



# PROPAGATOR

The Monthly Newsletter of the South Orange Amateur Radio Association

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## Meeting

February 22nd, 2016

7:00 PM

N.P.  
Murray Center  
Veterans  
Way  
Mission Viejo

## LiFePO4/LFP Batteries

All are welcome to the next SOARA General Meeting on Monday, February 22 at 7pm at the Norman P Murray Center in Mission Viejo. This month's speaker is Kevin Zanjani from Bioenno Power. Bioenno Power is a leading manufacturer of LiFePO4 ([LFP - lithium iron phosphate](#)) batteries here in Orange County.



Voting will once again be done electronically, that is you will receive an email containing the ballot and instructions. SOARA has procedures in place to assure the secrecy and anonymity of voters and to maintain the integrity of the voting process. **Look for the ballots in your emails around April 1st.**

As per the By-laws, the terms of office are for 2 years, and the constitutional officers, **President, Vice President, Secretary, and Treasurer** are to be elected in even numbered years, Directors in odd numbered years. 2016 being an even numbered year, we will be electing our constitutional officers this year.

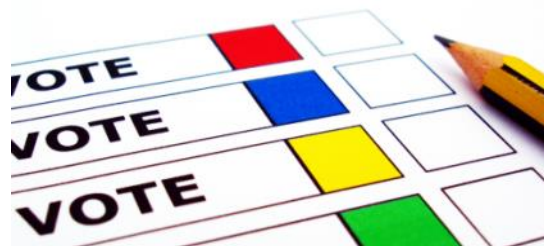
I encourage anyone who would like to serve as a SOARA constitutional officer for the next two years, or if you know of someone who would be willing to take on the responsibilities, to please come forward, at the March meeting and make your nomination known. If nominating someone, please do so with their knowledge and consent, to be certain that they are willing to serve. If you have any questions about the election procedures you can go to our SOARA website, [www.soara.org](http://www.soara.org), about, Club Constitution and Bylaws, It's all right there, along with the official duties and responsibilities of each office.

I strongly urge everyone to consider candidates, either new or incumbent, nominations, and of course participating by casting your votes.

73 de Ray, AE6H  
SOARA President

## President's Message Elections Coming Up

Members, It's that time again: Annual elections. The SOARA Constitution and By-laws requires that the Board of Directors put forth a proposed slate of candidates for the offices up for election, and present it to the general membership at the March General meeting. **Nominations** will also be accepted from the membership at the **March** meeting. The Elections are then held in April, with the results being announced at the May general meeting and here in the May Propagator. Officers and directors newly elected or re-elected commence their new terms of office at the May meeting.





**SOARA Meeting**  
Feb 22

**SOARA Saturday**  
Feb 27

**ARRL DX-SSB (contest)**  
Mar 5-6

**Palm Springs Hamfest**  
Mar 12

**ARRL Field Day**  
Jun 24-26  
(Mark your calendars!)

## VEC License Exams

6pm—before the General Meeting

Please see our [website](#) for more info.

Walk-ins ok.

Extra | General | Technician Exams

# PALM SPRINGS HAMFEST

**SAT. MARCH 12, 2016** • 9:30 AM to 4:30 PM  
PALM SPRINGS PAVILION • 401 S. PAVILION WAY  
NEXT TO PALM SPRINGS STADIUM • PALMSPRINGSHAMFEST.COM

Please see the flyer attached to the Propagator email for more information.



## Field Day - 2016 (June 24-26)

**Mark your calendars for Field Day! June will be here soon! We are still looking for a Field Day coordinator. Please contact [board@soara.org](mailto:board@soara.org).**

## Raffle Report



This month's \$5 raffle prize is an [Icom ID-31A UHF Digital Transceiver](#).

The ID-31A has a look and feel along with a new user interface packed into slim, compact chassis protected with IPX7 submersible construction.

The built-in GPS receiver shows your current position and altitude for GPS position reporting function and the GPS log

function tracks your movement. The ID-31A has a micro SD card slot which can be used for storing GPS log, voice memory and memory contents.

The large full dot-matrix display, directional keypad and quick menu button also ease the usability. Accessing a D-STAR (Digital Smart Technology for Amateur Radio) repeater has been made even easier.

Heiko, AD6OI, Assistant Rafflemeister



**George, N6SNX, won the January \$5 raffle prize, a Yaesu FT-60R. Congrats!**



### The K7RA Solar Update

Sunspot numbers and solar flux declined over the past week relative to the previous seven days. Average daily sunspot number went from 86.6 to 56.7, while average daily solar flux slid from 117.4 to 107.8. Geomagnetic indices were up. Average daily planetary A index went from 9.4 to 17.7, and mid-latitude A index went from 7.4 to 12.6.

Early in this week Spaceweather.com was anticipating a CME, but instead we got a stiff solar wind, causing the planetary A index to rise to 38 on February 16 and 34 on February 17. This will most likely subside.

Predicted planetary A index is 20, 12 and 8 on February 19-21, 5 on February 22-29, then 15, 10, 12 and 8 on March 1-4, then 5, 15, 10 and 8 on March 5-8, then 5 on March 9-10, then 8, 5, 27 and 12 on March 11-14, and 20, 12, 10 and 8 on March 15-18, and 5 on March 19-27.

Predicted solar flux is 95 on February 19-20, 100 on February 21-23, 105 on February 24-25, 110 on February 26, 115 on February 27-28, 118 on February 29, 120 on March 1-3, 115 on March 4-5, 110 on March 6-7, 105 on March 8-12, 108 on March 13-14, then 105, 103, 106, 107 and 110 on March 15-19, and 115 on March 20-26.

[WM7D's Solar resource Page](#)

## Membership Report

### Dues

We have 180 paid members and 67 unpaid. If you haven't renewed please do so soon.

### Membership Status

There are 250 active members. Last month, I (incorrectly) reported 224 active.

We have five new members. Welcome to SOARA! I hope you participate in our events to get the most out of SOARA.

- **Phillip Harris, WA2KDX**
- **Matthew Gabel, KK6YHW**
- **Adam Holloway, KK6WFC**
- **Scott Holcomb, KK6WHC**
- **Steven Long, KM6AJH**

FYI, the FCC rolled over from the KK6 prefix to KM6. KL was skipped since the KL7 prefix is Alaska.

### Badges

I have a large number of requested badges made and waiting. Please see me at the next SOARA meeting and pick up your badge.

If you want a new badge you have to make a request. Just email [membership@soara.org](mailto:membership@soara.org). Make sure to tell me your name and callsign as you want it on the badge. If you don't I will use the roster information. I will make you a new badge with all the handy repeater information on the back. I will have it for you to pickup at the next meeting assuming you give me enough no-

*(Continued on page 4)*

## T-Hunt Report

Alan and I won :-). Alan and I were the only ones hunting :-(. Mike decided to work on his taxes so he loaded his vertical with one watt (see picture) at his home. It took us about an hour to find it, must have driven past it a couple of times. We were not sure what we were looking at until Alan observed the lights on the tuner lighting up at the same time as the hidden tee transmitted.

Oh, by the way, the pizza was really good!

Gray WA6BJY

[It looks like I should have removed the tuner from under the flag pole, it wasn't designed for VHF anyway. Let's see some more hunters out there! This one was easy to hear and I had lots of food, which I'm still working on. Thank you to Gray and Alan for hunting! -K6MSM]



## Silent Key - Michelle Beck KK6MTP

I don't know if many of the SOARA members remember my wife. However, we lost her on 1/12/16 suddenly.

She did attend a lot of the functions with me and some might remember her. She is now a silent key. I thought the club might want to know.

Please instead of flowers, the family wishes donations to be placed in a fund for her daughters:

C/O Wells Fargo Bank  
Routing Num. [please email Don for details]  
Acc. Num. [please email Don for details]

73,

Don Beck  
[kj6oza@soara.org](mailto:kj6oza@soara.org)



(Continued from page 3) - *Membership Report*

tice to make it. If your call sign or ticket changed let me know and I will update the roster. **I expect to print the next batch of badges Sunday 2/21.**

### Repeater User's Guide & Membership Manual

I still have plenty of manuals. This manual has a wealth of information for easy reference.

### HamShield & 3D Printing

The Kickstarter for HamShield has been sending regular updates. It looks like the Arduino HamShield board will ship soon. It's about four months late and that's fine with me. Casey and team have been fixing various issues. Better them than me. Plus, I'm not sure some of the issues they found are easy to fix without re-laying out the board. Once the shield arrives, I expect to get it running and then start developing a 3D printed case with a battery and a touch screen. I'm hoping the Arduino 101 is compatible. If it isn't, I may make a 3.3 V adapter board. The Arduino 101 is an amazing board for \$30. I just ordered some conductive 3d print filament. Once I have a fairly stable case design, I want to see if a conductive plastic case makes any improvement. Otherwise, I might print a glow-in-the-dark case. Hehe...

### MFJ / CrushCraft R9 Antenna Install

This antenna has mixed reviews. I took my time assembling the kit over several days. I used zinc compound on all the aluminum joints. The only issue during assembly was drilling out a hole in a plastic support bracket. The drill press came in handy. I managed to tune the R9 for 40 meters and below with reasonable SWR. I used an RigExpert AA-600 antenna analyzer. I still need to tweak the antenna for 80 meters. If I optimized SWR for 80 meters then 40 meters suffered. So far, it seems I have to compromise 40 and 80 meters. But, this may be something I missed. Since the R9 works reasonably well, the to-do has been deferred for later. Jim KI6LOM helped me put the antenna up. This install was more work than expected. I did guy the antenna per the recommendation. With the high winds lately, I'm really glad I did.

I hope to hear you on the radio and see you at the SOARA events! Go the club calendar at [www.soara.org](http://www.soara.org) for more information on events.

73,  
Ed Barnes, KK6PUB  
Membership Director  
[membership@soara.org](mailto:membership@soara.org)



## Desert Storm Rally

It is that time again!

Date - April 1-2, 2016  
(Blythe, CA)

We like to get you to help out on the event with communications and start and finish controls and need captains in each area. Plus need Car 00, 000, and Sweep teams. Plus we need people to help out at volunteer registration, technical inspections and assist in competitor registration.

We are doing again donations to the amateur ham radio club contest of the most hams coming from the same club registered will receive:  
1st Place - \$250 and 2nd Place - \$150 and possible third place if their is a number of people from a third club.

Event Shirts, drawings of gift certificates at the awards ceremony Saturday night with \$100's, \$50.00, \$25.00 several \$15.00 certificates. We will take care of your Friday late luncheon and awards dinner. Plus awards to our star volunteers who help out so much at the event and a gift certificate(s).

Lodging: Capital Suites is doing again the Desert Storm Rally which is the code when you call in...

There are other hotels/motels nearby if it gets filled up and we will have that on the Desert Storm Rally website.

But we do need quite a few volunteers to make this event successful and being a championship event we want to make it exciting for you and for the competitors.

So get signed up and if anyone wants to be captain do put that on your registration sign-up...

We will be updating all of the 2016 documents on rallydata and on event website within a few weeks. So more to come...

Any questions do not hesitate to contact - Barry Colston at 310-720-7906 for communications.

Denise McMahon  
Organizer  
562-547-4892  
[denise@  
southwestrallycupseries.com](mailto:denise@southwestrallycupseries.com)

## SKYWARN® Training March 4

The effects of severe weather are felt every year by many Americans. To obtain critical weather information, NOAA's National Weather Service (NWS), part of the U.S. Department of Commerce, established SKYWARN® with partner organizations. SKYWARN® is a volunteer program with nearly 290,000 trained severe weather spotters. These volunteers help keep their local communities safe by providing timely and accurate reports of severe weather to the National Weather Service.



Although SKYWARN® spotters provide essential information for all types of weather hazards, the main responsibility of a SKYWARN® spotter is to identify and describe severe local storms. In the average year, 10,000 severe thunderstorms, 5,000 floods and more than 1,000 tornadoes occur across the United States. These events threatened lives and property.

Anaheim Fire & Rescue's Emergency Management & Preparedness Section along with Anaheim Radio Amateur Civil Emergency Services (RACES) will be hosting a SKYWARN® training session.

Training is free and typically lasts about 2 hours. You'll learn:

- Basics of thunderstorm development
- Fundamentals of storm structure
- Identifying potential severe weather features
- Information to report
- How to report information
- Basic severe weather safety

### Who is Eligible?

NWS encourages anyone with an interest in public service and access to communication, such HAM radio, to join the SKYWARN® program. Volunteers include police and fire personnel, dispatchers, EMS workers, public utility workers and other concerned private citizens. Individuals affiliated with hospitals, schools, churches, nursing homes or who have a responsibility for protecting others are also encouraged to become a spotter.

To register for this training session, please visit: <https://www.eventbrite.com/e/skywarn-training-anaheim-california-tickets-21437605455>

**When:** Friday, March 4th, 2016 From 5:30p.m. to 7:30 p.m.

**Where:** North Net Fire Training Center  
2400 E Orangewood Ave  
Anaheim, CA 92806

**Parking:** W. Orangewood Ave & 57 Freeway, Across from Angel Stadium  
In the Front parking lot, or along the street on Rampart St.

Need more info? Email [RACES@Anaheim.net](mailto:RACES@Anaheim.net) or call Jeff DuVall at 714-765-4051



**CLAREMONT AMATEUR RADIO SOCIETY**

Presents:

**An AMATEUR RADIO SWAPMEET**  
**DATE: 3<sup>rd</sup>. SATURDAY OF THE MONTH**  
**START DATE: JANUARY 16, 2016**

**TIME: 6 AM – 11 AM**

**NO ENTRY BEFORE 6 AM**



**LOCATION: GRANITE CREEK COMMUNITY CHURCH**  
**ADDRESS: 1580 N. CLAREMONT BLVD. CLAREMONT, CA 91711**

**THE SWAP MEET WILL BE HELD IN THE PARKING LOT**  
**ADJACENT TO THE CHURCH. Granite Creek Community Church is not**  
**involved in this event beyond the use of the parking lot. Claremont Amateur**  
**Radio Society is the sole sponsor of the event.**  
**(Please see contact information below)**

**ENTRY IS FREE TO VISIT**

**ALL PARTICIPANTS MUST HAVE VACATED THE AREA NO LATER THAN**  
**11:00 AM**  
**NO EXCEPTIONS.**

**SELLERS \$10.00 PER SPACE**  
**SELLERS ARE RESPONSIBLE FOR CLEANING THEIR IMMEDIATE AREA BEFORE LEAVING.**

**PLEASE BE RESPECTFUL OF YOUR SURROUNDINGS BECAUSE THIS SWAPMEET IS IN A**  
**RESIDENTIAL LOCATION.**

**THIS IS CONSIDERED AN ELECTRONIC RELATED EVENT, SO PLEASE CONSIDER WHEN**  
**BRINGING ITEMS FOR SALE. ONLY BRING ITEMS RELATED TO AMATEUR RADIO,**  
**ELECTRONICS, COMMUNICATIONS, PARTS AND MATERIALS THAT ARE OR CAN BE USED**  
**FOR THESE ACTIVITIES.**

**All interaction is private between attendees and C.A.R.S. takes no**  
**responsibility for transactions conducted during this event.**

**IF ADDITIONAL INFO IS NEEDED PLEASE CONTACT:**  
**KG6ABF @ YAHOO.COM**  
**C.A.R.S. Chairperson/Event Coordinator**

# 7 2016 SOARA Calendar THE PROPAGATOR

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
General Meeting 7:00 PM	25	22	21	18	16	20	18	15	19	17	21	—
Program	TASMA	LFP Batteries	TBD	TBD	<a href="#">Spring Auction</a>	<a href="#">Field Day Prep</a>	TBD	<a href="#">SOARA Fair</a>	TBD	TBD	<a href="#">Fall Auction</a>	—
VE Testing	25	22	21	18	16	At Field Day 25	18	15	19	17	21	—
Educational Classes	Tech 23	Extra 20	Tech 19	TBD	General 14	Tech 18	Extra 16	TBD	Tech 17	TBD	TBD	—
SOARA Saturdays (9am)	30	27	26	23	21	18	23	20	24	22	26	—
SOARA T-Hunt	10	14	6	3	1	5	3	14	4	2	6	11
Board Meeting	Feb 1	29	28	25	23	27	25	22	26	24	28	—
Special Events	<a href="#">Quartzfest 17-23</a>	<a href="#">Yuma Hamfest 19-20</a>	<a href="#">Palm Springs Hamfest 12</a>	<a href="#">Visalia Intl DX 15-17</a>	<a href="#">Dayton Hamven- tion 20-22</a>	<a href="#">ARRL Field Day 24-26</a>		<a href="#">SOARA Picnic 7</a>	<a href="#">ARRL SW Division</a>	<a href="#">JOTA 14-16</a>		<a href="#">SOARA Holiday Party 4</a>
Ham-Related Swap Meets	TRW 30 C.A.R.S.	TRW 27 C.A.R.S.	TRW 26 C.A.R.S.	TRW 30 C.A.R.S.	TRW 28 C.A.R.S.	TRW 25 C.A.R.S.	TRW 30 C.A.R.S.	TRW 27 C.A.R.S.	TRW 24 C.A.R.S.	TRW 29 C.A.R.S.	TRW 26 C.A.R.S.	TRW 31 C.A.R.S.
Major HF Contests		<a href="#">ARRL DX-CW 20-21</a> <a href="#">CQWPX RTTY 13-14</a>	<a href="#">ARRL DX-SSB 5-6</a> <a href="#">CQWPX SSB 26-27</a>		<a href="#">CQWPX CW 28-29</a>	<a href="#">ARRL Field Day 24-26</a>			<a href="#">CQWW RTTY 24-25</a>	<a href="#">CQWW SSB 26-27</a>	<a href="#">CQWW CW 26-27</a>	
Volunteer Events	<a href="#">OC Chili Run 23</a>	<a href="#">Paws Fur Pink 21</a>  <a href="#">OC Chili Run 27</a>	<a href="#">OC Chili Run 19</a>  <a href="#">Baker to Vegas</a>	Desert Storm 1-2	<a href="#">HD Trails</a>  <a href="#">OC Mara -thon 1</a>  <a href="#">Memorial Day 1/2 Mara- thon</a>	<a href="#">ARRL Field Day/ Setup/ Ops/ Clean 24-26</a>	4th of July Fire -works 4			<a href="#">Vision Quest</a>		<a href="#">Run for a Claus</a>

\*Dates subject to change. Check the [SOARA website](#) to verify locations and times.

SOARA Saturday  
(January) -->



**SOARA** meets at the [Norman P. Murray Center](#), 24932 Veterans Way, Mission Viejo, CA on the third Monday of every month at 7:00 PM. For the months of January and February the third Monday is a holiday and the meeting is held on the fourth Monday.



**License Exams:** Amateur License Exams are given prior to SOARA meetings, except June. **Exams are at 6pm.** Prior registration is not required and walk-in applicants are welcome. For June, exams are held at Field Day. For further information, email Sean Reigle, AJ6B, at [aj6b@soara.org](mailto:aj6b@soara.org).

**SOARA Library:** SOARA has many amateur radio related books such as hand books, books about electrical theory, etc. available to lend out to club members. Contact Heiko Peschel [ad6oi@soara.org](mailto:ad6oi@soara.org) for more info.

**Web Site:** SOARA maintains a web site with current club information. The URL is: <http://www.soara.org/>

**Repeaters:** The Laguna Beach, San Clemente, and Trabuco repeaters are open. The Santiago Peak repeaters are closed. For details or questions on the repeaters contact the repeater director, or [repeater@soara.org](mailto:repeater@soara.org).

	2m — 147.645 — (110.9)	Laguna Beach
	2m — 146.025 + (110.9)	San Clemente
	2m — 145.240 — (110.9)	Trabuco
D-STAR	2m — 146.115 + (K6SOA C)	Laguna Beach
	220 — 224.100 — (110.9)	Laguna Beach
	220 — 224.640 — (123.0)	Santiago Peak. (C)
	440 — 445.660 — (110.9)	Laguna Beach
D-STAR	440 — 445.705 — (K6SOA B)	Laguna Beach
	440 — 447.180 — (131.8)	Santiago Peak. (C)
D-STAR	1.2G 1282.600 — (K6SOA A)	Laguna Beach

#### **Nets:**

UHF/VHF (447.180, 147.645 & 224.640): Tuesdays 8:00 PM

D-STAR (146.115 C module):  
Wednesdays 7:30pm

40 meter HF (7.200 MHz +/- for QRM), Sundays 8:00 AM.

Gordo Net (HF 7.250 MHz +/- for QRM), Weekdays 8:30AM



#### **SOARA OFFICERS**

**President:** Ray Hutchinson, AE6H 949-322-8468  
[ae6h@soara.org](mailto:ae6h@soara.org)

**V.P.:** Sean Reigle, AJ6B 714-261-1717  
[aj6b@soara.org](mailto:aj6b@soara.org)

**Secretary:** Lambert Matias, KK6WOW 312-545-2270  
[kk6wow@soara.org](mailto:kk6wow@soara.org)

**Treasurer:** Frank Kromann, AG6QV 949-702-1794  
[ag6qv@soara.org](mailto:ag6qv@soara.org)

#### **SOARA DIRECTORS**

**Repeater:** Brian Roode, NJ6N 949-495-5336  
[nj6n@soara.org](mailto:nj6n@soara.org)

**Publications:** Mike Mahan, K6MSM 949-279-9936  
[k6msm@soara.org](mailto:k6msm@soara.org)

**Membership:** Ed Barnes, KK6PUB 949-468-7706  
[kk6pub@soara.org](mailto:kk6pub@soara.org)

**Education:** Steve Kuver, K6UVR 949-874-1972  
[k6uvr@soara.org](mailto:k6uvr@soara.org)

**Technical:** Tom Hobbs, AE6SH 949-830-8131  
[ae6sh@soara.org](mailto:ae6sh@soara.org)

**Communications:** Heiko Peschel, AD6OI 949-859-3868  
[ad6oi@soara.org](mailto:ad6oi@soara.org)

#### **SOARA APPOINTMENTS**

**Past President:** Tom Hobbs, AE6SH 949-830-8131  
[ae6sh@soara.org](mailto:ae6sh@soara.org)

**Activities:** **VACANT**—Please contact us ([board@soara.org](mailto:board@soara.org)) if you are interested.

**S. Saturdays:** Frank Kromann, AG6QV 949-702-1794  
[ag6qv@soara.org](mailto:ag6qv@soara.org)

**Raffle:** Hal Silverman, WB6WXO 714-897-5002  
[wb6wxo@soara.org](mailto:wb6wxo@soara.org)

**Testing:** Sean Reigle, AJ6B 714-261-1717  
[aj6b@soara.org](mailto:aj6b@soara.org)

**Website:** Sean Reigle, AJ6B 714-261-1717  
[aj6b@soara.org](mailto:aj6b@soara.org)

**Ambassador:** Spencer Ammermon, NG6K *[In England]*  
[ng6k@soara.org](mailto:ng6k@soara.org)  
*Blog*