



# MTARA NEWS



| DECEMBER 2021 | [Mountain Top Amateur Radio Association](#) |

**President: Vic Marquez, KK6WKI**

**Secretary: Dave Esquer, K6WDE**

**Ed/Membership: Tracy Lenocker, WM6T**

The Rim of the World ARES group is an ARRL affiliated organization and part of the Mountain Top Amateur Radio Association.

**Vice President: Gary Johnson, AA6GJ**

**Treasurer: Patty Szychowski, KK6LWH**

**Past President: John Snedden, KT7P**

## President Vic's Message

Looking back three years ago, I recognized an opportunity for me to give back to the club that has done so much for me with their help and guidance. Initially the thought of being president felt daunting and very intimidating but it turned out that I had the most incredible support group, all you wonderful club members, who I consider my friends.

I honestly mean what I have posted on my QRZ page, "The club has a great group of folks who have made ham radio an awesome experience."

I believe that it's the members that make the club and I can genuinely say that it's all of you that make it a great club.

Together, we sure had our share of great times and some unimaginable challenges with COVID but we adapted to the situation and we were still able to accomplish quite a bit.

Zoom has been a great asset to the club. We were able to participate in our Thursday Zoom sessions and attend our monthly meetings on

Zoom. Zoom allowed us to stay connected during the times of isolation.

Our accomplishments and successes were a collaboration of a well-oiled group of fantastic people who gave me the honor to be their President.

Some of the things we were able to accomplish:

- ▶ We started a Newsletter.
- ▶ We offered Technician, General and Extra class on Zoom.
- ▶ We had two testing sessions in Big Bear.
- ▶ We had testing at the Masonic Lodge with 12 people passing and all with total isolation protocol.
- ▶ We participated in Amateur Radio Special Events:
  - The 13 Colonies Special Event Station (SES),
  - Route-66-SES (operating portable at the Wigwam Motel) and Fire Prevention Week-SES.

We had members that had the opportunity to operate

portable on POTA (Parks On The Air) and WWFF (World Wide Flora and Fauna).

- ▶ We had our first Amateur Radio Expo (Swap-Meet).
- ▶ We donated and set up a large TV/monitor for the Church.
- ▶ We donated and set up VHF/UHF radios for the Hospital.
- ▶ We have MOU's with the local school district and hospital to provide communications on a moment's notice and all have been trained and vetted as required with ID cards.

Although we were unable to participate as a club for Field Day 2020, we sure made up for it 2021.

When things got somewhat back to normal, our club continued to participate in several community events providing communications for the Tour de Big Bear, the Kodiak 100 and the Grand Fondo.

Well Folks, it's time for me to sign off as your President and say seven three. Take care and God Bless.

-Vic



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## [So Long, Farewell](#) - K6WDE

Yes, if you do click on the link above, it will take you to the Sound of Music, enjoy! It has been quite a ride, 18 issues to date. A big thank you to Vic, Greg, Dennis, Tracy, Assunta, John Snedden, Gary, Debbie and John Emig for your writings and editing skills.

If you indulge me, we'll go down memory lane and we'll hit some of the highlights of our journey. Our inaugural issue in June 2020 spoke to the Board decision to cancel Field Day due to the pandemic, John Snedden gave us a rundown on Prescott, Arizona ham radio activities and Tracy gave us a rundown on hamsticks, their tuning and usage. In July, Dennis, WB6RCK, gave us a writeup on the Victor Valley ARC, we built a HamClock using a Raspberry Pi and MTARA had a successful VE testing session at the Masonic Lodge. August brought us Field Day experiences from Jo, Vic, Dede, Bruce (and his balloon antennas), Gary, Debbie, Sandy and Tracy. In addition, Jo reported on her successful 13 Colonies activity over the 4th of July weekend. [Click here if you'd like to read these issues, again!](#)

The September issue had a field report from Kristine, KG6RFY, on the 'I-am-lost' event held in the Lake Arrowhead back country, we shared information on spotting

tools for POTA, SOTA and WWFF activities. The October issue gave us a wrap up of the Radio Expo held at the Masonic Lodge, a status on Route 66 and the first WWFF/POTA San Bernardino NF activation for the club using the WA6MTN callsign. As reported by Gary and Debbie their son, Jason (AJ6EN) and grandson Andrew (KN6LB) tested and joined the ham radio fraternity. Jason passed all 3 exams at the testing session, an Amateur Extra in the house! A great story about Jim Higginbotham (WA6UVQ) was in the November newsletter. Jim was a founding member of MTARA and the recollection was shared by Tracy. In addition, Greg discussed building an Octopus Antenna for field use. Gary began his 'Ponder the Pool' monthly question column, the first one being minimum separation frequencies in ham radio. For the Christmas December newsletter, members shared their Santa 'wish-lists', we had some very creative folks in the club! A special Zoom Elmer session was held with Chip Margelli, K7JA, and Dede gave us a field report on her ICOM IC-705 QRP rig, very impressive! Again, [click here if you'd like to read more.](#)

January brought the new 2021 year and a unique contact via Echolink through the MTARA2 repeater. We had a contact from VU2RNC, all the way from India! The antenna team went down to Assunta's in Riverside and installed a new VHF/UHF antenna. Jo, N6NTJ, shared her journey in ham radio, quite a ham story from the high seas!

Arthur Murray's dance lessons helped Vic in February with his mountain rain dance technique. We think it worked! Greg, AJ6FN, began a new column on construction techniques and Dave shared a build of a new QCX QRP CW radio. March brought our first YL member interview. Assunta, KJ6FQP spoke with Rhonda, KM6YBZ. Tracy wrote about phone connectors and Vic gave us some of his hard-earned DX chasing tips. [Click here](#) to re-explore.

Our second YL interview by Assunta was Nancy, K6CUB in the April issue. MTARA and the local ARES group supported the Mountains Community Hospital COVID-19 vaccination efforts. April also added the Debbie, WB6LVC, 'YLS in History' column for the newsletter. In the May issue, Assunta shared a little about Lorna, KJ6GFS and we had a field report on the Masonic Lodge CW and battery-box building seminar. In June, we learned about repairing surface mount devices from Greg and Carol, WA6UVQ, was the highlight of Assunta's interviews this month, Carol is quite the embroiderer! Finally, the long-postponed WWFF/POTA San Bernardino Nation Forest activation was completed with 70 successful QSOs. We had great lunch pizzas from Gene and 12 ham radio operators participated. Don't forget, you can [click here](#) for more details!

In the July-August issue, we reported on our first face-to-face MTARA monthly meeting at the Masonic Lodge, we saw the end of



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the COVID-19 tunnel! Gene and the U.S. Naval Sea Cadets explored portable HF ham radio at St. Anne's in Running Springs, with assists from Dave and Greg. Field reports from the 4th of July 13 Colonies week activities were included in the newsletter as well as a QRP Alaska writeup from Dave. The September issue asked for volunteers for the Route 66 Special Ham Radio week-long event, another field report on the Kodiak 100 running race and Greg shared an antenna switch box panel construction he recently completed. October brought a National Fire Prevention Week special event status update as well as wrap ups of the Route 66 special event and the Gran Fondo bike race in Big Bear. One last time, [here is the merged July - October](#) issue for your further reading pleasure!

Finally, the November issue had a report on Tracy's 'Map, Compass and GPS' class held at the Masonic Lodge, Gary built us a dipole in his Ponder-the-Pool section and the antenna team reported on a successful Big Bear Masonic Lodge antenna install event. The November newsletter wrapped up with a short Pacificon report as well.

I have enjoyed every minute and look forward to the new and improved January 2022 MTARA monthly newsletter produced and edited by Debbie, WB6LKV.

Thank you all for sharing, writing and most importantly ... reading,

73, Dave

## Monthly Club Meetings

Our monthly meetings are on the first Tuesday of each month. **December 7 is the next meeting, remember we are now at the Masonic Lodge in Twin Peaks.** The address is 26012 Highway 189, Twin Peaks, CA. 92391 adjacent to the Sheriff's Station. The meetings begin at 7:00 p.m. and last until about 9:00 p.m. Our meetings are open to everyone, licensed amateur radio operators or just interested parties. Our purpose is to provide educational opportunities, mentoring, radio communication training and radio communications for community events.

See you soon!

## Treasurer's Report - KK6LWH

Our opening October balance was \$10,837.73 with \$635.00 in deposits and no expenses for the month. The total funds on deposit in our account is now \$11,472.73 as of November 2.



73, Patty

## Online Zoom meetings ...

Our Zoom meetings are on THURSDAYS at 2:00 p.m. Check out the MTARA Website home page for a listing of what each of the presentations will be about.

The plan at this time is to try and carry forward until the end of the year. However we will be having some Saturday training classes and field operation trainings which will definitely be in lieu of a Thursday Zoom session.

There are holidays, conflicts and other events coming up so on the following dates **we will not be having a Thursday Zoom Session: December 23 and December 30.**

## Winter Field Day

Are you getting that itch to play radio in the field again? Well, put **January 29-30** on your calendar. Notice too, that the 29th is the last day of Quartzfest, so you can participate in both!

**Winter Field Day**, while similar to the June Field Day, gives you a chance to play portable radio with stations similar to yours. This year, the maximum power will be 100 watts for all participants. This will help level the playing field,

"We believe, as do the ARES & RACES organizations, that maintaining your operational skills should not be limited to fair weather



scenarios. The addition of Winter Field Day will enhance those already important skills of those that who generously volunteer their time and equipment to these organizations. This is why WFD is open to all licensed amateur radio operators worldwide." We hope to hear you on the air!

## 25th Anniversary - Quartzfest!

Yes, [Quartzfest](#) is on! Put the dates **January 23-29** on your calendar. This January, marks the 25th Anniversary of the gathering in the desert.

"We won't be having tents up this year except for our welcome tent. All presentations will be outdoors including power point

presentations. The power points will all be evening presentations..2 per evening. Of course, we'll still hold our daily seminars...hopefully, 8 per day."

The DX Distance Challenge, sponsored by the Northern Arizona DX Association, is all set and ready to go with rules already established.

"To answer some questions, yes we'll hold our pot luck dinner Tuesday evening, yes we'll have our annual pet parade, yes we'll have VE amateur radio exams both Wednesday and Saturday and yes we'll have our annual yard sale swap meet Saturday morning."

Don't miss this 25th Anniversary event! Keep checking the

Quartzfest site for more updates.

## 2022 Board of Directors Election - RESULTS

Please welcome your new 2022-2023 MTARA Board of Directors!

- President: Lorna, KJ6GFS
- Vice President: Chet, AE6CO
- Secretary: Debbie, WB6LVC
- Treasurer: Nancy, K6CUB

From the past board, Vic, Gary, Dave and Patty, congrats, we know you will do even greater things!

## ARRL Club News

From the ARRL ... Welcome to the first edition of the re-launched [ARRL Club News newsletter](#). The last time that this newsletter was published was December 2009. Some folks over the years have made the comment that clubs are dead. That is not the sentiment of today's ARRL leadership. Clubs are an essential part of the success of our organization, and we want to help them in any way that we can.

ARRL Club News is for **radio clubs to show how they are working in the community and the hobby to advance amateur radio**. If your club does a project, supports an event, does an EmComm activation or activates a park, we want to hear about it. You can submit your

newsletter article to us at [clubs@arrl.org](mailto:clubs@arrl.org). We like to get them as text or Word files instead of "PDFs". If you have pictures, please submit them with any caption information, as well as the name and call sign of the photographer. We want to highlight the good work being done by the clubs and show others in the community of clubs. Think of this as a chance to show off your club and your programs.

This newsletter will highlight some of the great things that clubs are doing. We want your feedback, and we want to know how your club is dealing with an ever-changing world. Let us know. Send your feedback to [clubs@arrl.org](mailto:clubs@arrl.org). We are listening. Thanks - Mike Walters W8ZY, Field Services Manager

Some handy ARRL links:

- ▶ ARRL Home: [www.arrl.org](http://www.arrl.org)
- ▶ Find an ARRL Affiliated Club: [www.arrl.org/clubs](http://www.arrl.org/clubs)
- ▶ Find Your ARRL Section: [www.arrl.org/sections](http://www.arrl.org/sections)
- ▶ Find a License Class in your area: [www.arrl.org/class](http://www.arrl.org/class)
- ▶ Find a License Exam in your area: [www.arrl.org/exam](http://www.arrl.org/exam)

Find a Hamfest or Convention: [www.arrl.org/hamfests](http://www.arrl.org/hamfests)

Consider a [membership in ARRL!](#)



## Construction Techniques - AJ6FN

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### Do It Yourself Coil Dope

**D**o It Yourself Coil Dope  
In this month's article, I would like to explore some materials for finishing coils which, we hams, often use in antennas and other RF circuits.

Recently I experimented with making some antenna traps for a portable antenna. An antenna trap is a parallel LC resonant circuit which can be placed in series at a particular point in the antenna. Traps are often used in multi-band antennas. A common issue with coils is keeping the turns from moving on the coil in use. When turns on a coil move, the inductance of the coil changes and so does the resonance point of the tuned circuit in which the coil is used.

It is common therefore to somehow affix the turns of the coil to the coil form to maintain the fixed inductance of the coil. I have experimented with a few different adhesives and have been disappointed by most. I decided to dig into the subject a bit deeper and wanted to share my findings with the group.

I have seen several youtube videos that suggest the use of epoxy on coils to protect the windings and hold them in place. I have also tried Gorilla wood glue which claims it, "Works with radio-frequency gluing systems", as well as fingernail polish. All of these work to hold the turns in place and offer some protection to the wire. However, I have found that these all change the inductance of the coil and thus, the trap's resonant frequency. This causes a problem if there is no way to adjust the resonant frequency of the trap after gluing the coil. I decided to try an old standard material called Q-Dope. I will describe the materials used to make Q-Dope and exactly how to make it. However, I did find that Q-Dope also lowered the resonant frequency of traps but not as much as some of the other materials while providing a robust coating for my coils.

I was able to find 2oz bottles of Q-Dope from GC-Electronics for between \$20 and \$40. Since this material uses a volatile organic solvent, I figured that

the bottle would dry up after I used it once or twice. That's when I decided to look into making it myself. Q-Dope consists of styrene dissolved in toluene. It is about as easy to make as a cup of instant coffee. However, finding toluene in California is very difficult...until you know where to look.

First the warnings: The safety data sheets for [toluene](#) and [acetone](#) can be found on their respective links.

Both acetone and toluene are extremely flammable and the vapors are harmful. For the average home, it would be best to use these materials outdoors in fresh air and away from ALL sources of ignition or heat. Remember sources of ignition such as water heaters and other automatic appliances that may have a pilot light or some other type of igniter. Finally, splash proof goggles and nitrile gloves should be worn.

If I haven't scared you off with the safety warnings, here's how to make all the Q-Dope you could ever want for about \$10. As it happens, a mixture of acetone and toluene can be conveniently found in a can of Gumout Jet Spray Carb/Choke & Parts Cleaner available from AutoZone for \$4.84 including sales tax. This will be the source of the solvent we will use. The other ingredient is styrofoam packing peanuts. I had none at home so I purchased a 1 cubic foot bag at the UPS store for \$5. There are several varieties of packing peanuts and the ones that seem to work best are shaped like the letter "S" and are firm to the squeeze. Some more environmentally friendly packing peanuts are made from starch and will not work for this project.

In a glass container, squirt about two tablespoons of carb/choke cleaner. Be careful of splashing as it sprays out of the can forcefully. Next, add about 80 styrofoam packing peanuts. You'll be amazed at just how many packing peanuts will dissolve in a small amount of solvent. I used a wooden pop-sickle stick to stir. When the solution begins to thicken, you are finished. Store in a tight sealing metal can or a small thick glass bottle with a tight fitting lid. That's all there is to it. Add a few more or less peanuts for thicker or thinner dope as you like. You can now brush the Q-Dope onto your coils to protect them and hold the



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turns in place. I use a Q-Tip to brush on the dope as it is disposable and cleanup of a brush is nearly impossible. It is best to not only make the Q-Dope outdoors but also to use the Q-Dope outdoors. The solvents (acetone and toluene) will evaporate from the mixture over a few hours leaving the coil coated with polystyrene.

In doing further research, I concluded that the different dielectric constants of various materials used to cover my coils is likely responsible for de-tuning the coils. I believe that the dope increases the capacitance between the wire turns and thus changes the resonant frequency of the coil slightly. Air has a relative (relative to a vacuum) dielectric constant of about 1. Other materials that are close to that dielectric constant are also gases and are thus unsuitable for use as coil dope. Styrene has a dielectric constant of between 2.4-2.6. There are materials that have dielectric constants closer to that of air: polypropylene (1.5) polyethylene (1.5) and Perlite (1.3-1.4) but they are difficult to dissolve for use as coil dope. Even pine tree resin powder has a lower 1.5 relative dielectric constant so if any of you mountain residents want to experiment, please keep me posted.



It may be possible to resonate the LC circuit slightly higher than desired and add very thin layers of dope until the resonance point drops to the desired frequency but this would require further experimentation.

For now, I decided to abandon the use of traps in my antenna for unrelated reasons but ended up going on a tangent and discovered how easy it is to make coil dope for future projects. Experimentation has been with us since the beginning of ham radio and is one aspect I enjoy most about the hobby. Had I simply purchased the 2oz bottle of Q-dope, I would not have enjoyed the investigation that went along with this project. Ham ingenuity is not a throwback to some earlier time but a vital part of growth in our hobby.

Good luck and good building,

Greg ~ AJ6FN

## Local Weekly Nets

	Repeater	Time	Activity	Purpose
<b>Monday</b>	MTARA-2	7:00 p.m.	Weekly Check-in	MTARA news
<b>Monday</b>	144.330 Mhz	8:00 p.m.	'Gordo' net	Simplex readiness
<b>Tuesday</b>	MTARA-5	7:00 p.m.	Weekly Check-in	Tech discussions
<b>Wednesday</b>	HF	7:30 p.m. first monthly Wednesday	7.223 Mhz	Band(s) status
<b>Friday</b>	MTARA-5	5:00 p.m.	XYL Happy Hour!	It's Friday!
<b>Daily</b>	<a href="#">CBARC</a>	7:00 a.m.	Technet	Elmer sessions

## Membership Info

Membership in the Mountain Top Amateur Radio Association© is open to any person interested in learning more about Amateur Radio. Members do not have to be a licensed Amateur Radio Operator to be a member but licensure is recommended. Members must be active in club activities which includes trainings, events, club meetings and Field Day. Membership is on an annual



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basis and is from January 1 to December 31 of each year. There are no prorated memberships. The annual membership is \$20 for a single member or \$30 for an entire family.

Current members do not need to fill out the renewal application form for 2021. You can just mail your check to MTARA, PO Box 2441, Lake Arrowhead, CA 92352-2441. We already know who you are. Those who joined in November or December of this year are already paid for 2021. The membership form can be downloaded by [clicking here](#).

## *The NEW YL Corner! - WB6LVC*

**D**ah,Dit,Dah,Dit Dah,Dah,Dit,Dah. Repeat and listen. What am I doing? Why, calling out CQ with Morse Code, of course! Many of our club members have made it known that they would really like to learn Morse Code. And a great many of them are YLs. Did you know that there is a club of just YLs who would love to have you become a member and will help you to learn the code? That group is a subgroup of the LICW Club. That stands for the Long Island CW Club. You may have heard mention of this organization before. Gordo has had them on as guests on the “old” Ham Nation and their founders have been interviewed many times on different formats. The club was started in 2018 by Howard Berstein/WB2UZE and Rich Collins/K2UPS. They are both active members on QRZ, so take a moment and look them up for further background information on both.

Their club call is W2LCW. Membership for one year is only \$30. More details can be found on their club page. One item is a page highlighting their YL group. There are over 100 ladies in the club! They participate in a group session on Sundays under the direction of Anne/KC9YL. All are welcome whether you have a license, know code or have never even done Ham Radio. This organization and their subgroups are most welcoming. They really want to encourage everyone to understand and use code. I know this personally as I was in contact with one of their founders, Howard, about 2 years ago when school shut down due to Covid. I was

looking for an activity for our grandson, Andrew, and a code class seemed right up his alley. I was put in touch with their Kids Club instructor, Robb/K2MZ. He was amazing! Our daughter watched along with Andrew and told me how warm and positive Robb was with all the kids. And how about this? 60% of the kids’ group is girls!! Way to go, LICW.

So, if you are sitting around with time on your hands or if you just want to take on a project, may I suggest you check out all their classes and see if there is one that would work for you. Like MATRA, they have everything is in a video form or on ZOOM, so you don’t need a ticket to Long Island. (Hi, Hi).

33/73 all.

Debbie

## *Side-trips to and from Pacificon - WM6T*

**T**he Pacificon Hamfest was back on this year with in-person events. The event required that you showed proof that you were vaccinated and you had to wear a mask while inside for any event. But none of those requirements seemed to decrease the enthusiasm and fun everyone had.

But, I want to share some other parts of the trip that made it much more enjoyable, educational and fun. In past years, we have traveled up a few days early and traveled back taking another couple of days. The adventurous team normally consists of Jodi, WA6JL, Gordon, WB6NOA and myself, WM6T. Sometimes Suzy, N8GLF and once Marilyn, W7MCJ, joined the car trip up north.

Our previous trips included stops at the TWIT studios ([Ham Nation](#)), the Golden Gate bridge, visiting some hams, twice giving presentations to the Benicia Ham Radio Club, visiting a train museum, staying in historic hotels, visiting a raisin farm, visiting the famous Cat House on the Kings river and losing Gordon for half an hour when he went hiking over an edge at a reservoir.



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This year on our way up our first rest stop was at Bravo Farms near Kettleman City. A chance to stretch our legs and shop in the store. That evening we spent at a motel in Santa Nella. Right across the street from the motel is the Split Pea Soup Anderson restaurant – good food and lots of snack items for sale that include chocolate.

The next morning we visited a potential future stop at an RV park at the San Luis reservoir. Then it was on to



a new POTA park that I have added to the POTA system. That park was just past the town of Newman off of Highway 33. We made a short car tour of Newman and found Gordon’s long lost movie theater.

Then we drove a short distance to the George Hatfield State Recreation Area which is a new POTA location. It was too windy and a bit cold to set up a radio but we walked around the park and especially on the old historic bridge.



It was then on to Pacificon in San Ramon for three days of events, lunch with the CRC40 group and a YL Happy hour outside. If you were at the last club meeting you heard about the fun that Dede set up for the Happy Hour on Friday evening.

On Sunday, we left Pacificon and headed to historic Jamestown. We wandered around town that late afternoon and amazingly enough we found an old ice cream soda fountain. I have trained my personal compass to locate those special spots along the way. We stayed in one of the historic hotels. Gordon had a very nice room whereas Jodi and I had a large closet with a bathroom. Oh well – it was historic or as Jodi said hysteric.

The next morning, we hit the road after a great breakfast at a family restaurant which Gordon likes. Then on Highway 49, the gold trail, to historic Coulterville and then to Bagby. The town of Bagby has disappeared but it was located along the Merced River.



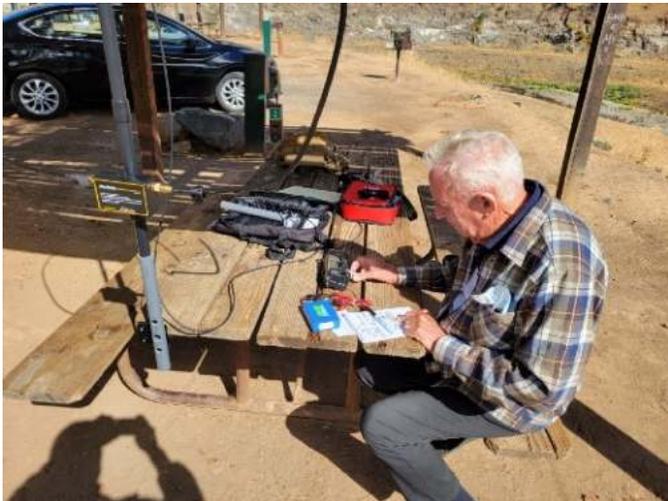
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We like stopping at this location for a rest. The river was waaaaay down from previous years when Gordon went panning for gold in the river. So instead we drove to the camping area which had only one camper and lots of room for a radio and antenna.

We pulled out the KX2, Alex Loop and a very small Bioenno battery. The location is in a valley, hence that is why the river is there. So, we were not expecting anything other than to listen and practice setting up quickly. Well wouldn't you know, someone from Texas was calling CQ and from a POTA park. I decided to see if I could make contact with Dave, AG7TX at K-3057, the South Llano River State Park. Sure enough I made contact and got a 579 and he was a 579 to me. He later told me that he was on a KX3 and an Alex Loop.



Then Gordon asked if he could try out my radio using CW. So I set him up with the key and watched. He said that he had not been on CW for over 3 years. He asked me to set the speed to 13 wpm which I did. Then I watched in amazement as he sent out his call sign and got a VE7xx to call him back. As I listened to Gordon sending flawless code I heard him send something like this "...my cw is a bit fuzzy...". They finished the contact and I thought to myself that I wish I was that fuzzy even after 3 days.

After that it was on to spend a night in Fresno. The next morning, we stopped at the famous Cat House on the Kings river. It is a home for over 700 cats and kittens

along the river. This is an amazing place with dozens of staff and wonderful accommodations on over 8 acres where cats can roam freely.

We then motored on to the raisin farm that Gordon likes to visit. This farm belongs to one of my relatives. His first time there, Gordon thought that raisins grew on vines and did not know that they were from grapes that are picked and placed on paper on the ground to dry into raisins. We originally thought he was kidding but I guess with all of those years on a boat with his parents he never imagined where they came from. The last time we visited, Gordon gave one of them a Technician book and this time the farmers gave him a bag of Sun-Maid raisins.

Well, my personal compass took us on to the very famous Superior Dairy in Hanford. Due to the COVID restrictions in that county, we had to eat all that huge amount of ice cream outside but it was in the county plaza with lots of great architectural buildings around us.

Loaded with plenty of ice cream we continued back to Highway 99 and Interstate 5 to Costa Mesa and then back home to the mountains.

It makes these trips so much more enjoyable with side trips and they make the drive seem shorter with all the fun things you can plan along the way.

73, Jodi and Tracy

## "I am lost" - WM6T

On November 3rd we had our second "I Am Lost" field trip and training.

After meeting up at the Sonoma house we were led to the rendezvous point by Paul, AI6AP and his wonderful assistant Karen, shown in the photo. Paul has been very active in the OHV program for many years. His experience with trail issues including on-coming vehicles and horses proves to be invaluable for a group of new trail drivers.

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Once all of the group arrived, we assembled at the intersection of 2N34A and 2N34, also known as Tunnel 2 Road. The Lost Team consisted of Bill, KK6TVB, Patty, KK6LWH, Nancy, K6CUB, Lorna, KJ6GFS, Dale, N6TVF, Bill, KI6GQX, Craig, KN6PLO and Craig's nephew Joe. Our mid-gunners were Gary, AA6GJ and Debbie, WB6LVC. The tail gunners were Jodi, WA6JL and myself. The Home Team was staffed by Denise, N6DEE

There was a check of everyone's radios on both main frequencies before getting started.

There was a travel scenario as part of the training, which Denise explained to everyone over the radio. It is a short story that goes along with the drive and the stops.

At the very beginning, several Lost Team members are told to hike to a location and look for a lost object which contains important information. This information is only one-half of a coordinate so the other Lost Team members drive to a location to find the other half. I hiked with the hiking team and at the end of the trail we met back up with the driving group. Now this group was very diligent in looking for the other lost item. In fact, I noticed that they were scattered all over the mountainside. I explained that I had hidden the item myself and I do not hike very far at all – 50 feet at the most.

Once the driving part of the Lost Team found the other half of the coordinate the results were called into the Home Team (Denise) who verified they had the correct information. Everyone had to enter the coordinates into

the Gaia app before we could move on. We switched the lead driver so others had a turn at the front (behind the navigator).

The next stop required the Lost Team to get out of their vehicles. Each person had a compass and a map. They used their compasses to sight three mountain peaks so they could locate themselves on a map. Once that was done we moved on.

At the next two intersections, the Lost Team did not know which way to turn. With a call into the Home Team and with their coordinates from the Gaia app, the Home Team told them which way to turn.

I do not want to spill any more of the fun since others may want to try this field training in the future. But there was an event which gave them the final coordinates of the ride.



At the end, everyone got out and explained what they had learned. This field event was a chance to visit the forest, drive on dirt roads, learn to use the Gaia app, understand about being on the correct frequency, losing radio contact with the Home Team for a short while, using a compass, plotting a location on a map and most importantly working together as a team.

So until next time – Do Not Get Lost.

- Tracy



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## *Upcoming Calendar of Events*

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Activities that MTARA will be participating in or supporting during the upcoming months:

- ▶ December 4, Blue Jay Christmas Parade communications support - more info to follow!
- ▶ December 7, MTARA December Monthly Meeting - **WE VOTE TONIGHT!**
- ▶ January 15-16, [North American CW QSO Party](#)
- ▶ January 22-23, [North American SSB QSO Party](#)
- ▶ January 23-29, [Quartzfest!](#), the real deal, no PAUSING THIS YEAR.
- ▶ January 29 - 30, [Winter Field Day](#), come out and play portable!
- ▶ TBD - Digital Modes Workshop

## *Upcoming VHF/UHF and HF Ham Radio contests or special events*

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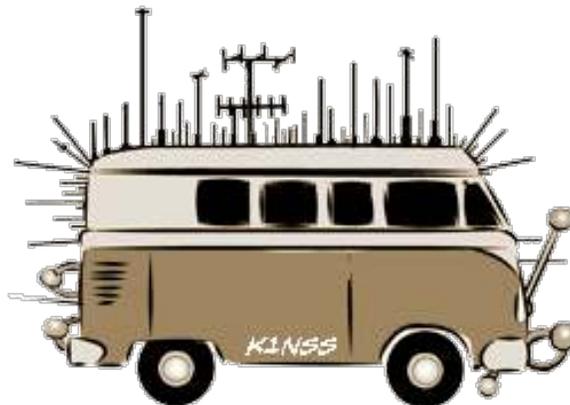
A few fun events that club members can participate in and/or sharpen their communication skills with!

- ▶ [Slow Speed Con\(Test\)](#) for CW operators, **EVERY SUNDAY** (4:00 - 5:00 p.m., PST) and **EVERY FRIDAY** (12:00 - 1:00 p.m., PST), a great learning tool for us new operators!
- ▶ [Weekly Phone Fray](#) by NW2K. A great way to get your feet wet for 30 minutes. It is weekly on Tuesday nights from 6:30 p.m. to 7:00 p.m. PST on SSB. The rapid-fire exchange is OP name and location ('Dave CA', e.g.). Folks start on 15 meters and then migrate to 20, 40, 80 and even 160 meters, its fun to watch the bands change as seasonal propagation does!
- ▶ Ongoing, updated [Contest Calendar](#) sponsored by WA7BNM, there is something for everyone, check it out!

## *MTARA shirts and jackets*

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**W**e have our optional MTARA logo shirts and jackets available so that you too can look smart and cool! If interested, please contact Mary at Classic Images in Crestline. Her telephone number is 909-338-2281 from Tuesday through Friday at 23723 Rocky Dell Drive, Crestline, CA 92325.





## Welcome to “Ponder the Pool” by AA6GJ

**P**onder the Pool is my column for the MTARA Newsletter. Every month I pick a point to ponder (a question) from one of the three FCC question pools and try to explain it more and review the concepts because,

### “If you don’t use it, you lose it!”

This time, we will ponder two questions from the Technician Class pool:

Questions No. T2B01 and T2B03 (Pgs. 80 and 81 in Gordo’s Technician Book)

**T2B01 – What is the most common use of the “reverse split” function of a VHF/UHF transceiver?**

**T2B03 – If a station is not strong enough to keep a repeater’s receiver squelch open, which of the following might allow you to receive the station’s signal?**

The “reverse split” button on your handheld or mobile unit allows you to quickly monitor the repeater **input** frequency. Many times, a fellow operator might be closer to **you** than he or she may be to the repeater itself. That means that it might be possible for you to work this individual directly by going “simplex” (going radio to radio and not going through the repeater). If this operator is “broken up” through the repeater or simply not making it at all, it would be better to work simplex, if possible, and not try to tie up the repeater with a QSO that is simply not going to work. Have you ever tried this? Maybe you would like to try it, but it just seems to be too complicated. I will try to explain it in this article, and maybe it won’t be so formidable.

Ok, I will be using the photo on the next page for this explanation.

I am using my Kenwood TH-D72 HT for this demonstration. I know not all HTs look the same, but this operation is the same on all HTs and mobiles. Otherwise, it wouldn’t work properly.

Look at the first photo on the right. The HT is set in the NORMAL operation mode. Notice the highlighted portions of the screen and the arrows. 146.385 MHz is the **output** frequency of the Keller Peak Repeater. The arrow pointing to the + sign indicates that the repeater offset is 600 kHz higher than the **input** frequency. That means that the **input** frequency of the repeater is 146.985 MHz. Remember that for later. The “T” in the black box indicates that the CTCSS tone of 146.2 Hz is set and activated. Again, this would be normal operation.

Now, look at the center photo. Notice that I have pushed the “REV” button. The display is indicating an “R” next to the + sign. This is telling you that the HT is now in the “Reverse Split” mode. Check out the receive frequency. The HT is now listening to 146.985 MHz, the **input** of the repeater. Since our above-mentioned friend is transmitting on 146.985 MHz hoping to hit the repeater, you will now hear him or her on your HT, assuming of course, he or she is not too far away from you. For the sake of argument, let’s say he or she is coming in on your HT very strongly, full quieting even. But he or she is still not able to adequately key up the repeater. This is great news for you because you now know that our friend can communicate with you **without** the repeater. So, now how do I communicate to our friend these new facts.

That brings us to the last photo in our array. You can see by the location of my thumb that I am pushing the PTT “push-to-talk” button. Notice what happens on the display screen. Remember, we are still in the REV mode. The screen is now displaying 146.385 MHz, the **output** of the repeater. We are now officially doing a “Reverse Split” Our friend can now hear you as if he or she were listening to the repeater output. Since you could hear him or her very strongly, you would probably



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Keller Peak Repeater

This is the normal operating mode for duplex operation.

In the receive mode, this freq. represents the input freq. of the repeater.

In the transmit mode, this freq. represents the output freq. of the repeater. The HT is now transmitting on the output freq. of the repeater.

“T” For CTCSS Tone (146.2 Hz)

+ For Plus Offset

“R” For Reverse Function

Reverse Key

Remember to click the “Rev” key again to get back into normal repeater function.

be very strong to him or her, assuming, of course, that all things are equal. That is very presumptuous of me, huh? So, where does the “split” part of this operation come into play.

We know that we cannot transmit and receive at the same time on one frequency. Repeaters are set up to have an input and an output frequency. We must adequately “split” those frequencies by some agreed amount. In our scenario here, the two frequencies are split by plus 600 kHz. In this case, we **listen** on 146.385 MHz and **transmit** 600 kHz up at 146.985 MHz. This is the normal split. But I can hear you saying, “Yeah, yeah we already know all of this. What’s the deal?” Well, the deal is this. When we are using the REV mode, the opposite is happening. We are **transmitting** on 146.385 MHz and **listening** 600 kHz down on 146.985 MHz. This is the **Reverse Split!!** Isn’t that just magic?!? I know, I get excited over the silliest things.



**Before I forget**, remember that when you are in the REV mode, that you are transmitting on the repeater’s output. This means that you could be interfering with the repeater. Utilizing the REV mode is only used to establish a communication. It is NOT used as a normal operating procedure. So, once you’ve made a contact with your friend, change frequencies (QSY) to another agreed to frequency to continue your QSO. To get back to normal operation, you push the “REV” key again, the “R” will disappear, and you will now be back in the normal split mode. Phew! We made it!



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So, the official answers to these questions are:

**T2B01 – Listen on a repeater’s input frequency.**

**T2B03 – Listen on the repeater input frequency.**

There you have it, Ponder the Pool for another month. I hope it was helpful. Stay tuned, next month we will come up with another question to ponder. 73 – Gary

If you have any questions or comments, drop me an email at AA6GJ@arri.net.

