

World Radiocommunication Conferences (WRC-27) and the Importance of the Defence of Amateur Radio Fund

Paul Coverdale, VE3ICV
Special Advisor for
World Radio Conferences

World Radiocommunication Conferences are organized and held by the International Telecommunication Union (ITU) every four years to update the *Radio Regulations*, the international treaty that, sets out the frequencies on which radio services such as the Amateur Radio Service may operate.

With the completion of the World Radiocommunication Conference 2023 (WRC-23) in December 2023, attention turned in 2024 to a new study cycle leading up to the next conference in 2027.

The detailed preparatory work for WRC-27 takes place in individual Working Parties of the ITU Radiocommunication Bureau. In particular, Working Party 5A (WP 5A) – “Land mobile service excluding International Mobile Telecommunications (IMT); amateur and amateur-satellite service” – provides a “seat at the table” for the worldwide Amateur community to influence the outcome of the Conference.

Dale Hughes, VK1DSH, is the Chair of WP 5A. Radio Amateurs of Canada participates in ITU-R and WRC meetings under the auspices of Innovation, Science and Economic Development Canada (ISED).

For WRC-27 there are no major threats to Amateur Radio, but there are a number of Agenda Items (AI) which could result in potential threats (or opportunities), which need to be followed by RAC, including:

1) Consideration of possible additional spectrum allocations to the radiolocation service on a primary basis in the frequency range 231.5 – 275 GHz and possible new identifications for radiolocation service applications in the frequency bands within the frequency range 275 – 700 GHz for millimetric and sub-millimetric wave imaging systems.

The frequency range 231.5 – 275 GHz overlaps an Amateur secondary allocation from 241 – 248 GHz, and a primary allocation from 248 – 250 GHz.



Ole Garpestad, LA2RR (Former IARU Vice-President), **Paul Coverdale, VE3ICV** (RAC WRC Special Advisor) and **Thomas Wrede, DF2OO** (IARU Vice-President).

4) Consider regulatory provisions for receive – only space weather sensors and their protection in the Radio Regulations, taking into account the results of ITU Radiocommunication Sector studies.

Initial frequencies proposed for the space weather sensors were very concerning since they overlap a number of Amateur bands. Even though the sensors are passive there is a danger that they could become active in the future and potentially cause interference.

Significant lobbying by Amateurs during WRC-23 was successful in redirecting the frequencies to be studied to outside of any Amateur (primary or secondary) allocations. However, some of the remaining frequencies are directly adjacent to the Amateur 10 metre band (a primary service).

WP 5A is not the responsible group for any Agenda Items during this study cycle, but is a contributing group on many, including those with implications for Amateur Radio. To influence the responsible groups, it is necessary to proceed via liaison statements (LS). Five LS replies have so far been generated concerning AI's having potential Amateur implications, as noted above. Of these, two were based on input contributions from RAC and IARU, the remaining three were initiated primarily by Canada during the meetings themselves.

Some time has also been spent on updating several ITU-R documents related to Amateur Radio:

- Revision of Amateur and Amateur-Satellite Handbook. The current version of this handbook is dated 2014. The update still needs some work, and will take one or more meetings to complete.
- Revision of Rec. M.1041-2 “Future amateur radio systems”. Revisions include material supplied in a contribution by Canada. The revision is now considered complete and has recently been published as Rec. M.1041-3.

2) Studies on possible new allocations to the mobile-satellite service for direct connectivity between space stations and International Mobile Telecommunications (IMT) user equipment to complement terrestrial IMT network coverage.

This application of IMT (direct connectivity between a satellite and a handset) could become very popular in the future as a means of filling gaps in current terrestrial IMT service. However, the new allocations for MSS being considered include frequency ranges between 694 MHz and 2.7 GHz, and overlap parts of secondary Amateur allocations in the 33 and 13 cm bands.

3) Studies on frequency-related matters, including possible new or modified Space Research Service (space-to-space) allocations, for future development of communications on the lunar surface and between lunar orbit and the lunar surface.

Of the frequencies currently under study for this Agenda Item, there is an adjacent primary Amateur allocation (Region 1) from 430 – 440 MHz, as well as overlap with secondary Amateur and Amateur-satellite allocations in some countries at 420 – 430 MHz, 440 – 450 MHz, 2400 – 2450 MHz, 5650 – 5725 MHz, and 5775 – 5925 MHz. The scope of this Agenda Item also opens the door for developing a future regulatory framework for other services, including Amateur, for operation on the lunar surface.

- Revision of Rec. M.1042-3 "Disaster communications in the amateur and amateur-satellite services". The current version is dated 2007. Brazil brought in a contribution providing new material, but more work needs to be done.

Finally, work has started on a new Working Document on Amateur experimental activities on millimetric wave systems. This is in support of the possibility of new Amateur allocations above 275 GHz at WRC-31.

In Defence of Amateur Radio: We Need Your Help!

**Serge Bertuzzo, VA3SB – RAC International Affairs Officer
Defence of Amateur Radio Fund (<https://www.rac.ca/darf/>)**

The Defence of Amateur Radio Fund (DARF) is an independent legal Trust, which is administered by Radio Amateurs of Canada to:

- 1) Ensure that there are sufficient funds on hand for the Amateur delegate's expenses to attend WRC meetings. WRC-23 was held in Dubai and the location of WRC-27 is yet to be determined.
- 2) Support travel to Preparatory Meetings in Geneva, Switzerland – if sufficient funds are available – when issues directly affecting Amateur Radio spectrum are being debated. Our delegates typically attend two of these meetings each year, each lasting 10 to 12 days. Even with discounted airfare and hotel rates, it is expensive to send a person to Geneva to work and live for two to four weeks each year.

Defence of Amateur Radio Fund (DARF) Trust Financial Summary for 2024	
Starting balance	\$9,828.32
Donations and income on investments	\$7,705.50
Disbursements	\$9,427.56
Ending balance	\$8,106.26
Net change	– \$1,722.06

The Financial Summary provided in the above table shows that although DARF is still viable, inflation and the trend that new donations are less than expenses continue to be worrisome in the longer term. The insatiable demand for mobile device connectivity means continued and increasing pressure on spectrum from large corporate and government interests as well as from other Radio Services such as the Satellite and Space Sciences Services. Only a strong and consistent Amateur presence at the ITU table to defend the bands we already have will protect the future of Amateur Radio. Without sufficient funds, our voices will not be heard.

Donations can be made online by clicking on the "Donate" link at the top of the RAC website or sent to RAC HQ. One easy way to donate is to include an extra \$10 or \$20 or more when you renew your RAC membership. Please make your cheque payable to "Radio Amateurs of Canada" and note in the memo field "DARF donation".

If you wish to donate by other payment methods or have a question on how to donate please email RAC HQ at rachq@rac.ca.

For more information about DARF and the World Radiocommunication Conferences visit: <https://www.rac.ca/darf/> and <https://www.rac.ca/wrc/>

Defence of Amateur Radio Fund (DARF) 2024 Annual Report

Donors to the DARF Trust

Amateur Radio Clubs:

Club Radio Amateur de Granby	\$300
Calgary Communications Club	\$200
QCWA Wild Rose Chapter 151	\$250
North Shore Amateur Radio Club (Ontario)	\$100
Quarter Century Wireless Association	\$3,000
Radio Amateurs of Manitoba	\$200
Ottawa Valley Mobile Radio Club	\$200
Peel Amateur Radio Club	\$100
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Individuals:

Raymond Tanguay, VE2RZQ	\$25
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Thank You For Your Support!