Radiocommunication Study Groups

Received: 20 April 2021

Subject: WRC-23 agenda item 9.1, topic b)
Resolution **774 (WRC-19)**

Document 5A/276-E
20 April 2021
English only

International Amateur Radio Union

INFORMATION FOR STUDIES ON WRC-23 AGENDA ITEM 9.1 TOPIC B)

Introduction

RC-19 approved new WRC-23 agenda item (AI) 9.1, topic b), "review of the amateur service and the amateur-satellite service allocations in the frequency band 1 240-1 300 MHz to determine if additional measures are required to ensure protection of the radionavigation-satellite (space-to-Earth) service operating in the same band in accordance with Resolution **774 (WRC-19)**".

The International Amateur Radio Union (IARU) is the worldwide federation of national amateur radio organizations with member-societies in more than 140 Member States of the ITU. The IARU plays an active role in the work of the ITU Radiocommunication and Development Sectors on behalf of more than three million licensees in the amateur and amateur-satellite services.

Background

At the 24th Working Party (WP) 5A meeting, progress was made on elements of a working document towards a PDN Report ITU-R M.[AMATEUR.CHARACTERISTICS][1]. The information in that working document was transmitted to WP 4C[2] for their consideration and use in their studies underway in relation to WRC-23 AI 9.1 topic b).

The recent WP 4C meeting made progress on the PDN Report ITU-R M.[AMATEUR-RNSS] and a copy of the working document has been provided to WP 5A in Attachment 1 in a liaison statement from WP 4C[3].

The WP 4C working document towards a PDN Report ITU-R M.[AMATEUR-RNSS] includes a section on the amateur and amateur-satellite services band plans (see Section 7.9) but contains only the detailed IARU Region 1 band plan. This document provides a global perspective.

[1] Document 5A/221 Annex 10

[2] Document 4C/119

[3] Document 5A/247

Amateur service and amateur-satellite service IARU band plans in the 1 240-1 300 MHz frequency band

The IARU coordinates and represents the interests of radio amateurs through its national member-associations. Three IARU regional organizations correspond to the ITU Radio Regions and are recognized as representing the amateur and amateur-satellite services by the regional telecommunications organizations.

Amateur and amateur-satellite services band planning is achieved on a regional basis in order to take into account the regional differences with the frequency allocations. The current IARU recommended band plans for the frequency range 1 240-1 300 MHz across the three regions are summarized in **Attachment 1**.

The usage of the frequency range by the amateur and amateur-satellite services is driven by the varied operational and experimental interests of the users themselves. To support this, each regional band plan is developed to maintain order, avoid conflict and interference between amateur service applications, provide understanding of the most suitable frequencies for specific activities and form a basis for intra and inter-service coordination when required.

The band plans are not mandatory in regional regulations but are strongly recommended for adoption and in general are followed by the individual national societies. In some cases, the regional IARU band plan may be adopted to some extent in national regulations and it may need to be adjusted on a national basis to facilitate national coordination and sharing with other services in the band.

Respecting the band plan is common practice in the amateur service and is necessary to facilitate successful radio contacts especially between countries and for inter-regional communications.

The band plan is reviewed periodically and may be adjusted to reflect new technologies and evolving applications in the amateur services. External influences driven by the requirements to share with other services can also be taken into account. The regional band plans are maintained, published and approved by the IARU regional bodies.

The published band plans for each of the three regions may differ and may not be fully harmonised at the detailed level for every amateur service application. However, it is necessary to harmonise parts of the band for specific applications where these could involve inter-regional communications. This applies particularly to parts of the band recommended for narrowband weak signal applications.

The band plans are continually reviewed nationally and regionally and evolve as new amateur experimentation and operational modes or applications emerge.

Proposal

The IARU proposes that the information provided in **Attachment 1** be considered for adoption into the working document towards a PDN Report ITU-R M.[AMATEUR.CHARACTERISTICS] and that it would be desirable to highlight the information with WP 4C to assist their studies in relation to WRC-23 AI 9.1 topic b).

Noting that the WP 4C working document attached to Document 5A/247 has highlighted the frequency ranges for the various RNSS systems operating in the range 1 240-1 300 MHz, IARU proposes to provide additional information that shows their relationship in the frequency range to the band plans and applications for the amateur and amateur-satellite services. This is provided in **Attachment 2**.

ATTACHMENT 1

Amateur service and amateur-satellite service IARU band plans

The three recommended band plans across each of the IARU regions can be summarized according to the table below:

Global Summary of amateur service and amateur-satellite-service IARU band plans

Frequency range (MHz)	Applications	Comments
1 240-1 260	Low bandwidth telegraphy, voice and data modes up to around 20 kHz. Amateur TV (ATV using Analogue or Digital technologies).	Organised into channelized groups for voice and data applications in some regions. One 16.75 MHz block is identified for ATV in this range in Region 1. Two 6 MHz blocks are identified for ATV in Region 2.
1 260-1 270	Satellite uplink band.	In Region 2 simplex ATV is also identified for experimental use in this range.
1 270-1 296	Low bandwidth telegraphy, voice and data modes up to around 20 kHz. Amateur TV (ATV using Analogue or Digital technologies).	Organised into channelized groups for voice and data applications in some regions. One 18.994 MHz block is identified for ATV in this range in Region 1. Two 6 MHz blocks are identified for ATV in Region 2.
1 296-1 297	Low bandwidth telegraphy, voice and data modes up to 3 kHz.	Focused on narrowband weak signal applications in all three regions including beacons. No channelization.
1 297-1 300	Low bandwidth voice and data modes up to around 20 kHz. Medium bandwidth data up to 150 kHz bandwidth.	Organized into channelized groups for voice and data applications in some regions.

Note 1: The blocks identified for ATV use can accommodate a number of systems depending on the bandwidth occupied by the technology in use. The actual assignments are planned on a national basis.

ATTACHMENT 2

Relationship between RNSS system frequencies in 1 240-1 300 MHz and the IARU band plans

The figure below highlights the relationship between the various RNSS systems usage across the range 1 240-1 300 MHz and the IARU band plans: