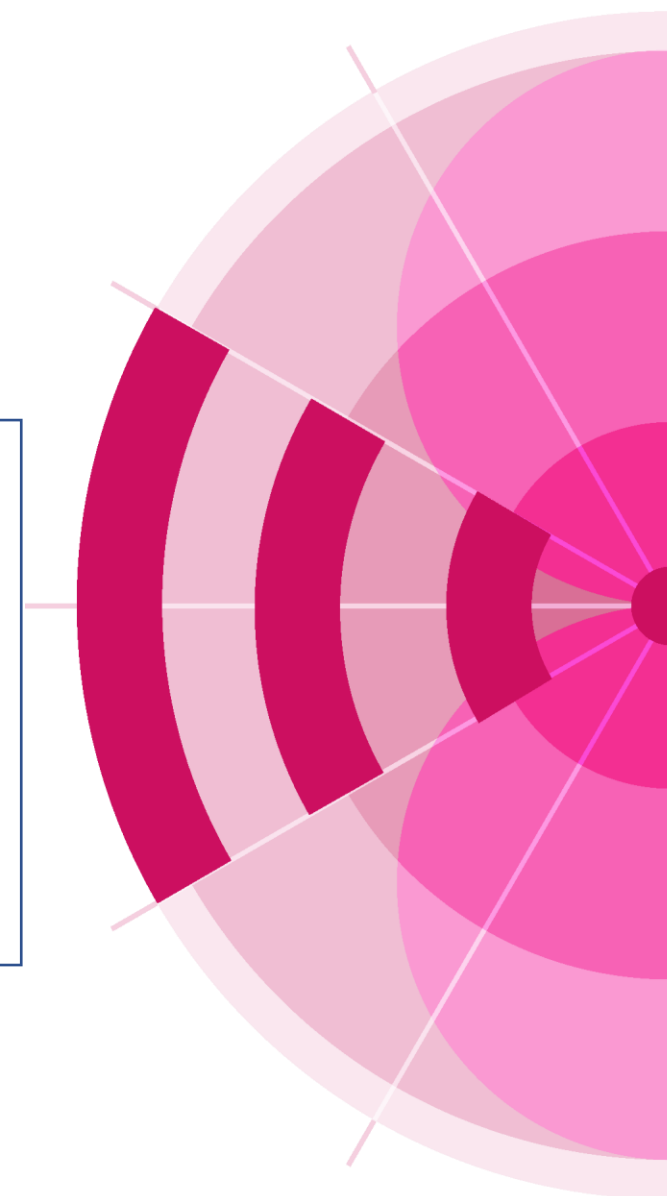


ITUWRS
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29TH WORLD RADIOCOMMUNICATION SEMINAR
30 November - 11 December 2020

A Software Tool for the Analysis of **Article 5** **Table of Frequency Allocations**

How to extract and modify a National Table of Allocations



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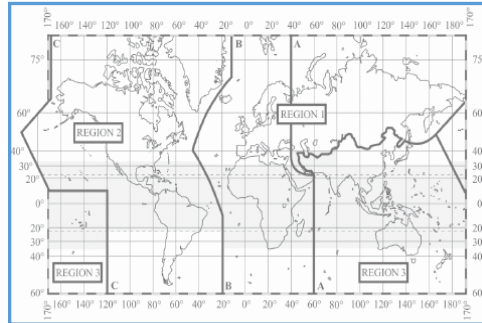
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The Article 5 Table of Frequency Allocations (RR5 TFA)



The 2020 ITU Radio Regulations will come into force for all signatory parties on 1 January 2021. Article 5 (Frequency Allocations) and its acclaimed Table of Allocations (“RR5 TFA”) is the heart of the Radio Regulations -- it establishes the technical requirements for the use of the radio spectrum by all radio services globally. Understanding how the radio spectrum is regulated and develop compliant radio systems, requires first understanding the RR5 TFA.



Allocation to services		
Region 1	Region 2	Region 3
255-381F BROADCASTING AERONAUTICAL RADIONAVIGATION 5.70	200-275F AERONAUTICAL RADIONAVIGATION Aeronautical mobile	200-285F AERONAUTICAL RADIONAVIGATION Aeronautical mobile
283.5-315F AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacon) 5.73 5.74	275-285F AERONAUTICAL RADIONAVIGATION Aeronautical mobile Maritime radionavigation (radiobeacon)	285-315F AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacon) 5.73
315-325F AERONAUTICAL RADIONAVIGATION Maritime radionavigation (radiobeacon) 5.73 5.75	315-325F MARITIME RADIONAVIGATION (radiobeacon) 5.73 Aeronautical radionavigation	315-325F AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacon) 5.73
325-405F AERONAUTICAL RADIONAVIGATION	325-335F AERONAUTICAL RADIONAVIGATION Aeronautical mobile Maritime radionavigation (radiobeacon)	325-405F AERONAUTICAL RADIONAVIGATION Aeronautical mobile
	335-405F AERONAUTICAL RADIONAVIGATION Aeronautical mobile	
405-415F RADIONAVIGATION 5.76	405-415F RADIONAVIGATION 5.76 Aeronautical mobile	

- 5.112** *Alternative allocation:* in Sri Lanka, the frequency band 2 194-2 300 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-19)
- 5.113** For the conditions for the use of the bands 2 300-2 495 kHz (2 498 kHz in Region 1), 3 200-3 400 kHz, 4 750-4 995 kHz and 5 005-5 060 kHz by the broadcasting service, see Nos. 5.16 to 5.20, 5.21 and 23.3 to 23.10.
- 5.114** *Alternative allocation:* in Iraq, the frequency band 2 502-2 625 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-19)
- 5.115** The carrier (reference) frequencies 3 023 kHz and 5 680 kHz may also be used, in accordance with Article 31, by stations of the maritime mobile service engaged in coordinated search and rescue operations. (WRC-07)
- 5.116** Administrations are urged to authorize the use of the band 3 155-3 195 kHz to provide a common worldwide channel for low power wireless hearing aids. Additional channels for these devices may be assigned by administrations in the bands between 3 155 kHz and 3 400 kHz to suit local needs.
- It should be noted that frequencies in the range 3 000 kHz to 4 000 kHz are suitable for hearing aid devices which are designed to operate over short distances within the induction field.
- 5.117** *Alternative allocation:* in Côte d'Ivoire, Egypt, Liberia, Sri Lanka and Togo, the frequency band 3 155-3 200 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-19)

The RR5 TFA has evolved over time to reflect the outcome of the work of the various WRCs on the harmonized, equitable and rational global use of the limited natural resources of the frequency spectrum and satellite orbits and associated Radicommunication services. Taking into account the flexibility provided through “country footnotes”, it provides the technical and economical long-term views for introducing and accommodating new technologies and services, while maintaining and protecting existing ones. It is therefore important to follow the evolution of the Table and adapt the national use of these resources accordingly.

What is the RR5 TFA Software? Why is it important?



Given the complexity and the volume of data contained in the Article 5 of the Radio Regulations, the software offers a consolidated view and an easy way to perform various search and queries, as well as some calculations and modelling algorithms. It is a stand-alone application that provides a mechanism to electronically use, query and analyse the RR5 TFA and its associated footnotes, as they appear in the Article 5 of Radio Regulations, as well as some other related texts (Resolutions, ITU-R Recommendations, Rules of Procedure ...).



This software application runs on individual user's PC and requires neither network nor Internet connection. This software, which is limited to the scope and boundaries of the Article 5 of the Radio Regulations, is the perfect complement to the Radio Regulations (2020 Edition) that incorporates the decisions of the 2019 World Radiocommunication Conference.



As far as the data model and content are concerned, the RR5 TFA Software will be regularly updated and enhanced after the release of the new edition of the Radio Regulations following each WRC, reflecting the most recently adopted decisions. Further functionalities are planned to be incorporated, mainly introducing direct interfaces with other electronic regulatory publications (such as the RR Navigation Tool). It is also planned to link the software to the Terrestrial and Space BR International Frequency Information Circulars (BR IFICs), which would allow cross-checking with the content of the Master International Frequency Register (MIFR).

Main Features and Characteristics

Built around a relational database model, the software is equipped with various tools and utilities that allow, among others, for exporting data to various formats, as well as for the tracing and comparison of the evolution of the Article 5 Table and its associated footnotes (from the 2001 edition onward). Ultimately, the software provides for the extraction and modification of the National Table of Frequency Allocations for a given geographic area (country), based on the corresponding “International Plan” which results after combining the information contained in the Article 5 of the Radio Regulations.

The screenshot displays the ITU WRS software interface with several key components highlighted by blue circles:

- Left Panel:** XML configuration code for frequency bands, including elements like `<FATBox>`, `<FATBoxService>`, and `<FATBoxReferences>`.
- Center Panel:** A detailed view of **RESOLUTION 143 (REV-WRC-19)** regarding HFSS applications, including the text of the resolution and a list of cross-references.
- Right Panel:** A table of frequency allocations with columns for Frequency Band, Services, and References. It lists various bands such as 6.3-9 MHz, 11.3-14 MHz, and 117.0-126 kHz.
- Far Right Panel:** A table of footnotes with columns for Number, Source, Description, and Scope, listing various WRC resolutions and their applicability.

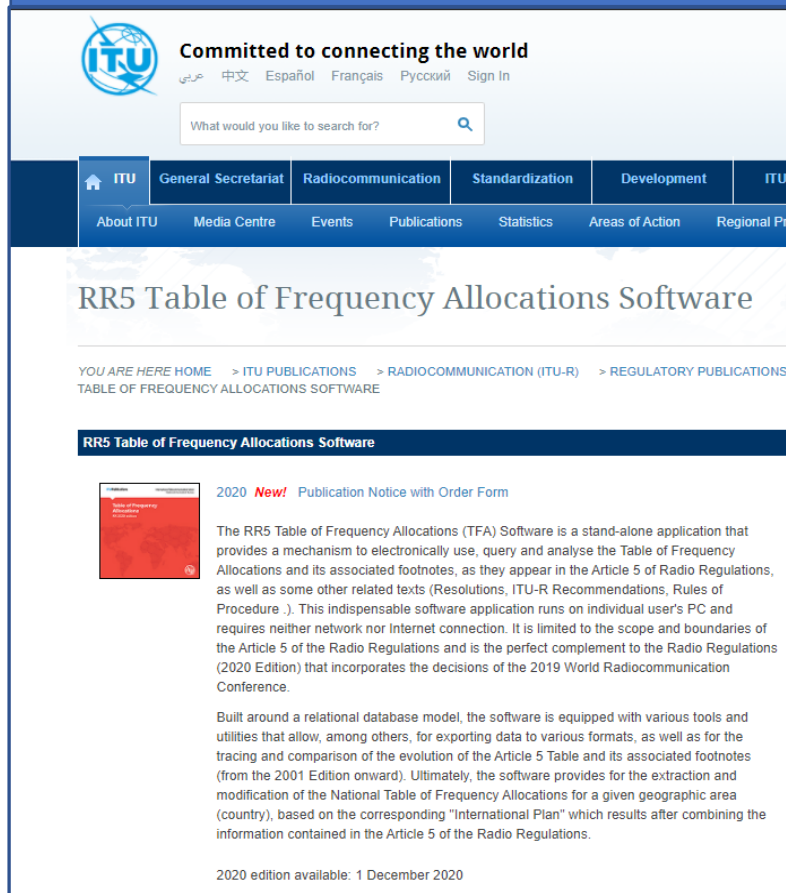
In this context, this analysis software package provides a helping and supporting electronic mechanism to check, analyse and investigate the content of the RR5 TFA, thus also contributing to ease the preparatory work for future WRCs.

Where can I find the software? How to get the software?

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ITU Publications Website

<https://www.itu.int/pub/R-REG-RR5>



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RR5 Table of Frequency Allocations Software

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RR5 Table of Frequency Allocations Software

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The RR5 Table of Frequency Allocations (TFA) Software is a stand-alone application that provides a mechanism to electronically use, query and analyse the Table of Frequency Allocations and its associated footnotes, as they appear in the Article 5 of Radio Regulations, as well as some other related texts (Resolutions, ITU-R Recommendations, Rules of Procedure). This indispensable software application runs on individual user's PC and requires neither network nor Internet connection. It is limited to the scope and boundaries of the Article 5 of the Radio Regulations and is the perfect complement to the Radio Regulations (2020 Edition) that incorporates the decisions of the 2019 World Radiocommunication Conference.

Built around a relational database model, the software is equipped with various tools and utilities that allow, among others, for exporting data to various formats, as well as for the tracing and comparison of the evolution of the Article 5 Table and its associated footnotes (from the 2001 Edition onward). Ultimately, the software provides for the extraction and modification of the National Table of Frequency Allocations for a given geographic area (country), based on the corresponding "International Plan" which results after combining the information contained in the Article 5 of the Radio Regulations.

2020 edition available: 1 December 2020

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The RR5 Table of Frequency Allocations Software

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SOFTWARE

The RR5 Table of Frequency Allocations software is a stand-alone application that runs on a user's PC and requires neither network nor Internet connection. It enables users to electronically use, query and analyze the Table of Frequency Allocations and its footnotes, as they appear in the Article 5 of the Radio Regulations.

The software offers various tools and utilities for tracing and comparing the evolution of the Article 5 Main Table and its associated footnotes (from the 2001 edition). It also allows for the extraction of the Frequency Allocations "International Plan" for a given geographic area (country).

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