W5AMK CTARC Central Texas Amateur Radio Club

THE Wavelength NEWSLETTER

January 2020

The Central Texas Amateur Radio Club meets the first Tuesday of each month at 7:00 PM at the Bell County Communications Center, 708 West Avenue O, in Belton

From the Editor's Desk...

Rick Murray, K6WXA

As we enter a new year and make our New Year's resolutions, let's add this one, please. Let's make a promise to mentor someone new into amateur radio, and after they do get their license, continue to mentor them to give them assistance in the direction they want to go in our hobby.

Ever since the Morse Code requirement for amateur radio was dropped for the Technician license in 1990 and then finally eliminated for all licenses in 2007, there has been a simmering debate about the future of amateur radio. For just as long, there has been statistical reports that reflect the growing number of licensees as evidence that things are going great. But the future of our amateur radio hobby cannot be built solely on a foundation of numbers. Quantity over quality is a dead end. The future of amateur radio needs action, not math.

There is no dispute that the number of licensed amateurs is indeed growing. What is lost in the statistics is that there is a lot of uncertainty about how many of those licensed amateurs actually participate in, or care about the avocation to any meaningful degree. The concept of measuring success by how many people pass a test needs to go away. A lot of hams got their tickets for some specific purpose like a Boy Scout merit badge or to be part of a neighborhood watch program, and then they left amateur radio when that purpose was fulfilled. Give them a further direction where they can enjoy the hobby. For you mentors who have brought people into radio, Bravo! Keep up the good work and continue to be there for them.

Skywarn Spotter Training will soon be coming to our area. If you have never attended a Skywarn training session, I would highly encourage you to attend one. I promise you'll learn something. Watch for postings of upcoming training sessions here in the newsletter.

Meanwhile, here's hoping you'll make another New Year's resolution to join us at our next meeting which will be on Tuesday, January 7th, at 7:00 PM at the Bell County Communications Center.

STRAYS

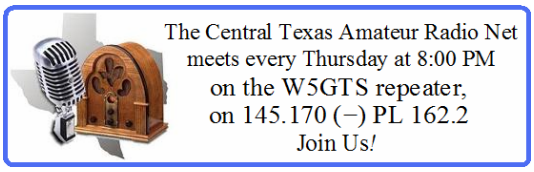
"Be just and fear not, for the true administration of justice is the foundation of good government."

Famous Jury Trials was a radio court show/dramatic anthology series which aired from January 5, 1936, to June 25, 1949. It is considered the program that initiated the popular court show genre, which would later begin broadcasting from television.

As the title implies, the program re-enacted trials from history, with the effect of taking a listener into an actual courtroom so that he or she could hear a trial as it proceeded. The show's set was designed as a courtroom, including a jury box containing 12 jurors and a judge clad in a black robe. The judge sat on a high bench with the witness chair to his left and the clerk at a desk in front. Adding to the effect of realism for listeners, the program was delivered flat, without music.

Although the scripts were described by some radio historians as "almost entirely fictionalized," they did result from thorough research. Among the well-known trials featured were those of Captain Kidd, Benedict Arnold, and Aaron Burr.

You can put yourself in the Juror's Box or perhaps the Judge's Chair, and listen-in again by visiting: https://archive.org/details/FamousJuryTrials



January NCS & Back-Up NCS Schedule

January 2nd:	January 9th:
Net Control: AG5UQ/KI5FKT	K6WXA
Back-Up: K6WXA	KD5FJF

January 16th:	January 23rd:
Net Control: KD5FJF	AD5SK
Back-Up: AD5SK	KG5RWM

January 30th:
Net Control: KG5RWM
Back-Up: KI5FQL

Straight Key Night

Straight Key Night is held on January 1st from 0001 - 2359 UTC on all authorized amateur frequencies. For more information on this event, visit: http://www.arrl.org/straightkeynight

Kid's Day

Kids Day is designed to give on-the-air experience to youngsters and hopefully foster interest in getting a license of their own. This month's event is on Saturday, January 4th, from 1800-2359 UTC. For more information on this, please visit: http://www.arrl.org/kids-day

Coryell County Joint Comm Group Meeting

The next meeting of the Coryell County Joint Communications Group, will be on Thursday, January 16th, at 11:30 AM at the Lil Tex Restaurant, 502 South Main Street, in Copperas Cove.

San Antonio Radio Fiesta

The San Antonio Radio Fiesta is on Friday, January 10th and Saturday, January 11th. The operating hours will be 1:00 – 4:00 pm Friday and 8:00 a.m. to 2:00 p.m. on Saturday, at the Schertz Civic Center, 1400 Schertz Pkwy, in Schertz. Talk-In Frequency is 146.940(-) PL 179.9 and call for W5SC. For more info visit: https://w5sc.org/radio-fiesta/

ARRL North Texas Section Convention

The Cowtown Hamfest is Friday, January 17 from 3 PM to 7 PM and Saturday, January 18, 7 AM to 3 PM. This will be held at the Forest Hill Civic and Convention Center, 6901 Wichita Street in Forest Hill. Talk-In frequency is 147.280(+) PL 110.9 and call for W5SJZ or K5COW.

For more information on this, visit: http://www.cowtownhamfest.com

North American QSO Party

Contest period is from 1800Z, Jan. 18th to 0600Z, Jan. 19th on 160, 80, 40, 20, 15 and 10 Meters. Complete rules and further information can be found at: http://ncjweb.com/naqp/

January VHF Contest

Contest period is 1900Z, Jan. 18th through 0359Z, Jan. 20th on 6, 2, 1.25 Meters and 70 Cm. For more info visit: http://www.arrl.org/january-vhf

Winter Field Day

Winter Field Day is much like the ARRL's Field Day summer event, but focuses on operating in less than ideal conditions during the winter months, in the event of an emergency. This year's event falls on January 25th & 26th.

For more information on this event, visit: https://www.winterfieldday.com/

From The Editor's Desk

I normally send out the newsletter at least a couple of days prior to the first of the month. However, with what will be the **February** issue of *The Wavelength*, I won't be sending it out until the late morning of February 2nd.

STRAYS

Electric Shocks for Perverse Children

Popular Electricity - January, 1909

A novel cure for naughtiness and general perversity in children is advocated by Dr. Elbert Landone, a noted authority on child culture. He maintains that a few light shocks of electricity, judiciously applied, are the most effective means of punishment. In one instance a child of five was thoroughly broken of obstinacy within three days from the beginning of the treatment.

"Personalities are the lifeblood of radio."
Fred Jacobs - President, Jacobs Media Strategies

Pre-Teens Make History in St Vincent & the Grenadines

Jhawanie Laidlow age 10, and Ciandra Scarborough age 9, created history in St Vincent and the Grenadines by being the youngest persons to pass the Technician Class amateur radio test in that island nation.

As of this writing, their new callsigns have not been posted.

'On the Air' Magazine

Starting this month, the ARRL is launching a new magazine, *On the Air,* to be published on a bimonthly basis. *On the Air* will offer new and beginner-to-intermediate-level radio amateurs a fresh approach to exploring radio communication.

The first issue of *On the Air* will be introduced as a new ARRL membership benefit. When radio amateurs join ARRL or renew their memberships, they will be prompted to select the print magazine of their choice — *On the Air* or *QST*. Current members receiving the print edition of *QST*, upon renewal, may choose to continue receiving the monthly print edition of *QST* or the print edition of the bimonthly *On the Air*.

All ARRL members will be able to access digital editions of both *QST* and *On the Air* starting this month.

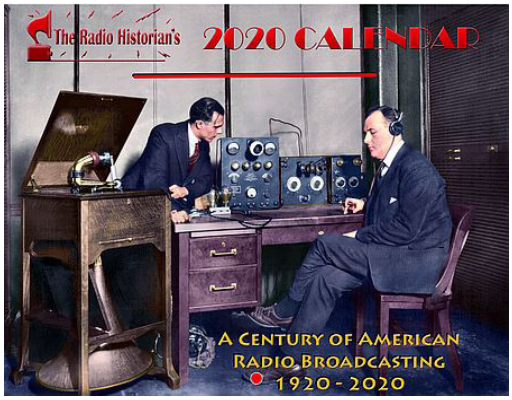
STRAYS

WCAX Antenna Fire

WCAX Transmitter tower during & after the fire

This past November 19th, the broadcast antenna for station WCAX in Stowe, Vermont, suddenly erupted in flames. The cause of the fire remains unknown.

2020 Historic Radio Calendar



The Radio Historian's 2020 Calendar, is packed with colorized black and white photos of radio facilities from the 1920s, 30s and 40s. This calendar sells for $22.95 and can be ordered through: http://www.theradiohistorian.org/pubs.html

How's DX?

SP9FIH will be active as **VK9NK** from Norfolk Island, January 12 - April 12. QSL via his home call.

PAØRRS is active as **9M2MRS** from Penang Island, until February 28. QSL via his home callsign.

A group will be active as **TI9C** from Cocos Island, 30 January - 9 February. QSL via XE1B.

EA5RM is active as **HC3ACT** from Ecuador, until January 5. QSL via his home call.

A group will be active as **ZC4UW** from Cyprus, 2 - 7 January. QSL via LotW.

WV2B will be active as **VP2MDT** from Montserrat Island, 9 - 15 January. QSL via his home call.

SQ1SGB is active signing **stroke CE9** and as **HFØANT** from Antarctica, through February. QSL as directed.

K8PGJ will be active as **ZF2PG** on Grand Cayman Island, January 11 - 19. QSL via his home callsign.

DL5XL will be active as **DP1POL**, from Neumayer Station III, Antarctica during January - February. QSL via DL1ZBO, or LotW.

3D2AG is active on Rotuma Island until January 5. QSL direct to his home call.

JH6WDG will be active as **T88AQ** from Koror Island, 7 - 13 January. QSL via his home call or LotW.

A group will be active as **8T2G** from Ganga Sagar Mela, January 10 - 17. QSL via VU2NRO.

A group will be active as **E44RU** from Palestine, January 5 - 14. QSL via R7AL.

ON7YK is active as **C5YK** from The Gambia until early March. QSL via his home call, LotW or eQSL.

F2JD is active signing **stroke HR5** from Honduras, until April 4. QSL via F6AJA.

VK2BY is active as **HSØZNR** from Thailand, until January 8. QSL via his home call, or LotW.

JG7PSG is active as **JD1BMH** from Chichijima Island, until January 3. QSL via his home call.

JI3DNN as **T88CZ**, JH3LSS as **T88DK**, JA3HJI as **T88DN**, JA3IVU as **T88ED**, JA3ARJ as **T88EF**, and JA3AVO as **T88MB** will be active from Palau, January 15 - 23. QSL each via their respective home call.

WB9EAO will be active signing **stroke VP9** from Bermuda, January 9 - 14. QSL via his home call or LotW.

G5XW will be active as **C5XW** from Gambia, January 28 - February 6. QSL via his home call.

Special Event Station **TM7ØTAAF** will be active from France, January 12 - 26. QSL via F8DVD.

KC4USV is on the air from McMurdo Station, Antarctica, until February 20. QSL via K7MT.

VP8HAL is on the air from the Halley VI Research Station, Antarctica, until February 8. QSL via EB7DX.

WB4OMG will be active as **C6AEI** from The Bahamas, 24 - 26 January. QSL via his home call.

WB4M will be active signing **stroke V4** from St Kitts & Nevis, January 5 - 11. QSL via his home call or LotW.

North Country Special Event

Special Event Stations **KL7RST**, **VY1RST**, **VE8RST**, **VYØRST** and **OX7RST** will be active January 1 - February 28. QSL each via K7ICE. Info at: https://www.qrz.com/lookup/K7ICE

The following items, mostly in used but like new condition, are for sale with no guarantees or returns and cash only:

MFJ-259B VHF/UHF Analyzer $126.00
MFJ Deluxe Noise Canceling Signal Enhancer 1.8 – 30 MHz $75.00
MFJ-267 Dummy Load SWR Wattmeter 1.5KW 0-60MHz $75.00
MFJ-1700B 6 Antenna & Transmitter Switch $35.00
MFJ-860 HF Cross Needle SWR/Wattmeter 1.8-60MHz 300Watt $60.00
MFJ-4245MV 4-16Volt DC 45Amps with Meters $70.00
Switching Power Supply (New) $104.00
Kenwood TS-430S HF Transceiver 160-10meters 250PEP on SSB 200PEP on CW ?? 120 on FM 60 on AM?? $200.00
Yaesu FT-840 HF Transmitter $350.00
Sears Communication Receiver 412-36380700 Year?1977 $125.00
Vibroplex Keyer $250.00
Bird 43 Thruline Wattmeter $250.00
Heathkit HM-102 SWR/Powermeter $25.00
Heathkit SB-610 Station Monitor Scope $60.00
Heathkit Battery Eliminator 110 to 12-Analog Meters $20.00
ASTATIC Microphone $35.00
Simpson 260-8 Analog VOM Meter $35.00
Tenma 72-6185 AC/DC Clamp Meter $35.00
Zinwell Converter Box ZAT-970A w/Remote $10.00

Interested parties should contact Myron Mansfield-AA5MY via email at: fire1dc@yahoo.com or (254) 554-1383.

Skywarn Training

Limestone County: Tuesday, January 21st, 6:00 - 8:00 PM, at the Limestone County Courthouse, 200 West State Street #102, in Groesbeck.

Milam County: Monday, January 27th, 6:00 - 8:00 PM at the Cameron Fire Department, 1505 North Travis Avenue, in Cameron.

INTRUDER ALERT

The International Amateur Radio Union reports that a radar in northern Iran — likely military — has been operating on 40 meters from 6978 to 7022 kHz, centered on 7000 kHz using amplitude modulation on pulse at 81 sweeps per second.

Radio amateurs in Europe and South America have reported interference from Russian Over-the-Horizon radar stations on several parts of 40 meters, with 12 kHz-wide signals. The radar transmissions have been heard on 7064, 7109, 7170, and 7190 kHz.

Strays

'Native Voices Over The Airwaves'

Pawnee Indians at radio station WNAD for an "Indians for Indians" radio show broadcast in 1942.

Does Shortwave Have a Future?

When is the last time you heard a shortwave radio transmission? And why should you put up with possible crackly audio and some interference when we have now internet, satellites, FM and all forms of digital radio? This holds true if you are in London, Boston, Paris or Toronto. But what if you are on an island in Indonesia, or find yourself in west China, in Kashmir or in Brazilian Amazonia? Because, whether we like it or not, there are several remote places in this vast world, many of which still depend on shortwave broadcasting.

In the past, think of the Cold War, a lot of people were able to obtain free information from the international shortwave programs. Many international broadcasters were running expensive, energy-guzzling transmitters for this frequency band that ranges from 1.7–30 MHz, from the high end of the medium frequency band just above the medium wave AM broadcast band, to the end of the HF band.

Shortwave is just short of a miracle, actually. When it is beamed at an angle, it hits the ionosphere, and then it's reflected back at great distances, beyond the horizon. Thus these transmissions reach listeners over large areas, continents and beyond. Two or three high-power transmitters can potentially cover the entire world.

Shortwave is used not just by radio amateurs or international radio stations but is also essential for aviation, marine, diplomatic and emergency purposes. Shortwave signals are not restricted or controlled by the receiving countries and, as frequencies change in winter and summer, they need to be coordinated internationally.

Nobody can deny that shortwave goes beyond geographical, cultural, religious, political barriers, is free and can be consumed anonymously, which few platforms can claim nowadays. About 20 years ago, the BBC decided to cut its shortwave transmissions to developed parts of the world since these territories were served by FM and the internet etc. Other important international broadcasters, including Deutsche Welle, Radio Australia and Radio Exterior de Espana soon copied this model.

But now, twenty years after the first big blow to shortwave, this frequency band and its potential is being revisited. After all, not all the listeners in the world have broadband, smart phones, data plans, connected cars or enough disposable income.

The golden age of analog shortwave broadcasting is probably over. However the band has an important role and great potential. There now seems to exist a true alignment of national interests, technical possibilities and receiver availability, which could give shortwave a new lease on life as a viable and unique platform.

Broadcast Topix

The Day The Music Died?

November 21, 2019, may very well go down in history as "the day the music died" at least as far as radio is concerned. Prior to adjourning for the Thanksgiving holiday, our congress took time away from attacking the President, and turned their guns on radio, attacking it.

Bi-Partisan legislation has been introduced known as the Ask Musicians for Music Act, or the "AMFM Act" which was introduced by Representative Jerrold Nadler (D-NY) in the House and Senator Marsha Blackburn (R-TN) in the Senate. This legislation may pave the way for radio managers to have to dig deep into their wallets, though some special exemptions are provided in protecting small, public, college, and other non-commercial stations.

The AMFM Act gives music creators control of their own work by requiring broadcasters to obtain consent before playing their music. Under the Act, artists who want to allow terrestrial radio to continue to use their work for free can choose to do so. Artists who seek compensation for their work can exercise their right to negotiate rates for the use of their sound recordings from broadcasters.

The radio industry believes the relationship between artists and radio has been working successfully for both sides since day one. Radio plays the music, at no charge to artists, to its millions of listeners. That results in free promotion of the music, hit songs and artist recognition. That leads to music being sold, concerts venues being filled and both record labels and artists making money.

Keep in mind that if this law passes, it wouldn't just apply to new music, but classic hits and oldies too. Radio stations would have to research and contact rights holders of long-dead artists before playing their music. Are you starting to understand how ridiculous this is?

Every song you ever decided to purchase probably came from hearing it first on the radio. If they demand payment, radio will find the artists who appreciate free distribution, limiting where the greedy artists can have access to the public. I think every radio station would gladly comply with the request from any artist who wished to not have their music played.

It should also be pointed out that the concept of artists having a "protected property right" has already been fought, argued, and decided in the courts over 80 years ago in the Paul Whiteman vs WNEW case. In that case, the judge said, if a record label makes music available to the public, radio has the right to broadcast it.

The National Association of Broadcasters opposes the Act, saying it could decimate the economics of America's hometown radio stations that have launched the careers of countless musicians and exposed legacy artists to a new generation of listeners.

The Säntis Tower

Atop a rocky peak in the Swiss Alps, sits the Säntis telecommunications tower that gets struck by lightning more than 100 times a year, making it perhaps the world's most frequently struck object. Taking note of the remarkable consistency with which lightning hits this 406-foot structure, researchers have adorned it with instruments for a front-row view of these violent electric discharges.

To anyone who has witnessed a lightning strike, everything seems to happen all at once. But with the newly installed sensors, they capture several gigabytes of data about the many separate pulses that occur within each flash. This data can be made into a video that replays, microsecond by microsecond, how "channels" of lightning form in the clouds.

The sensors have a bandwidth from 20 to 80 MHz, to record powerful electromagnetic pulses in the very high-frequency range that lightning is known to produce. The devices also measure sferics, which are low-frequency signals that result from the movement of charge that occurs with a strike or from storm activity within clouds.

So far, measurements have raised more questions than they've answered. One sticking point is, in order for a thunderstorm to emit a lightning strike, the electric field within it must build to an intensity on the order of several megavolts per meter. While researchers have sent balloons into thunderstorms, no one has measured a field beyond 200 kilovolts per meter, or one-tenth of the required value. The conditions required for lightning to be started within the clouds never seem to exist based on the measurements made in the clouds.

Meanwhile, the Säntis team wants to adapt a mathematical technique called time-reversal, which was originally pioneered for acoustics, to better understand lightning's initiation. With this method, they intend to use data gathered by the tower's many instruments which include a collection of six antennas called a lightning mapping array, two Rogowski coils to measure current, two B-Dot sensors to measure the current time-derivative, broadband electric and magnetic field sensors, and a high-speed camera, to reconstruct the total path of strikes soon after they happen, tracing the electromagnetic radiation all the way back to its original source.

Their findings may someday inform the design of airplanes or electric grids, and help protect people and equipment against lightning strikes and other sudden power surges, as well as relevance for wind farm operators. Their research could take a big step forward on another elusive scientific matter; if they can understand how lightning originates, it may be possible to be able to predict lightning before it happens.

YL NEWS and VIEWS

Leona Bender

"Fate stepped into the picture"

It seems that fate has a way, now and then, of stepping into the picture and changing it entirely. This is exactly what happened in Leona's case. The most unusual fact concerning her broadcasts, is that they became her work entirely by chance.

Early in January, 1937, the management of San Antonio's WOAI found itself up against an emergency. The station's woman announcer had taken seriously ill and was unable to appear before a microphone. With the Women's News program scheduled only a few hours away, an intensive search was conducted at the station in an effort to find a satisfactory substitute. Leona Bender, who had been doing secretarial work in the WOAI office, was decided upon and without benefit of preparation for the program, she took over this position, on what was to be a temporary basis, until suitable talent could be found.

It was not long until she developed the program into a well-rounded Woman's Page of the Air, augmenting news of interest to women with discussions of fashion and commentary regarding women's organizations and their activities. She built up a tremendous and devoted following, that the Association of Radio News Editors and Writers recognized her work by extending to her membership in its organization making her the only woman so honored.

At the microphone at WOAI, Leona took her work extremely seriously, for she knew that only by making every broadcast an occasion in itself, could she meet the obligation which was hers in analyzing the news. In conjunction with her broadcasts, she was allied closely with educational organizations and school groups, and was actively prominent in San Antonio along the lines of dramatic instruction for children. Her work, in a thousand other ways, augmented the efforts of Parent-Teacher units.

It takes a heap of living to interpret the news, and the voice of the woman who edits the "Woman's News of the Air" at WOAI, and Leona was one who had seen life in so many of its phases, that it was not difficult for her to analyze everyday happenings as a woman sees them and likes to hear them.

Without the unexpected chance that came her way, Leona Bender might not have been on the air with her keen analysis of what was going on in the world and her cheery commentary on the many problems that everyone of her listeners met, a little more easily because of her broadcasts.

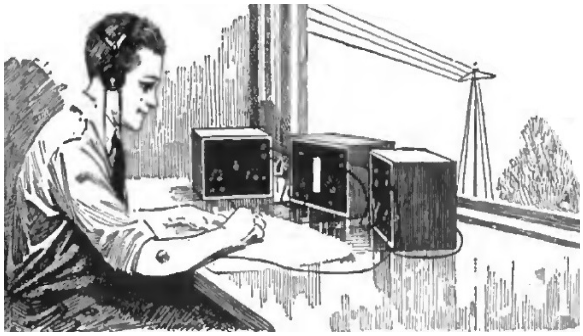
The Effect of Wireless Waves on Fruit Trees

The Wireless Age - January, 1920

At the home in Los Angeles of the Seefred Brothers, known for their activities in the amateur radio field, is a peach tree that has a history in connection with this subject. It was only a seedling and might never have received notice had it not been for the benefit it derived from wireless.

It was planted in 1897 to help beautify the new home, perhaps with blossoms or simply as a green tree. Later, it became a matter of surprise if it did not bear from one to three peaches. A tree of this kind that bears is not supposed to live more than four or five years, but as this one had no fruit to speak of, it continued to thrive and was allowed to remain as a nicely shaped tree.

Then the boys began to experiment with wireless and the tree had a continual renewal of youth from the wireless waves, it being near the station and nearly under the aerial. As they became more interested in their work the tree increased in bearing fruit until, in the spring of 1916, it bloomed so profusely it was thought best to relieve the tree by cutting out several large branches. As the fruit set on heavily and was filling out very fast, it was thinned so as to leave but one peach on a twig.



During this time there was much long distance work done on high power late at night and it would seem to be the reason for there being 120 large and juicy yellow freestone peaches of fine flavor that were the wonder of all who saw them. The fruit averaged half a pound each and some a few ounces over - as big as coffee cups.

Then came the war in 1917 and cessation of transmitting, when most of the fruit dried on the seeds or dropped off. That remaining filled out a little next to the sun, while the under side was hard and dry. It made about two quarts of inferior fruit.

In 1918 there was still no vitalizing influence in the air and the leaves began to wither as soon as they appeared. As the tree had shown its worth it was cut back close, the ends painted and carefully tended. It managed to survive and, generally put forth new growth, but no fruit.

During the year 1919, two dozen peaches appeared, but, remaining hard and rather small, were not considered worth bothering with. The fruit being of a late kind hung on for several weeks after the ban against transmitting was removed, and one day it was noticed two had ripened and fallen and all had grown large and mellow. But the odd part was, that in each peach the print of the seed space had grown beyond about half an inch in filling out, seemingly stretching forward with the sudden growth caused by wireless waves.

The same beneficial effects have been noticed on other trees. It is just possible that radio waves may be utilized to secure increased productivity in the orchard in the near future, thus adding to the pleasure experienced by our younger men in radio communication.

W5AMK Gatesville Repeater Update

If you read nothing else in the newsletter, please read this...

Effective December 28th, 2019, the W5AMK repeater on 146.960 (-) PL 123.0, in Gatesville is off the air having under-gone some significant changes -- all for the good.

(1) The repeater has been re-programmed and is now on 145.170 (-) with a PL Tone of 162.2. Please re-program your radio(s) to reflect this.

(2) An EchoLink Node has been installed on the repeater to allow connection with the National Weather Service Skywarn Desk in Fort Worth (WX5FWD) during periods of severe weather. When severe weather does not threaten our area, this node will remain off. This ability did not previously exist with the Gatesville Repeater.

(3) The ability to remotely shut off the repeater in the event that it is being mis-used by person(s) has been installed. This feature did not previously exist with the Gatesville Repeater.

(4) Trusteeship for the repeater has been handed off from the Central Texas Amateur Radio Club, to the Coryell County Emergency Management System, and with it, a change in call letters from W5AMK to W5GTS.

Effective immediately, both the Coryell County ARES Net, which meets on Thursday evenings at 7:30 PM, and the Central Texas Amateur Radio Net, which meets on Thursday evenings at 8:00 PM, will move to this repeater system.

Request widest distribution of this information to those that may be affected by these changes.