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U.S. Mail:

TARA

P.O. Box 134

Keene, CA 93531

A Word

Dan Mason, AB6DM, President

Hello, TARA friends!

What an exhausting October and now November. After the JOTA, the Manzanar POTA, and the double Halloween events, we had a double Veteran's Day effort, one in Tehachapi (thank you John KM6DXY, Micah KN6VUT, Joe KK7PUL, John KK6WKX, and whomever I missed), and one in San Diego (see the Operating Room).

We still have the Ridge Rally coming up on December 7th as well as the Christmas Party/Meeting on December 12th, 6 PM, at Kelcy's Restaurant.

Please RSVP to the Christmas Party invite with your dinner selection from the menu (two pages) that was provided in an email link.

73,

Dan Mason - AB6DM

EDITORS' Note:

The Dummy Load theme for December is Portable Roundup — Describe any SOTA, POTA camping, mobile (auto, Air, Pedestrian, Bicycle, Skateboard...) operations you've enjoyed this year.

Send them to kn6zgi@ac6ee.org by 7 November 2024.

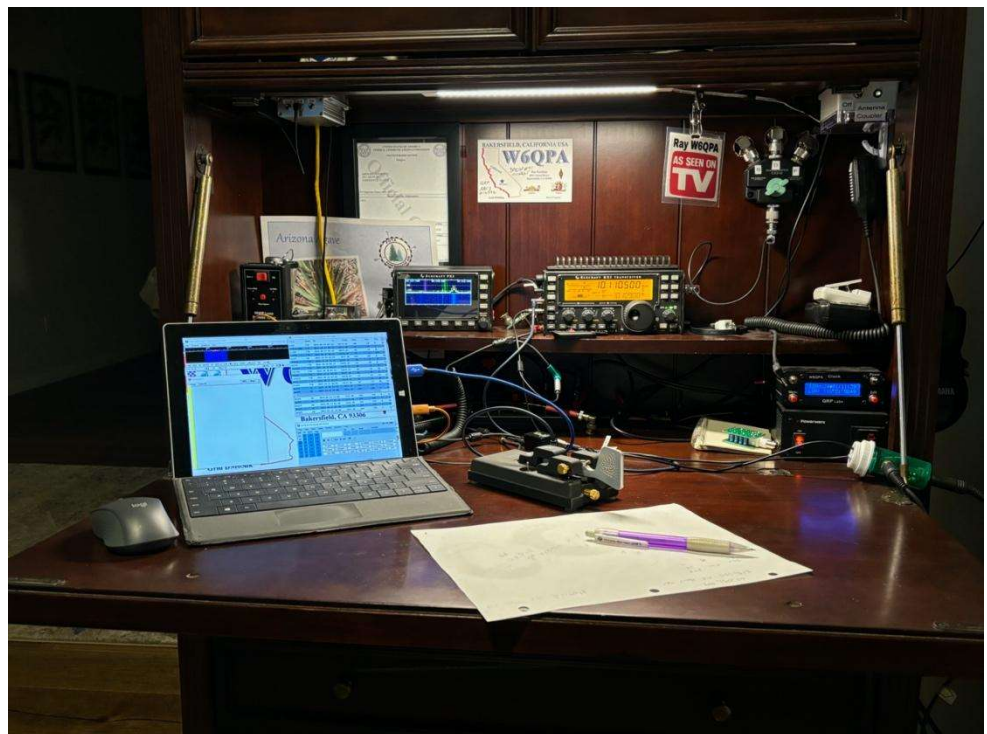
73 ...Ray, W6QPA & Stephen, KN6ZGI

What are Your Digital Modes and Equipment

Ray Gretlein, W6QPA

Virtually all my HF operating uses digital modes. My favorite being CW. When I get on the air, I start first looking for someone calling CQ in CW, then I'll try sending CQ for a while, failing that I begin with JS8, Olivia, RTTY and finally FT8 usually in that order. I end with FT8 as I almost always find a contact with FT8 (I hesitate to call that a QSO).

Rig wise, I primarily use an Elecraft KX-3 transceiver with the companion PX-3 Panadapter for the waterfall display. My antenna is a 30ft Flagpole with an SGC-230 antenna coupler at the base and 28 radials of varying length mostly around 35 ft. My CW key is a single paddle Begali HST. Audio is delivered through an old set of aviation headphones I've had for 20 plus years.



I run the N1MM+ logging software and FLDIGI for all digital modes except JS8 for which I use JS8Call and FT-* modes which use WSJT-X. The computer is an older Microsoft Surface tablet using Windows 10.

I also run low power (less than 45 watts, usually 10-15 and 5 watts for certain contests) which may reduce my QSO rate but, like pulling the handle on a slot machine, makes it particularly satisfying when you make the contact. I had an unusual set of contacts with FT8 a few weeks ago that exemplify that satisfaction of hitting a jackpot. I rarely get into Europe, so on 21 October, operating on 30 Meters I was delighted to log Estonia, Norway, Russia (European) and Croatia adding three countries toward DXCC all at 5 watts!

On the Bench

This is a semi-regular column for members to share the off-the-air aspects of their ham radio activities. Using a sports metaphor, on-the-bench refers to a player not currently active in the game. So, applying that in a ham radio context, what is "On-the-(work)bench" in your shack?

David Walter - WA5GUL

Slinky Antenna Revisited

by KOPIR · Published November 6, 2024 · Updated November 8, 2024

Slinky...Slinky it's a Wonderful Antenna!



Remember the Slinky? That classic toy that could "walk" down stairs, captivating children since the 1940s? Well, it turns out the Slinky is more than just a playful item; it also serves as a surprisingly effective antenna. Yes, you read that correctly. The Slinky Antenna has been around for quite some time and has undergone significant evolution and enhancement since its creation.

Initially introduced in the 1960s by amateur radio enthusiasts in search of a portable and efficient antenna solution, the concept was straightforward: stretch out a Slinky, hang it up, and you've got an antenna. The coiled metal structure of the Slinky functioned as a resonant coil, capable of receiving and transmitting radio signals, making it popular among ham radio operators, particularly those frequently on the go.

Slinky Antenna Improvements

Over the years, the Slinky Antenna has experienced numerous enhancements. The original design featured a single Slinky, but it was soon discovered that connecting two Slinkys end-to-end significantly boosted the antenna's efficiency, allowing it to capture a broader range of frequencies.

The introduction of a balun—a device that balances electrical currents within the antenna—marked another pivotal enhancement. This improvement reduced unwanted noise and interference, resulting in clearer and stronger signals.

However, the evolution of the Slinky Antenna didn't halt there. Recently, a trend has emerged toward utilizing stainless steel Slinkys, which offer greater durability and rust resistance compared to the original metal. This enhancement ensures the antenna remains reliable and long-lasting, particularly in outdoor settings.

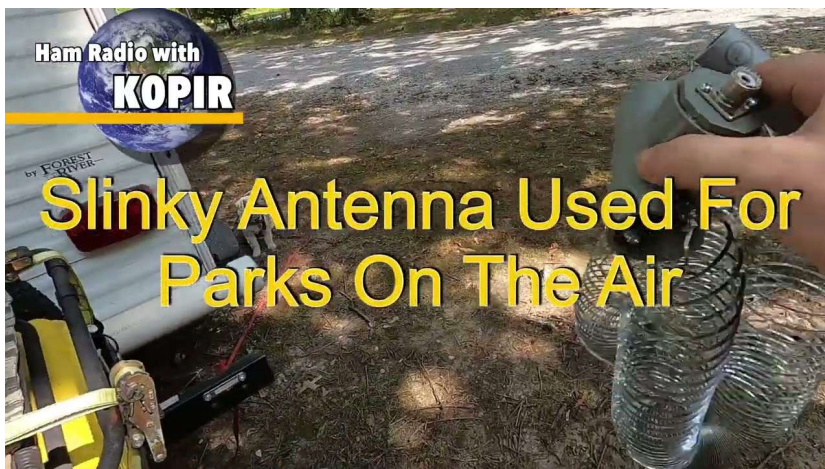
Despite these advancements, the Slinky Antenna continues to be an option among amateur radio operators due to its simplicity, portability, and affordability.

The Slinky Antenna isn't limited to hobbyists; it's also being utilized in scientific research. For example, researchers at the University of Utah have employed Slinky Antennas to study lightning. By stretching the Slinky across a field and connecting it to a high-speed camera, they have successfully captured detailed images of lightning strikes..

KØPIR utilizes the Slinky both at home and in portable settings.

I have used the Slinky while camping and at home. The lightweight and portable nature of the Slinky makes it perfect for use in portable settings.

Please note that it's crucial not to extend it beyond 15 ft. on each side. Overstretching results in damage and makes it nearly impossible to coil back up.



Old Video – Control Click on the Image to follow the link to the YouTube video.

After using this at home my final thoughts: The build quality is exceptional, and it's highly durable - just be careful not to overextend it! I used it with an external LDG tuner and operated it on 15, 20, 30, 40, and 75 Meters. It's definitely a

product I would purchase again and will have too, because I stretched mine out too far to take portable again.

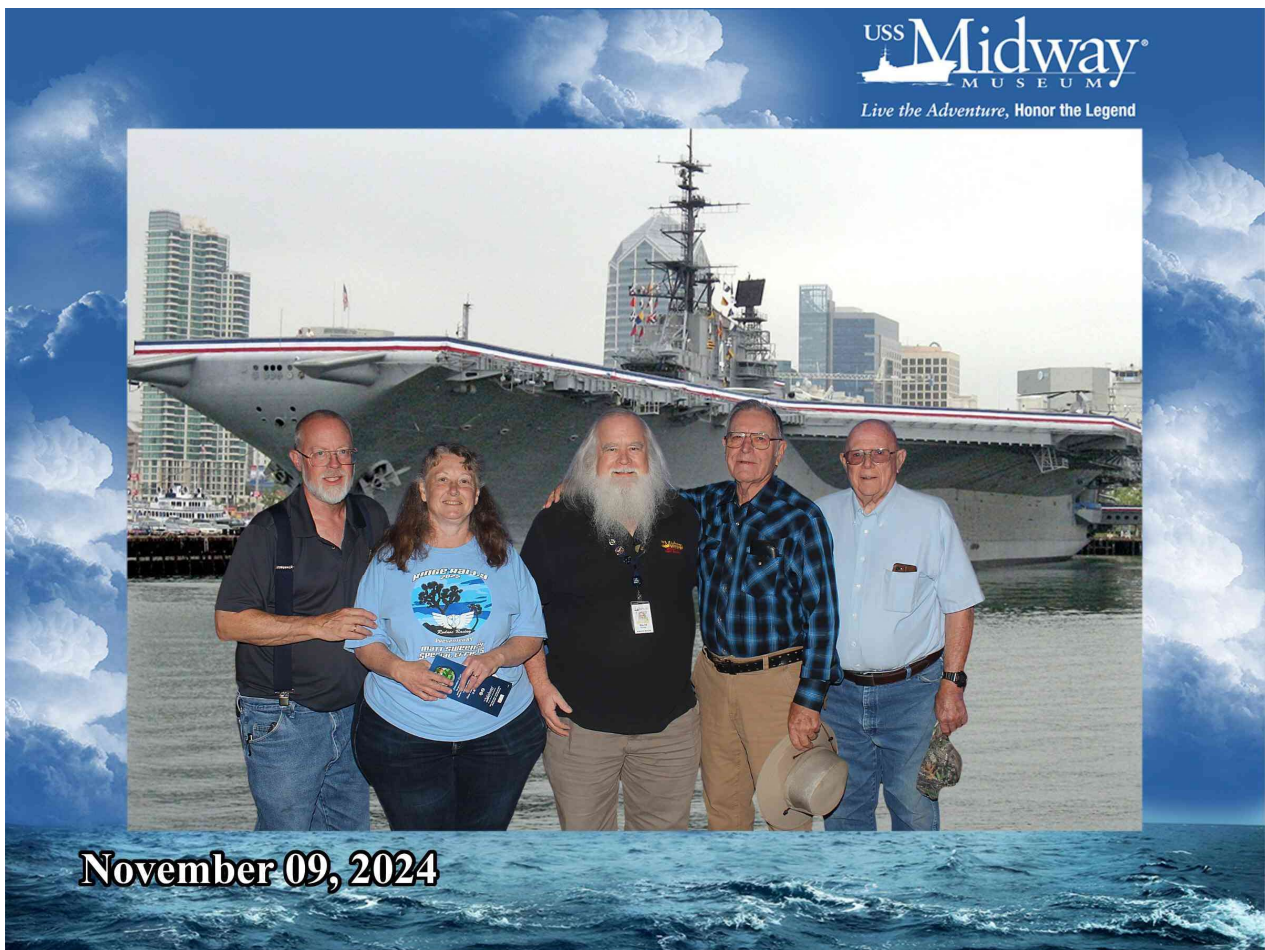
Have you tried an unusual antenna?
– Rich, KØPIR

The Operating Room

This is a semi-regular column for club members to share the on-the-air aspects of their ham radio activities.

Dan Mason, AB6DM

USS Midway Veteran's Day Special Event



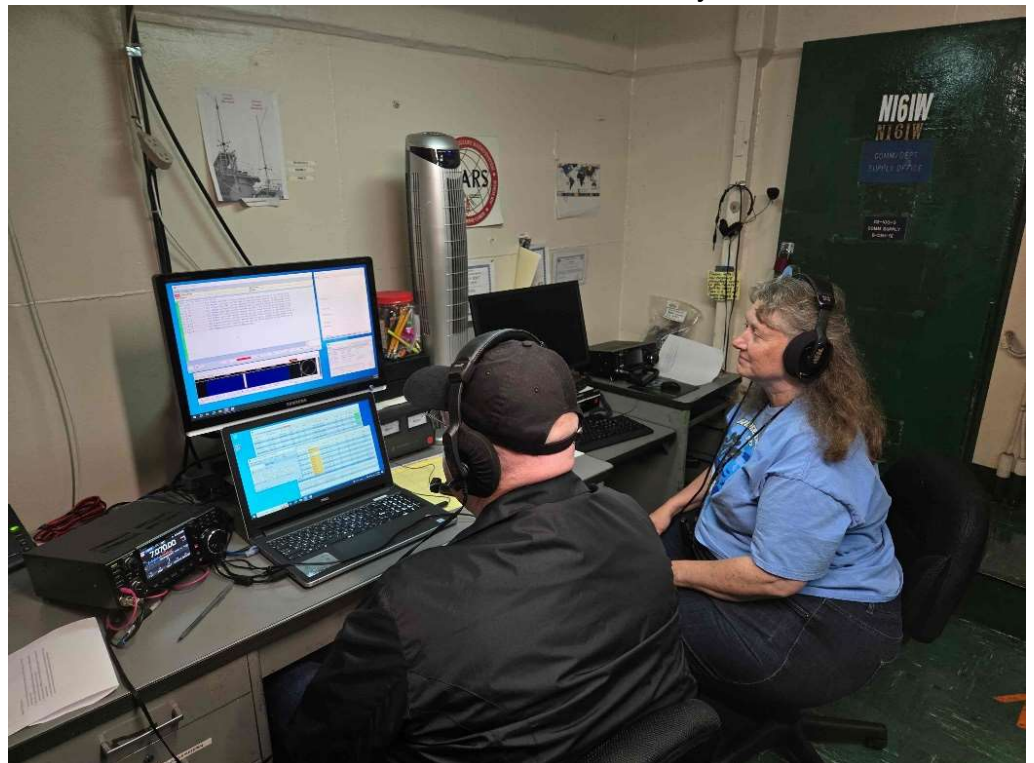
On Saturday, November 9th, Dick Brown W6SLZ, Valerie Mason KK6WLQ, and I went to San Diego to join the NI6IW team to commemorate Veteran's Day by activating the USS Midway Museum Ship. I made arrangements with former Navy F-14 pilot Dave Piontek KV7I who met us at the ship. Dave is the gentleman resembling Santa. I was envious of his beard! My Dad, Mace Mason KG6VMF, drove us into the museum property and joined us in the fun.



We got to go into a part of the Midway that tourists aren't allowed where we met the rest of team members on duty. We did not get to operate this time, but we all got to listen on extra headsets and make log entries. They had three ICOM IC-7300 HF radios and one ICOM D-STAR mobile radio, all on different modes, including two on SSB, one on PSK-31, and the mobile

on VHF D-STAR.

After the radio action was done, Dave took us on our own guided tour of the ship in such a way as to maximize the most interesting parts with our limited time and mobility. It's a huge museum ship with almost countless exhibits and details to see. We definitely recommend a visit to the USS Midway and we plan to return to catch parts we missed.





73,
Dan Mason- AB6DM

Hospitality

Valerie Mason – KK6WLQ

The TARA Christmas party is right around the corner. We have 10 orders out of like 58 members. Please email asap with yes or no to party attendance. If yes, please email menu items per family member coming. Thank you. Contact me at: val3mason@yahoo.com asap please.

Oh, also bring cash for raffle.

Questions?

Valerie Mason - Hospitality Chairperson for TARA

Tid-Bits

A collection of miscellaneous mostly amateur radio related items.

At Open House, Scientists Explain What HAARP Can and Can't Do

David Walter - WA5GUL

(Originally at ktoo.org)

At open house, scientists explain what HAARP can — and can't — do

September 14, 2022 by Ned Rozell, University of Alaska



The upper atmosphere-heating facility named HAARP is located on about 5,000 acres between the small Alaska towns of Glennallen and Tok. (Photo by Ned Rozell.)

In this wild place where dump truck drivers once tipped load after load of gravel onto the moss to make roads and building pads, scientists rolled open an iron gate one recent Saturday afternoon.

They invited in conspiracy theorists, reality-TV hosts and salmon fishermen from Chistochina to the grounds of a mysterious antenna field. It's a facility that

some claim has caused caribou to walk backward. It has been rumored to activate earthquakes and to hold human souls in a sort of northern purgatory.

Scientists were a bit to blame for all the allegations of weirdness out here between the Copper and Gakona rivers. First off, they used an acronym to name it — HAARP, which stands for High-frequency Active Auroral Research Program.

That acronym added to the mystery of the field of antennas, which can heat a region of space far above our heads with radio waves powered by five powerful diesel generators, each the size of a fuel truck.

The science of studying a region we can't see by perturbing it with enough electricity to power a small city — located in a place where wolves and bears pad along silently across its few gravel roads — is hard to wrap your head around.

A few people really do understand HAARP, though. They were standing on those smoothed piles of gravel that Saturday, when the foreboding metal gate clicked open.

My former boss, Sue Mitchell (now retired), initiated this “open house” a few years ago. She was there again in 2022, greeting people at the first table of the first building visitors walked into. I asked her why.

“So we could be as transparent and open as possible,” she said. “Throw open the gate, and show people what's here.”

When she worked at the Geophysical Institute, Mitchell took the considerable hit of answering phone calls about the HAARP facility. She had no answers for people who were sure the antenna field was somehow controlling their minds.

“My hope has been, by showing people what really goes on, the facts will speak for themselves,” she said. “That doesn't always work. People sometimes make decisions emotionally, not always based on the facts.”

It doesn't help when the facts are so hard to understand. Here's a try:

The antenna field at this 5,408-acre site, far from any Alaska town, was first a chunk of black-spruce forest and wetlands that U.S Air Force officials purchased from the Native corporation Ahtna in 1989. The idea was to use the location to build an over-the-horizon radar that would allow technicians to observe bombers or missiles that might be headed for America over the pole.

Due to the end of the Cold War, that radar was never built. Instead, Air Force workers installed a field of 18 antennas that broadcast high-frequency waves up to the ionosphere, the region of space that is home to the aurora.

The antenna field over the years grew to 180, each powered by two transmitters. A researcher has called it the world's largest ham radio.

HAARP is a group of high-frequency radio transmitters (in the ham-radio band) powered by five diesel generators — four from tugboats and one from a locomotive. When activated, the transmitters send a focused beam of radio-wave energy into the ionosphere, 50-600 miles overhead.



The upper atmosphere-heating facility named HAARP is located on about 5,000 acres between the small Alaska towns of Glennallen and Tok. (Photo by Ned Rozell.)

Since it opened in 2003 with funding the late Sen. Ted Stevens

helped secure, HAARP has hosted many scientists doing basic science on the auroral zone.

Others used it to do applied research for the military. In one study, researchers used the antenna array to heat a part of the ionosphere that in turn acted as a low frequency antenna that could send an ocean-penetrating signal to a submarine. That ping could tell a submarine captain to surface in order to receive conventional radio communications.

This place almost fell to bulldozers in 2012, when the Department of Defense wanted to get out from under the cost of running the facility — which includes about \$250,000 each year just to heat the dozens of transmitter buildings in the winter.

About then, Bob McCoy, the director of the Geophysical Institute and a space physicist himself, lobbied for the institute to take over the site. Scientists rallied around him, as did the university president at the time.

At the same time, leaders of the National Research Council held a workshop about HAARP. They wrote a 70-page report on science that could be accomplished with the facility.

“Even though it’s esoteric and hard to understand, it’s the best,” McCoy said in 2015.

The university administration gave McCoy a loan to keep HAARP running. He gambled that he could pay it back by drumming up business from scientists. They would use the

transmitters and pay for it with grants from funding agencies. That gamble is paying off, with a new 5-year grant from the National Science Foundation.

McCoy was there at the entrance to HAARP, too, answering questions from people like Michael Lewis of Anchorage.



Geophysical Institute Director Bob McCoy poses with visitor Michael Lewis from Anchorage during a recent open house of the ionosphere-heating facility known as HAARP between Glennallen and Tok. (Photo by Ned Rozell.)

be just curious people.

After the five-hour open house ended, the black gate shut behind the final car. Then, HAARP reverted to what it is most of the year: a silent pile of gravel sprouting with antennae. There, songbirds on their way south flitted through the spruce and on the ground beneath the antenna masts.

https://www.ktoo.org/2022/09/14/at-open-house-scientists-explain-what-haarp-can-and-cant-do/?utm_campaign=share-button

Lewis, who wore a baseball hat he had covered with tin foil (apparently for fun), said he had always wanted to see the facility. McCoy posed for a photo with him.

Visitors were allowed all over the grounds of the facility during the open house. Swampy ground limited them to driving and walking the few miles of road and gravel pad, including the dormant transmitter array.

Scientists and engineers were stationed at strategic points to explain what the complicated equipment did when it was on. A few guests were ham-radio enthusiasts, but most seemed to

ARRL Contest Calendar

This page provides a summary of events sponsored by the ARRL, the national association for amateur radio. The most current information is on the website at:

<http://www.arrl.org/contest-calendar>.

Another source for contest and on-the-air activity is WA7BNM Contest Calendar at

<https://www.contestcalendar.com/weeklycont.php>

November 2024

- 2-4 [Nov Sweepstakes–CW](#)
- 16-17 [EME - 50 to 1296 MHz](#)
- 16-18 [Nov Sweepstakes–Phone](#)

December 2024

- 2-4 [160 Meter](#)
- 14-15 [10 Meter](#)
- 22 [Rookie Roundup–CW](#)

January 2025

- 1 [Straight Key Night](#)
- 4 [Kids Day](#)
- 4-5 [RTTY Roundup](#)
- 18-20 [January VHF](#)

February 2025

- 10-14 [School Club Roundup](#)
 - 15-16 [International DX – CW](#)
-

TARA Calendar

This page is a summary of events sponsored by or involving our club.

All dates are subject to change. Please check the club Facebook and [website](#) for updates.

November 2024

- 2, 9, 16, 23, 30 — 1800 hrs, 10 Meter Technician Net every Saturday on 28.350 MHz
- 3, 10, 17, 24 — 1900 hrs, TARA Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 3, 10, 17, 24 — 1930 hrs, BVS ERT Net (ARES) (W6SLZ VHF rpt, 146.70 - / 123.0)

- 6, 13, 20, 27 – 1900 hrs “Just Because” Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 6, 13, 20, 27 – 1300 hrs “Whopper Wednesday” at Burger King
- 7 – 1900 hrs, TARA Board Meeting, Via Zoom (invite via email)
- 9 — 0830 hrs, TARA Club Breakfast at Kelcy’s Restaurant, 110 W Tehachapi Blvd, Tehachapi, CA. Reserve a spot with [Valerie Mason](#) by 1 November.
- 14 – 1900 hrs, TARA Club Meeting Tehachapi Police Department, 220 W C St, Tehachapi
- 30 —0800 hrs, BVS Emergency Radio Team Breakfast at BVS Mulligan Room. Reserve a spot with [Valerie Mason](#) by 15 November.

December 2024

- 1, 8, 15, 22, 29 — 1900 hrs, TARA Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 1, 8, 15, 22, 29 — 1930 hrs, BVS ERT Net (ARES) (W6SLZ VHF rpt, 146.70 - / 123.0)
- 4, 11, 18, 25 – 1300 hrs “Whopper Wednesday” at Burger King
- 4, 11, 18, 25 – 1900 hrs “Just Because” Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 5 – 1900 hrs, TARA Board Meeting, Via Zoom (invite via email)
- 7, 14, 21, 28 — 1800 hrs, 10 Meter Technician Net every Saturday on 28.350 MHz
- 12 – 1800 hrs, TARA Club Christmas Party (General Meeting) – Kelcy’s Restaurant.
- 14 — 0830 hrs, TARA Club Breakfast at P-Dubs, 20800 Santa Lucia St, Tehachapi, CA 93561. Reserve a spot with [Valerie Mason](#) by 1 December.
- 14 — 11:00 hrs, VE Amateur Radio License Exam, 538 East Tehachapi Boulevard
- 28 —0800 hrs, BVS Emergency Radio Team Breakfast at BVS Mulligan Room. Reserve a spot with [Valerie Mason](#) by 15 December.

Reference Information

Local Repeater Information				
BVS APRS Digipeater	144.390	No tone	AC6EE-3	APRS
BVS Repeater Backup Freq.	146.700 145.580	123.0 Hz Tone Simplex	W6SLZ	Open Machine
BVS Repeater	440.625	100.0 Hz Tone	W6SLZ	Open Machine (WIN System node)
Tehachapi Repeater (Cummings Mtn.)	442.925(+)	141.3 Hz tone	KI6HHU	On the KERN System
Tehachapi Repeater (Double Mtn.)	446.320(-)	151.4 Hz tone	KI6HHU	On the KERN System

Local Repeater Information				
Tehachapi Repeater	444.225(+)	100.0 Hz TONE	KG6KKV	Overlooks Bakersfield
Tehachapi Repeater	447.120(-)	67.0 Hz Tone	KR6DK	Linked to KR6DK Bilingual Repeater Network
DMR Repeater	442.675	Offset: +5.000 ColorCode: 1	K6RET	Brandmeister, Bakersfield, CA The location is in the Tehachapi Mountains near Cummings Mountain
DMR Repeater	442.225	Offset: +5.000 ColorCode: 1	K6GTA	Brandmeister, Located about halfway up Bear Mountain at about 3,200' coverage to west side of the mountain in Bear Valley Springs
Tehachapi Simplex	145.58	No Tone		Local Simplex
Tehachapi Simplex	146.54	No Tone		Local Simplex

In addition to the repeaters listed above the following repeaters, part of the Kern System, can be reached from locations throughout the Tehachapi area and much of the San Joaquin Valley. They are linked together, and more information may be found at

<http://www.KernSystem.org>

KERN System Linked Repeater				
Frazier Mountain (8,000')	447.860	141.3 Hz Tone	KK6AC	Jerry Garis
Cummings Mountain (7,800')	442.95	141.3 Hz Tone	KI6HHU	Lee Bouchard
Double Mountain (8,000')	446.320	151.4 Hz Tone	KI6HHU	Lee Bouchard

ARRG Linked Repeaters				
Cummings Mountain (7,800')	444.425	100 Hz Tone		

ATTENTION:

For those interested in monitoring dispatch for the Bear Valley Springs Police Department

- KCSO Eastern Dispatch — 460.225
- KCSO East TAC — 460.125

All dispatch for BVSPD will be handled by the Kern County Sheriff's Department

Club & Other Websites	
TARA website	http://www.ac6ee.org
TARA Facebook	https://www.facebook.com/TARAtchapiamateurradio/
Tehachapi-hams (email list)	https://groups.io/g/tehachapi-hams/
Antelope Valley Amateur Radio Club (AVARC)	http://www.k6ox.club/index.html
Kern County-Central Valley Amateur Radio Club (KCCVARC)	http://www.w6lie.org
ARRL	http://www.arrrl.org
West Kern County Amateur Radio Emergency Services (WKCARES)	http://westernkerncountyares.org/index.html

Officers & Committee Chairs			
Officer/Committee Chair	Name	Call	Email
President	Dan Mason	AB6DM	ab6dm@arrrl.net
1st Vice President	Dan Mason (Interim)	AB6DM	ab6dm@arrrl.net

Officers & Committee Chairs			
Officer/Committee Chair	Name	Call	Email
2nd Vice President	Ray Gretlein	W6QPA	w6qpa@ac6ee.org
Secretary/Treasurer	John Dyer	KM6DXY	km6dxy@ac6ee.org
Technical Director	Dick Brown	W6SLZ	db24130@sbcglobal.net
Web Page & FaceBook Committee Chair	John Dyer	KM6DXY	km6dxy@ac6ee.org
Hospitality Committee Chair	Valerie Mason	KK6WLQ	val3mason@yahoo.com
Public Affairs Committee Chair	Micah Martin	KN6VUT	kn6vut@ac6ee.org
Newsletter Co-editor	Stephen Lee	KN6ZGI	Kn6zgi@ac6ee.org

Meeting and Club Membership Information

The Tehachapi Amateur Radio Association meets every second Thursday of the month at 7:00 PM (except for July - no meeting). Our meeting site is the Tehachapi Police Department Conference Room, 220 W C St, Tehachapi.

- Member Annual Dues: \$25.00/year
- Individual Memberships: <https://square.link/u/Q38FHI5A>
- Additional Family Member: \$12.50/per person
- Family Memberships: <https://square.link/u/Q38FHI5A>

The QR codes below can also be used to link to your favorite transaction application.



Square / SquareUp



PayPal



venmo

Membership Application

Download a copy of our Membership Application [here](#). Please share this with any friends, family or neighbors that are either hams or may be interested in amateur radio. Applications are accepted at all club meetings or you may mail your application along with the applicable dues to the club Post Office Box:

Tehachapi Amateur Radio Association (TARA)
P.O. Box 134
Keene, CA 93531