



MTARA NEWS



| JUNE 2020 | [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

Greetings from your President, Vic, KK6WKI.

This is our first newsletter and I hope that you enjoy it! We are planning a monthly newsletter and are always looking for more contributors!

The newsletter is the brainchild of our club secretary Dave, K6WDE.

These last few months have been quite a challenge for all of us but as a club with our leadership team, we have learned a new word, **Zoom,**

the verb and the noun!

Now that we are close to June, we have had several zoom



presentations, we've learned new techniques for contesting and many other tips and tricks!

We have also had several virtually tours of our members ham shacks. Zoom has been a great resource for our club members during this time

of social distancing. If you need assistance putting zoom on your computer or smart phone, you can contact Tracy, WM6T.

I would like to give a personal welcome to our new club members:

- ▶ Merry and Eddie Escalera, KN6HJU and KN6HJT, GVL
- ▶ Roger Ramirez, W6RJC, Redlands
- ▶ Ed Clark, KM6UWI, Calimesa
- ▶ Robert Ippoliti, WB6URC, North Hollywood

In future newsletters, we will highlight and provide short bio's on our new members. Our membership stretches well beyond just the San Bernardino mountains as you can see!

I am really looking forward to the time we can get back to our regular monthly club meetings and seeing each other again. Until then, stay safe and as always, **if you see something, say something!**

Seven three my friends.

- Vic

Field Day Update - **BREAKING NEWS!**

We wanted to let everyone know that your **MTARA Board of Directors has voted to cancel this year's Field Day club event.** For the safety of our members and families it was decided that this was the most prudent path to take and to let you know early.

In place of a large club event we want to encourage all of our members to consider participating in Field Day on your own or with a family members. You can operate from home, mobile or portable. The ARRL rules all for several options for individual participation.

Here are a few ideas:

- ▶ Operate from your home with your existing station.
- ▶ Take a portable radio out in the forest, throw up and antenna and operate. You can work either 100 watts or QRP but not both.
- ▶ Operate a VHF/UHF radio from a very high location on simplex.

MTARA NEWS

| JUNE 2020 | [Mountain Top Amateur Radio Association](#) |

Here is a very short summary of the rules. We left out Class A information because it will not apply this year.

4.3. (Class B) One or two person portable: A Field Day station set up and operated by no more than two persons.

4.4. (Class B - Battery) One or two person portable: A Field Day station set up and operated by no more than two persons. All contacts must be made using an output power of 5 Watts or less and the power source must be something other than commercial mains or motor-driven generator.

4.5. (Class C) Mobile: Stations in vehicles capable of operating while in motion and normally operated in this manner.

4.6. (Class D) Home stations: Stations operating from permanent or licensed station locations using commercial power. Class D stations may only count contacts made with Class A, B, C, E and F Field Day stations.

4.7. (Class E) Home stations - Emergency power: Same as Class D, but using emergency power for transmitters and receivers. Class E may work all Field Day stations.

What bands and mode can you operate on? Well just about all: 160, 80, 40, 20, 15 and 10 Meter HF bands, as well as all bands 50 MHz and above. All modes are allowed.

The board would like to encourage you to take the time to participate

in Field Day in one way or another.

For more information on Field Day, [click here](#). The [FD rules](#) are defined here.

Your Board of Directors,

Vic, KK6WKI, Gary, AA6GJ, Dave, K6WDE and Patty, KK6LWH

Gary's Gear, Gizmos and Gadgets - AA6GJ

Here's something fun! This gizmo is from the people who make Snap-Circuits.

On June 9th, I will be conducting a little soldering training. The training won't be too



elaborate, and it will be a lot of fun for the beginner. The Elenco Electronics "Solder Practice Board Sp-3B" is just what the doctor ordered. Here are some of the activities that can be accomplished using this board:

- ▶ Identifying components
- ▶ Color code reading of resistors, capacitors, and inductors
- ▶ There are 163 solder points, some are standard soldering connections, and some are close-tolerance soldering

connections.

- ▶ We can practice Desoldering, too.

Here are some other items that you can learn:

- ▶ What kind of soldering iron will we use? How many Watts?
- ▶ What type of tips are used on the soldering iron?
- ▶ When do I use a soldering gun?
- ▶ How about the solder itself?
- ▶ What is flux?
- ▶ What is a "cold" solder joint?

And the best part is this [little gizmo is cheap](#). It's \$11.95 plus tax & shipping from [elenco.com](#)

You can also download the "Solder Practice Kit Assembly and Instruction manual that we will be using during our Zoom Meeting on June 9th. Even if you don't buy the kit (it's not mandatory to have the kit) you can download the Instructional Manual for free. It would be nice to have.

So, that's my gizmo for June. I wonder what I'll come up with for July. The most important point is to have fun learning new things.

Remember: No two flowers bloom exactly the same way, just as long as you bloom.

Take care and 73!

MTARA NEWS

| JUNE 2020 | [Mountain Top Amateur Radio Association](#) |

Editor's Welcome - K6WDE

Welcome to the first edition of the MTARA newsletter! We are looking for authors to contribute, so please consider sharing your knowledge and passion for ham radio. There are so many facets of this technology, and there are experts out there. Please consider sharing your knowledge.

As you skim through the newsletter, you will notice **bold blue underlined text**, these are live links to website referenced in the article, just click for further info!

Again, welcome to the monthly MTARA newsletter and send me your articles for next month's edition!

Monthly Club Meetings

Our monthly meetings are on the first Tuesday of each month. The meetings begin at 7:00 pm and last until about 9:00. The meetings are located at the Lake Arrowhead Presbyterian Church located just south of Lake Arrowhead Village at 351 Hwy 173, Lake Arrowhead, CA 92352. Phone is (909) 336-1502.

Our meetings are open to everyone, licensed amateur radio or just interested parties. The club is family oriented and meant to be educational and fun.

Our purpose is to provide educational opportunities,

mentoring, radio communication training, and providing radio communications for community events.

Each meeting also has a technical presentation on some aspect of amateur radio.

Near the end of each meeting is our monthly mentoring session called an Elmer session.

Views From Points East - KT7P

Greetings from Points East and welcome to Arizona! Ham radio is alive and well in this state and quite a surprise for me, besides big towers with big beams and long ground radials, are the repeaters for VHF/UHF. VHF/UHF is big over here with lots of SSB on 2 meters, lots of simplex use, and linked repeaters. Even Autopatch is available and used frequently here. Since a lot of you travel and do radio, I thought this info would be of interest to some. I have included a **[pdf map of the sites and pdf charts for frequency, ID, location, link, and features](#)**. Search for the File Downloads on the page!

Arizona, being as spread out as it is, does not have the same problems of repeater overload as the Southern California area does so repeater interference is minimal if a problem at all. The Arizona Repeater Association, W7ARA, has at least 36 repeaters through out the state. The Call-ID for 33 of

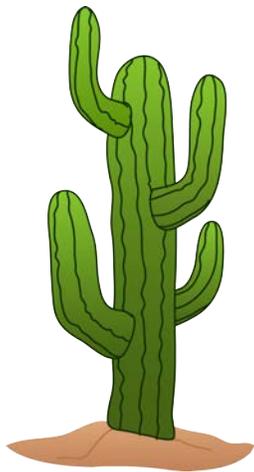
them is W7ARA and 3 others are owned by hams who are part of the ARA network, but not owned and serviced by ARA. The ARA was formed in 1967 and general membership is open to any Radio Operator who possesses an FCC amateur radio station license.

Having programmed numerous repeaters into my radios, I noticed the repeater names were site oriented and lots of them had additional initials like RL, ML, II, NL, and CZ. I figured over time I would find out what that was all about. Sitting in the shack and spinning the dial through the programmed repeaters I would hear stations in Tucson, Payson, Phoenix, Kingman and then Utah, Nevada, Idaho, and California. Now I like my X-200 VHF/UHF antenna and it is on a 20 foot mast at the 5400 foot level, but I shouldn't be hearing those stations in my area.

Asking around led me to the ARA info and I learned that the ARA has linked repeaters and uses different "systems" and names. Like Rimlink System, Metrolink System, Northlink System, and the CalZona Link System. In addition to those, the Rimlink System is also linked to Utah and the Intermountain Intertie which is maintained by the Utah VHF Society, which links with Nevada, Idaho, and Colorado. There are also IRLP Node links as well as Echolink Node links and what the heck, 14 of these repeaters have Autopatch capabilities with a 3 minute per call and a 15 minute timer for 911 calls.

MTARA NEWS

| JUNE 2020 | [Mountain Top Amateur Radio Association](#) |



The GalZona system is linked into the East County system in the San Diego area and stretches through out Southern Arizona.

There are also

numerous club owned repeaters, ARES/RACES repeaters, ATN repeaters, private owned repeaters, portable Public Service repeaters and commercial/Public Safety repeaters through out the state. The mountain repeater sites, some private tower sites, building tops and homes have Gateways and Digipeaters for WinLink and IRLP connections. Information on those repeaters and others will be found in a Repeater Guide Book either hard copy or on your mobile device.

So VHF/UHF is alive and well in the State of Arizona. You can communicate just about anywhere and anytime with just a handheld and if you have a 10 element Yagi on a pole you can do wonderful things with wonderful people in far away places! One can hit the Big Bear Repeater from Kingman with the right antenna and radio!

Remember, less than 50% of Arizona is desert, the rest is mountains, high plains, lakes and rivers. Hope you can visit some time and try out these linked

systems. Don't worry about throwing out your 6 call sign. There are a LOT of 6 calls that live here and you will blend right in. So give it a shot!

73 all and hear you down the log!

From Points East,

John

Treasurer's Report - KK6LWH

As of the February 2020 approved meeting minutes, we had a balance of \$8,687.09 in our checking account, an income from membership dues of \$320.00 and no expenses for the month. The total funds on deposit in our account is now \$9,007.09!



73,

Patty

Emails

We have been sending out weekly emails to all club members. However, we get a lot of refused emails from those with 'hotmail' or 'msn' domain names. We cannot fix it from our end since the spam catcher is part of Microsoft's email system at the receiving end.

Online ZOOM meetings

Our Zoom meetings are doing really well. So far, we have had 12 sessions over the past seven weeks. We have another 12 planned for the rest of May and into the first part of June. Attendance is between 20 and 30 club members and sometimes includes invited guests who are welcome to attend if we are given advanced notice. Check out the MTARA Website home page for a listing of what each of the presentations will be about. Our "Visit My Shack" has been very popular. If you need help setting up Zoom on your laptop or smart phone please contact Tracy, WM6T, who will help you get set up and running.

"A Lid" - don't be one!

'Kerchunk-ing' a repeater, ask for a signal report if you wish to make sure your radio is working.

Always sign onto a repeater with your call sign and that is all. When someone hears a call sign they have NO clue what you are doing, are you listening? are you clearing out? are you ordering pizza or what?

When giving your call sign always say after the call sign "For ID", That is a little redundant don't you think?

MTARA NEWS

| JUNE 2020 | [Mountain Top Amateur Radio Association](#) |

Upcoming Calendar of Events

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

▶ Field Day 2020

Field Day has been CANCELLED due to Corona virus safe social distancing concerns.

▶ ALA Fourth of July – Still on the schedule for Saturday, July 4th.

▶ Mountain Top Days – No information at this time.

▶ Tour de Big Bear – Rescheduled to September 19th.

▶ Kodiak 100

MTARA members will be supporting the Kodiak 100 two day event in Big Bear. Dates are August 14-15, 2020. However, the organizers are considering changing the date to September 11-12. They will make a final decision by June 1st.

▶ Kids on Public Lands

KOPL has been CANCELLED due to Corona virus safe social distancing concerns.

▶ Big Bear Gran Fondo – Still on schedule for September 26th

The Gran Fondo mountain bike ride will be held once again in Big Bear. MTARA members will be located along the mountain area trails, aid stations and in SAG vehicles providing communications to support the event.

Upcoming VHF/UHF and HF Ham Radio calendar of events

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

▶ [Kentucky QSO Party](#), June 6-7

▶ [ARRL June VHF Contest](#), June 13-15

▶ [West Virginia QSO Party](#), June 20-21

▶ [ARRL Kids Day](#), June 20

▶ [RAC Canada Day](#), July 1

▶ [North American SSB QSO Party](#), August 15-16

▶ [Hawaii QSO Party](#), August 22-24

▶ [Ohio QSO Party](#), August 22-23

▶ [Kansas QSO Party](#), August 29-30

▶ [California QSO Party](#), October 3-4

▶ [Pacificon](#), October 16-18, hopefully!

MTARA NEWS

| JUNE 2020 | [Mountain Top Amateur Radio Association](#) |

Echolink Update

For those who are away from their radios during our MTARA nets you can always check in using Echolink from your computer, smart phone or tablet. Setup is easy and fast but you must wait for confirmation of your call sign before you are enabled. This verification makes sure only license amateur radio operators are using the system.

Echolink is always up on MTARA2 except for maintenance once a week for about 10 minutes. We can switch the MTARA Echolink to any 2-meter frequency if necessary in an emergency. The node is WM6T-L.

Our Tuesday night 220 net is on Echolink as well but the node is different. You need to use the Keller Peak node which is KE6TZG-R and it is only available from 7:00 pm to 8:00 during our net time.

Mountain ARES

The American Radio Relay League has announced that the ARES program will be significantly updated and enhanced beginning in 2019. This includes a national database of certified ARES members. More information is available at our MTARA club meetings.

Rim of the World ARES now has support agreements (MOU's) with the local hospital, ARC approved shelter in Lake Arrowhead and the local school district.

ARES members are available to support the local CERT Teams and ECS if requested.

The Rim of the World ARES and MTARA has installed communications equipment in various agency locations:

- ▶ Hospital - VHF/UHF and HF radios
- ▶ Shelter - VHF/UHF and HF radios

- ▶ Sheriff - VHF/UHF radio
- ▶ CERT Trailer - VHF/UHF x 2 radios
- ▶ Bus Barn - VHF/UHF radio
- ▶ Schools - 120 HT radios

Membership Information

Membership in the Mountain Top Amateur Radio Association (c) 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 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. The membership form can be downloaded by [clicking here](#).

Local weekly nets

	Repeater	Time	Activity	Purpose
Monday	MTARA-2	7:00 p.m.	Weekly Check-in	MTARA news
Monday	144.330 Mhz	8:15 p.m.	'Gordo' net	Simplex readiness
Tuesday	MTARA-5	7:00 p.m.	Weekly Check-in	Tech discussions
Thursday	HF	10:30 a.m.	14.240 Mhz	Band(s) status
Friday	MTARA-5	5:00 p.m.	XYL Happy Hour!	It's Friday!
Daily	CBARC	7:00 a.m.	Technet	Elmer sessions

MTARA NEWS

| JUNE 2020 | [Mountain Top Amateur Radio Association](#) |

Hamsticks – What are They and How are They Used? - Tracy, WM6T

A Hamstick is a thin fiberglass hollow pole with a wire wrapped along its length and then covered in a plastic coating to protect the



wound wire. At the top end is a place to slide a thin metal rod which is adjusted for the correct length to match the portion of the band you want to transmit and receive on. It uses standard 3/8" threaded connector at the mounting end.

So basically, you have a rod about 3 to 4 feet long with

an adjustable stinger at the end.

Hamsticks are made for a particular band so you will need one or two for each band you want to work. Typical bands are 80, 75, 40, 20, 17, 15, 10, and 6 meters. They can handle 200 watts or more.

The reason that they are popular is that they are inexpensive and mount easily to a vehicle, can be used as a standalone vertical or with a pair in a dipole arrangement.

As a vertical either standalone or mobile mount, they must have a ground plane such as the vehicle chassis or counterpoises. In a dipole arrangement, no counterpoise is necessary.

There are several disadvantages with Hamsticks. Basically, they are shortened verticals – very shortened. The wire that is wrapped around the fiberglass section is close to $\frac{1}{4}$ wavelength and the adjustable stinger is used for the rest of the match to

a particular portion of the bands.

Hamsticks in the lower portion of the bands are very high Q and therefore only cover a very small portion of the band. On 80 meters for example, they cover only about 10 kHz at best whereas the 20 meter sticks are about 175 kHz wide.

I finished testing three different brands of Hamsticks a week ago. I noticed that the lower bands (15 to 80 meters) had a lot of tightly wound sections. Some manufactures had the tight sections in the middle of the pole and one had that section near the tip. That manufacture with the windings near the end was Lakewood and first used the term "Hamsticks". Unfortunately, they are no longer in business because their Hamsticks worked much better than the others I tested.

Personally, I like the dipole arrangement. It does require lowering the top section when you want to adjust the stinger portion. I make the adjustments before ever going to the field and print out the list for each band. I typically only use 40 and 20 meters. I



also mark both the pole and the stinger with the preferred length with colored electrical tape. Depending on the height of the dipole and the ground conditions I will have to make adjustments in the field but generally it means moving the stinger in or out less than $\frac{1}{2}$ inch.

MTARA NEWS

| JUNE 2020 | [Mountain Top Amateur Radio Association](#) |

Below is a table of the results after adjusting the stinger length in a dipole configuration. The setup was a tripod, 8-foot fiberglass mast and the [Octopus Hamstick mount](#). An example of the Octopus mount is on the previous page.

Depending on the manufacture of the Hamstick the length of the stinger sticking out will be different as will of course the height above ground affect the length of the stinger.

		Lowest Measured SWR and Corresponding Frequency		Measurements at a Preferred Frequency	
20 Meters	Height	Freq	SWR	14240	SWR
	10 ft	14235	1.88	14240	1.88
	13 ft	14220	1.27	14240	1.32

40 Meters	Height	Freq	SWR	7250	SWR
	10 ft	7235	1.09	7250	1.34
	13 ft	7260	1.30	7250	1.35

I prefer when testing to use a measurement showing the distance that the stinger is inserted into the fiberglass portion. This way I do not have to go way out to the very end and measure from the fiberglass end to the end of the stinger each time which is not very easy.

40 Meters		
Insert Dist	Freq	SWR
5.00	7295	1.7
4.50	7265	1.4
4.00	7240	1.6
3.50	7205	1.3
3.00	7185	1.7
2.50	7160	1.6
2.00	7125	1.3
1.50		
1.00	7075	1.6
0.50	7035	1.3

In this table for a pair of 40 meter Hamsticks I list the inserted distance and the lowest SWR and corresponding frequency.

I learned several years ago while traveling with

WB6NOA about a trick to use a piece of aluminum foil about 1/2-inch wide around the pole section and slide it up or down along the closely wound wire section to even more finely tune to a lower SWR. About three years ago I switched to use a hose clamp with a wing lightener very lightly clamped to the pole. The photo on the previous page shows the two 20 meter Hamsticks on the left with the distance markings and

40 Meters		
	Freq	SWR
2-1/2" in and clamp at 1-1/2"	7165	3.0
	7180	2.5
	7195	2.0
	7235	1.1
	7250	1.4
	7270	2.0
	7285	2.5
	7295	3.0

the two 40 meter Hamsticks on the right with the yellow hose clamp in a particular position. In that position the results as shown below.

So Hamsticks are easy to use, not very expensive, can be set up in a matter of minutes and work reasonably well if conditions are good. Two weeks ago I used the 20 meter Hamsticks in a dipole arrangement connected to my KX3

and running 5 watts. Since the dipole is also directionable I was able to set the direction toward the Family Ham Net group and had very good contacts ranging from 55 to 59.

Tracy