



International Amateur Radio Union

Summary Meeting Report

ITU-R WP4C #30: 21 – 27 June 2023 (Hybrid Meeting)

Relating to preparatory work on WRC23 AI 9.1b only

The IARU was represented by Barry Lewis (G4SJH – WRC23 AI9.1b Lead).

The IARU provided one written contribution to this meeting presenting a Monte Carlo style study to assess the percentage of RNSS receivers that might suffer interference around a transmitting amateur station. [This can be found here.](#)

Background

As detailed in the report from WRC23 CPM-1, ITU-R WP4C is a “contributing group” responsible for developing the studies identified under *invites 2* of Resolution 774 on **WRC23 AI 9.1 topic b (RNSS and Amateur services in 1240 – 1300 MHz)**. ITU-R Report M.2513-0 detailing the study work was completed by WP4C and published around September 2022. This is referenced in the ITU-R CPM Report to the WRC.

ITU-R WP5A is developing an ITU-R Recommendation M.[AS_GUIDANCE] that is intended to provide guidance to administrations on the technical and operational measures needed to protect the RNSS from amateur transmissions in the 23cm band. WP5A and WP4C are liaising closely on this.

The last report from ITU-R WP5A can be found [here](#).

As usual, the contributions relating to this work were referred to WP4C Sub Group 4C3 and dealt with directly in the 4C3 group chaired by Mr Mitome from Japan. Sub group 4C3 met for nine sessions over the period of the meeting.

Contributions to the meeting relevant to AI 9.1b

Doc 4C/408 – Liaison document from WP5A including two attachments.

Doc 4C/415 – Japan – Proposed LS to WP5A on the ITU-R M.[AMATEUR_CHARACTERISTICS].

Doc 4C/423 – Russian Federation - Proposed LS to WP5A on the ITU-R M.[AS_GUIDANCE] and ITU-R M.[AMATEUR_CHARACTERISTICS].

Doc 4C/427 – IARU – Proposed revision to ITU-R M.2513-0.

Doc 4C/438 – France – Proposed LS to WP5A on the ITU-R M.[AS_GUIDANCE] and ITU-R M.[AMATEUR_CHARACTERISTICS].

Doc 4C/439 – France –.Proposals for ITU-R M.[AS_GUIDANCE].

Doc 4C/440 – France –.Proposals for ITU-R M.[AMATEUR_CHARACTERISTICS]

Doc 4C/441 – France –.Comments on the IARU Monte Carlo study.

IARU objectives

The IARU objectives for the meeting on the 9.1b topic were:

- 1) To have the IARU Monte Carlo style contribution developed into a draft new revision to ITU-R Report M.2513-0.
- 2) To monitor and participate in the WP4C discussions on the WP5A deliverables ITU-R M.[AS_GUIDANCE] and ITU-R M.[AMATEUR_CHARACTERISTICS] attached to the incoming liaison statement from WP5A (4C/408).

Meeting Activity

Attachment P2 to 4C/408 and Contributions 4C/415, 423,427,438, 440 and 441 on a revision to M.2513-0:

The drafting group considered the liaison from WP5A requesting that WP4C reviews the study included in the draft report ITU-R M.[AMATEUR_CHARACTERISTICS]. Japan made some proposals on how this WP5A study could be incorporated into a revision of M.2513. In addition the contribution from IARU (Doc 4C/427) provided an updated version of that study taking into account comments received during the WP5A discussion.

WP4C considered all six documents and agreed to adopt the study as an example of a methodology into a Preliminary Draft New Revision to M.2513-0 with a new Annex 9. WP5A will be requested to remove the study from the ITU-R M.[AMATEUR_CHARACTERISTICS] work item. The expectation is that this Preliminary Draft New Revision will go for approval during the first SG4 in the next study cycle.

Importantly, it can be referenced during the WRC through this web page on the ITU-R WRC-23 pages: <https://www.itu.int/en/ITU-R/study-groups/rcpm/Pages/wrc-23-studies.aspx>

Attachment P1 to 4C/408 and contributions 423, 438 and 439 proposals for liaison to WP5A addressing ITU-R M.[AS_GUIDANCE]:

Liaison response to WP5A is the means for WP4C to provide comments or proposals for the work in WP5A. The following elements were proposed in the contributions:

4C/423 (Russian Federation): Several proposals for the draft Recommendation included a revised "Block B2" for narrow band and broadband applications in the range 1258 – 1260 MHz with a power density elevation EIRP profile from zero to ninety degrees as follows:

-19.5	dBW in (150 kHz))	for	$0^\circ \leq \theta < 5^\circ$
$-19.5 + 1,025 (\theta - 5)$	dBW in (150 kHz))	for	$5^\circ \leq \theta < 25^\circ$
-40	dBW in (150 kHz))	for	$25^\circ \leq \theta < 90^\circ$,

Note: The proposed power level of -19.5 dBW amounts to 11.2mW EIRP.

This contribution also included elements to protect airports but it did not propose any changes in the range 1296 – 1300MHz to that currently proposed in WP5A.

Russian Federation also offered a view that transmitter power alone is not sufficient to describe the emissions from amateur stations for interference assessment and that EIRP and spectral density should be used. IARU and some administrations do not agree with this.

4C/438 (France): Comments on the draft Recommendation in conjunction with contribution 4C/439.

4C/439 (France): Proposals for the draft Recommendation for sending to WP5A. These included deletion of the word “guidance” from the title and main body. This was not agreed by the meeting. In the technical Annex 1 all power levels are converted to dBW but the Block B (1254 – 1258 MHz) power is reduced to 50W and 5mW is proposed for the very low “out of block” parts of the band. A new technical Annex 2 was proposed for all the “airport protection” material. Although some aspects of this proposal seemed satisfactory no detailed information was sent to WP5A as WP4C could not fully agree on the content.

In general the proposals from the Russian Federation caused a great deal of debate that was taken into an informal off line discussion over the weekend period. Strong views from the Russian Federation about perceived regulatory implications of the draft Recommendation lead to a situation whereby WP4C could not agree on the elements to propose to WP5A. As a result no elements could be proposed for the liaison response to WP5A on the draft ITU-R M.[AS GUIDANCE].

The WP4C chairman’s report is in **4C/445**.

Annex 3 is the preliminary draft revision of M.2513-0.

IARU Observations

Some parties in the WP4C community have a view that none of the technical measures (frequency offset and power limitations) in the WP5A draft recommendation will fully protect the RNSS receivers based on the study results in M.2513 and therefore be able to satisfy Resolution 774. In particular very stringent power levels are proposed that would not allow any viable amateur service application in the band. Some participants believe the Recommendation could lead to some ambiguity in any future discussions about interference into RNSS receivers and set a precedent for the status and obligations of a secondary service.

For these reasons an offline informal meeting took place between some administrations to explore a way ahead. This is not reported on in the WP4C minutes but contributions to the next WP5A meeting can be expected.

Some proposals discussed in the offline meeting could be dangerous for the interests of the amateur community and will need careful consideration.

Next WP-4C meeting

Mid-April 2024, the exact date to be decided.