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## Contact Us

- Via Facebook
- Via WWW.AC6EE.ORG
- Mail:
 

Tehachapi Amateur Radio Association (TARA)  
P.O. Box 1681  
Tehachapi, CA 93581-1861

## A Word

Dan Mason, AB6DM, President

Greetings, TARA friends.

Many of us in TARA enjoy ARRL Field Day where we try to make radio contacts while operating away from home like you might be in an emergency response. If you like scoring extra points on Field Day, you operate with the least amount of commercial power you can, usually generating it yourself. Even then, you often also employ batteries to capture extra power to continue operation when you run out of fossil fuel or after the sun goes down. Since battery technology has been evolving and improving, a lot of us in have been interested in how to obtain and/or build batteries with the new technologies.

One of our favorite grid down, EMCOMM, portable ham radio heroes we've been learning from is Julian White (OH8STN), aka Survival Tech Nord. Julian tries out all sorts of portable gear (radios, solar panels, batteries, shelters, transport, etc.) that he either buys or builds and then reviews on his web site (<https://oh8stn.org/>) or his YouTube channel (OH8STN Ham Radio <https://www.youtube.com/c/OH8STN/featured>).

We also have some other ham radio folks we follow on those mediums, but I'd like you to know about a couple that may be more obscure. Ones that I believe do a fantastic job showcasing battery technology, some solar panels, and even appliances that could help you operate portable and off grid. One of these is an eccentric guy, Tom (NLN, aka Professor

Hobo) who is the host of the YouTube Chanel, HOBOTECH (<https://www.youtube.com/c/HOBOTECH/featured>), which is an educational YouTube tech channel focused mainly on product reviews and technical how-to's about using technology to live more comfortably off the grid (i.e. RV boon-docking, van life, homesteading, cruisers, nomads). He also posts travel videos or vlogs about his adventures on and off road. Despite his hokey trappings and demeanor, he is a skilled and practical tester of off grid electrical equipment of all sorts. If you follow his channel, you will get opportunities to purchase great pieces of gear at deep discounts.

Another guy I'm following is Will Prowse of the "DIY Solar Power with Will Prowse" YouTube channel (<https://www.youtube.com/user/errolprose>). This young man is endearingly geeky, and has a genuine passion for testing and even building solar power systems and high performance batteries. He covers gear for both whole house and portable applications.

Till next time, 73,  
Dan Mason - AB6DM  
Tara President for 2021-2022

## RadioActive!

Phil Dolber, W6WBT, 1st Vice President

An idea for our club to provide more diverse activities is to form committees that specialize in a particular Amateur Radio activity. The Committee can then lead the club in this activity and the committee members become resources for the future.

### Some Activity Committee Ideas

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Radio Frequency Interference (RFI) Committee</li> <li>• Contesting             <ul style="list-style-type: none"> <li>○ Training for beginners</li> <li>○ Picking up the pace (How to increase your contacts per hour)</li> </ul> </li> <li>• DIY Committee             <ul style="list-style-type: none"> <li>○ Club builds</li> <li>○ Kit builds</li> <li>○ Antenna Builds</li> <li>○ Help other members with their stations</li> </ul> </li> <li>• Arduino and or PIC Projects</li> <li>• Raspberry Pi in the Shack</li> <li>• Satellites</li> <li>• SOTA</li> <li>• Digital ATV to support other activities</li> </ul> | <ul style="list-style-type: none"> <li>• Sound Card Digital Modes</li> <li>• APRS – more than just GPS tracking.</li> <li>• NBEMS</li> <li>• DMR for the club</li> <li>• Repeater Services</li> <li>• NVIS activities with other local area Clubs</li> <li>• Special Event Stations</li> <li>• Over-landing Trip</li> <li>• Transmitter hunting</li> <li>• Field Day</li> <li>• EMCOMM             <ul style="list-style-type: none"> <li>○ WinLink</li> <li>○ ICS Forms</li> <li>○ ARES</li> <li>○ Training/Drills</li> <li>○ Improve our NETS</li> </ul> </li> </ul> |
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The committee chair and members need not be experts or have any knowledge of the activity before getting involved. The committee can learn as a team working up to an activity that includes the rest of the club. This is how a committee becomes expert. Of course you can start with a committee chair that knows the activity and leads a committee of novices and/or experts toward a final goal too.

This is a great opportunity to get involved and give back to your club. Not to mention it can be an outstanding learning experience and a great way to get to know your fellow hams. A byproduct of the committees learning process may be a guest speaker for a club meeting. This may be someone met while learning about the activity, a committee member confident in what they have learned or another expert on the subject.

Pick an item from the list or come up with your own, propose it to the club and Go For It!

Not leaving all of the leadership and planning up to your club officers will create more opportunities for members to get involved and influence club activities. This can have a direct impact on club growth. This is your club help make it a good one.

Let's make our club RadioActive!

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## TinySA – At-a-Glance

Phil Dolber, W6WBT

I am not a big online shopper, however, I do make occasional purchases for my hobbies and specialty items. I also occasionally receive gift cards for birthdays and Christmas. I put many items in my shopping cart and on my wish list while deciding what to buy. I then clear the cart of all but the one or 2 items I end up purchasing.

Just before my birthday last year, my daughter asked me if my Amazon wish list was up to date and would I be willing to share it. Of course it was not so, I went in and deleted almost everything except a couple of new realistic gift suggestions. Now, I only put items that I would enjoy receiving as a gift in my wish lists (Amazon, DX Engineering, All Electronics, and Gigaparts primarily). When Christmas came this year I was pleasantly surprised. I had pretty much forgotten what was in my wish lists. So I was surprised by some fun gifts Christmas morning. One gift, from my son, was the “tinySA”, Spectrum Analyzer. I couldn't wait to try it out.

The tinySA is a very affordable spectrum analyzer and is quite functional, with some expected limitations based on its price point and size.

The tinySA frequency range is 100KHz to 950 MHz making it useful to the radio amateur. It is powered by a rechargeable lithium-ion battery. It came in a



You can't see it due to the poor cell phone photography, but the Radio is transmitting on 145.51MHz the center frequency set on the Tiny SA. Yes I did ID for the test

nice compartmented box with the tinySA (about the size of an ALTOIDS Mint tin), wrist strap, 2 SMA jumper cables, a telescoping antenna, a female-to-female SMA adapter, a USB-C cable and a stylus.

The user interface is pretty intuitive. Between the on/off switch and thumbwheel w/push-to-select and the touch screen, I was able to set a center frequency and span to monitor a transmission from an HT without reading the manual. Markers are easy to set with the stylus on the touch screen too.

I have not played with the Computer control with Terminal software or Tiny SA Saver <https://github.com/erikkaashoek/tinysa-saver>

HACKADAY's early review of the Tiny SA complained of it crashing when you click the screen off of one of the menus. "I often found myself stuck in a menu with no obvious "Back" button, and clicking on the background seemed like an intuitive way to work back to another menu. But this just throws a dump of all the registers up on the screen and locks the thing up". <https://hackaday.com/2020/11/09/product-review-the-tinysa-a-shirt-pocket-sized-spectrum-analyzer/>.

The version I received seems to have fixed that problem. Speaking of versions, the firmware is updatable, however, they recommend you only update to solve a problem.

At a glance this may prove to be a useful tool for a quick check if a radios transmit frequency, an easy to setup frequency generator and much more as; I play with its capabilities and see first hand its limitations. It might even find its way into my transmitter hunt system.

73

Phil, W6WBT

**Note:** See the specifications and the limitations on their website

<https://tinysa.org/wiki/pmwiki.php?n=Main.Specification>

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## "Real Ham's Have A Go Box"

Will Perry, WA6LDQ

Okay, I never had a Go-Box so I guess I wasn't a real ham. The thought of constructing one has been running through my mind over the years but too many other projects just seemed to get in the way. There finally came a time when I found myself with several HF rigs and various handie-talkies. So I started thinking more seriously about a portable pack or Go-Box especially when I saw the great effort that Charlie (KG6CMF), Ray (W6QPA), Mike (AC6PC), Neil (W6GRA), and other club members had put into their systems. I was further inspired while joining Phil (W6WBT) and Ray on a SOTA event on top of Piute Mountain last summer. They were real hams. They had HF rigs, handie-talkies, computers, antennas, and battery packs ready to go. There I stood with only an HT on my belt. I was envious. Never-the-less, we all had a great time and made a few contacts, even though we were clueless about SOTA operations.



A few thoughts and ideas developed in my mind over the years on what should be included in a Go-Box:

- Radio should be 100 watts on all HF bands, including 6 meters, 2 meters, 440, and operate on all modes including digital.
- The entire system would be wired and ready to operate in the box.
- The battery would be a LiFePO<sub>4</sub> that would allow about 2 days of moderate operation.
- Everything should be in one case including antenna tuner, antennas, mic, CW key, computer, an HT, and miscellaneous accessories.

I also had several instrument carrying cases I had gathered over the years, mostly from my astronomy adventures (hobby number two). One was an aluminum Halliburton case that was used once for a video camera and accessories. It was pretty compact measuring only 16.5" x 10.5" x 7"



I had an Icom IC-706MKIIG transceiver. This is an old radio but a classic. It's very compact (8.75' x 6.5' x 2.5'), runs at 100 watts output on HF through 6 meters, 50 watts on 2 meters, and 25 watts on 440 and operates on all modes. Some nice features about the 706 are DSP, 2 internal filters, notch filter, SWR graph, and detachable control head. I purchased a 12 volt 20 amp Bioenno LiFePO<sub>4</sub> battery, an LDG antenna tuner, and an old Microsoft Surface 3 tablet computer. I had a few Raspberry Pi 4 computers but settled on the Surface 3 for several reasons. The Surface 3 is only 10.5" x 7" x 3/8". It has the latest Win 10 64 bit tablet OS, a 10.5" touch screen, a 120 GB SSD drive, an external Micro SD Card slot, a video port, a USB port, and most

importantly, its own internal 6 amp battery which can be charged from a USB port. These can be purchased used on eBay for \$150-200.



The Surface 3 fit nicely into the top cover of the Halliburton and is easily removable. I built a few wooden partitions in the case to separate the various pieces of equipment and to make compartments for the antennas, mic, key, and an HT. I added a SPDT center-off power switch which allows me to switch from internal power to external power, a digital voltmeter that includes a USB charging port and 2 Anderson power pole sockets for any external accessories.

This is a work in progress and I plan to use a Wolphilink interface for digital operation but haven't completed that part of the project yet. Two tiny antenna traps were ordered from



SOTAbeam to build a compact 20/40 meter trap dipole. A collapsible MFJ 40 meter whip antenna is also stored inside the case for a quick check of the bands and can be used on low power. The HT is my Kenwood TH-D74 tri-bander with built-in APRS, GPS, and internal TNC. The TNC can be connected to the Surface 3 via the USB port or Bluetooth for Packet, Winlink, or other digital modes. The TH-D74 can also be used along with the 706 for full-duplex satellite operation.

So the one goal that was not met was being able to operate the rig immediately with just opening the case and connecting an antenna because the control head was removed from the radio to allow everything to fit in the case.



The control head easily snaps onto the rig in a second though.

It can also be used with the 6' extension cable allowing me to relax in a lounge chair and operate with just the control head and mic on my lap.

Now I'm a real ham and ready for the Zombie Apocalypse! Are you?



## Annual Dues are Now Due

Dick Brown, W6SLZ

T.A.R.A. annual dues for the membership year beginning on January 1, 2021 are now due. Annual Dues are \$25.00. They may be sent, via check payable to T.A.R.A., to Dick Brown, T.A.R.A. Treasurer. Send your payment and an application to either the club's Post Office Box or directly to Dick at his home address. The respective addresses are:

Tehachapi Amateur Radio Assn.  
P.O. Box 1681  
Tehachapi, CA 93581-1681

T.A.R.A. c/o Dick Brown 24130  
Sorrel Ct.  
Tehachapi, CA 93361



## 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>

### Mar 2021

ALL ARRL HAMFESTS &  
CONVENTIONS CANCELLED

- 6-7 International DX - Phone

### Apr 2021

ALL ARRL HAMFESTS & CONVENTIONS  
CANCELLED

- 18 -- Rookie Roundup - Phone



## 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. In-person events are cancelled for the duration of the COVID-19 pandemic. If you have not received a Zoom invitation via email or or if you are interested in membership and would like to attend as a guest, please send an email to [ac6ee@arrl.net](mailto:ac6ee@arrl.net), stating your name, callsign (if any), and interest in the Club, and we will send you the Zoom meeting invitation link.

### February 2021

- 3<sup>rd</sup>, 10<sup>th</sup>, 17<sup>th</sup>, 24<sup>th</sup> – “Just Because” Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 4<sup>th</sup> – 19:00 PST, TARA Board Meeting, Via Zoom (invite via email)
- 11<sup>th</sup> – 19:00 PST, TARA Club Meeting, Via Zoom (invite via email)

### March 2021

- 3<sup>rd</sup>, 10<sup>th</sup>, 17<sup>th</sup>, 24<sup>th</sup>, 31<sup>st</sup> – “Just Because” Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 4<sup>th</sup> – 19:00 PST, TARA Board Meeting, Via Zoom (invite via email)
- 11<sup>th</sup> – 19:00 PST, TARA Club Meeting, Via Zoom (invite via email)

### April 2021

- 7<sup>th</sup>, 14<sup>th</sup>, 21<sup>st</sup>, 28<sup>th</sup> – “Just Because” Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 1<sup>st</sup> – 19:00 PST, TARA Board Meeting, Via Zoom (invite via email)
- 8<sup>th</sup> – 19:00 PST, TARA Club Meeting, Via Zoom (invite via email)

## For Sale or Trade



E.H. Scott Radio Model SLR-F  
Ships entertainment receiver from WWII.  
These were on civilian and military ships  
A true Boat anchor.  
Worked when stored 35 years ago ... hihi.

Make offer to: Brennan Riley,  
[Briley@58sbcglobal.net](mailto:Briley@58sbcglobal.net)

## Reference Information

Local Repeater Information				
TARA APRS Digipeater	144.39	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	145.48	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 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

### 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	<a href="http://www.ac6ee.org">http://www.ac6ee.org</a>
TARA Facebook	<a href="https://www.facebook.com/TARAtchapiamateurradio/">https://www.facebook.com/TARAtchapiamateurradio/</a>
Antelope Valley Amateur Radio Club (AVARC)	<a href="http://www.k6ox.club/index.html">http://www.k6ox.club/index.html</a>
Bear Valley Springs Emergency Response Team (BVSERT)	The website is being refurbished.
Kern County-Central Valley Amateur Radio Club (KCCVARC)	<a href="http://www.w6lie.org">http://www.w6lie.org</a>
ARRL	<a href="http://www.arrl.org">http://www.arrl.org</a>
West Kern County Amateur Radio Emergency Services (WKCARES)	<a href="http://westernkerncountyares.org/index.html">http://westernkerncountyares.org/index.html</a>

Officers & Committee Chairs			
Office/Committee	Name	Call	Email
President	Dan Mason	AB6DM	<a href="mailto:impresaspeed@yahoo.com">impresaspeed@yahoo.com</a>
1st Vice President	Phil Dolber	W6WBT	<a href="mailto:w6wbt@arrl.net">w6wbt@arrl.net</a>
2nd Vice President	Ray Gretlein	W6QPA	<a href="mailto:w6qpa@arrl.net">w6qpa@arrl.net</a>
Secretary	Vallerie Mason	KK6WLQ	<a href="mailto:val3mason@yahoo.com">val3mason@yahoo.com</a>
Treasurer	Dick Brown	W6SLZ	<a href="mailto:db24130@sbcglobal.net">db24130@sbcglobal.net</a>
Web Page maintenance	Dan Mason	AB6DM	<a href="mailto:impresaspeed@yahoo.com">impresaspeed@yahoo.com</a>
FaceBook Maintenance	Travis Para	KK6OHZ	<a href="mailto:mightyspeedbimp@yahoo.com">mightyspeedbimp@yahoo.com</a>

## 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 held at the Mountain Aire Estates Activities Center, 600 South Dennison Road in Tehachapi, Ca. Drive in the entrance and the Activities Center is straight ahead.

During the COVID-19 pandemic, we are meeting via ZOOM. Invitations are sent to members via email each month. If you have not received a Zoom invitation or if you are interested in membership and would like to attend as a guest, please send an email to [ac6ee@arrl.net](mailto:ac6ee@arrl.net), stating your name, callsign (if any), and interest in the Club, and we will send you the Zoom meeting invitation link.

Member Annual Dues: \$25.00/year

Additional Family Member: \$12.50/per person

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## Membership Application

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On the last page of this newsletter is a copy of our Membership Application. 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 as follows:

Tehachapi Amateur Radio Association (TARA)

P.O. Box 1681

Tehachapi, CA 93581-1681



# TEHACHAPI AMATEUR RADIO ASSOCIATION

P.O. BOX 1681  
TEHACHAPI, CA 93581

## MEMBERSHIP APPLICATION

Date of Application \_\_\_\_\_

<b>MEMBERSHIP TYPE</b> (Check all that apply)	
<input type="checkbox"/> New Member	<input type="checkbox"/> Individual \$25.00 / Year
<input type="checkbox"/> Renewal	<input type="checkbox"/> Family \$12.50 / Additional Family Member / Year

### APPLICANT INFORMATION

Call Sign		License Classification / License Held	
		<input type="checkbox"/> Technician <input type="checkbox"/> General <input type="checkbox"/> Extra	
First Name		Last Name	
Street Address			Apt. / Unit
City	State	Zip Code	
Home Phone Number		Cell Phone Number	
(     )		(     )	
E-Mail Address			
Background			
Have you ever been convicted of a crime, felony, etc.? If so, please provide details below:			
<input type="checkbox"/> No <input type="checkbox"/> Yes   Details:			
Other Memberships			
<input type="checkbox"/> ARRL <input type="checkbox"/> ARES <input type="checkbox"/> RACES <input type="checkbox"/> CERT <input type="checkbox"/> OTHER _____			
Family Members in Household (Fill out only if completing a Family Membership)			
Call Sign	Class (T/G/E)	First & Last Name	Age
Amount Paid	Cash / Check	Date	Approval

Applicant Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Revised October 12, 2017