



# **W6TRW**

# **CROSSTALK**

Monthly news bulletin of the W6TRW Amateur Radio Club

**APRIL 2023**



KD7DTS - Outdoor Adventure Radio



## **What's Inside**

- General Club Meeting
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# Monthly General Club Meeting

**When: Tuesday, April 11th at 6:30 PM**

**Where: Virtual Meeting on Zoom**

**Due to continued COVID-19 public health guidelines, W6TRW Club Meetings will not yet be held in person. Instead, we are holding Virtual Meetings on Zoom.**

**Click on the link below on your computer, tablet, or smartphone.  
Same meeting link, 2<sup>nd</sup> Tuesday of every month, 6:30 PM Pacific Time.**

<https://us02web.zoom.us/j/82794654895>

**Phone dial-in: 1 669 900 6833, Meeting ID: 827 9465 4895**

## Speaker Topic for This Month:

**“Electric Aircraft – Survey and Applications”**

**Rhon Williams, KJ6IRJ**

**A presentation about BLURBA survey of past, present, and future aircraft using electric motor(s) to drive propeller(s), within a rapidly changing industry. Discussions will include the technologies and applications that drive the aircraft design. There are currently new models of flight training aircraft coming to the market that promise lower costs per hour, while providing sufficient flight endurance for much of the typical training activity. Also in development are personal use, urban air mobility, and even hybrid powered transport aircraft.**



**Rhon Williams (KJ6IRJ)** is an FAAST Representative and holds Commercial-SMEL, Helicopter, Glider, and CFI-AIG pilot ratings and is an A&P mechanic.

He is co-owner of a Cirrus SR22, in which he and his wife fly throughout the country.

Rhon is also an active experimental home-builder having completed a plans-built Early Bird Jenny, which first flew in December 2015.



## News and Announcements

### Parks on the Air - Celebrate Spring with W6TRW

**What:** Parks on the Air - Celebrate Spring with the W6TRW Amateur Radio Club

**When:** April 15, 2023, 0900-1600 PT

**Where:** Kenneth Hahn State Recreational Area (K-3451)

Saturday, April 15

<https://goo.gl/maps/vsPMbmSTNo7rVR7v8>

**Why:** Fun and educational time to play radio outdoors while earning POTA credit

Parks On The Air (POTA) is an amateur radio operating award program that encourages amateur radio operators to operate from parks and public lands as a portable station.

The W6TRW Amateur Radio Club invites you to come join an 'activation' of Kenneth Hahn State Park, where club members will set up portable radio stations to communicate with other amateurs around the country (or even the world!). This is a great opportunity to learn, especially for folks who have never tried POTA, portable operations, or even radio. No license? No problem - you can make your first contact as a guest operator!



Our operating site will be a grassy meadow with a beautiful view of downtown and the surrounding snow-capped peaks. Bring anything with you that you'd want to use - food, water, chair, radio, etc. Parking can be done at the upper parking lot for a \$10 park entrance fee, or you can use free street parking and walk to the field from the Don Lorenzo Drive entrance.

No radio is required to participate; any operators who want to bring their kit are encouraged to do so! Frequency deconfliction will be accomplished on-site through discussions between operators.

## W6TRW Club Members SHOW 'N TELL

### W6TRW Club Members SHOW 'N TELL / DIY / Maker / Activity Talks

At past and recent club meetings, we've had members of our club describe and/or demonstrate projects they have created or been involved in. We'd like to continue that tradition! We're all excited to hear what you've been doing. All you need to do is put together a few slides!

If you've been building something interesting, or engaged in recent ham radio adventures or volunteering, please send a reply to [newsletter@w6trw.com](mailto:newsletter@w6trw.com), and we'll get you on the agenda in 2023!


Please **REPLY** if interested!

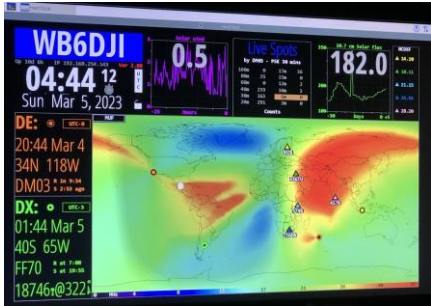


**W6TRW Discord Channel**

Did you know W6TRW has an active online discussion of ham radio adventures, build projects, and event planning? This is an excellent way to keep up with hot topics in the club. If you haven't already, please join your fellow club members on Discord. You can sign up here: <https://discord.gg/9JMY9SydV3>

***Recent posts on the W6TRW Discord:***

[Mike-WB6DJ](#) — 03/04/2023 8:45 PM   
[Sun Spots are going up ! Solar Cycle 25 exceeds expectations !](#)



## HF Propagation



## Smartphone apps for Amateur Radio

Mike-WB6DJJ — 04/01/2023 10:53 PM  
The program decodes CW and has lots  
of features like built in FT8, logging,  
POTA, etc , no need to carry a PC in the  
field ! Comes with lots of tools for  
POTA and SOTA operations



Dylon N6MX — 03/28/2023  
1:47 PM

I got my new QSL cards in the mail today

Chris WA2KDL — 03/16/2023 5:23 PM

## Xiegu X6100 HF Transceiver | Full Mode | SDR Radio

The Xiegu X6100 is a completely self-contained SDR QRP radio built on a quad-core processor. Built with a 4" high-resolution color capacitive touch screen, 4G ROM + 512MB RAM, automatic antenna tuner, 3500mAh battery, SWR meter, X6100 is your new choice of portable hf transceiver.



# News and Announcements

## New Monthly Activity - W6TRW Transmitter Hunts at Swap Meet

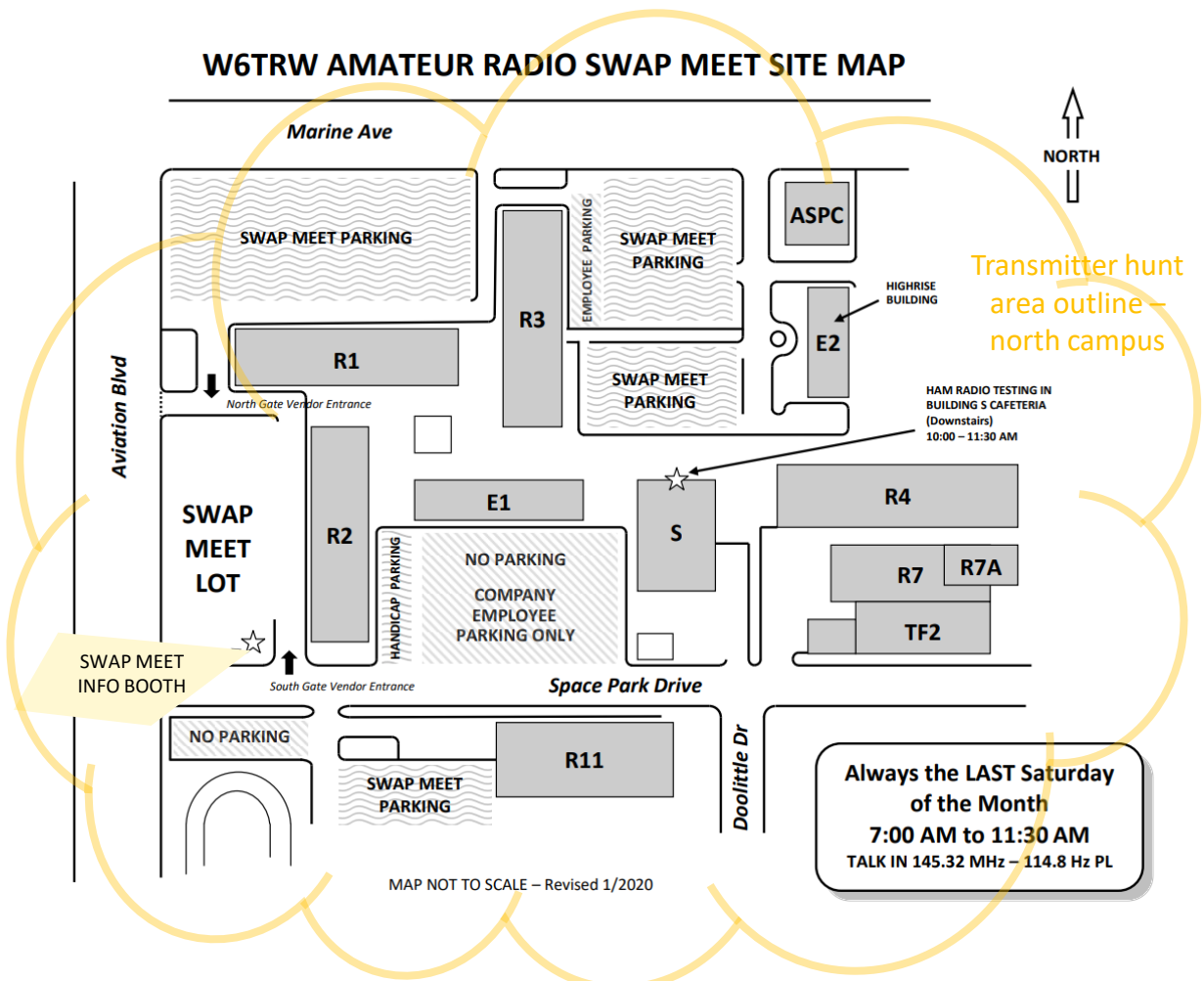
We are starting up a new fun activity: T-hunts (also called Fox Hunts) following the W6TRW Swap Meet. These are easy, on-foot hunts to find a hidden transmitter on the campus around the Swap Meet. To try it out, or just learn more about T-hunting, please visit the Swap Meet Info Booth in the Southeast corner of the Swap Meet lot. Bring your VHF handheld radio!

**Antenna-building:** We have held sessions before the T-hunt to build directional VHF antennas to aid in tracking down the hidden transmitter. If you are interested in building an antenna, please contact W6TRW Club President Dylon N6MX at [dylon@gmail.com](mailto:dylon@gmail.com)



T-hunt transmitter radio with Arduino controller

### W6TRW AMATEUR RADIO SWAP MEET SITE MAP



# News and Announcements

Still  
\$5!!

## Membership

The W6TRW 2023 Membership Form is on our [Membership](#) page. Be sure to renew for the 2023 club year! **Our annual participation fee for the W6TRW club is still \$5, as it always has been! You can now send the participation fee ELECTRONICALLY to Dylan N6MX – see the note in the new 2023 W6TRW Membership Form! And you can scan your signed ink signature pages and send to Dylan's email address on the form. We're going electronic!**

**Our durable, high-tech magnetic club badges are now \$30, the real cost of making them.** The badge, with your call sign, name & W6TRW logo, will last for many years!

Each year, when you renew or join the W6TRW Amateur Radio Club, we will send out a physical membership card via regular mail, as confirmation that you are a member for the year.

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## W6TRW Swap Meet – Last Saturday of Every Month !

Our club puts on the largest monthly amateur radio swap meet in the Los Angeles area. The W6TRW Swap Meet has been held monthly for almost 40 years. The W6TRW Swap Meet is well known throughout the western US and even the world! It is always held the last Saturday of every month, rain or shine, holiday or not, from 7:00 AM until 11:30 AM, in the R2 parking lot near the southeast corner of Aviation Blvd. and Marine Ave. where the cities of Redondo Beach, Manhattan Beach, and Hawthorne meet. Talk-in on 145.320 -600 PL 114.8.

If you wish to sell at the swap meet, please visit our swap meet sellers' webpage for all the necessary information.

Our Swap Meet Manager, Wendell KE6ASC, is always on the lookout for volunteers to help at the Swap Meet. If you'd like to get up early and help the club put on this important traditional activity, email Wendell at [w6trwswapmeet@gmail.com](mailto:w6trwswapmeet@gmail.com) to get more information.

The next swap meet is the last Saturday of the month, from 7:00 am to 11:30 AM. See you there!

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## Field Day 2023

**We're planning for Field Day 2023.** We'll be at Friendship Park again, *and this year we may do something different* – QRP (5 watt transmitter power maximum, battery/solar power only). W6TRW Field Day 2022 was a dry run for QRP, using only portable antennas, no crank-up towers. Solar cycle is excellent this year, so QRP will be exciting! Please reply with your Field Day comments and ideas, and if you want to be on our 2023 W6TRW FD mailing list.



# News and Announcements

## Silent Key Estate – Bruce Clark KOYW

Large list of vintage, well-maintained, unique amateur radio equipment and components, including some museum-quality radios

### CONTACT:

Terri Clark

Ignacio, Colorado

916-397-6695

Terri Clark <[clarkgalvinclan@gmail.com](mailto:clarkgalvinclan@gmail.com)>



TS 2000 with IR filter 092 (2.1khz ssb filter), VS-3 voice module | TS 590S | Astron RS-20M | SB220 modified for 6 meters | Homebrew 6 meter amp and power supply 1.5kw | Drake L4 amp and PS | Henry 4K | Atron RS 35A | HP 5316A counter | Yaesu SP8 speaker | K7NV Green Heron prop pitch controller and prop pitch | Tentec 425 Amp and power supply | Astatic D04 | Jetstream JTPS 45 | Texas.rf RF6M remote antenna switch QTY 2 | Bird Wattmeter 4210A100 and coupler | Astron Ss-30M | Icom IC3220H dual band mobile | Heil MH-10-XD microphone | HP 226519-501 2500W server 50 power supply | Bird 43 wattmeter | Samlex 3-5A RPS 1203 12v PS | Bird 8201 dummy load | National Company HRO-5TA with coil set JE, JD, JA, JB, JC Very nice condition | Astron RS 7A | Electrovoice 664 microphone | Bird 7422 switch | Turner 44D HIZ microphone | Dayton 4M070A blower QTY 3 | Heathkit RS-1 resistance substitution box | Fluke 87 true RMS meter | Large prop pitch | General Radio Type 804-CS1 | 833 tubes QTY 5 | 450-TH tubes QTY 10 | 2c39/7289 tube | 3-500Z | 807W QTY 4 | 811A | Tic Ring Controllers Qty 6 | DX engineering Switch control box QTY 3 | Gates HFL 1000 amp and power supply | Astron 35M rack mount | Aims Pure Sine wave inverter 1200W continuous | Hallicrafters S-40B Very nice condition | R4A, RV4, T4X T4 all new in boxes | T4XC and power supply | Ms-4 | M4-2000 | Collins R390A receiver very nice condition | Zenith Trans Oceanic | HP 432A | HP 435B | HP 3400A | HP 410C | T4X new in box | RCA antique receiver | US Navy Receiver Type SE 143 | IC233A mobile | Gonset Communicator Z | Drake MLA2500B 2 meter transceiver | CSC Electrolytics 21uf 600V Qty LOTS | CDE 90uf 310V electrolytics QTY LOTS | Antique Wire recorder and box of recording wire (like reel to reel but records on wire) | Tandberg reel to reel and several new reels of tape | Sony TC 200 reel to reel | Medium size prop pitch | AEA Cablemate TDR 5011-5000 brand new in box | CIA-HF Antenna Analyzer with loads, open, shorts, etc | Heathkit HD-10 monitor scope. Clean front panel. Some scratches on side | Simpson 270 | R4-C | | These next 4 radios are, I think, museum quality condition | Hammarlund HQ-140X | Collins 75A-4 (serial number 5843) | Atwater Kent (serial number 237210) | Radio MFG Eng Inc receiver and external VFO | Tokyo Hi Power HL-1 K/A uses 2 4CX250 tubes. 500W out. Very compact amp | 4CX1500B marked new | 5CX150 qty 2 still in can | 4CX1500B Marked "very good" | Several Bird slugs | Bird 43 | Bird model 74 6 position switch | GE Wattmeter. | HP355C 1/2W step attenuator 12dB in 1 dB steps | Frigidaire antique temp probe | HP 415E SWR meter | 141T, 8554L, 8445B, 8552A, 8444A system (8445B is preselector, 8444A is tracking generator) | Eaton 7514 noise figure meter | 8484A power sensor | 8481A power sensor | National Radio SW-5. In very good shape (very early receiver) | HP 410A vacuum tube voltmeter | These next few items and brand new. Still in original boxes and still in original shipping boxes from Drake to a distributor in Ill | T4-X s/n 12878G | R-4A s/n 6049R | MS-4 | AC-4



# News and Announcements

## W6TRW Repeaters Now Playing Newsline & ARRL News

We're putting a regularly scheduled rebroadcast of [Amateur Radio Newsline](#) ham radio news and the [ARRL weekly news](#) on the W6TRW repeaters on Wednesdays and Sundays at 9:00pm Pacific time! Newsline is a free service that produces a weekly report of important goings-on in the ham radio community and is a great way to stay in the loop on current ham radio topics.

Take a listen and let us know what you think!

-- Shackmaster, Dylon N6MX

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## [AMSAT - Amateur Radio in Space](#)

The number of active amateur radio satellites keeps increasing. Here is the current satellite status, making it easy to find satellites you may be able to hear: <https://www.amsat.org/status/>. For many satellites, the telemetry downlink or Morse code beacon is easy to receive with a simple dual-band VHF-UHF magmount antenna.

If you have a VHF/UHF SDR (software defined radio) connected to your computer, you can see the Doppler shift of the signal as the satellite passes over.

To find out when a satellite will fly over your location, go to <https://www.amsat.org/track/index.php>. Just put in your grid square or approximate latitude-longitude. One of the most reliable and easy downlinks is the ISS (International Space Station) on 145.800 MHz.

The next step is transmitting – making amateur contacts through the satellites. AMSAT satellites for amateur communications: <https://www.amsat.org/two-way-satellites/>.

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## [Amateur Radio Contests - Calendar](#)

There are many amateur radio contests during the year, for the full range of different radio interest areas. Click [here \(WA7BNM's Contest Calendar\)](#) for a listing of all the amateur radio contests.

Just listening to contests is a great way to hear a lot of stations from all over the US and even all over the world – better than just randomly tuning on any given day, hoping to hear something.

The next big, popular contest is the [ARRL June VHF Contest](#), June 10-12, 2023. This one is easy and fun – just find your grid square at [Amateur Radio Ham Radio Maidenhead Grid Square Locator](#) and then key up your VHF/UHF FM radio on the calling frequencies – 146.52 MHz and 446.000 MHz! The calling frequencies 146.52, 146.55, and 146.58 are busy during the contest and you can make many contacts just by answering contest calls.

*As an example, W6TRW Club President Dylon N6MX participated in the June 2022 VHF-UHF contest in the class "Single Operator FM" and easily got 5<sup>th</sup> place in the scoring, just operating for about 5 hours from a local hill.*



# W6TRW Repeaters and Nets

## W6TRW Repeaters

VHF 2 Meters • 145.320 MHz, Offset: -600 kHz, PL: 114.8 Hz; Located in Redondo Beach, CA • All-Star node 505680  
UHF 440 MHz • 447.000 MHz, Offset: -5 MHz, PL: 100.0 Hz; Located in Redondo Beach, CA • All-Star node 505681  
(Our VHF 145.320 MHz and UHF 447.000 MHz repeaters are linked – but may be disconnected for certain nets listed below)  
UHF MotoTRBO DMR • 446.050 MHz, Offset: -5 MHz, Color Code: 2; Located in Redondo Beach, CA

### **Monday K6MBC Manhattan Beach MBCERT Net**

Weekly; Monday nights at 6 PM \*except\* first Monday of the month, on the W6TRW 447.000 MHz repeater

### **Monday Lomita and South Los Angeles DCS Net: Weekly**

Monday nights at 7:30 PM, on the W6TRW 145.320 MHz repeater

### **Wednesday W6TRW Emergency Communications Team (ECT) Net: Weekly**

The ECT net is held weekly Wednesdays starting between 12:00-12:15pm on our 145.320 MHz and 447.000 MHz repeaters. The whole net only takes about 10-15 minutes.

The purpose of the net is to promote club participation and to increase the general awareness of hams to emergency communications resources. The net is open to all W6TRW members as well as any non-member visitors!

Check-ins reply with their name and callsign, general location, and their radio communication capabilities at the time.

During an actual emergency, the W6TRW 145.320 MHz repeater will be dedicated to DCS, and won't be available for open use, but it will be very useful to monitor! The W6TRW 447.000 MHz repeater should be available and open for use during an actual emergency, so please save a memory in your radio for our 447.000MHz repeater!

### **Wednesday Northrop Grumman HF Family Net**

Also at noon Pacific Time on Wednesday is a long-running Northrop Grumman net on 14.270 MHz. Northrop Grumman and TRW employees / retirees are welcome to check in and represent the West Coast!

### **Thursday Space Net**

Our W6TRW 145.320 MHz and 447.000 MHz repeaters host the long-running Space and Information Net every Thursday evening at 7:00 PM. Ronnie N6SHI (Space Hams International) is the net controller, taking check-ins and providing the best of the weekly space news, launches, and visual flyovers. Tune in and check in!!

### **Thursday Outdoors Net**

Weekly; takes place immediately after the Space Net weekly on Thursday nights – via IRLP from Las Vegas net control – IRLP turns on at 7:45 PM every Thursday. Lots of good info for mobile and outdoors activities!

### **Newsline & ARRL Weekly News – Wednesday and Sunday**

9:00 PM & 9:30 PM

News released every Friday

## About Us – W6TRW

The W6TRW Amateur Radio Club is a non-profit organization that started in the early 1960s.

The W6TRW Amateur Radio Club started as the TRW ARC and held the club call sign WB6WPO. The club became an ARRL Affiliated Club in 1971, and the club call sign was changed to W6TRW in 1974. The club was formed at the TRW facilities in Redondo Beach California comprised of employees of the aerospace company.

Our club station is located in Building S and includes 2 Yaesu FT-1000's, Alpha 87a amplifier, and two towers with multiple HF antennas in Redondo Beach, California. We also have all-mode capability on 6m, 2m, 440, and 1.2 GHz. We have ATV, and satellite and packet stations.

W6TRW sponsors open repeaters on 2 meters and 440 MHz that serve the Los Angeles basin. We also have a Motorola MOTOTRBO Digital Repeater in Redondo Beach. IRLP node 7067 is connected to our open 440 repeater and typically is connected to the Western Amateur Linking Association LAX Reflector 9350. Please visit our repeater page for more information!

The Amateur Radio Club (W6TRW) offers a full range of radio related activities, including contest operating events, community public service events, picnics and classes for those wishing to obtain their first license. Stop by the Amateur Radio Swap Meet on the last Saturday of the month in the R2 parking lot from 7:00-11:30am – you'll be surprised by what you will find.