



# MARC Beacon

Volume 11, Issue 4

The Morongo Basin Amateur Radio Club Newsletter

APRIL 2022

Hello Radio Operators!

Spring is here. The desert tortoises, snakes, and other critters are returning to the desert floor looking for food. Make sure you clear away dead vegetation around your house to keep away the bad critters and to prevent fires.

I am learning to program a new electronic gadget called the M5Stack. It's a 5x5cm (2x2in) microcontroller unit (MCU) with a built in color touch screen, microphone, speaker, real time clock (RTC), Bluetooth, WiFi, and rechargeable battery. Contact me if you have any HAM radio related projects for the M5Stack. Visit the M5Stack website for more information. <https://m5stack.com/>

Our next in person MARC meeting will be 1800 Thursday 21 April 2022 at the Church of the Nazarene, 56248 Buena Vista Drive, Yucca Valley. If you have an announcement or presentation for the club, then please contact me so I can add it to the agenda. I will not be in the Morongo Basin area for the May or June MARC meeting, so please contact the Vice President Keith Board N6GKB for any information on those meetings.

I am a little concerned on the number of people who do not check-in on the Tuesday night net. Please take some time to turn on your radio and make a contact to ensure everything is working properly for the next emergency event.

Please schedule time to check in on the 7 PM Tuesday net, and if you can, please join us on the "Cawfee Tawk" net every morning at 10 AM.

Take care of yourself and enjoy each day. If you're not having fun, then you're doing something wrong.

**Rob Cloutier**  
**WO4ROB**

Joshua tree  
Club President  
(760)401-6666

[rob\\_cloutier@hotmail.com](mailto:rob_cloutier@hotmail.com)



## Nets

Amateur Radio Emergency Service (ARES)  
Mon @ 1915  
Morongo Basin Amateur Radio Club (MARC)  
Tue @ 1900  
**MARC Daily informal Kawfee Talk**  
**1000-1100 DAILY**

## Social Media,

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

Facebook:

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

## Club Meeting

**Every 3rd Thursday of the month at 6 PM. At the church of the Nazarene in Yucca Valley at 56248 Buena Vista Dr**

## 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

## OTHER AREA REPEATERS

IRLP Node KD6DIQ 145.770 pl 67.0

ONYX Peak N6LXX 446.880 (-) pl 110.9

San Jacinto TRAM one 145.480 (-) pl 107.2

Snow Peak 445.160 (-) pl 67.0

ALLSTAR NODE on the mesa 147.705 pl 146.2

ALLSTAR NODE in Y.V. 446.120 pl 131.8

29 PALMS rptr linked to KELLER peak  
448.580 pl 146.2



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The Morongo Basin Amateur Radio Club Newsletter

## WU WEATHER UNDERGROUND

The weather station on Paxton Hill at the W6BA repeater site is working great. It will show accurate wind speed and direction measurements for the top of the mountain .

<https://www.wunderground.com/personal-weather-station/dashboard?ID=KCAUYCCA57>

Glenn N6GIW

## KEN HENDRICKSON, W6BZY



Some helpful you tube videos from Ken W6BZY about Linux and raspberry Pi.



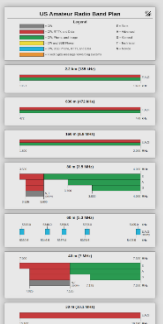
Search **W6BZY** on YouTube.

### US Amateur Radio Band Chart

<http://ham.band>

- Easy to remember link
- Easy to use on desktop or mobile
- Light-mode/Dark-mode switchable
- Familiar layout

Send feature requests to [Aaron@KM6IAU.net](mailto:Aaron@KM6IAU.net)



## OUR CLUB MEETING!!!!

IN THE MONTH OF APRIL, OUR LOCAL CLUB MEETING WILL BE :

**6:00 P.M. APRIL 21<sup>ST</sup>**

**At Church of the Nazarene in  
Yucca Valley at  
56248 Buena Vista Dr.**

## NEW CLUB FACEBOOK GROUP FOR THE MARC CLUB

I have created a Facebook "Group" for the Club. We currently have a FB "Page" which only allows Admins and Moderators to post directly on the Posts section.

Here is the link to the new "Group" - so if you are on Facebook, please click on this link and LIKE our new Group.

<https://www.facebook.com/groups/577155023327981>

The new Group will be must more user friendly. Feedback is most welcome. Thanks, Judy, N6JLL

**THANK YOU JUDY N6JLL**

# Membership Dues

**We are doing our club dues round up at the beginning of the year.**

**If you're not sure if your dues are up to date, please check with Glenn N6GIW and he can let you know if they are due or when they are due.**

**Not everyone is due at the same time of the year**



# MARC Beacon

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## **NOW On-Demand Until April 18<sup>th</sup>** **The QSO Today Virtual Ham Expo is** **still open in On-Demand mode.**

You can still see **over 60 presentations with the Q&A** that followed over the weekend. Our new Restream technology allowed us to very quickly put the presentations together with the Q&A for viewing now. **vFairs extended our On-Demand period** for a full month of presentations.

**"Thank you & GREAT SHOW!" - Dave K3WHD**

Our recent Live March 2022 Expo was a tremendous success with thousands of attendees! We received amazing positive feedback from attendees as well as constructive suggestions for our next Expo. In addition, the on-demand period has kicked off and ticket holders now have access to all of the speakers and exhibits until April 18th, 2022. We extended the On-Demand Expo an additional week to have more time to view the presentations with Q&A, a new innovation this time around.

**"I just wanted to let you know how much I enjoyed the QSO Today presentations last weekend and the availability of the ones that were in time conflicts online now".**  
**- Geoff - W8GNM**

Here are some highlights we would like to share with you about the March 2002 Live Expo:

- The Expo went off **flawlessly with the vFairs Expo** platform delivering a great experience.
- The new **Kumospace lounges proved to be fantastic!** Attendees were able to sit in live virtual conference lounges for "eyeball QSOs" with each other as well as exhibitor staff. The Expo finished with **63 amazing**

**presentations.** The top 3 presentations had a total of 3600 people in attendance.

- The most interesting (and attended) presentations were the following:
  1. **'Keynote: The importance of Amateur Radio and technical hobbies to advance the world's technology and "mankind's biggest projects",** by Courtney Duncan N5BF,
  2. **"From the Sun to the Earth to the Ionosphere"** by Ron Wilcox KF7ZN, and
  3. **"How to Capture the MAGIC of Six Meters"**, by Jim Wilson K5ND.
- We continue to attract many operators who don't go to in-person events because of distance or concerns about traveling (due to Covid or travel expenses). Our unique virtual format means that **everybody can participate in the Expo regardless of weather, distance, or travel concerns!**
- A significant portion of our attendees also attend in-person events but see the QSO Today Virtual Ham Expo as a **"must attend" event due to the quality and learning** that takes place.

*The expo just keeps getting better and better! Eric and his crew have assembled a technology and support staff that is incredible! I can't wait for the next one!*  
**Gerry - N2GJ**

We're already at work planning our **next Expo scheduled for** September 2022. We will send a notification as soon as the exact date is finalized.

If you have an Expo ticket, be sure to go back to the Expo for more great amateur radio content. If you don't have a ticket, you can still visit the Expo until April 18th. [Click here](#) to get to the Expo.

Thanks again for your continued support. See you at the Expo!

The QSO Today Virtual Ham Expo Team



# MARC Beacon

The Morongo Basin Amateur Radio Club Newsletter

## New Amateur Radio License Applications Fee to Become Effective April 19, 2022

A Public Notice released by the Federal Communications Commission (FCC) on March 23, 2022, in [MD Docket No. 20-270](#), announced that new application fees for Wireless Telecommunications Bureau applications will become effective on April 19, 2022. The new fees, mandated by Congress, apply to applications for Amateur Radio licenses including those associated with filing Form 605, the Amateur Operator/Primary Station Licensee Application.



Effective April 19, 2022, a \$35 fee will apply to applications for a new Amateur Radio license, modification (upgrade and sequential call sign change), renewal, and vanity call signs.

Anticipating the implementation of the fee in 2022, the ARRL Board of Directors, at its July 2021 meeting, approved the "[ARRL Youth Licensing Grant Program](#)." Under the program, ARRL will cover a one-time \$35 application fee for license candidates younger than 18 years old for tests administered under the auspices of the ARRL Volunteer Examiner Coordinator (ARRL VEC). Qualified candidates also would pay a reduced exam session fee of \$5 to the ARRL VEC. ARRL is finalizing details for administering the program.



ARRL had filed comments in opposition to imposing a fee on Amateur Radio license applications. The FCC initially proposed a higher, \$50 fee. In a Report and Order (R&O), released on December 29, 2020, the amount was reduced -- the FCC agreeing with ARRL and other commenters that its proposed \$50 fee for certain amateur radio applications was "too high to account for the minimal staff involvement in these applications."

ARRL Volunteer Examiner Coordinator (ARRL VEC) Manager Maria Somma, AB1FM, explained that all fees are per application. "There will be no fee for administrative updates, such as a change of mailing or email address. The fees will be the responsibility of the applicant regardless of filing method and must be paid within 10 calendar days of FCC's receipt of the application. For applications filed by a VEC, the period does not begin until the application is received by the Commission, a ULS file number assigned, and an email sent by the FCC directly to the applicant."

VECs and Volunteer Examiner (VE) teams will not collect the \$35 fee at license exam sessions. New and upgrade candidates at an exam session will continue to pay the \$15 exam session fee to the ARRL VE team as usual, and pay the new, \$35 application fee directly to the FCC by using the CORES FRN Registration system ([CORES - Login](#)).

When the FCC receives the examination information from the VEC, it will email a link with payment instructions to each successful candidate who then will have 10 calendar days from the date of the email to pay. After the fee is paid and the FCC has processed an application, examinees will receive a second email from the FCC with a link to their official license or explanation of other action. The link will be good for 30 days.

Somma also explained that applications that are processed and dismissed will not be entitled to a refund. This includes vanity call sign requests where the applicant does not receive the requested call sign. "The FCC staff has suggested that applicants for vanity call signs should first ensure the call signs requested are available and eligible for their operator class and area, and then request as many call signs as the form allows to maximize their chances of receiving a call sign."

Further information and instructions about the FCC Application Fee are available from the ARRL VEC at [www.arrl.org/fcc-application-fee](http://www.arrl.org/fcc-application-fee). Details for the ARRL Youth Licensing Grant Program will be similarly posted there, when available.



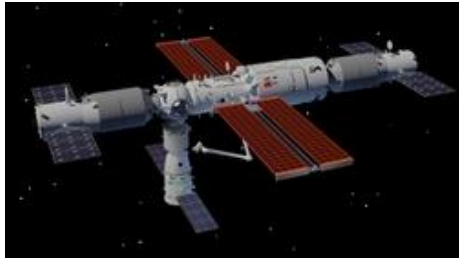


# MARC Beacon

The Morongo Basin Amateur Radio Club Newsletter

## Ham Payload Going to the Chinese Space Station

The International Amateur Radio Union (IARU) satellite frequency coordination panel reports that an application has been submitted for an amateur radio payload to be hosted on the Chinese Tiangong space station.



An amateur radio payload may be launched to the Chinese Tiangong space station late this year.

The coordination request states:

"CSSARC is the amateur radio payload for Chinese Space Station, proposed by Chinese Radio Amateurs Club (CRAC), Aerospace System Engineering Research Institute of Shanghai (ASES) and Harbin Institute of Technology (HIT)."

The first phase of the payload is capable of providing the following functions utilizing the VHF/UHF amateur radio band:

- 1) V/V or U/U crew voice
- 2) V/U or U/V FM repeater
- 3) V/V or U/U 1k2 AFSK digipeater
- 4) V/V or U/U SSTV or digital image

The payload will provide resources for radio amateurs worldwide to make contacts with onboard astronauts or communicate with each other. It will also play a role to inspire students to pursue interests and careers in science, technology, engineering, and math, and to encourage more people to get interested in amateur radio.

The planned launch from Wenchang is scheduled for the third quarter of this years. - *Thanks to AMSAT UK*

## Spring is in the Air

Spring is in the air and on the air for all of us with the ham radio bug. That means that hamfests are happening and for the first time in a couple of years, hams are starting to come out and meet others. Like Rip Van Winkle, many feel like they are waking from a long nap. The idea that we can meet people in person seems so foreign. It's important to follow health guidelines and you must do only what is safe for you. If you can, get out and participate in a hamfest. I know that I love to browse a good flea market. Public service events are happening, and there is always the opportunity to activate a park or a mountain top.

The fun of amateur radio, at least to me, is the idea that I can get with a few of my friends and go out on a Saturday morning and work from a spot that we have not worked from before. Before Covid-19 there were a couple of Dunkin Donuts-fueled excursions that allowed me to use my FT-817 and a portable antenna. I want to do that again and I might soon. I consider myself lucky because I work in a job that revolves around ham radio. Of course, it is still a job, but I tend to talk and think about the many aspects of the hobby most of the day. Right now, I am working on a small, portable digital rig to go with my QRP radio. The smaller the better, as long as it's still be functional for a guy that wears bifocals. It is never too soon to start planning for Field Day. Is your club doing Field Day in the field this year? This has always been my favorite weekend of the year. I want to work many of you on the air and help you get Connecticut in your log. Get out and have some fun!





# MARC Beacon

The Morongo Basin Amateur Radio Club Newsletter

## AMSAT Receives a Grant from ARDC

AMSAT has received a generous grant from Amateur Radio Digital Communications (ARDC) for the development of a 3U spaceframe with deployable solar panels. This standardized 3U CubeSat spaceframe will serve as the mechanical platform for AMSAT's Greater Orbit, Larger Footprint (GOLF) series of satellites, as well as for a new generation of low-Earth orbit (LEO) FM satellites.



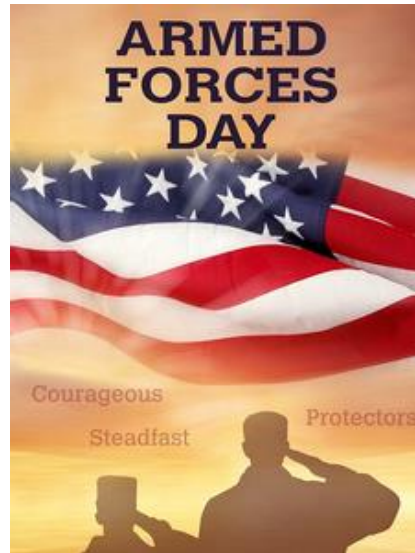
Central to the development of the 3U spaceframe, AMSAT will build three flight-ready spaceframes for an upcoming series of satellites with potentially enhanced flight control, payload, and communication capabilities.

The need for a 3U spaceframe with deployable solar panels goes back to the original design requirements for the GOLF satellites that would return AMSAT to highly elliptical orbits (HEO). The benefit of this program will provide satellites with wider coverage and longer access times to the entire amateur radio satellite community worldwide. -- *Thanks to Frank Karnauskas, N1UW, AMSAT VP of Development*

## Annual Armed Forces Day Cross-Band Exercise Set for May 14

The 2022 running of the Armed Forces Day (AFD) Cross-Band exercise will be held on May 14, 1300 - 2200 UTC. A complete list of participating stations, modes, frequencies, times, and other details [will be announced](#) on April 1.

The event is open to all radio amateurs. Armed Forces Day is May 21, but the AFD Cross-band Military-Amateur Radio event traditionally takes place 1 week earlier in order to avoid conflicting with Dayton Hamvention®.



During the exercise, radio amateurs listen for stations on military operating frequencies and transmit on frequencies in adjacent amateur bands.

Military and amateur stations have taken part in this event for more than 50 years. It's an exercise scenario, designed to include ham radio and government radio operators alike.

Per previous announcements: "The AFD Cross-band Test is a unique opportunity to test two-way communications between military communicators and radio stations in the Amateur Radio Service, as authorized in 47 CFR 97.111. These tests provide opportunities and challenges for radio operators to demonstrate individual technical skills in a tightly controlled exercise scenario that does not impact any public or private communications."

Military stations in various locations will transmit on selected military frequencies and announce the specific ham band frequencies they are monitoring.

An AFD message will be transmitted utilizing the Military Standard (MIL-STD) serial PSK waveform (M110) followed by MIL-STD Wide Shift FSK (850 Hz RTTY), as described in MIL-STD 188-110A/B. The AFD message will also be sent in CW and RTTY.



# MARC Beacon

The Morongo Basin Amateur Radio Club Newsletter

## Study: Rapid Development of Satellite Mega-Constellations Risks Tragedies of the Commons

A study reported in [Nature](#), "Satellite mega-constellations create risks in Low Earth Orbit, the atmosphere and on Earth," in *Scientific Reports* (May 2021) by Aaron C. Boley and Michael Byers, says the rapid development of mega-constellations risks multiple tragedies of the commons. That could include tragedies to ground-based astronomy, Earth orbit, and Earth's upper atmosphere.



The study asserts that international cooperation is urgently needed, along with a regulatory system that takes into account the effects of tens of thousands of satellites.

"[T]he connections between the Earth and space environments are inadequately taken into account by the adoption of a consumer electronic model applied to space assets," the authors said. "For example, we point out that satellite re-entries from the Starlink mega-constellation alone could deposit more

aluminum into Earth's upper atmosphere than what is done through meteoroids; they could thus become the dominant source of high-altitude alumina."

The authors say their study shows that untracked debris will lead to potentially dangerous on-orbit collisions on a regular basis due to the large number of satellites within mega-constellation orbital shells. The total cross-section of satellites in these constellations also greatly increases the risk of impacts due to meteoroids. De facto orbit occupation by single actors, inadequate regulatory frameworks, and the possibility of free-riding exacerbate these risks.

According to Boley and Byers, in 2 years, the number of active and defunct satellites in low-Earth orbit (LEO) has increased by over 50%. "SpaceX alone is on track to add 11,000 more as it builds its Starlink mega-constellation and has already filed for permission for another 30,000 satellites with the [FCC]."

More than 12,000 trackable debris pieces are already in low-Earth orbit, typically 10 centimeters in diameter or larger, the study asserts.







# MARC Beacon

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APRIL 2022

## APRIL 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
						
3	4	5	6	7	8	9
	<b>ARES Net</b> 7:15 pm	<b>MARC Net</b> 7:00 pm NCS LARRY		<b>ARES Meeting TODAY</b> 6:00 pm		
10	11	12	13	14	15	16
	<b>ARES Net</b> 7:15 pm	<b>MARC Net</b> 7:00 pm NCS GLENN				
17	18	19	20	21	22	23
	<b>ARES Net</b> 7:15 pm	<b>MARC Net</b> 7:00 pm NCS FRED		<b>CLUB MEETING AT</b> 6:00 PM		
24	25	26	27	28	29	30
	<b>ARES Net</b> 7:15 pm	<b>MARC Net</b> 7:00 pm NCS ROB				