

The SCIRA Mission

To provide a linked amateur radio repeater network for the Emergency Response Communications (ERC) of The Church of Jesus Christ of Latter-day Saints from Fresno to San Diego.

LINKS (click)

[SCIRA Website](#)

QR Code for Website



Questions?

If you want access to the ERC Google Group send an email with your Name, Call Sign and Unit Name to:

ki6wkq@gmail.com

How to donate?

[Visit scirainc.org](#)
[and click on Join](#)



SCIRA happenings & highlights.

This is the official newsletter for SCIRA members.

Are you ready? I am ready.

It's official, the **ERC Conference** is back and will be held on Saturday August 3, 2024, 8 am – 12 pm, at the Jurupa Stake Center in Mira Loma. If you haven't signed up yet here's the link:
<http://signup.scirainc.org/>

Lunch to be provided. The address is 5950 Serendipity Road, Riverside, CA 92509.

[Map & Directions](#)

Snow Peak repeater linking is being worked on and hopefully resolved soon; in the interim, early check ins will be taken from Snow Peak at approximately 8:45 pm on Sunday nights.

End of an Era?

MFJ Enterprises founder Martin F. Jue, K5FLU, announced that as of May 17, 2024 the company will cease production which will also include Ameritron, Hy-Gain, Mirage, and Vectronics brand products. The will continue to sell existing inventory and offer repair services for the foreseeable future.

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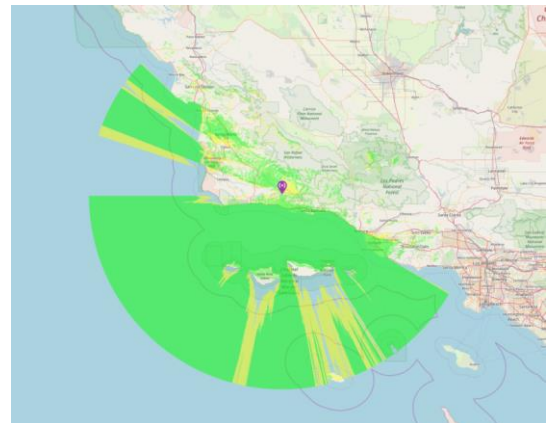
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Which repeater should I use?

On the SCIRA website there are coverage maps for each repeater to help you determine which one is best for your area.

Below is the Santa Ynez coverage map



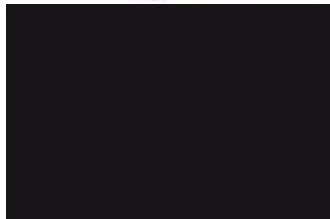
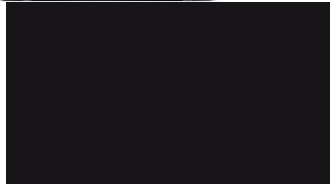
FYI: A new repeater was recently installed at the Santa Ynez site. The old repeater needs repair and will be utilized as a backup repeater when the repair is completed.

Member Antennas

What kind of antenna are you using?

Do you make your own antennas?

If you would like to share your antenna(s), please send a picture(s), your name and call sign, type of antenna and any other information about it to huntercf88@gmail.com



Radio Reviews

We will be reviewing some popular UHF/VHF transceivers, if there is a particular radio you would like reviewed in the future or if you want to write a review please send an email to huntercf88@gmail.com.



Yaesu FTM 400 ~ \$500

Output: 50W, 20W, 5W

Pros: Dual Band VHF & UHF, digital (CFFM) & analog modes, integrated GPS, touchscreen color dual frequency display, integrated APRS, remote head capability, good prices can be found on the used market, Data port.

Cons: Price: tends to be on the higher end, Complexity: has an extensive feature set and menu options, Size: a bit larger than other radios especially for vehicle installation, Software: some reported issues with programming and firmware updates, Limited firmware updates, Not CHIRP compatible.

Icom 2730A ~ \$300

Output: 50W, 15W, 5W

Pros: Dual Band VHF & UHF, Large clear LCD dual frequency display, Compact design, remote head capability, Weather alert function, cross-band repeater function, Price is in the mid-range for mobile dual band transceivers, CHIRP compatibility, good size for vehicle installation, good prices can be found on the used market.

Cons: No Touchscreen, No built in GPS, No APRS capability, programming without software can be challenging, Complexity: menu can be difficult to navigate, no Data port, Analog only.

Kenwood TM-V71A ~ \$300

Output: 50W, 10W, 5W

Pros: Dual Band VHF & UHF, Large clear LCD dual frequency display, Compact design, integrated GPS, remote head capability, cross-band repeater function, Price is in the mid-range for mobile dual band transceivers, CHIRP compatibility, good size for vehicle installation, Data port.

Cons: No Touchscreen, No built in GPS, programming without software can be challenging, Complexity: menu can be difficult to navigate, not as common on the used market, Analog only.

Alinco DR-735T/E ~ \$330

Output: 50W, 20W, 5W

Pros: Dual Band VHF & UHF, Large display with multiple color background choices, cross-band repeater function, remote head capability, CHIRP compatibility, Price is mid range, good size for vehicle installation, Data port.

Cons: Fewer advanced features, No APRS, No integrated GPS, programming interface is less intuitive, reported concerns about build quality, Analog only.

Repeaters & More!

Let's Talk Back-Up Batteries, specifically Lithium!

Jared Case

In the world of amateur radio, reliable power sources are essential for ensuring continuous communication, especially in remote or emergency situations where grid power may be unavailable. Lithium batteries have emerged as a popular choice for providing backup power to repeaters and transceivers due to their high energy density, long cycle life, and lightweight design. In this article, we'll explore the benefits and considerations of using lithium batteries as backup power sources for amateur radio equipment.

The Advantages of Lithium Batteries

1. High Energy Density:

Lithium batteries, such as lithium-ion (Li-ion) and lithium iron phosphate (LiFePO4) batteries, offer significantly higher energy density compared to traditional lead-acid batteries. This means they can store more energy in a smaller and lighter package, making them ideal for portable or space-constrained installations. Lithium iron phosphate (LiFePO4) batteries are the preferred formulation now. Almost all have built in BMS (Battery Management Systems) now.

2. Long Cycle Life:

Lithium (LiFePO4) batteries have a longer cycle life compared to lead-acid batteries. Lithium (LiFePO4) batteries are capable of thousands of full 100 % charge-discharge cycles. This gives you full capacity (Amp Hour Rating) of the battery. This extended lifespan reduces the frequency of battery replacements and maintenance, saving time and money in the long run.

3. Fast Charging:

Lithium (LiFePO4) batteries can be charged more quickly than lead-acid batteries, allowing for faster turnaround times during charging cycles. This is especially advantageous in emergency situations where rapid deployment and recharging are critical. Please adhere to manufacture safety recommendations for charging.

4. Low Self-Discharge Rate:

Lithium (LiFePO4) batteries have a lower self-discharge rate compared to lead-acid batteries, meaning they can hold their charge for longer periods when not in use. This makes them well-suited for backup power applications where reliability is paramount.

5. Temperature Tolerance:

Many lithium (LiFePO4) batteries are capable of operating within a wide temperature range, making them suitable for use in diverse environmental conditions, including extreme heat or cold. Some lithium (LiFePO4) batteries have charging restrictions when temperatures are below 32° F (freezing).

Considerations and Best Practices

1. Voltage Compatibility:

Ensure that the voltage output of the lithium (LiFePO4) battery matches the voltage requirements of your repeater or transceiver. Some equipment may require specific voltage levels, so it's essential to select a battery that can provide the necessary voltage without the need for additional voltage regulators or converters.

2. Safety Precautions:

While lithium (LiFePO4) batteries offer numerous advantages, it's crucial to observe safety precautions to prevent the risk of fire or thermal runaway. Use high-quality lithium (LiFePO4) batteries from reputable manufacturers and follow proper charging and storage guidelines to minimize the risk of accidents.

3. Battery Management System (BMS):

Consider using lithium (LiFePO4) batteries equipped with a Battery Management System (BMS) to monitor and control charging, discharging, and cell balancing. A BMS helps optimize battery performance, prolong lifespan, and enhance safety by preventing overcharging, over-discharging, and thermal issues.

4. Regular Maintenance:

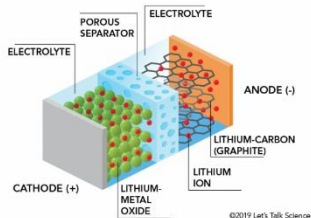
Lithium (LiFePO4) batteries require almost zero maintenance. Perform routine checks on battery condition, voltage levels, and re-torque connections. Some BMS (Battery Management System) have Bluetooth connection in order to access how many charging cycles, depth of battery discharge, and age of battery from date of production. Always use fuses in your installations.

Conclusion

Lithium batteries offer numerous advantages as backup power sources for repeaters and transceivers in amateur radio applications. Their high energy density, long cycle life, fast charging capabilities, and temperature tolerance make them well-suited for providing reliable power in various operating conditions. By selecting high-quality lithium batteries, observing safety precautions, and implementing proper battery management practices, amateur radio operators can enjoy uninterrupted communication and peace of mind during emergencies and everyday operations alike.

[Palomar Mountain Live Cam](#)

PARTS OF A LITHIUM-ION BATTERY





Upcoming Events & Getting Connected

Upcoming Events

- 2024 ARRL Field Day ~ June 22-23
- ERC Conference ~ August 3rd
- Shakeout Exercise ~ October 19th
- NVIS 80 Meter Net ~ 3.882 Mhz
Every Thursday Night 8:00 pm

Echolink is running on

W6CTR-R Node 379885

Allstar node number is 48383

Net Control Operators

SUNDAY	CALL SIGN	NAME
5-May	AF6NV	Wayne Jolley
12-May	Mother's Day	No Net
19-May	KM6KLT	Marcus Piquet
26-May	KD6VAD	Chief Whittemore
2-Jun	WB6TT	Tom Thomas
9-Jun	KM6KHT	Clint Hunter
16-Jun	Father's Day	No Net
23-Jun	KI6WKG	Steve Lang
30-Jun	AF6NV	Wayne Jolley
7-July	KM6KLT	Marcus Piquet
14-July	KD6VAD	Chief Whittemore
21-July	WB6TT	Tom Thomas
28-July	KM6KHT	Clint Hunter
4-Aug	KI6WKG	Steve Lang

- Board of Directors
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- Tom Thomas – WB6TT
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Member at Large
- Craig Holmes – KF6ZAF
Member at Large

[Scira Repeater Page Link](#)

SCIRA linked repeaters

Scira, Inc. Digepeaters

Location	Alt (ft)	Freq (MHz)	PL (linked)	PL (unlinked)	ID	Label	Location
Pleasants Peak	3,886	445.940 (-)	151.4	100	ETDIGI	Eagle Tower	Running Springs
Jobs Peak, Crestline	5,350	146.910 (-)	151.4	67			
Ord Mountain	4,485	146.910 (-)	162.2		FVDIGI	Fountain Valley	Fountain Valley
Snow Peak, Banning	8,000	445.160 (-)	67	97.4			
Palomar Mountain	5,582	445.940 (-)	136.5	100	LADIGI	L.A.	Palos Verdes
Contractors Point, Sylmar	3,500	445.160 (-)	151.4	100			
Eagle Tower, Running Springs	6,300	445.700 (-)	151.4	100	SPDIGI	Banning	Snow Peak
Fresno		145.250 (-)	141.3				
Santa Ynez Peak	4,860	445.940 (-)	131.8	100			

Winlink Gateway Stations: Frequencies

Packet 144.970 Mhz VARA 145.070 Mhz

D/Call	Owner	Location
WB6TT-10	Tom Thomas	Corona, CA
W6CTR-10	BCS	Ontario, CA
N6NNW-10	Dale Hanks	Rancho Palos Verdes, CA
KE6VZZ-10	Ken Fawson	Fountain Valley, CA
KD6YPD-10	Jared Case	Ontario, CA
KM6KHT-10	Clint Hunter	Fontana, CA



Links

[SCIRA Calendar](#)



Ham Radio

Answers to last issue's trivia.

1. A written confirmation of a two-way communication between two amateur radio station
2. **H**ad **A** lot of **M**oney
3. The FAST (**F**ive-hundred meter **A**erture **S**pherical radio **T**elescope) is located in Guizhou province in China. Lying level in a natural depression the main antenna has a diameter of 500 meters (1640.42 feet, 0.31 miles)
4. King Hussein of Jordan JY1.



Trivia:

1. What does the term DX refer to?
2. Which band is known as the Gentleman's Band?
3. What is the longest distance every communicated by amateur radio?
4. What is the term for a group of amateur radio operators who provide communication support during public events, emergencies, and disasters?



This Issue's Q&A and Radio Tips

Do you have a question?
Please send it to the email below and it might be answered in the next newsletter
Huntermc88@gmail.com

Q: How many amps do I need from my power supply?

A. Watts = Voltage · Amps
Take the Peak Wattage of your transceiver and divide by 12. For instance if your radio is rated for up to 50W you will need 4.17 amps. You'll want a power supply that can handle more than that; especially if it is going to have heavy use.

Don't forget all donations to SCIRA are tax deductible. Everything that SCIRA does is solely supported by your donations.