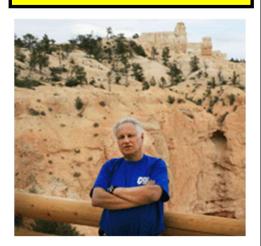
#### ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. LXIII NO. 06

P.O. BOX 3454, TUSTIN, CA 92781

June 2022

## The Prez Sez... By Nicholas AF6CF



QST QST QST! June is finally here, and you know what this means... Field Day, Field Day and more Field Day. We are as ready as we can be, and our Club members are now ready for the FD class with Professor Tim N6GP. This month we will have a special general meeting date just a week before and will talk about the final preparations, details and schedule. The two co-chairs are going to give the final advice to the membership so we should all be ready for a successful event. The new propane generator is ready to go and now is the food donations turn. Speaking of food, the Food Committee is debating what type and amount of food we should provide for each person

that shows up and helps at least a few hours on Friday. This year we will have a fully functional GOTA station so nobody will go home without operating. We plan to have a Public Relations person to show visitors around, and even some signs so people will not get lost looking for the stations. If you are a visitor and have an FCC license, this is the time to operate and have fun. On the other hand, if you have no license, you still can operate under the watchful eye of one of our team members. There are a few positions open to help in different areas, so hurry up to volunteer. The final result of this effort will depend on the degree of everybody's participation, and there is no doubt in my mind that this year we will do very well and have TONS of FUN in the process. As usual, after the event, we will evaluate our experiences and see how we can improve next time.

Finally, the **Breaking News!** We will now have our meetings In-Person at the Red Cross building so please make plans to attend. As usual, I look forward to an eyeball contact with you all at the next General Meeting.

73 DE AF6CF

#### **NEXT GENERAL MEETING**

June 17, 2022
19:00 hrs
IN PERSON at the
American Red Cross
Blood Donation Center,
Santa Ana\*
Speaker:

Chip Margelli, K7JA

Presents: Field Day 2022

#### **NEXT BOARD MEETING**

Saturday, July 3, 2022

#### **SPECIAL NOTICE:**

During the COVID-19 pandemic
ALL OCARC Nets will Remain
Active! (See page 2)

\*Also available on Zoom for those
who cannot attend in person.

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#### 2022 Board of Directors:

#### President:

Nicholas Haban, AF6CF (714) 693-9778 af6cf@w6ze.org

#### **Vice President:**

Tim Goeppinger, N6GP (714) 730-0395 n6qp@w6ze.org

#### Secretary:

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#### Treasurer:

Ken Konechy, W6HHC (714) 348-1636 w6hhc@w6ze.org

#### Membership:

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Ron Mudry, W6WG (714) 840-3613 w6wg@w6ze.org

#### **Publicity:**

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#### Technical:

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#### **Directors-at-Large:**

Dan Violette, KI6X (714) 637- 4632 ki6x@w6ze.org

#### **Directors-at-Large:**

Tim Millard, N6TMT (714) 744-8909 n6tmt@w6ze.org

#### 2022 Club Appointments:

#### **W6ZE Club License Trustee:**

Bob Eckweiler, AF6C (714) 639-5074 af6c@w6ze.org

#### Club Historian:

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#### RF Editor for June 2022:

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#### Webmaster:

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#### Web Main Programmer:

Bob Eckweiler, AF6C (714) 639-5074 af6c@w6ze.org

#### **Assistant Web Maintenance:**

Tim Millard, N6TMT (714) 744-8909 n6tmt@w6ze.org

#### **ARRL Awards Appointees:**

Arnie Shatz, N6HC (714) 573-2965 n6hc@aol.com

John Schroeder, N6QQ (West Orange Co.) (562) 404-1112 n6qq@msn.com



#### **Monthly Events:**

#### Membership Meetings\*



Time: 7:00 PM

When: 3rd Friday of each Month Red Cross Blood Donation Center, Tustin \*See ZOOM announcement pg.1

#### **Board Meetings**

July 02 at 8:15 AM Board will handle Club business by IN-PERSON and ZOOM. See page 13

#### Field Day

See Announcements in Newsletter

#### Club Nets (Listen for W6ZE):

10M: 28.375 ± MHz SSB Wed- 7:30 PM - 8:30 PM Net Control: Corey, KE6YHX

#### 2M: 146.55 MHz Simplex FM

Wed- 8:30 PM - 9:00 PM Net Control: Corey, KE6YHX

#### **75M** 3.883 MHz LSB

Tue @ 8:00 PM Net Control: Corey, KE6YHX

#### CATALINA AMATEUR REPEATER **ASSOCIATION (CARA)** 147.090 MHz (+0.600 MHz) No PL

Monday - Friday 9:00AM and 9:00PM Prg. Director. Tom W6ETC

#### **OCARC 2022 DUES**

Membership period is: 1 January to 31 December

Individual New or Renewal: \$30. Family New or Renewal: \$45. Teen New or Renewal: \$15.

New Member Dues are prorated quarterly and includes a badge: Additional Badges: Use one of our interactive online forms to calculate current prices, join the club and/or order badges:

#### Online Forms / Dues & Badges

\$3. plus mailing costs if applicable Dues are subject to change without notice





# 2022 Field Day

**Setup: Friday June 24th** 

Operations: Saturday-Sunday June 25<sup>th</sup> & 26<sup>th</sup> Takedown: Sunday June 26<sup>th</sup>



We (The OCARC) will be returning to what is typically call a "normal" Field Day this year. The OCARC Field Day site will be at the following location:

Ocean View School District Office 17200 Pinehurst Lane, Huntington Beach, CA 92647



Field Day officially runs for 24-hours beginning on Saturday, June 25 at 11:00 AM local time running through the next 24-hours ending at 10:59 on Sunday. Several years ago, the rules changed so that we are now permitted to begin setting up for the exercise the day before so, Friday, June 24 is that set-up day.

The fun of the Field Day operations cannot happen without support in setting up and dismantling of the site. Three work parties are necessary to support the OCARC effort so if you are planning to attend and can help in the set-up, PLEASE advise one of our two Field Day chairmen in advance so they can coordinate everyone's efforts:

Work Party 1	Friday morning June 24 we will load the site equipment into trucks
Equipment loading &	and transport it to the Field Day site. This normally takes approx
Transportation	2 hours
Work Party 2	Friday early afternoon June 24 the equipment will be on site, and we
Unloading/towers	will erect towers, antennas, and band stations. This effort requires a
and antenna	great deal of help. As an example; raising our 50' towers require
installations. Site	approximately 12 members to do it safely. We will have multiple
setup	smaller towers to erect plus the individual antennas and popup tents.
	We will have two large 20'x20' tents with tables and chairs.
Work Party 3	Field Day officially ends at 11:00 am Sunday morning and dismantling
Takedown, loading	of the site will begin immediately thereafter. Again, we will need
and returning	approximately 12 members just to lower the towers. The dismantling
equipment to	of the site and loading the trucks normally finishes by approximately
storage	2:00 pm.

We can't stress enough the need for member support in these efforts.

# Please volunteer to help as much as you can with any or all three of the work parties. Your help is needed!



Special Note: Due to the ongoing Covid19 Pandemic, mask protocols\* will be in place to minimize exposure to our band station operators. In this regard, if you would like to operate and work SSB and have a headset, please bring it for your personal use.

Water and coffee and provisions will be available, and plans are in the works to offer food as well. Watch your E-mail for further details.

Hope to see you all there,

Tim, W6TMT Field Day Co-chairman

Nicholas, AF6CF Field Day Co-chairman





#### **Upcoming Activities:**

#### June

- \*ARRL June VHF QSO Party: 1800 UTC Saturday June 11 through 0259 UTC Monday June 13.
- Kids Day: 1800 UTC through 2359 UTC Saturday in June 18.
- Field Day: 1800 UTC Saturday 25 through 1800 UTC Sunday 26.

#### **July**

- RAC Canada Day Contest: 0000 UTC through 2359 UTC Wednesday July 1.
- IARU HF World Championships: 1200 UTC Saturday July 9 through 1200 UTC Sunday July 10.
- \*CQ WW VHF Contest: 1800 UTC Saturday July 16 through 2100 UTC Sunday July 17.
- RSGB IOTA Contest: 1200 UTC Saturday July 30 through 1200 UTC Sunday July 31.
  - \* Indicates club entries are accepted \*\* Indicates team entries are accepted Note: When submitting logs for ARRL Contests indicate your club affiliation as "Orange County ARC"

#### **State QSO Parties:**

 West Virginia QSO Party: 1600 UTC Saturday June 18 to 0400 UTC Sunday June 19.

#### **Repeating Activities:**

- Phone Fry Every Tuesday night at 0230 UTC to 0300 UTC Wednesday
- SKCC Weekend Sprintathon (Straight Key CW) on the first weekend of the month after the 6<sup>TH</sup> of the month. 1200 Sat. to 2359Z Sunday
- **SKCC** Sprint (Straight Key CW) 0000Z to 0200Z on the 4<sup>th</sup> Tuesday night (USA) of the month.
- CWops Every Wednesday 1300 UTC to 1400 UTC 1900 UTC to 2000 UTC and Thursday 0300 UTC to 0400 UTC
- K1USN Slow Speed Test: (CW, 20WPM Max.) Every Friday 2000 UTC to 2100 UTC
   Every Sunday night at 0000 UTC to 0100 UTC Monday
- ICWC Medium Speed Test: (CW, 25WPM Max. Every Monday 1300 UTC to 1400 UTC 1900 UTC to 2000 UTC and Tuesday 0300 UTC to 0400 UTC

### RadioActivity Continued: OCARC Club Nets:

- **75 Meter Net:** Every Tuesday night at 8:00 pm to 8:30 pm Local Time. SSB 3.883 MHz
- 10 Meter Net: Every Wednesday night at 7:30 pm to 8:30 pm Local Time. SSB 28.375 MHz
- 2 Meter Net: Every Wednesday night at 8:30 pm to 9:30 pm Local Time. FM Simplex 146.55 MHz

#### Other Nets:

Catalina Amateur Repeater
 Association (CARA)
 Net@9 Wellness & Support Net
 Monday thru Friday
 9:00am and 9:00 pm Local Time
 147.090 MHz (+600 MHz) No PL
 Echolink: \*CATALINA\* AllStar # 51597

Facebook page: CARA NET@9

Do you have a favorite ham radio related activity that you would like see included into the RadioActivity lineup? Just send an email to *Ron W6WG*, <u>w6wg@w6ze.org</u> with your comments and suggestions?



9 AM & 9 PM Monday – Friday on CARA Repeaters: 2M: 147.090 MHz (+0.600 MHz) No PL and 1.25M: 224.420 MHz (-1.600 MHz) PL 110.9 repeaters. Also available on EchoLink node \*CATALINA\*



Image during sunset at Winter Field Day 2022

#### What in the World Does a Callsign Like LW8DJC/D Mean?

by Tim Goeppinger N6GP

This April I was on 20m FT8, and I spotted a weird callsign scroll by on the decode screen. LW8DJC/D - what is that? Some special event? I had no idea. I did some Google searches that yielded no answers.

So, I went to the FT8/FT4.... group on Facebook, and asked the question: What does this CALLSIGN/D mean? Within a couple of hours, Emiliano Guiterrez, LW6EGE posted the answer, which is specific to his country of Argentina.

He says that Argentina uses letters for their call areas, not numbers. The numbers are meaningless, with one small exception. Your letter district letter is the first letter after the number (suffix).

There are 23 provinces in Argentina, and the populous Buenos Aires area is assigned 2 letters, D and E. Z is reserved for LU stations in Antarcica. So, the LW8DJC/D was just portable in his own D district, much like I would be N6GP/6. Emiliano says that the portable designator is not required by the government regulators, but that some ops just prefer to use it.

The only number that has any meaning in the Argentine calls is zero. They are special purpose calls that are only issued during emergencies. What about the LT0H callsign? That was a special exemption a few years ago and has since been revoked.

For you paper chasers, the Radio Club Argentino has the "Toda La Republica Argentina" (worked all Argentina) award for stations working all 24 areas. Maybe you have already earned it – check your QSLs. Link: https://www.lu4aa.org/wp/awards-program/

#### SUFFOS DE LA REPUBLICA ARGENTINA



#### **Changes at ARRL Sixth District QSL Bureau**

From the 6<sup>th</sup> Area QSL Bureau Site http://www.qslbureau.org/

It is with deep sadness that we report the passing of our Sixth District QSL Bureau General Manager Bob, KC6AWX in March. He will be missed.

His passing will result in a delay in the next mailing to the Bureau Segment Sorters and therefore a delay in mailings to account holders here. Please bear with us and check back for updates.

Update 11 May 2022 --- NOTE NEW ADDRESS now in Stockton.

Our new Bureau Managers are John, NZ6Q and Annie, N6ACL. They are getting things organized and back up to speed. Shipments to the Sorters are being prepared. Stay tuned for more updates. Thank you for your patience.

New Bureau Address: PO Box 7488, Stockton, CA 95267-0488



Image above is from our May 2022 speaker, Clint Bradford, K6LCS

His topic was: "How to Work Amateur Satellites with Your HT"

His website is chocked full of **How-To** for working with **ham satellites**.

www.work-sat.com

# OCARC BOARD MEETING MINUTES 2022-06-04

Due to the waning pandemic, the sixth Board Meeting of the year was in-person, and two Board members attended via Zoom on Saturday, June 4, 2022, at Tom W6ETC's QTH in Tustin.

The meeting was called to order by club president, Nicholas Haban AF6CF at 8:29 AM PDT. All ten (10) directors were present for a quorum, including the two who attended by Zoom. We had one visitor, Jim KB6TKA. There were seventeen (17) topics brought to the Board this morning, including four (4) Director Reports and thirteen (13) agenda items. One (1) motion was carried, adjournment.



Fig 1 – All ten (10) Board Directors were present. Two directors attended by Zoom, and one guest in-person.

#### **Director Reports**

Nicholas AF6CF calls for director reports.

- **-Treasurer:** Ken W6HHC reports our income since the beginning of the year totals \$2,607. We have outflows totaling \$342, for a net increase of \$2,264 [See page 18 editor]. Storage facility rental is discussed.
- **-Activities:** Ron W6WG reports we have the room at the American Red Cross reserved for the rest of the year.
- **-Publicity:** Tom W6ETC has the flyers at HRO, but they are not the standard trifold. An acrylic trifold holder is available online. A label to identify the holder as club property would be needed.
- -Director-at-Large: Tim M. N6TMT reports we need a GOTA Captain for this year's ARRL Field Day.

#### **Old Business**

#### Newsletter Editors

June: Steve N1BKB September: Tim M. N6TMT

July: Tom W6ETC October: Corey KE6YHX (Updated 6/14/22)

August: Tim G. N6GP

#### General Meeting Programs

June: Chip Margelli K7JA talks about Field September: Edison Fong WB6IQN

Day 2022 presents: "J-Pole Antennas"

July: —to be determined— October: —to be determined—

August: —to be determined—

#### PayPal Account Ownership

This item is tabled for next month.

#### Continuation of Zoom Hybrid Meetings

It is advantageous for us to continue to include Zoom in the General Meetings. Details regarding Internet access and large-screen use at the ARC location are planned.

#### Old Generator Plans

Bob AF6C reports the generator maintenance is in-progress.

#### Summer Field Day 2022 Plans

- -Field Day Co-Chair Tim M. N6TMT reports the details of Field Day were mostly worked-out at the Field Day Planning Meeting in May. We need a GOTA Captain, and an LMR feed-line is needed. A board member can provide the feed-line. Meals are discussed.
- -The (club's) generator has been prepared (for FD).
- -A budget of \$600 plus food was agreed upon at the May 7, Board Meeting.

#### Tower Base Repair

Tim M. N6TMT reports the tower base repair has been completed, but some hardware is needed. The Board agrees Atlee N2CNC is to be renewed as an Honorary Member for 2023.

#### Equipment Donations/Tower Donation

-Bob AF6C reports the tower recovered from the SK donation last month is on a trailer at a member's QTH. It is to be advertised and put up for sale.

#### •Ken W6HHC's Workload - Status

There are more tasks on Ken's OCARC plate currently than he has time to accomplish and still live a normal life. He wants to have members take over most of these OCARC responsibilities.

Ken has now offloaded six of his OCARC duties as listed below:

- 1) Webmaster Dan KI6X (Ken recommends Dan for the position to the president at the board meeting)
- 2) Publishing RF to Website DONE Corey KE6YHX
- 3) Managing Editor of RF Newsletter DONE Tom W6ETC
- 4) Converting Newsletter to PDF Tom W6ETC and Corey KE6YHX are both willing DONE
- 5) Publishing RF Newsletter by e-mail to membership DONE Secretary
- 6) Responsible for group emails to membership DONE Secretary Corey KE6HKX
- 7) Drop "heavy duty" board positions after December 2022.

- -Dan Violette KI6X is appointed Web Master by the president.
- -Corey Miller KE6YHX has accepted duties two (2), four (4), five (5), and six (6).

#### **New Business**

#### American Red Cross Meeting Location, Zoom Access

Ron W6WG reports we have the American Red Cross room for our General Meetings for the rest of the year.

#### •In-Person Board Meetings

Unless otherwise advised, Board Meetings to continue to be held at Tom W6ETC QTH for remainder of this year. An alternate meeting location will be looked into. The Board agrees Tom W6ETC should be reimbursed for his expenses.

#### •Newsletter Managing Editor

The prevailing opinion of the Board is that there is value in the title of "Managing Editor."

#### Show-and-Tell/Good of the Club

- -Ron W6WG built an "ultra-sharp-receive filter for 40m phone." Testing for further production for the club is a good prospect.
- -Nicholas AF6CF built an advanced battery-box.
- -Tim G. N6GP reports the ARRL VHF Contest is this weekend, and the ARRL is trying a new FT8/FT4 contest, today.

#### **Adjournment**

A motion to adjourn is made, seconded, and carried at 10:26 AM PDT.

--Respectfully submitted by Corey KE6YHX, OCARC Secretary





Due to the COVID19 pandemic, the fifth General Meeting of the year was via Zoom\* on Friday, May 20, 2022. The meeting was called to order by (its) club president, Nicholas Haban AF6CF at 7:00 PM PDT.

There were twenty-four (24) members, guests and visitors present\*, including our speaker.

#### Pledge of Allegiance

Nicholas plays a video to lead the Pledge of Allegiance at 7:01 PM PDT.

#### **Meeting Presentation**

Nicholas AF6CF turns the meeting over to club vice president Tim Goeppinger N6GP. Tim introduces Clint Bradford K6LCS, who presents "How to Work Amateur Satellites with Your HT."

#### Questions and Answers

Clint K6LCS takes questions from the audience.

Four members have questions for Clint. Clint provides detailed explanations and references. He concludes with a mention of the international goodwill on the International Space Station and a recommendation for Field Day 2022.

Tim N6GP and the attendees appreciate Clint's humorous, informative and inspiring presentation and Tim calls for a round of applause. Thanks again from the Orange County Amateur Radio Club.

#### **Business Meeting**

Club president, Nicholas AF6CF starts the business meeting at 8:31 PM PDT. There were nine (9) Board members present for a quorum. Our treasurer was absent. Four (4) topics were brought to the Board tonight, including two (2) Director Reports and two (2) discussions. One (1) motion was carried, adjournment.

#### Director Reports

Nicholas AF6CF starts the Director Reports.

- **-Technical:** Steve N1BKB asks if we are keeping the SK donation of a Kenwood 930S transceiver. The recommendation is to keep it for Field Day and as a club loaner. The Henry 2KD5 Amplifier is up for sale. Contact Steve N1BKB <a href="mailto:n1bkb@aol.com">n1bkb@aol.com</a> if you are interested.
- **-Membership:** Bob AF6C reports our membership is now at 92 members.

#### •Field Day 2022

Field Day Co-Chairman Tim M. N6TMT announces the next Field Day Planning Meeting on Wednesday, May 25<sup>th</sup>. Field Day is on June 25<sup>th</sup> and 26<sup>th</sup> of this year. Operators can fill-in occasionally during breaks. We need hands to help with setup on Friday the 24<sup>th</sup>, operating on Saturday, then teardown on Sunday afternoon.

Field Day Co-Chairman Nicholas AF6CF recommends volunteer operators coordinate with the band captains. Nicholas also mentions generator maintenance, and the needed tools should be available with it.

A Field Day University is planned if enough people are interested.

Plywood, carpet, AstroTurf, and cardboard to lay on the grass under the chairs and equipment are considered, as well as wearing masks in the tents.

•SK Tower Move: Bob AF6C brings up the plans for the tower-move on Saturday. The equipment for the move seems adequate, and the time has been moved to 11:00 AM PDT.

#### Ask the Elmer/Good of the Club

There are no items for Ask the Elmer or the Good of the Club.

#### **Adjournment**

A motion to adjourn was made, seconded and carried at 9:07 PM PDT.

--Respectfully submitted by Corey KE6YHX OCARC Secretary



Volunteer now to: Help Set-Up (24<sup>th</sup>)
Volunteer now to: Operate (25<sup>th</sup>-26<sup>th</sup>)
Volunteer now to: Take Down (26<sup>th</sup>)

Contact the Field Day Co-Chairmen and Let Us Know if...

You Plan to Assist & Attend

#### A Battery Box For Field Day and Beyond

by Nicholas AF6CF

During the past years, several Club members have made "battery boxes" to use during emergencies as well as the annual ARRL Field Day. Most of these designs were made with a standard LiFePO4 battery into an "ammo case" and a battery charger. These work very well for QRP operations and as a source of emergency power to charge your phone, tablet or any other small device.

Based on this concept, I decided to try design something a little bigger that can be used around the house or in the field to power a 100W radio, or maybe a small fridge when you go camping.

The base elements were an Apache 3800 case and a pure sine wave inverter, coupled with a 40AH LiFePO4 battery and charger that I had.

The idea was to make a device that will be both powerful and portable, so it was decided that a solar charge controller was not necessary. If we want to charge the battery with a solar panel, it's a simple matter to use an external charge controller.



**Finished Battery Box** 

#### **Devices**:

- 1) 40 AH LiFePO4 battery.
- 2) 10 AH 120 VAC charger
- 3) 300W Pure Sine Wave Inverter

- 4) 12V Battery voltmeter
- 5) 120V AC voltmeter
- 6) Temperature indicator

#### **Connections:**

- 1) 120 VAC line input
- 2) 120 VAC outlets x2 (one each side)
- 3) 40A Power Pole (top)
- 4) 20A Dual Power Poles on upper side
- 5) 12V Cigarette lighter socket on upper side
- 6) USB charger (2 outlets)

There are two switches on the top of the case, one is a 50A battery cutoff switch and the other one is the inverter ON/OFF. A pushbutton is provided to read battery volts.

The 300W inverter had a big enclosure, but the board inside was of a smaller size so it fits in.

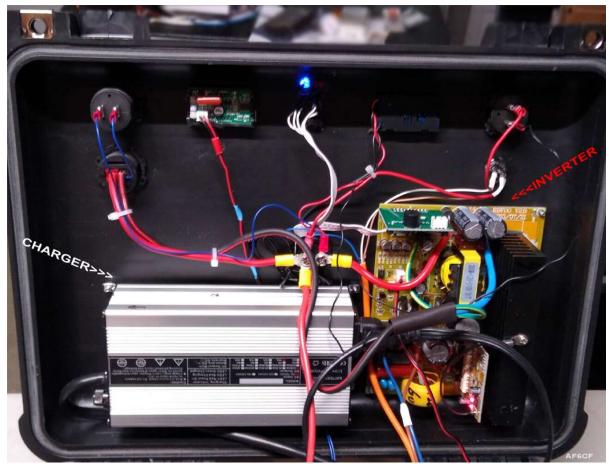




#### **Operation:**

When you leave a charger and/or an inverter permanently connected to your battery, there is a small current drawn by these devices, so if you leave them connected, after a few weeks the battery will be totally drained. Not a good thing for a device intended for emergency operations, where you have NO power.

To solve this, I installed a 50A battery disconnect switch (big red object in the first picture) and two relays (K1 and K2 in the schematic). The purpose of the first relay is to isolate the charger from the battery and the second one turns on the voltmeter to have a charge status indication (14.6 is full). Refer to the schematic diagram for additional details.



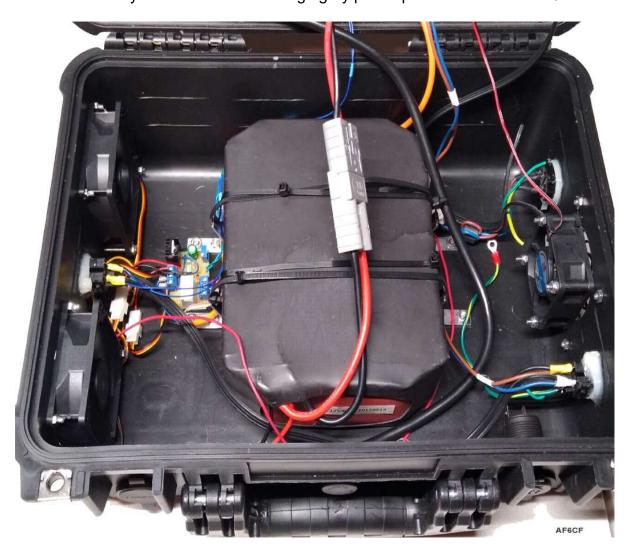
The 10A charger is on the left side and the Inverter to the right

Against better judgment and popular belief, I decided NOT to put a fuse in series with the battery this time because in case of an internal or external short, the BMS (Battery Management System) inside the battery will take over and shut it down.

By the same token, there is no need to place the Anderson connectors or the lighter socket behind the main switch. This way, if all you need is 12 volts, it's always available without extra drain from the inverter, USB, etc. Also, the solar charge controller would be connected to the Power Poles.

#### **Battery:**

The battery is rather heavy, so I used a metal plate attached to the case by screws holding four "L" brackets that are used to keep the battery in place via zip-ties. The metal plate sits between the battery and the case, providing more strength to the case. The battery came with both the large grey power poles and the small 45A ones.



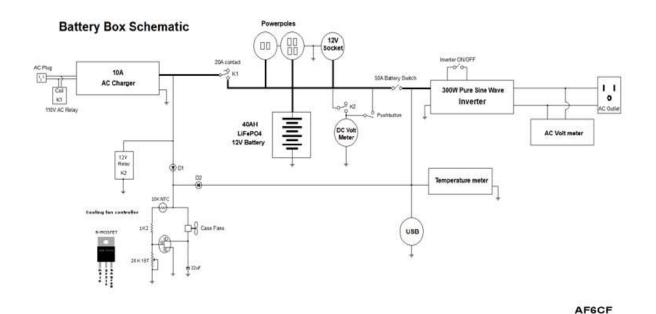
#### **Ventilation:**

The inverter had its own temperature-controlled fan (right one in the picture) but when the charger or the inverter is on, the temperature inside the case can be too hot and could melt the plastic, so it was decided to add two more fans on the opposite side to cool down the unit if necessary.

The fan controller is the small circuit board to the left of the battery. It will be powered when either the charger or the inverter are "ON".

#### **Construction:**

This is not a construction article, just a description of what can be made with a bunch of parts and spare time. If you want to build one, contact me and I can provide some guidance and technical support and even some parts.



- ✓ All parts are standard and there are no critical values or components.
- ✓ The thick lines indicate heavy wire (10 AWG).
- ✓ I used standard 100V 1A rectifier diodes (Schottky would be better).
- ✓ Any N-Channel MOSFET will work (I used a IRFZ44).
- ✓ The 12V relay is the smallest you can get.
- ✓ The 110VAC relay has to have at least 10A contacts.
- ✓ The trimpot is adjusted to stop the fans at or below 72F.

#### Sources:

- Apache 3800: Harbor Freight
- 40AH LiFePO4: Bioenno Tech
- 300W Inverter: eBay or Amazon
- 50A Battery switch: Amazon
- Relays: eBay and/or Digi-Key

- Power Poles: HAM Radio Outlet
- 12V socket: Amazon
- Temperature meter: Amazon
- Small components: Junk-box & eBay

73 DE AF6CF

### OCARC Cash Flow - Year to Date

1/1/2022 through 6/2/2022

Category	1/1/2022- 6/2/2022
INEL OWO	
INFLOWS	
Dues, Family (PayPal)	128.82
Dues, Membership	330.00
Dues, Membership (PayPal)	2,148.48
TOTAL INFLOWS	2,607.30
OUTFLOWS	
Web Site Hosting	104.95
WFD	26.68
WFD - Food	17.90
WFD - Propane	43.06
WFD Rental - Tent	150.00
TOTAL OUTFLOWS	342.59
OVERALL TOTAL	2,264.71



Photo by N6GP: Colorful Night life at the OCARC June 2021 FD (Front to Rear) - Wayne KH6WZ's decorated tent and the CW behind followed by the PHONE tent to the rear.

**EFHW Antenna Update** 

# "Hoist it up the Flagpole" or is it....

"Raise it up the Chimney"

by Ken Konechy W6HHC

I just finished re-doing my **End-Fed-Half-Wave (EFHW) wire-antenna installation for 20M/10M** for a third time on Monday, June 6.

#### 1) "Flag-Pole" pulley rope

The rope pulley-system on the chimney was changed to a Flag-Pole system (one rope goes up - one rope goes down). The pulley system work much more "positively" now. No more "gravity feed" to lower the wire anymore.

#### 2) Larger Ferrite Toroid

The old impedance-transformer that I used for my EFHW antenna from **VIBROPLEX.com** was rated at 1KW (on SSB). But my key-down tests (at 150W) for SWR measurements would heat up the internal ferrite core to the point in five seconds that I could see the SWR changing. Ferrite toroid's lose current-handling inductance performance at higher temperatures.



I installed a larger impedance-transformer that had a larger core and better ferrite-materials from **MyAntennas.com** (model **MEF-330-2K-Plus** rated at 2 KW) that works perfectly. The Impedance is still normal and there is no more overheating with the larger toroid.

#### 3) Fine-Tuning the Resonance

I slightly shortened the wire length to change the resonance point from 13.967 MHz to 14.070 MHz in order to optimize FT-8 operations on 20M.

Since I **DO NOT** climb ladders or climb roofs anymore, I used the services of Mike Cleary Al6WE (aka the "tower monkey") to install this antenna revision for me.

Mike Al6WE always does fast and reasonably priced work for me.

If you live locally and need help with your installation Mike Al6WE can be reached at (951) 764-7534 (QTH near Murrieta, California).



# MiniTiouner-Express Digital Amateur Television DVB-S/S2 Receiver / Analyzer





#### Available at DATV-Express.com

- Operates with Windows PC using free MiniTioune software from Jean-Pierre F6DZP
- Smaller than a stack of 2 decks of cards (picture above is full size)
- Two independent simultaneous RF inputs with internal preamps
- High sensitivity -100dBm @1288MHz at 1/2 FEC
- Fully assembled/tested in aluminum enclosure
- Covers 144-2420MHz (ideal for Space Station DATV reception)
- Symbol rates from 75 KSymb/s to >20 MSymbols/sec
- Uses external 8-24VDC supply or +5V from USB-3 port (with small modification)
- · Real time signal modulation constellation & dBm signal strength display
- Price: US \$75 + shipping order with PayPal

#### For details & ordering go to www.DATV-Express.com MINITIOUNE v0.8s - Receiver/Analyser DV8-S/S2 144 MHz to 2450 MHz - SRmini=65 kS/s - for MiniTiouner/MiniTiouner-Pro NIM: Serit FTS-4334L SR (kS) Freq (kHz) Tuner MiniTioune LNA gain: 8.3 dB Pid from .ini 03125 01268000 TV mode: ay fallet BaseBand Gain DVB-S W8RUT 1 Offset-> - 000 0 dB W8RUT 2 Scan strategy SR3125 1268p MHz C /euto 00162 Freq asked:1268000kHz 1268004 kHz **HDlowSR** Bandwidth 1 search SR4167 1288 MHz range wide narro 10 MHz Freq -> 1268028 kHz France24 00088 SR250 437 MHz Offset 000kHz QRZ DX SR1000 437ge MHz -0 RaspberryP SR22000 437ve MHz Low SR DVB mode FEC ○ DVB-S 1/2 □ 3/6 ○ DVB-S2 2/3 ☑ 3/4 ○ AUTO 9 4/3 Width | 16/9 Height | O Timer2 3.0 olus 💮 MPA AAC AC3 4/5 № 5/6 F 6/7 № 7/8 F 9/8 F 8/10 F Target dev. 24kHz Deviation: 24 kHz pll corr 0 0 T auto GRAPH Copy Freq found +/- 8000 kHz +/- 4000 kHz +/- 2000 kHz +/- 1000 kHz Web Station ID:1 Station W8RUT 1 Symbolrate (kS) SR set: 3125049S DVB-S MABAME Deviation: 208S WERLIT +/- 500 kHz SR -> 3125 kS/s Codec: VMpeg2 • MPA EN80MD Preamp 20 dB Carrier Width 4219 Khz Ant. Dir. East Gain 12 dB photo Lg Msg Lg Pic 0000 WebEr 00000 0 Audio level □ Info □ ISS Timing 3 sec 1: 75 Q: 74 Equa Noise dBm dB -10 36 -60 FEC 3/4 Power RE MER Carrier Lock Timing Lock TS 🔘 🔘 🔘 🔘 0 0 TS en 0 Bytes recyd: 181332 Quit Carrier Full RFPw -40dBm S/N MER 23 dB Constellations (MiniTioune display above is the ATCO 1268MHz DVB-S repeater signal

at WA8RMC QTH 15 miles away).