

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
Amendment of the Commission’s Rules)	
Regarding Implementation of the Final Acts of the)	
World Radiocommunication Conference)	ET Docket No. 23-120
(Geneva, 2015) (WRC-15), Other Allocation)	
Issues, and Related Rule Updates)	

**Comments of ARRL, The National Association For
Amateur Radio**

ARRL, The National Association for Amateur Radio, also known as the American Radio Relay League, Incorporated (ARRL), submits these comments in response to the above-referenced Notice of Proposed Rule Making.¹ ARRL petitioned the Commission to implement domestically the portion of the *Final Acts* of the 2015 World Radiocommunication Conference (WRC-15)² that provides an international allocation of the band 5351.5 – 5366.5 kHz to the Amateur Radio Service on a secondary basis.³ In its Petition, ARRL asked that the Commission implement the WRC-2015 band with modifications that would permit use of 100 watts ERP. ARRL also requested that the Commission continue to permit use of the four discrete channels

¹ Amendment of the Commission’s Rules Regarding Implementation of the Final Acts of the World Radiocommunication Conference (Geneva, 2015) (WRC-15), Other Allocation Issues, and Related Rule Updates, 88 Fed.Reg. 67160 (publ. Sept. 29, 2023), comment dates corrected, 88 Fed.Reg. 73810 (publ. Oct. 27, 2023) (“Further Notice”).

² WRC-15 Final Acts (Geneva, 2015).

³ ARRL, Petition for Rulemaking, RM-11785 (filed Jan. 12, 2017).

currently allocated domestically to the Radio Amateur Service in neighboring spectrum with transmit power of 100 watts ERP.⁴

Amateur secondary use of 5 MHz spectrum, collectively referred to as the “60-meter band,” is particularly valuable for amateur purposes because it is located approximately halfway between the 7 and 3.5 MHz amateur bands and bridges those bands when propagation conditions prevent their use for local and medium distance communications. It also is unique in that it is the only band on which FCC radio amateur licensees and federal government users authorized by the National Telecommunications and Information Administration (NTIA) are permitted to directly communicate. Joint exercises are routinely conducted in this band.

It is noted that as of this date over 3,450 comments have been filed in this proceeding. Most comments have been submitted by interested radio amateurs overwhelming supportive of ARRL’s request as described above. Many describe their personal experiences using the 60-meter band and note its unique characteristics and purposes within the amateur spectrum ecosystem.

Below, ARRL expands upon why implementing the WRC-2015 allocation with the suggested modifications of permitting 100 watts ERP power and continuing access to the current additional four channels with the same power limit would serve the public interest.

Implement the WRC-2015 Band and Maintain Amateur Access to Current Channels With a 100-watt ERP Limit

At WRC-2015, a new world-wide international secondary allocation of 15 kHz at 60 meters was adopted. ARRL supports implementation of this new band not in place of, but rather

⁴ Article 4.4 of the ITU Radio Regulations provides for Administrations to conditionally adopt provisions that differ from those adopted internationally. In this case several other countries, including Canada, have adopted a domestic allocation similar to that which the ARRL proposes, *see infra* note 11.

in addition to, the currently allocated four discrete 2.8 kHz channels that are located in the 60-meter band close to the WRC-2015 allocation.

As noted extensively in earlier proceedings, the 60-meter spectrum lies midway between the Amateur 80 meter and 40 meter bands. For scientific propagation reasons, using this “middle band” spectrum significantly increases the chance for continuity of communication when daily propagation changes result in communications becoming difficult over medium-to-short distances on the two neighboring amateur bands. By bridging the propagation gap, the 60-meter spectrum provides for continuity of communications that measurably improves the capability of licensed radio amateurs to communicate when needed, including when called upon during natural disasters and other emergency situations.

Originally, the Commission authorized radio amateurs secondary access to five discrete channels within the 5 MHz spectrum range, each of which was 2.8 kHz in bandwidth. The permitted power was 50 watts ERP. It became apparent after a decade of use that the radio amateurs were successful in avoiding interference to the primary (mainly government) users, but that 50 watts ERP often proved insufficient to successfully conduct the intended communications.

Subsequently, in 2011, the Commission amended its rules to increase the permitted transmit power from 50 watts ERP to 100 watts ERP.⁵ The increase measurably improved the communications capabilities at these frequencies. The new power limit of 100 watts ERP corresponded to the most common output power of many amateur radio transceivers and comported with the use of common quarter-wave vertical and half-wave dipole antennas.

⁵ See Amendment of Parts 2 and 97 of the Commission’s Rules to Facilitate Use by the Amateur Radio Service of the Allocation at 5 MHz, ET Docket 10-98, Report and Order, 26 FCC Rcd 16551 (2011).

Radio Amateurs Protect Against Causing Interference to Primary Users

The increase in the amateurs' permitted power did not result in complaints of interference from primary users. As before, radio amateurs continued to use listen-before-talk and dynamic frequency selection techniques to avoid causing interference to the band's primary users. In addition, ARRL emphasized to the amateur community use of this band for public service communications and the requirement to cease transmitting on a frequency when a non-amateur signal is detected. Consistent with this use and the amateurs' secondary status, ARRL also adopted a policy of not offering awards for communications in this band and not sponsoring use of the band for competitions.

Notably, from 2011 with just the 3 dB increase in power, radio amateurs reported greater success in overcoming static and other propagation anomalies to complete their communications. While not as reliable as would be the case with greater power, many operators reported improved capabilities and greater success.

To demonstrate the need for current power levels, one commenter provided the link below. It is a recorded example of the marginal but successful signal levels often experienced on this band with the current 100 watt ERP power level. With less power, the communication recorded in the link below likely would not have been successful. The recording is of an over-the-air emergency preparedness exercise announcement on 60 meters. The station transmitting is a U.S. Military Affiliated Radio Station (MARS) explaining exercise details to the participating radio amateurs on the frequency. Link: <https://vocaroo.com/1mfewMTsH9zh>.⁶

As stated in ARRL's petition,⁷ because of the distances to be traversed domestically and to the hurricane-prone islands in the Caribbean, good cause exists to continue to authorize use of

⁶ See Comments of John Rech, submitted in this proceeding on Nov. 24, 2023.

⁷ *Supra* note 3.

100 watts effective radiation power (ERP) in the 60 meter band.⁸ Only a decade ago the Commission increased the permissible power from 50 to 100 watts ERP in order to improve the reliability of amateur communications on this band. This level of transmitter power proved to be especially needed to overcome natural static at these frequencies, as demonstrated by the recording at the above link.

5 MHz Band Uniquely Used for Amateur – Government Communication and Training Exercises

The 60-meter band is unique in that it is the only spectrum in which FCC-licensed radio amateurs and federal Government-authorized operators are permitted to communicate directly with one another on the same frequencies. The SHARES Program managed by the Department of Homeland Security works with radio amateurs in the 60 meter band for public service and readiness purposes.⁹ Similarly, the Military Affiliated Radio System (MARS) program also routinely conducts joint preparedness exercises with radio amateurs using 60 meters.¹⁰ This is the only band in which such direct communication and coordination is permitted.

⁸ In footnote 96 of the Further Notice, the Commission distinguishes “PEP” and “ERP.” We agree with the Commission that these terms as defined in Part 97 are inconsistent with each other and that “ERP” is the correct and intended term that should be used in defining the power limits for 60 meter frequencies.

⁹ Source: <https://www.cisa.gov/resources-tools/programs/shared-resources-shares-high-frequency-hf-radio-program/shares-faqs> (viewed Nov. 21, 2023). All SHARES stations are Federal government radio stations and are authorized to use the 5 channels at 5 MHz for emergency communications including tests and exercises, including interoperability with Amateur stations on those channels when authorized, as directed by the SHARES program office in accordance with the NTIA authorization issued to the Department of Homeland Security. Federal government stations may communicate with Amateur stations for emergency communications when:

- The Amateur station is operating in the Radio Amateur Civil Emergency Service (RACES) at the direction of a government emergency management official
- With any Amateur station engaged in emergency communications on the five channels at 5 MHz;
- When necessary for the immediate protection of life and property, when normal communications means are not available.

¹⁰ See the MARS/radio amateur coordination training video prepared in preparation for a MARS/radio amateur training exercise in 2022, starting at minute 25: https://youtu.be/OX88D0Xtq_w?si=0pzbMOlhlugRV8lG. Link submitted in comments filed by John Rech, *supra* note 6.

Canada Has Allocated Both the Four Channels and the 15 kHz Allocation and Authorized 100 Watts ERP

In recognition of these propagation and communications needs, the Government of Canada implemented the WRC-2015 allocation but with the additional four channels and an increased 100-watt limit, as we request herein.¹¹ The Commission should do the same.

Conclusion

For the reasons set out above, ARRL urges the Commission to (1) allocate domestically the WRC-2015 allocation of 5351.5 – 5366.5 kHz to the Radio Amateur Service and authorize use of up to 100 watts ERP by all General Class and higher licensees; and (2) continue to authorize use of the four additional 2.8 kHz channels as currently authorized at 100 watts ERP.

ARRL
225 Main Street
Newington, CT 06111

Respectfully submitted by:



DS LAW PLLC
1629 K St NW, Suite 300
Washington, DC 20006

David R. Siddall
ARRL Washington Counsel
david@davidsiddall-law.com

November 28, 2023

¹¹ See Government of Canada, Innovation, Science and Economic Development Canada (ISED), Decision on Proposed Revisions to the Canadian Table of Frequency Allocations, SMSE-07-18 (April, 2018), available here: [https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/SMSE-07-18-CTFA-2018-decision.pdf/\\$file/SMSE-07-18-CTFA-2018-decision.pdf](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/SMSE-07-18-CTFA-2018-decision.pdf/$file/SMSE-07-18-CTFA-2018-decision.pdf).