



PROPAGATOR

The Monthly Newsletter of the South Orange Amateur Radio Association

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Meeting

July 18, 2016

7:00 PM

N.P.
Murray Center
Veterans
Way
Mission Viejo

CERT and Emergency Communication Basic Battery Box



The presentation at the SOARA Club general meeting will be on the CERT and Em-Comm battery box project, By Tony Gawel W6TNY.



Basic Battery Box

The project is intended to provide CERT, EmComm teams and amateur radio clubs with a basic low cost Emergency Battery Box that is simple to build and requires



Cadillac Battery Box

minimal tools. The project is designed to inspire new ideas on what is possible by providing a Club/ Group activity that all members can participate in. The building process provides the builder with both comradery and pride of ownership in build-

ing their own (emergency) equipment (the fundamentals of Amateur Radio).

This project is not the high-end Mega Em-Comm box that some amateur radio operators will build! It is a smaller more portable version that uses the same basic concepts used on it larger cousin.

This project is designed for people who want to be better prepared with a more portable solution.

International Light House Weekend coming right up

(From the President)

In almost exactly one month, the ARRL recognized 19TH International Light House and Lightship Weekend (ILLW) will be on the air. The event is organized by the Amateur Radio Lighthouse Society, ARLHS, which was founded in 2000, and coincides with the national lighthouse heritage weekend by the Association of Lighthouse Keepers.

The dates for 2016 are Saturday August 20, and Sunday August, 21. In 2015, over 500 lighthouses and lightships were on the air for the event representing 85 countries. This year promises to be the biggest ILLW event yet. Because the ILLW is world wide, it is a great opportunity for newcomers to HF to experience some excellent DX or a great way to add countries or states to your WAC and WAS lists.

(Continued on page 4)



General Meeting
July 18

SOARA Saturday
July 23

SOARA Picnic
August 7

SOARA Fair
August 15

SOARA Saturday
August 20

VEC License Exams

6pm—before the General Meeting

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

Walk-ins ok.

Extra | General | Technician

SOARA Picnic

WHEN: First Sunday of August (August 7, 2016)
 TIME: 11:00am - 2:00pm
 WHERE: End of Island Way, Dana Point ([map](#))
 TALK-IN: 146.025+ 110.9hz

SOARA holds a picnic to give an opportunity for the families of the club members and their friends to meet in an informal setting.

SOARA provides hamburgers, hot dogs, tea and water. We ask that club members bring a side dish.

There is no cost for this event. The public is welcome although we request that you recognize that this function is provided on a first come first served basis and supplies will be limited.

Come and join us and relax after working hard at Field Day!



2016 Field Day Results

Thank you for all that came out and joined us at Field Day and for all the volunteers and operators. Conditions weren't good, but we still had fun! Please see below for some stats on our Field Day, by mode and band. Tak, W6SI, was our top operator and those were all CW contacts! Congratulations, Tak! Other operators with at least 50 QSO's are below.

Total Contacts: 1014 (785 Unique Stations)

Band	CW	Phone	DIG	Mode Count	Operators	50+ QSOs	Contacts
160	0	1	0	CW 528	W6SI		242
80	39	26	0	DIG 88	KB7V		131
40	167	182	45	PH 398	K6UVR		122
20	256	69	42		WA6LDI		111
15	66	40	1		AJ6B		67
10	0	6	0		N6SNX		63
6	0	52	0		AD6OI		58
2	0	19	0				
1.25	0	3	0				
SAT	0	0	0				





The K7RA Solar Update 7/15/16

Tad Cook, K7RA, Seattle, reports: As this solar cycle declines, we will occasionally see periods such as this past week, when activity perks up, and it seems that happy days are here again. Enjoy them when you can, while they last. Any recovery is unpredictable and temporary.

Over the July 7-13 reporting week, the average daily sunspot number was 52.6 — up by 47.7 points from 4.9 in the previous week. The previous week's activity was dominated by 5 out of the 7 days with no sunspots. Over the same periods, average daily solar flux rose from 73.1 to 91.6, a healthy advance.

Geomagnetic indices were also active, with planetary A index advancing by 9 points from 6.7 to 15.7. The mid-latitude A index rose from 8.3 to 14.1 over the same 2 weeks.

[WM7D's Solar resource Page](#)

Announced DX Operations web-site:

<http://www.ng3k.com/misc/adxo.html>

SOARA July Raffle Prizes

The \$1 raffle comes mainly from Harbor Freight. They have a good sale going on [don't they always?]. The prizes are:

- 1) 18V cordless drill and flash light set. It includes a charger to charge the battery.
- 2) Mini flashlight
- 3) MFJ speaker
- 4) Digital Multi-meter
- 5) Cordless screwdriver

The \$5 prize is a [Kenwood TH-F6A handheld tri-band radio](#). We need to sell about 62 tickets to complete the raffle on this item.

73.....Hal WB6WXO



Membership Report

We now have 226 active members. Pick one or more events and just do it! You will not get anything from your membership unless you participate. Go to www.soara.org and get event details on the calendar. We gained 7 new members from Field Day! Be sure to welcome new members to SOARA.

1. James Miller, K6ARM
2. Russ Lange, KK6URR
3. John Burgess, AI6QT
4. Nick Newsom, KE6CZD, \$10 donation. Thank you Nick!
5. Frank Young, KK6AWB
6. Martin Ayon, honest, I looked you up and didn't find your new callsign yet.
7. Richard Mendoza, N6LXO

If you know someone that wants to get started in ham radio lets help them!

Pick up badges at our meetings!

If you want a new badge, email membership@soara.org. Tell me your name and call-sign as you want it on the badge. I will make you a new badge with all the handy repeater information on the back. You can pick up badges at most SOARA events. At least, the ones I attend.

Repeater User's Guide & Membership Manual

I have plenty of manuals with a wealth of SOARA information for easy reference.

I hope to hear you on the radio and see you at the upcoming SOARA events!

73,
Ed Barnes, WA6ED
Membership Director
membership@soara.org



**From the ARRL:
Amateur Radio Parity
Act Receives
Favorable House
Energy and Commerce
Committee
Report**

An [amended version](#) of the Amateur Radio Parity Act, [H.R. 1301](#), received a unanimous favorable report on July 13 from members of the US House Energy and Commerce Committee. The bill now will go to the full House for consideration. Before reporting the bill out of committee, the panel first voted to accept the amended language, "in the nature of a substitute." Rep Greg Walden, W7EQI (R-OR), who chairs the Energy and Commerce Committee's Subcommittee on Communications and Technology, said the substitute bill represented "a good balance" that came in the wake of months of meetings, hard work, and compromise, and he recommended the measure to his colleagues. "The amendment guarantees that even in deed-restricted communities, Amateur Radio operators are able to use an effective outdoor antenna," Walden said. "Without an effective antenna Amateur Radio operators are severely limited, so this amendment ensures that amateurs are free to pursue their passion wherever they live."

SOARA Saturday Report

The last SOARA Saturday was really busy at Gilleran park. We played with radios and antennas.

The July SOARA Saturday is at Gilleran Park on 7/23 at 9am. Bring your antennas, analyzers, radios, and whatever you want to share. We will likely setup at the picnic tables. If you get there early, please sit at the tables and help stake our claim. We will have coffee and donuts.

Also late breaking news for July, Tony Gawel will conduct a battery box class to follow up to his presentation at our next regular SOARA meeting. Tony will hand out a parts list at the next SOARA meeting. It doesn't get any better, show up to our next meeting and our next SOARA Saturday and learn from Tony's experiences on battery boxes!

The August, September, October, & November SOARA Saturday's will be at the Murray Center.

- August 20, kit building, bring a kit, ask questions and solder!
 - * Be sure to bring safety glasses, kits, solder, solder iron, wire cutters.
 - * I will bring some tools for a demo. Feel free to bring your soldering tools and help.
 - * I may have some donated kits too! Stay tuned...
- September 24, Arduino, bring your Arduino projects, shields, and lets talk about programming!
 - * Demo your latest creation or project in progress.
- October, 22, Is anyone interested in a T-hunt demo? I am. I know nothing of T-hunts.
 - * Who could help? demo?
- November 26, need suggestions and volunteers.

73, Ed, WA6ED

Educational Session at Field Day 2016



(Continued from page 1) - 19TH International Light House and Lightship Weekend (ILLW) (President's Message)

In my experience, this event is rather low key compared to some almost cutthroat contest operations, and there are almost no complicated rules. Registration is limited to Activated Light Houses and Lightships that will have amateur radio stations transmitting from the light-house, or the surrounding grounds. I recommend that you give it a listen and even make some fun HF contacts!

For more information go to, illw.net

73 de Ray, AE6H, SOARA President



Silent Key - Gregg Puckett (former SOARA Publications Director)

My husband, Gregg, KD6KTH, was an active member of SOARA for many years. He passed away last November from end stage Parkinson's disease. - Linda Puckett

My personal condolences, and those also of SOARA. I too, remember Gregg very well, as we served together on the club Board of Directors together for several years, he as Publications Director, and I as Communications Director at the time. We always greatly appreciated Gregg's hard work putting together the newsletter, as well as his great sense of humor, often helping us see the reality of things, when discussions would perhaps become overly serious for the situation. I, too, am saddened to learn of his passing.

Best 73,

Ray Hutchinson, AE6H
SOARA President

When everything else fails, amateur radio will still be there—and thriving

It's a good time to be technical. Maker communities are thriving around the world, tools and materials to create and adapt are cheaper and more powerful now than ever, and open source hardware, software, and information mean that if you can think it, you can learn how to do it and then make it happen.

For one group of technological explorers, this is more than just a golden age of opportunity: it's providing the means to save one of the oldest traditions in electronic invention and self-education, one that helped shape the modern world: amateur radio.

Radio amateurs get a sweet deal, with effectively free access to many gigahertz of the same radio spectrum that companies pay billions for. They've earned it. Throughout the history of electronics, they've been at the borders of the possible, trying out ideas that commerce or government deem impossible or pointless—and making them work. Here's one example of hundreds: Allied military comms in World War II needed a way to reliably control the radios used by front-line forces, replacing tuning knobs with channel switches. Hams had the answer ready and waiting—quartz crystal oscillators. (Those are part of computing history, too. You're probably using about 10 of them right now.)

The trouble with making a success of frontier territory is that it doesn't stay frontier for long. As radio hams colonised new frequencies and new methods, government and commercial interests wanted in (and they got in). What was useless yesterday can be very desirable today, and a lot of the ham bands in the once-fallow UHF and microwave spectrum now look very tempting for wireless data, satellite downlinks, and the constant chatter of the Internet of Things. Some attacks on amateur spectrum have been repelled, others have succeeded. More are on the way...

More at: <http://arstechnica.com/gadgets/2016/06/when-everything-else-fails-amateur...>

Hello to all from your Director of Communications

This is a request for help in the operation of our club to maintain our excellent record as a service organization.

We have had a good year up to now with many exciting and varied activities and it is time for me to ask you for some help. I have handed in my resignation as the temporary, acting activities director. This position is appointed by the president with the confirmation of the board of directors and is responsible for Field Day, the August picnic, and the December Holiday party. It would be nice if someone could take this over and run with it.

Also Ed (WA6ED) is looking for help with SOARA Saturdays, which is something that he does in addition to his regular duties as our Membership Director as well as alternate net control of the Sunday morning 40m net.

We are also looking for new net controls for the regular Tuesday evening net, if anyone out there wishes to join our select group of net controls please tell me and I will be glad to fit you into our schedule.

73,
Heiko, AD6OI ad6oi@soara.org

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	WU6D	Arnie Shatz N6HC	Spring Auction	Field Day Prep	Battery Boxes	SOARA Fair	TBD	TBD	Fall Auction	-
VE Testing	25	22	21	18	16	At Field Day 25	18	15	19	17	21	--
Educational Classes	Tech 23	Extra 20	Tech 19	-	General 14	Tech 18	Extra 16	-	Tech 17	-	-	-
SOARA Saturdays (9am)	30 Murray	27 Murray	26 Murray	23 Gilleran	21 Gilleran	18 Gilleran	23 Gilleran	20 Murray	24 Murray	22 Murray	26 Murray	-
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	Quartzfest 17-23	Yuma Hamfest 19-20	Palm Springs Hamfest 12	Visalia Intl DX 15-17	Dayton Hamven- tion 20-22	ARRL Field Day 25-26	HRO Ham Jam 16	SOARA Picnic 7	ARRL SW Division	JOTA 14-16		SOARA Holiday Party 4
Ham-Related Swap Meets	TRW 30 C.A.R.S. 16	27 20	26 19	30 16	28 21	25 18	30 16	27 20	24 17	29 15	26 19	31 17
Major HF Contests		ARRL DX-CW 20-21 CQWPX RTTY 13-14	ARRL DX-SSB 5-6 CQWPX SSB 26-27		CQWPX CW 28-29	ARRL Field Day 25-26			CQWW RTTY 24-25	CQWW SSB 26-27	CQWW CW 26-27	
Volunteer Events	OC Chili Run 23	Paws Fur Pink 21 OC Chili Run 27	OC Chili Run 19 Baker to Vegas 19-20	Desert Storm Rally 1-2	HD Trails 7-8 OC Mara -thon 1 Memorial Day 1/2 Mara- thon 30	ARRL Field Day/ Setup/ Ops/ Clean 24-26	4th of July Fire -works 4			Vision Quest		Run for a Claus

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

At June's SOARA
Saturday, getting
ready for Field
Day



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.

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 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.

	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

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ad6oi@soara.org

SOARA APPOINTMENTS

Past President: Tom Hobbs, AE6SH 949-830-8131
ae6sh@soara.org

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

S. Saturdays: Ed Barnes, WA6ED 949-468-7706
(temporary - contact us) wa6ed@soara.org

Raffle: Hal Silverman, WB6WXO 714-897-5002
wb6wxo@soara.org

Testing: Sean Reigle, AJ6B 714-261-1717
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Website: Sean Reigle, AJ6B 714-261-1717
aj6b@soara.org

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

Ham Radio 101 My Workbenches By Hal Silverman WB6WXO

In the last article, I wrote a lot about where to get parts. In this article, I would like to expand and discuss my workbenches.

I found that Electronix Express³ located in NJ caters to schools and universities. They carry a large variety of parts and equipment. I have purchased most of the test equipment for my workbenches from them.

I have also found parts by “Googling” Amazon.

However, the thing I want to concentrate on is my workbench. The workbenches and cabinets were purchased in both Costco and Home Depot. The benches themselves are made of a sturdy butcher block.

I have created two self-contained test stations.



Figure 1 Test Station1

Test Station 1 consists of the unit under test, a spectrum analyzer, power meter, digital multi-meter, power supply, speaker, and a signal generator. The station can be switched to an antenna or dummy load. It also can be further switched from the antenna/dummy load to the

signal generator.

Each Test station is connected to an antenna. Test Station 1 is connected to an R9 vertical antenna that covers 80m through 6m.

Test Station 2 is connected to a folded dipole. That covers 80m through 10m.

As the radios get ready for sale I can, and have made, on the air, contacts.

The signal generator is used to check out the radio's receiver and to align the dial.



Figure 2
Test Station #2

Station Number 2 is used to burn in the radio before offering it for sale.

I have arranged my storage cabinets so that they are handy to the work benches.



Figure 3
Storage Cabinets.

The cabinets in Figure 3 are only a small portion of the storage media that is in my workshop.

The contents include, screws, nuts, washers, capacitors, resistors and semiconductors. All of this is at a finger-tip away.

A secondary task is to label all of the little compartments. This being done as time allows.

The workbench has been set up for my particular needs. Others may change things around to suit their own needs.

If there are any questions or comments, please contact me at WB6WXO@SOARA.org.

Foot Notes:

1: **QRP Classics**

Copyright May 1990
Doug DeMaw W1FB

2: **W1FB's QRP Notebook**

Copyright 1991-1999
American Radio Relay League
Doug DeMaw W1FB

3: **Electronix Express**

RSR Electronics
365 Blair Rd.
Avenel, NJ 07001
1-800-972-222

4: **Mouser Electronics**

1000 N. Main St.
Mansfield, TX 76063
1-800-346-6873

5: **FAR Circuits:**

Fred KF9GX
18n1640 Field Ct
Dundee, IL 60118

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