



# The STATIC

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**December 2017**

The monthly newsletter for members and associates of the Hill Country Amateur Radio Club  
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## President's Message

'Tis the season... to remember.

As we enter into the holiday season and wind down this year I am reminded of the many activities we, as a club, have been involved with over the past year.

Our Station Review Committee worked hard to clean up the club station, sell off surplus equipment, and to repair or replace several non-functioning club antennas at the Red Cross.

- - - We kept up our educational efforts by graduating a large (12 persons) Technician license class in the springtime. - - - We held a number of VE test sessions during the year enabling dozens of people to obtain their first license or upgrade their license. Thanks to Fred WØLPD for his continued service in managing these sessions and to the VEs who volunteer their time to help. - - - We had a great turnout for Field Day and a very respectable score for our class. Thanks to Frank, KK5IA, for his efforts in managing this. - - - We did a “reboot” of the club’s newsletter, *The Static*, through the efforts of Starr KI5SC. It’s my favorite reading each month! - - - Several of our members, including Terry WØHIP, Alan K5AFC and Jerry W5MIG, were involved in the Red Cross’s response to the Gulf coast flooding due to hurricane Harvey. - - - A number of club members were involved in an ARES/Red Cross Disaster Drill in conjunction with the Kerr County Sheriff’s Dept. - - - The club was represented at the Austin hamfest by several members. - - - And the list goes on...

This just reinforces a theme I mention at almost every club meeting: *involvement*. As hams, we get involved, whether helping other hams, or coming to the aid of our community, our state or our nation. It is because of this involvement and our proven ability to effectively *communicate* under adverse conditions that makes our hobby not just fun, not just useful, but *vital*. I am proud of the involvement of our club members and look forward to your continuing support for our activities into the New Year.

May you and your family have a blessed  
Christmas holiday and a Happy New Year!

73,  
Dale - K4DG

### Welcome to our Newest Members

A warm Hill Country welcome to:  
Ken Upchurch

### Congratulations to the new licensees & upgrades

A Hill Country Cheer for:  
Ken Upchurch  
Fred Andreas

A touch of Winter arrived with some early snowfall

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## Club Calendar

January 4th - The regular club meeting will be held at Buzzies BBQ for a special presentation on SDR - Y'All Come

February 1st - The regular monthly meeting will be held at the Red Cross

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## Committee Reports

### Repeater - Curtis Eastwood AD5UZ

No news since the last report

Report on the Reflector: There was an issue with operability at a recent Monday Night Net. The issues are being addressed. [Editor]

### Red Cross Liaison - Terry Hipskind W0HIP



The Hill Country Chapter continues to install smoke detectors within our area as part of the Red Cross Fire Campaign. Although these alarms will not prevent a fire they do save lives. The fatalities in the recent fire in London, Texas could have been prevented had the home been equipped with smoke detectors

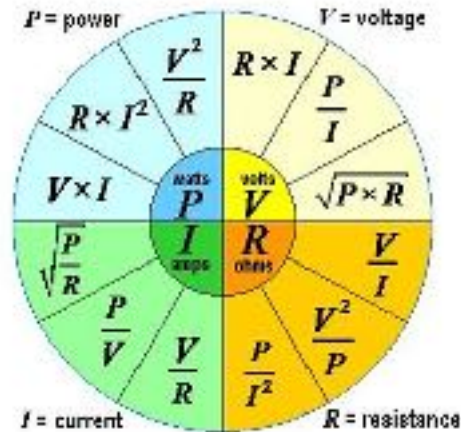
No major wildfires in our area to date, but I have been at several home fires. With cold weather and Christmas decorations the number of house fires increases. With the cold weather, we will also see an increase in carbon monoxide poisonings.

Now is the time to have your home heating systems checked by professionals. Be safe and have a happy holiday season.

## VE Testing - Fred Gilmore W0LPD

### Upcoming Conventions

- Jan 13th: Georgia ARES Convention
- Jan 19-20th: North Texas Section Convention
- Jan 20th: GARS TECHFEST Convention
- Jan 26-27th: Delta Division Convention



This November 2017 we had only two VE sessions with 3 candidates. All achieved their goal in the first session. Ken Upchurch from Medina became a new Technician (KG5WEC) and club member Fred Andreas (KG5TKM) upgraded to General. VE's who helped with the first session were Dale, (K4DG), Alan (K5AFC), Jerry (W5MIG), Bob (K5YB), Robert (KF5AIE) and Harvey (K5HV).

Our second session was held at the Wednesday Coffee on Nov 29. Ken, who got his Tech in the first session upgraded to General. Thanks to Harvey (K5HV) and Jerry (W5MIG) for helping with that session.

In January 2018 I will be re-compiling our membership list for the VE team. If you would like to join us, let me know and I will email you the information to become a VE. We have lost several VE's in the past couple years and have a

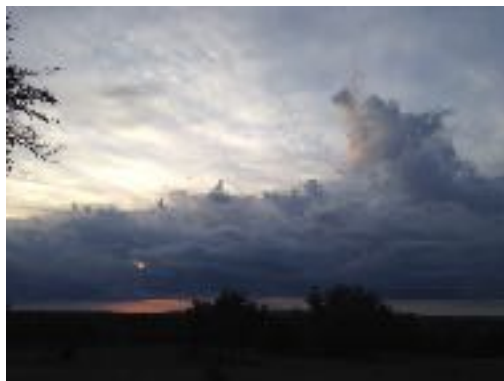
few others who have not participated so we can use a few more who would like to help.

## ARES - Terry Hipskind W0HIP



No training or deployments took place during the month of November.

## SKYWARN - Larry Altman N5QGD



No new news since the last report.



## Announcement - ARRL / FCC

SB QST @ ARL \$ARLB025  
ARLB025 FCC Seeks Comments on  
Technological Advisory Council  
Recommendations

ZCZC AG25  
QST de W1AW  
ARRL Bulletin 25 ARLB025  
From ARRL Headquarters  
Newington CT December 5, 2017  
To all radio amateurs

SB QST ARL ARLB025  
ARLB025 FCC Seeks Comments on  
Technological Advisory Council  
Recommendations

In a Public Notice released on December 1, the FCC's Office of Engineering and Technology (OET) has invited comments by January 31, 2018, on a wide-ranging series of Technological Advisory Council (TAC) recommendations that, if implemented, could alter the spectrum policy regulatory landscape - especially with respect to interference resolution and enforcement. An advisory body, the TAC's membership includes several Amateur Radio licensees. ARRL will file comments in the proceeding, ET Docket 17-340.

The Public Notice is in PDF format on the web at,

[http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2017/db1201/DA-17-1165A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db1201/DA-17-1165A1.pdf)

The TAC has called on the FCC to:

\* Consider adopting the spectrum management principles spelled out in the Council's Basic Spectrum Principles white papers of March 2014 and December 2015, and "set clear expectations about the affected system's capabilities regarding interference, such as harm claim thresholds."

\* More broadly adopt risk-informed interference assessment and statistical service rules. "In judging whether to allow new radio service rules, the TAC observes that the Commission has to balance the interests of incumbents, new entrants, and the public," the Public Notice explained. "The process of analyzing the tradeoffs between the benefits of a new service and the risks to incumbents has, to date, been essentially qualitative."

\* Implement "a next-generation architecture" to resolve interference, and establish a public database of past radio-related enforcement activities. The TAC also recommended that the FCC



"incorporate interference hunters in the [interference] resolution process."

The TAC spelled out a set of three "Interference Realities," which, in part, assert that harmful interference "is affected by the characteristics of both a transmitting service and a nearby receiving service in frequency, space, or time," and that radio services should expect occasional service degradation or interruption."

The TAC also posed three "Responsibilities of [Radio] Services that, in part, state that "receivers are responsible for mitigating interference outside their assigned channels" and that "transmitters are responsible for minimizing the amount of their transmitted energy that appears outside their assigned frequencies and licensed areas." The TAC acknowledged that the FCC, by and large, does not regulate receiving systems.

Another three principles under "Regulatory Requirements and Actions" the TAC suggested that the FCC may "apply interference limits to quantify rights of protection from harmful interference." According



to the Public Notice, the TAC "has recommended interference limits as a method for the Commission to communicate the limits of protection to which systems are entitled, without mandating receiver performance specifications." The TAC called for a "quantitative analysis of interactions between services" before the FCC could "make decisions regarding levels of protection," The OET said.

"[T]he TAC believes the principles can be applied to all systems and result in an optimal solution for each service," the Public Notice said. The TAC has suggested that the FCC not base its rules on exceptional events and worst-case scenarios but on reality.

"The TAC recommends that the Commission start soon, and start small, and not attempt a major overhaul of its regulatory approach," the Public Notice said.

NNNN  
/EX





## License Study Class - Dale Gaudier K4DG

Stay tuned for upcoming announcements regarding licensee study classes.

If you are interested or know someone who is, please contact Dale.

Contact Dale Gaudier at [k4dg@arri.net](mailto:k4dg@arri.net)



## Morse Code: A Staple in the Navy IW Toolkit

By Carla M. McCarthy, Center for Information Dominance Public Affairs

PENSACOLA, Fla. (NNS) -- The cryptologic technician (collection) (CTR) student cohort in the first revised Basic Manual Morse Trainer (BMMT) course wrapped up, Jan. 28, at the Center for Information Dominance (CID) Unit Corry Station.

The update included the latest Manual Morse software used by the Department of Defense and was tested out in a nine-week pilot course that concluded in September.

The self-paced course provides basic instruction and practical application in the interception of Morse-type communications.

"Morse code continues to be an inexpensive and efficient means of communication for many states throughout the globe," said Senior Chief Cryptologic Technician (Collection) (IDW/NAC/SW/AW) Tony Gonzales, CTR rate training manager for CID headquarters. "Manual Morse operators here at Corry Station are

learning a skill set that has stood the test of time. Many of our most senior CTRs began their careers as Manual Morse operators."

In the updated course, Sailors learn how to operate radio-receiving and associated computer-based equipment. From basic safeguards of security to communication procedures and systems theory to operation of communications equipment, the course teaches how to intercept Morse communications, as well as copy and send Morse code.

"There is something special about learning a skill that Sailors have been performing since World War II," said Gonzales. "The connection between the past, present and future cryptologic technician (collection) is rarely seen in our line of work as technologies are forever changing."

Morse is just one tool that CTRs use as members of the Navy's Information Warfare (IW) community to perform collection, analysis and reporting on communication signals.

"Morse code is not only used in military operations but also in commercial navigation," said Cryptologic Technician (Collection) 1st Class (IDW/SW) Gabriel Albarran, the BMMT course supervisor. "Search and rescue, science navigations and weather status are frequently passed in automated Morse code."

Sailors can take the course immediately following CTR "A" school or can be assigned as fleet returnees to the course as part of their transfer. The course is now offered to about 40 CTRs each year in the pay grades of E-1 through E-5.

"It's a language," said Cryptologic Technician (Collection) Seaman Mary Kaitlin McKeeby, who beat the course record set during the pilot by two days, finishing the self-paced course in 39 days. "If you have a knack for languages, (Morse code) is going to be easier to pick up."

She stressed the importance of staying composed while learning Morse code and persisting through the lessons even when making a mistake.

Graduates receive NEC 9169 as a Morse code intercept operator and undergraduate college credit through the American Council on Education. They may also be eligible for selective reenlistment bonuses in both zones A and B.

Morse code training has been taking place continuously at Naval Air Station Pensacola Corry Station since 2005, when the Navy moved the training back to Corry Station, in favor of cost and time savings by relocating the course with the cryptology "A" school. A long partnership with the Army providing the training came to an end at that time.

The Center for Information Dominance (CID) based at Corry Station in Pensacola, Florida, is the Navy's learning center that leads, manages and delivers Navy and joint forces training in information operations, information warfare, information technology, cryptology and intelligence.

With nearly 1,300 military, civilian and contracted staff members, CID provides training for approximately 22,000 members of the U.S. armed services and allied forces each year. CID oversees the development and administration of more than 200 courses at four commands, two detachments and 12 learning sites throughout the United States and Japan.

For more information on the Center for Information Dominance, visit <http://www.netc.navy.mil/centers/ceninfodom/>; [facebook.com/CenterForInformationDominance/](https://www.facebook.com/CenterForInformationDominance/); and [twitter.com/CenterInfoDom/](https://twitter.com/CenterInfoDom/).

For more news from Center for Information Dominance, visit [www.navy.mil/local/cid/](http://www.navy.mil/local/cid/).

### **A Coast Guard Radioman's Dream**

You awake with a start to the Bosn's shake  
Feet hit the deck before you awake  
Out of your pit and into your dungs  
Then up the berthing ladder, rung by rung

Onto the mess deck with lights too bright  
Just a sandwich to last the night  
A cup of Joe, a butt or two, then off to the shack  
Your duty to do

You climb to the Oh one deck, through salty spray  
Dark clouds above march past in their dress grey  
White water amidships, bow goes under green  
Water swirls aft, sweeping decks clean



You enter the hatch, fresh coffee you smell  
Along with stale smoke and the new man's pail  
Transmitters emit a hot bees wax odor  
Aging capacitors sound like outboard motors

Two weathers are pending and NMH is not here  
We lost him on twelve, they faded into thing air  
Eight was tried with out success, four is no better  
Comms are a mess.

Five hundred is still alive and noisy with code  
NRUS tried to relay but lost her M.O.  
The Chief will be up at quarter till three  
Copy press and publish the Daily

With the watch relieved and gone below  
I adjust my key, sending real slow  
Searching for a station to rid us of traffic  
Finding nothing there but that darn static

You have braced yourself, wedged into position  
Fired the FRT23 up and started transmission  
She suddenly rolls to port, lurches ahead  
Bangs into a wave and seems to stop dead

Shuddering up, shaking her prow  
Ridding herself of the water somehow  
Through all of this with a coffee cup balanced  
Not a drop spilled to foul the Chief's palace

On eight a tone, five by the signal comes through  
You get rid of weathers, another message or two  
The OBS period over, no AMVERS to steal  
Quite proud of yourself is the way to feel

Your watch starts drawing to an end  
You think of wife and family, start to grin  
For it is day twentyone on station for you  
No more watches, it's over and through

Underway watches leave little to be done

You are homeward bound from Delta, "Ole Son"  
But suddenly you wake up and it is all a dream  
Of Ocean Station days, your youth's past seen

No more station in the middle of a grid square  
Nor a Radioman to found, not anywhere  
A key of brass, an Underwood mill  
Are of the past, are over the hill

The mission is still there, waiting to be done.  
The challenge laid down, accepted by younger ones.  
Radioman are gone, the code also you see.  
Tradition carried on by computers, remotes and TNCs

Fred W0LPD

-30-

## Other Radio News

### **SPECIAL JANUARY MEETING SPEAKER**

Gerald Youngblood, K5SDR CEO of Flex Radio Systems has agreed to visit us on January 4th at our club meeting to give us an inside look on the the world of Software Defined Radio. (SDR). He will be explaining in depth what SDR is, how it works, and why it is the cutting edge technology in Ham Radio design. Looking at the Sherwood receiver rankings well over half of the top 14 ranked radios are SDR, and this does not include Flex's new radios (6400/6400M and 6600/6600M) nor Icom's new IC-7610. Rob Sherwood's presentation at the Xenia Hamfest this past year was completely about SDR being a seminal change in how radios are designed. The Kendall Area Radio Club (KARS) have been invited to come as have members of the South Texas DX and Contesting Club (STDXCC).



The meeting will be held in the meeting/banquet room at Buzzie's BBQ. Actual meeting time may have to be slightly earlier to accommodate Buzzie's business hours, but I have been assured they will let us stay as late as 9pm. Please tell your friends and other club members so we get a big turnout for this meeting. The meeting room can accommodate up to 90 people. While we don't expect that number, a really big turnout is hoped for. It's not often that a small club like ours can attract speakers of this quality.

Knowledge gained from this meeting will help us decide on the type of new radio for the club to purchase.

Gary N5BAA

**The ARRL International Grid Chase  
Get ready to kick off 2018 with a new year-long operating event!**

*Bart Jahnke, W9JJ, ARRL Contest Branch  
Manager*

*[from December 2017 QST, page 92]*

You may not know this, but your station is in a *Maidenhead grid square*. The entire world is divided into thousands of these  $1^\circ$  latitude  $\times$   $2^\circ$  longitude squares, each one with a unique designation. They're all part of a geographic location system adopted in the 1980s at a meeting of the VHF Working Group in Maidenhead, England.

Unless you are a VHF enthusiast, this nugget of information may not mean much. But at 0000 UTC on January 1, 2018, the global Amateur

Radio community will be *very* interested in grid squares.

For more information on grid squares see <http://www.arrl.org/grid-squares>

### **Get in the Chase**

The objective of the ARRL International Grid Chase is simple: Work stations in as many grid squares as possible and upload your log data to ARRL's Logbook of The World. If you are not currently registered with Logbook of The World, this is a good reason to get started. Go to <https://lotw.arrl.org/lotw-help/getting-started/>.

Registration and uploading are *free*.

Every new grid square contact confirmed through Logbook of The World counts toward your monthly total, so you have an incentive to start the chase as soon as you ring in the New Year.

Just turn on your radio and start calling "CQ Grid Chase," or listen for others doing the same. Make the contact, enter it into your log, and you're on to the next (see the sidebar, "[Tips for the Chase](#)").

At the end of each month, your totals on the Grid Chase leader board will reset to zero. Fear not, though. The online scoring system will maintain your monthly totals for a grand total at the end of the year, when an annual summary will be released and awards given to top finishers in various categories.

The ARRL International Grid Chase is open to all amateurs, regardless of location or license class. Any operating mode is eligible as well as every band, except 60 meters. You'll find the complete rules at [www.arrl.org/aigc2018](http://www.arrl.org/aigc2018).

## But What's My Grid Square?

Determining your grid square is easy. David Levine, K2DSL, has a great online calculator at [www.levinecentral.com/ham/grid\\_square.php](http://www.levinecentral.com/ham/grid_square.php). Just enter a postal address, zip code, or even a call sign, and David's site will tell you the grid square for that location.

For example, enter "W1AW" and the site will return "FN31pr." The letters "pr" designate the grid square *field*, but you won't need that for the Chase. Just FN31 will do.

The ARRL online store ([www.arrl.org/shop](http://www.arrl.org/shop)) also offers grid square maps of the US and Canada, as well as a grid square atlas of the entire world.

## Plenty of Pileups



Figure 1 — Grid square FN51 is mostly salt water, except for a narrow strip of land along the "sole" of Cape Cod and a portion of southeastern Nantucket Island. This image is taken from the ARRL Amateur Radio Map of North America, available at [www.arrl.org/shop](http://www.arrl.org/shop). Some grid squares have thousands of amateurs in residence, but others have only a few, or

none. Those "rare" grid squares will be hot properties in 2018, and hams operating from those locations can expect serious pileups. Of course, nothing prevents you from hopping into your car and driving to a grid square where you are the only amateur on the air. There are some grid squares in coastal areas, for example, where most of the territory is comprised of water. Look at [Figure 1](#) and notice that grid square FN51 is mostly in the Atlantic Ocean, except for a relatively narrow strip along the "sole" of Cape Cod and a small portion of southeastern Nantucket Island.

If you're taking to the road, some vehicular GPS systems will display grid square locations. You can also use apps for your smartphone or tablet, such as *Ham Square* (iPhone, iPad) or *HamGPS* (Android).

However you play it, the ARRL International Grid Chase is going to be *big*. By the time you read this, "opening day" will be less than 2 months away. Better sign up with Logbook of The World (if you haven't already) and prepare your gear!

Questions? E-mail [contests@arrl.org](mailto:contests@arrl.org).

### **Tips for the Chase**

- ***Any contact can count for your Chase score***; it doesn't have to involve an exchange of grid squares. As long as other operators participate with Logbook of The World, you'll get the credit automatically when they upload their logs. This means that contest contacts will count, as will contacts with special-event stations, or any

other on-air activity. As long as stations upload their logs to Logbook of The World, you're good.

- **The new FT8 digital operating mode is ideal for the ARRL International Grid Chase.** You can set up FT8 to call CQ and automatically respond, completing a contact in a little over a minute while you watch. When the contact is complete, simply click your mouse to trigger another CQ. You'll find FT8 within the free *WSJT-X* software suite at <https://physics.princeton.edu/pulsar/k1jt/wsjt.html>.
- **Watch for Logbook of The World users on your favorite online DX clusters.** Most clusters have the ability to filter and display only stations that participate in Logbook of The World; other clusters can at least flag the stations with a symbol. This will save time when you are looking for contacts to increase your score. If you enjoy JT65, JT9, or the FT8 digital modes, check out the free *JTAlert* for *Windows* at <http://hamapps.com>. This software works with *JT65-HF* or *WSJT-X* applications to automatically flag Logbook users and will even alert you when a station is on the air in a needed grid square.
- **Upload often.** Grid Chase totals are refreshed at the end of each month. With that in mind, it pays to send new data to

Logbook of The World every couple of days, or even daily.

- **Satellite contacts count.** Contacts made through earthbound repeaters *do not* count for the Grid Chase, but repeaters in outer space are the exception. There are low-orbiting satellites that support CW, SSB, and even FM contacts. See the AMSAT-NA website at [www.amsat.org](http://www.amsat.org).
- **Try "circling" grid squares.** It's easy to set up a portable or mobile operation at the intersections where corners of grid squares meet. For example, you could operate in one grid square and then drive west across the "border" into the next square. Make some contacts there and then drive north into the adjacent square. Bang out more contacts, and then head east into another grid square. This is a very common technique used by VHF "rover" operators. In a single day, you can operate from four different grid squares!
- **Access a Remote Station.** Around the world, stations remotely accessed (via internet) are available for use. These stations give amateurs with location challenges (eg, apartment dwellers or those with HOA Community restrictions, etc) ability to make contacts from a less restricted or more equipped station. Many of these Remote Stations require special permissions/subscriptions (contact the

At least in Texas you don't need a window scraper - just wait a few - it melts and your ready to roll



station sponsor for details). When uploading your Remote Station QSOs to LoTW, remember to add the Remote Station's location detail as a new "Station Location" into your LoTW TQSL setup. Per FCC, operating a Remote Station located in the US or it's Possessions requires that the remote operator must hold a FCC-issued license (foreign licensed operators may not use/control a US-based remote station). For more information on remote operations see <http://www.arrl.org/contest-remote-station-operation>). *For purposes of this event, a Remote Station may only be at a location where the station builder owns or has rights to erect structures and use the property (this prohibits setting up a Remote Station as a go-kit with solar panel and simple antenna in an underpopulated grid square or other location for convenience).*

- **Take the Chase on vacation.** Take a radio along when you travel and work new grid squares at your destinations. Even a handheld FM transceiver can be used to work a new square on a simplex frequency



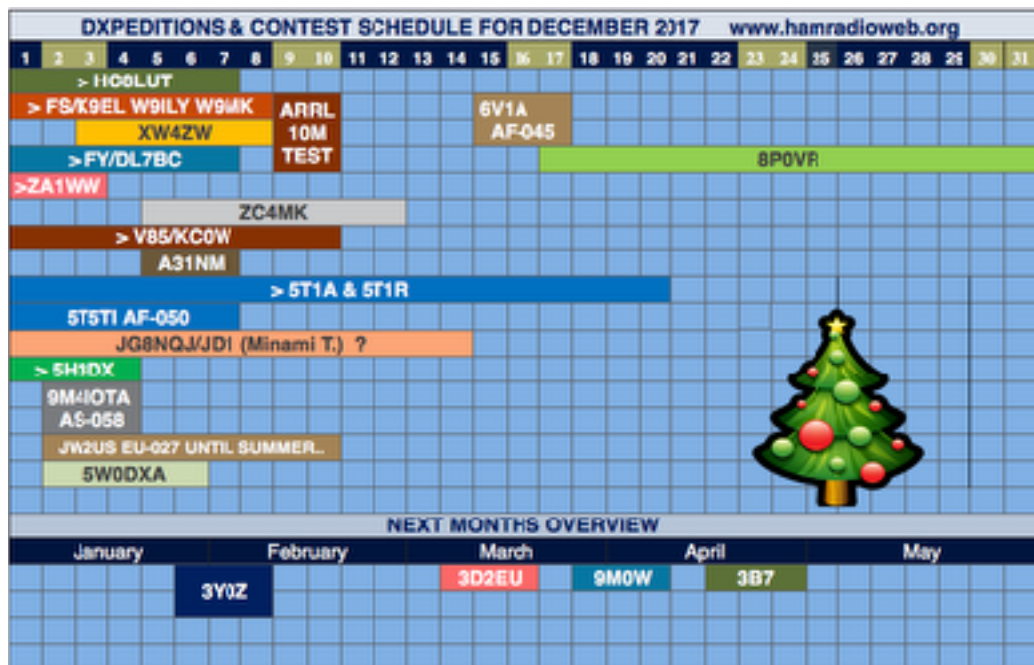
# Contesting Calendar

Go to the Contest Calendar webpage for a complete listing of upcoming contests. Following is a few from their December Calendar

[from contestcalendar.com](http://contestcalendar.com)

Some upcoming December contests:

- 11th: 4 States QRP Group Sprint
- 13th: Phone Fray
- 15th: NCCC Sprints
- 15th: UNDIGI Contest
- 15th: Russian 160 Meter Contest
- 16th: Padang DX Contest
- 17th: ARRL Rookie CW Roundup
- 21st: NAQCC CW Sprint
- 22nd: NCCC Sprint
- 26th: DARC Christmas Contest
- 30th: RAC Winter Contest
- 31st: BOGOR Old and New Contest





#### 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](http://www.kerrhams.org)  
Email Reflector: To sign up go to [http://www.kerrhams.org/general\\_misc.html](http://www.kerrhams.org/general_misc.html)  
Facebook: <https://www.facebook.com/groups/hillcountryARC>  
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The HCARC is an ARRL affiliated club

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Inside pine tree photo by A. Center  
RC & ARES photos by T. Hipskind  
Other photos by the Editor

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#### 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.

+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.