



# MARC Beacon

Volume 8, Issue 7

The Morongo Basin Amateur Radio Club Newsletter

JULY 2019

## President's Message

**Greetings fellow hams,**

First off I would like to thank Aaron KM6IAU and Patrick N4LKZ for the leadership they have provided the club. Aaron will still be involved in the club and will sit on the the technical committee. Patrick will be moving to Florida for work but knowing him, he will still be heavily involved in Amateur Radio. We wish Aaron and Patrick the best on their endeavors.

I'm honored to serve on the board again for the next six months. This will be a tough assignment for me due to work and family but I won't let you down. I have a couple ideas for some summer fundraising events as well as presentations for club meetings. I will work closely with your new Vice President, Rob Cloutier WO4ROB on the planning as well as the rest of the board. I look forward to catching up with a lot of the club members. If anyone has any ideas for presentations or fundraising or would like to chat, please send me an email to [chris@wb6cdf.com](mailto:chris@wb6cdf.com) or give me a call at (760) 285-3560.

**Chris Nichols**

**WB6CDF**

Yucca Valley

Club President

[CHRIS@WB6CDF.COM](mailto:CHRIS@WB6CDF.COM)



Jnn13 / Wikipedia / CC BY-SA 3.0

### Linked Repeaters

#### **Yucca Valley, W6BA**

146.790 MHz (- shift = 146.190 MHz) 136.5 Hz PL/CTCSS

#### **Twentynine Palms, W6BA**

147.060 MHz (+ shift = 147.660 MHz) 136.5 Hz PL/CTCSS

#### **Landers, WB6CDF**

447.580 MHz (- shift = 442.580 MHz) 173.8 Hz PL/CTCSS



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## Nets

Amateur Radio Emergency Service (ARES)  
Mon @ 1915  
Morongo Basin Amateur Radio Club (MARC)  
Tue @ 1900

## Social Media,

Club web page: <http://www.w6ba.net>

Facebook:

<https://www.facebook.com/MorongoBasinAmateurRadioClub>

W6BA Live Feed:

<http://www.broadcastify.com/listen/feed/10199/web>

## Club Meeting

Every 3rd Thursday of the month at 7 PM.  
Church of the Nazarene  
56248 Buena Vista Dr Yucca Valley Ca.

BIG BEAR	147.330	+	pl. 131.8
SNOW PEAK	445.160	-	pl. 67.0
BANNING PASS	147.915	-	pl.123.0
YV IRLP NODE	145.770	no offset	pl. 67.0
WINSYSTEM	448.060	-	pl.100.0
CALNET	448.400	-	pl. 107.2
EDOM HILL	146.940	-	pl. 107.2
MOUNT ORD	448.420	-	pl. 85.4



**TOM MEDLIN W5KUB WEEKLY WEBCAST 100%  
HAM RELATED. TUESDAY NIGHTS AT 8PM**

<http://tmedlin.com/> OR <http://w5kub.com>



**HAMNATION IS A WEEKLY HAM RADIO RELATED TV  
SHOW WITH FAMOUS HOSTS SOME OF YOU MAY  
KNOW LIKE, GORDON WEST, BOB HEIL AND OTHERS.**

**WEDNESDAY NIGHTS AT 6PM**

<https://twit.tv/shows/ham-nation>



The weather station on Paxton Hill at the W6BA repeater site has been repaired. It will now show accurate wind speed and direction measurements.

<https://www.wunderground.com/personal-weather-station/dashboard?ID=KCAYUCCA57>

Glenn N6GIW

I also have A weather station by the high school in Yucca Valley N6GKB.

<https://www.wunderground.com/weather/us/ca/yucca%20valley/34.114512399999995%2C-116.4194904>

Keith N6GKB



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## THE LOCATION FOR THE CLUBS MONTHLY MEETINGS FOR AT LEAST THE SUMMER MONTHS.

**It will be held at the church of the Nazarene in Yucca Valley.**

Turn north on Cholla Ave from Highway 62. It is across from the Cinema 6 movie theatre in Yucca. Go to the end of Cholla and turn left go on down to the second church on the right.

**Church of the Nazarene  
56248 Buena Vista Drive  
Yucca Valley, CA 92284**

**Our next club meeting will be there this July. It will be our meeting place for now in July and August .**

## National Hurricane Center Station WX4NHC Test is a Success on Eve of 2019 Hurricane Season

National Hurricane Center station WX4NHC Assistant Coordinator Julio Ripoll, WD4R, reported a successful Annual Test event. The Amateur Radio station at the National Hurricane Center in Miami conducted its annual station test on Saturday, June 1, the first day of hurricane season. WX4NHC operators exercised the station from 1300 to 2100 UTC. "This is our 39th year of public service at NHC," said Ripoll. The goal was to test Amateur Radio equipment, antennas, and computers for the 2019 Hurricane Season, which runs through November 30.

"This event is good practice for ham radio operators worldwide, as well as National Weather Service (NWS) office staffs, fostering familiarity with Amateur Radio communication services available during times of severe weather," Ripoll said. "Brief contacts were held on many frequencies and modes, with exchanges consisting of signal reports and basic weather data [sunny, rainy, etc.] with any station in any location.

"WX4NHC was operated on HF, VHF, UHF, APRS, and Winlink. Operators concentrated their efforts on the Hurricane Watch Net frequency of 14.325 MHz, and on the VoIP Hurricane Net (from 2000 - 2100 UTC), IRLP node 9219, as well as EchoLink WX-TALK Conference node 7203. The Florida statewide SARNET and local VHF and UHF repeaters were also employed. In preparation for the 2019 Hurricane Season, the ARRL Headquarters Emergency Response Team was also meeting to review its procedures.



Armando Flores, KG4LYD, (l) and WX4NHC Assistant Coordinator Julio Ripoll, WD4R, during the station test. (photo courtesy WD4R)

Ripoll offered special thanks to Armando Flores, KG4LYD, "for coming to operate with me during the very busy afternoon shift when we were engaged in simultaneous HF radio and the EchoLink Hurricane Net operations." "We made contacts with stations in the Caribbean, South America, Europe, and several NWS offices and EOCs, and with the Canadian Hurricane Center," Ripoll said. "Armando brought in a new DMR radio that fits in your hand and made several contacts on the DMR Worldwide Net, which was a first for WX4NHC," he said.

"When cellphone towers go down and satellite phones cannot get a dial tone and the internet goes off, Amateur Radio is one of the few communication services that can still get through. Just one message received from a station in a hurricane can make a big difference."

Ripoll concluded "We are very proud that Amateur Radio station WX4NHC has been a part of the very unique and important National Hurricane Center mission to help save lives for the past 39 years."

-- Thanks, *Julio Ripoll, WD4R, Assistant Coordinator, National Hurricane Center station WX4NHC, Miami, Florida*





## Proposed for Southern California Amateur Radio Hospital Support Groups

A Hospital and Health Mutual Aid Agreement is being proposed for southern California's major Amateur Radio organizations that support hospital emergency communications. The draft proposal recognizes that the organizations are aware of each other's presence and commit to creating a positive cooperative environment to advance Amateur Radio support of hospital emergency communications. The stated goal is to always have the organizations work together to show a unified and professional front in the best interests of Amateur Radio and the facilities served.

Signatories would agree to the following:

1. To share trained radio operators for crisis communications to health and hospitals if such resources are available.
2. Trained radio operators will be defined as having FEMA ICS 100, 200 and 700 as well as a certified HIPAA course. The radio operators should be trained to hospital environmental issues and certified by the issue of a hospital or health photo ID badge.
3. To share repeater infrastructure when such sharing does not affect the primary user. Approval for use must be provided in writing by the primary user.
4. Allow testing of other agency repeater infrastructure, on occasion and with prior approval.
5. When possible Hospital Communications groups will make other groups aware of any educational, drill or other educational activity in a sharing mode.
6. To annually share radio frequency data for all channels with other signatory groups. This is confidential information and solely to assure up to date radio programming.
7. To annually publish a list of frequencies -- called "access channels" -- that are monitored by stated group during an activation.
8. The agreement is to facilitate sharing of information, education and best practices.
9. This agreement is not binding and may be dissolved in sixty days upon written notification.

The draft is being circulated for comments and signatures. -- Duane Mariotti, WB9RER, [Kaiser Permanente Amateur Radio Network](#)

## In Brief...

### A "Grand Solar Minimum" may be approaching.



A [juried research paper](#) in *Nature*, "Oscillations of the baseline of solar magnetic field and solar irradiance on a millennial timescale," suggests that a "grand solar minimum" -- similar to the legendary "Maunder Minimum" -- is approaching, starting as early as next year and lasting for three solar cycles. That would be bad news for HF enthusiasts already struggling with marginal conditions. As the paper's abstract explains, "Recently discovered long-term oscillations of the solar background magnetic field associated with double dynamo waves generated in inner and outer layers of the Sun indicate that the solar activity is heading in the next three decades (2019 - 2055) to a modern grand minimum similar to Maunder one." As propagation buff and contester Frank Donovan, W3LPL, observed, "It's very uncertain if this forecast is correct, but, as usual, the forecasts of the next solar cycle are all over the map. Let's hope these scientists are wrong."

### The January 2019 VHF Contest results showed FT8 played a major role.



The [results article](#) has been posted, and article author James Duffey, KK6MC, says the digital modes -- FT8 in particular -- played a major role in the January contest, increasing the logs submitted significantly. "Despite conditions, a surprising 918 logs were submitted, by far the most in this century!" Duffey said in his contest write-up. "While the total number of QSOs reported in 2019 did not differ significantly from 2018 (61,532 in 2019, as opposed to 59,587 in 2018), the number of submitted logs was up. Apparently, the FT8 operators are more inclined to submit logs than the casual operator on SSB and CW." Duffey went on to point out that nearly half of contacts made in the 2019 event occurred on 6 meters, and 60% of those were made on one or more of the digital modes.



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"REC feels that the time is right for the Commission to open a *Notice of Inquiry* and eventually a *Notice of Proposed Rulemaking*, and in cooperation with the NTIA, this new band opportunity can be

realized to spark the next generation of 'makers' in the fields of science, technology, education, and math (STEM), especially women and girls," Bradley told the FCC in the *Petition*. "The more opportunities we give to make things, the more opportunities we have to build a pool of experts in STEM, right here at home."

The *Petition* said the objective of a new band would be "an effort to foster experimentation into the propagation characteristics of this band midway between the 10- and 6-meter bands." An allocation in the 8-meter band is available to radio amateurs in Ireland, where the Irish Radio Transmitters Society has developed a band plan for 40 - 41 MHz.

"REC perceives this spectrum can be used for weak signal experimentation and eventually general amateur use, especially along transatlantic paths using CW, SSB, digital modes such as FT8 and digital voice," the *Petition* said. "As no radios are mass-produced for this band at this time, this opens up new opportunities for 'makers' to construct transmitters, receivers, and antenna systems that can be used in this spectrum."

REC anticipates "very low" usage of the new band, "with peak usage around sporadic-E episodes, operating events such as ARRL Field Day, and VHF contests, as well as during the peak of sunspot cycles," Bradley told the Commission. "[W]e feel that the sharing of 40 MHz can be accomplished in a manner that serves the needs of the Amateur Radio Service while meeting the organizational missions of Federal Government agencies that utilize this spectrum."

Interested parties may file short comments on RM-11843 via the FCC's [Electronic Comment Filing Service \(Express\)](#).

<https://www.arnewsline.org/>



## The [Yasme Foundation](#) Board of Directors has made a supporting grant to Amateur Radio Emergency Data Network (AREDN).



AREDN extended the early work of the Broadband Ham Net mesh developers by developing firmware and related user software for more modern and efficient consumer routers. Based in San Diego, California, the AREDN development team has produced code for the Ubiquiti 2, 3, and 5 GHz routers and has recently added firmware to convert lower-priced consumer equipment from other manufacturers for amateur mesh network use. Yasme's grant will go toward the purchase of test equipment to aid AREDN's development efforts.

## *Petition for Rulemaking Asks FCC to Create a New 8-Meter Amateur Band*

The FCC has put on public notice for comment a *Petition for Rulemaking* ([RM-11843](#)) that seeks the creation of a new 8-meter Amateur Radio allocation on a secondary basis. The *Petition* suggests the new band could be centered on an industrial-scientific-medical (ISM) segment somewhere between 40.51 and 40.70 MHz.

The spectrum between 40 and 41 MHz is currently allocated to the Federal Government and, as such, within the purview of the National Telecommunications and Information Administration ([NTIA](#)). ARRL member Michelle Bradley, KU3N, of Maryland, filed the *Petition* in May on behalf of REC Networks, which she founded and described in the *Petition* as "a leading advocate for a citizen's access to spectrum," including Amateur Radio spectrum.



## Calling all Hams Interested in CW !

Our club member Sam White WB6SEW is Looking for help with his CW Training class.

He needs a **volunteer** or two to help him with the training of others in CW. Sam is sight impaired as some of you may or may not know, so he could use a hand. **Please** contact Sam at 760-228-2485, or on the local Yucca Valley Repeater.

Thank You all for helping Sam with this.

## DMR NOTES:

A new DMR network has been formed. It is called QRM Network. This is a good place to experiment with new hardware and software.

Hotspot config information: The address of the server is 24.124.97.212. The password is passwørd. That's with a zero.

And the port number is 62ø31.

The dashboard is at <http://kc3ol.network>

Many of us hang out on TG31207. If you would like to have your own talk group just let us know. 73, Ted, KC3OL, Kirk, K6KAR, and Frank, NGøN.



## Hi-Desert Star

People you know, news you can trust since 1957

We have a great write up in the newspaper today Thursday 6/27/19. If anyone would like a copy, I have a limited few to hand out.

Its right on the front cover with a picture of Patrick N4LKZ and 3<sup>rd</sup> District Supervisor Dawn Rowe.

And one other picture with the back of me N6GKB and two other hams at my Field day setup.

## From Last Year!

2018 ARRL Field Day Results

More than 35,000 participants amassed over 1.18 million contacts at last year's Field Day event.

### 2018 Field Day Overall Statistics

Number of Participants:	35,264
Total Entries:	2,903
Checklogs:	22
CW QSOs:	501,223
Digital QSOs:	56,532
Phone QSOs:	622,351
Total QSOs:	1,180,106

## LightSail 2 Launches, Will Transmit CW Beacon



The Planetary Society's **LightSail 2** CubeSat, launched on June 25, will transmit Morse code from space. LightSail is a citizen-funded project to send a small spacecraft, propelled solely by sunlight, into Earth's orbit. The innovative satellite is due to be deployed on July 2 from Prox-1, a Georgia Tech student-built spacecraft the size of a small washing machine. Once deployed, LightSail 2 will automatically transmit a beacon packet every few seconds, which can be decoded into 238 lines of text telemetry describing the spacecraft's health and status, including everything from battery status to solar sail deployment motor state. Every 45 seconds, the spacecraft will transmit "**LS2**" on the spacecraft's frequency of **437.025 MHz**, within the Amateur Radio 70-centimeter band.

"During its ride to orbit, LightSail 2 was tucked safely inside its Prox-1 carrier spacecraft," The Planetary Society said post-launch. "The Falcon Heavy upper stage's payload stack released Prox-1 about an hour and 20 minutes after liftoff, at an altitude of roughly 720 kilometers (446 miles). Prox-1 will house LightSail 2 for one week, allowing time for other vehicles released into the same orbit to drift apart so each can be identified individually."

Two US Naval Academy student-built satellites carrying Amateur Radio payloads were on the launch. BRICSat-2 (call sign USNAP1) will function as a 1.2/9.6 k **APRS digipeater on 145.825 MHz**. Telemetry will be transmitted on **437.975 MHz**. PSAT-2 also will operate on **145.825 MHz with APRS to voice and DTMF to voice/APRS**, and it will carry a **28.120 MHz up/435.350 MHz down PSK31 transponder**. An SSTV camera will transmit on the same downlink.

— Thanks to The Planetary Society, Bob Bruninga, WB4APR, and AMSAT News Service





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## New Device Creates Electricity from Snowfall



UCLA [reports](#) that researchers and colleagues there have designed a new device that creates electricity from falling and fallen snow. The first-of-its-kind device is inexpensive, small, thin, and flexible like a sheet of plastic.

"The device can work in remote areas, because it provides its own power and does not need batteries," said senior author Richard Kaner. "It's a very clever device -- a weather station that can tell you how much snow is falling, the direction the snow is falling, and the direction and speed of the wind."

The researchers call it a snow-based triboelectric nanogenerator, which generates charge through static electricity and produces energy from the exchange of electrons.

Findings about the device are [published](#) in the journal *Nano Energy*.

"Static electricity occurs from the interaction of one material that captures electrons and another that gives up electrons," said Kaner. "You separate the charges and create electricity out of essentially nothing."

Snow is positively charged and gives up electrons. Silicone -- a synthetic rubber-like material composed of silicon and oxygen atoms, combined with carbon, hydrogen and other elements -- is negatively charged. When falling snow contacts the surface of silicone, that produces a charge that the device captures, creating electricity.

"While snow likes to give up electrons, the performance of the device depends on the efficiency of the other material at extracting these electrons," said co-author Maher El-Kady, a UCLA assistant researcher of chemistry and biochemistry.

"After testing a large number of materials including aluminum foils and Teflon, we found that silicone produces more charge than any other material."

About 30 percent of the Earth's surface is covered by snow each winter, during which time solar panels often fail to operate, El-Kady noted. The accumulation of snow reduces the amount of sunlight that reaches the solar array, limiting the panels' power output. The new device could be integrated into solar panels to provide a continuous power supply when it snows, he said.



**Hiking shoe with device attached.**

[Abdelsalam Ahmed for UCLA, photo]

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### Editor Point of Contact (POC)

Keith Board, N6GKB, 760-401-5124, [N6GKB@live.com](mailto:N6GKB@live.com)

Submission deadline is 4 days before the 1<sup>st</sup> of each month





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## THE YUCCA MESA COMMUNITY CENTER HOME OF FIELD DAY 2019

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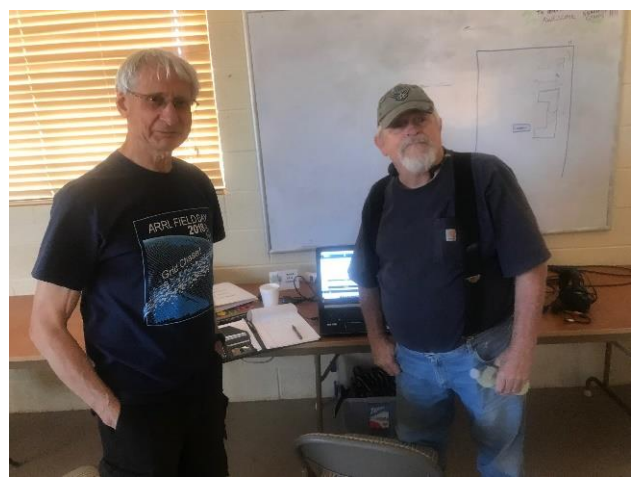




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## SOME PICTURES FROM FIELD DAY 2019





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## W6BA's Contest Summary Report for ARRL-FIELD-DAY

Created by N3FJP's ARRL Field Day Contest Log  
Version 6.0 [www.n3fjp.com](http://www.n3fjp.com)

Total Contacts = **438**    Total Points = **657**    Operating Period: **2019/06/22 18:05 – 2019/06/23 17:54**  
Total op time (breaks > 30 min deducted): **18:18:16**    Total op time (breaks > 60 min deducted): **19:19:29**  
Avg Qs/Hr (breaks > 30 min deducted): **23.9**

### Total Contacts by Band and Mode:

Band	CW	Phone	Dig	Total	%
80	0	34	2	36	8
40	5	137	73	215	49
20	0	47	84	131	30
15	1	0	23	24	5
10	0	1	31	32	7
<b>Totals:</b>	<b>6</b>	<b>219</b>	<b>213</b>	<b>438</b>	<b>100</b>

### Total Contacts by Country:

Country	Total	%
USA	420	96
Canada	10	2
Hawaii	3	1
Alaska	2	0.4
European Russia	1	0.2
Fed. Rep. of Germany	1	0.2
Japan	1	0.2
<b>Total: 7</b>		
<b>Totals:</b>	<b>438</b>	<b>100</b>

### Total Contacts by Operator:

Operator	Total	%
WA6FSJ	199	45
N4LKZ	119	27
W6BZY	34	8
KM6IAU	26	6
	13	3
NØCALL	13	3
WB6CDF	12	3
	8	2
N6GKB	8	2
K6QGM	6	1
<b>Total: 10</b>		
<b>Totals:</b>	<b>438</b>	<b>100</b>

### Total Contacts by Station:

Station	Total	%
WA6FSJ	199	45
N4LKZ	130	30
W6BZY	70	16
N6GKB-1	21	5
WB6CDF	12	3
K6QGM	6	1
<b>Total: 6</b>		
<b>Totals:</b>	<b>438</b>	<b>100</b>





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I am looking for a **mid-size** or bigger **old computer tower**. Need not be working.

I am building a new computer for the HAM Shack.

I am also looking for an **Antenna Switch**. If you can, send me a picture and your price. Thank you.

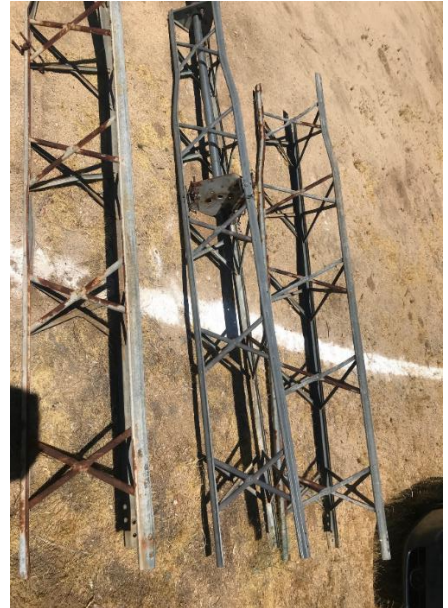
Please Contact Keith N6GKB at [n6gkb@live.com](mailto:n6gkb@live.com)

**FREE FREE FREE**

I Also have a **tower** to get rid of for **FREE**. It is five 8' sections and approx. 40' feet tall.

Triangular base starts at 2 feet per side. See pictures below.

Email me with any questions. I can deliver locally for some gas money.



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**Do You Have Any Ham Radio Related Items  
That You Want to Sell or Give Away?**

**If so, send me the information and I will list it  
in this part of the newsletter.**

**(If you have been Ham for very long, you definitely have some stuff  
that you no longer need and somebody else could use.)**



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## JULY 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
	ARES Net 7:15 pm	MARC Net 7:00 pm NCS FRED		ARES Meeting 6:00 pm 		
7	8	9	10	11	12	13
	ARES Net 7:15 pm	MARC Net 7:00 pm NCS CHRIS				
14	15	16	17	18	19	20
	ARES Net 7:15 pm	MARC Net 7:00 pm NCS AARON		MARC Meeting 7:00 pm Board meeting at 5:30pm !!! in Y.V. !!!		
21	22	23	24	25	26	27
	ARES Net 7:15 pm	MARC Net 7:00 pm NCS JOHN				
28	29	30	31			
	ARES Net 7:15 pm	MARC Net 7:00 pm NCS GLENN				