

**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**

Terry's Telegram...

Terry Evans, KF5OHR

The summer vacation months are here, and people are out traveling on their vacations and are especially susceptible to new ideas; their old prejudices have been left at home, they are quite ready to try anything that looks interesting. They are easily "sold," as witness to the high hotel rates for mediocre accommodations and the excessive prices often charged at the novelty stores with which the average summer resort is so richly endowed.

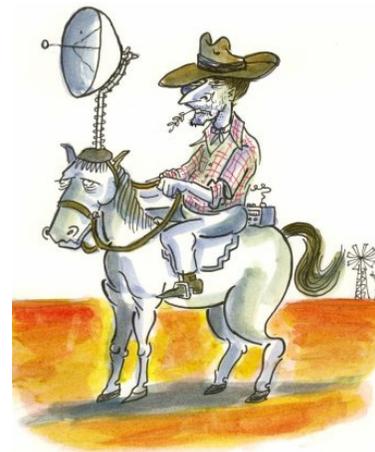
Now, if radio dealers were to put into the summer hotels one of their best receiving sets, with the best loud speaker obtainable, I believe many people would become radio converts. Many times the evenings at the smaller resorts are quite dull, and I'm sure that a good receiving set would be an attraction which could do real service. It would pay the dealers to install these sets in the hotel for nothing, and maintain them for nothing; the people at the resorts are the kind that have sufficient money to invest in a good receiving set, and they will be excellent "prospects" if the demonstrations are good enough to create the right impression.

There are receiving sets and loud speakers which reproduce music better than the best phonograph. This looks like a real opportunity to increase the popularity of radio, and often, it is by the merest chance a scrap of information that appeals to the imagination. There have always been, of course, various expedients, theatres, movies, books. None, however, as good as modern radio. At least I find it so. Radio makes fewer demands. No matter how tired or preoccupied, you can always tune-in. The radio dealers should seize upon the idea.

Not else much going on around here, looks like the rain has missed me once again. I did see some water on the road the other night as I was going home but none at the house. I did however add a little water to my neighbors rain gage and he was telling everyone at the gas station that he got almost an 1/8 of inch of rain. So that seems to have made him happy. I thought about going for a 1/4 inch but didn't think that would fly.

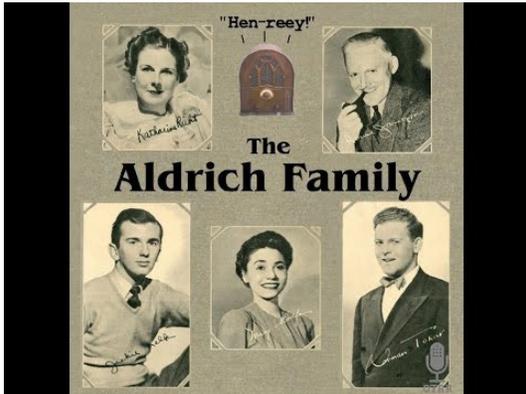
Hope y'all will come out and join us for our next meeting which will be on July 3rd, at 7:00 PM at the Bell Communications Center.

Until then, 73! *Terry, KF5OHR*





"The Jell-O family presents, *The Aldrich Family*. Hen - Reeceeeeeeeey!
HEN - REEEY ALD - rich!!!!"



The Aldrich Family was launched over NBC July 2, 1939 and later moved to CBS, then back again to NBC, where it aired until April 19, 1953 and is one of those really great and timeless old radio sitcoms that make you laugh every time you listen to it.

Like so many other radio shows, there was a television version of it and then a movie version, followed by a series of movies. There was even a Dell comic book, called "Henry Aldrich Comics." There aren't many things in history that can lay claim to having appeared in that many media form.

Comedy is taking something mundane and ordinary and turning it into a masterpiece of hilarity and humor. No classic radio show did this better than this one centered on the daily chaos surrounding teenager Henry Aldrich. The show became so popular that by 1941, it rated in the top ten with *Jack Benny*, *Bob Hope*, and *Fibber McGee and Molly*.

Tune-in to a radio show that beats today's modern TV, by visiting: <https://archive.org/details/TheAldrichFamily>



The Central Texas Amateur Radio Net meets every Thursday at 8:00 PM on the N5ZXJ repeater, on 145.310(-) PL 123.0
Join Us!

July NCS & Back-Up NCS Schedule

July 5th: Net Control: KE5ISN Back-Up: AD5SK	July 12th: AD5SK KD5FJF
July 19th: Net Control: KD5FJF Back-Up: K6WXA	July 26th: K6WXA KE5ISN



New Technician License Question Pool

The new Technician Class License (Element 2) question pool goes into effect July 1st for all entry level examinations and will be valid through June 30, 2022. The new Technician Class question pool contains 428 questions and can be down-loaded at: <http://www.ncvec.org/page.php?id=369>
There is no change to the \$15.00 examination fee.



The Belton 4th of July Parade will be held on Wednesday, July 4th, and volunteers are needed to assist with the line-up of 300+ entries and to direct them on to the parade route.

Communications will be through the W5AMK repeater in Belton, which is on 147.300(+) PL 123. Be sure to bring an HT and a yellow traffic type vest. The parade will start at 10:00 AM and should end about noon.

If you'd like to assist with this event, please contact Joe Mayer - N5JWM, at: jwm111@msn.com



Coryell County Joint Comm Group Meeting

The next meeting of the Coryell County Joint Comm Group will be on Tuesday, July 10th, at 11:30 AM at the Lil Tex Restaurant, 502 South Main Street, in Copperas Cove.



Scouting's Jamboree On-the-Air

The World Scout Jamboree will be on the air from Summit Bechtel Reserve, in West Virginia, as **NA1WJ**, July 22nd to the 1st of August. QSLs go via W3LNE.

More information on this is at:

<https://www.k2bsa.net/world-jamboree-na1wj/>



IARU HF World Championships

Contest period runs from 1200 UTC, July 14th to 1200 UTC, July 15th on 160, 80, 40, 20, 15 and 10 meters. More info: <http://www.arrl.org/iaru-hf-championship>



Iranian Radar on 10 Meters

Iranian radars were very active on our 10-meter band every day in May, as reported by DK2OM. Strong and long-lasting signals were heard daily on 28.860 MHz.



CQ World-Wide VHF Contest

Contest period runs from 1800 UTC, July 21st to 2100 UTC, July 22nd on 6 and 2 meters. For more information visit: <http://www.cqww-vhf.com/>



Radio Broadcast - July, 1923

We wonder how many of our readers know what a "jigger" is and does; to Marconi it was an extremely important piece of apparatus. Does any one nowadays use one of Marconi's "X-stoppers"? Years ago, Fleming invented the very useful "cymometer", yet we do not often hear it mentioned. Fessenden, in his early and important contributions to the art, employed a "barretter" which he found very sensitive and reliable, compared to other similar apparatus, and Count von Arco's "syntonizer" seemed like a piece of radio equipment destined to become known to every one. We suspect that a large proportion of our readers hardly know what a "coherer" is, yet it was but a few years ago that every radio worker was endeavoring to improve it.



Islands On-the-Air Contest

Sponsored by the Radio Society of Great Britain, contest period runs from 1200 UTC July 28th, to 1200 UTC July 29th on 10, 15, 20, 40 and 80 meters. A lengthy list of participating stations in this contest can be found at:

<http://www.ng3k.com/Misc/iota2018.html>

For more information on this, visit:

<http://www.rsgbcc.org/hf/rules/2018/riota.shtml>

"All the good things in radio haven't yet been discovered."

Arthur H. Lynch -

Editor, 'Radio Broadcast' Magazine



ZL3GA will be active as **YJØGA** from Efate Island, Vanuatu, 18 - 25 July. QSL via his home call.

KV1J will be active signing **stroke FP** from Miquelon Island, 3 - 17 July. QSL via his home call.

Listen for **VQ5Z** July 1 - 11, from the Turks & Caicos Islands. QSL via VE3IKV.

DG5LAC will be active from Hooge Island, July 28 - 29. QSL via his home call.

A group will be active as **G6LD** from Lindisfarne Island, July 28 - 29. QSL via GØBWB.

MMØGOR will be active as **MM1E** from Great Cumbrae Island, July 28 -29. QSL via his home call.

A group will be active as **GD6NX** from the Isle of Man, July 28 - 29. QSL via LoTW.

GMØKLS will be active as **GØLKS** from Holy Island July 28 - 29. QSL via his home call.

WB6OJB will be active as **7Q7JK** from Malawi, 20 - 25 July. QSL via his home call.

N9DK will be active from the British Virgin Islands, 7 - 14 July, signing **stroke VP2V**. QSL via his home call.

KM4SII will be active from Curacao, 19 - 24 July, signing **stroke PJ2**. QSL via his home call.

A group is active on Baker Island as **KH7Z**, until July 6. QSL via K4TSJ. Info at: <http://baker2018.net/>

GØPOT will be active signing **stroke TF** from Iceland, July 2 - 9. QSL via his home callsign or eQSL.

NJØF will be active from Botswana as **A25A**, July 13 - 20. QSL via his home callsign.

V47JA is active on St. Kitts Island until July 20. QSL via W5JON.

SMØUDH is active as **8Q7DT** from the Maldiv Islands, until 9 July. QSL via his home call.

ON4AZP is active signing **stroke 6W** from Senegal, until 5 July. QSL via his home call.

OZ1DJJ will be active as **OX3LX** from Greenland, 1 - 14 July. QSL via OZØJ.

VE1FA and **VA1YL** will be active signing **stroke KH7** from Round Island, AK, between July 5 - 10. QSL via VE1FA.

DL7ZM will be active signing **stroke 4K6** from Azerbaijan, 1 - 10 July. QSL via ADØPY.

EA5RM is active as **CP1XRM** from Bolivia until July 10th. QSL via his home call.

DJØIF will be active as **SNØRX** from Wolin Island, July 28 - 29. QSL via SP8BXL.

K5KUA will be active as **K5KUA/5** from Galveston Island, TX, July 28 -29. QSL via his home callsign or LotW.

A group is active as **TM2GGR** from Les Sables d'Olonne, France, until July 5th. QSL via F6KUF.

A group will be active as **TM85TF** for the 105th "Tour de France" between July 6 - 20. QSL via F6KUF.



Kosovo "Z6" Prefix Ruling by the ITU

The Secretary-General of the ITU reports that, "...regarding the use of Call Sign Series **Z6** by amateur radio stations in Kosovo, the ITU has not allocated the call sign series Z6 to any of its Member States. Consequently, the utilization of call signs series Z6 by any entity represents an unauthorized and illegal usage of this international numbering resource." (ITU Operational Bulletin No. 1149 1.VI.2018)

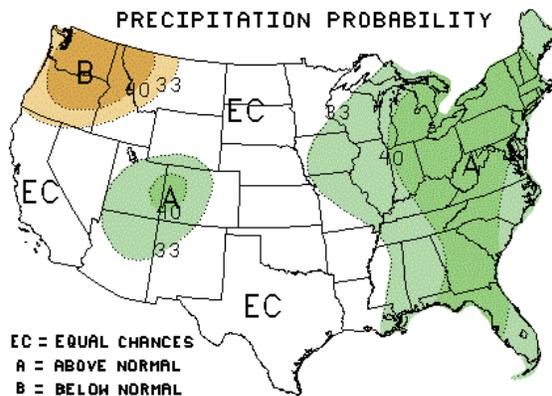
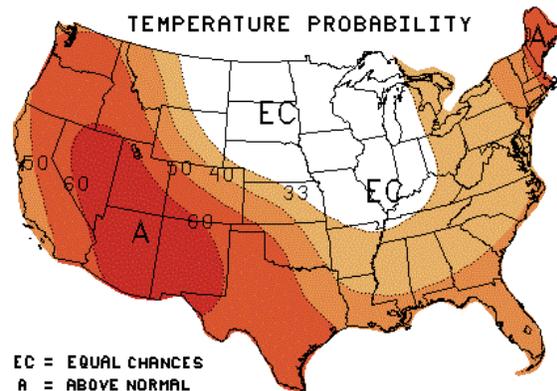


Summer Forecast Outlook

Latest model forecasts show a slow trend toward weak El Niño conditions by mid-fall. La Niña-like conditions have been a factor for months in both the eastern and central tropical Pacific ocean but there are now some indications that La Niña is reverting to a neutral state. The expectation is for overall temperatures to generally remain warmer than average with drier than average conditions for much of the country. Confidence in this overall outlook is slightly above average.

The transition to ENSO Neutral conditions in the equatorial Pacific Ocean should produce a trend toward above average temperatures during the outlook period region-wide. The outlook period began with an early focus on tropical activity along the Gulf Coast as the first named system of the season, Sub-Tropical Storm Alberto, has already made landfall along the Florida Panhandle.

Nearly the entire country experienced temperatures that were two to six degrees above average since May. The warmer and drier than average conditions are expected to last through September. Exceptions to this will be across portions of the Southwest and Great Basin where a strong monsoonal push may create periods of wetter and possibly cooler than average conditions.



Precipitation trends over summer should follow trends generally expected by a neutral ENSO condition with anticipated weather patterns not appearing to show any particular out of the ordinary trends.

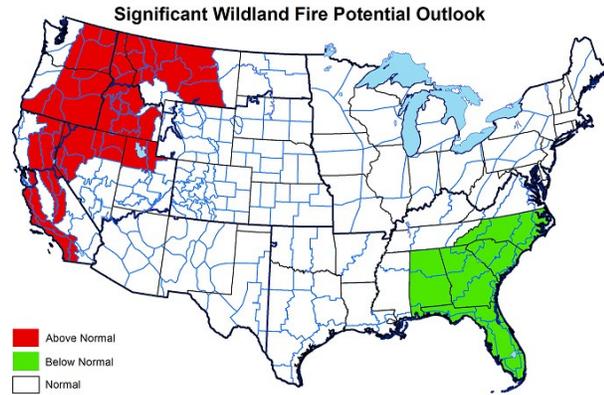
There will likely be more storms than last year – which was one of the most storm-free summers in recent memory – but overall, expect fewer storms than normal again this year.

What is yet to be determined is what the impact that the tropical Atlantic storm season will have on Southern Area rain patterns. At this time forecasts vary widely from below to above average with a slight trend toward above average tropical activity.

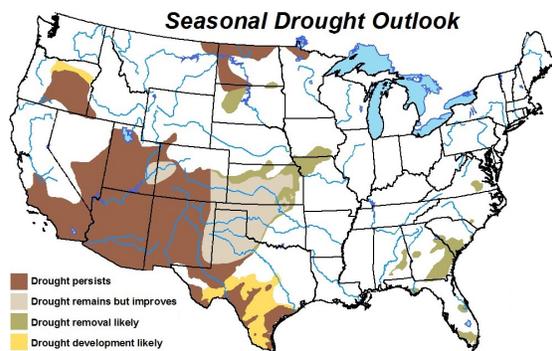
Precipitation trends have been below climatological averages with extremes being observed along both coasts. Along the West Coast and the Mexican Border, amounts were generally fifty percent of normal or less except across portions of the Sierras where a few pockets of above average precipitation were received.

Below Normal significant wildland fire potential is expected across all areas east of the Mississippi River during the outlook period. Areas not mentioned above, Kentucky and Virginia, can expect Normal significant wildland fire potential during the outlook period. For the summer months, and with the ENSO Neutral state slowly evolving toward a weak El Niño for the fall, fire danger should continue to track within seasonal ranges.

Preexisting drought conditions along with continued drier than average conditions across the Southwest allowed for a normal progression of the western fire season across the Four Corners Region and West Texas. Seasonal transitions focus the fire activity over the northwestern quarter of the country, though California also continues to experience significant activity.



These areas of heightened concern have both a significant carry-over of fine fuels from 2017 and a normal growth of fine fuels this year. Typically, a weather event occurs in mid-September that brings moisture to these regions experiencing significant fire activity, which allows for the western fire season to begin to decrease in activity. Anticipated trends in long range weather data suggests this to be the case for the fall and winter months.



The U.S. Drought Monitor showed three primary areas of drought across the nation: The Southwest, Oregon, and portions of the northern Great Plains. Of most concern was the worsening drought observed across the Southwest where areas encompassed by exceptional drought expanded across the Four Corners Region. While intensification was occurring in this area, the eastern

fringes of the long-term drought began to show improvement across the southern Great Plains. Another area of moderate drought continued to persist across central Oregon. This area should be monitored closely in the coming months for possible intensification and expansion. The Southwest continues to experience drier than average conditions.

In Texas, warm temperatures dominated in both the Texas Panhandle and the Dallas-Fort Worth Metroplex where some areas reported temperatures up to 6 degrees warmer than normal. Combined with long term precipitation deficits, extreme and exceptional drought conditions expanded in the Panhandle. Additionally, new areas of extreme drought were introduced west of Lubbock and in areas near Corpus Christi. Moderate to heavy rain over north-central to west Texas however led to 1-category improvements in some areas.

State-wide, 117 counties have outdoor burn bans in place due to the drought conditions. Those with interest should visit: <http://texasforests.tamu.edu/TexasBurnBans/>

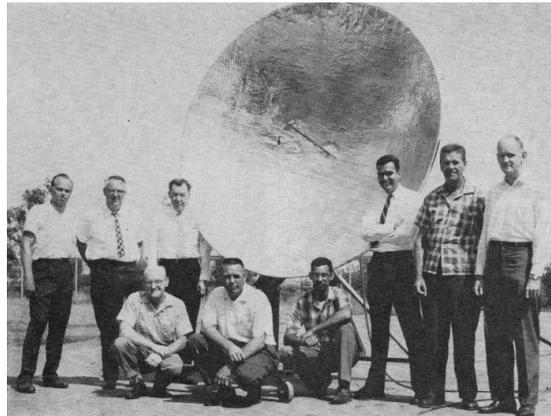
First Amateur Earth-Moon-Earth Contact

What is today a routine operation by Hams was a big deal back in the day. The moon was still a mystery to most of the world since at the time, not even an un-manned probe had been sent there for exploration.

This was a high-power project, and their slim margin of success indicated that lunar DX for amateurs was a long-chance proposition. It was an end that just might be achieved, but only after the most painstaking effort, if at all. The best available information indicated that it would take the maximum level amateur power limit, pushed to the last watt. An antenna gain of at least 20 dB was required, and a degree of receiver performance to tax the ingenuity of the best engineers in the business was called for.

1,296 MHz was the frequency of choice using a 1,000-watt klystron on the transmit end and a highly sensitive parametric amplifier on the receive end, with high gain parabolic antennas on both ends. The dish at W6HB was scrounged from surplus; it was rusty and in none too good of condition otherwise. Before the contact, it was coated with aluminum foil obtained from a nearby grocery store.

After months of personal efforts by the radio amateurs concerned with this project, the first transmission was from the West at W6HB, to East to W1BU. The pattern was then reversed and the first amateur coast-to-coast communication via the moon was successfully completed during the early morning hours of Sunday, July 17, 1960 between members of the Eimac Radio Club (W6HB) in San Carlos, California and the Rhododendron Swamp VHF Society (W1BU) in Medfield, Massachusetts.



Members of the Eimac Radio Club in San Carlos, California



Sam Harris-W1BU, in Medfield, Massachusetts

This successful reception and transmission using the moon as a signal reflector, stimulated efforts to improve amateur-built equipment for further moon-bounce communications. The only other moon-bounce communications equipment in existence at the time, was military or experimental in nature; the principal installation at the Naval link between Washington and Hawaii.

Members of the Eimac Radio Club who participated in the moon-bounce circuit were: Bill Orr-W6SAI, Hank Brown-W6HB, Bill Eitel-W6UF, Ray Rinaudo-W6KEV, Bob Morwood, K6GJF; Bob Sutherland, W6UOV; Hugh MacDonald, W6CDT; George Badger-W6RXW, Allan Beer-K6GSO, Al Clark-W6MUC, Mike Krivohlavek-K6AXN and Charlie Anderson-W6IVZ.

Sports



James Andrew White *World's First Sports Broadcaster*

He was nervous as he gripped the microphone and began speaking. He had never broadcast a sporting event. In fact, no one on the entire planet had done it. He was about to create an entirely new profession.

James Andrew White was contacted by Julius Hopp, a promoter who wanted to broadcast the upcoming “Battle of the Century” boxing match between Jack Dempsey and Jacques Carpentier. No one had attempted a wireless sports broadcast, and the ARRL’s Hiram Percy Maxim had already turned him down, declaring it impossible. But the idea intrigued White.

Things came together quickly. A license was issued for RCA’s first broadcasting station, WJY, which would operate for just one day. White borrowed a Navy transmitter and had it installed 2-1/2 miles from the stadium at the Lackawanna railroad station, where an antenna was strung from an existing radio tower. Early tests on the frequency of 187 kHz demonstrated a 200-mile coverage radius. Meanwhile, an army of amateur radio operators installed radio receivers in theatres and assembly halls across the Northeast and tickets were sold.

Finally, on the afternoon of July 2, 1921, White described the action into a telephone as Dempsey knocked out Carpentier in the fourth round. At the other end of the line, operator Owen Smith repeated White’s words into the WJY transmitter. The fight became the first world title fight to be carried over radio and managed to reach an audience estimated at 350,000 — the largest radio audience to date. The publicity generated by the broadcast made White an overnight celebrity. White found himself being called to frequently broadcast additional boxing matches. Soon he was



announcing all kinds of sports events including the first live World Series game in 1922; the first broadcast of a horse race from Belmont Park in 1924; and in 1925, he announced radio’s first crew race, broadcasting from a power boat following the oarsmen. His skill at describing a sporting event was universally admired, and he was soon called “the most famous announcer in radio.”

Also in 1924, he ventured outside the sports world to broadcast the Republican National Convention and then on March 4, 1925, he announced for the inauguration of Calvin Coolidge.

J. Andrew White was a true pioneer in early radio broadcasting, and the industry’s first real celebrity. He is mostly forgotten, undoubtedly because he departed from radio just as it was maturing as a mass medium and business. In 1940, he moved to California where he passed away in Los Angeles, in 1966 at the age of 76.



Ruth Willet, KM4LAO *"Ham Radio, a Special Hobby"*

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A rising star in the Amateur Radio world —19-year old Ruth Willet - KM4LAO, of Lawrenceville, Georgia — has caught the eye of her school, Kettering University in Michigan, where she is majoring in mechanical engineering and engineering physics.

Willet already has attracted attention through her ham radio activities. Last spring, she was the keynote speaker at the 32nd annual DX Dinner held in conjunction with Hamvention, where her topic was “Experiencing the Hobby of a Lifetime.” The previous summer she was a member of the 2016 Dave Kalter Memorial Youth DX Adventure which operated from the island of Saba that year. Last year, she won the *QST* Cover Plaque Award for the article she wrote about her YDXA experience. At the 30th Hamvention Youth Forum in 2017, Willet spoke on “Plugging into Your Valuable Club Resources.” She is the recipient of the ARRL Rocky Mountain Division Scholarship.

Kettering University News took notice of Willet in a [February 12 article](#), “Kettering University Student Brings Ham Radio Hobby, Expertise to Campus,” by Sarah Schuch. The article explains how an early fascination with Morse code led Willet into ham radio and inspired her to obtain her license in 2015. She now holds an Amateur Extra Class license.

“I would encourage people to consider exploring Amateur Radio, because it’s a hobby that allows you to explore anything from technical electronics to international friendships,” Willet is quoted in the article.



“It’s such a special hobby because there’s so many people that want to get to know you and want to help you learn and grow. It really has enabled me to mature into who I am today.”

Set to graduate in 2021, Willet said her ham radio experiences have taught her a lot, some of which she is able to apply to her studies, and vice versa. She hopes to start an Amateur Radio club on campus this spring to get more students interested. In the article, Willet also pointed to Amateur Radio’s public service role, citing the devastating 2017 hurricanes, where ham radio sometimes was the only available communication resource. Ruth Willet and her mom Sharon, KM4TVU, participated in ARRL’s highly successful National Parks on the Air (NPOTA) event in 2016, which also was mentioned in the Kettering article.

“It’s a stress relief for me,” Willet said in the article. “I really enjoy sharing this hobby with other students.”

Trans World Radio - Bonaire *- The Most Powerful Station in the Western Hemisphere -*

Trans World Radio is one of the largest media organizations in the world, based on the number of countries its signals reach and the number of languages broadcast on a daily basis. Broadcasting to 190 countries in more than 230 languages every day, with overall coverage and language support that exceeds that of the BBC World Service and the Voice of America.

The station, located on Bonaire, an island that is part of The Netherlands, and situated about 100 miles off the Venezuelan coast, originally went on the air in 1963 at the 500,000 Watt level. But costs associated with operating and maintaining a high-power tube-type rig eventually forced a cutback to 100,000 Watts in 1998.

Now, in an era when most operators are reluctant to spend even very modest sums maintaining AM broadcast facilities, this southern Caribbean Island medium-wave broadcaster has “gone for the gold,” rebuilding its transmission facility and boosting power nearly five-fold from 100,000 Watts to 440,000 Watts.

The decision to boost the station’s power level to near its original level was made a few years ago when the need was recognized



for a large regional station in Latin America to supplement the small FM operations on the air in that region. One of the primary motivations was to bring hope and encouragement to Cuba, Venezuela and to the whole Latin American region — even down into Brazil — with its purpose to encourage people, and to give hope in a world where hope is a pretty precious commodity.

In 1999, they implemented a totally new antenna array consisting of four 450-foot towers in a ‘box’ configuration, with the long side of the array going east-west to produce a broadside pattern going north and south. They also have a separate ‘Caribbean’ pattern with one tower driven and the others acting as parasitic elements.



Asked why the originally licensed 500,000 Watt operating power wasn’t replicated, the head of broadcast sales said that with off-the-shelf hardware, the medium-wave transmitter coming closest to delivering the original 500 kW wallop is the NX400 model.

The NX400 is rated at 400 kW, however, all of the transmitters have a 10 percent overhead, and TWR decided to go with this model. Otherwise, they would have had to purchase two units and combine them, which would be considerably more expensive.

As a group that runs on donations, they have to have a critical eye as to operating costs.

The power boost would not likely have been possible without the advances that have been made in broadcast technology, citing the greater than 90 percent efficiency of the Nautel NX400 solid-state transmitter selected for the project, and also the ability to operate with a much smaller staff.

The only real glitch encountered in the project was in getting the transmitter to the site in time for the planned dedication. — Bonaire is not exactly the shipping center of the universe. — The NX400 transmitter comprises a power supply cabinet weighing upwards of 5,000 pounds, along with four other units with combined weights of 5,200 pounds. The transmitter was shipped in eight crates from Nautel's Nova Scotia, Canada facility to Bonaire in a single freight container.



They had to put their logistics people into overdrive to make the promised delivery date on time, but they did it. Even with the efficiencies of the new transmitters, the TWR-Bonaire station is the island electric utility's single biggest customer.

They used to have their own diesel generators when they were running both the 500,000 Watt medium-wave transmitter, as well as operating shortwave transmitters, but the station's power plant was taken out of service several years ago after the tube-type rig was retired and shortwave broadcasting from the island ceased. They're now looking at putting in a standby generator.



After \$4 million and about four years worth of work, they went to full-power operations and had a dedication ceremony on the 30th of January of this year.

TWR's enhanced power and coverage not only help spread Christian programming to a wide area but are useful in other ways; when you get into an emergency situation, there's nothing that beats medium-wave. When the hurricanes came across the Upper Antilles they were on the air every night with weather reports and encouraging

those affected and talking to people throughout the region live on the air. The Netherland Antilles government says whenever there's a disaster, just tune to 800 AM because that's where you can get information.

Late at night and nothing to do? Dust off your old AM radio and try tuning-in. The station is located on 800 kHz, in the AM Broadcast Band and identifies as "*Shine 800.*" Reception reports and QSL requests can be sent to: Kaya Gob. N. Debrot 64, Kralendijk, Bonaire, Caribbean Netherlands. Their website, which includes a link to listen live, can be found at: <http://www.twrbonaire.com/>