BOSQUE BEACON

Newsletter of the Bosque Amateur Radio Club of New Mexico

bosquearc.com

April 2025

EDITOR, JERRY ACETO K6LIE **CLUB MEETING APRIL 5, 10 AM** Email: jaaceto@gmail.com

FROM THE EDITOR

Jerry Aceto K6LIE

Greetings!

April Program - Jerry Boyd, WB8WFK, is a pioneer in Radio Direction Finding (RDF) equipment and techniques. His expertise spans from VLF to 5 GHz microwave bands. He has designed RDF receivers and directional antennas for radio orienteering competitions and locating downed aircraft using Emergency Location Transmitters (ELT). RDF gear is also used to find interference in government, commercial, or amateur radio services. Jerry holds an Extra Class license and has over 41 years of experience in the electronics/aerospace industry, specializing in Analog design, RF design, and RADAR systems. He has three patents and serves as the ARRL CO ARDF coordinator.

This really will be an interesting presentation! I want to thank Vice President Sean O'Mara, AI5IZ, for asking Jerry for his presentation on direction finding.

Also, club dues are due in April. Only $20 per year, including free donuts, coffee, great programs and great camaraderie. Such a deal! You can us PayPal on our club site, www.bosquearc.com, or bring a check to the meeting. Or send payment to Bob Witter, our treasurer.

I want to thank everyone that submitted articles recently. PLEASE KEEP THEM COMING!! It makes it so much easier when I have material to work with!!

Our next meeting is Saturday, April 5th at 10 am. Hope to see you all there.

73...Jerry K6LIE

Bosque Amateur Radio Club

N5BRC

bosquearc.com

Club Net

The Bosque ARC hosts a **Club Net** *Every Saturday Morning at 10:00 am local time except for the first Saturday of the month* when we meet in person for our club meeting.

146.900 (- 600 kHz) pl 67.0
442.450 (+ 5000 kHz) pl 67
449.550 (- 5000 kHz) pl 71.9

Club Meetings

*1st Saturday of the Month, 10 AM
*Always a program that deals with Ham Radio
*APD NW Area Command on Ellison, across from Cibola HS

Activities

* School Visitations to Promote S.T.E.M.
* Field Day Activations
* Gatherings for Breakfast,
  * Thursday mornings at 7 AM,
    * Flying Star, 10700 Corrales Rd

WELCOME NEW MEMBERS!

Whether you are a new ham, a seasoned old timer, or just thinking about becoming a ham, I would like to invite you to our meetings to take in our presentations, join us for breakfast on Thursday mornings, or participate in any of our activities. If you like what you see and hear, we would love to have you join our club. If you have any questions regarding ham radio, we can answer them.

Hope to see you at our meetings!
73.

Brian Listvan KJ5CNC
President, Bosque ARC

VE TESTING

If you would like to upgrade your license, or take your first amateur radio test, Mathias Gibbens, K0WBG, holds licensing exams after our regular club meeting on the first Saturday of the month. Testing starts around 12:30. If you would like to test or know anyone else that would like to test, contact Mathias at AbqRRVET@gmail.com to sign up.

CLUB MEETING ADDRESS

APD NW Command Center, 10401 Cibola Loop NW, Albuquerque, NM 87114 (across the street from Cibola High school)

CLUB ADDRESS

Bosque ARC
2524 Baldy Loop NE
Rio Rancho, NM 87144

CLUB REPEATER — 444.200 (+) 67 Hz PL

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CLUB NET

Our club net has been doing very well and we want to thank all of you that participate each week. Anyone wishing to be net control, simply let a club officer know and you will be set up with the script and instruction page on linking the repeaters on the Upper Rio repeater system. This affords a good learning experience on conducting a net and engaging in conversation.

Remember, club net every Saturday morning at 10 am (except the 1st Saturday for our meeting) on the Upper Rio Repeater system.

CLUB REPEATER
444.200 Mhz (+) 67 Hz PL

A reminder to all that our club repeater is up and running from the west area of Rio Rancho at an elevation of about 700 feet above the valley, affording very good coverage of the greater Albuquerque area.

The repeater has been very quiet since getting it on the air several months ago. We would like to see it used by our members and also the entire community. It is open to all. You all are welcome to meet on our system. You can chat all you want and meet with your friends and club members. Please give it a try and you can chat all day long, if you wish!!

Coverage is approximately Los Lunas to the Santa Fe area. The majority of the Rio Grande valley is well covered. The north end of Rio Rancho and Bernalillo near highway 550 have some rough spots but is still usable.

Much work has gone into providing the club with a repeater. Please take a little time to use it with other members.

FREE ON-LINE AMATEUR RADIO OPERATING CLASS

Submitted by Richard Schaefer KJ5CQX

A free, weekly, 3-hour Amateur Radio Operating Class on Zoom will begin on Thursday April 3 and run through June 19 at 6:30 PM Eastern time. The presenters will be various experienced folks in various subjects.

A detailed syllabus will be published before the classes begin. Attend them all, or any that you like, but you must register for the classes. To receive registration information, contact Rol Anders, K3RA, at roland.anders@comcast.net.

Subjects will include:

All About Operating--A general Introduction
Amateur Radio Organizations—Local to International
Ham Radio Awards
DXing-History and Tips from the Experts
QSLing-How to get that needed card for DXCC or WAS
VHF/UHF Weak Signal Work and "Roving"
Image Operating—Slow Scan and Fast Scan TV
Remote Station control over internet
Learning CW in the no-code era
Digital Modes—From RTTY to FT8 and beyond
Contesting—How to get started, tips for the beginner and intermediated contester
Logging Software—What's available, how to use
Propagation—A general intro to HF Propagation
Amateur Satellites—How to get started
Portable (backpacking) operation—Tips from an expert
Setting Up a Modern (or not so modern) HF Station
Lightning Protection and Grounding
Traffic Handling
Public Service, Emergency Communications

Thanks,
Rol, K3RA

NEW MEXICO QSO PARTY

The 2025 New Mexico QSO Party takes place Saturday, April 12 from 8:00am MDT until 8:00pm MDT, and all Hams across New Mexico are invited to participate. Amateur radio operators from across the United States -- and the world -- will be seeking New Mexico stations on HF, 6 meters, and 2 meters during the event period, looking especially to work hams in as many New Mexico counties as possible. The Land of Enchantment will essentially be the "DX" on this day, making for a great time for all who participate.

Last year hundreds of amateur radio operators around the world participated, including 141 New Mexico hams and 19 New Mexico amateur radio clubs who put all 33 New Mexico's counties on the air.

This year's event is hosted by the **Mesilla Valley Radio Club**.

We are looking for multiple hams — like yourself! — within each and every one of New Mexico's 33 counties to participate in the 2025 New Mexico QSO Party, whether for just a few convenient hours or for the entire event.

This is a super event for new and experienced hams alike. Operate from the comfort of your home. Combine forces with hams in your club as a club activity or invite a group of friends to your shack for a multi-op operation. Hit the road as a mobile station and activate multiple counties which create much needed -- and appreciated -- point multipliers for everyone who participates in the QSO Party. Use this event as an opportunity to introduce a neighbor or friend to ham radio. Or rally friends and club members to set up "Field Day style" as part of the special expedition category.

ATTENTION HAM CLUBS: The New Mexico QSO Party is a superb club-building activity, and there are two special awards devoted exclusively for clubs. The first is a plaque that will be awarded to the New Mexico club with the highest aggregate score submitted by its members. Another plaque will be awarded to the New Mexico Club whose members activate the highest aggregate number of New Mexico counties around the state. It doesn't matter what operating category your members participate in, or for how long; New Mexico club members simply need to clearly mark their club name in their individual logs. Their club will be automatically entered in the running for these awards. Complete details in the New Mexico QSO Party rules.

Great-looking plaques will be awarded and participation certificates will be available for those desiring one. Complete details, rules, prize/certificate information, and more can be found on the New Mexico QSO Party website at www.NewMexicoQSOParty.org

PLEASE SHARE YOUR PLANS (even if tentative)! Are you planning to get on the air and operate from your home shack, as a mobile station, or portable? Even if tentative at this point, please visit www.NewMexicoQSOParty.org and let us know what county (or counties) you plan to operate from so we can list you on the NM QSO Party website's activation table and interactive map. Our goal is to have as many hams as possible operating from all 33 New Mexico counties during the event.

Please help spread the word about the 2025 New Mexico QSO Party and mark your calendar to join the excitement on the air.

Thanks and 73,
Brian N5ZGT
New Mexico QSO Party website: www.NewMexicoQSOParty.org

The importance of a net

Glen Caine N6HEW

At our last ARES meeting some of us got into a discussion of what a traffic net was meant to be, for passing traffic or a social meeting place on the air. It could be argued that a traffic net is strictly for passing traffic and not rag chewing or for testing your equipment. This discussion reminded me of an event that occurred June 1983 and that it is importance today.

In June of 1983 a major earthquake hit the small town of Coalinga Ca. Coalinga lies on the west side of the San Joaquin Valley about 70 miles from Fresno. In 1983 there was no cell phones (not popular yet and to expensive) and the telephone switch room was nonfunctional after the quake in Coalinga.

Neither ARES or RACES were functioning at that time in Fresno Co. so the local **Fresno Armature Radio Club** deployed some of our members along with our Communications Van. Myself and several other members set up the com van at the California Highway Patrol office in Coalinga.

Once the equipment was up and running I had to find someone to help getting traffic out of the affected area. I remembered that the **Western Public Service Net** met on 3.952 every evening. I checked into the net and told them our situation and they instantly turned the net over to me and the members of the net stayed with us through the night.

If that net hadn't been there I would have been in a jam. I don't care if a net is for formal traffic or just for rag chewing it serves a great purpose. It is a spot on the band that one can go to get help. People know the frequencies and the time that other hams will be listening to the radio.

I would like to thank all of the hams that keep the nets up and running both vhf/uhf and hf. You may not think that you are part of the EmComm community but you are an essential part of it.

Thanks for what you do.

Glen Caine (N6HEW)

SOME REMINISCING AND A LITTLE HISTORY

Jim Rezelman KI4XK

The Sputnik launch in 1957 set off the space age. Lots of excitement, everyone wanted to hear the radio beeps and some people wanted to track it. A couple of smart guys from Johns Hopkins figured out a cool way to do that with very simple equipment, and then they turned it around and made it into a navigation system. The US Navy got interested because they wanted to shoot bombs at Moscow from submarines, but you need to know where the submarine is shooting from before you can hit the target.

So the TRANSIT navigation system was born, also known as SATNAV, the predecessor to GPS. All it needed was a simple radio carrier on the satellite and a frequency measuring receiver on the ground. Plot the doppler and know your position. The submarine sticks an antenna above the water for 20 minutes and updates his fancy nav equipment.

In the 1960s John Hopkins Applied Physics Lab was beta testing the TRANSIT system they had built for the Navy, with a dozen tracking stations around the world. New Mexico State University, Physical Science Lab got into the act by providing cheap labor to run the stations, ie co-op engineering students. Work part time, study part time. I graduated Sandia HS in June 1960 and went to Las Cruces to join the very first group of co-ops at PSL, 20 kids just out of high school. We had a four week course of ohms law, soldering, and tuning a receiver, basically ham radio stuff, and we were ready to go. I was already a ham, the only one, top of the class.

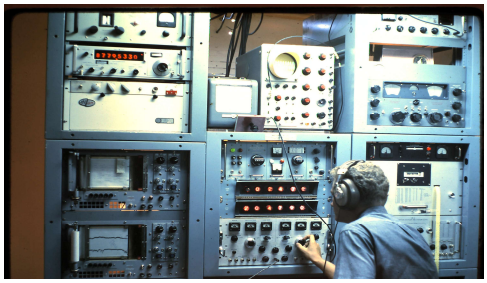
So in 1961 I went off to Brazil for eight months, great experience for a kid. The system eventually had plenty of satellites but in 1961 lots of them were still blowing up on the pad. We got maybe a half dozen passes per day and the equipment was pretty basic, low budget. A helix antenna on the roof had a long arm and some dime store protractors for azimuth and elevation. To track a pass, one guy tuned the receivers and the other guy climbed the roof ladder with a piece of paper showing az/el for each minute, to manually point the helix. Az/el came from a twx alert, referenced to south instead of north, because we were south of the equator. The helix protractors were 0-180, side by side for azimuth, and one for elevation. Making up the pointing sheet was challenging. Also they have big spiders in Brazil, so climbing the ladder at night you carried not only the pointing sheet but also a flashlight and a broom to brush the spider webs off the ladder.

By 1963 the signals were stronger and the receivers were better, so a short whip replaced the helix. For that work phase I went to American Samoa and also got a new call KS6BC. I was the only active ham on the island for eight months, really spoiled me. We scrounged a beautiful receiver from the Navy, a Collins 75A4, as well as a bent tower and a beam. But no transmitter. PSL bought us a Heathkit Marauder, full bells and whistles, their last tube transmitter. Took several weeks to build it but it was finally ready to smoke. When 20 meters was open to the US it was chaos but tonight it was dead. Called CQ anyhow, up and down the band. Finally got a faint reply, heavy flutter but readable. KC4USN at the geographic south pole. First contact on the new rig, fantastic!

Next few months we worked lots of phone patches and rag chews, almost all on 20 meters. When the band was open we were busy, when it was not open to the US then the whole Pacific was our local group, Australia, Kwajelin, all the islands and the south pole too. Two more of our guys got licensed and we all got spoiled for ham radio.

Jim and the 74A4 and new Marauder

Helix Satellite Antenna manually aimed!



SATNAV Station circa 1960's

AMATEUR RADIO TALK AND DEMO AT HOPE CHRISTIAN HIGH SCHOOL

Gerry Jurrens, N2GJ and myself met with Dr. John Judkins, N2VER, and his physics class to talk about Amateur Radio and demonstrate Mr. Judkins Yaesu FT-710 transceiver. I brought my portable Wolf River coils antenna and we were listening to 20 meters in short order. The kids witnessed a state of the art transceiver and had questions, particularly regarding the spectrum scope and waterfall system on the radio. Propagation was discussed as to just how long distance communications is possible, describing how the ionosphere works with its various layers of charged particles. Than, comparing vhf/uhf line of site propagation. We had a great discussion!

Jerry K6LIE

Gerry and myself along with a few of the students.

WHAT IS THE PROGNOSIS FOR AMATEUR RADIO HERE IN THE USA?

Gerry Jurrens N2GJ

I asked this question to Google Gemini, their new AI. What do you think of its answer?

The prognosis for amateur radio in the USA is complex, with a mix of positive and challenging factors. Here's a breakdown of key considerations:

Positive Trends:

Growing License Numbers:

The number of FCC-licensed amateur radio operators is generally increasing, outpacing overall population growth. This indicates sustained interest in the hobby.

Technological Advancements:

Digital modes, software-defined radios (SDRs), and online resources are making amateur radio more accessible and diverse.

Activities like Parks on the Air (POTA) are drawing in new participants by combining outdoor recreation with radio operation.

Emergency Preparedness:

Amateur radio continues to play a vital role in emergency communications, providing a backup when traditional infrastructure fails. This remains a strong motivator for many.

Challenges:
Changing Demographics:

While license numbers are up, concerns exist about the age distribution of amateur radio operators. Efforts to attract younger participants are ongoing.

Competition from Other Technologies:

Cell phones, the internet, and other communication technologies offer convenient alternatives, potentially reducing interest in traditional amateur radio.

Evolving Participation:

While license numbers are up, the amount of people actively participating on the air is a point of discussion.

Organizational Changes:

The way that people interact with organizations such as the ARRL is changing. Meaning that although the amount of Ham radio operators is increasing, the amount of people that are members of those organizations is decreasing.

Overall Outlook:

Amateur radio is not "dying," but it is evolving. (Continued on page 11)

WHAT IS THE PROGNOSIS FOR AMATEUR RADIO HERE IN THE USA?

Gerry Jurrens N2GJ **(Continued from page 10)**

The hobby's future likely depends on its ability to adapt to technological changes, attract new participants, and emphasize its unique strengths, such as emergency communications and experimentation.

It is a hobby with a large amount of diversity. Meaning that there are many different aspects of the hobby that people can take part in. This helps to keep the hobby relevant to a wide range of people.

In essence, while challenges exist, the core principles of amateur radio—experimentation, communication, and public service—remain relevant.

73,

Gerry Jurrens N2GJ

Editors note: AI is really becoming very articulate!

GEORGE KEY, W5YZ, SHARES HIS HAM RADIO HISTORY WITH US

Graybeard (70 years a Ham) ramblings::
I was first licensed as KN4ACG back in 1954. As a Novice class operator, I had to get my skills up to snuff (pass the General Class exam) in one year or PFFT...you are no longer a Ham. They tried to make it hard as far as operating experience was concerned. Novices were rock bound having no VFO on the transmitter. You could tune the Super Het receiver around the band but not the transmitter.

Of course, hard is a matter of perspective. Marconi would have loved to have a Super Het receiver (contraction of supersonic heterodyne). But then, there wouldn't have been anyone to listen to. He may have had one before he died in 1937.

I had a hand full of crystals I could plug into my 40 watt homebrew transmitter so thatmade it bearable. Operating rockbound meant you had to tune the whole novice portion of the band to find someone who was responding to your CQ. If you were responding to a CQ you had to send your call letters many times to give the other station a chance to tune the band to find you. After you found each other, a QSO could actually take place. Operating frequencies were from 3.7 to 3.75 mc, CW; 7.15 to 7.2mc, CW; 21.1 to 21.145 mc, CW. That's "mc" (megacycles) not Mhz (megahertz). Hertzian frequencies were not introduced until 1960. Took some of us a long time to adapt.

My first contact was with a guy in Paducah, Kentucky by the name of Ben. Years later, when I was stationed at Pease AFB in New Hampshire, I ran across a guy named Ben who lived down the street from me who happened to mention that he was a ham also. We finally decided that he was the same Ben that I had my first QSO with on September 1st, 1954. Both of us flew the same aircraft and owned Cairn Terriers. WOW what a coincidence. After all, how many people ownCairns.

The postal service was more lenient then than now. If you don't have the address exactly right, you get it back. Zip codes are required! Back in the "50s I used to get QSL cards addressed to "George, KN4ACG, Clarksville, Tennessee" or even KN4ACG, Clarksville, Tennessee. Try that today and see what happens. BTW, K4ACG now belongs to the Alabama Contest Group.

As they would say in AA but addicted to DX, "My name is George and I'm a DXer. I guess I was that from the start but I didn't really have any "real" DX contacts until I got my General Class License. Back then (1955), the General class license was the same as the Extra class operating spectrum. Somebody at the ARRL or FCC decided they needed to change that (for the worse) to the incentive licensing that we have today.

That said, I didn't upgrade to Extra until 1974. When you upgraded, the FCC automatically gave you a new call sign, whether you wanted it or not. So one day I was W5VIW and the next day I was W5YZ. Think I lucked out there. Usually, new call signs came from the "Silent Key" list that somebody kept somewhere. When I first got the new call sign, I would run into somebody that would say "how's it going Monty?" Found out later that Monty was not dead but had turned W5YZ in for N5EN (go figure).

My first real DX contact was with Faruk, FA8DA, in Algeria. ON PHONE no less. My real passion was and still is CW. Since then I have almost 340 confirmed countries, about evenly split between phone and CW. I got my 5 band DXCC in 1981, the hard way. I sent at least 100 QSL cards for QSO's on 10, 15, 20, 40 and 80 meters (that's over 500 QSL cards!). Did somebody really count all those cards?? Larry, NY5L is doing it that way and I really appreciate what he is doing. Nothing like holding on to a real QSL card from Igor in Lower Slobovia, not a blip on the LOTW.

CLUB SHIRTS

These beautiful club shirts come in ladies and men's styles and sizes. We proudly wear our shirts whenever we are doing an activity that involves the public. It is a great way of promoting the club, not to mention that they look great! They are available in polo and button down long sleeve.

Contact Turbo Threads at 505 999-1234 or on line at https://turbothreads.com .

BTW...That snazzy club logo on the shirt and on our club banner was designed by Art Nichols, KI5GOL, one of our founding members.

If you wish to use PayPal to pay club dues, simply go to bosquearc.com and click on the Membership and Dues tab. You will find all the info needed. When you fill out the form on line, hit Submit at the bottom of the page. This will take you to a prorated table. Since our dues are paid by the year starting in April, you will only pay a partial amount based on the month you join. Club dues are only $20 per year.

Here are email addresses of our officers should you need to contact any of them:

President - Brian Listvan KJ5CNC - zzwooffee1949@yahoo.com

Vice President - Sean O'Mara AI5IZ - sean.g.omarasr@gmail.com

Secretary - Bill Tilman KA0B - ka0b.bill@outlook.com

Treasurer - Bob Witter W5IV - rwitter@hotmail.com