



“From the Shack”

March 2021 Newsletter



HAM RADIO AND CAMPING

RV there yet?

Many RVers are happy to just be on the road and visiting the many exciting places this country has to offer. Some work while on the road either full or part-time. Then, there are those who enjoy hobbies and other interests as part of the RV experience.

When I am traveling, I take along my amateur (ham) radio equipment. I find it to be a perfect match for adding enjoyment to my RV adventures.

When planning a trip, I look up the amateur radio repeater information for the areas I am going to be visiting and then load that information into my radio.

There is a great website for this called **Repeaterbook.com** - check it out! I am then prepared to make contacts with other ham radio operators while traveling down the road or camping. I enter the frequencies in the order of my intended route and camping locations. That way, I can simply move to the next frequency as I move to a new area.



WHILE ON THE ROAD

There are some basic rules and considerations when using ham radio while driving. Most importantly, **you must always make safe driving the priority**. Holding a microphone in your hand and talking, will take some of your concentration away from the task of driving safely. Make sure you are comfortable doing this and when all of your concentration is required for driving, put the microphone down and drive. Most states allow for the use of 2-way radio equipment while driving. Make sure you are aware of any laws or restrictions that may not allow for distracted

driving for the state you are in. You may be allowed to use a headset/microphone with a voice-operated switch, also known as a VOX (voice operated exchange) that will allow you to talk without having to hold the microphone and use the “push to talk” switch.

While traveling, I will tune into a frequency and listen for any conversations that are occurring on a repeater. When appropriate I will join into the conversation. If there is no activity, I might call for a “radio check” or indicate that I am monitoring the frequency. Often that will lead to a conversation that can be the source of a new friendship.

RV PARKS AND CAMPGROUNDS

If you are going to use your radio while camping in an RV park or campground, you should always check with the park manager or camp host to see if there are any rules or other considerations you should follow. Simply put, be a good neighbor! As a ham radio operator, I always want to “Be on my best behavior” to show others that I am responsible for my conduct. If the individual campsites are close, I will talk to my neighbors, let them know what I am doing and make sure they are OK with it. Interestingly, this often leads to questions about ham radio. I use those opportunities to educate them on the uses of ham radio in emergency communications and as a hobby.

If you are going to set up outside of the RV, which is what I often do, then use good practices with respect to your volume (both transmitting and receiving). The use of a headset will help with the received aspect, but you need to hold the microphone close and use an appropriate voice level when transmitting. If and when necessary, I will simply move inside of the RV to do any communicating.

If I am only going to be in a campsite for a night or two, I will just use my handheld radio for my communication. If I am going to be there longer, I will setup my portable go-kit radio that allows for the best communication scenario. When setting up this equipment, I use a portable “J-pole” antenna, mounted to some fiberglass poles. The poles and antenna are then secured to my ladder using Velcro straps. This setup gives me about 25 feet of antenna height, which is sufficient for most communication needs. ***NOTE: It is important to check for obstacles (particularly overhead power and utility wires) that may interfere with your plan. I have seen overhead wires even in remote campgrounds. BE SAFE-CHECK FIRST!***



BOONDOCKING

This method of camping generally allows you to communicate on the air while not interfering with others who may be camping near you. While there may be times that you have relatively close neighbors, most often you are open to using your radio without restriction. If you have concerns,

ask those camping nearby if they have any objections. You can set up your antenna on a pole or hang it from a tree branch. Some antennas are designed to sit on the ground and others require special (and time consuming) setups. I have seen serious operator's setup long wire or beam antennas and have heard them on some long-distance contacts. When you see this type of installation, you know you are dealing with a serious ham operator.

IN SUMMARY

RVing and Ham Radio can work together to make your travels exciting and fulfilling. You never know what you will learn and whom you will meet, either on the air or in person.

Adding a ham radio antenna to an RV or Trailer

[This is my version of the portable group plane as outlined in the article by N5ESE



I am a ham radio operator, call sign K7BTU, and like to have my radio equipment with me when traveling and camping. When I am at the campsite, I usually set up my portable rig and a temporary J-Pole base antenna for my communication needs. More power and a better antenna will make for improved communication. I have considered installing a mobile in the RV but I often like to set up under the awning and kick back in the chair to communicate rather than sit in the driver's seat. At this point, I have decided to just use a hand held radio. A handheld ham radio (HT) is lightweight and convenient while traveling down the road. Unfortunately, the lower power of the radio and rubber duck antenna performance diminishes the signal. Add to that, the potential interference and signal blockage by all the stuff in the RV, and your signal will suffer even more.

Putting an antenna on the roof is the solution

I like the simplicity of the handheld radio and so putting a better antenna on the roof seems like a logical solution to improving the signal. Regardless of the type of radio, it is still best to have a good antenna on the roof. So, I decided to figure out a way to install an antenna on the roof of my motorhome to allow for better communications while on the road.

My RV roof is a plywood/foam and aluminum rib frame composite construction with a rubber membrane cover. This type of construction greatly impacts the installation of such equipment. This type of roof construction does not act as a ground plane to help the antenna propagation pattern. That being the case, I needed to come up with a plan to create a ground plane on the roof. I thought about a piece of sheet metal, but it would have been about 30 inches square and then there was the problem of securing it to the roof. I was concerned about the possibility of the wind stress while traveling could rip it off. So, I went to the internet to look for a solution.

I came across a system on a ham website [n5ese.com, by Monty Northrup] showing a possible solution. (Thanks, Monty for the great idea). I decided to try this method to see if it would work on my RV. I built a ground plane using his outline and then placed it on the roof of my RV for a test.

The unit consists of a shallow electrical box, about 5/8" deep, as the base and the radials are made up of 1/8" all-thread rod, covered with heat shrink tubing to protect the roof from abrasion from the threads. Drill 4 holes in the sides of the box for the radials and secure them with nylon lock nuts. I used a 1/4 wave magnetic antenna with a SMA male connection to match my handheld radio. [not the best solution but workable] The use of the 1/4 wave helped to keep the antenna height lower for clearance purposes. I then hooked up the handheld and asked for a radio check on a local repeater. I received a response saying my signal was strong and readable. I then asked the responding operator his location, which was about 15 miles away and asked if he would contact me on a "simplex frequency" to see how that would work. We made contact and he said my signal was still good and readable. I was satisfied with that and thanked him for his help. Life was good!



I needed to figure out how to mount the system to the roof without drilling holes to keep it in place. I was prepared to route the cable through the roof with a roof mounted cable cover but that was all the drilling of holes in my roof I was going to do. After some thought, it came to me that I could use some roof repair tape called "EternaBond™ RV repair tape". It is available from RV/trailer supply outlets, but I

ordered mine from Amazon. This tape is made for repairing the type of roof material used on my RV and I had used it when I attached my solar panels down. Very strong adhesive and no holes required. It is not cheap but is very useful for many RV purposes. There are other brands, but I like the quality of this tape.

Before putting the ground plane “electrical box” base down, I put a piece of the EternaBond™ tape down on the roof to protect the roof from any abrasion by the box. I then attached the antenna to the roof by taping down the radials down using pieces of the EternaBond™ tape. As the picture shows, it makes for a pretty solid installation with very little wind resistance. After drilling one hole through the roof for the cable. I pushed the connector through the hole and into the cabinet that was immediately behind the driver location. I then sealed the opening in the roof with a cable plate and RV roof sealant making sure the cover and attaching screws are completely sealed.

I put a little silicone bead around the magnetic base to help secure it to the metal box. Just a little extra caution to keep it from being knocked over by the occasional hit by a branch.

The antenna cable was then routed from the cabinet to the dash by utilizing the door trim molding to hide it. This allows me to attach the antenna cable to my handheld and then use it with the roof mounted antenna. I attached a bracket to my dash to hold the radio and have a remote speaker/microphone attached to the radio to use for communication. This leaves the radio clipped to the dash bracket and allows me to use the lightweight speaker/mic in my hand. [If a need arises to stop using the radio because of driving needs, it is much better to drop the mic than the radio]. It's almost like having a mobile but much smaller footprint. I run off the handheld battery but also have charger/power supply plugged into the lighter port to recharge the batter when needed. I have used this setup on three camping trips and it has worked just fine. Keep in mind that you have to be within range of a repeater or the other party if using “simplex”, but it has performed very well for me. If I need more power for communication when camping, I set up my mobile rig and J-Pole antenna.

Ham radio can really be a fun addition to your camping experience, so give it a try!

CALENDAR ITEMS

- Our March “Fox Hunt” will be held on the 13th, beginning at 0800 hours local and running until 1200 hours local. Locate the fox virtually from your location, by triangulation, or drive and walk to locate the fox. Your choice. Send your results to our email address tville.hamnet@gmail.com



- Time for the broken record -- We need more of you to volunteer to call the net. Let us know when you can be “net control” by email at tville.hamnet@gmail.com

Website address www.taylorsvillehamnet.org

73

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