W5AMK CTARC Central Texas Amateur Radio Club

THE Wavelength NEWSLETTER

December 2010

The Central Texas Amateur Radio Club
meets the first Tuesday of each month at 7:00 PM at the
Bell County Communications Center, 798 West Avenue O, in Belton

President's Corner

Kenneth Watkins, KE5ISN

At the November 2nd General Membership Meeting, elections were held of new Board Officers and one Director to carry CTARC through the next year.

The voting resulted in the re-election of the following officers:

President: Kenneth Watkins, KE5ISN
Vice President: Gerald Richmond, N5ZXJ
Secretary: Priscilla Beauregard, KE5UES
Treasurer: Linda Blackmon, KE5QGN

An election was also held for one Director's position to replace Kevin Epperson – K5KEV, whose term expires at the end of this month.

Succeeding Kevin for the Director's position, the membership elected Teddy Bruski, KE5UET to the position.

The Temple Christmas parade is on December 6th, the first Monday in December and CTARC has been asked to assist in this event.

Duties would be to work the line up area of the parade which is on 8th street between Adams Avenue and Garfield Avenue. Staging starts at 3:00 P.M. with the parade starting at 6:30 P.M. Radios are not an absolute necessity.

The main tasks are to assist parade entrants with finding their proper place in the staging area, monitor the area for any problems, control non-parade related vehicle traffic and report any problems with any entrants.

So far 6 members from TARC have signed up but they could use at least a total of 12 people. If you're able to assist in this, please contact Myron Mesecke - N5TFK, at: meseckem@vvm.com.

As a reminder, rather than our usual club meeting at the Bell County Communications Center, we will be having a club dinner get-together at Schoepf's Old Time Pit Bar-B Que, located at 702 East Central Avenue in Belton. The dinner is at 7:00 PM on the 7th of December and all are invited. Bring your family or a friend and come join us for an evening of good food and good friends.

Lastly, please welcome **Travis Schafer – K5TPL**, as our newest member to CTARC, if you hear him on the repeater please be sure to say "Hi" and extend a hand.

Wishing you and yours the happiest of holidays! *73 de KE5ISN*

The Central Texas Amateur Radio Club

Holiday Dinner at Schoepf's

…This dinner get-together to be held in lieu of our regular December meeting…

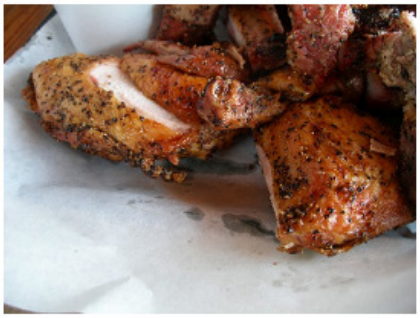
Tuesday, December 7th at 7:00 PM

Schoepf's Old Time Pit Bar-B Que

702 East Central Avenue in Belton

Dinner menu consists of potato salad, pot roast, baked potato, scalloped potatoes, cole slaw, corn bread, pork chop, baby back ribs, chicken sandwich, texas bbq, pulled pork sandwich, turkey sandwich, stuffed potatoes, melts, sausage sandwich. Choice of pies for dessert.






Schoepf's: (254) 939-1151

The Central Texas Amateur Radio Net meets every Thursday at 8:00 PM on the W5BEC repeater, on 147.140(+) PL 123.0
Join Us!

December NCS & Back-Up NCS Schedule:

December 2nd:	December 9th:
Net Control: AD5SK	KE5ISN
Back-Up: KE5ISN	K6WXA

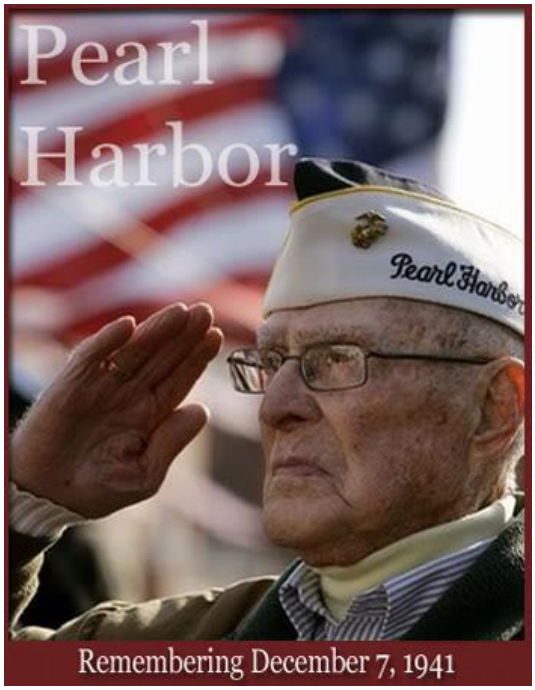
December 16Th:	December 23rd:
Net Control: K6WXA	KF5LNX
Back-Up: KF5LNX	K5KFH

December 30th:
Net Control: K5KFH
Back-Up: W5VEX

Skywarn Recognition Day

This event takes place on all authorized amateur frequencies and modes from 0001Z to 2400Z, December 4th.

More info on this event, further on in this edition of the newsletter. – *Ed.*



ARRL 10-Meter Contest

Contest period runs from 0001Z December 11th to 2359Z, December 12th. CW/Phone, 10 Meters only.

For further information, visit: http://www.arrl.org/10-meter

ARLHS Christmas Lights QSO Party

Contest period runs from 0001Z, December 18th through 2359Z, January 2nd, 2011. All authorized modes on 10, 15, 20, 40, 80 & 160 Meters. Info at: http://arlhs.com/LCL-2009-guidelines.html

Free Stuff!

Free to a good home… 250 feet of hard-line coax, plus a 40 foot tower. Contact Joe Dorn – W5VEX, at (254) 939-5918 or via jbdvex@gmail.com.

Nearly like new, galvanized aluminum & brass rooftop antenna tripod mount. Contact Rick Murray - K6WXA at (254) 690-1303 or via: k6wxa@yahoo.com.

Skywarn Recognition Day

The National Weather Service On The Air

SKYWARN Recognition Day was developed in 1999 by the National Weather Service and the American Radio Relay League. It celebrates the contributions that volunteer SKYWARN radio operators make to the National Weather Service. The NWS and the ARRL both recognize the importance that amateur radio provides during severe weather. Many NWS offices acquire real time weather information from amateur radio operators in the field.

N5NWS – San Angelo

All of this information is critical to the mission of the NWS which is to preserve life and property. This special event celebrates this contribution by amateur radio operators.

WX5FWD – Fort Worth

This year SKYWARN Recognition Day begins at 0001 UTC on December 4, 2010 and will last 24 hours. Each NWS station will transmit on different frequencies and modes depending on the individual capabilities at each site. Most stations will operate on 80, 40, 20, 15, 10, and 2 meters using phone operations within the General or Novice portions of the bands. Some sites will utilize other modes including PSK-31, RTTY, packet, and CW.

The use of repeaters to make contacts is allowed. VoIP modes like IRLP and Echolink are also encouraged. Typical contact exchanges will consist of callsign, signal report, location and a brief statement as to the weather conditions at your location.

A Certificate of Participation may be earned – even for working just one NWS office – by submitting your logs and a self-addressed stamped envelope to: National Weather Service WXØGLD, Attn: Skywarn Recognition Day, 920 Armory Road, Goodland, KS 67735. Log entries may also be submitted electronically to: Matthew Mehle-KCØTER, at matthew.mehle@noaa.gov

WX5AMA - Amarillo

A list of EchoLink Nodes may be found at: http://www.wrh.noaa.gov/mtr/hamradio//echolink.php

A list of last years' participating NWS Stations can be found at: http://www.wrh.noaa.gov/mtr/hamradio//2009SKYWARN_Recognition_Day_Endorsement_Checklist.pdf

For further info, visit: http://www.wrh.noaa.gov/mtr/hamradio

FCC Report & Order 10-189

Mark Abramovich, NT3V

It has been nearly 14 years since the Vanity Call Sign system was rolled out by the Federal Communications Commission. In that time, tens of thousands of amateurs have taken part. The regulatory panel decided last year it might be time to revisit some issues that it felt were either left unresolved or needed clarification. Now, the FCC's report and order are out regarding the vanity call sign system and there are some changes There is one, though that the FCC did not go for - a request to eliminate the fee for a first-time application for a vanity call sign - and the renewal fee for that call sign. The fee for each will remain $13.30.

The term of the license, like the standard amateur radio license, is 10 years.

Something else also contained in the report and order, was discussion and a decision regarding restricting an applicant's vanity call sign to the call region in which he or she lives. The FCC notes in discussion of this issue that "the applicant's choice of vanity call signs would be reduced to 10 percent or less of the call signs that would otherwise be assignable to the station." The FCC continued, "a limitation based upon the person's place of residence...could easily be circumvented by using a mailing address in another call sign region." Therefore, the FCC decided there will be no changes in the existing rules which allow someone say in the Third Call area to apply for a vanity call sign in any area, including the Third Call area.

Another change includes that from now on, any new trustee for a club station license or vanity call sign may not serve as a trustee for multiple clubs and station licenses. But those who already do so will be grandfathered - meaning they can continue to do so. And, there are also new restrictions on who can file applications on behalf of a club regarding a change in trustee. That application must now be signed by an officer of the club making the application to the Club Station Call Sign Administrator. The FCC says this should "prevent a departing trustee from making off with the club license and call sign, or refusing to agree to a change in trustee." This requirement will also address "instances in which a trustee becomes incapacitated."

The FCC also clarified the issue of a two-year wait until the call sign of a deceased ham can be assigned to someone else, by stating that the two-year period would begin on the date of death of the licensee and not the notification date to the FCC. The FCC also decided to add a 30-day waiting period before that canceled license is put into the database and made available for reissue.

And what about the close-relative exception - that is a close relative being put first in line to apply for the call sign of a deceased relative as a memorial to that person? The FCC decided "the term in-law is to include only a parent, stepparent, sibling, or step sibling of a licensee's spouse, and the spouse of a license's sibling, step-sibling, children or stepchild, or the spouse of a licensee's spouse's sibling or step-sibling.

In summarizing the changes, the Commission said that it believes that the public interest will be served by amending its rules in order to make the amateur service's vanity call sign system more equitable and transparent. It also believes that changes in the rules governing club station licensing will promote a more equitable and administratively efficient licensing process.

2010 Atlantic Hurricane Season Ends

The 2010 Atlantic Hurricane Season began on June 1st, and ends on November 30th. On April 7, 2010, Colorado State University forecasters William Gray and Phil Klotzbach indicated that the 2010 hurricane season would be above-average. Specifically, they said that eight hurricanes were expected for the 2010 season, with four of those hurricanes being of Category 3 intensity or higher. Including those predicted eight major storms for 2010, they believed there would be a total of 15 named storms.

What transpired during the season, were a total of 19 named storm systems. Of those, a total of 11 reached hurricane strength with 4 of those 11 attaining Category 3 intensity or higher.

The first storm of the season, Hurricane Alex, was born as 'Tropical Depression One' early in the season on June 25th just off the coast of Honduras. It would go on to grow and become the strongest hurricane in the Atlantic basin during the month of June since Hurricane Alma in 1966.

First storm of the season, Hurricane Alex as it came ashore June 30th as a category 2 hurricane.

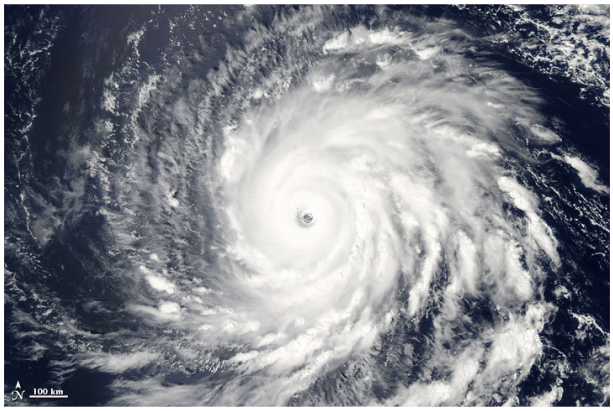
The first "major" hurricane spawned during the 2010 season, was Hurricane Danielle which grew to Category 4 strength, with sustained winds of 135 miles-per-hour.

First major hurricane of the season, Hurricane Danielle over the Atlantic as a Category 4 hurricane on August 27th.

Danielle started life on August 21st in the mid-Atlantic and of all the 2010 Atlantic basin storm systems, it would spend it's life in what appeared to be a constant state of confusion as it would gain and then lose strength, only to regain strength again as it meandered around in the mid-Atlantic. The system finally dissipated without ever making a landfall, on September 1st.

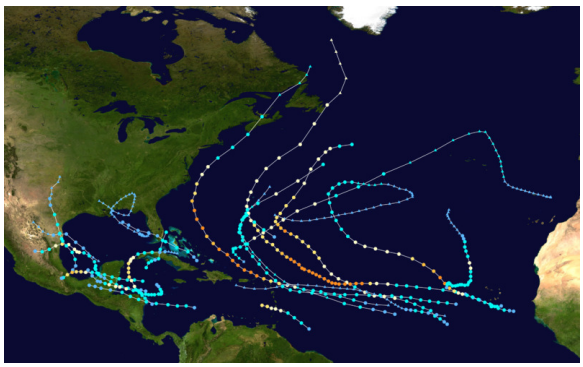
The most powerful storm of the season was Hurricane Igor. A Category 4 storm, which had wind speeds measured on the 15th of September, at 155 MPH – just one mile per hour short of attaining status as a Category 5 hurricane.

It eventually made landfall as a Category 1 hurricane on Canada's Prince Edward Island.



Hurricane Igor

The 2010 Atlantic hurricane season was very active in the number of storms but is likely to go down as a non-event for most people in the United States, which dodged a major landfall. Before the June 1-Nov. 30 season got under way, residents of hurricane danger zones were warned by many forecasters they faced a very high probability of a major hurricane making landfall along the U.S. coastline. That did not happen.



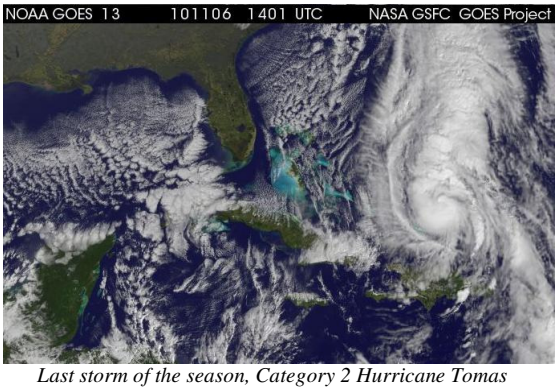
2010 Atlantic Basin Storm System Tracks

"If you just use (U.S.) landfall as a criteria and did not pay attention to the numbers, you'd think this was a really quiet year," U.S. National Hurricane Center director Bill Read said. "A couple of relatively minor impacts and some flooding and that's what we have to show for it." 2010 is still likely to go down in the books as another in a string of exceptionally busy seasons, however.

The United States had just been very lucky in not getting hit by a major hurricane. Hurricane Earl, which became a Category 4 hurricane on the five-step Saffir-Simpson scale of storm intensity, came the closest by approaching to about 100 miles off North Carolina and southern New England. "That's a relatively narrow escape if you look at it from the global perspective," Read said.

U.S. oil and gas installations in the Gulf of Mexico have been virtually unscathed by this year's hurricane season, which posed an early threat to efforts to control and clean up oil spewing from the ruptured Gulf of Mexico well owned by BP Plc, which was the worst oil spill in U.S. history.

But Read said it was no surprise that no major hurricanes had hit the U.S. coast directly, given global oceanic and atmos - pheric conditions.



Last storm of the season, Category 2 Hurricane Tomas

Though forecasters have cut their errors in predicting the track of a hurricane, Read said there were still problems in terms of their long-term "skill" in pointing to landfalls. "It's highly dependent on where they form and the steering currents at the time. With the weather pattern that was in place and the fact that these storms formed so far out to the east, it's not surprising that they turned off to the north," he said. "As soon as you find a weakness in the big high, the Bermuda-Azores high, you'll get that effect. That's why Igor and Danielle and Julia among others, went straight north pretty much."

The weather pattern known as La Nina was also a factor behind this year's hurricane season, since it brought wind conditions that foster Atlantic hurricanes. In the eastern Pacific this was one of the quietest seasons on record, that's what you see in a La Nina pattern, a lessening of storms in the Pacific and a greater chance of storms in the Atlantic.

World's First Radio Voice Broadcast

Duncan McArthur, GM3TNT / SK

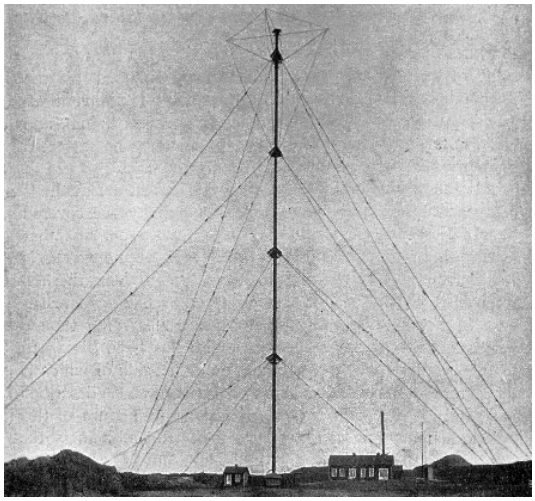
The forgotten father of radio… Reginald Fessenden is quoted as saying, "my parents despaired of me." He would close his eyes and dream of being able to send voices around the world without wires, to which his mother said, "there's no future in that."

In 1900 there is documentary evidence that Fessenden had already devised a crude method of sending speech on a rough spark transmission, whilst he worked with the weather bureau. The contact was with Cobh Island MD on December 3rd 1900.

In a spark transmitter, very simply, the radiation is produced by the discharge of high energy across a small "spark gap" that is controlled not so basically by a morse key - press the key make the spark!!…. Unfortunately the process of keeping the spark going for any length of time presents problems and although alright for morse, would never be any use for speech transmission. Fessenden realized this and was determined to devise a new system able to carry speech.

Years before he had reasoned that the radio wave must propagate like ripples from a stone thrown into a pond and not as Marconi had envisaged like a "whiplash effect." In other words, the wave must be continuous and thus "spark" would never be any use in sending speech.

At this time, basic spark transmitters existed and Fessenden indeed used those again, developing more advanced methods of both transmitting and receiving signals. His method of heterodyning signals is still in use today. Telegraphic undersea cables existed across the Atlantic at this time, however were not reliable and were also costly to utilize. To cross the Atlantic by "wireless" would bring in well needed funding and so the target was in the sight… but also for his rivals. Fessenden was indeed in this race but still dreamed of the voice and speech over the radio; that was the way to the future as he saw it.



In 1905, a piece of land was leased near Uisead Point, in the UK, for a period of 6 years. Why there?? In those days, it was not clear whether radio waves would clear hills etc and this was the best "track" available from the UK to Brant Rock, Fessendens main station.

Plus they also thought that a mythical wall of water 120ft high existed between them due to the curvature of the earth. The Kennelley Heavyside layer not been credited as yet.

The station was begun, and the mast was completed after some delay, on December 28th, 1905.

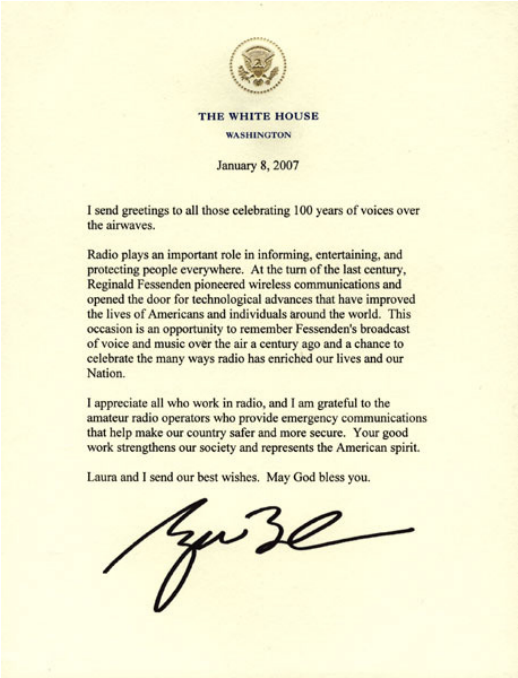
It consisted of 8ft long metal tubes of 3 feet in diameter, bolted together and eventually taking the mast to 450ft. Each 100ft section was guyed off to massive tethering points. The mast sat on a ball and socket device, which in turn was insulated from earth. Each guy was also insulated. Three buildings were erected to house the machinery with the operators using the smaller building.

Using predetermined times and wavelengths, signals were received in the beginning of January 1906 loud and clear. Machrihanish was soon ready to transmit and to the delight of Fessenden at Brant Rock, signals were soon and repeatedly sent both ways; Machrihanish to Brant Rock and vice versa.

Fessenden developed what is called a High Frequency Alternator - a large rotary machine capable of producing high voltage outputs, the frequency of which rises into the radio spectrum and this will, with additional components, produce a radio wave the frequency which is dependent on the speed the machine is run, thus avoiding the "spark gap" system. He now had his Continuous Wave method of producing the "wireless" signal as opposed to the on-off method of the spark.

The Christmas Eve Broadcast of 1906… Approaching Christmas 1906, he cabled his listening operators on various ships etc, to listen at 9pm on Christmas Eve, to receive an important message. Whereupon at the prescribed time they were stunned to hear instead of the usual " morse spark" transmissions, Fessenden playing "Holy Night" on his violin, then a Bible text, "Glory to God in the highest and on earth peace to men of good will", and ending by wishing them all a Merry Christmas.

This was the first ever published radio broadcast and another triumph for Fessenden. This was also the first time that voices had been heard over the air with Fessendens new system of what is called Amplitude Modulation - a system still used today worldwide.



THE WHITE HOUSE

WASHINGTON

January 8, 2007

I send greetings to all those celebrating 100 years of voices over the airwaves.

Radio plays an important role in informing, entertaining, and protecting people everywhere. At the turn of the last century, Reginald Fessenden pioneered wireless communications and opened the door for technological advances that have improved the lives of Americans and individuals around the world. This occasion is an opportunity to remember Fessenden's broadcast of voice and music over the air a century ago and a chance to celebrate the many ways radio has enriched our lives and our Nation.

I appreciate all who work in radio, and I am grateful to the amateur radio operators who provide emergency communications that help make our country safer and more secure. Your good work strengthens our society and represents the American spirit.

Laura and I send our best wishes. May God bless you.

Fessenden carried on and devised the first ever device to enable ships to measure the depth of water below them, eg the "Echo Sounder." He however called it his "Fathometer." In 1916 he had a device forerunning the "Sonar" used by ships today. This was able to detect icebergs. The scope of Fessendens inventions are much too large to be scripted here, suffice to say that next time you switch on the "wireless" or TV – yes, he had the first TV operating in the USA in 1919, you'll know who to thank.

Reginald Fessenden sometimes broke, sometimes rich, retired to Bermuda, where he died in 1932. On his grave stone are the words: "By his genius distant lands converse and men sail unafraid upon the deep."

Also…, like Michael Dell and Bill Gates, he never finished college…

I Just Upgraded from Tech! (Now what…?)

Jeff Wolf, K6JW

You've studied. You've taken the test to upgrade from Tech and passed and, now, you're a General. Or, maybe, even an Extra. But… now what?

Presumably, the reason you upgraded was to become active on the HF bands that wonderful world from 160 through 10 meters. But how do you get started?

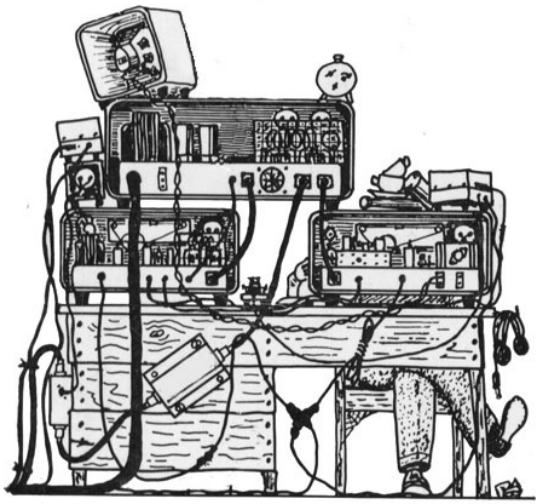
The best way to begin is to do a bit of self-assessment, answering some questions as best you can about your goals and objectives. Sure, you won't be able to answer some of them definitively right now, but take a stab at coming up with answers to the questions that follow and, when you're done; you should have enough self-knowledge to make a start on your HF career. And don't forget that you can always hash things out with more experienced club members. They're never short of opinions!

1. What are my goals? There are *so* many possibilities, at least some of which are likely to make the list:
    - What modes to I want to operate? SSB? CW? Digital (RTTY, PSK31 *et al.*)?
    - What bands interest me? Most hams will start with at least four bands: 10, 15, 20, and 40 meters. Don't forget the "WARC" bands (12, 17, 30 meters), though. 17 and 30 meters are especially active and fun, but as we head into another solar maximum 12 is getting active, too. 80 and 160? Well, these do take more effort for the beginner, and substantially larger antennas.
    - What sort of on the air activities would I like to pursue? Do I want to participate in contests? DXing? Casual ragchewing? Chasing awards and collecting the certificates?
2. What are some practical considerations I must take into account?
    - What is my budget for all this, and is it realistic when compared with my initial goals?
    - What specific equipment will I need to reach my goals and, perhaps, how will I have to adjust my wishes to match my budget?
    - What local antenna restrictions and/or permit requirements will I face in my community and, if I need to obtain a permit for my intended structure, what costs will be involved for its issuance?
    - What physical limitations do I have with respect to antenna type and location?
    - How will I deal with station grounding?
    - If I'm going to "run power", i.e., set up a high power station with an amplifier to run substantially more than 200 watts, will I need or want to install a 220 volt line?
    - If I'm going to run high power, is my home electrical service adequate to the proposed power demands. (This is generally not a problem if you're only going to run a "barefoot", i.e., 100-200 watts) transceiver.

Finally, how much future capability do I want to build into my first HF station? In other words, is this just going to be a starter effort with the intention of replacement later with more capable equipment, or am I planning on going "whole hog" out of the gate?

As I've said, these are just some of the questions you should be asking yourself. Once you have some sense of what you want to do, of what is practical and feasible based upon location and physical characteristics of the station site and of the budget you've got to do it all, you can begin to think about choosing the specific equipment that will meet your needs. And, of course, that's a whole other subject and where a lot of the real fun begins. After all, there's a lot of excitement to be had once all that "stuff" begins to arrive and your shack starts to take shape. Finally, again, don't forget to tap into the expertise and perspective of experienced club members, folks who'll be glad to help you answer your questions and choose your gear.

But, enough for now. The bands are heating up and I've got to go and chase some DX*!*



What's New?

RadioReference.com

Uniden, in partnership with RadioReference.com, has released their long awaited *HomePatrol* scanner.

Developed around the RadioReference.com database, *HomePatrol* is so easy to operate that anyone can use it. You don't have to know anything about scanners or radio communications systems. All you need to do is enter your ZIP code (or a city name) and the device will automatically load the frequencies, trunking systems, alpha tags and other technical details for that area. *HomePatrol* includes the entire RadioReference.com U.S. and Canadian databases of radio systems. Coupled with a optional GPS receiver, *HomePatrol* will automatically re-tune itself based on its current location. Database updates are available at least weekly to ensure proper operation.

New users to the hobby will appreciate how easy this radio is to use. Dedicated hobbyists will love the GPS tracking, innovative touch screen, and fantastic receiver. *HomePatrol* is a fantastic choice when traveling when you don't have the time to pre-program a scanner for your visit.

More info on this product can be found at:
http://www.scannermaster.com/Uniden_HomePatrol_Police_Scanner_p/10-501530.htm?Click=20907

Christmas Messages – Navy Style

Bud Garretson, AD5SK

'Way back in 1955, I was stationed at Naval Communication Pearl Harbor, Territory of Hawaii. The Christmas season always brought out the ingenuity and impishness in the enlisted personnel, especially the Radiomen, Telemen, and Electronics Techs. The bells on the teletype machines would ring, and Christmas messages would start being printed on the rolls of paper they all used. These messages were frowned upon by the brass, but it never seemed to bother we enlisted folk one iota!

One message was the image of a Christmas tree, made by printing upper case X's, starting in the middle of the page, and working down.

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X
XX
XXX
X
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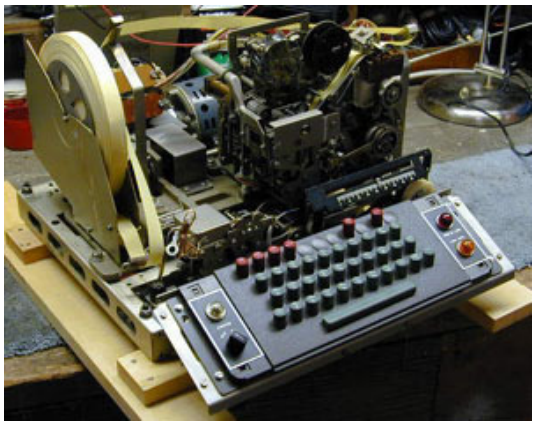
Of course, this was printed so as to have the tree about 10 or 12 inches high. Another message was to print "MERRY XMAS" using the same technique. These messages usually took about ten minutes to be printed, which would send the officers in charge of the facilities scrambling to find out where they were coming from, which was wasted effort, except that it gave them something to do besides bother the enlisted personnel.

As the machines had a bell like a typewriter (anybody remember these relics of old) to signal the end of the line, or that a message was coming in, it was used to play Christmas carols. For example, "Jingle Bells" would be Ding Ding Ding, Ding Ding Ding, Ding Ding Ding Ding Ding, et cetera. The tone didn't change, but the rhythm of the bells matched the rhythm of the words. Drove the junior officers wild, it did.



There were no PCs back then, so everything had to be typed on a machine called a Typing Reperforator that printed the letters and punched the holes for the Baudot code. If a mistake was made, the whole tape had to be redone. This tape was fed through a machine called a terminal distributor, which sent the signal over telephone lines to the transmitter, where it was sent out to whoever could receive it. There were always a couple of lines and frequencies called Order Wires, used for information between the stations. One order wire was always in use, while the other was usually only known to the tech personnel. This was the one used to transmit the Christmas messages. If traffic was light, the messages were sent out over the regular lines and frequencies used to send traffic to all Naval communications stations and ships. This was against Naval and FCC regulations, and I'm sure it aggravated ulcers throughout the fleet.

These activities were not confined to the Pearl Harbor station. These things went on at each station on the West Coast, Hawaii, Midway and Kwajalein Islands, the Marianas, and Japan. I never heard of anyone getting caught at this activity.

The moral is to never underestimate the abilities and ingenuity of Navy enlisted personnel!