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Contact Us

- Via [Facebook](#)
- Via WWW.AC6EE.ORG
- U.S. Mail:
TARA
P.O. Box 134
Keene, CA 93531

A Word

Dan Mason, AB6DM, President

Hello TARA friends,

We resumed our VE sessions after the holiday break on February 11, 2023. I would like to congratulate our testers on their new amateur radio privileges, Duane Ellison KN6YOJ Tech, and Jeff Buetemeister W9SPZ Extra. Please offer them both all the assistance and encouragement you can in their next radio endeavors.

We had a great time operating the International DX Contest (phone) at Dick's (W6SLZ) QTH. There was at least one huge surprise. We will tell you all about it at the March General meeting.

Right now, our next event is in May involving the Burro Schmidt Tunnel. It's also time to start planning for ARRL Field day in June. However, we could always come up with another event. Stay tuned.

EDITORS' Note:

For the April newsletter the focus is Field Day preparations — describe how you prepare to participate in Field Day. Please send your Field Day thoughts to w6qpa@ac6ee.org

73 ...Ray [W6QPA](#)

Off Grid Power Solutions

Micah Martin, KN6VUT

For this month's theme 'Off the grid' use, I tried once again to organize my equipment, and see what I had for long term power.

Equipment

- I have three dual band 5w handhelds, one dual band mobile 10w/ 25w with a 12v 7.2ah battery.
- I have backup batteries for two of the Handhelds, a USB charger for two of the charging cradles, and two car power chargers for Handheld batteries.
- I have three USB power packs, one pack has a built-in solar cell for charging.
- If a car or car battery is available, three power inverters, a battery clamp cable that has two car power plugs. Also have a trickle charger to recharge the mobile battery off a power inverter.

Estimated radio life

A quick Google search gives estimated battery life of the handhelds 5-12 hours on a charge. I think a conservative estimate using one battery at a time would give me about 25 hours without a recharge.

The mobile unit on low power (10w) by my calculations would be about 1.5 hours heavy use, about 4 hours normal use without a recharge.

Extra Equipment

- Collapsible J-Pole and UHF Ground plane antenna in the car.
- Mag Mount antenna and cookie sheet
- Extra Long Tactical Antenna
- Portable repeater kit.
- 2 lengths of Coax
- Cable adapters for SMA and PL259 connectors, Male to Male and Female to Female connectors.
- 6 blister pack FRS / GMRS low power handhelds.



6 - FRS / GMRS blister pack radios



3 Handheld 5w, 1 mobile 25w with battery.



2 Spare Handheld batteries, 2 USB car charging cables, 1 USB direct charger



3 12v power inverters, 1 12v jumper cable with 2 car power plug



Mag mount (cookie sheet in duffel), 1 extra long Tactical antenna. Not shown, collapsible J-pole antenna, 1 Ground plane UHF antenna, (in car)



3 USB power packs, 1 with solar charger



All gear except 2 base antennas are packed.

John Dyer, KM6DXY

I'm sure that everyone remembers it well, the State of California and its infamous PSPS Events or "Public Safety Power Shut-Off" events. These events affected the entire state, some worse than others. In fact, my household fared well during these issues and only lost our power once, but we were prepared.



First and foremost, we had plenty of H/T's available and always kept at Full-Charge. Every member of my family, with the exception of one, had their amateur radio license and an H/T kept in their vehicle. The one without a "Ham" license was covered under the families GMRS license and he also has a CB Radio given to him by his Aunt and Uncle.

In addition, my wife and I both had Yaesu FTM-400DR mobile radios installed in each of our vehicles. Both radios are capable of transmitting at 5, 20, and 50 watts. With the gas tanks kept no lower than 50%, we had plenty of power for communications, let alone mobile communications. The FTM-400DR also gave us GPS and APRS functionality. This will become essential if we ever had to leave the house as a result of an extended PPS or natural event.



Included in my Comms Plan is my portable GMRS ammo can radio. It has plenty of power and has solar panels included. But that wasn't enough. I had other things to worry about during a power outage. I wanted to make sure that I had enough power available to keep my refrigerator running, and maintain the ability to charge our cell phones as well as our radios if needed. If the PSPS event or other similar events occurred at night I also wanted to be able to power a few lights. My solution was a small, portable Ryobi gas generator. It provided enough power for my immediate needs and could easily be thrown into my truck if I needed to go mobile.



I wasn't worried about powering the whole house. We just needed to be comfortable and since we like to camp, we had all the other supplies to be just that, comfortable.

My latest addition to the power plan is our Jackery Portable Power Station with Solar Panels. This item is portable and it has been used on one of our adventures supporting communications for the Gorman Ridge Rally as well as the Ridge Rally in Jawbone Canyon. If we ever need to leave the house or explore over-landing opportunities, this item is going with us.



I have more ideas brewing. Every visit to Field Day, Winter Field Day or just browsing through YouTube, particularly Julians Channel called "[Off-Grid Ham Radio OH8STN](#)" or Jason's Channel "<https://www.youtube.com/@KM4ACK>" gives me even more idea's.

The problem is time, money, and ENERGY. That explains it!

Mike Hardee, AC6PC

I have 3 [Jackery 300](#) Emergency Power stations in the house that I keep charged up to keep the wifi, phones, laptop and some lights going. I also have one more 300 Wh power supply in the shack. That one is there to power the garage door if necessary. All are capable of being charged with my 100 W portable solar panels. On top of that, in order to keep the fridge going (running it every 4 hours to keep it cold and not opening it up much) I have a Generac 1200 W generator that I keep gassed up and ready. As for the shack I have a 30 Ah LiFePO₄ battery that I have at the ready should the power go out on me out there. I use it on Field Days and it will run the radio for at least 72 hours without a problem.

The winter has been kind to us so far with stable power. Last summer we had a few outages, but the EP stations kept us going until the power came back on and we never had to use the generator. I plan to break out the solar panels in the summer to keep the EP stations trickle charged if they are ever going to be used again.

Adam Rocke, KG6QDZ

Because I only use a hand held 5 watt unit-Kenwood tri-band I do not usually worry about power grid downturns. In fact, we have a propane back up for power and it kicks on about 30 second after the power goes off. At full running time I get at least five days. Keeps on the lights, the frig and heat and so on. Also allows me to charge the batteries to my portable. Plus, I have a car charger for it. I have six batteries for it. Four are chargeable and two are double A's for the battery pack.

So I am almost 100% sustained in the event of an emergency and ok anywhere the 5 Watt unit can transmit.

I do have a 60 watt desk top, but I have no antenna, nor hook up and would need help someday putting up the antenna; and, even getting one and wiring it up and so on. But, that is another story..

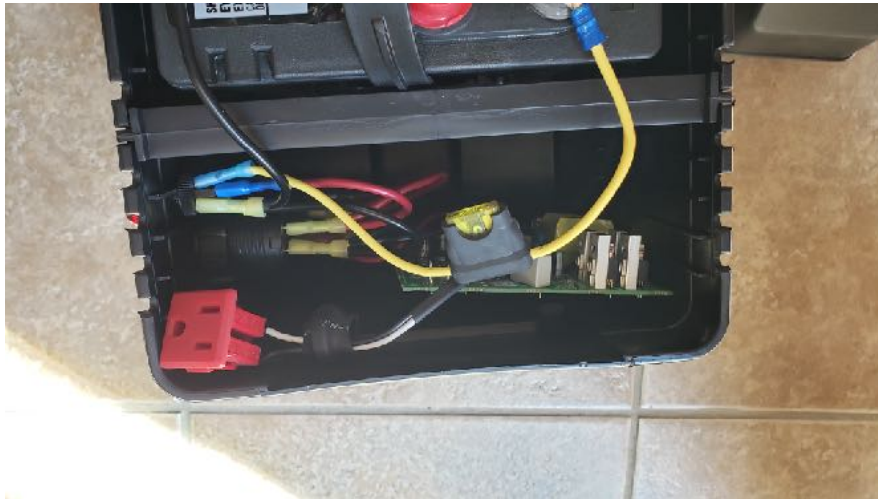
Tony Loera, K6GTA

Like many Amateur Operators, power sources have always held a special place in my heart. As a young teenager, I quickly learned my first law in electronics when I couldn't get a car stereo to play anything after supplying it with a small 12V wall-wart style power supply. After realizing that my issue was Power related, I wired several more 12 Volt Wall-Warts together in parallel and all of a sudden I had the amperage that I was missing to get the stereo to play. At this point, I was hooked, and I took every opportunity I could, to learn and experiment in any way that I could. Unfortunately at the time, the technology and accessibility was nothing like it is today so my options were limited.

Of course, living in California, the threat of earthquakes is always looming, and there was never a lack of PSA's about preparedness. Up until the late 90's, this seemed to consist mostly of candles, batteries for flashlights and maybe a gas powered generator as far as light and power was concerned. Fast forward to the early 2000's, and the "Prepper" movement is in full swing. By the 2010's, this movement became more main-stream than ever, and the gear for off-grid power solutions was finally low enough in price that I was able to build my first off-grid battery bank. It consisted of 4, 6 volt golf-cart batteries wired in parallel/series for a 12 volt system. A programable MPPT Charge controller and Surplus 60 Watt solar panel (originally from the LA Convention Center) kept the batteries charged and healthy. This system worked really well and provided 400 Amp-Hours of reliable power.

Then in 2012, I built a more portable solution intended for camping & mobile ops. It not only offered 12 and 5 Volt sources, but also a 120 Volt AC Outlet for plugging in regular household items.





This Go-Box consisted of a Marine Grade SLA Battery housed in a NOCO Battery Box. The box's built in divider leaves just enough room inside the box to mount the AC inverter, charge controller and wiring, making for a very complete and compact package that I still use from time to time.

However, these days, lithium battery chemistries are all the rage... And for good reason! They weigh significantly less than their lead based counterparts, contain higher power densities, and can handle higher and deeper charge/discharge cycles. In more recent years, I've switched out my Go-Box in favor of the Jackery power boxes. When on sale, they offer an unprecedented amount of power and flexibility in an almost comical foot-print. My only complaint is that the DC Side is limited to only 10 Amps, which is not too big a deal in terms of running radio gear since I primarily operate on 2M and 440. They are my absolute favorite for camping, mobile ops, and emergency power.



My latest project involves something that is completely new to me. With the current state of fuel prices, and with all of the incentives available for Electric Vehicles, I thought now would be a good time to invest in a new EV (my first) and see for myself if they are all they are cracked up to be. Of course when it came to selecting an EV, the number of options seemed overwhelming. Supporting American manufacturing is always a Win in my opinion so I decided on a Chevy Bolt EUV as this vehicle had the added incentive of



being one of the most "American" electric vehicles money can buy (second only to Tesla). Something that I thought was strange is that although the battery packs on these vehicles operate somewhere in the neighborhood of 400 volts, they still have a traditional 12 Volt battery under the hood. And as it turns out, all of the vehicles control systems run on 12 volts as do many of the vehicles other electronics such as the stereo system and lighting. After doing a little more research, I discovered that this vehicle has quite a stout DC-DC Converter (~2,000 Watts) and although this vehicle did not come with an AC Inverter like some other EV's, it is still possible to run an external Inverter (connected directly to the battery) to help run household appliances in case of an emergency. So far I've installed a fused and heavy gauge quick-connect cable to the battery



and heavy gauge quick-connect cable to the battery terminals and I've only done minor testing, but everything seems to indicate that this is a viable alternative for off-grid power in an emergency.

I still keep a gas generator around in case of emergencies but with 65 Kilo-Watt hours of reserve power parked in my driveway, I may have to re-evaluate my off-grid solutions.



On the Bench

This is a semi-regular column for members to share the off-the-air aspects of their ham radio activities. Using a sports metaphor, on-the-bench refers to a player not currently active in the game. So, applying that in a ham radio context, what is “On-the-(work)bench” in your shack?

We have nothing “on the bench” for this edition.

The Operating Room

This is a semi-regular column for club members to share the on-the-air aspects of their ham radio activities.

The Long Way ‘Round

Mike Hardee, AC6PC

You just never know...

I certainly wasn't expecting it. Frankly, I didn't think I was equipped for it. I have a good radio (IC 7300) and a great amplifier (Elecraft KPA1500), but all I have is a G5RV antenna strung between two oaks at about 35 feet. Dick (W6SLZ) and Keith (NE7R) always said that I lived “in a hole” (an RF hole, that is) given that I have ridge lines 500 feet above me on three sides of my QTH with only an open horizon to the West and Southwest. So no, a long path contact wasn't on my list of things to expect when I turned on the rig that morning.

Long path contacts. These are contacts that occur during specific propagation conditions where it becomes easier to send/receive signals the long way around the globe instead of a more direct path to the other station. It is when “propagation conditions exist so that two stations can communicate in the inverse direction on a great circle heading or azimuth”, as the definition states. I knew it existed, but never figured on experiencing it.

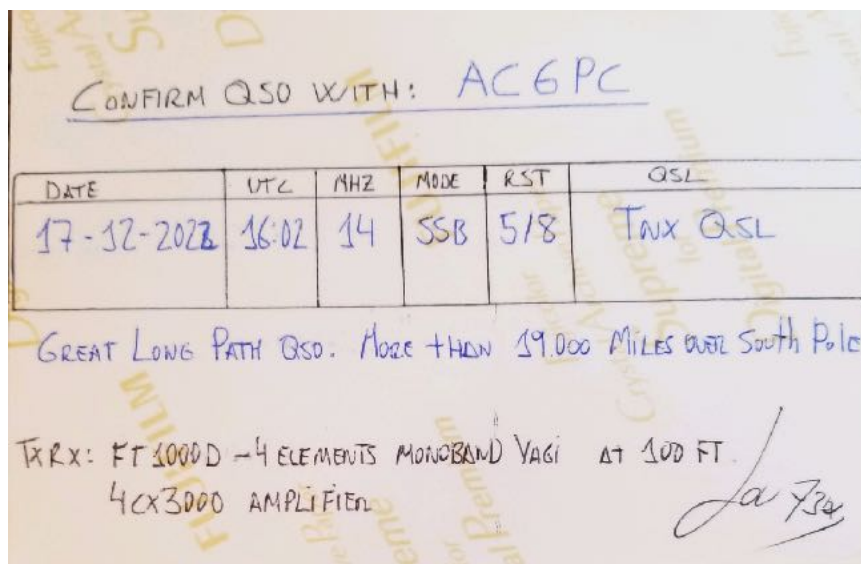
What made it more freaky and amazing was that it happened a little after 7 am (December 2022). I was in the gray line, but it was still dark outside, the shack was darkened with the lights out in order to reduce any possible RF noise. It was cold and quiet. I had my headphones on in the



dark, (41 degrees in the shack; 24 degrees outside) with just the light of the radio screen on. The amp was at full power; all other electronics (everything else was unplugged in the shack) were shut off to reduce/eliminate any possible interference.

I heard Lou (EA4AZZ) from Madrid, Spain calling CQ on 20 meters SSB; **“CQ long path, any stations, west coast of North America”**. Now I need to tell you that due to my topography I have always had a problem getting anything east of the Rockies from my QTH. I gulped and decided to jump in. I gave him my call and amazingly I got a solid contact with him! He gave me a 5/8, and he was a solid 5/9. He told me he had his 4 band mono-element Yagi pointed south towards the South Pole to effect a long path transmission. I heard echoes in my headset and I thought that there was something wrong with my radio set up...and then I realized what was

happening. I researched this later and found out this type of event is rare, but it happens. The most rewarding part of the confirmation of a long path around the globe was a New Zealand station pitching in and picking me up while he was pointing his Yagi antenna south away from my QTH, which is northeast of him. Which meant he had to pick up our signals as it passed over the Antarctic land mass, since he was pointing it towards Antarctica...he called me and confirmed it, because he was just as excited to



witness it as I was to get the contact. On top of that, I heard the half second echo of my own voice a couple of times.

I was quiet for a long time after signing off and completing the contact, just soaking it in and realizing that I had finally accomplished something that I had wanted to do since I was a boy; contact the most distant stations in the world. I shut down the station and walked back to the house for breakfast and to warm up.

Later that week I made four more long path contacts. One in Germany, three in Italy (all on 20 meters). All at pretty much the same time of the morning. It seemed that the thirty minutes between 7:00 am and 7:30 am in that part of the winter is where the magic happened.

You never know what is going to happen next on DX.

Winter Field Day – Final!

Ray Gretlein, W6QPA

Last month we described our Winter Field Day activities. However, we didn't have the final score for the phone team. We do now! Dan AB6DM, Valerie KK6WLQ, Dave WA5GUL, Dick W6SLZ, John KM6DXY, and Micah KN6VUT worked 29 ARRL Sections, 26 States (including HI) and 4 Canadian Provinces. The log scored:

- 63 Phone contacts spanning 10, 15, 20 meters for 189 points plus
- 2000 Bonus points:
 - alternate power (500)
 - operating away from home (500)
 - operating outdoors (500)
 - erecting a temporary antenna (500)
- **2189 points total score**

The Winter Field Day organization has interim results posted, click [HERE](#) to view the page.

ARRL International DXCC Phone Contest

Dick Brown, W6SLZ

Not sure where to begin but we had a great ARRL DX Contest.

Just a few highlights of the contest:

- We had six people show up to work the contest
- We made contacts with:
 - 29 countries on 40 meters
 - 29 countries on 20 meters
 - 36 countries on 15 meters
 - 28 countries on 10 meters
- Every one was able to talk to DX stations. Some problems with the use of the English language arose from time to time; mostly DX stations trying to talk too fast and not able to clearly speak our English.
- The most exciting time was when we worked P8T — North Korea.
 - The station was on the air for just a few minutes.
 - We had to turn the beam towards Korea to work the station and he was still very weak.
 - We received a 59 x 1000 report .

You can argue that we did or did not work the Democratic Peoples Republic of Korea. He had about an S3 signal with quite rapid QSB. **As far as I am concerned we DID WORK DPR of Korea and you will never change my mind.**

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>.

Another source for contest and on-the-air activity is WA7BNM Contest Calendar at <https://www.contestcalendar.com/weeklycont.php>

March 2023

- 3-5 [International DX- Phone](#)

April 2023

- 16 [Rookie Roundup - Phone](#)

May 2023

- Nothing on ARRL contest calendar for May

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.

March 2023

- 1, 8, 15, 22, 29 – 1900 hrs PST “Just Because” Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 2 – 1900 hrs PST, TARA Board Meeting, Via Zoom (invite via email)
- 3-5 — International DXCC Phone Contest at Dick & CJ Browns QTH (see Contests in the February edition)
- 9 – 1900 hrs PST, Club Meeting, Tehachapi Police Department Conference Room, 220 W C St, Tehachapi.
- 11 — 0830 hrs 0830 hrs PST, TARA Club Breakfast at [P-Dubs](#), 20800 Santa Lucia St, Tehachapi.
- 25 — 0800 hrs PDT, TARA Club Breakfast at BVS Mulligan Room. Reserve a spot with Dan Mason by 14 March.

April 2023

- 5, 12, 19, 26 – 1900 hrs PDT “Just Because” Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 6 – 1900 hrs PDT, TARA Board Meeting, Via Zoom (invite via email)
- 13 – 1900 hrs PDT, TARA Club Meeting, Tehachapi Police Department Conference Room, 220 W C St, Tehachapi.
- 8 — 0830 hrs PDT, TARA Club Breakfast at [Gracian Grill](#)

- 8 — 1100 hrs PDT — VE License Exam Session Salvation Army Community Room
538 E Tehachapi Blvd, Tehachapi, CA
- 22 — 0800 hrs PDT, TARA Club Breakfast at BVS Mulligan Room. Reserve a spot with Dan Mason by 14 April.

May 2023

- 3, 10, 17, 24, 31 — 1900 hrs PDT “Just Because” Net (W6SLZ VHF rpt, 146.70 - / 123.0)
- 4 — 1900 hrs PDT, TARA Board Meeting, Via Zoom (invite via email)
- 11 — 1900 hrs PDT, TARA Club Meeting, Tehachapi Police Department Conference Room, 220 W C St, Tehachapi.
- 13 — 0830 hrs PDT, TARA Club Breakfast at [P-Dubs](#), 20800 Santa Lucia St, Tehachapi.
- 13 — Burro Schmidt Tunnel visit — Time TBD Click [HERE](#) for more info
- 27 — 0800 hrs PDT, TARA Club Breakfast at BVS Mulligan Room. Reserve a spot with Dan Mason by 14 May.

Reference Information

Local Repeater Information				
TARA APRS Digipeater	144.390	No tone	AC6EE-3	APRS
BVS APRS Digipeater	144.390	No tone	WA6LDQ-3	APRS
BVS Repeater Backup Freq.	146.700 145.580	123.0 Hz Tone Simplex	W6SLZ	Open Machine
BVS Repeater	440.625	100.0 Hz Tone	W6SLZ	Open Machine (WIN System node)
Tehachapi Repeater	444.225	100.0 Hz TONE	KG6KKV	Overlooks Bakersfield
DMR Digital	442.675	Offset: +5.000 ColorCode: 1	K7RET	Brandmeister, Bakersfield, CA The location is in the Tehachapi Mountains near Cummings Mountain

Local Repeater Information				
DMR Repeater	447.120	Offset: -5.00 ColorCode: 1	KR6DK	Brandmeister, McKittrick, CA The location is in the Tehachapi Mountains near Double Mountain This repeater is permanently linked to the KR6DK analog repeater system.
Tehachapi Simplex	145.58	No Tone		Local Simplex
Tehachapi Simplex	146.54	No Tone		Local Simplex

In addition to the repeaters listed above the following repeaters, part of the Kern System, can be reached from locations throughout the Tehachapi area and much of the San Joaquin Valley. They are linked together and more information may be found at <http://www.KernSystem.org>

KERN System Linked Repeaters				
Frazier Mountain (8,000')	447.860	141.3 Hz Tone	KK6AC	Jerry Garis
Cummings Mountain (7,800')	442.95	141.3 Hz Tone	KI6HHU	Lee Bouchard
Double Mountain (8,000')	446.320	151.4 Hz Tone	KI6HHU	Lee Bouchard

ARRG Linked Repeaters				
Cummings Mountain (7,800')	444.425	100 Hz Tone		

ATTENTION:

For those interested in monitoring dispatch for the Bear Valley Springs Police Department

- KCSO Eastern Dispatch — 460.225
- KCSO East TAC — 460.125

All dispatch for BVSPD will be handled by the Kern County Sheriff’s Department

Club & Other Websites	
TARA website	http://www.ac6ee.org
TARA Facebook	https://www.facebook.com/TARAtchapiamateurradio/
Antelope Valley Amateur Radio Club (AVARC)	http://www.k6ox.club/index.html
Kern County-Central Valley Amateur Radio Club (KCCVARC)	http://www.w6lie.org
ARRL	http://www.arrl.org
West Kern County Amateur Radio Emergency Services (WKCARES)	http://westernkerncountyares.org/index.html

Officers & Committee Chairs			
Officer/Committee Chair	Name	Call	Email
President	Dan Mason	AB6DM	ab6dm@arrl.net
1st Vice President	Dan Mason (Interim)	AB6DM	ab6dm@arrl.net
2nd Vice President	Ray Gretlein	W6QPA	w6qpa@ac6ee.org
Secretary/Treasurer	John Dyer	KM6DXY	km6dxy@ac6ee.org
Technical Director	Dick Brown	W6SLZ	db24130@sbcglobal.net
Web Page & FaceBook Committee Chair	John Dyer	KM6DXY	km6dxy@ac6ee.org

Meeting and Club Membership Information

The Tehachapi Amateur Radio Association meets every second Thursday of the month at 7:00 PM (except for July - no meeting). Our meetings are on Zoom and in-person, our meeting site is now the Tehachapi Police Department Conference Room, 220 W C St, Tehachapi.

Member Annual Dues: \$25.00/year

Additional Family Member: \$12.50/per person

Membership Application

Download a copy of our Membership Application [here](#). Please share this with any friends, family or neighbors that are either hams or may be interested in amateur radio. Applications are accepted at all club meetings or you may mail your application along with the applicable dues to the club Post Office Box:

Tehachapi Amateur Radio Association (TARA)
P.O. Box 134
Keene, CA 93531