

## PROPAGATOR

The Monthly Newsletter of the South Orange Amateur Radio Association

**April 2013** 

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## Ham Radio for the Arduino, PICAXE or Atmel

Have you had enough of taxes?! Please join us on Monday, April 15th, as **Bill Prats**, • **K6ACJ**, presents at the club meeting.

This is a presentation for a new ARRL book he co-authored, 'Ham Radio for the Arduino and PICAXE'. The book is a collection of micro controller projects by dynamic amateur radio operators ready for you to use with your Arduino, PICAXE, or Atmel microcontroller. The projects are designed for introductory level to give the reader a very low cost project platform to build and expand using their own ideas. The presentation will include an introduction to the newest low cost micro controller, the Raspberry Pi, a complete Linux system on a very small circuit board.

- Solve real problems yourself, using easy -to-use tools and techniques.
- Choose from the Arduino, ATTiny, and Picaxe for your project.

Bill Prats, K6ACJ, first licensed in 1957 holds an Extra class license, is active on HF at home, mobile in his VW Westfalia, and HFPack from Quartzsite, Arizona to Madrid, Spain. He retired from a life long career in high end computer hardware, software, and I.T. management. His favorite projects combine RF electronics, firmware, and packaging to make something durable for use in shack or field.

http://www.biztek.com/k6acj

## Meeting

April 15th, 2013

7:00 PM
N.P.
Murray
Center
Veterans
Way
Mission Viejo



#### You will:

- Build one of the projects in a weekend, and have something you can use around the shack or in the field.
- Learn to customize and extend the hardware and the software.

#### **Election Ballots E-Mailed**

The SOARA election ballots were e-mailed on the evening of April 3. They were e-mailed from "board@soara.org" and the subject is "SOARA Election Ballot." If you

did not receive your ballot, please check your spam filter. If you are unable to locate the ballot please e-mail nj6n@soara.org to request your ballot be sent again or to update your e-mail address.



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SOARA Saturdays Apr 20

INT'L DX Convention Apr 19-21

OC Marathon (Help Needed) May 5

Dayton Hamvention May 17-19

Memorial Day 1/2 Marathon May 27

ARRL Field Day Jun 22-23

## **SOARA T-Hunts - Now on the 2nd Sunday!**

SOARA has made a change on the T-Hunts and they will now be held on the 2nd Sunday of each month. This change is being made to help avoid the multiple conflicts throughout the year on the 1st Sunday of each month (a certain football game, our annual picnic and our annual holiday party.

Please join us for the next hunt, starting at 1pm, on 4/14. Sean, AJ6B and/or Mike, K6MSM will be hiding the T. Please come out and join us. We promise an easier hunt this month, so if you don't hear the signal within 30 minutes, please let us know before giving up!

Also, if you can't make the SOARA T-Hunt, please consider the following additional hunt, from Homing In (Joe Moell, K0OV):

#### On-foot (IARU) transmitter hunt at Schabarum Park April 20

The next Southern California (Homing In) IARU ARDF on-foot hidden transmitter hunting event will be Saturday, April 20, 2013 at Schabarum Regional Park. If you are a beginner, there will be entry-level two-meter fox transmitters just for you, set by Joe Moell K0OV. For more experienced radio-orienteers, there will be a 5-fox two-meter international-rules course of moderate difficulty, set by Marvin Johnston KE6HTS. An optional 80-meter fox transmitter or two may also be on the air. More info at: <a href="http://www.homingin.com/">http://www.homingin.com/</a>

#### **New SOARA Website Launched!**

SOARA is please to announce that your new website is live. Please check it out at the usual address (<a href="http://www.soara.org/">http://www.soara.org/</a>) and let us know your comments!



#### VEC License Exams

Next session: (6:00pm), before the General Meeting Contact Sean AJ6B for info.

Walk-ins ok.

Extra | General | Technician Exams

#### **SOARA Raffle for April:** <u>iPad Mini</u>

Hal Silverman

At last month's raffle, we didn't sell enough tickets to award the iPad Mini. Only about 25 more tickets need to be sold to raffle it, so don't miss your chance this month!

Last month, we sold 49 \$5 tickets and 76 \$1 tickets, with about 8 \$1 "bonus" tickets for the people who bought 5 \$1 tickets at once.

If there are any comments or suggestions for either the \$1 prizes or a future \$5 prize, please contact me at WB6WXO@SOARA.org



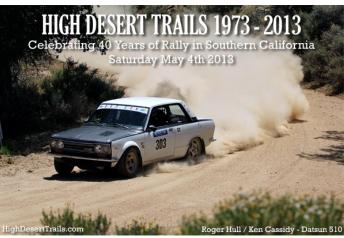
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# HIGH DESERT TRAILS

40 years ago the **High Desert Trails** Rally took participants on a 12 hour long journey down to Mojave, all the way up to Lake Isabella, and back to Ridgecrest on dirt roads and trails. In the beautiful flowing desert scenery of the area, stage rallying grew in Southern California much like it did all over the world, first with Time Speed Distance (TSD) events and then endurance rallies covering hundreds of miles. Closed road "specials" were soon followed by performance stage rallies necessitating roll cages and safety equipment. Route following and map reading gave rise to pace notes. and by the 21st century computer generated stage notes, but the challenge of High Desert Trails remains the same: flat out racing in one of the toughest motorsports in the world.

## **High Desert Trails Rally Celebrates 40th Anniversary!**



Performance rallies would not exist in the US without amateur radio! We rely on the skills of hundreds of volunteers to keep us safe in the woods. Hams keep track of all of the racers on the route, pass traffic, and handle emergency communications. Rally uses your skills as a communicator to the max!

Make sure to bring clothes to be out in the weather, sunscreen, water, and some extra snacks. As a communica-

tor you will be out on

the course all day. We will be providing a small sack lunch and waters. A mobile 2M rig is necessary and extra antenna options are always a good idea for your vehicle. Volunteers can find out more info and sign up at <a href="http://highdeserttrails.com/volunteers/">http://highdeserttrails.com/volunteers/</a>.

Thanks!

- Kris, KI6IUC



#### **DX Convention in Visalia (April 19-21)**

The World-famous International DX Convention will take place next weekend, April 19-21 in Visalia, CA. The event already has close to 800 pre-registrations. See <a href="http://www.dxconvention.org/">http://www.dxconvention.org/</a>. In addition to the usual DX and contest forums, there will also be an ARRL forum where you can express thoughts and suggestions simultaneously to at least 3 ARRL directors and the League CEO.

### **Volunteers Needed**

We have four special events coming up.

- May 4 High Desert Trails (Ridgecrest)
- May 5 Orange County Marathon and Half
- May 11 The Traverse
- May 27 Laguna Hills 1/2 Marathon.

We're looking for many operators with hand held radios for each event. Please call or e-mail me if you are interested.

Heiko, <u>ad6oi@soara.org</u> 949-859-3868



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#### **From Membership**

Our membership now stands at 182. The drop in numbers occurs after the six month time for renewing membership has passed.

> Horst Zitzmann, KD7JHR

> Marie Zitzmann, KD7JHS

> > Membership Directors SOARA

The membership application is available on the new SOARA website:

> Online SOARA **Membership Application**



## The HF Page cq DX CQ DX...

#### **Selected Contests/Events**

- Montana QSO Party (Apr 13-14)
- JIDX CW Contest (Apr 13-14)
- SKCC Weekend Sprintathon (Apr 13-14)
- New Mexico QSO Party (Apr 13-14)
- Georgia QSO Party (Apr 13-14)

- Yuri Gagarin Intl DX (Apr 13-14)
- Nebraska QSO Party (Apr 20-21)
- **DXPeditions**
- **NOAA Space Weather**
- Propagation de K7RA
- **ARRL Propagation Charts**

## Propagation de K7RA

With sunspot numbers and solar flux up, geomagnetic indices down, and it being Spring time, what could be better for HF propagation?

That was the case this week, until Thursday when a magnitude 6.8 X-ray flare and CME erupted, and it seems to be aimed toward Earth. Expect it to arrive on Saturday, April 13.

Average daily sunspot numbers rose this week by nearly 57 points from last week, to 138.1. Average daily solar flux was up more than

25 points to 138.8. The average daily planetary A index dropped by more than half from 9.4 to 4.1.

With solar indices rising, the daily sunspot number reached 162 on April 8 and 163 on April 10. the highest level since January 11 when it was 166.

The latest solar flux prediction from USAF and NOAA sees flux values of 138, 135, and 130 on April 12-14, 125 on April 15-16, 120 on April 17, 115 on April 18-19, 95 on April 20-23, then 100, 105, 110,

115 and 120 on April 24-28, 120 on April 29 through May 1, then rising to a peak of 138 on May

The predicted planetary A index is 5 on April 12, 26 on April 13, 45 on April 14, 8 on April 15, 5 on April 16-22, then 12, 8, 18 and 15 on April 23-26, 5 on April 27 to May 4, and 8 on May 5.

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A predicted A index of 45 is a big number. At 2358 UTC on April 11 I received a geomagnetic disturbance warning from the Australian government's Ionospheric Prediction Service: "A full halo earthward directed CME was observed on 11 April with estimated arrival late on 13 April. Geomagnetic activity is expected to rise up to Major storm levels due to the effect of this CME late on 13 April and through most parts of the day 14 April." They predict quiet to major storm on April 13, then major storm down to unsettled conditions on April 14.

The Czech Propagation Interest Group sent a geomagnetic forecast from Petr Kolman, OK1MGW. This appears to be a little early to include the effects of the flare. He predicts active to disturbed conditions April 12, quiet to active April 13, mostly quiet April 14-15, quiet to active April 16-17, quiet to unsettled April 18, quiet to active April 19, quiet to unsettled April 20-22, quiet to active April 23-24, active to disturbed April 25-26, quiet to unsettled April 27-28, and mostly quiet April 29-30.

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Year 2013	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
General Meeting 7:00 PM	28	25	18	15	20	17	15	19	16	21	18	-
Program	Digital Radio	Tropo Ducting	DX Pedition		Spring Auction	Field Day Prep		SOARA Fair			Fall Auction	_
VEC Testing	28	25	18	15	20	Field Day	15	19	16	21	18	_
SOARA Saturdays (9am)	Feb 2	Mar 2	23	20	25	_	20	24	21	26	23	_
SOARA T-Hunt	6	10	10	14	12	9	14	11	8	13	10	8
Board Meeting	Feb 4	Mar 4	25	22	Jun 3	24	22	26	23	28	25	_
Special Events		Yuma 15-16			Dayton	Field Day		Picnic	Note Ne Dates A		it	Holiday Party 1
ARRL Field Day						22-23						
SOARA Picnic								4				
Holiday Party												1

**SOARA** meets at the Mission Viejo Community Center, 26932 Veterans Way, Mission Viejo, 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. **Exams are at 6pm**. Prior registration is not required and walk-in applicants are welcome. For further information, email Sean Reigle, AJ6B, at <a href="mailto:ai6b@soara.org">ai6b@soara.org</a>.

#### 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: <a href="http://www.soara.org/">http://www.soara.org/</a>

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, KG6GI.

	2m —	147.645	<b>-</b> (110.9)	Laguna Beach
	2m —	146.025	+ (110.9)	San Clemente
	2m —	145.240	<b>-</b> (110.9)	Trabuco
D-Star	2m —	146.115	+ (K6SOA C)	Laguna Beach
	220 —	224.100	<b>-</b> (110.9)	Laguna Beach
	220 —	224.640	<b>-</b> (123.0)	Santiago Peak. (C)
D-Star	440 <b>—</b>	445.660	- (K6SOA B)	Laguna Beach
	440 —	447.180	<b>-</b> (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 8:00pm 40 meter HF (7.200 MHz +/– for QRM), Sundays 8:00 AM. Gordo Net (HF 7.250 MHz +/– for QRM), Weekdays 8:30AM

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