

# SAN BRUNO

Community Foundation

## COMMUNITY GRANTS FUND

### GRANT REPORT FORM

Please complete and return this Grant Report Form (the "Grant Report") to The San Bruno Community Foundation at grants@sbcf.org as set forth in the Grant Agreement. Terms used herein have the same definition as given in the Grant Agreement.

#### I. Grant Information

San Bruno Amateur Radio Club

Grantee: \_\_\_\_\_  
Amateur Emergency Equipment Upgrades and Additions

Program Funded: \_\_\_\_\_

Grant Period: January 1-December 31, 2023  
9500

Grant Amount: \$ \_\_\_\_\_  
9500

Grant Amount Expended: \$ \_\_\_\_\_

#### II. Grantee Contact Information

Dave Dornlas President

Contact Name: \_\_\_\_\_ Title: \_\_\_\_\_  
3401 Crestmoor Dr, San Bruno, CA 94066

Mailing Address: \_\_\_\_\_  
650 533-0824 kn6koo@gmail.com

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

#### III. Grant Report

A. **Confirmation of Requirements.** Please confirm that each of the following requirements was met consistent with the terms of the Grant Agreement by checking each box. If you are not able to confirm any of the requirements below, please provide an explanation in a narrative attached to this report.

- The Grant was used in furtherance of the Grant Purposes
- The Grant was not used in violation of or in a manner inconsistent with the Grant Agreement
- No changes have occurred to Grantee's tax-exempt status since the Grant Agreement was entered into

B. **Statement of Revenues and Expenditures associated with the Grant Purposes.** Please complete the attached template and submit it as part of this Grant Report.

C. **Programmatic Accomplishment(s).** In an attached narrative no longer than four (4) pages total, please respond to the following questions:

1. What were the major accomplishments achieved with the Grant? Describe the goals for the funded program and the community needs that were intended to be addressed by the program. Then describe the Grantee's success in meeting those goals, using both quantitative and qualitative measures.
2. Approximately how many members of the San Bruno community did the funded program benefit during the Grant Period? Please give your best estimate in the form of a single, whole number (rather than a range of numbers) – e.g., 150 community members (not 100-200 community members).
3. What challenges did Grantee experience that may have prevented accomplishing its goals or completing the funded program, if any?
4. What are Grantee's plans for the funded program in the future? How will Grantee sustain it in the coming years?
5. Please share any success stories or evaluation data from those who benefited from the funded program. Provide at least one anecdote about how this Grant and the activities in furtherance of the Grant Purposes impacted an individual, group, or the community as a whole.

D. **Publicity Materials.** Please attach copies of any publications or other public communications acknowledging or referencing The San Bruno Community Foundation related to the Grant.

I hereby certify that the above and attached statements are true, accurate, and complete.



Signature of Authorized Representative

2/23/2024

Date

Dave Dornlas

President

Name of Authorized Representative

Title of Authorized Representative

Email this completed, signed Grant Report and any necessary attachments to [grants@sbcf.org](mailto:grants@sbcf.org).

**Grant Report Form**  
**Statement of Revenues and Expenditures**

**Grantee:** San Bruno Amateur Radio Club  
**Project/Program Funded:** Amateur Emergency Equipment Upgrades and Additions  
**Date Statement Prepared:** 24-Feb-24

*Provide revenue and expenditure information for the program funded by the San Bruno Community Foundation Community Grants Fund.*

**Revenues**

*Possible sources: SBCF Grant, other grants, donations from individuals, business support, events, fees for service, etc.*

Source of Income	Amount Budgeted	Actual Amount Received	Notes
SBCF Grant	\$ 9,500.00	\$ 9,500.00	
Club Funds	\$ 178.00	\$ 178.00	To cover some amount of overage not covered by Grant
<b>TOTAL</b>	<b>\$ 9,678.00</b>	<b>\$ 9,678.00</b>	

**List In-kind (Non-cash) Contributions Received**

Ubiquity Camera for Water Tank, 24Volt bump up. Name plates for large items noting SBCF Grant,

**Expenditures**

*Possible categories: Salaries, professional fees, rent and utilities, travel, publicity/outreach, events, etc.*

Category	Total Amount Budgeted	Total Actual Amount Spent	San Bruno Amount Budgeted	San Bruno Amount Spent Actual	Notes
Radio Room Transceivers	\$ 3,175.00	\$ 2,244.00	\$ 3,175.00	\$ 2,244.00	
Radio Room WinLink	\$ 1,400.00	\$ 1,168.00	\$ 1,400.00	\$ 1,168.00	
Radio Room GMRS	\$ 325.00	\$ 316.00	\$ 325.00	\$ 316.00	
Radio Room AREDN	\$ 500.00	\$ 119.00	\$ 500.00	\$ 119.00	
AREDN Outdoors	\$ 1,800.00	\$ 3,246.00	\$ 1,800.00	\$ 3,246.00	
NVIS GoBox Kit	\$ 1,800.00	\$ 2,071.00	\$ 1,800.00	\$ 2,071.00	
Cache of Expendable Radios	\$ 500.00	\$ 514.00	\$ 500.00	\$ 514.00	
<b>TOTAL</b>	<b>\$ 9,500.00</b>	<b>\$ 9,678.00</b>	<b>\$ 9,500.00</b>	<b>\$ 9,678.00</b>	

**Explanatory Notes** (Use the Notes column above to provide any explanations for a particular Revenue Source or Expenditure Category. Use this space, if needed, to provide any explanation related to the overall financial health of the funded project or program, including Grantee's inability to use the full amount of the SBCF Grant as articulated in the Grant Agreement.)

# Programmatic Accomplishments of the San Bruno Amateur Radio Club

1) First, I'd like to thank the Foundation for funding our program to improve the amateur emergency equipment in the City of San Bruno through upgrades and the addition of new resources.

Our project came from our observation of the Radio Room attached to the City's Emergency Operations Center which is located in the basement of San Bruno City Hall. We'd noted that some of the equipment was outdated while still other



equipment that has become standard in other EOCs was missing altogether. We also knew that new radio systems were available and could easily be added to keep up with current radio technology. Your grant was able to work to address all of these needs.

We started in the Radio Room by taking a deeper look at what was there and what needed to be corrected in addition to what we had already identified. We decided to redo the electrical wiring to all the radios replacing exposed connections with industry standard Anderson Connectors through fused power blocks. One of our members was a retired cabinet maker who saw that by reinforcing the bottom of the existing cabinets we could move the current UHF/VHF transceivers from the counter top up to the underside of the built-in cabinets

freeing up valuable workspace on the counter.

This work also allowed us to add locations for two new radios. One of those is a mobile GMRS radio that San Bruno Fire Chief Ari Delay had indicated would be valuable in communicating with the public around town as well as a new Winlink/Packet VHF radio. We then went on to reroute the antenna cables and power wiring to be out of sight under the back edge of the underside of the cabinets. Finally, we added under cabinet LED lights to greatly improve task lighting for radio operators.

All in all, our Club members donated over 50 man hours to improve the efficiency of the Radio Room before we actually added a single new piece of equipment covered by grant funds.

Our next task was to replace the old outdated High Frequency (HF) transceiver with a new state of the art HF transceiver. We then added an AREDN (Amateur Radio Emergency Data Network) access point, along with an RF based VOIP phone, two mini-computers, one to handle a Winlink Post Office and an additional one as a future server to run a web-based interface that will allow CERT teams to send back via RF (radio frequency) reports directly to the EOC over the AREDN network in the case where cellphones are not available.



The backbone of the AREDN network in the city that we're installing is composed of six new sites around the edges of the City to work in conjunction with other existing locations and future mobile units. One example of these is a radio now located at Skyline College. We entered into a contract with the San Mateo County Community College District that allows us to have a node (radio) on building 7. This process took about 5 months before the agreement was finally approved at a November meeting of the San Mateo County Community College District Board.

This node proved to be more expensive and difficult to place than expected. The concept for all of this equipment is to be ready to deal with an emergency or a disaster. In scoping out the Skyline College site, we discovered while Skyline was an excellent location for a radio, it lacked emergency power.



Instead of simply running a plug to a wall outlet, we realized we needed a solution that guaranteed continuous power day or night, rain or shine. For this reason, we designed and installed a unit that was made up of a radio mounted on a non-penetrating roof mount supplied with a 100 Ah battery powered by 200 watts of solar panels. After testing for over a month, it was installed during the winter break in January 2024. The installation included the use of 200 lbs. of cinder blocks to insure that in a heavy storm the equipment would not become a danger to man or property.

This process took longer than we anticipated, but we found the District,

and most importantly their staff to be fully co-operative and supportive of our effort throughout the entire process. Today that node alone is now connected to over 330 other nodes hosting over 800 devices in the Bay Area and Northern California.



While the City and particularly the San Bruno Fire Department have been excellent partners to work with, we do have to work around their primary duties and schedules to see our equipment placed on the sites we believe will be the most useful for a mesh network particularly rooftops. For instance, to get two new antennas and an AREDN node put on the City's radio tower a unforeseen problem came up.

There are two pipes that house the wires and cables that lead to the tower on the roof. These pipes have been in place probably since the 1950's when the building was built. Over that period, while new cables were run through them no attempt appears to have been made to remove old and unused cables. This led to leaving little or no room to run new cables through them including those for our project.

Fortunately, Fire Marshall Schlice was the one who discovered this problem when he tried to set up our new equipment for the tower. The good news is that Chief Schlice is a very talented techie who was able to find time over the holidays to go on the roof identify with our help which wires were being



### **Near Vertical Incidence Skywave Kit**

used and which were no longer in use. He then pulled the old wires out, and labeled the active cables making room for ours and future wires. We'd have liked to have helped him more but the city has an understandable policy that doesn't permit anyone besides City staff on their roof.

This fall we completed putting together and testing our NVIS (Near Vertical Incidence Skywave) kit. Early this spring we will start training our members on how to set it up and use it. We also have established a cache of expendable radios to have on hand in case of emergencies.

2) As mentioned in our grant application, we believe that all 42,000 members of the San Bruno community will benefit if something terrible takes place here. That comment still stands. We continue to seek ways to explain what we do to the general public and how our members fit in to the City's emergency plans. In 2023 we had a table at the Station 51 Open House to show what we do and to encourage our neighbors to consider getting involved with Amateur Radio. At this time we're completing our first Technician License

Class with the support and sponsorship of the Fire Department in the EOC. Several members of the class first heard about the class at the Station 51 Open House. Our plan is to continue to reach more members of the community and encourage them to get involved either with the Amateur Radio or the City's CERT program.

3) I believe the challenges we encountered were covered in the first response above, but needless to say we found even with good planning there were some significant bumps in the road. For the most part nothing threw us very far off track.

4) Our plan is to continue to be there for the City in the area of emergency communications and work to build our base of volunteers and train them to use the new resources that this grant has provided.



**AREDN Omni Node atop of  
San Bruno City Hall**

5) Once again, it's hard to single out a single person who benefited from the grant as other grantees probably can. One result was to bring our group more closely together to work many aspects of the project. I believe putting together the Skyline node for testing and then installing it on the roof of building 7 was the first time these folks ever worked together on something like this in the history of the club. It was great to see all of them working together to make something none of us had ever done before succeed as planned.

Even more important will be having good equipment to train our amateur operators to use that the grant has made possible.

Thank You again,

Dave Dornlas  
President  
San Bruno Amateur Radio Club  
A 501(c)(3) nonprofit organization



**Constructing the 120 Sector Radio for the roof of Building 7 at Skyline College**

 Pierrot Couch reacted



**Dave Dornlas**

Crestmoor 3 • Edited 7 Feb • 



Max Warne, Sr Maintenance Engineer with the SMCCCD's Skyline campus checks out the work of the San Bruno Amateur Radio Club's major accomplishments placing a AREDN radio node in fulfillment of their grant from the San Bruno Community Foundation. The node has now been in place for over 30 days demonstrating that it is ready for emergency communications as needed.

The Skyline campus has been designated for emergency shelter assignments and this radio would come into use to aid this location. A special thanks to the San Mateo County Community College District and their board for approving the deployment of this valuable link in our county's emergency communications network.

And of course this would not have been possible without the support of the San Bruno Community Foundation's grant to the San Bruno Amateur Radio Club, a 501(c)(3) organization.


Dave Dornlas  
President of the San Bruno Amateur Radio Club



 9

 Like

 3 Comments

 Share



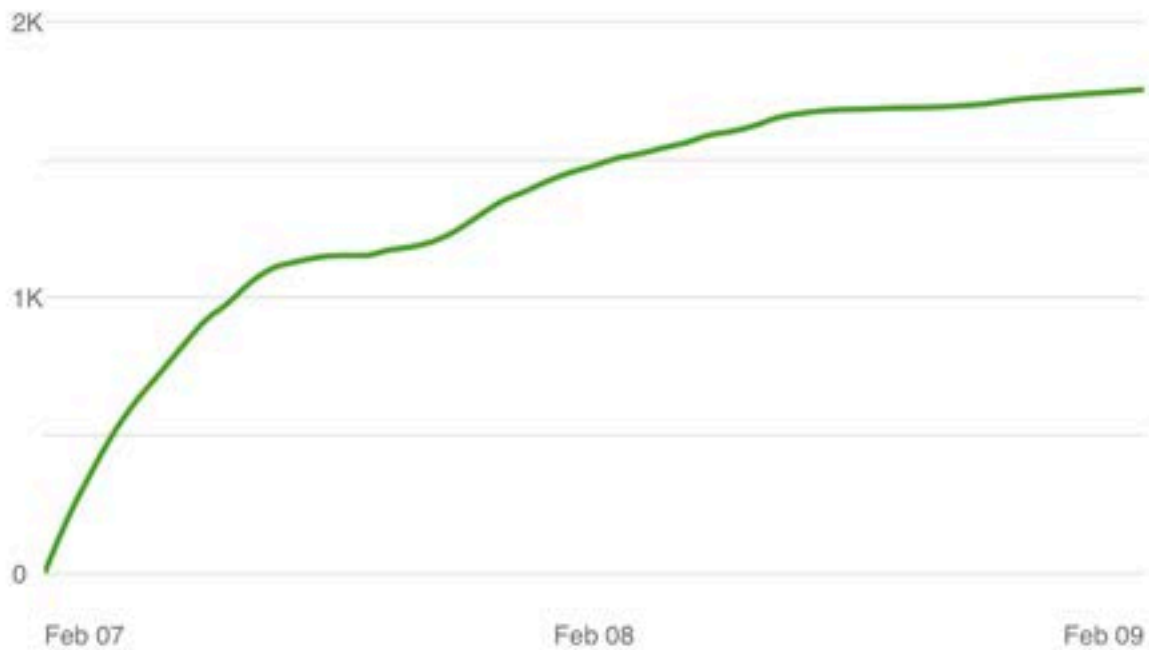
# Views on Nextdoor for the above post



Neighbors are interested in your post!

## Views

**2K total** Graph shows first 48 hours



## Neighbor response

Neighbors have a lot to say about this post

**9**

Reactions

**3**

Comments





**Dave Dornlas**

Crestmoor 3 · Edited 7 Feb · @



K6PVJ-San-Bruno-City-Hall\_Omni completing final testing at the base of the radio tower atop of San Bruno City Hall. This radio is now in its final testing phase before being moved to the top of the radio tower to be in place to carry high speed data over the Bay Area AREDN network.

The radio is connected to equipment in the San Bruno City Emergency Operations Center located in City Hall to provide communications to field units in San Bruno as well as other EOCs in the County and Bay Area.

This was made possible with funds from a grant to the San Bruno Amateur Radio Club from the San Bruno Community Foundation. The work would not have been possible without the cooperation of the City of San Bruno and particularly the San Bruno Fire Department under the leadership of Chief Ari Delay and his senior staff.

The club thanks them in this effort and looks forward to future cooperation to make the City of San Bruno fully prepared for what may lie ahead in the coming days and years.

Dave Dornlas  
President  
San Bruno Amateur Radio Club  
A 501(c)(3) non-profit organization



15



Like



8 Comments



Share

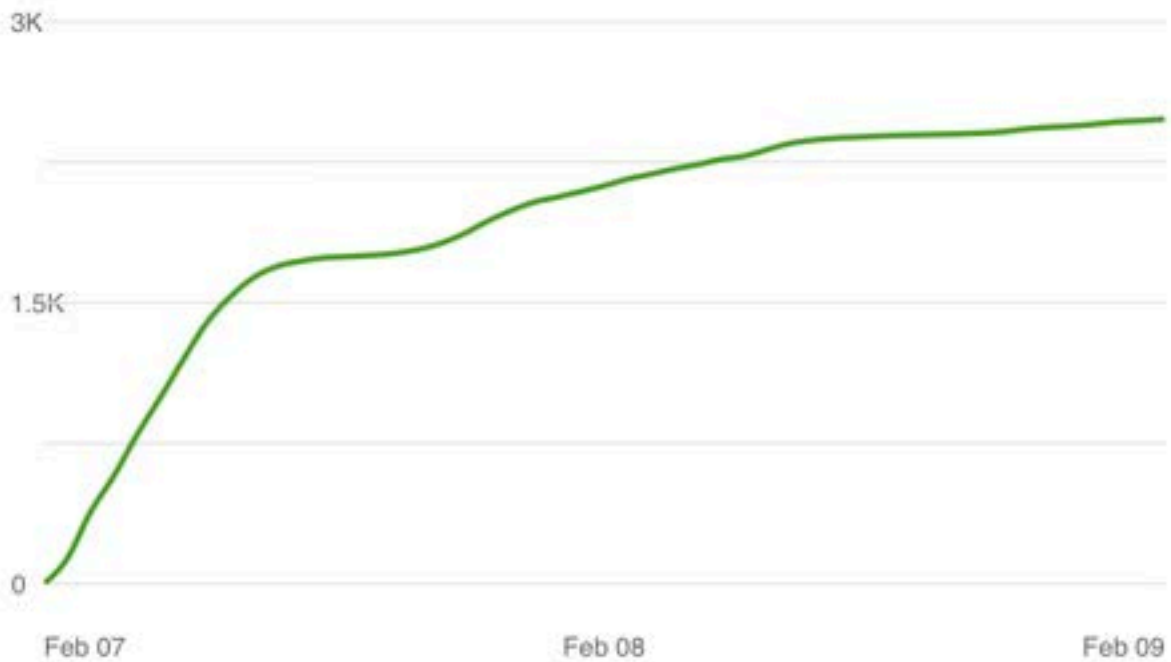
# Views on Nextdoor for the above post



Neighbors are really interested in your post!

## Views

2.7K total Graph shows first 48 hours



## Neighbor response

Neighbors have a lot to say about this post

**15**

Reactions

**8**

Comments



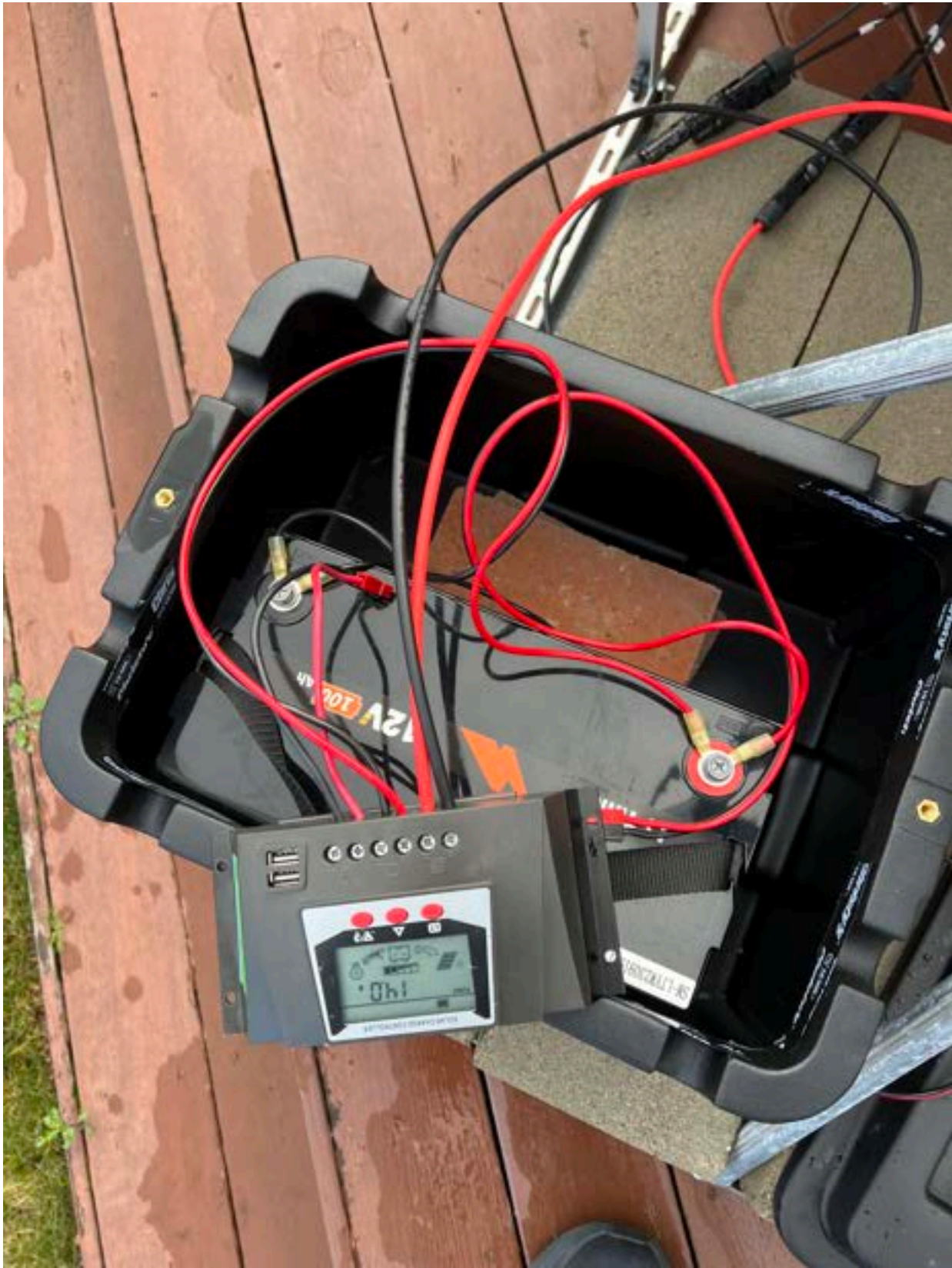
# Skyline Radio/Node "Backyard Testing"



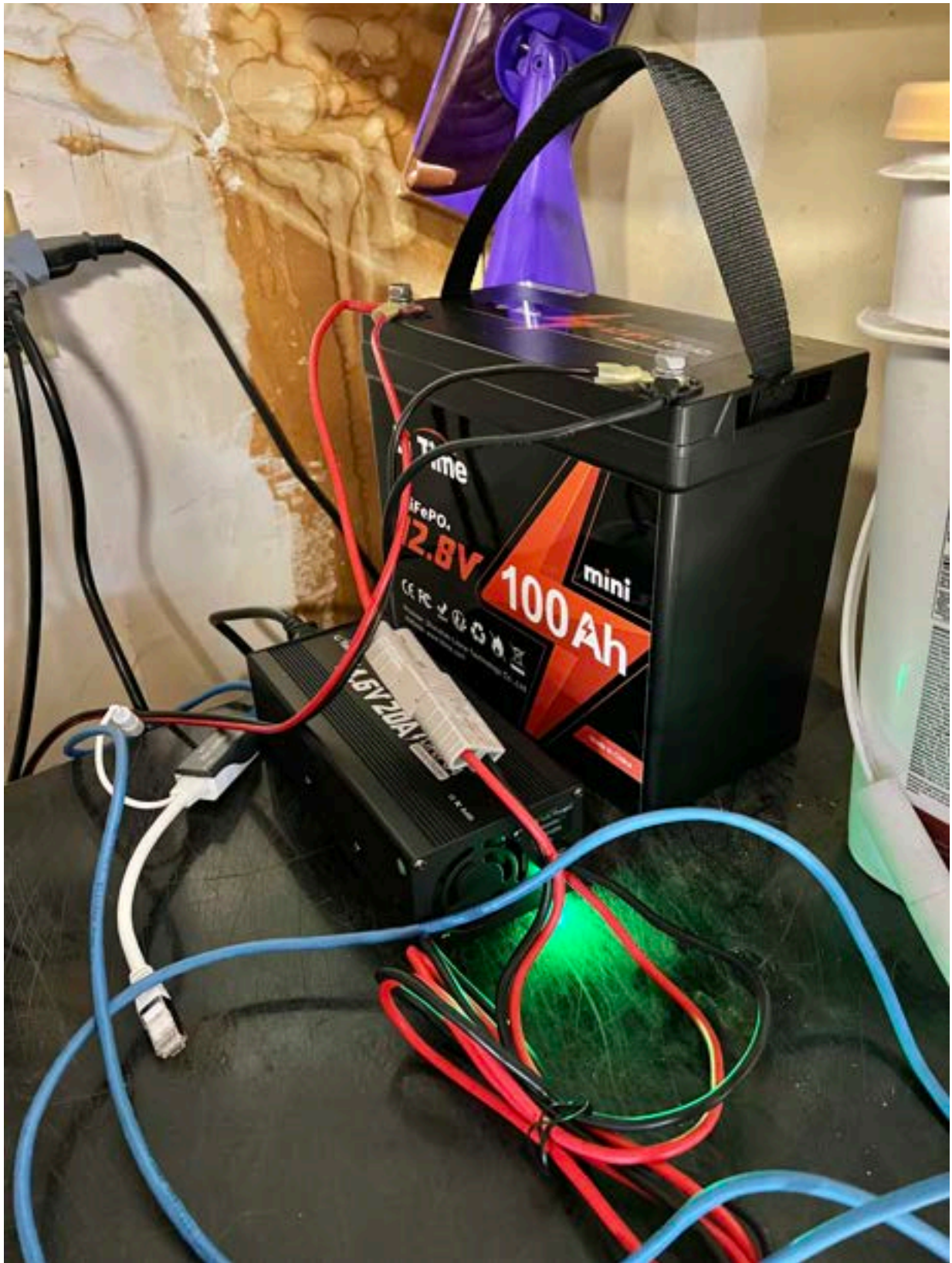
# Sweeney Ridge City Water Tank "Backyard" testing



# Skyline College Battery, Controller Unit Testing



# Sweeney Ridge City Water Tower Battery and Recharging Unit Testing



# Ralph Kugler, KC6YDH adjusting equipment in City Hall EOC Radio Room





# New HF Transceiver, Yaesu 710 and Monitor



# 80 Meter(131ft) NVIS Antenna Testing



# The Plaque we're placing on all major items or locations

