The Dummy Load

The Official Newsletter of the Tehachapi Amateur Radio Association

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Contact Us

- Via Facebook
- Via WWW.AC6EE.ORG
- U.S. Mail:
  TARA
  P.O. Box 1681
  Tehachapi, CA 93581

A Word

Dan Mason, AB6DM, President

Hi, TARA friends.

Even though COVID has kept many of us apart, we are strangely still quite active and successful. We are on the verge of being completely a legit 501c3 charitable organization with both the Feds and State (though progress is at the speed of government). We are still doing Field Days, still doing contests, still supporting rally car races and bike rides, still having breakfast together, and still having meetings and nets. But we also started a successful VE test program, making new hams! Plus there's yet more goodness in the works.

One change I should mention is that we will be conducting general meetings at a new venue TBD. I would like to thank Laura Sherod and Mountain Aire Estates for hosting us for so many years. We are confident we will find a good new location soon, but if you're inspired to suggest a place, we're listening.

Stay tuned for even more goodness coming soon.

73,

Dan Mason

AB6DM

RadioActive!

Phil Dolber, W6WBT, 1st Vice President

As I have written in past columns, Community Service Events are very important for our club to build critical relationships as we work to expand our emergency communication capabilities.

Our club supported one of these events, a community bicycle ride called the T-Town Ride, on September 25th.

The Tehachapi Valley Recreation and Parks Department (TVRPD) planned a smaller ride, called the T-Town ride. This allowed everyone to ease back into doing larger events since it's been so long since the last Gran Fondo, canceled last year due to the COVID-19 virus. Our club officially supported communications for CERT manned locations, and for this event hams manned three other locations for ride safety.

I want to first comment on the volunteer turnout. We had 12 ham volunteers for the ride; this is a great turnout. Everyone who volunteered committed completely to their roles not only on the day of the ride but also by participating in planning meetings and pre-event communication checks. Our commitment and professionalism did not go unnoticed by CERT, TVRPD organizers, Tehachapi PD and CHP. We were recognized for our service along with all the other volunteers over the public address system at the ride finish. We were also personally thanked by Ride Organizer Ashley Krempien, Recreation Manager TVRPD.

I want to recognize all the volunteers:

Billy Moses W6JPM	Carl Gehricke N6RNC
Dan Mason AB6DM	Eliot Hewitt K6HWY
John Dyer KM6DXY	John Gordanier KK6MAO
Joshua Dyer KN6HWS	Phil Dolber W6WBT
Ray Gretlein W6QPA	Sylvia Dolber KD6UUC
Travis Para KK6OZH	Valerie Mason KK6WLQ

Thank You All for your commitment and professionalism for this event.
Our club needs to get involved with more of these types of events to build on the relationships we have started. Club members please feel free to make suggestions of events we might support in the Tehachapi community and please get involved with planning and execution.

Let's get on the air and get RadioActive!

EDITORS' Note:

The theme for November is another "Mode of the Month", this time CW (some say the original digital mode <wink>.) Please, PLEASE, send in whatever you'd like to share perhaps including a photo showing us your CW station and describing an interesting QSO.

Please email your contributions to AC6EE@arrl.net by 30 October 2021

73 ...Ray W6QPA

Mode of the Month — Digital

PSK-31

<u>Dan — AB6DM</u>

My favorite digital mode is PSK31. Why? Because I used that to cut my teeth on, and never got farther than two contacts. You all know I'm mostly a 2 meter warrior for EMCOMM with a few contests and Field Days for HF.

I sadly don't even remember who my two contacts were with, but I was excited to complete a QSO nonetheless. My PSK31 contacts were made on two different radios, a Yaesu FT-817ND with a LDG Z-817 tuner ...

and a Icom IC-706MKIIG with a LDG Z-100 Plus tuner, both using the super small and light WolfiLink interface feeding DroidPSK on my cell phone and a tablet. They were both on small sized battery power and on end-fed wire antennas.

You can't get a WolfiLink any more, but I hear the MiniPro SC works great and is almost as small and light.

Weak Signal Modes (<u>WSJT-x</u> and <u>JS8Call</u>)

<u>Ray — W6QPA</u>

On HF, I operate CW (next months articles) and the weak signal modes. These fit my operating style perfectly since I run QRP (low power — less than 10 watts SSB and 5 watts CW) and

portable antennas (due to HOA restrictions). These modes allow successful contacts in very poor propagation conditions, such as we have had at the bottom of the sun spot cycle, where the noise level and propagation often puts the signal below the noise! With the weak signal modes we can complete a QSO with the signal 18 - 20 dB **_below_** the noise floor. The weak-signal suite of protocols (see Joe Taylor's website) basically runs a contest format; exchanging the bare minimum of information to have a valid QSO. Specifically we exchange callsign, location and signal report. While I find this fun for testing antennae and understanding propagation, it is not very satisfying if you want to rag-chew and get to know a bit about the other ham. For that I've been using JS8 (see Jordan Sherer's web site) and a program JS8Call. JS8 uses the underlying modulation techniques of FT8 to implement a keyboard-to-keyboard as well as packet-like message forwarding system. With JS8Call, I've been able to hold rag-chew QSO's like I use to do with PSK31 or Olivia, but with signals below the noise floor like FT8.

My most memorable QSO occurred shortly after we moved back to Bakersfield in 2017. We were living in a small mother-in-law apartment while our house was under construction so it was again portable antennae and QRP. I had just learned about weak signal protocols and assembled a station using a 1990's vintage QRPPlus radio and a Raspberry Pi based computer for the WSJT-X software and logging software. Right after Christmas while trying out a W4OP Mag-loop I got for Christmas, I had my most memorable QSO when I made contact with ZL2IFB in New Zealand. I was running only 2.5 watts SSB on 20 meters. That contact was ~6,600 miles for about 2,640 miles/watt!! I've since had a number of South Pacific contacts with this mode, but this really convinced me of the power of the weak-signal protocols.

Packet!

Phill — W6WBT

I played with packet radio in friends' shacks in the Mid 80's, and added it to own my station in 1991 when my wife bought me an MFJ Terminal Node Controller (TNC) for my birthday (clone of the original TAPR 2 TNC). Of course I played with the BBS's and had some ham pen pals around the world, but the real fun started when I then got involved with the off-road rallies (Rim of the World (RotW), Tree Line and Gorman). At first I participated in voice communications for the sweep vehicle, blockage points and net control, and then I got involved with a group that was using packet radio to report information from the stage start, finish and blockage points. Everyone on the network, with the help of a portable digipeater, could see all the messages, minimizing voice traffic.

Our portable systems were a TRS80 Model 100 laptop computer a TNC and a mobile radio. This was an experiment for what packet radio might provide for future rallies.

Later, we kicked it up a notch for RotW and Tree Line. We built two 286 PC servers that we used to collect driver scorecard data that we input via portable stations placed at the finish of each rally stage. These servers were also packet stations running a simple database program called ARES Data. We placed one of the servers at the hotel, used by the rally in Palmdale. For this station we placed an antenna on the roof of the multistory hotel, running coax down the side of the building to a maintenance room behind

the bar. This room housed the radio and TNC and we pushed the limits of our RS232 cable running it over 125ft. from the TNC to the computer/server we placed in the bar. This allowed us to display the "unofficial" data as the drivers gathered. This system was used for RotW's and Tree Line's Friday night rally stages. The second server/station (used for RotW, Tree Line was only a one day) was placed at the Lake Hughes Community Center to collect data for Saturday's Rally stages. The community center was the pit area and the location for the Saturday evening BBQ, so "unofficial" driver data was displayed there during the break. At the end of the rally, in the wee hours of Sunday morning, the servers' data were merged and displayed in the hotel bar. Meanwhile, in a back room, rally officials tabulated the "official" data in for the formal announcement of the winners and of course the awards.

Though our data was "unofficial" the drivers and navigators appreciated being able to see their times compared to the other drivers' as the rally progressed. They were so focused on driving and the moment-to-moment stage information that keeping track of multiple stages times was challenging, not to mention they would not know the other driver's times. Without our efforts that information would not be available until the end of each day, after the scorecards were delivered to the hotel, tabulated and validated.

The group performed this packet radio scoring for about 6 more years and in that time, as I recall, no data entry errors occurred. Not bad for a bunch of hams.

I think my earlier experience building 1200 and 4800 baud modems to remotely run diagnostics on mainframe computers in the early 80's, as well as my involvement designing high speed fiber optic networks in the mid 80's was very helpful for understanding packet radio data, networks and the RS232 serial interface.

I have also run PSK31 (building my first station in 1999), all versions of PACTOR, WinLink (using many of the different software configurations over the last 12 years), FT-8, WISPR and I built my first APRS station in 2004, but these are stories for another day.

[1] *Note: There is not really a maximum cable length define in the RS232 standard. The standard does define a maximum capacitance a compliant RS232 drive circuit must tolerate. It is considered that the average capacitance of a standard data cable, longer than 50ft., will present too much capacitance to the RS232 dive circuit, causing data dropouts, especially at the higher baud rates. So, based on that the rule of thumb, "limit RS232 cable length to 50ft. or less", came to be accepted. For lengths longer than 50ft. the use low capacitance cable can make cable lengths up to ~ 1,000 ft., at full RS232 baud rates, possible.* **Who knows if the cable we used was low capacitance, we certainly didn't.**

Based on the recollection of a forgetful ham (it seems like it was just yesterday).

FT8, PSK31, PACTOR

Will — WA6LDQ

FT8 rates pretty high on my list for making quick contacts and, using PSK Reporter along with it, to check my signal levels throughout the world. PSK31 was my favorite a few years ago and is still a great QSO mode. Back in the day I depended on PACTOR on HF and linking to the internet for email. I used that mode extensively when my wife and I were RVing throughout the country full time for 5 years in the 90's. And that's the way it was in the olden days ....

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

Oct 2021

- 18-22 School Club Roundup
- 23-24 EME - 2.3 GHz & up

November 2021

- 6-8   Nov. Sweepstakes – CW
- 20-22 Nov. Sweepstakes – Phone
- 20-21 EME - 50 to 1296 MHz

December 2021

- 3-5   160 Meter
- 11-12 10 Meter
- 19   Rookie Roundup–CW
- 18-19 EME - 50 to 1296 MHz

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.

Oct 2021

- 6, 13, 20, 27 – 19:00 PDT "Just Because" Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 7 – 19:00 PDT, TARA Board Meeting, Via Zoom (invite via email)
- 9 — 08:30 PDT, TARA Club Breakfast at Gracian Grill
- 14 – 19:00 PDT, TARA Club Meeting, Mountain Aire Estates Activities Center
- 30 —08:00 PDT, TARA Club Breakfast at BVS Mulligan Room.   Reserve a spot with Secretary Valerie by October 17th

November 2021

- 3, 10, 17, 24 — 19:00 PDT "Just Because" Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 4 — 19:00 PDT, TARA Board Meeting, Via Zoom (invite via email)
- 11 — 19:00 PDT, TARA Club Meeting, Location TBD
- 13 — 08:30 PDT, TARA Club Breakfast at Gracian Grill

- 27 —08:00 PDT, TARA Club Breakfast at BVS Mulligan Room.   Reserve a spot with Secretary Valerie by November 14th

December 2021

- 1, 8, 15, 22, 29 – 19:00 PDT "Just Because" Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 2 – 19:00 PDT, TARA Board Meeting, Via Zoom (invite via email)
- 9 – 19:00 PDT, TARA Club Meeting, Mountain Aire Estates Activities Center
- 11 — 08:30 PDT, TARA Club Breakfast at Gracian Grill

Reference Information

Local Repeater Information				
TARA APRS Digipeater	144.390	No tone	AC6EE-3	APRS
BVS APRS Digipeater	144.390	No tone	WA6LDQ-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
Tehachapi Repeater	444.225	100.0 Hz TONE	KG6KKV	Overlooks Bakersfield
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. They are linked together and more information may be found at http://www.KernSystem.org

KERN System Linked Repeaters				
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

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/TARAtehachapiamateurradio/
Antelope Valley Amateur Radio Club (AVARC)	http://www.k6ox.club/index.html
Bear Valley Springs Emergency Response Team (BVSERT)	The website is being refurbished.
Kern County-Central Valley Amateur Radio Club (KCCVARC)	http://www.w6lie.org
ARRL	http://www.arrl.org
West Kern County Amateur Radio Emergency Services (WKCARES)	http://westernkerncountyares.org/index.html

Officers & Committee Chairs			
Office/Committee	Name	Call	Email
President	Dan Mason	AB6DM	ab6dm@arrl.net
1st Vice President	Phil Dolber	W6WBT	w6wbt@arrl.net
2nd Vice President	Ray Gretlein	W6QPA	w6qpa@arrl.net
Secretary	Valerie Mason	KK6WLQ	val3mason@yahoo.com
Treasurer	Dick Brown	W6SLZ	db24130@sbcglobal.net
Web Page & FaceBook maintenance	John Dyer	KM6DXY	km6dxy@gmail.com

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 meetings are on Zoom and in-person meeting site is moving to a new location, stay tuned for the announcement!

Member Annual Dues: $25.00/year

Additional Family Member: $12.50/per person

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 if we are meeting in-person. 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 1681
Tehachapi, CA 93581-1681