A Guide to Retrieving Specific Space Services from Article 5 Frequency Allocations of the Radio Regulations Utilizing the RR5 FATViewer Tool

1   Introduction

The RR5 Table of Frequency Allocations (TFA) Software is a stand-alone application that provides a mechanism to electronically use, query and analyze the Table of Frequency Allocations and its associated footnotes, as they appear in the Article **5** of Radio Regulations (RR), 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. It is limited to the scope and boundaries of the Article **5** of the RR and is the perfect complement to the RR that incorporates the decisions of the World Radiocommunication Conferences (WRCs).

Built around a relational database model, the software is equipped with various tools and utilities that allow, among others, for advanced and complex search functions, data export 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).

For comprehensive details and in-depth instructions, please consult the online guidelines here:
- RR5FATViewer_User's_Guide.pdf (available at: [go URL …])

2   Usage Preface

The software is equipped with a detailed **<u>user's guide</u>** which illustrates the various available features for querying the RR5 TFA and its associated footnotes. When working with the RR5 TFA, the software operates in two distinct modes, the *standard* mode, and the *fully customized* mode.

To perform complex queries, which take full advantage of the various provisions of the RR5 footnotes, it is recommended to set the mode to fully customized (see the user's guide for details).
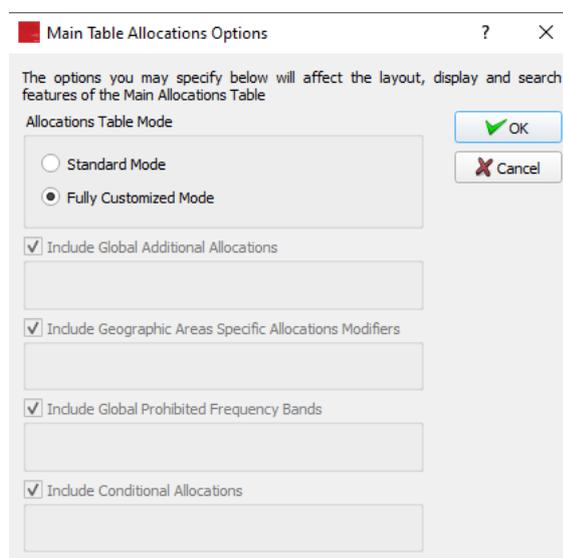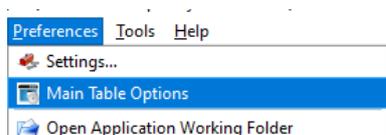
2.1   Administration Code

The RR 5 FATViewer is equipped with some features allowing for data export/import from/to various formats, as well as data editing and customization mechanisms. However, editing and customization features are limited to the frequency allocations pertaining to the user's specified own Administration. Hence, when the software is first started (after successful licensing), you are prompted to confirm your Administration code to be used for that purpose and the code specified will later be used to control which data can be edited.

It is important to note that once this is set, it cannot be changed.

2.2   The Main Table View

The Main Table View mode is the default operational mode of the RR5 FATViewer. In this mode, the Main Table is presented and laid out (to the extent feasible) as it looks in the Article **5** text, with three columns representing the three ITU Regions and the corresponding frequency allocations boxes.

Every frequency allocation box consists of a highlighted indication of the frequency band. It covers an enumeration of the radiocommunication services to which the box is allocated (Primary services are displayed by default as BOLD UNDERLINED UPPERCASE and Secondary services by default as Gray underlined lowercase and the list of footnotes (if any) associated with each service or with the box as a whole.

2.2.1   Querying the Main Table

Complex queries on the content of the Main Table can be performed by invoking the "Query Main Table Allocations" dialog, and allows for the combination of various criteria, namely

- Specify one (or more) region(s)
- Specify one (or more) frequency(ies) or frequency band(s). The specified frequency bands do not necessarily have to match exactly the Main Table Partition
- Specify one (or more) radiocommunication service(s) and category(ies) and combine them
- Specify "smart upward" and/or "smart downward" search strategy, thus defining the way the software should walk through the radiocommunication services families and relationships
- Specify one (or more) relevant footnote(s).

2.2.2   Specifying radiocommunication services

Select the relevant radiocommunication service(s) from the lists of "available services", according to the desired service category, then click "Add" to build the search list of the radiocommunication services. The lists of available services are already filtered according to their "existence" in the Main Table. That is, if a given service category combination does not appear in the lists, it is mainly because no such allocation exists.

2.3   The Footnotes View

The Footnotes View mode is another important operational mode of the RR 5 FATViewer. It is accessible via the menu item "Footnotes-View all" or, alternatively, by clicking the corresponding icon on the main toolbar.

In this mode, the software loads and presents the list of all footnotes of the Article **5** associated with the Main Table.

2.3.1   Querying Footnotes

Advanced queries on the Article 5 footnotes meta data can be performed by invoking the "Search footnotes" dialog, and allows for the combination of various criteria, namely

- Specify one (or more) region(s)
- Specify one (or more) Administrations, or one (or more) geographic areas or countries (depending on the selected Region. The implemented relationships between Regions, Administrations and country codes is further described on the next page)
- Specify one (or more) type of modifiers of the Main Table (Additional allocations, Alternative allocations, Different Categories of Services provisions)
- Specify one (or more) footnote source, being understood that the footnote source is the considered to be either the WRC which introduced or suppressed the footnote, or the last "known to the software" WRC which modified the footnote.

3   Usage examples

Below are some examples of possible queries, aiming to find the various frequency bands allocated to various radiocommunication services, considering the desired Radiocommunication Region and service category (primary or secondary).

3.1 Frequency bands allocated to Space Operation Service

- Activate the search feature:
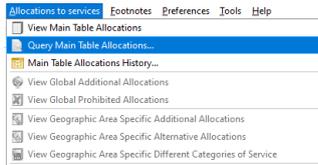
- Add the Space Operation service components to the list of wanted services, ensure the "Any of the following selected" option is activated and click "Search".
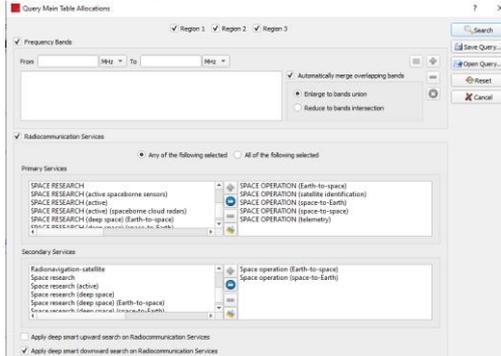
- The software then finds and displays the matching frequency bands allocated to the selected services. The displayed results can be navigated and restricted to one or more Radiocommunication Regions.
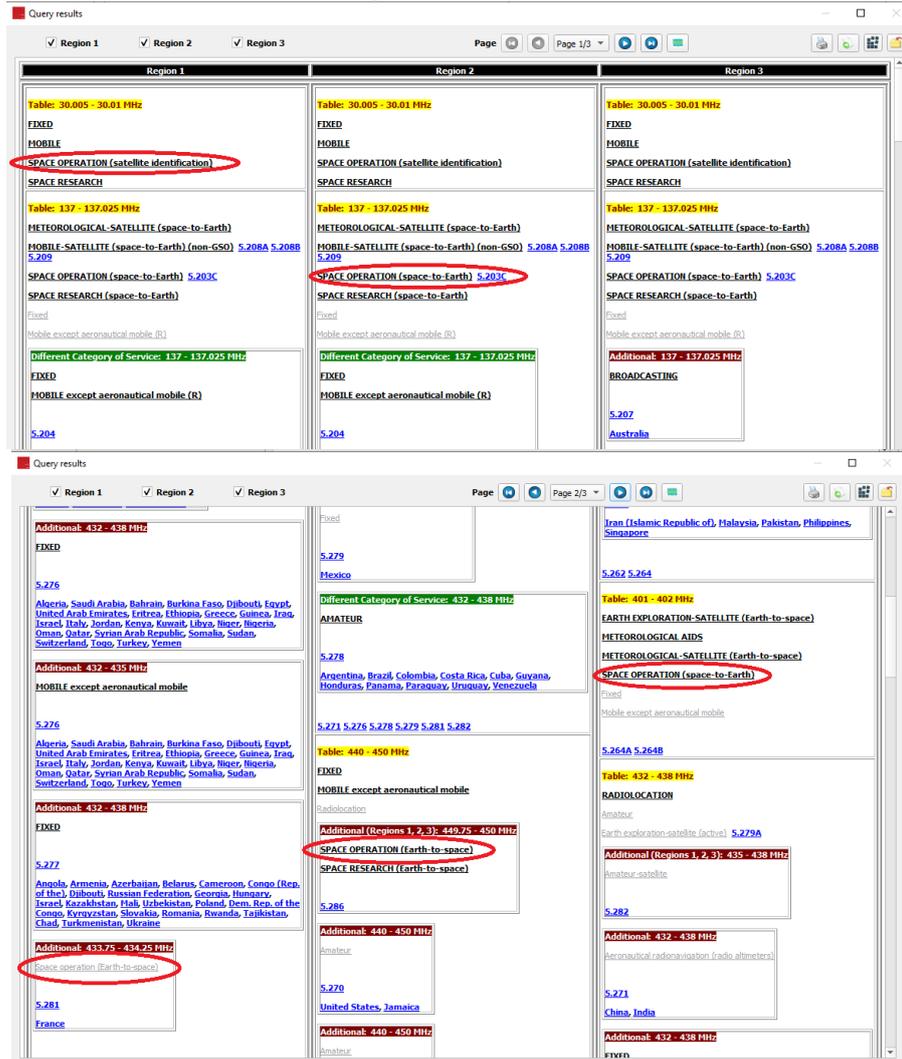
3.2   Frequency bands for Amateur-Satellite service

- Similar actions can be taken, by specifying the Amateur-Satellite service in the list of wanted services:
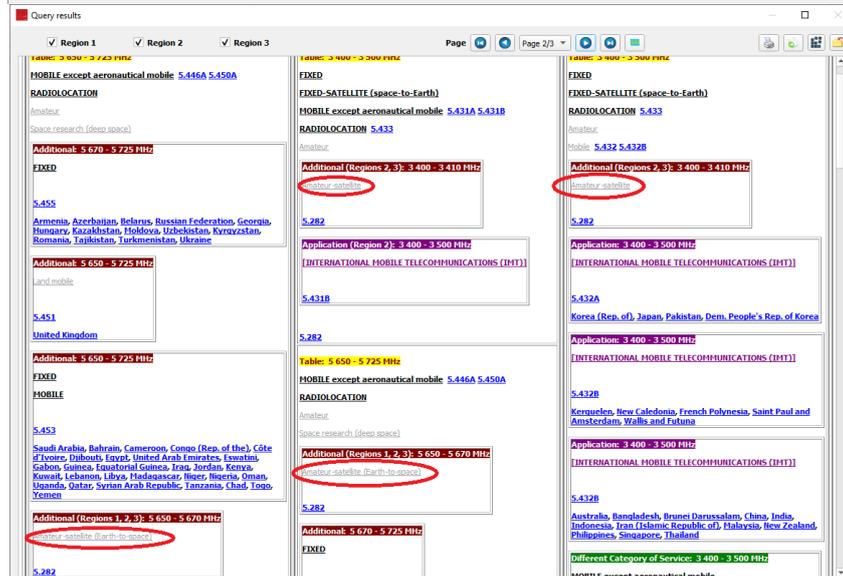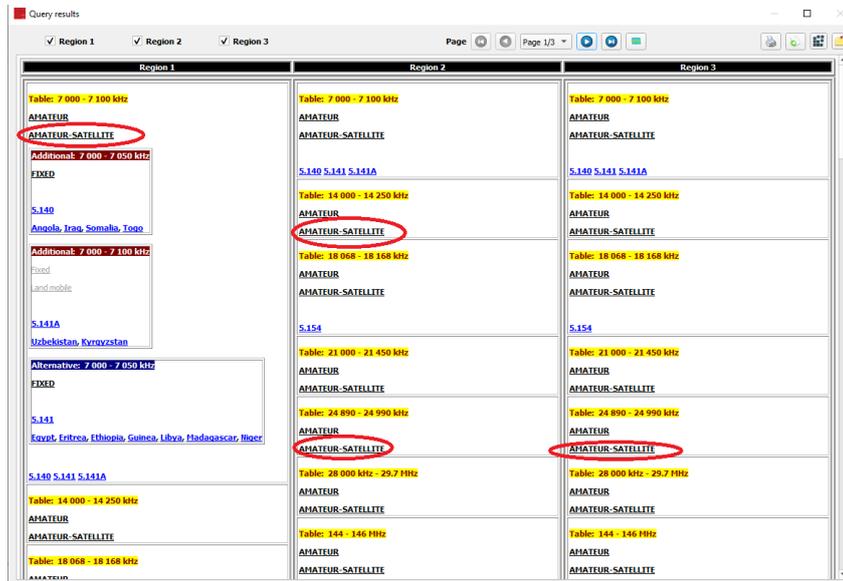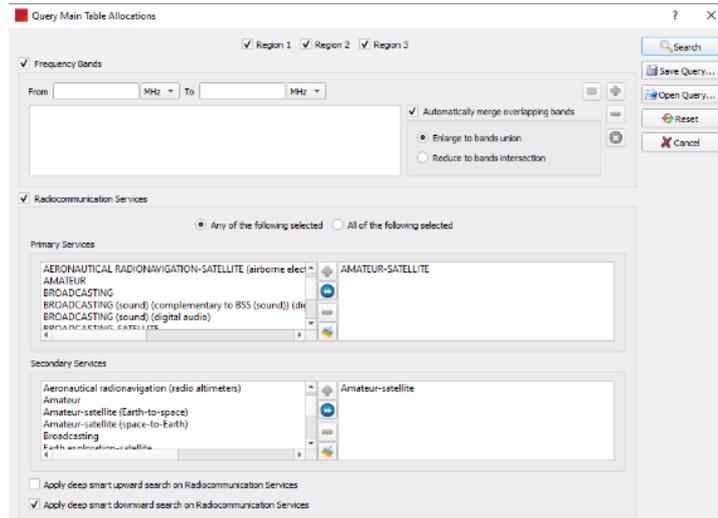
3.3 Frequency bands for Earth Exploration-Satellite service

- Similar actions can be taken, by specifying the Earth Exploration-Satellite service and all its components in the list of wanted services:

- When the software determines a matching allocated frequency band due to the provisions of an RR5 footnote, the footnote number is displayed, leading to displaying the footnote text on click (below is the example of RR 5.561A for the Amateur-Satellite service)

3.4 To query for allocations to specific service

To query for allocations to specific service, one need to query the main table allocations and the footnotes separately.

To query the main table allocations, go to the Menu bar item Allocations to Service -> Query Main Table Allocations.

Select the desired service in both primary and secondary services as shown below:

Click on "Search".

The relevant allocation table containing the desired service will be shown on a Query results screen. If you wish to export to PDF, click on the following:

To check also for allocations in a footnote, go to menu item Footnotes ->Query as shown below:

In the search footnotes screen, click on Find.

In the resulting screen, check the box "Search footnotes text" -> enter name of service in the box.
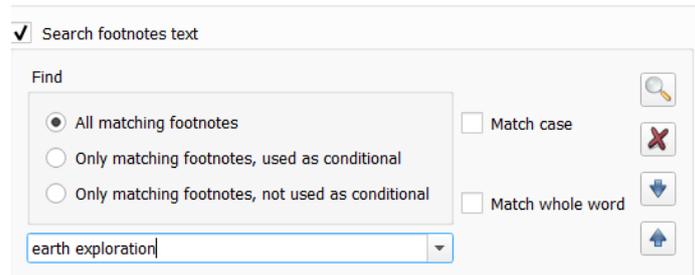
You can then export to an excel sheet all the footnotes that have the mentioned term "earth exploration-satellite service" by clicking on the icon below (or PDF if click on the PDF icon):

4   Acquiring the software

The software is available for download under the ITU-R Publications web site, or alternatively by contacting the ITU Sales (sales@itu.int). Upon purchase and download of the software, the user will be prompted to request a license -- on up to 3 separate personal devices -- prior to using the software. To upgrade to a 2-10 or organizational-wide license, please contact ITU Sales, separately. For any technical questions or support, post-purchase, please email BR Tools Tech Support with the description of the problem encountered.

5   Package updates

Major releases of the package correspond to the new editions of Radio Regulations. The current version (at the time of writing this Handbook) is associated with the **RR 2020** (as adopted by **WRC-19**) edition. A new license is required for every new major release (usually following the completion of each **WRC**).

Between two major releases (~4 years), the packages will be subject to updates concerning both data and software. These will be released freely to subscribers holding licensed packages.