

SCCARA-GRAM



Santa Clara County Amateur Radio Association

Volume 33, Number 2

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ARRL News

From *The ARRL Letter*, Jan. 5, 2016

630 Meters Becoming a “Mainstream” Amateur Band, Experiment Coordinator Says

The coordinator of ARRL's WD2XSH 600-Meter Experimental Group (<http://500kc.com/>) Fritz Raab, W1FR said in his latest quarterly report that 630 meters is becoming quite active, with both Amateur Radio and Part 5 Experimental stations taking advantage of the band, which is still not available in the US.

“Band activity has been very high, and there are often more WSPR stations -- more than 110 stations -- on 472 kHz than on 80 or 160 meters!” Raab said. WSPR, which stands for “Weak Signal Propagation Reporter,” is software designed for transmitting and receiving low-power transmissions to test propagation paths on MF and HF.

“In a sense, 630 meters has become a mainstream ham band, in spite of not being authorized in the US,” Raab said. To boost activity, a second annual Midwinter 630-Meter Operating Activity Night will take place on February 4-5. Details will be announced.

Raab also said in his report that MF propagation appears to be improving as the solar cycle declines. “The paths to VK and JA have remained good,” Raab said. “This was not the case last year, so perhaps it is an effect of the coming solar minimum. Many reports have been received for WSPR transmissions with relatively moderate power. There have been a number of polar and high-latitude openings to LA2XPA from North America. Many long-time operators say that they have never seen anything like that. There have also been a number of openings from the US west coast deep into Europe.”

Countries now permitting Amateur Radio access to the 630-meter band include Germany, Greece, Malta, Monaco, Norway, Philippines, Czech Republic, Ireland, Switzerland, New Zealand, Finland, Spain, France, Poland, Bulgaria, Canada, Vietnam, Japan, Cayman Islands, Reunion Island, and Hungary. “It appears that more than 100 DXCC entities have permission to operate on 630 meters,” Raab said in his report.

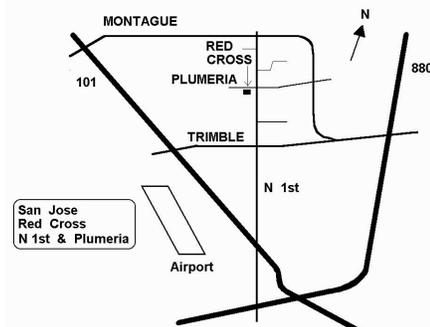
In April 2015, the FCC proposed a new secondary 630-meter allocation at 472 to 479 kHz to Amateur Radio, implementing decisions made at World Radiocommunication Conference 2012 (WRC-12). At the same time, the FCC allocated a new LF band, 135.7 to 137.8 kHz (2,200 meters), to the Amateur Service on a

Calendar

- 2/13 SCCARA General Meeting
- 2/20 SCCARA Board Meeting--(San Jose Red Cross, 7:30p, all are welcome)
- 3/11 Electronic Flea Market -- we host!

General Meeting

- Day: Monday, Feb. 13, 2017
Time: 7:30 PM
Place: Kaiser Santa Clara, Hospital B-06
Featuring: Erick Norris WD6DBM on QRP portable operation.



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The deadline for articles is the last Monday of the month.

SCCARA was formed in 1921 and became a non-profit corporation in 1947. SCCARA is an affiliate of the American Radio Relay League (ARRL). The club station is W6UW.

Web page: www.qsl.net/sccara

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(officers are also directors)

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SCCARA REPEATERS

SCCARA owns and operates two repeaters under the call W6UU:
2 meter: 146.985 - PL 114.8
70 cm: 442.425 + PL 107.2

Phone auto-dial and auto-patch is available. The two meter repeater is located at Eagle Rock near Alum Rock Park in the foothills of east San Jose. The 70 cm repeater is located at the Regional Medical Center (formerly Alexian), east of downtown San Jose, north of 280 and 101.

SCCARA NETS

On our two meter repeater: Mondays at 7:30 PM, (not the second Monday--our meeting night). Coordinator: Don Village, K6PBQ. On ten meters, 28.385 MHz USB, Thursdays at 8:00 PM. Net control: Wally Britten, KA6YMD. Visitors welcome.

N0ARY PACKET BBS

SCCARA hosts the packet BBS N0ARY (connect to n0ary-1). User ports: 145.09 MHz at 1200 baud, 433.37 MHz at 9600 baud, and telnet sun.n0ary.org (login "bbs"). Sysop: Gary Mitchell, WB6YRU For general packet info, see the NCPA web site ncpa.n0ary.org.

AMATEUR LICENSE TESTING

ARRL/VEC Silicon Valley VE group:
Morris Jones, AD6ZH: 408-507-4698

secondary basis, in accordance with the Final Acts of WRC-07.

No US Amateur Radio operation will be permitted in either band until the FCC determines the specific Part 97 rules it must frame to permit operation in the new bands. That process is ongoing at the FCC, but the change in administration and the consequent resignation of the current FCC chairman has put FCC action on any proceeding on hold, at least until a new chairman is in place.

Logbook of The World to No Longer Accept Contacts Signed by TQSL Versions Earlier Than 2.0

As of 1400 UTC on January 16, ARRL Logbook of The World (LoTW) no longer will accept contacts that have been digitally signed by versions of TQSL earlier than version 2.0. Users of earlier versions are encouraged to upgrade as soon as possible, as older TQSL versions contain uncorrected defects and display inaccurate error messages. The current versions of TQSL for Windows, OS X, and Linux are available online at <https://lotw.arrl.org/lotw-help/installation>. This action does not affect data already uploaded to LoTW; all QSOs remain in the LoTW database in perpetuity. -- Thanks to Norm Fusaro, W3IZ

From *The ARRL Letter*, Jan. 12, 2016

New Digital Modes Gain Traction for Moonbounce, but Occasionally Show Up on HF

In December, Joe Taylor, K1JT, released the latest version (1.7) of his WSJT-X (<https://physics.princeton.edu/pulsar/k1jt/wsjsx.html>) software suite, designed to facilitate basic Amateur Radio communication using very weak signals ("WSJT" stands for "Weak Signal communication by K1JT"). Version 1.7 included the new modes MSK144 and QRA64, as well as ISCAT (ionospheric scatter). MSK144 and QRA64 (and QRA64A) are finding a home within the VHF Earth-Moon-Earth (EME, or moonbounce) and meteor-scatter communities, but QRA64A signals also have turned up on 160 meters, which poses its own challenges to weak signals.

"QRA64A QSOs are being made nightly on 160 meters, of all places, and QRA64 activity on 2-meter EME is becoming significant, especially on weekends," Taylor remarked in a January 9 update posted to the Moon-Net reflector, pointing out that QRA64 is decoding signals down to about -28 dB signal-to-noise.

But Taylor does not advise a wholesale shift to the use of QRA64 on the HF bands -- at least just yet. "It's okay to play with and test QRA64 at HF, if you wish," he commented recently on the WSJT Development discussion group (<https://sourceforge.net/projects/wsjt>). "Some of our earliest tests of the mode were done on the 20-meter and 30-meter bands." He suggested, though, that HF operators stick with JT65, "not least because, at present, we have included no 'multi-decode' capability for the QRA64 decoder. It's made to decode just one signal in the passband."

In the WSJT-X Version 1.7 User Guide (<https://physics.princeton.edu/pulsar/k1jt/wsjsx-doc/wsjsx-main-1.7.0.html>), Taylor pointed out QRA64's several advantages over JT65, including better performance on the very weakest signals. "We imagine that, over time, it may replace JT65 for EME use," he wrote. "JT9 was originally designed for the LF, MF, and lower HF bands. Its submode JT9A is 2 dB more sensitive than JT65, while using less than 10% of the bandwidth."

Taylor told ARRL that he expects JT65 and JT9 to remain the preferred modes for making “minimal QSOs” at HF for some years to come. “QRA64 is 1-3 dB more sensitive than JT65 or JT9; this is important for EME, but much less so at HF, because one can usually run 20 W instead of 10 W, when the going gets rough.”

These modes use 1-minute timed sequences of alternating transmission and reception, so a basic contact can take up to 6 minutes -- two or three transmissions by each station, one transmitting on odd UTC minutes and the other on even. A typical contact uses canned message text to exchange grid squares and signal reports.

Paul Andrews, W2HRO, said in a January 10 post to the Moon-Net reflector that he develops “free-form” QRA64 messages to make his contacts more like ragchews. “Tonight I was able to ragchew via 2-meter EME,” he said. “My QRA64 free-form messages actually confused monitoring stations, because they have never seen ragchew free form.” Andrews said he likes the idea of taking advantage of good conditions to carry out a conversation via EME, rather than just validating the exchange of signals.

From *The ARRL Letter*, Jan. 19, 2016

New “Amateur Radio Parity Act” Bill Introduced in US House of Representatives

H.R. 555 -- a new “Amateur Radio Parity Act” bill -- has been introduced in the U.S. House of Representatives. The bill's language is identical to that of the 2015 measure, H.R. 1301, which passed in the House late last summer but failed to gain the necessary support in the waning days of the US Senate.

As with H.R. 1301, the new measure introduced on January 13 in the 115th Congress was sponsored by Rep. Adam Kinzinger (R-IL), with initial co-sponsorship by Rep. Joe Courtney (D-CT) and Rep. Greg Walden, W7EQI (R-OR). Walden now chairs the House Committee on Energy and Commerce, to which the new bill has been referred. H.R. 555 will get an initial airing in the Subcommittee on Communications and Technology. When H.R. 1301 came up in committee, Walden spoke forcefully in favor of the measure, which ultimately attracted 126 House cosponsors.

“Rep. Kinzinger has again stepped forward to introduce this important legislation,” said ARRL CEO Tom Gallagher, NY2RF. “His commitment stems from exposure to what the Amateur Radio community brings to the service of all communities. ARRL and radio amateurs nationwide owe Rep. Kinzinger a resounding ‘Thank You!’ for his efforts on their behalf.”

H.R. 555 calls on the FCC to establish rules prohibiting the application of deed restrictions that preclude Amateur Radio communications on their face or as applied. Deed restrictions would have to impose the minimum practicable restriction on Amateur Radio communications to accomplish the lawful purposes of homeowners associations seeking to enforce the restriction.

ARRL Asks FCC to Allocate New 5 MHz Band, Retain Channels and Current Power Limit

ARRL has asked the FCC to allocate a new, secondary contiguous band at 5 MHz to the Amateur Service, while also retaining four of the current five 60-meter channels and current operating rules, including the 100 W PEP effective radiated power (ERP) limit. The federal government is the primary user of the 5 MHz spectrum. The proposed action would implement a portion of the Final Acts of World Radiocommunication Conference 2015

(WRC-15) that provided for a secondary international allocation of 5,351.5 to 5,366.5 kHz to the Amateur Service; that band includes 5,358.5 kHz, one of the existing 5 MHz channels in the US.

“Such implementation will allow radio amateurs engaged in emergency and disaster relief communications, and especially those between the United States and the Caribbean basin, to more reliably, more flexibly, and more capably conduct those communications [and preparedness exercises], before the next hurricane season in the summer of 2017,” ARRL said in a January 12 Petition for Rule Making. The FCC has not yet acted to implement other portions of the WRC-15 Final Acts.

The League said that 14 years of Amateur Radio experience using the five discrete 5 MHz channels have shown that hams can get along well with primary users at 5 MHz, while complying with the regulations established for their use. In recent years, Amateur Radio has cooperated with federal users such as FEMA in conducting communication interoperability exercises.

“While the Amateur Radio community is grateful to the Commission and to NTIA for the accommodation over the past 14 years of some access to the 5-MHz band, the five channels are, simply stated, completely inadequate to accommodate the emergency preparedness needs of the Amateur Service in this HF frequency range,” ARRL said, adding that the five 2.8-kHz wide channels “have not provided sufficient capacity to enable competent emergency preparedness and disaster relief capability.”

Access even to the tiny 15-kHz wide band adopted at WRC-15 would “radically improve the current, very limited capacity of the Amateur Service in the United States to address emergencies and disaster relief,” ARRL said.

In its Petition, ARRL also called upon the FCC to retain the same service rules now governing the five channels for the new band. The WRC-15 Final Acts stipulated a power limit of 15 W effective isotropic radiated power (EIRP), which the League said “completely defeats the entire premise for the allocation in the first place.”

“For precisely the same reasons that the Commission consented to a power increase on the five channels as recently as 2011 [from 50 W PEP ERP to 100 W PEP ERP], the Commission should permit a power level of 100 W PEP ERP, assuming use of a 0 dBd gain antenna, in the contiguous 60-meter band,” ARRL said.

ARRL pointed out that the ITU Radio Regulations permit assignments that are at variance with the International Table of Allocations, provided a non-interference condition is attached.

The FCC will not invite comments on the League's Petition until it puts it on public notice and assigns a Rule Making (RM) number.

From *The ARRL Letter*, Jan. 26, 2016

Amateur Radio Parity Act Speeds to US House Passage, Heads to US Senate

Just 10 days after being introduced in the 115th Congress, the 2017 Amateur Radio Parity Act legislation, H.R. 555, passed the US House of Representatives on unanimous consent under a suspension of House rules. The bill's language is identical to that of the 2015 measure, H.R. 1301, which won House approval late last summer after attracting 126 cosponsors, but failed to clear the US Senate last fall as the 114th Congress wound down. The new bill, again sponsored by Rep. Adam Kinzinger (R-IL), was

launched on January 13 with initial cosponsorship by Rep. Joe Courtney (D-CT) and Rep. Greg Walden, W7EQI (R-OR), who chairs the influential House Committee on Energy and Commerce.

“The grassroots effort of Amateur Radio operators across this nation in support of the Amateur Radio Parity Act has been remarkable, nothing like we have ever seen before,” ARRL President Rick Roderick, K5UR, said. “To all hams, keep going! Now is the time to charge forward with that same momentum to the Senate. We can do it!” The bill arrives in the US Senate with ample time in which to garner its approval through an education campaign.

“We're very encouraged by the speed with which this bill made it through the House. It's amazing that this happened,” said ARRL Hudson Division Director Mike Lisenco, N2YBB, who has been at the forefront of the legislative initiative. “With the help of ARRL members, we believe we can get this done,” Lisenco continued. “We came within a hair's breadth last time, with [thousands of] e-mails to members of both houses of Congress, as well as letters and telephone calls. Member participation in this final push is critical.”

H.R. 555 calls on the FCC to establish rules prohibiting the application of deed restrictions that preclude Amateur Radio communications on their face or as applied. Deed restrictions would have to impose the minimum practicable restriction on Amateur Radio communications to accomplish the lawful purposes of homeowners associations seeking to enforce the restriction.

US Naval Academy HFsat Coordinated for 15-Meter to 10-Meter Transponder

The US Naval Academy has received IARU satellite frequency coordination for HFsat (<http://aprs.org/hfsat.html>), a 1.5 U CubeSat carrying a 15 to 10-meter inverting linear transponder with a 30 kHz bandwidth (uplink 21.4 MHz, downlink 29.42 MHz). The Mode K configuration is reminiscent of the old “RS” series of Russian satellites. The CubeSat will also carry an APRS digipeater on 145.825 MHz. The US Naval Academy's Bob Bruninga, WB4APR, said HFsat is designed to demonstrate the viability of HF satellites as a back-up communication system, taking advantage of HF radios found in a typical Amateur Radio installation or frequently used to support disaster and emergency response communication.

“HFsat will be gravity gradient-stabilized by its full-sized 10-meter half-wave HF dipole with tip masses,” Bruninga explained on the HFsat web page. “HFsat will continue the long tradition of small amateur satellites designed by aerospace students at the US Naval Academy.”

A standardized CubeSat VHF communication card based on the popular Byonics MTT4B all-in-one APRS Tiny-Track4 module for telemetry, command, and control is under development at the Academy. Students are working with Bill Ress, N6GHZ, on the HF transponder card. HFsat's control operator will be Todd Bruner, WB1HAI.

Bruninga sees a future for Amateur Radio satellites operating on the HF bands. “HFsat will operate under the ITU rules of the Amateur Satellite Service since not only does that service currently have allocations for satellite relay on HF, but it is also the only service with nearly a century of knowledgeable operators' experience with the HF bands under all conditions,” Bruninga wrote on the HFsat web page. “Should the system prove viable, and should other services desire to use the transponder technology, then the lengthy process to obtain federal HF [satellite

communication] allocations could be considered.”

Sweden's SAQ Alexanderson Alternator Station Reports “Successful” Christmas Transmission

The old Alexanderson alternator SAQ at World Heritage Grimeton Radio Station in Sweden was heard by more than 400 listeners on December 24, 2016, setting a new record. SAQ traditionally broadcasts at Christmas with the 1920s-era electro-mechanical transmitter that operates on 17.2 kHz. SAQ has released a report that summarizes the success and a map that shows the locations of those who heard SAQ. The vast majority of reports came from listeners -- many of them radio amateurs -- in Europe, but several hams in the US and Canada were among those able to hear the 17.2 kHz transmission. “Excellent reception,” reported LF enthusiast Joe Craig, VO1NA, in Newfoundland. “I look forward to visiting SAQ someday.” Dave Riley, AA1A, at historic Brant Rock in Massachusetts reported “very good” copy, with the SAQ signal at 10 dB above the noise. SAQ was even heard in Alaska, by Laurence Howell, KL7L, in Wasilla, who gave SAQ a 449 signal report.

Meeting Minutes

General Meeting, Jan. 13, 2017



{No minutes received this month}

Board Meeting, Jan. 20, 2017



{No minutes received this month}

Packet Pieces

Downloaded from the BBS packet network:

=====
Date: 24 Sep 2010 15:07
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: Joining the Army

As the family gathered for a big dinner together, the youngest son announced that he had just signed up at an army recruiter's office.

There were audible gasps around the table, then some laughter, as his older brothers shared their disbelief that he could handle this new situation.

“Oh, come on, quit joking,” snickered one. “You didn't really do that, did you?”

“You would never get through basic training, scoffed another.

The new recruit looked to his mother for help, but she was just gazing at him. When she finally spoke, she simply asked, "Do you really plan to make your own bed every morning?"

=====
Date: 27 Mar 2011 18:23
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: Caution

A pharmacy major was taking a course in Dispensing. One day they were discussing the various labels affixed to prescription containers, such as, "Take with food," and "Take with water."

At the end of class, the professor passed out a few sample labels.

Days later he noticed that one member of the class had struck one of them onto his chemistry textbook. It read: "Caution: May cause extreme drowsiness."

=====
Date: 27 Mar 2011 18:24
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: CD Player

I wanted to buy a CD player, but was completely perplexed by one model's promotional sign. So I called the salesclerk over and asked, "What does 'hybrid pulse D/A converter' mean?"

He said, "That means that this machine will read the digital information that is encoded on CDs and convert it into an audio signal."

"In other words," I said, "this CD player plays CDs."

"Exactly."

Need Help?

Amateurs have a long history of helping each other. An experienced amateur who helps another is traditionally called an "Elmer." If you have a question or problem, you are encouraged to ask one of SCCARA's Elmers. Below is a list of topics and who to contact for each. If your topic isn't listed, ask one of the Elmers under the topic that comes closest and we'll ask around.

If you consider yourself to be reasonably competent in at least one area of amateur radio and would be willing help others, please fill out an Elmer form from the club secretary.

Topics:

Antennas, feed-lines, tuners: NV6W, W6JPP, K6PBQ
Lightning protection, grounding: WB6YRU
Station set-up, equipment: K6PBQ, W6JPP
TVI/RFI: WB6YRU
Homebrew projects, construction: WB6YRU
Packet Network (BBS, forwarding): WB6YRU
Code operating and installations: NV6W, K6PBQ
DX (long distance/propagation): NV6W
Emergency operating/preparedness: WA6QYS

HF operating techniques (SSB, CW): NV6W, K6PBQ
Legal/FCC rules: WB6YRU
SCCARA (club inner workings): K6PBQ, WB6YRU, WA6QYS
EchoLink: KK6MX
License testing, new amateurs: W6JPP

Elmer Contacts:

NV6W, James D. Armstrong, Jr.,
evening & msg: 408-670-1680

KK6MX, Don Apte, 408-629-0725
e-mail: kk6mx@aol.com

W6JPP, John Parks, 408-309-8709
e-mail: w6jpp@arrl.net

K6PBQ, Don Village, 408-263-2789
e-mail: donvillage7@yahoo.com

WA6QYS, Lou Steirer, 408-241-7999
e-mail: wa6qys@arrl.net

WB6YRU, Gary Mitchell, 408-269-2924
packet: home BBS N0ARY
e-mail: wb6yru@ix.netcom.com

Newsletter Notes

In recent months I've been concentrating my archiving efforts on our old SCCARA-GRAMS. After a lot of time and effort, that part of the project is finally complete!



The last of our paper newsletters have been restored, improved, cleaned, polished, scanned, digitized, corrected, and sent to our club webmaster.

The direct link is http://www.qsl.net/sccara/newsletter_archives.htm. All of them should be on-line by the time you read this. Have a look!

It's possible a few additions or corrections may be done in the near future, but all the newsletters we have are now there. If you notice any mistakes or have any suggestions, please let me know. Thanks Mike!

The whole collection can be had all at once without downloading them one by one. I can put it on your flash drive, or we can make other media storage arrangements... no charge.

The paper archives contain our newsletters back through December 1984, plus just a tiny smattering between 1962 and 1984. There were a few gaps between 1985 and 1991, but Mike Hastings KB6LCJ had some old ones that filled in most of those gaps. Thanks Mike!

There's a lot of good club history in our old newsletters! It would be nice to fill in more, prior to 1985, but the chances of that are slim. If any of you old timers have any of those, please let us scan them.

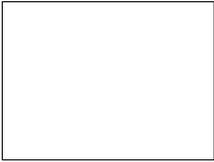


Now, back to the rest of the club archives...

73, Gary WB6YRU, editor and archivist



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FIRST CLASS

ADDRESS SERVICE REQUESTED

SCCARA Membership Form for 2017

If renewing and none of your info has changed, we only need your name and call

Name: _____ Call: _____ Class: _____

Address: _____ Licensed since (yyyy): _____

City: _____ State: _____ Zip: _____ Licence Expiration
 Date: (mm/dd/yyyy): _____

Telephone: _____ New Member Renewal I'm also an ARRL member

E-mail: _____
only for club communications and the SCCARA-GRAM newsletter (pdf)

Membership type and dues: Individual, \$20 Family, \$25 Student, \$10 (under 18)

Memberships start January 1 and expire December 31.
 Family memberships (more than one member per household): please include the above info for each member, use separate forms.

New members:
 Dues are prorated: dues x (11 - month) x 10% (Example: July would be \$20 x (11-7) x 0.1, which is \$8)
 If joining in November or December: normal dues for next year, the rest of this year is included free.

I want the paper newsletter delivered by U.S. Mail for an additional \$30 per year
 (Prorated, \$2.50 per month. That's \$27.50 if starting in February, \$25 if starting in March, etc.)

\$ _____ **Total** enclosed

Give this completed form and payment to the Secretary or Treasurer at any meeting or mail to the club address.