun. If there is a sunspot group that is facing us on April 1, then approximately April 28, we should expect to see it again. This is particularly true near solar max where a particular sunspot group may last for several rotations of the sun. If flares and/or an ionospheric storm occurred on a particular date we should expect to see similar activity 27 days later, particularly near solar max. Similarly if there is a peak in the sunspot number and /or a peak in the 2800 MHz solar flux that same peak will occur in another 27 days.

The remainder of the data in the ARRL report is either historical or predictions. Fortunately I think you can guess what is going to happen using data available on other sites and the historical data is not that useful to me.

Next month we'll discuss another source of data and what you can get from it.

73,

Kerry - K5KS



Stay Tuned for more in following issues of The STATIC

If there are topics you would like to see, please let us know. We will work to bring them to print in future editions

Committee Reports

Upcoming Conventions

Dayton Hamvention

May 19, 2017

Xenia, Ohio

ARRL Convention

Dayton amateur Radio

Association

<http://www.hamvention.org>

West Gulf Division

Convention

Ham-Com

June 9, 2017

Irving, TX

ARRL Convention

DFW Metroplex Clubs

<http://www.hamcom.org>

Repeater - Curtis Eastwood AD5UZ

There is no news since the last report

Red Cross Liaison - Terry Hipskind W0HIP

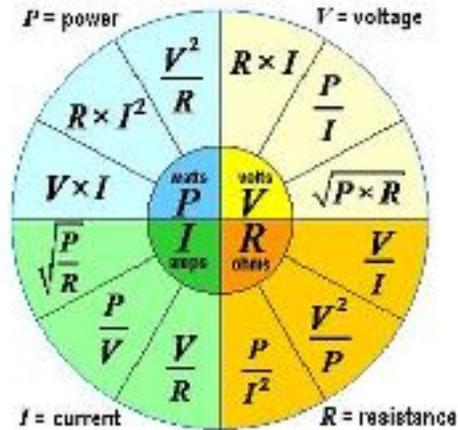


The Hill Country Chapter Was not involved in any large scale disasters during the month of April. We did respond to a handful of single family house fires (which is a disaster for those families involved).

The Chapter provided Disaster Assessment Training for the upcoming Disaster Assessment Exercise in May. This training was attended by a number of Hill Country Amateur Radio Club members.

73,
Terry - W0HIP

VE Testing - Fred Gilmore W0LPD



In April we gained a new VE for the team. That would be Robert Russell, KF5AIE.

For the month of April we have had only 2 VE exam sessions at our Wednesday morning coffee. Steve Briggs KG5RSU successfully upgraded to General, and Steve Schwin successfully passed his Tech Exam. His call is KG5SUN.

Jeremiah Rhodes, who became KG5SMH last month now, has his old call back, WB5SHH. He was a ham in the 90's and was grandfathered to General class after passing element two. Be sure to say hello when you hear them on the air.

Dale's Tech class has 14 candidates registered, so we should gain a bunch of new hams this next month. The session will take place at 1:00 PM on May 13th if anyone wants to upgrade. Walk in candidates are also welcome. It is expected to be a busy session. We might need 2 grading teams.

The VE's who volunteered to help this month were AF5AO, K5HV, K5NOW, K5YB, KF5AIE, N4YPT, and W5MIG.

73,
W0LPD



ARES - Terry Hipkind W0HIP

There is a meeting on May 10th at 03:00 pm for those that have signed up for the Disaster Assessment Exercise put on by the Kerr County Sheriff's Department and the local Red Cross. If you have not signed up and are interested, please call me at 956-605-8095 or email me at csm_hipkind@suddenlink.net



SKYWARN - Larry Altman N5QGD

[There is no news since the last report](#)

Club Station Review - Dale Gaudier K4DG

The station review committee has completed the club station's equipment inventory. We will be making proposals to the club membership shortly concerning the disposition of surplus equipment.

We have also completed the work on the 80M and 40M antennas. After adding new baluns to deal with ground effects from the metal roof, we adjusted the dipoles to bring their resonant frequencies close to standard ARES emergency frequencies.

There is some additional antenna work that still needs to be planned to ensure the club station has adequate functionality for emergency communications and normal club member use.

73,
Dale K4DG
Acting Chair

Field Day - Frank Edwards KK5IA

[There is no news since the last report](#)



License Study Class - Dale Gaudier K4DG

I have 16 students in my current Technician license class. We will finish on May 13th. This is my largest class ever! Once these students get their licenses they will need Elmers to help them set up their stations and learn more about the hobby. Let me know if you would like to help mentor a new ham.

A General Class Upgrade License Class TBD

An Extra Class Upgrade License Class TBD

Contact Dale Gaudier at k4dg@arrl.net for information about the schedule for the next class

NEWS RE: ARRL

The Unfortunate Deletion of KH4 by K5FUV, Bill Kennamer

Posted on [April 24, 2017](#) [April 25, 2017](#)

Author [The Daily DX35 Comments](#)

On March 31 of this year, I awoke to find A DXCC press release announcing the deletion of Midway and Kure Island from the DXCC List. I found this hard to believe, because Midway has been on the DXCC List, both in 1937 and in 1947, since the inception of the DXCC program. The justification given in the press release was that President Obama expanded the Papahānaumokuākea Marine National Monument area on August 26, 2016. This he did. However, the area he expanded was *water* only. He simply expanded the water area out 50 miles, *yet not one piece of land was included!* Since DXCC allows only *land-based* contacts, this seems to suggest that there was *no* justification for deletion, especially a deletion based upon that particular date.

Perhaps DXCC became confused about their own rules. So I did a further, in depth review of the Midway situation. I had done this before, between 1996 and 1998, as part of the DXCC 2000 Committee, but thought I should do it again, since some things had changed. What I found

convinces me that there should have been no deletion of Midway, thus no deletion of Kure.

One of the principles of the DXCC List criteria for additions and deletions has long been that if an entity is found to meet criteria to be placed on the list, it is not then removed if that criteria changes. I actually wrote this into the revised 1998 rules under DXCC List Criteria 3 e). Anything on the 1998 List cannot be deleted unless their status changes. Further, under Criteria, 5. Deletion Criteria, c) criteria changes will not be applied retroactively.

Then, I reviewed again why Midway Island was on the DXCC List, both in 1937 and 1947. The clues begin with a short study of the early history of the DXCC program, and the rationale behind the list of countries provided at the beginning.

The history of DXCC actually begins in 1935, with the publication of Clinton B Desoto's landmark article in QST. (i) In this article, which was used as the basis for the creation of the first DXCC List, first mention is made of a "discrete geographical or political entity". Later in that same article is a discussion of *islands* and *island groups*. Groups are "constituted by several islands commonly grouped under one name and *under the same political control* (italics mine.) The Hawaiian Islands are mentioned in this paragraph. If you check an atlas of the day, you would find the Hawaiian Islands listed under one name, and the Midway Islands listed separately. You would find this to be true in a current Rand McNally Atlas as well. The National Geographic Atlas of the World, 2015, shows the Papahānaumokuākea Marine Monument, created on June 15, 2006. It also shows Midway separately, administered by U.S. Fish and Wildlife. (ii) This shows that at the time of DXCC List creation, Hawaii and Midway were considered separate by mapmakers and by DXCC, both in 1937, 1947, and even today. In short, it was a discrete entity, listed by mapmakers as separate from Hawaii, which indeed it was politically.

To fully understand, it is best to look at the history of Midway and Kure.

A Captain Middlebrook originally claimed Midway for the U.S. on July 5, 1859. It was later formally claimed by the U.S. Navy (August 28, 1867). At that time Hawaii was an independent kingdom. In 1903, President Theodore Roosevelt signed Executive Order 199-A, placing Midway under jurisdiction and control of the U.S. Navy. In 1941,

President Franklin Roosevelt issued Executive Order 8682 creating several Naval Defense Zones. Midway was included in those areas. On April 22, 1988, Midway was designated a National Wildlife Area. On October 31, 1996, President Bill Clinton signed Executive Order 13022 transferring Midway to the Department of the Interior, U.S. Fish and Wildlife Service to become the Midway Atoll National Wildlife Refuge. This order remains in force. *Never in any of those orders was Midway made a part of the territory or state of Hawaii, which is what would need to happen to cause a deletion.*

King Kalakaua Sent Colonel J. H. Boyd to Kure as a Special Commissioner, when on September 20, 1886, he took possession of the island for the government of Hawaii. Kure has always been part of Hawaii.

Knowing this history, and knowing what the early DXCC philosophy was when there was no actual, published criteria, it becomes easy to see that the early assemblers of the list saw that Midway was separate from the territory of Hawaii because Hawaii was self-governing and Midway was not. That condition continues to this day. Hawaii becoming a state without inclusion of Midway actually strengthens this separation, and *it is this separation, and not a specific administration, upon which the inclusion of Midway to the original DXCC Lists was based.* Therefore, the status of Midway has not changed from the time it first appeared on the DXCC List until today.

Further evidence is provided from the web pages of the Papahānaumokuākea Marine Monument and the Midway Atoll National Wildlife Refuge and Battle of Midway National Memorial. The Papahānaumokuākea Marine Monument has as its co-trustees NOAA (seas within the monument) U.S. Fish and Wildlife Service (Midway National Wildlife Refuge and Battle of Midway Memorial), State of Hawaii (all of the Hawaiian Islands) and Office of Hawaiian Affairs (Native affairs within the monument). The trustees are supervisory, with management and administration by each agency of each part of the monument, as designated. Fish and Wildlife maintains a staff on Midway. The State of Hawaii maintains a small staff on Kure to look after the Kure Atoll State Wildlife Sanctuary. If you want to do anything in the waters of the monument, contact NOAA. Each individual agency or the State of Hawaii controls access to their area. None of these administrations appears to have given up

administration of their respective areas within the monument.

So, the DXCC Deletion Criteria have not been met, certainly not by any action taken on August 26, 2016. Midway does meet the criteria under which it was added (separate from the Territory of Hawaii), and a change in the criteria shall not affect the status of any Entity on the list at the time of the change. Since no particular administration was named, but only that Midway was different from Hawaii at the time the list was created, then there was no reason for this deletion, and therefore, no reason for the deletion of Kure.

Here is a simple four question test that will show the error of this deletion:

1. Was Midway part of the Territory of Hawaii in 1937 or 1947? It was Not
2. Was Midway incorporated into the State of Hawaii upon statehood in 1959? No
3. Did Midway become a part of the State of Hawaii when the Papahānaumokuākea Marine Monument was created in 2006? It did not
4. Is Midway currently an unincorporated insular territory of the U.S. and not part of the State of Hawaii? It is currently listed as an unincorporated insular territory of the U.S. by the Department of the Interior, and as such is not part of the State of Hawaii.

Deleting an Entity and bringing it back to the DXCC List because a more stringent review showed the error is not new. It was done with the Cayman Islands deletion in 1960. So, Midway and Kure should be restored to the DXCC List.

(i) DeSoto, Clinton B., "How to Count Countries Worked" QST, October, 1935, pp40-41,

(ii) National Geographic Atlas of the World, 10th Edition, 2015, "The State of Hawai'i includes all islands and reefs in the chain that extends from the island of Hawai'i to Kure, except Midway Islands, which are administered as a wildlife refuge by the U.S. Fish and Wildlife Service"

(iii) QST, June 1958, page 97 and QST, September 1960, page 90.

[GO TO ARRL WEBSITE FOR MORE NEWS ABOUT THIS AND OTHER STORIES](#)



HCARC General Information

Repeater: N5HR 146.98(-) Tone 162.2
General Meeting: First Thursday of every month except December at 7pm at the American Red Cross, 333 Earl Garrett, Kerrville, TX. Meet & Greet begins at 6pm
Club Net: Every Monday at 7pm on the N5HR Repeater
Website: www.kerrhams.org
Email Reflector: To sign up go to http://www.kerrhams.org/general_misc.html
Facebook: <https://www.facebook.com/groups/hillcountryARC>
Officers:
President: Dale Gaudier K4DG k4dg@arrl.net
Vice President: Gary Johnson N5BAA n5baa@hctc.net
Treasurer: Dennis Robertson W5FBG robertson@ctesc.net
Secretary: Robert Russell KF5AIE timberrr66@hotmail.com
Static Editor: Starr Center KI5SC starr@arrl.net

The HCARC is an ARRL affiliated club

Cover Photo by R. Sanchez
Back Page Photo by A. Center

The Radio Amateur's Code

The Radio Amateur is:

- CONSIDERATE...He/She never knowingly operates in such a way as to lessen the pleasure of others.
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- LOYAL...He/She offers loyalty, encouragement and support to other amateurs, local clubs, the IARU Radio Society in his/her country, through which Amateur Radio in his/her country is represented nationally and internationally.
-
- PROGRESSIVE...He/She keeps his/her station up to date. It is well-built and efficient. His/Her operating practice is above reproach.
-
- FRIENDLY...He/She operates slowly and patiently when requested; offers friendly advice and counsel to beginners; kind assistance, cooperation and consideration for the interests of others. These are the marks of the amateur spirit.
-
- BALANCED...Radio is a hobby, never interfering with duties owed to family, job, school or community.
-
- PATRIOTIC...His/her station and skills are always ready for service to country and community.