



Article 5 of the Radio Regulations (Edition of 2016)

Table of Frequency Allocations

RR5FATViewer (Beta 2.0) User's Guide



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Note: This guide is still under development.



Getting Started

Package Installation and Initialization

The package installation is straight forward from the **RR5FATViewerInstaller** package located at
M:\BR_SOFT\M:\BR_SOFT\RR5FATViewer

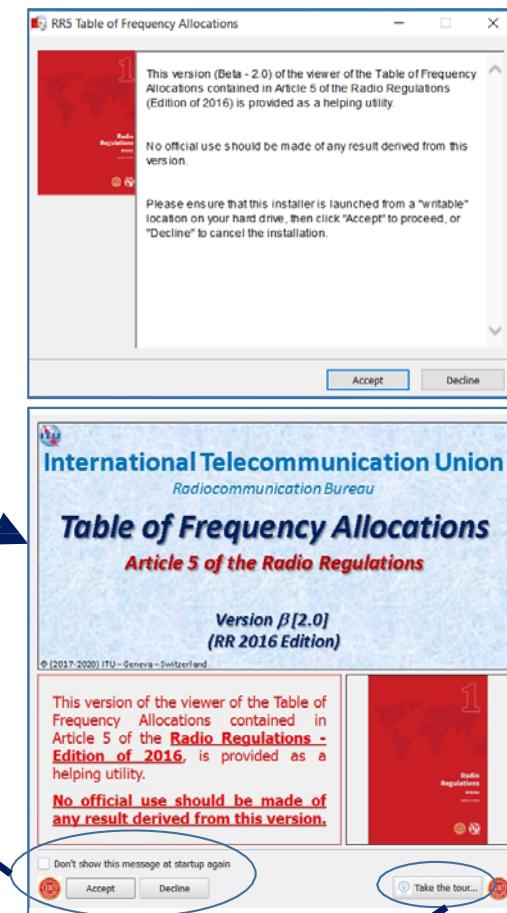
After successful installation, a shortcut icon should appear on your desktop.



Acknowledging the “opening screen” causes the **RR5FATViewer** software to starts its initialization and preparation phase. This may take a few minutes to complete. Upon successful completion, the software opens in its default mode:

The Main Table View.

Once you accept the “conditions of use”, the installation package unpacks the **RR5FATViewer** software to your hard drive, performs a set of checking utilities and then launches the appropriate application and presents its “opening screen” as shown here.



Check this box to prevent the “opening screen” from being displayed when you run the RR5FATViewer again.

Don't show this message at startup again



Accept

Decline

Should you face any troubles installing or initializing the package, please contact us at TerRaSoftHello@itu.int.

The “Take the tour...” opens this guide



What is RR5FATViewer Software package about?

The **RR5FATViewer** is a standalone application which runs on individual user's PC (it does not require network nor Internet connections). It provides a mechanism to electronically use, query and analyze the **Table of Frequency Allocations** (called the **Main Table** throughout this guide) and its associated footnotes, as they appear in the **Article 5 of Radio Regulations** (called Article 5 throughout this guide). It is built with a friendly user interface and deep search capabilities, around a electronic relational database model reflecting the layout, content and "meaning" of the various components of the Main Table and its associated footnotes.



RR5FATViewer enhances and compacts the **cross-referencing mechanisms** inside the Article 5 main Table and its components on one hand, and between the Article 5 Main Table provisions and other sources, on the other hand (Other RR Articles, Appendices, Rules of Procedure, Worldwide & Regional Agreements, etc.)



RR5FATViewer minimizes the need for "working with paper copies", so as to ease the browsing and footnotes lookup when working with Article 5 Main Table. It hence helps the Membership Administrations in finding their appropriate frequency allocations, checking for their relevant footnotes, resolving contradicting provisions and interpretations, etc. via software tools.



RR5FATViewer enhances the readability of the Article 5 Main Table Radiocommunication Services and their categories (Primary, Secondary), by introducing "**non language dependent markers**" in the database (no interpretation of Latin upper case, no underline, no bold etc.).



RR5FATViewer allows for **customized "human" display, print and export of the Article 5 Main Table**, global or restricted to a given Region or Radiocommunication Service, and consolidated with only the relevant footnotes and various applicable provisions, regardless of their "place" in the paper textbook.



RR5FATViewer provides for **powerful "click-and-get" search tools** based on appropriate cross-references and combinations of frequency bands, Regions and geographical areas, and Radiocommunication Services, according to their definitions and inter-relationships in Article 1 of the **Radio Regulations** and their declensions and applications in Article 5. This may prove very useful when looking for "sharing" between various services and categories in given frequency bands and areas.





What is RR5FATViewer Software package about?

RR5FATViewer allows for the automatic “**software-driven**” extraction of the **Frequency Allocations** “International Plan” for a given geographic area (country), as it results from combining all of the Article 5 Main Table allocations and relevant provisions and footnotes.



RR5FATViewer is equipped with various tools and utilities, allowing the **tracing and comparison of the evolution of the Article 5 Main Table** through the various editions of the **Radio Regulations**, as they resulted from the various **World Radiocommunication Conferences** (WRCs). This comparison mechanism goes back up to the Edition of 2001 (WRC-2000).

RR5FATViewer is also equipped with similar **tracing and comparison tools for the evolution of the Article 5 footnotes** through the various editions of the **Radio Regulations**, as they resulted from the various **World Radiocommunication Conferences** (WRCs). This comparison mechanism also goes back up to the Edition of 2001 (WRC-2000) and easily permits to find out which footnote was deleted, added or modified by a specific WRC, and when a given country joined or left a given footnote provisions.

The screenshot displays three panels of the RR5FATViewer software. The left panel shows the 'Region 1' table for WRC-2000, the middle panel shows the 'Region 1' table for WRC-2010, and the right panel shows a detailed comparison of a specific footnote (5.2.2.2) between the two editions. The comparison highlights changes in allocations and footnotes for various countries like Montenegro, Serbia, and Romania.

RR5FATViewer is equipped with many more features and utilities...

It is however
limited only to the boundaries of the Article 5 of the Radio Regulations.



The Main Table View

Use these boxes if you wish to restrict the Main Table display to one or two regions.

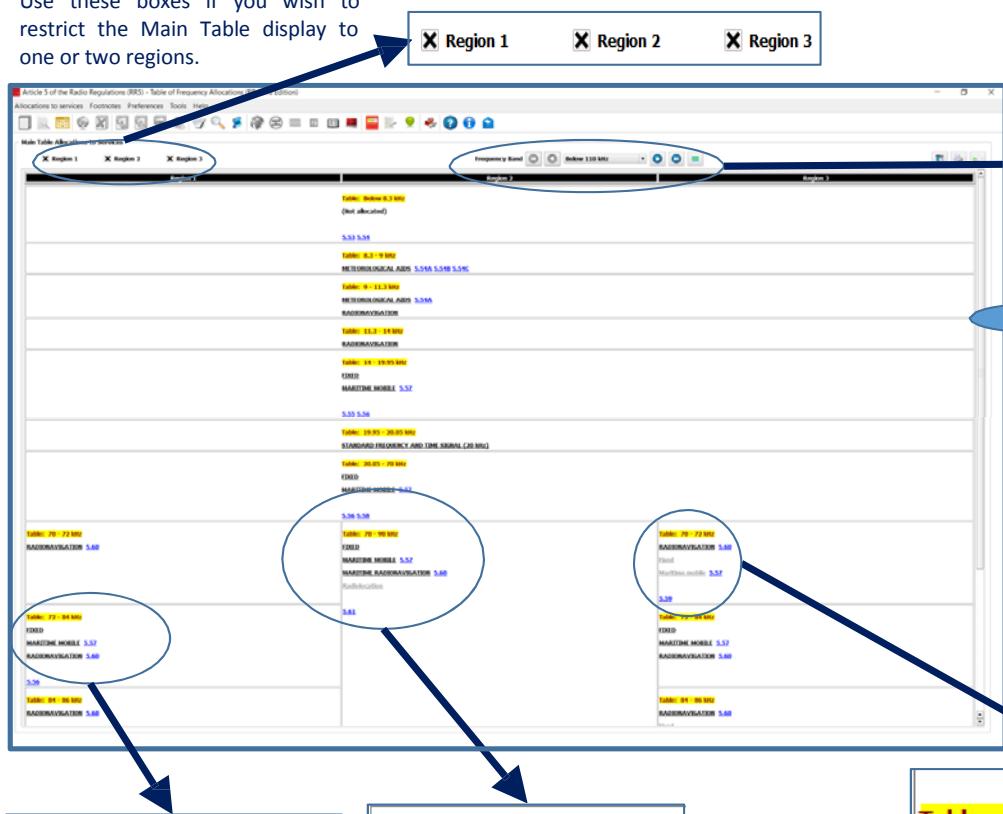
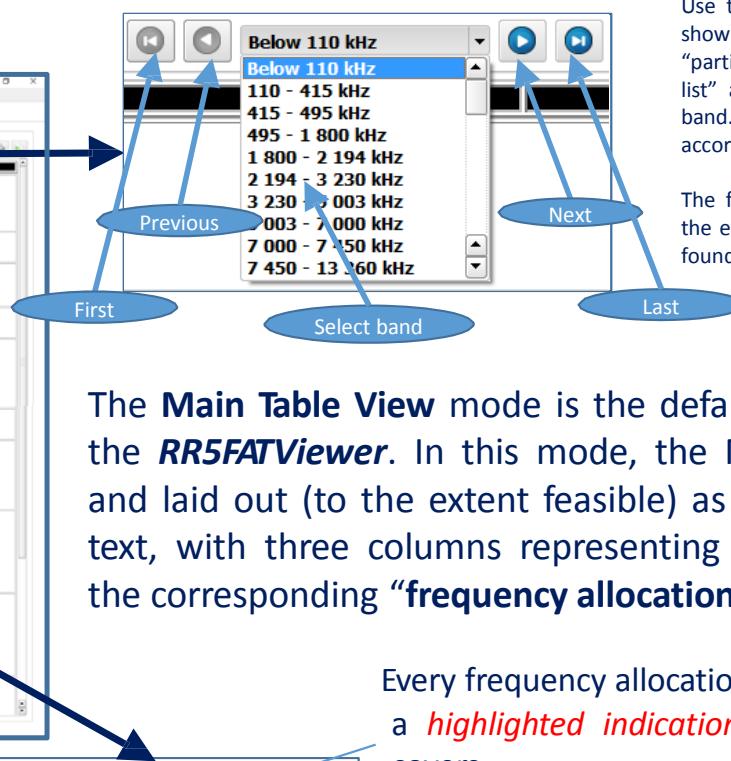


Table: 70 - 72 kHz	
FIXED	
MARITIME MOBILE 5.57	
RADIONAVIGATION 5.60	
5.56	

Table: 70 - 90 kHz	
FIXED	
MARITIME MOBILE 5.57	
MARITIME RADIONAVIGATION 5.60	
Radiolocation	
	5.61



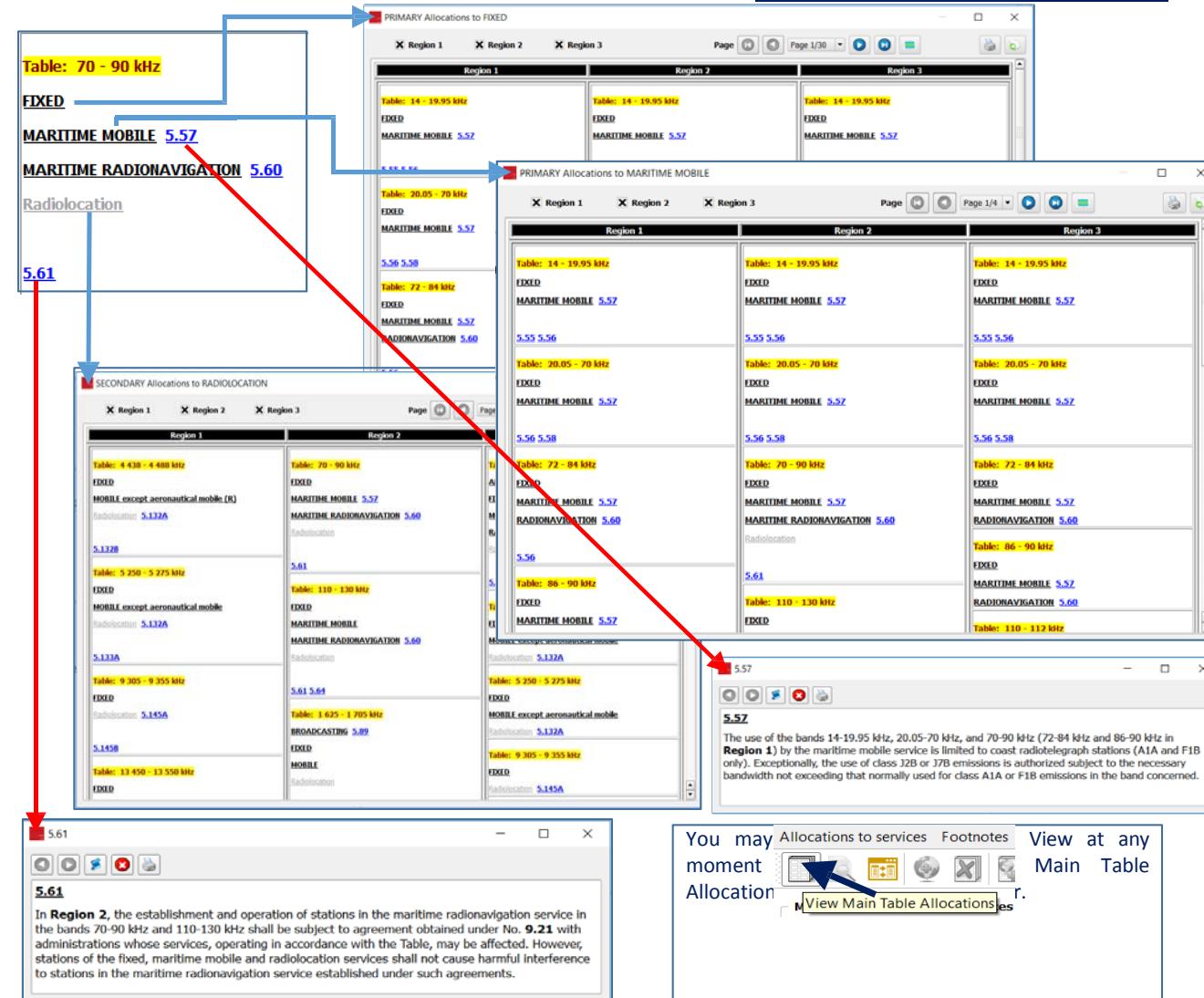
The **Main Table View** mode is the default operational mode of the **RR5FATViewer**. In this mode, the Main Table is presented and laid out (to the extent feasible) as it looks in the Article 5 text, with three columns representing the three Regions, and the corresponding “**frequency allocations boxes**”.

Table: 70 - 72 kHz	
RADIONAVIGATION 5.60	
Fixed	
Maritime mobile 5.57	
5.59	

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 **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.

Continued...

The Main Table View



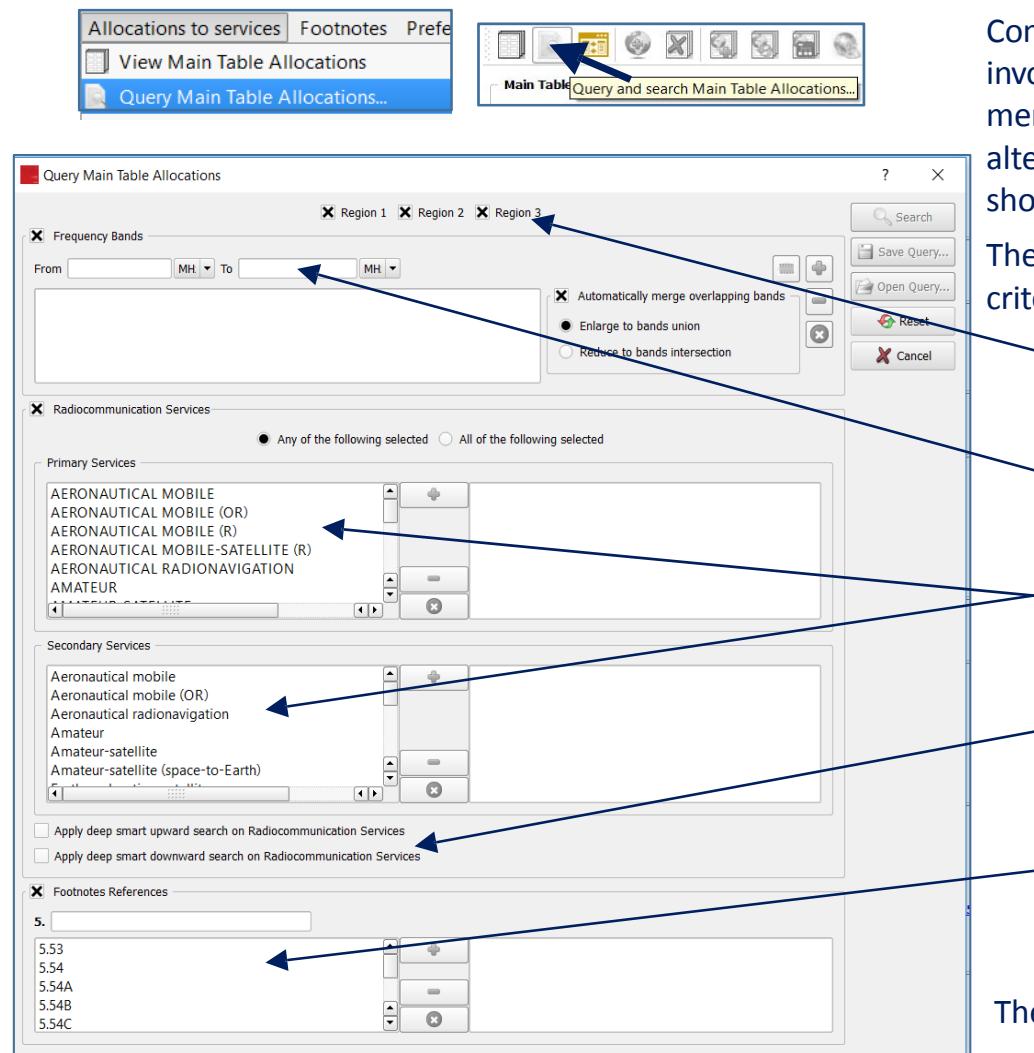
The radiocommunication services and footnotes inside every frequency allocation box are made “clickable” so as to provide more information as follows:

- When you click on a given service label, the software searches for all frequency allocation boxes with an exact match to that service and its category.

As the examples shown here illustrate, when **FIXED** is clicked, the software presents all “PRIMARY Allocations to FIXED”. And when **Radiolocation** is clicked, the software presents all “SECONDARY Allocations to RADIOLOCATION”.

- When you **click on a given footnote number** label, the software displays **the text of the relevant footnote**. When applicable, that is, when the concerned footnote refers to other provisions, further navigation may become available.

Querying the Main Table



Complex queries on the content of the Main Table can be performed by invoking the “Query Main Table Allocations” dialog. This is accessible via the menu item “Allocations to services – Query Main Table Allocations...” or, alternatively, by clicking on the corresponding icon on the main toolbar as shown here.

The Main Table Query dialog 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 “and/or” wise.
- 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).

The following examples illustrate the usage of these criteria in details.

Querying the Main Table

Specifying frequencies or frequency bands

Frequency Bands

From: 500 MH To: 900 MH

500 - 900 MHz

Add frequency band

Automatically merge overlapping bands

Enlarge to bands union

Reduce to bands intersection

Frequency Bands

From: 756.5 MH To: 1203 MH

756.5 - 1203 MHz

Add frequency band

Automatically merge overlapping bands

Enlarge to bands union

Reduce to bands intersection

Frequency Bands

From: 756.5 MH To: 900 MH

756.5 - 900 MHz

Add frequency band

Automatically merge overlapping bands

Enlarge to bands union

Reduce to bands intersection

Frequency Bands

From: 13.23 GHz To: 13.23 GHz

13.23 GHz

Add frequency band

Automatically merge overlapping bands

Enlarge to bands union

Reduce to bands intersection

Type in the minimum and maximum frequencies, then click “Add frequency band”. You may specify more than one frequency band.

However, when adding a new band, if this box is checked and the specified bands are overlapping, the software will “merge” them by enlarging to bands union or restricting to bands intersection, according to the selected option. Thus, for instance, if after adding the band 500-900 MHz you chose to add the band 756.5-1203 MHz, the union merge results in the band 500-1203 MHz and the intersection merge results in the band 756.5-900 MHz, as shown here.

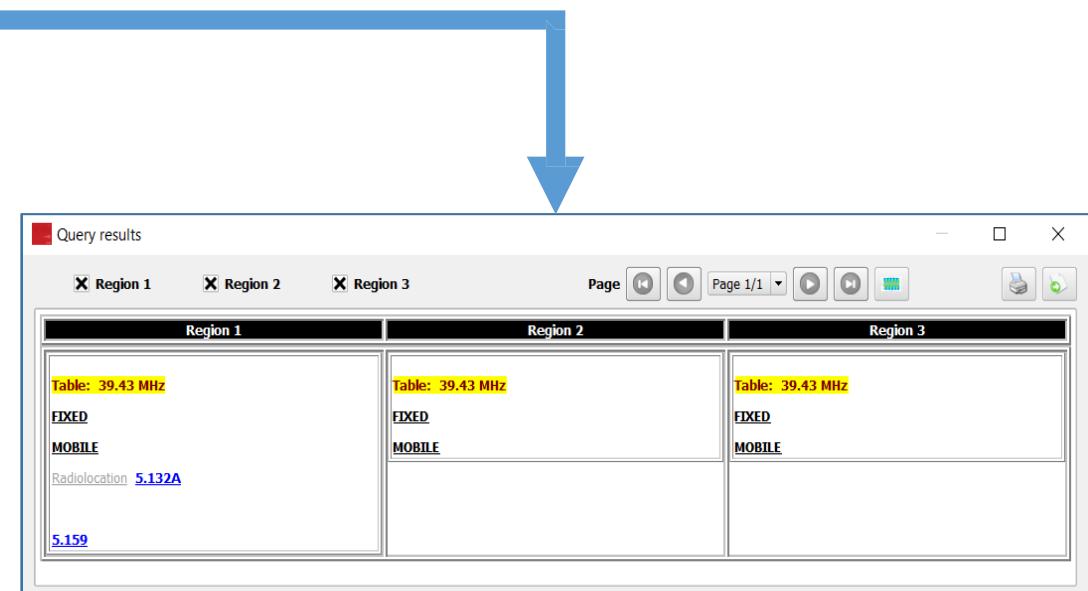
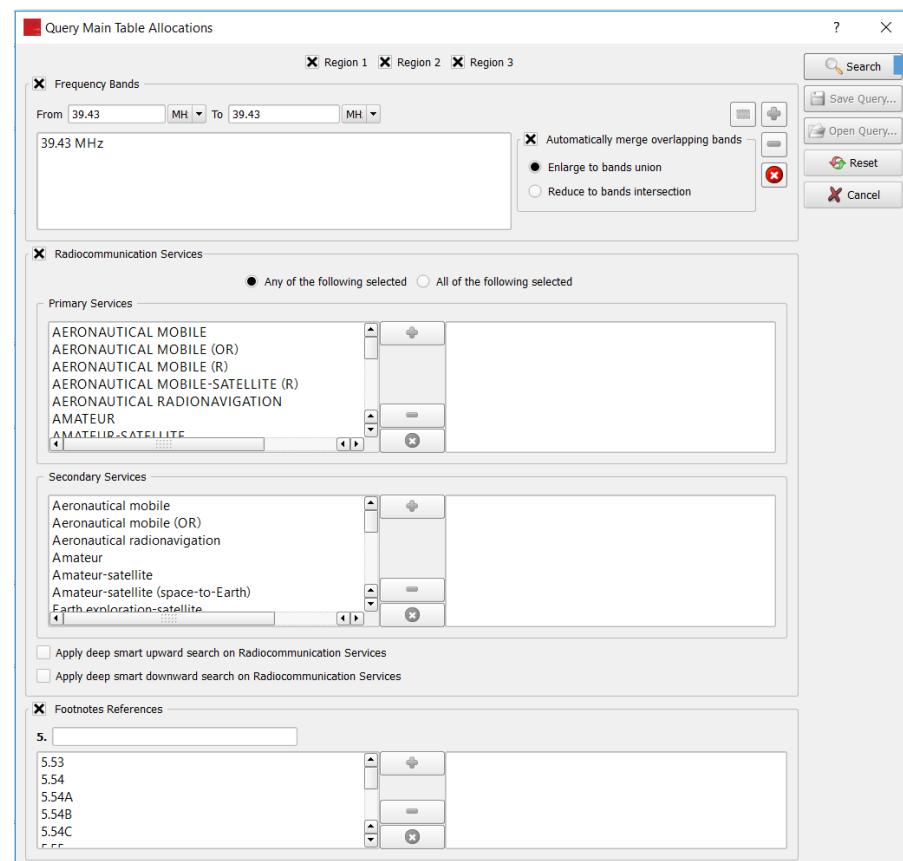
You may use these two buttons to remove a previously specified frequency band or to clear the frequency bands selection.

If you are only interested in a single specific frequency (say 13.23 GHz, for instance), simply make the minimum and maximum frequencies equal to the desired frequency value.

[Continued...](#)

Querying the Main Table

Specifying frequencies or frequency bands – Example 1



Upon successful execution, the query results are presented and laid out in a similar way to the Main Table View. You may navigate the results in a “standard way”.

This query causes the software to search for the Main Table allocations on the frequency 39.43 MHz in all three Regions.

[Continued...](#)



Querying the Main Table

Specifying frequencies or frequency bands – Example 2



The image shows two windows side-by-side. On the left is the 'Query Main Table Allocations' dialog. It has a 'Frequency Bands' section with 'From' (13.23) and 'To' (28) fields. Below it are 'Radiocommunication Services' sections for 'Primary Services' and 'Secondary Services', each with a list of items and a 'Search' button. At the bottom are 'Footnotes References' and a 'Search' button. On the right is the 'Query results' window, showing a list of allocations for Region 1 across three frequency bands: 13.23 - 13.25 GHz, 13.25 - 13.4 GHz, and 13.4 - 13.65 GHz. Each band entry includes a table of services and a list of specific frequency ranges and footnotes.

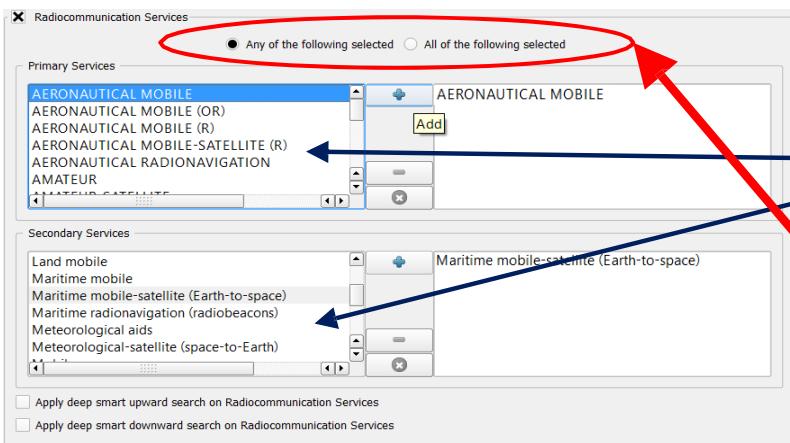
This query causes the software to search for all allocation boxes in the Main Table, corresponding to the frequency band 13.23-28 GHz, in Region 1 only.

Upon successful execution, the query results are presented in a series of pages, laid out in a similar way to the Main Table View. You may navigate the results in a “standard way”.

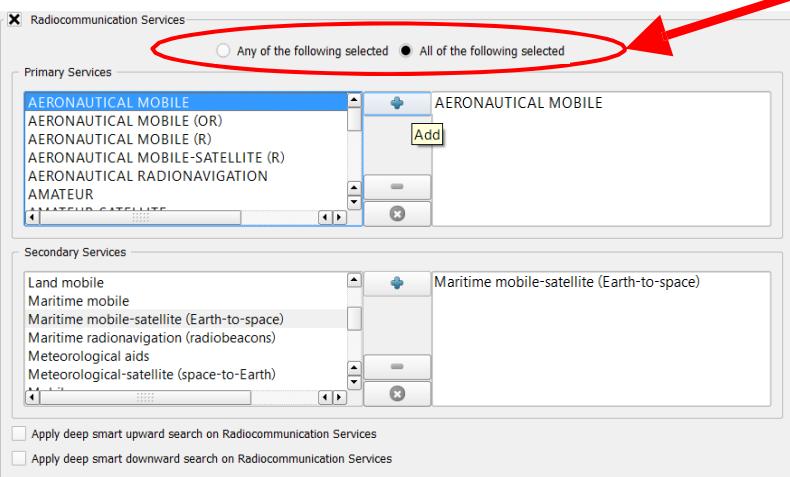
[Continued...](#)

Querying the Main Table

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.



When you select more than one service, you may combine your selection in order to instruct the software to “or-wise” search for those frequency bands allocated to “any selected service”, or to “and-wise” search for those frequency bands allocated to “all select services”.

Thus, the first example shown here causes the software to search for all “frequency allocation boxes” where **either** AERONAUTICAL MOBILE (primary) **or** Maritime mobile-satellite (Earth-to-space) (secondary) appear.

Whereas the second example causes the software to search for all “frequency allocation boxes” (if any) where **both** AERONAUTICAL MOBILE (primary) **and** Maritime mobile-satellite (Earth-to-space) (secondary) appear.

Querying the Main Table

Specifying radiocommunication services – Example 1

The image shows two software windows. The left window is titled 'Query Main Table Allocations' and contains fields for 'Frequency Bands' (From: [] MH, To: [] MH) and 'Radiocommunication Services'. Under 'Radiocommunication Services', the 'Any of the following selected' radio button is selected. A list of primary services includes 'AERONAUTICAL MOBILE (OR)', 'AERONAUTICAL MOBILE (R)', 'AERONAUTICAL MOBILE-SATELLITE (R)', 'AERONAUTICAL RADIONAVIGATION', 'AMATEUR', and 'AMATEUR-SATELLITE'. The 'AERONAUTICAL MOBILE' service is highlighted with a blue selection box. The right window is titled 'Query results' and shows three regions (Region 1, Region 2, Region 3). Each region displays a table of results. Region 1 shows results for '5 091 - 5 150 MHz' including 'AERONAUTICAL MOBILE 5.444B' and 'AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA'. Region 2 shows results for '5 091 - 5 150 MHz' including 'AERONAUTICAL MOBILE 5.444B' and 'AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA'. Region 3 shows results for '3 900 - 3 950 kHz' including 'AERONAUTICAL MOBILE BROADCASTING', 'AERONAUTICAL MOBILE 5.444B', 'AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA', 'AERONAUTICAL RADIONAVIGATION', 'FIXED-SATELLITE (Earth-to-space) 5.444A', and 'AERONAUTICAL RADIONAVIGATION 5.444A'. A blue arrow points from the 'AERONAUTICAL MOBILE' selection in the query dialog to the 'AERONAUTICAL MOBILE' entry in the Region 1 results table.

This query causes the software to search the Main Table for all allocation boxes in all the three Regions, where an allocation to AERONAUTICAL MOBILE as a primary service exists.

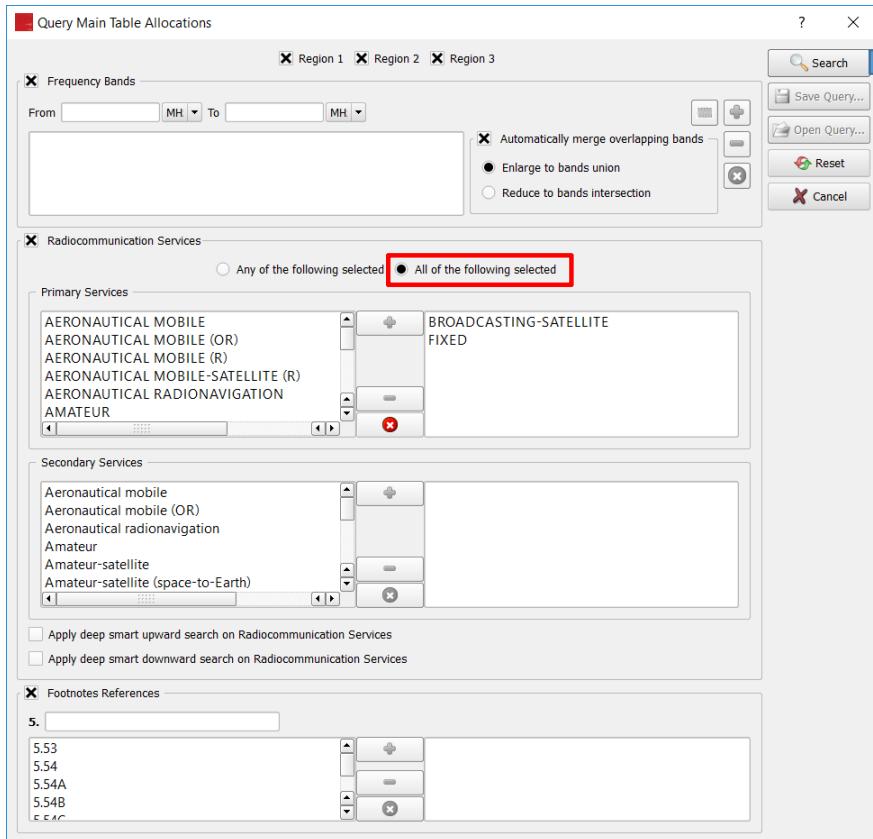
Upon successful execution, the query results are presented and laid out in a series of pages, in a similar way to the Main Table View. You may navigate the results in a “standard way”.

It should be noted that this query setting causes a search for the exact matching service. That is, the software does not consider “ascendant/descendant” services relationships for the search. Hence, allocation boxes with primary allocation to MOBILE for instance are not taken into account. This behavior can be controlled using these boxes, as shown later in this section.

[Continued...](#)

Querying the Main Table

Specifying radiocommunication services – Example 2



Region 1	Region 2	Region 3
Table: 1 452 - 1 492 MHz BROADCASTING BROADCASTING-SATELLITE 5.208B FIXED MOBILE except aeronautical mobile 5.346	Table: 1 452 - 1 492 MHz BROADCASTING BROADCASTING-SATELLITE 5.208B FIXED MOBILE 5.341B 5.343 5.346A	Table: 1 452 - 1 492 MHz BROADCASTING BROADCASTING-SATELLITE 5.208B FIXED MOBILE 5.341B 5.343 5.346A
5.341 5.342 5.345	5.341 5.344 5.345	5.341 5.344 5.345
Table: 2 520 - 2 655 MHz BROADCASTING-SATELLITE 5.413 5.416 FIXED 5.410 MOBILE except aeronautical mobile 5.384A	Table: 2 520 - 2 655 MHz BROADCASTING-SATELLITE 5.413 5.416 FIXED 5.410 MOBILE except aeronautical mobile 5.384A	Table: 2 520 - 2 535 MHz BROADCASTING-SATELLITE 5.413 5.416 FIXED 5.410 MOBILE except aeronautical mobile 5.384A
5.339 5.412 5.418B 5.418C	5.339 5.418B 5.418C	5.403 5.414A 5.415A
Table: 2 655 - 2 670 MHz BROADCASTING-SATELLITE 5.208B 5.413 5.416 FIXED 5.410 MOBILE except aeronautical mobile 5.384A	Table: 2 655 - 2 670 MHz BROADCASTING-SATELLITE 5.413 5.416 FIXED 5.410 MOBILE except aeronautical mobile 5.384A	Table: 2 535 - 2 655 MHz BROADCASTING-SATELLITE 5.413 5.416 FIXED 5.410 MOBILE except aeronautical mobile 5.384A
5.149 5.412	5.149 5.412	5.149 5.412
Table: 11.7 - 12.5 GHz BROADCASTING BROADCASTING-SATELLITE 5.492 FIXED MOBILE except aeronautical mobile	Table: 12.2 - 12.7 GHz BROADCASTING BROADCASTING-SATELLITE 5.492 FIXED MOBILE except aeronautical mobile	Table: 11.7 - 12.2 GHz BROADCASTING BROADCASTING-SATELLITE 5.492
5.487 5.487A	5.487A 5.488 5.490	5.487 5.487A
Table: 21.4 - 22 GHz BROADCASTING-SATELLITE 5.208B FIXED MOBILE	Table: 21.4 - 22 GHz BROADCASTING-SATELLITE 5.208B FIXED MOBILE	Table: 21.4 - 22 GHz BROADCASTING-SATELLITE 5.208B
5.53 5.54 5.54A 5.54B	5.53 5.54 5.54A 5.54B	5.53 5.54 5.54A 5.54B

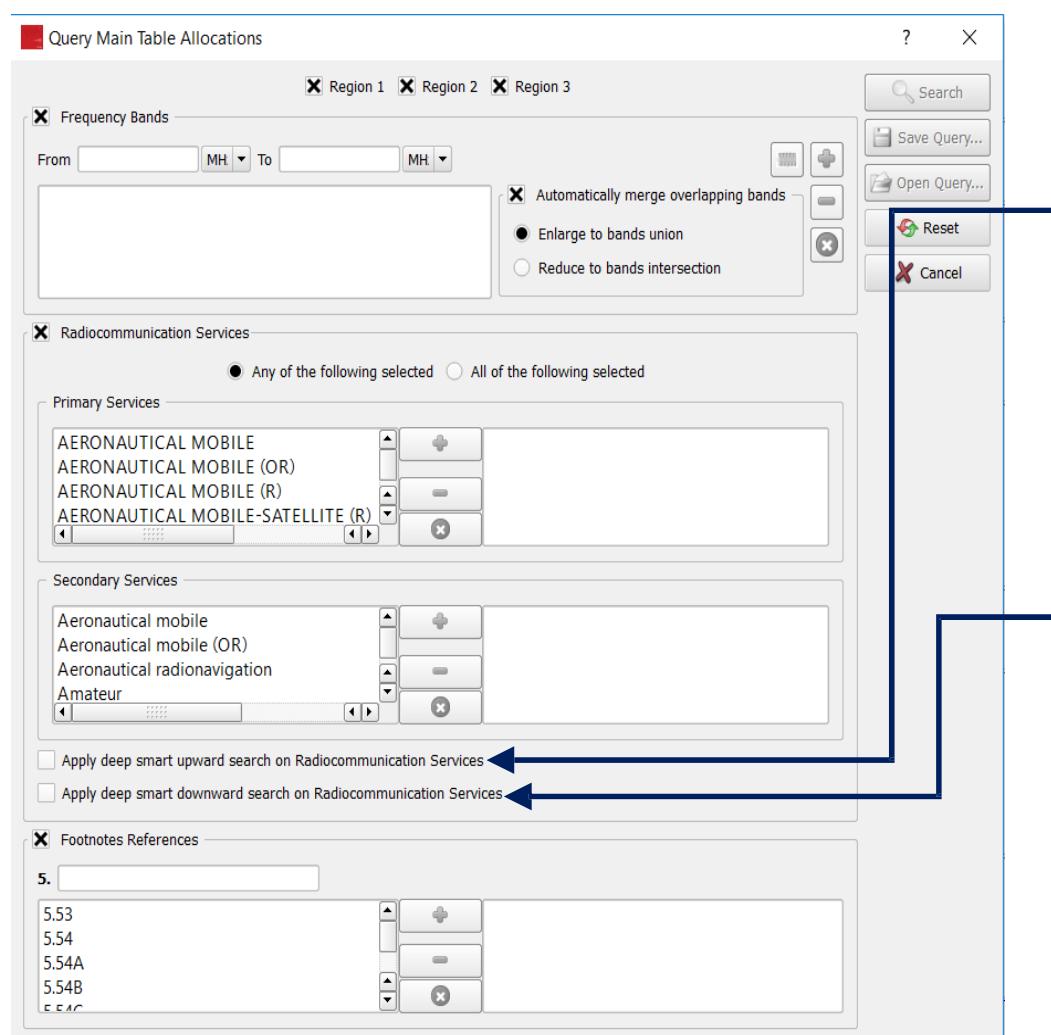
This query causes the software to search the Main Table for all allocation boxes in all the three Regions, where there is a **sharing between BROADCASTING-SATELLITE and FIXED services, both a primary services**.

Upon successful execution, the query results are presented in a series of pages, laid out in a similar way to the Main Table View. You may navigate the results in a "standard way".

[Continued...](#)

Querying the Main Table

Specifying radiocommunication services – Applying the “smart” search



If you check this box, the search on services will follow a deep upward search, taking into account the inter-relationships between the various services and their ascendants. For instance, if you search for MARITIME MOBILE while this box is checked, the software will also search for all the corresponding upward components (MOBILE, MOBILE except aeronautical mobile etc.).

If you check this box, the search on services will follow a deep downward search, taking into account the inter-relationships between the various services and their descendants. For instance, if you search for MOBILE while this box is checked, the software will also search for all the corresponding downward components (MOBILE, AERONAUTICAL MOBILE, MARITIME MOBILE, LAND MOBILE, etc.).

Please refer to the *radiocommunication services families and relationships* for more information.

Querying the Main Table

Specifying radiocommunication services – Example 3 - Using the “smart” search

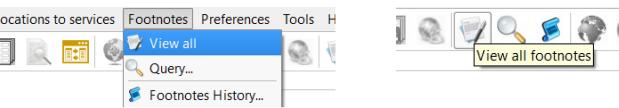
As it appears on the query results,

some allocation boxes are matched with the exact service-category combination

and some others are matched due to the suitable “parent”-category combination.

This query causes the software to search the Main Table for all allocation boxes in all the three Regions, where an allocation to MARITIME MOBILE as a primary service exists, taking into account all its “parent” services.

The Footnotes View



The **Footnotes View** mode is another important operational mode of the **RR5FATViewer**. It is accessible via the menu item “**Footnotes – View all**” or, alternatively, by clicking the corresponding icon on the main toolbar.

The screenshot shows the 'Footnotes View' mode. On the left, a red box highlights the 'Footnotes list area', which is a table showing a list of footnotes. The table has columns for 'Number', 'Source', 'Description', 'Scope', 'Entry into force', and 'Applicable until'. A red oval points to the table with the label 'The footnotes list area'. On the right, a blue box highlights the 'footnote text area', which shows the text of footnote 5.48. The text reads: '5.48 View History Print View Main Table Related Allocations'. Below this, it says 'Additional allocation: in [Algeria](#), [Saudi Arabia](#), [Bahrain](#), [Egypt](#), [United Arab Emirates](#), [Sudan](#), [Tunisia](#), the frequency band 8.3-9 kHz is also allocated to the radionavigation, fixed and mobile services on a primary basis. (WRC-15)'.

At the top right, a blue box highlights the 'footnotes cross references area', which shows a grid of cross-references between different articles and sections. A red oval points to this area with the label 'The footnotes cross references area'. At the top right of the main window, there is a search bar labeled 'Search footnotes text' with an arrow pointing to it.

In this mode, the software loads and presents the **list of all footnotes** of the Article 5, associated with the Main Table. The display is organized in three main areas as shown here.

[Continued...](#)

The Footnotes View

The footnotes list area

List of footnotes in the Table of Frequency Allocations

Displayed 794/794 footnotes.

Find footnote 5.

Number	Source	Description	Scope	Entry into force	Applicable until
5.179	WRC-2012	Additional Allocation - Limitation		In force	
5.180	WRC-1997	Guidance - Limitation		In force	
5.181	WRC-2003	Additional Allocation - Limitation		In force	
5.182	WRC-1997	Additional Allocation		In force	
5.183	WRC-1997	Additional Allocation		In force	
5.184	WRC-2007	Suppress			
5.185	WRC-2015	Different Category of Service		In force	
5.186	WRC-1997	Suppress			
5.187	WRC-1997	Alternative Allocation - Limitation		In force	
...					
5.562F	WRC-2000	Explanatory - Limitation	SPACE ONLY	In force	31/12/2017
5.562G	WRC-2000	Explanatory - Limitation	SPACE ONLY	01/01/2018	
5.562H	WRC-2000	Limitation	SPACE ONLY	In force	
5.563	WRC-2003	Suppress			
...					

Footnote text

[5.180](#) [View History](#) [Print](#) [View Main Table Related Allocations](#)

The frequency 75 MHz is assigned to marker beacons. Administrations shall refrain from assigning frequencies close to the limits of the guardband to stations of other services which, because of their power or geographical position, might cause harmful interference or otherwise place a constraint on marker beacons. Every effort should be made to improve further the characteristics of airborne receivers and to limit the power of transmitting stations close to the limits 74.8 MHz and 75.2 MHz.

You may use these buttons to print the details of the displayed footnote list, or to export it in PDF format.

You may directly jump to a given footnote by typing its number in this box.

The footnotes list area shows a summary list with some “meta-data” relating to every footnote. This includes:

- the **footnote (provision) number**,
- its **source** (the last “known to the software” WRC which modified this footnote),
- a short **description** (this is typically describing the role of the footnote when it is modifying the Main Table allocations via Additional allocations, Alternative allocations or Different Category of Service provisions),
- the **scope** of the footnote (this is generally blank unless the footnote applies to Space Services only, in which case it indicates SPACE ONLY),
- And when and if applicable, the **dates of entry into force and expiry** of the provisions described in the footnote.

When a given row in the list is activated (via mouse click for instance), the text of the corresponding footnote appears in the footnote text area. Further actions may be available there as explained hereafter.

[Continued...](#)

The Footnotes View

The footnote text area

Footnote text

5.202 [View History](#) [Print](#) [View Main Table Related Allocations](#)

Additional allocation in [Saudi Arabia](#), [Armenia](#), [Azerbaijan](#), [Belarus](#), [Bulgaria](#), [United Arab Emirates](#), [Russian Federation](#), [Georgia](#), [Iran \(Islamic Republic of\)](#), [Jordan](#), [Oman](#), [Uzbekistan](#), [Poland](#), [Syrian Arab Republic](#), [Kyrgyzstan](#), [Romania](#), [Tajikistan](#), [Turkmenistan](#), [Ukraine](#), the frequency band 136-137 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-15)

Click this link to display all allocation boxes from the Main Table where the relevant footnote applies.

Main Table Allocations - 5.202

Region 1	Region 2	Region 3	Page
Table: 117.975 - 137 MHz AERONAUTICAL MOBILE (R) S.111 5.200 5.200	Table: 117.975 - 137 MHz AERONAUTICAL MOBILE (R) S.111 5.200 5.200	Table: 117.975 - 137 MHz AERONAUTICAL MOBILE (R) S.111 5.200 5.200	Page 1/1

Click this link to display the relevant footnote history and examine its evolution through the various WRCs, since WRC-2000. Please refer to [The Footnotes History View](#) for more details.

Article 5 Footnotes History

RR 2014 (Active Edition) Footnotes AB (294)

5.202

Additional allocation in [Saudi Arabia](#), [Armenia](#), [Azerbaijan](#), [Belarus](#), [Bulgaria](#), [United Arab Emirates](#), [Russian Federation](#), [Georgia](#), [Iran \(Islamic Republic of\)](#), [Jordan](#), [Oman](#), [Uzbekistan](#), [Poland](#), [Syrian Arab Republic](#), [Kyrgyzstan](#), [Romania](#), [Tajikistan](#), [Turkmenistan](#), [Ukraine](#), the frequency band 136-137 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-15)

5.202

Additional allocation in [Saudi Arabia](#), [Armenia](#), [Azerbaijan](#), [Belarus](#), [Bulgaria](#), [United Arab Emirates](#), [Russian Federation](#), [Georgia](#), [Iran \(Islamic Republic of\)](#), [Jordan](#), [Latvia](#), [Oman](#), [Uzbekistan](#), [Syrian Arab Republic](#), [Kyrgyzstan](#), [Romania](#), [Tajikistan](#), [Turkmenistan](#), [Ukraine](#), the band 136-137 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-12)

5.202

Additional allocation in [Saudi Arabia](#), [Armenia](#), [Azerbaijan](#), [Belarus](#), [Bulgaria](#), [United Arab Emirates](#), [Russian Federation](#), [Georgia](#), [Iran \(Islamic Republic of\)](#), [Jordan](#), [Latvia](#), [Moldova](#), [Oman](#), [Uzbekistan](#), [Poland](#), [Syrian Arab Republic](#), [Kyrgyzstan](#), [Slovakia](#), [Czech Rep.](#), [Romania](#), [Tajikistan](#), [Turkmenistan](#), [Ukraine](#), the band 136-137 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-2000)

5.202

Additional allocation in [Saudi Arabia](#), [Armenia](#), [Azerbaijan](#), [Belarus](#), [Bulgaria](#), [United Arab Emirates](#), [Russian Federation](#), [Georgia](#), [Iran \(Islamic Republic of\)](#), [Jordan](#), [Latvia](#), [Moldova](#), [Oman](#), [Uzbekistan](#), [Poland](#), [Syrian Arab Republic](#), [Kyrgyzstan](#), [Slovakia](#), [Czech Rep.](#), [Romania](#), [Tajikistan](#), [Turkmenistan](#), [Ukraine](#), the band 136-137 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-2000)

5.202

Additional allocation in [Saudi Arabia](#), [Armenia](#), [Azerbaijan](#), [Belarus](#), [Bulgaria](#), [United Arab Emirates](#), [Russian Federation](#), [Georgia](#), [Iran \(Islamic Republic of\)](#), [Jordan](#), [Latvia](#), [Moldova](#), [Oman](#), [Uzbekistan](#), [Poland](#), [Syrian Arab Republic](#), [Kyrgyzstan](#), [Slovakia](#), [Czech Rep.](#), [Romania](#), [Tajikistan](#), [Turkmenistan](#), [Ukraine](#), the band 136-137 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-2000)

Filter for geographic area

When the footnote text contains a list of geographic areas (countries), you may click on the country name to obtain the [list of all footnotes where that country name appears](#). (The example shown here applies to Poland).

List of footnotes in the Table of Frequency Allocations

Displayed 21 / 794 footnotes.

Find footnote 5.

Number	Source	Description	Scope	Entry into force	Applicable until
5.93	WRC-2015	Additional Allocation		In force	
5.96	WRC-2015	Guidance - Limitation		In force	
5.162A	WRC-2000	Additional Allocation - Limitation		In force	
5.164	WRC-2015	Additional Allocation - Explanatory		In force	
5.201	WRC-2015	Additional Allocation		In force	
5.202	WRC-2015	Additional Allocation		In force	
5.206	WRC-2000	Different Category of Service		In force	
5.221	WRC-2015	Explanatory - Limitation	SPACE ONLY	In force	
5.277	WRC-2012	Additional Allocation		In force	
5.296	WRC-2015	Additional Allocation		In force	
5.312	WRC-2015	Additional Allocation		In force	
5.323	WRC-2012	Additional Allocation - Limitation		In force	
5.331	WRC-2012	Additional Allocation - Limitation		In force	
5.359	WRC-2015	Additional Allocation - Guidance		In force	
5.382	WRC-2015	Different Category of Service - Limitation		In force	
5.469	WRC-2012	Additional Allocation		In force	
5.473	WRC-2007	Additional Allocation		In force	
5.506	WRC-1997	Limitation	SPACE ONLY	In force	
5.510	WRC-2015	Limitation	SPACE ONLY	In force	
5.536B	WRC-2015	Limitation		In force	
5.546	WRC-2012	Different Category of Service - Limitation		In force	

You may restore the list of all footnotes at any moment by clicking the "View all footnotes" icon on the main toolbar.



Continued...

The Footnotes View

The footnote text area

Article 5 of the Radio Regulations (RR5) - Table of Frequency Allocation

Allocations to services Footnotes Preferences Tools Help

List of footnotes in the Table of Frequency Allocations

Displayed 794/794 footnotes.

Find footnote 5. 447C

Number	Source	Description
5.447	WRC-2012	Additional Allocation
5.447A	WRC-1997	Limitation
5.447B	WRC-1997	Additional Allocation - Limitation
5.447C	WRC-1997	Guidance
5.447D	WRC-1997	Limitation
5.447E	WRC-2015	Additional Allocation - Limitation
5.447F	WRC-2015	Explanatory - Limitation
5.448	WRC-2012	Additional Allocation
5.448A	WRC-2003	Guidance
5.448B	WRC-2003	Guidance
5.448C	WRC-2003	Guidance

Footnote text

[5.447C](#) View History [Print](#) [View Main Table](#) [Related](#)

Administrations responsible for fixed-satellite service networks in the band 5 150-5 250 MHz operated under Nos. [5.447A](#) and [5.447B](#) shall coordinate on an equal basis in accordance with No. [9.11A](#) with administrations responsible for non-geostationary-satellite networks operated under No. [5.446](#) and brought into use prior to 17 November 1995. Satellite networks operated under No. [5.446](#) brought into use after 17 November 1995 shall not claim protection from, and shall not cause harmful interference to, stations of the fixed-satellite service operated under Nos. [5.447A](#) and [5.447B](#).

5.446

Additional allocation: in the countries listed in No. [5.369](#), the frequency band 5 150-5 216 MHz is also allocated to the radiodetermination-satellite service (space-to-Earth) on a primary basis, subject to agreement obtained under No. [9.21](#). In **Region 2** (except in [Mexico](#)), the frequency band is also allocated to the radiodetermination-satellite service (space-to-Earth) on a primary basis. In **Region 1** and **Region 3**, except for countries listed in No. [5.369](#) and [Bangladesh](#), the frequency band is also allocated to the radiodetermination-satellite service (space-to-Earth) on a secondary basis. The use by the radiodetermination-satellite service is limited to feeder links in conjunction with the radiodetermination-satellite service operating in the frequency band 5 150-5 216 MHz at the Earth station.

5.369

Different category of service: in [Angola](#), [Australia](#), [China](#), [Eritrea](#), [Ethiopia](#), [India](#), [Iran \(Islamic Republic of\)](#), [Israel](#), [Lebanon](#), [Liberia](#), [Madagascar](#), [Mali](#), [Pakistan](#), [Papua New Guinea](#), [Syrian Arab Republic](#), [Dem. Rep. of the Congo](#), [Sudan](#), [South Sudan](#), [Togo](#), [Zambia](#), the allocation of the band 1 610-1 626.5 MHz to the radiodetermination-satellite service (Earth-to-space) is on a primary basis (see No. [5.33](#)), subject to agreement obtained under No. [9.21](#) from countries not listed in this provision. (WRC-12)

5.447A

The allocation to the fixed-satellite service (Earth-to-space) is limited to feeder links of non-geostationary-satellite systems in the mobile-satellite service and is subject to coordination under [9.11A](#).

When a given footnote text is making reference to other Article 5 footnotes, these references are highlighted. If you click on a referenced footnote number, the software “pops-up” a window displaying the corresponding footnote text, as shown above. The same “navigating” facilities are then also available in the newly opened window.

Use this button to open the corresponding [footnote history view](#).

By convention in the context of the software, the country names appearing in the footnote text are highlighted using three different colors, according to their “conventional roles”:

[Angola](#), [Australia](#), [China](#), [Eritrea](#), [Ethiopia](#),

➤ In **blue** when they are possible “**NOTIFIERS**” of frequency assignments in the context of the footnote. This covers the majority of cases.

➤ In **green** when they are explicitly “**EXCEPTED**” or “**EXCLUDED**” from the provisions stated in the given footnote, or when the footnote is explicitly stating that a given service is not applicable in the relevant country (see No. 5.435 as an example).

[China](#), [Iran \(Islamic Republic of\)](#), [Japan](#), [Uzbekistan](#)

➤ In **red** when they are identified in the text of the relevant footnote as “**AFFECTED**” countries: either the protection of their services is explicitly stated (see No. 5.379E for an example), or their explicit agreement is required or some hard limits are specified to protect the services in their territories (see No. 5.388B as an example).

[Continued...](#)

The Footnotes View

The cross references area

The incorporation of the appropriate cross-references toward the relevant RoPs is still under development.

Use this box to control the visibility of the cross references area

Show all used references in Article 5 footnotes x Show all used references in Article 5 footnotes

Used References
Click to select only those footnotes where the relevant reference appears

Articles Appendices Resolutions Recommendations Regional Agreements Rules of Procedure

Article 5	
Article 5.103	
Article 4	
Article 5.5	
Article 5.9	
Article 5	5.10
5.13	5.2088
5.23	5.2565
5.2889	5.2889
5.2956	5.29
5.30	5.31
5.312	5.32
5.329A	5.33
5.331	5.337
5.340.1	5.342
5.343	5.344
5.347A	5.359
5.366	5.397
5.383	5.401
5.39	5.416
5.45	5.422
5.451A	5.436
5.4446	5.4478
5.457.6	5.471
5.449	5.511
5.483	5.518
5.512	5.523C
5.519	5.524
5.521E	5.545
5.526	5.98
5.67	
5.99	
Article 9	
9.11A	9.11
9.12A	9.12
9.15	9.13
9.18	9.17
9.21	9.19
9.7	9.52
Article 11	

References appearing in Article 5 to other provisions in the other RR Articles

References appearing in Article 5 to other provisions in the other RR Articles

Articles Appendices Resolutions Recommendations Regional Agreements Rules of Procedure

Annex 1, Part B of Rec. ITU-R M.1643-0	
Rec. 707	
Rec. ITU-R 1613-0	
Rec. ITU-R M.1	
Rec. ITU-R 1	
Rec. ITU-R KA	
Rec. ITU-R RS.1	
Rec. ITU-R RS.1893	
Rec. ITU-R RS.2066-0	
Rec. ITU-R S.1596-1	
Rec. ITU-R SA.1862	
Annex 1, Part C of Rec. ITU-R M.1643-0	
Rec. ITU-R BD.1898	
Rec. ITU-R M.1174-3	
Rec. ITU-R M.1632-0	
ITU-R P.452	
ITU-R RA.769	
ITU-R RS.1632-0	
Rec. ITU-R RS.2065-0	
Rec. ITU-R S.1340-0	
Rec. ITU-R SA.1154-0	

The cross references area provides for a quick search and find mechanism of the various references appearing in Article 5 toward other relevant provisions (Articles, Appendices, Recommendations, Resolutions, etc.). By clicking on the appropriate heading, the relevant references are immediately shown.

The incorporation of the appropriate cross-references toward the relevant RoPs is still under development.

References area

Articles Appendices Resolutions Recommendations Regional Agreements Rules of Procedure

Appendix 17
Appendix 17
Appendix 18

Annex 4 of A

References appearing in Article 5 to the RR Appendices

Annex 1 of Appendix 5
Table 5-2 of Appendix 5

Appendix 5
Table 5-2 of Annex 1 to Appendix 5 of the Radio Regulations (Edition of 2004)

Articles Appendices Resolutions Recommendations Regional Agreements Rules of Procedure

References appearing in Article 5 to Resolutions

Resolutions

Res. 114 (Rev.WRC-15)
Res. 124 (WRC-97)
Res. 145 (Rev.WRC-12)
Res. 155 (WRC-15)
Res. 163 (WRC-15)
Res. 205 (Rev.WRC-15)
Res. 212 (Rev.WRC-07)
Res. 217 (WRC-97)
Res. 221 (Rev.WRC-07)
Res. 222 (WRC-07)
Res. 224 (Rev.WRC-15)
Res. 225 (WRC-15)
Res. 33 (WRC-15)
Res. 413 (Rev.WRC-15)
Res. 417 (Rev.WRC-15)
Res. 418 (Rev.WRC-15)
Res. 425 (WRC-15)
Res. 528 (Rev.WRC-15)
Res. 539 (Rev.WRC-15)
Res. 555 (WRC-12)
Res. 609 (Rev.WRC-07)
Res. 612 (Rev.WRC-12)
Res. 739 (Rev.WRC-15)
Res. 743 (WRC-02)
Res. 748 (Rev.WRC-15)
Res. 75 (WRC-2000)
Res. 751 (WRC-02)
Res. 760 (WRC-15)
Res. 902 (WRC-03)

Res. 122 (Rev.WRC-07)
Res. 143 (WRC-03)
Res. 150 (WRC-12)
Res. 156 (WRC-215)
Res. 164 (WRC-15)
Res. 21 (Rev.WRC-95)
Res. 212 (Rev.WRC-15)
Res. 217 (WRC-97)
Res. 222 (Rev.WRC-12)
Res. 223 (Rev.WRC-15)
Res. 224 (WRC-15)
Res. 225 (Rev.WRC-12)
Res. 226 (Rev.WRC-07)
Res. 227 (Rev.WRC-15)
Res. 228 (Rev.WRC-12)
Res. 229 (Rev.WRC-07)
Res. 230 (WRC-07)
Res. 231 (Rev.WRC-12)
Res. 232 (Rev.WRC-15)
Res. 233 (Rev.WRC-12)
Res. 234 (WRC-15)
Res. 235 (Rev.WRC-15)
Res. 236 (Rev.WRC-12)
Res. 237 (Rev.WRC-15)
Res. 238 (Rev.WRC-12)
Res. 239 (Rev.WRC-15)
Res. 240 (Rev.WRC-15)
Res. 241 (Rev.WRC-15)
Res. 242 (Rev.WRC-15)
Res. 243 (Rev.WRC-15)
Res. 244 (Rev.WRC-07)
Res. 245 (Rev.WRC-15)
Res. 246 (Rev.WRC-15)
Res. 247 (Rev.WRC-15)
Res. 248 (Rev.WRC-15)
Res. 249 (Rev.WRC-15)
Res. 250 (Rev.WRC-15)
Res. 251 (Rev.WRC-07)
Res. 261 (WRC-15)
Res. 904 (WRC-07)

As the examples which follow hereafter illustrate, when you click any of the shown references, the software loads the list of all footnotes where the relevant reference is mentioned.

Please note that, except those references made to other Article 5 footnotes (and appropriate RoPs when available), the content of the “external” references is not handled by this software package, nor it is part of it.

Continued...

The Footnotes View

The cross references area – Example 1 – Footnotes referencing another footnote

List of footnotes in the Table of Frequency Allocations

Displayed 3/794 footnotes.

Find footnote 5.

Number	Source	Description	Scope	Entry into force	Applicable until
5.341A	WRC-2015	Explanatory		In force	
5.346	WRC-2015	Explanatory		In force	
5.348B	WRC-2003	Explanatory - Limitation	SPACE ONLY	In force	

1 Used References Click to select only those footnotes where the relevant reference appears Show all used references in Article 5 footnotes

2 Article 5 5.342

3 5.342

4 5.342

Footnote text

[5.341A](#) [View History](#) [Print](#) [View Main Table Related Allocations](#)

In **Region 1**, the frequency bands 1 427-1 452 MHz and 1 492-1 518 MHz are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with **Res. 223 (Rev.WRC-15)**. This identification does not preclude the use of these frequency bands by any other application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of IMT stations is subject to agreement obtained under No. **9.21** with respect to the aeronautical mobile service used for aeronautical telemetry in accordance with No. **5.342** (WRC-15)

5.342

5.342

Additional allocation: in **Armenia, Azerbaijan, Belarus, Russian Federation, Uzbekistan, Kyrgyzstan, Ukraine**, the frequency band 1 429-1 535 MHz is also allocated to the aeronautical mobile service on a primary basis, exclusively for the purposes of aeronautical telemetry within the national territory. As of 1 April 2007, the use of the frequency band 1 452-1 492 MHz is subject to agreement between the administrations concerned. (WRC-15)

Continued...

The Footnotes View

The cross references area – Example 2 – Footnotes referencing provisions from another article

The Footnotes View

The cross references area – Example 3 – Footnotes referencing a given Resolution

List of footnotes in the Table of Frequency Allocations

Displayed 1/794 footnotes.  

Find footnote 5.

Search footnotes text



Number	Source	Description	Scope	Entry into force	Applicable until
5.328AA	WRC-2015	Additional Allocation - Limitation	SPACE ONLY	In force	

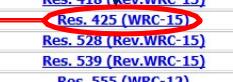
1

Used References

Click to select only those footnotes where the relevant reference appears

Show all used references in Article 5 footnotes



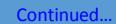
Articles	Appendices	Resolutions	Recommendations	Regional Agreements	Rules of Procedure
					
		Res. 114 (Rev.WRC-15)	Res. 122 (Rev.WRC-07)		
		Res. 124 (WRC-97)	Res. 143 (WRC-03)		
		Res. 145 (Rev.WRC-12)	Res. 150 (WRC-12)		
		Res. 155 (WRC-15)	Res. 156 (WRC-215)		
		Res. 163 (WRC-15)	Res. 164 (WRC-15)		
		Res. 205 (Rev.WRC-15)	Res. 21(Rev. WRC-95)		
		Res. 212 (Rev.WRC-07)	Res. 212 (Rev.WRC-15)		
		Res. 217 (WRC-97)	Res. 217(WRC-97)		
		Res. 221 (Rev.WRC-07)	Res. 222 (Rev.WRC-12)		
		Res. 222 (WRC-2000)	Res. 223 (Rev.WRC-15)		
		Res. 224 (Rev.WRC-15)	Res. 224 (WRC-15)		
		Res. 225 (Rev.WRC-07)	Res. 229 (Rev.WRC-12)		
		Res. 33 (Rev.WRC-97)	Res. 339 (Rev. WRC-07)		
		Res. 413 (Rev.WRC-07)	Res. 416 (WRC-07)		
		Res. 417 (Rev.WRC-15)	Res. 418 (Rev.WRC-12)		
		Res. 418 (Rev.WRC-15)	Res. 424 (WRC-15)		
		Res. 425 (WRC-15)	Res. 517(Rev.WRC-07)		
		Res. 528 (Rev.WRC-15)	Res. 528 (WARC-92)		
		Res. 539 (Rev.WRC-15)	Res. 549 (WRC-07)		
		Res. 555 (WRC-12)	Res. 608 (WRC-03)		

2

Footnote text

5.328AA [View History](#) [Print](#) [View Main Table](#) [Related Allocations](#)

The frequency band 1 087.7-1 092.3 MHz is also allocated to the aeronautical mobile-satellite (R) service (Earth-to-space) on a primary basis, limited to the space station reception of Automatic Dependent Surveillance-Broadcast (ADS-B) emissions from aircraft transmitters that operate in accordance with recognized international aeronautical standards. Stations operating in the aeronautical mobile-satellite (R) service shall not claim protection from stations operating in the aeronautical radionavigation service **Res. 425 (WRC-15)** shall apply. (WRC-15)



The Footnotes View

The footnotes “text search utility”

When working with the Footnotes View, the software provides a utility for “**basic exact text matching search**” in the text of the Article 5 footnotes. This is accessible by clicking the box shown here.

1 Type in the text you would like to find in this box. (The software “remembers” your last 10 searches)

2 Specify any additional “criteria for your text search. Please refer to **Conditional Allocations Footnotes** for more information about the use of conditional footnotes.

3 Click the “Find...” button to perform your text search and obtain **the list of all footnotes containing the matching text**.

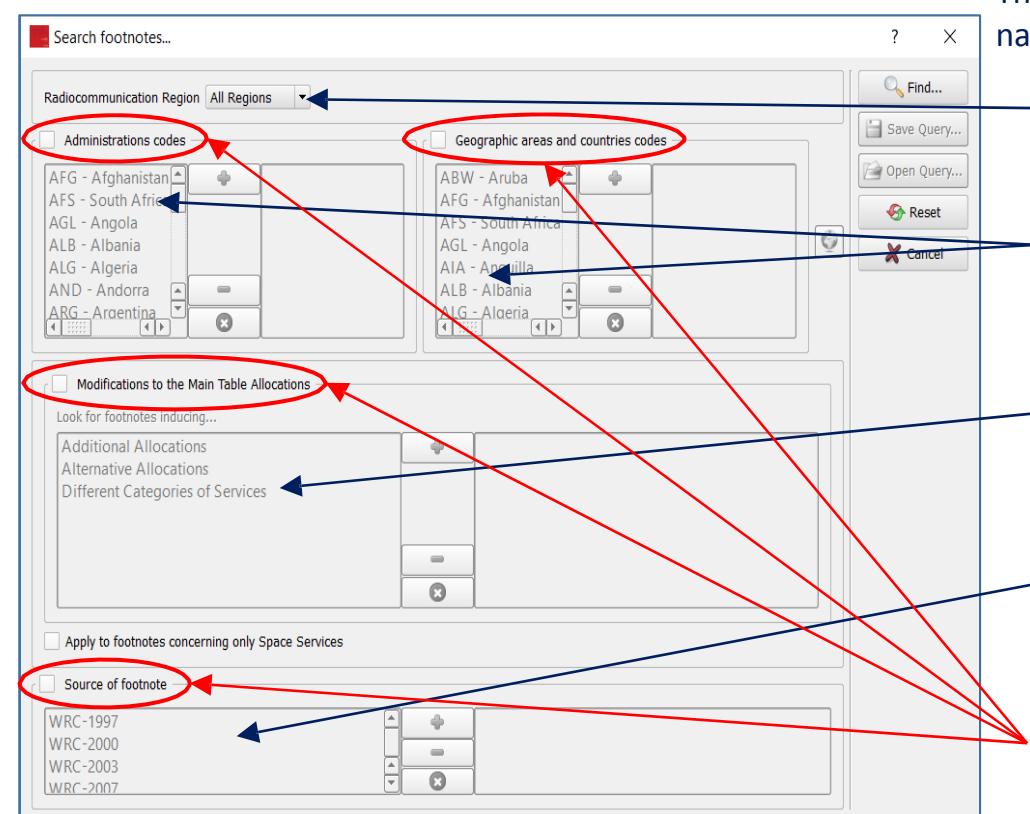
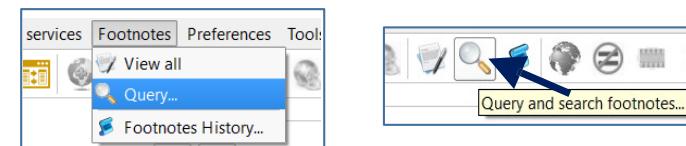
4 Once the “matching footnotes” are displayed, you may “navigate” them in the standard “Footnotes View” way described previously and check their text, “allocation boxes”, cross references, history, etc.

Number	Source	Description	Scope	Entry into force	Applicable until
5.286AA	WRC-2015	Explanatory		In force	
5.295	WRC-2015	Explanatory - Guidance - Limitation		In force	
5.296A	WRC-2015	Explanatory - Guidance - Limitation		In force	
5.308A	WRC-2015	Explanatory - Guidance - Limitation		In force	
5.313A	WRC-2015	Explanatory - Guidance - Limitation		In force	
5.317A	WRC-2015	Explanatory - Guidance - Limitation		In force	
5.341A	WRC-2015	Explanatory - Guidance - Limitation		In force	
5.341B	WRC-2015	Explanatory - Guidance - Limitation		In force	
5.341C	WRC-2015	Explanatory - Guidance - Limitation		In force	
5.346	WRC-2015	Explanatory		In force	
5.346A	WRC-2015	Explanatory		In force	
5.384A	WRC-2007	Explanatory - Guidance		In force	
5.388	WRC-2015	Explanatory - Guidance		In force	
5.388A	WRC-2012	Explanatory - Guidance		In force	

Footnote text
5.286AA [View History](#) [Print](#) [View Main Table Related Allocations](#)
 The frequency band 450-470 MHz is identified for use by administrations wishing to implement **International Mobile Telecommunications (IMT)**. See **Res. 224 (Rev.WRC-15)**. This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. (WRC-15)

Querying Footnotes

Advanced queries on the Article 5 footnotes meta-data can be performed by invoking the “Search footnotes” dialog. This is accessible via the menu item “Footnotes – Query...” or, alternatively, by clicking on the corresponding icon on the main toolbar as shown here.



The Search footnotes dialog 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.

Combining these various criteria can be controlled by checking/unchecking the corresponding boxes.

The following examples illustrate the usage of these criteria in details.

[Continued...](#)

Querying Footnotes

Implemented Regions-Administrations-Geographic areas relationships

When a given Region (or Regions) is (are) specified, the software automatically adjusts and fills in the lists of geographic areas and Administrations accordingly (as shown below), so that **only those geographic areas and countries “belonging” to the specified Region(s) are available for selection and only those Administrations responsible for “territories” in the specified Region(s) are available for selection.**

Furthermore, it should be noted that the “direct” selections of Administrations and Geographic areas are **mutually exclusive**. Checking one of the corresponding boxes disables the other box, as shown below.

The idea here being that upon specifying a given Region and an appropriate Administration code, the software automatically adjusts and fills in the list of Geographic areas with those in the specified Region, falling under the responsibility of the specified Administration.

The examples shown here illustrate how this concept applies for instance to the territories under the responsibility of the French Administration in Region 2, or under the responsibility of the US Administration in Region 3.

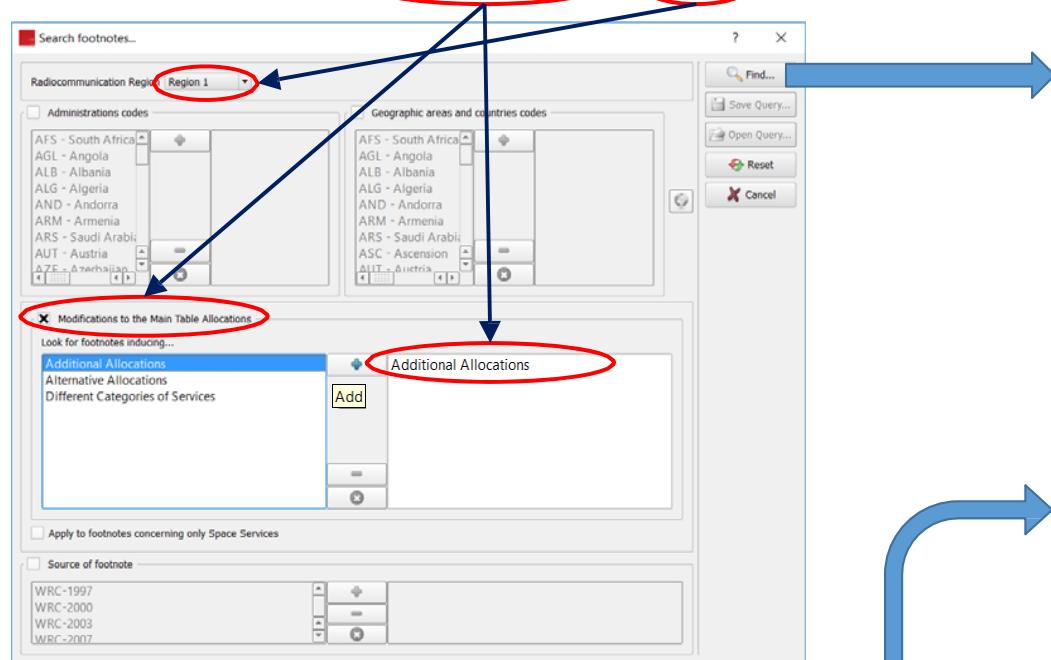


[Continued...](#)

Querying Footnotes

Example 1

Find all footnotes specifying **Additional Allocations in Region 1**.



It is worth noting that this query finds matching footnotes specifying Additional Allocations which apply to countries “belonging” to the specified Region(s) as well as “Global” Additional Allocations applying to the whole specified Region(s) (Region 1 in this case), as shown here.

Once the “matching footnotes” are displayed, you may “navigate” them in the standard “Footnotes View” way described previously and check their text, “allocation boxes”, cross references, history, etc.

List of footnotes in the Table of Frequency Allocations

Displayed 110/794 footnotes.  

Find footnote 5. Show all used references in Article 5 footnote

Number / Source / Description / Scope / Entry into force / Applicable until

Number	Source	Description	Scope	Entry into force	Applicable until
5.54B	WRC-2015	Additional Allocation		In force	
5.55	WRC-2015	Additional Allocation		In force	
5.58	WRC-2000	Additional Allocation		In force	
5.67	WRC-2007	Additional Allocation			
5.69	WRC-1997	Additional Allocation			
5.73	WRC-1997	Additional Allocation - Limitation			
5.74	WRC-1997	Additional Allocation		In force	
5.87	WRC-2012	Additional Allocation		In force	
5.87A	WRC-1997	Additional Allocation - Limitation		In force	
5.93	WRC-2015	Additional Allocation		In force	
5.99	WRC-2012	Additional Allocation - Limitation		In force	
5.107	WRC-2012	Additional Allocation - Limitation		In force	
E.123	WRC-1997	Additional Allocation		In force	

Footnote text: List of footnotes specifying Additional Allocations in Region 1

5.67 [View History](#) [Print](#) [View Main Table Related Allocations](#)

Additional allocation: in **Mongolia, Kyrgyzstan, Turkmenistan**, the band 130-148.5 kHz is also allocated to the radionavigation service on a secondary basis. Within and between these countries this service shall have an equal right to operate. (WRC-07)

Footnote text: Additional allocation: in **Region 1**, the frequency band 285.3-285.7 kHz is also allocated to the maritime radionavigation service (other than radiobeacons) on a primary basis.

Continued...

Querying Footnotes

Example 2

Find all footnotes:

specifying Additional Allocations,

which apply to any of the specified Geographic areas (countries),

Search footnotes...

Radiocommunication Region All Regions

Administrations codes

AFG - Afghanistan
AFS - South Africa
AGL - Angola
ALB - Albania
ALG - Algeria
AND - Andorra
ARG - Argentina

Geographic areas and countries codes

ABW - Aruba
AFG - Afghanistan
AFS - South Africa
AGL - Angola
ALA - Anguilla
ALB - Albania
ALG - Algeria

F - France
G - United Kingdom

Modifications to the Main Table Allocations

Look for footnotes inducing...

Alternative Allocations
Different Categories of Services

Additional Allocations

Apply to footnotes concerning only Space Services

Source of footnote

WRC-1997
WRC-2000
WRC-2003
WRC-2007

List of footnotes in the Table of Frequency Allocations

Displayed 14/794 footnotes.

Find footnote 5.

Search footnotes text

Show all used references in Article 5 footnotes

Number / Source Description Scope Entry into force Applicable until

5.162A	WRC-2000	Additional Allocation - Limitation		In force	
5.164	WRC-2015	Additional Allocation - Explanatory		In force	
5.210	WRC-2007	Additional Allocation	SPACE ONLY	In force	
5.211	WRC-2015	Additional Allocation		In force	
5.225A	WRC-2012	Additional Allocation - Limitation		In force	
5.235	WRC-1997	Additional Allocation		In force	
5.281	WRC-1997	Additional Allocation	SPACE ONLY	In force	
5.296	WRC-2015	Additional Allocation		In force	
5.331	WRC-2012	Additional Allocation - Limitation		In force	
5.359	WRC-2015	Additional Allocation - Guidance		In force	
5.451	WRC-1997	Additional Allocation - Limitation		In force	
5.471	WRC-2015	Additional Allocation - Limitation		In force	
5.495	WRC-2015	Additional Allocation - Limitation		In force	

Footnote to:

5.162A View History Print View Main Table Related Allocations

Additional allocation: in [Germany](#), [Austria](#), [Belgium](#), [Bosnia and Herzegovina](#), [China](#), [Vatican](#), [Denmark](#), [Spain](#), [Estonia](#), [Russian Federation](#), [Finland](#), [France](#), [Ireland](#), [Iceland](#), [Italy](#), [The Former Yugoslav Rep. of Macedonia](#), [Latvia](#), [Liechtenstein](#), [Lithuania](#), [Luxembourg](#), [Monaco](#), [Montenegro](#), [Norway](#), [Netherlands](#), [Poland](#), [Portugal](#), [Czech Rep.](#), [United Kingdom](#), [Serbia](#), [Slovenia](#), [Sweden](#), [Switzerland](#), the band 46-68 MHz is also allocated to the radiolocation service on a secondary basis. This use is limited to the operation of wind profiler radars in accordance with **Res. 217(WRC-97)**. (WRC-12)

Once the “matching footnotes” are displayed, you may “navigate” them in the standard “Footnotes View” way described previously and check their text, “allocation boxes”, cross references, history, etc.

Continued...

Querying Footnotes

Example 3

Find all footnotes:

specifying either Additional Allocations or Different Categories of Services,

which apply to a given Administration,

and which were introduced or last modified by WRC-12 or WRC-15.

Search footnotes.

Radiocommunications Region: All Regions

Administrations codes: RUS - Russian Federation

Modifications to the Main Table Allocations: Additional Allocations, Different Categories of Services

Source of footnote: WRC-2012, WRC-2015

List of footnotes in the Table of Frequency Allocations

Displayed 26/794 footnotes.

Find footnote 5.

Show all used footnotes

Number	Source	Description	Scope	Entry into force	Applicable until
5.54B	WRC-2015	Additional Allocation		In force	
5.55	WRC-2015	Additional Allocation		In force	
5.77	WRC-2012	Different Category of Service		In force	
5.93	WRC-2015	Additional Allocation		In force	
5.133	WRC-2012	Different Category of Service - Limitation		In force	
5.163	WRC-2012	Additional Allocation		In force	
5.179	WRC-2012	Additional Allocation - Limitation		In force	
5.201	WRC-2015	Additional Allocation		In force	
5.202	WRC-2015	Additional Allocation		In force	
5.225A	WRC-2012	Additional Allocation - Limitation		In force	
5.256A	WRC-2015	Additional Allocation	SPACE ONLY	In force	
5.262	WRC-2012	Additional Allocation		In force	
5.277	WRC-2012	Additional Allocation		In force	
5.290	WRC-2012	Different Category of Service	SPACE ONLY	In force	
5.312	WRC-2015	Additional Allocation		In force	
5.323	WRC-2012	Additional Allocation - Limitation		In force	
5.331	WRC-2012	Additional Allocation - Limitation		In force	
5.342	WRC-2015	Additional Allocation - Limitation		In force	
5.359	WRC-2015	Additional Allocation - Guidance		In force	
5.382	WRC-2015	Different Category of Service - Limitation		In force	
5.398A	WRC-2012	Different Category of Service - Limitation		In force	
5.454	WRC-2012	Different Category of Service	SPACE ONLY	In force	
5.459	WRC-2015	Additional Allocation	SPACE ONLY	In force	
5.469	WRC-2012	Additional Allocation		In force	
5.546	WRC-2012	Different Category of Service - Limitation		In force	
5.550	WRC-2012	Different Category of Service	SPACE ONLY	In force	

Footnote text

5.54B [View History](#) [Print](#) [View Main Table Related Allocations](#)

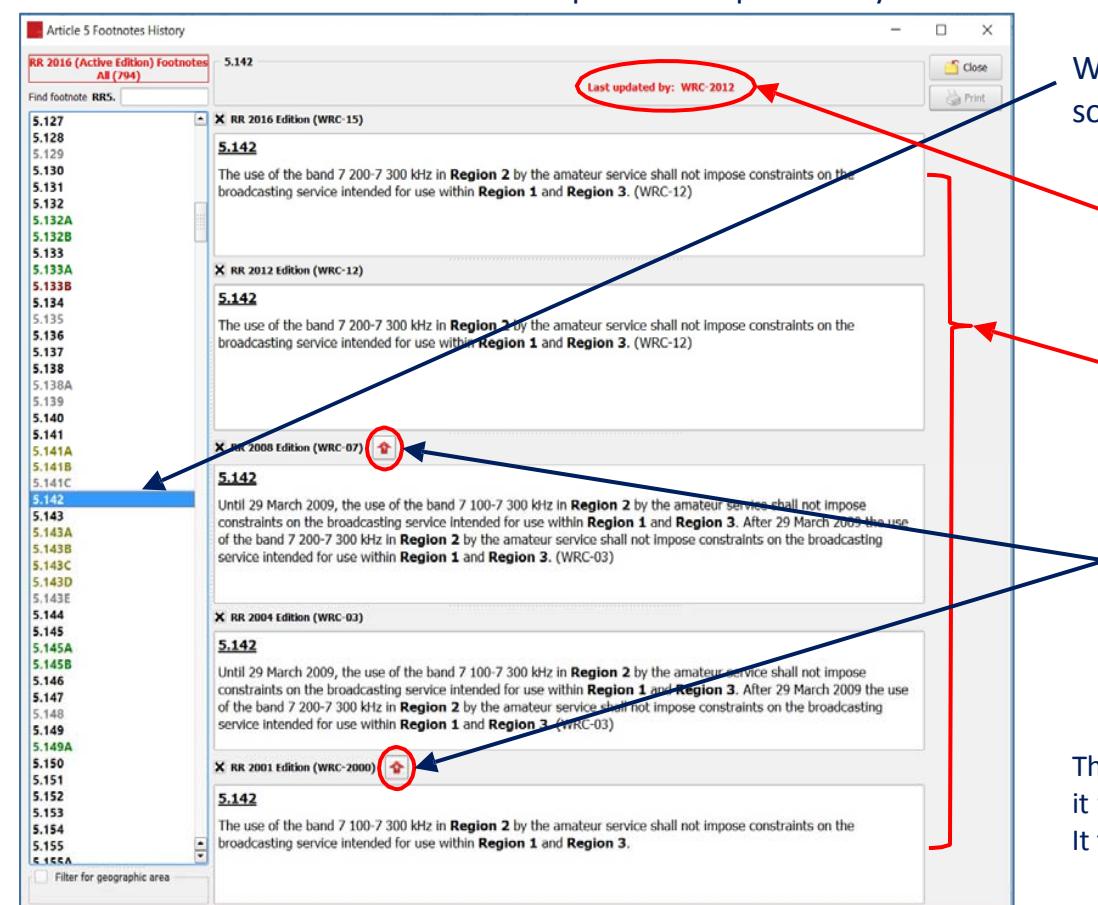
Additional allocation: in **Algeria, Saudi Arabia, Bahrain, Egypt, United Arab Emirates, Russian Federation, Iran (Islamic Republic of), Iraq, Kuwait, Lebanon, Morocco, Qatar, Syrian Arab Republic, Sudan, Tunisia**, the frequency band 8.3-9 kHz is also allocated to the radionavigation, fixed and mobile services on a primary basis. (WRC-15)

Once the “matching footnotes” are displayed, you may “navigate” them in the standard “Footnotes View” way described previously and check their text, “allocation boxes”, cross references, history, etc.



The Footnotes History View

The **Footnotes History** utility can be invoked by using the menu item “**Footnotes – Footnotes History...**” or, alternatively, by clicking on the corresponding icon on the main toolbar as shown here. The Footnotes History View is a utility which enables “tracing” and examining the “lifetime” and evolution of the provisions specified by individual footnotes, **back to WRC-2000 (RR Edition of 2001)** onward.



When a footnote number is selected from the list of footnotes, the software

- indicates the last WRC which updated the relevant footnote,
- and (depending on its availability) displays its text as it has evolved through the successive WRCs and in the successive resulting RR Editions,
- displays (when appropriate) the corresponding indicators of the “next WRCs” which modified the previous footnote text. The absence of such an indicator means that the “Next WRC” left the relevant footnote unchanged.

Thus, the example shown here clearly indicates that No. 5.142 for instance, as it was standing in the RR 2001 Edition, was subsequently modified by WRC-03. It then remained unchanged by WRC-07 and was last modified by WRC-12.

Continued...

The Footnotes History View



You may directly jump to the history of a given footnote by typing its number in this box.

Article 5 Footnotes History

RR 2016 (Active Edition) Footnotes All (794)

Find footnote RRS.

5.297

Last updated by: WRC-2015

Close Print

5.270 RR 2016 Edition (WRC-15)

5.297 Additional allocation: in **Canada**, **Costa Rica**, **Cuba**, **El Salvador**, **United States**, **Guatemala**, **Guyana**, **Jamaica**, the frequency band 512-608 MHz is also allocated to the fixed and mobile services on a primary basis, subject to agreement obtained under No. **9.21**. In **Bahamas**, **Barbados**, **Mexico**, the frequency band 512-608 MHz is also allocated to the mobile service on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-15)

5.297 RR 2012 Edition (WRC-12)

5.297 Additional allocation: in **Canada**, **Costa Rica**, **Cuba**, **El Salvador**, **United States**, **Guatemala**, **Guyana**, **Honduras**, **Jamaica**, **Mexico**, the band 512-608 MHz is also allocated to the fixed and mobile services on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-07)

5.297 RR 2008 Edition (WRC-07)

5.297 Additional allocation: in **Canada**, **Costa Rica**, **Cuba**, **El Salvador**, **United States**, **Guatemala**, **Guyana**, **Honduras**, **Jamaica**, **Mexico**, the band 512-608 MHz is also allocated to the fixed and mobile services on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-07)

5.297 RR 2004 Edition (WRC-03)

5.297 Additional allocation: in **Costa Rica**, **Cuba**, **El Salvador**, **United States**, **Guatemala**, **Guyana**, **Honduras**, **Jamaica**, **Mexico**, the band 512-608 MHz is also allocated to the fixed and mobile services on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-2000)

5.297 RR 2001 Edition (WRC-2000)

5.297 Additional allocation: in **Costa Rica**, **Cuba**, **El Salvador**, **United States**, **Guatemala**, **Guyana**, **Honduras**, **Jamaica**, **Mexico**, the band 512-608 MHz is also allocated to the fixed and mobile services on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-2000)

Filter for geographic area

When applicable, footnotes involving **list of countries** (typically Additional Allocations, Alternative Allocations and Different Categories of Services provisions) are **further highlighted** so as to mark the list of countries “joining or leaving” the provisions of the relevant footnote through the successive WRCs:

- Countries (or geographic areas) highlighted in **blue** are those who “joined” (added their names to) the relevant footnote **in the relevant WRC**.

Honduras

- Countries (or geographic areas) highlighted in **red** are those who “left” (removed their names from) the relevant footnote **at the next WRC**.

Thus, the example shown here clearly indicates that No. 5.297 for instance, as it was standing in the RR 2001 Edition, was subsequently modified by WRC-07 where **Canada** “joined” the footnote at that WRC. It remained unchanged by WRC-12 and was last modified by WRC-15, where (in addition to other changes in the provisions) **Honduras** “left” and both **Bahamas** and **Barbados** “joined”.

Continued...

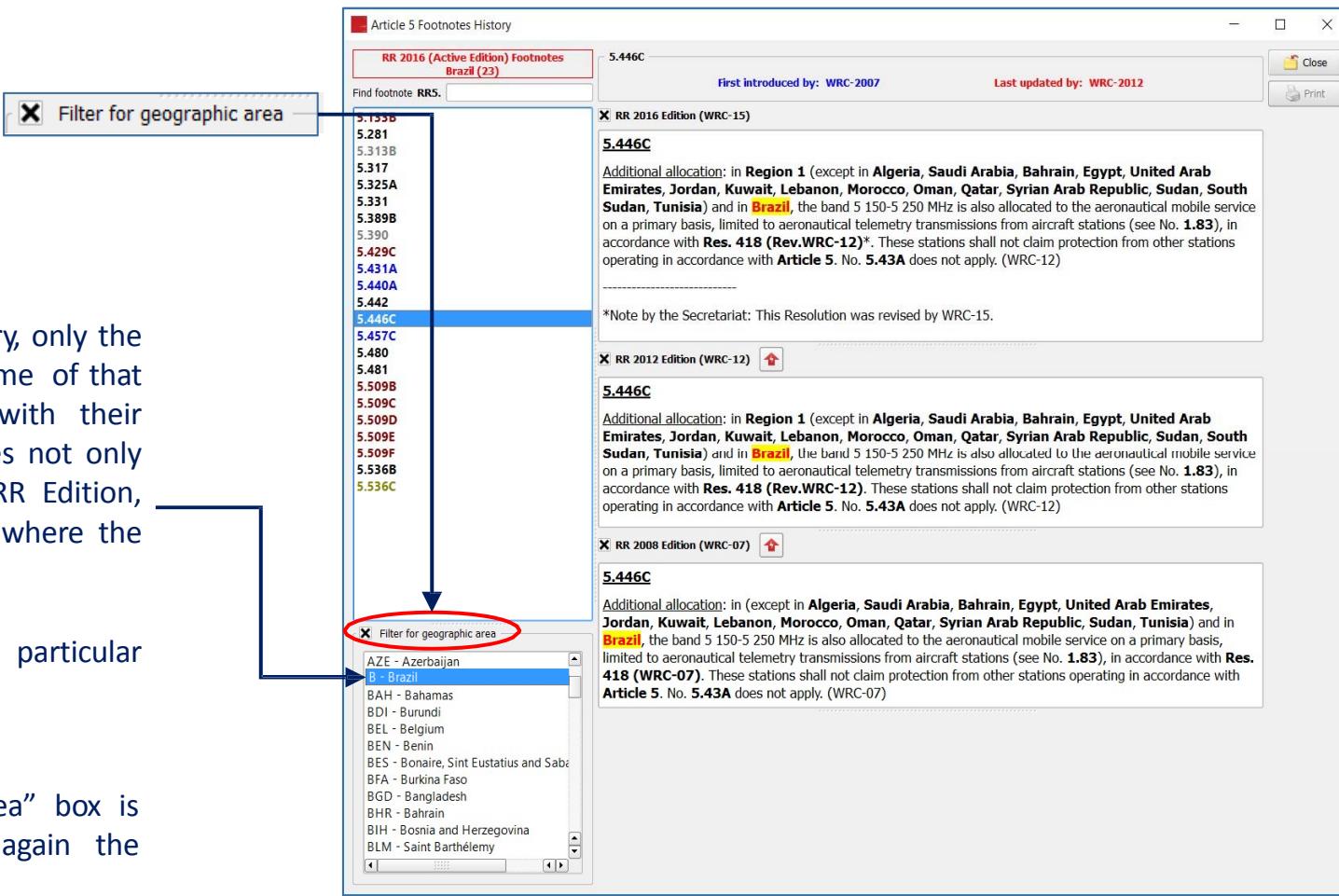
The Footnotes History View

When working with the Footnotes History View, an additional utility consists in “filtering” the displayed footnotes list for a given geographic area (country). This may be achieved by checking the corresponding box, as shown here.

Consequently, upon selecting a given country, only the list of appropriate footnotes where the name of that country appears is displayed, together with their history. The displayed footnotes list includes not only the relevant footnotes from the current RR Edition, but also those from previous RR Editions where the specified country “used” to appear.

This is very useful to examine when a particular country has joined/left a particular footnote.

As soon as the “Filter for geographic area” box is unchecked, the software displays back again the complete list of footnotes.



Continued...

The Footnotes History View

In addition to the last updating WRC, the software also displays the “first” source of the footnote (the WRC which first introduced the footnote), when it can determine it.

Thus, in the Footnotes History View, the list of footnotes is displayed using the following color schema:

5.208B	First introduced by: WRC-2007	Last updated by: WRC-2015
5.228AA	First introduced by: WRC-2015	Last updated by: WRC-2015

Dark Yellow is used for the footnotes first introduced by WRC-2003.

Blue is used for the footnotes first introduced by WRC-2007.

Dark Green is used for the footnotes first introduced by WRC-2012.

Dark Red is used for the footnotes first introduced by WBC-2015

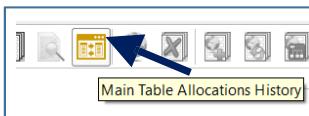
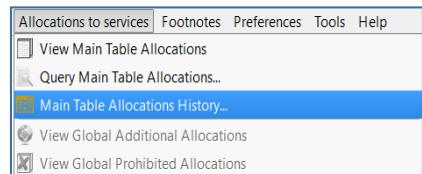
Dark Gray is used for the footnotes suppressed by any WRC. In this case, the software indicates the WRC which suppressed the footnote, if it is able to determine it. The history displays the “last known text” of the footnote before its suppression, if available.

Black is used in all other cases where the software is not able to determine the suitable information. (This is usually the case for footnotes first introduced or suppressed by or prior to WRC-97 or WRC-2000).

First introduced by: WRC-2003	Last updated by: WRC-2007
First introduced by: WRC-2007	Last updated by: WRC-2015
First introduced by: WRC-2012	Last updated by: WRC-2012
First introduced by: WRC-2015	Last updated by: WRC-2015
First introduced by: WRC-2007	Suppressed by: WRC-2012
C-15)	
C-12)	
C-07) 	
: the bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz are also allocated to the mobile- Earth-to-space) on a secondary basis for the reception of automatic identification system (AIS) bands operating in the maritime-mobile service (see Appendix 18). (WRC-07)	



The Main Table History View



The **Main Table History View** can be invoked by using the menu item “**Allocations to services – Main Table Allocations History...**” or, alternatively, by clicking on the corresponding icon on the main toolbar as shown here. This utility enables “tracing”, comparing and examining the “lifetime” and evolution of the Main Table Allocations, **back to WRC-2000 (RR Edition of 2001) onward**.

The screenshot shows the Main Table Allocations History view with two panels. The left panel is for RR 2012 Edition (WRC-12) and the right panel is for RR 2016 Edition (Active Edition) (WRC-15). The interface includes a toolbar with 'History mode' and 'Custom mode' buttons, and a 'View Footnotes Comparison' button. Red arrows point from the text descriptions to specific UI elements and data differences in the comparison grid.

When first invoked, the Main Table History View is presented by default in its so called “History Mode”: it displays a side-by-side comparison of the Main Table allocations between the active RR Edition (RR 2016) and the previous RR Edition (RR 2012), aligned to frequency bands partition.

When applicable, the comparison is done on a “box-by-box” basis and the software tentatively marks and highlights the various differences, including box frequency bands, services and associated footnotes.

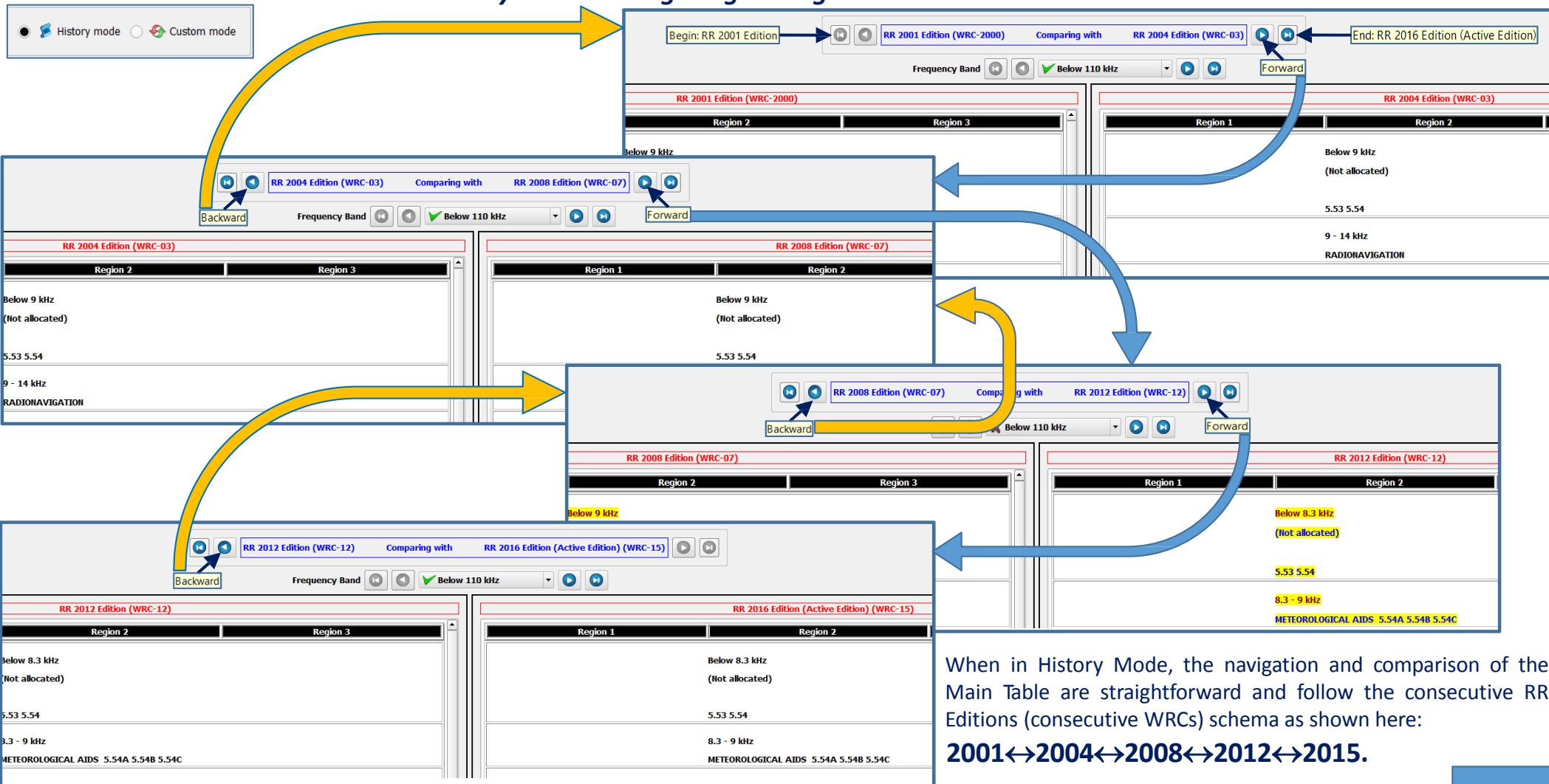
Navigation tools are available on an “RR Edition – Frequency band” combination basis, and various comparison and customization tools are provided, including footnotes.

The following examples describe the corresponding features in more details.



The Main Table History View

History Mode: Navigating through consecutive RR Editions



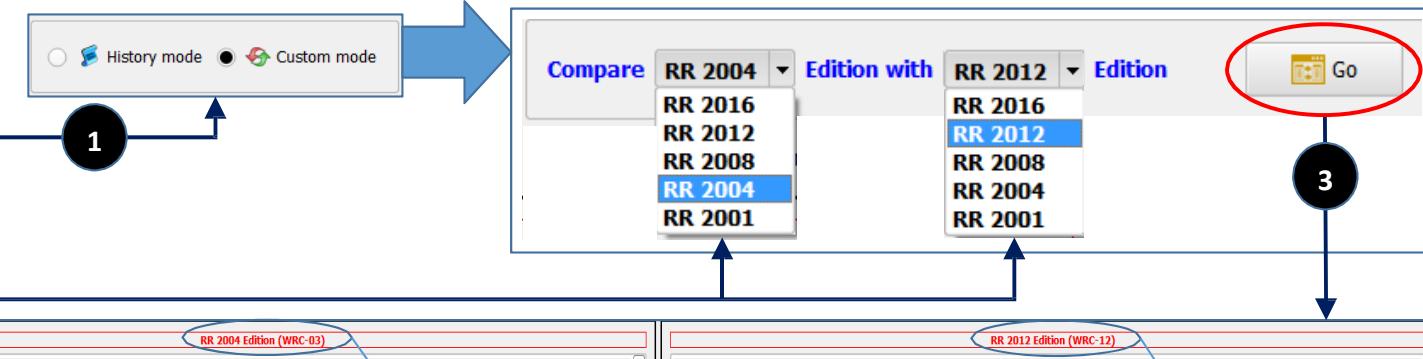
When in History Mode, the navigation and comparison of the Main Table are straightforward and follow the consecutive RR Editions (consecutive WRCs) schema as shown here:

2001↔2004↔2008↔2012↔2015.

The Main Table History View

Custom Mode: comparing the Main Table allocations from non-consecutive RR Editions

The Main Table History View also provides for a “Custom Mode” comparison, when you are interested in comparing the allocations from two non-consecutive RR Editions (two non-consecutive WRCs). This is accessible via the box shown here.



You may then specify the two RR Editions from which you would like to compare the Main Table allocations, then click Go to perform the comparison.

The example shown here for instance leads to comparing the Main Table allocations from RR 2004 Edition (WRC-03) with the Main Table allocations from RR 2012 Edition (WRC-12).

RR 2004 Edition (WRC-03)

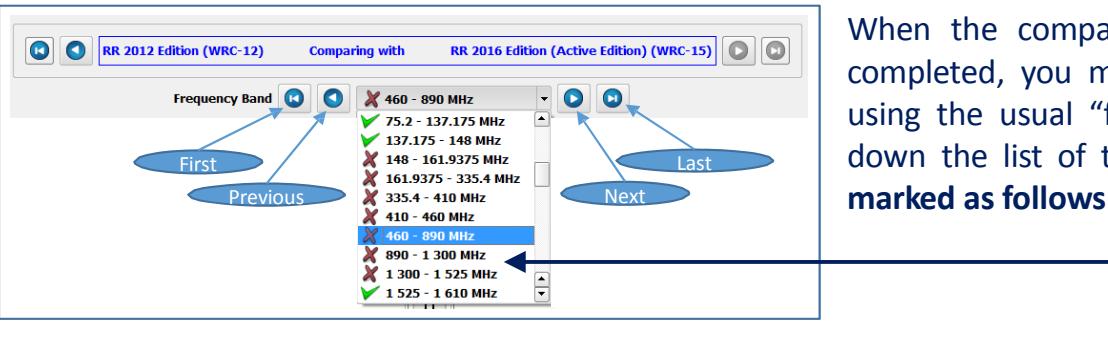
Region 1	Region 2	Region 3
Below 9 kHz (Not allocated)		
5.53 5.54		
9-14 kHz RADIONAVIGATION		
14 - 19.95 kHz FIXED		
MARITIME MOBILE 5.57		
5.55 5.56		
19.95 - 20.05 kHz STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)		
20.05 - 70 kHz FIXED		
MARITIME MOBILE 5.57		
5.56 5.58		
70 - 72 kHz RADIONAVIGATION 5.60	70 - 90 kHz FIXED MARITIME MOBILE 5.57 MARITIME RADIONAVIGATION 5.60	70 - 72 kHz RADIONAVIGATION 5.60 Fixed Maritime mobile 5.57

RR 2012 Edition (WRC-12)

Region 1	Region 2	Region 3
Below 8.3 kHz (Not allocated)		
5.53 5.54		
8.3 - 9 kHz METEOROLOGICAL AIDS 5.54A 5.54B 5.54C		
9 - 11.3 kHz RADIONAVIGATION		
11.3 - 14 kHz RADIONAVIGATION		
14 - 19.95 kHz FIXED		
MARITIME MOBILE 5.57		
5.55 5.56		
19.95 - 20.05 kHz STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)		
20.05 - 70 kHz FIXED		
MARITIME MOBILE 5.57		

The Main Table History View

Navigating frequency bands and checking differences



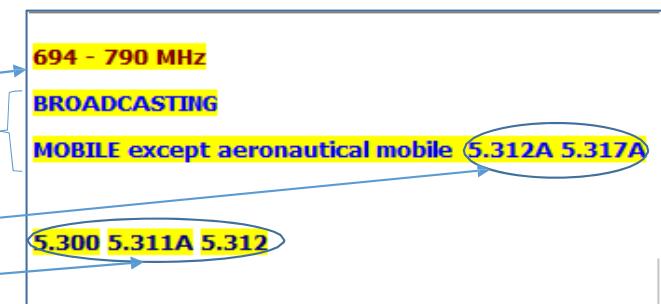
When the comparison of the Main Table allocations from two RR Editions is completed, you may then navigate the specified partition of the frequency bands using the usual “first-previous-next-last” layout. **In addition**, however, if you dropdown the list of the frequency bands, you may notice that the **various bands are marked as follows**:

✓ The green mark next to a frequency band indicates that no differences were found in the allocation boxes in that band, between the two compared Main Tables.

✗ The red mark next to a frequency band indicates that differences were found in the allocation boxes in that band, between the two compared Main Tables.

The software tentatively performs the comparison of the Main Table allocations from two RR Editions on a “**Region-by-Region/box-by-box**” basis, trying (in addition to Region applicability) for every allocation box to match the following data:

- The frequency band,
- The list of radiocommunication services, and then
 - for every service, the list of associated “service footnotes” (if any),
- The list of “box footnotes” applying to the box as a whole.



When differences are found, they are marked accordingly in both Tables, inviting checking, as explained below.

[Continued...](#)

The Main Table History View

Navigating frequency bands and checking differences

RR 2012 Edition (WRC-12)			RR 2016 Edition (Active Edition) (WRC-15)		
Region 1	Region 2	Region 3	Region 1	Region 2	Region 3
460 - 470 MHz FIXED MOBILE 5.286AA Meteorological-satellite (space-to-Earth) 5.287 5.288 5.289 5.290	470 - 512 MHz BROADCASTING Fixed Mobile 5.292 5.293	470 - 585 MHz BROADCASTING FIXED MOBILE 5.291 5.298	460 - 470 MHz FIXED MOBILE 5.286AA Meteorological-satellite (space-to-Earth) 5.287 5.288 5.289 5.290	470 - 512 MHz BROADCASTING Fixed Mobile 5.292 5.293 5.295	470 - 585 MHz BROADCASTING FIXED MOBILE 5.296A 5.291 5.298
512 - 608 MHz BROADCASTING 5.297	585 - 610 MHz BROADCASTING FIXED MOBILE 5.295 5.297	512 - 608 MHz BROADCASTING 5.295 5.297	512 - 608 MHz BROADCASTING 5.295 5.297	608 - 614 MHz RADIO ASTRONOMY Mobile-satellite except aeronautical mobile-satellite (Earth-to-space) 5.149 5.305 5.306 5.307	608 - 614 MHz RADIO ASTRONOMY Mobile-satellite except aeronautical mobile-satellite (Earth-to-space) 5.149 5.305 5.306 5.307
608 - 614 MHz RADIO ASTRONOMY Mobile-satellite except aeronautical mobile-satellite (Earth-to-space) 5.149 5.305 5.306 5.307	610 - 890 MHz BROADCASTING FIXED MOBILE 5.313A 5.317A 5.149 5.305 5.306 5.307 5.311A 5.320	610 - 890 MHz BROADCASTING MOBILE 5.312A 5.317A 5.300 5.311A 5.312	610 - 890 MHz BROADCASTING MOBILE 5.312A 5.317A 5.300 5.311A 5.312	614 - 698 MHz BROADCASTING Fixed Mobile 5.293 5.309 5.311A	614 - 698 MHz BROADCASTING FIXED MOBILE 5.296A 5.313A 5.317A 5.149 5.305 5.306 5.307 5.311A 5.320
614 - 698 MHz BROADCASTING Fixed Mobile 5.293 5.309 5.311A	694 - 790 MHz BROADCASTING MOBILE except aeronautical mobile 5.312A 5.317A 5.300 5.311A 5.312	694 - 790 MHz BROADCASTING MOBILE except aeronautical mobile 5.312A 5.317A 5.300 5.311A 5.312	694 - 790 MHz BROADCASTING MOBILE except aeronautical mobile 5.312A 5.317A 5.300 5.311A 5.312	694 - 790 MHz BROADCASTING MOBILE except aeronautical mobile 5.312A 5.317A 5.300 5.311A 5.312	694 - 790 MHz BROADCASTING MOBILE except aeronautical mobile 5.312A 5.317A 5.300 5.311A 5.312

Exact matching boxes are not highlighted in any way.

Box frequency bands are only highlighted when “no matching boxes” with for the same Region/bands combination are found. This usually is the result of the “split” operated by a given WRC of the box from the “previous” edition into two (or more) boxes, introducing allocations to “new” services:

In such cases, the boxes are considered “totally mismatching” and all their content is highlighted.

In less frequent cases, this may also result from the “merge” of two (or more) boxes (from two or more Regions). See for example the comparison of the band 1 700 – 1 710 MHz between RR 2001 and RR 2004 Editions.

Continued...

The Main Table History View

Navigating frequency bands and checking differences

RR 2012 Edition (WRC-12)			RR 2016 Edition (Active Edition) (WRC-15)		
Region 1	Region 2	Region 3	Region 1	Region 2	Region 3
161.9375 - 161.9625 MHz FIXED MOBILE except aeronautical mobile	161.9375 - 161.9625 MHz FIXED MOBILE	161.9625 - 161.9875 MHz (OR) MARITIME MOBILE Aeronautical mobile (OR) 5.228E Maritime mobile-satellite (Earth-to-space) 5.228AA	161.9375 - 161.9625 MHz FIXED MOBILE except aeronautical mobile	161.9375 - 161.9625 MHz FIXED MOBILE	161.9625 - 161.9875 MHz (OR) MARITIME MOBILE
5.226	5.226	5.226	5.226	5.226	5.226
161.9375 - 161.9625 MHz FIXED MOBILE except aeronautical mobile	161.9375 - 161.9625 MHz FIXED MOBILE	161.9625 - 161.9875 MHz (OR) MARITIME MOBILE Aeronautical mobile (OR) 5.228E Maritime mobile-satellite (Earth-to-space) 5.228AA	161.9375 - 161.9625 MHz FIXED MOBILE except aeronautical mobile	161.9375 - 161.9625 MHz FIXED MOBILE	161.9625 - 161.9875 MHz (OR) MARITIME MOBILE
5.226	5.226	5.226	5.226	5.226	5.226
162.0125 - 162.0375 MHz FIXED MOBILE except aeronautical mobile	162.0125 - 162.0375 MHz AERONAUTICAL MOBILE (OR) MARITIME MOBILE	162.0125 - 162.0375 MHz AERONAUTICAL MOBILE (OR) MARITIME MOBILE	162.0125 - 162.0375 MHz AERONAUTICAL MOBILE (OR) MARITIME MOBILE	162.0125 - 162.0375 MHz AERONAUTICAL MOBILE (OR) MARITIME MOBILE	162.0125 - 162.0375 MHz AERONAUTICAL MOBILE (OR) MARITIME MOBILE
5.226	5.226	5.226	5.226	5.226	5.226

When the list of services in a given box is highlighted, this indicates either :

- A difference in the list of services (a service is present on one side and absent on the other), as shown above,
- Or a difference in the list of “service footnotes”, associated with any of the services in the list (a footnote is present on one side and absent on the other), as shown here.

Please note that the software marks the complete list of services in both cases, inviting further checking to determine the differences.

Similarly, the list of “box footnotes” associated with the box as a whole is also highlighted so as to indicate the corresponding difference, as shown here.

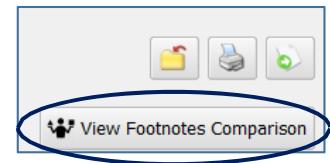
610 - 890 MHz BROADCASTING FIXED MOBILE 5.313A 5.317A 5.149 5.305 5.306 5.307 5.311A 5.320	610 - 890 MHz BROADCASTING FIXED MOBILE 5.296A 5.313A 5.317A 5.149 5.305 5.306 5.307 5.311A 5.320
790 - 862 MHz BROADCASTING FIXED MOBILE except aeronautical mobile 5.316B 5.317A 5.312 5.314 5.315 5.316 5.316A 5.319	790 - 862 MHz BROADCASTING FIXED MOBILE except aeronautical mobile 5.316B 5.317A 5.312 5.319

[Continued...](#)



The Main Table History View

Comparing footnotes from two consecutive RR Editions



When comparing the Main Table allocations from **two consecutive RR Editions** (typically in the History Mode), the software provides for comparing the corresponding Article 5 footnotes. This is available by clicking the button shown here.

The footnotes from the two editions are then displayed, organized and split in three main columns: the newly added footnotes in the more recent edition, the modified footnotes in the more recent edition and the suppressed footnotes in the more recent edition (the example here applies to RR 2016 versus RR 2012).

Selecting any footnote from any list causes the software to display its text in the two editions (when applicable), so that it makes it easy to check the changes in the modified footnotes text, review the text of the suppressed footnotes in the recent edition and the examine the provisions which are added in the recent edition.

Suppressed footnotes in RR 2016 (23)	Modified footnotes in RR 2016 (115)	Added footnotes in RR 2016 (47)
5.166 5.222 5.223 5.224A 5.224B 5.232 5.234 5.260 5.313B 5.314 5.315 5.316 5.316A 5.362B 5.362C 5.417A 5.417B 5.417C	5.54B 5.55 5.68 5.93 5.96 5.98 5.102 5.119 5.122 5.134B 5.134A 5.140 5.141B 5.145B 5.149A 5.158 5.159 5.161B	5.133B 5.228AA 5.265 5.295 5.296A 5.308 5.308A 5.328AA 5.341A 5.341B 5.341C 5.346 5.346A 5.429A 5.429B 5.429C 5.429D 5.429E

RR 2012 footnote	RR 2016 footnote
5.234 Different category of service: in Mexico , the allocation of the band 174-216 MHz to the fixed and mobile services is on a primary basis (see No. 5.33).	5.234 (SUP - WRC-15)

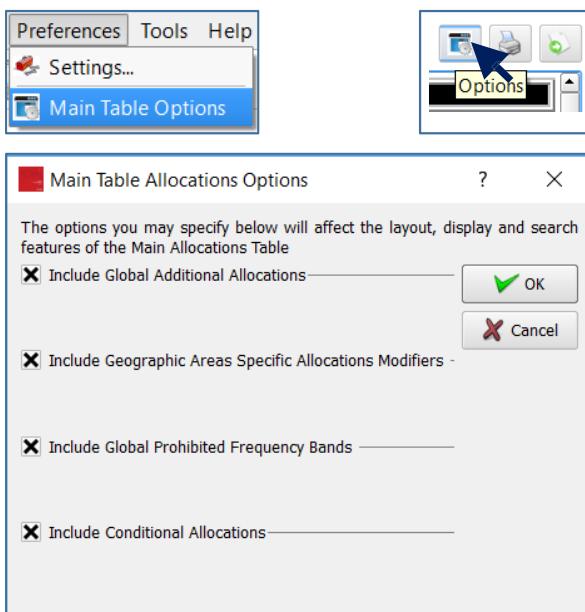


RR 2016 footnote
5.328AA The frequency band 1 087.7-1 092.3 MHz is also allocated to the aeronautical mobile-satellite (R) service (Earth-to-space) on a primary basis, limited to the space station reception of Automatic Dependent Surveillance-Broadcast (ADS-B) emissions from aircraft transmitters that operate in accordance with recognized international aeronautical standards. Stations operating in the aeronautical mobile-satellite (R) service shall not claim protection from stations operating in the aeronautical radionavigation service. Res. 425 (WRC-15) shall apply. (WRC-15)

RR 2012 footnote	RR 2016 footnote
5.98 Alternative allocation: in Angola, Armenia, Azerbaijan, Belarus, Belgium, Cameroon, Congo (Rep. of the), Denmark, Egypt, Eritrea, Spain, Ethiopia, Russian Federation, Georgia, Greece, Italy, Kazakhstan, Lebanon, Lithuania, Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Tunisia, Turkmenistan, Turkey, Turkmenistan, Turkey, Ukraine , the band 1 810-1 830 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)	5.98 Alternative allocation: in Armenia, Azerbaijan, Belarus, Belgium, Cameroon, Congo (Rep. of the), Denmark, Egypt, Eritrea, Spain, Ethiopia, Russian Federation, Georgia, Italy, Kazakhstan, Lebanon, Lithuania, Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Tunisia, Turkmenistan, Turkey , the frequency band 1 810-1 830 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-15)



Customizing the Main Table Display – Main Table Options



Working with the Main Table View, you may customize the display of the allocation boxes so as to include and properly embed in the Main Table the various allocations components, derived from the appropriate footnotes and other Article 5 provisions. This is accessible via the menu item “[Preferences – Main Table Options](#)” or, alternatively, by clicking on the corresponding icon.

In the Main Table Allocations Options dialog, you may specify the relevant component you wish to embed in the display of the Main Table View. This includes:

- The Global Additional Allocations, applicable to one or more whole Region(s).
- The Allocations Modifiers applicable to specific geographic areas or countries (i.e., specific additional allocations, alternative allocations, different categories of services).
- The Global Prohibited Emissions (resulting for instance from form No. 5.340).
- The Conditional Allocations (allocations with dates or service limitations, declensions or applications).

Based on the specified options (if any), the software customizes the Main Table in order to include the relevant data. This may take a few moments to complete. The selected options will then apply to the display, the search and the various features that may be available depending on the context. The software “remembers” these settings from one session to the next. You may get back to the “Standard Main Table View” at any moment by invoking this dialog again and turning off all customization feature.

In order to obtain the best use of this utility, it is recommended when customizing the Main Table to include all of the available options. The Main Table is then said to be in its Fully Customized Mode. Various additional possibilities and features become available when viewing the allocation boxes and the associated services and footnotes, as explained with some details in the following examples.



The Main Table View – Fully Customized Mode



Region 1	Region 2	Region 3
<p>Main Table Original Allocation Box</p> <p>Table: 420 - 430 MHz</p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>Radiolocation</p> <p>Additional: 420 - 430 MHz</p> <p>Aeronautical radionavigation (radio altimeters)</p> <p>5.271</p> <p>Belarus, Kyrgyzstan, Turkmenistan</p> <p>Different Category of Service: 420 - 430 MHz</p> <p>RADIOLOCATION</p> <p>5.269</p> <p>United Kingdom</p> <p>5.269 5.270 5.271</p> <p>5.271</p> <p>Additional allocation: in Belarus, China, India, Kyrgyzstan, Turkmenistan, the band 420-460 MHz is also allocated to the aeronautical radionavigation service (radio altimeters) on a secondary basis. (WRC-07)</p>	<p>Table: 410 - 420 MHz</p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>SPACE RES links with a</p> <p>Additional allocation: in Australia, United States, Jamaica, Philippines, the bands 420-430 MHz and 440-450 MHz are also allocated to the amateur service on a secondary basis.</p> <p>Table: 420 - 430 MHz</p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>Radiolocation</p> <p>Additional: 420 - 430 MHz</p> <p>Amateur</p> <p>United States, Jamaica</p> <p>5.270</p> <p>5.270</p> <p>Different Category of Service: 420 - 430 MHz</p> <p>RADIOLOCATION</p> <p>5.269</p> <p>United States</p> <p>5.269 5.270 5.271</p> <p>5.271</p> <p>China, India</p> <p>Different Category of Service: 420 - 430 MHz</p> <p>RADIOLOCATION</p> <p>5.269</p> <p>Australia, India, Japan</p> <p>5.269 5.270 5.271</p>	<p>Table: 410 - 420 MHz</p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>Radiolocation</p> <p>Additional: 420 - 430 MHz</p> <p>Amateur</p> <p>Australia, Philippines</p> <p>5.270</p> <p>Different Category of Service: 420 - 430 MHz</p> <p>RADIOLOCATION</p> <p>5.271</p> <p>China, India</p> <p>Different Category of Service: 420 - 430 MHz</p> <p>RADIOLOCATION</p> <p>5.269</p> <p>Australia, India, Japan</p> <p>5.269 5.270 5.271</p>
<p>Table: 430 - 432 MHz</p> <p>AMATEUR</p> <p>RADIOLOCATION</p> <p>Additional: 430 - 432 MHz</p> <p>Aeronautical radionavigation (radio altimeters)</p>	<p>Table: 430 - 432 MHz</p> <p>RADIOLOCATION</p> <p>Amateur</p> <p>Different category of service: in Australia, United States, India, Japan, United Kingdom, the allocation of the bands 420-430 MHz and 440-450 MHz to the radiolocation service is on a primary basis (see No. 5.33).</p> <p>5.269</p>	<p>Table: 430 - 432 MHz</p> <p>FIXED</p> <p>Aeronautical radionavigation (radio altimeters)</p>

In its Fully Customized Mode, in addition to the “basic allocation various allocations resulting from the appropriate footnotes, by

based on “frequency bands” and “Region” applicability. When a “Table Modifier” footnote applies to a list of countries, the software “splits and places” the countries according to the Region to which they belong.

As the example shown here indicates, every allocation box from the Main Table is then “enlarged” to include “sub-boxes”, representing the appropriate allocation information, according to the following “terminology” and color schema:

Table: 420 - 430 MHz

Original frequency band from the original Main Table Partition.

Additional: 420 - 430 MHz

Allocation sub-box for an additional allocation.

Alternative: 430 - 432 MHz

Allocation sub-box for an alternative allocation.

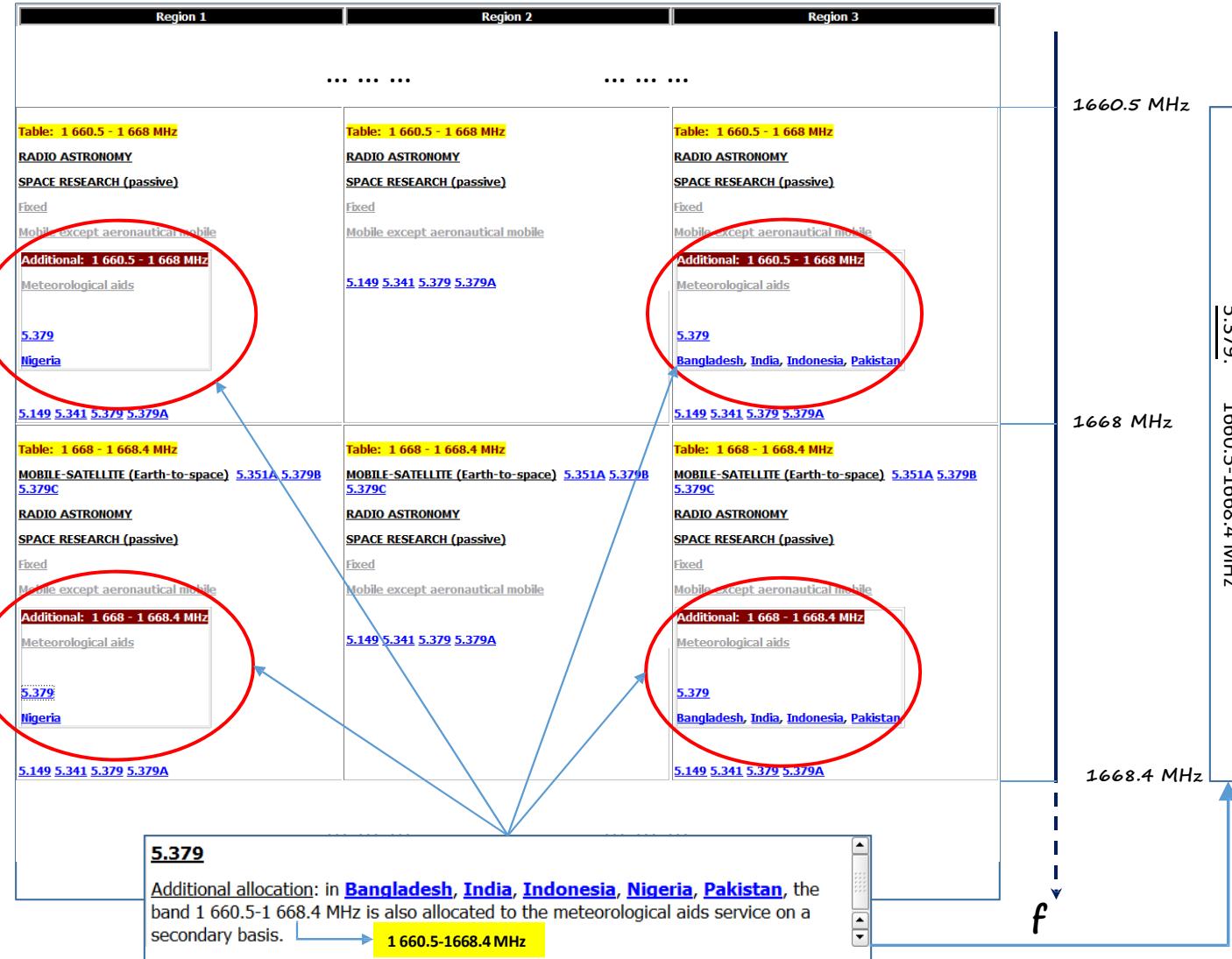
Different Category of Service: 420 - 430 MHz

Allocation sub-box where a change in service category applies.

When appropriate, in every allocation sub-box, the software also indicates the footnote number which “induces” the corresponding information.



The Main Table View – Fully Customized Mode



It should be noted that, in the Fully Customized Mode, when the provisions of a given Article 5 footnote cover (or overlap with) more than one Main Table original allocation box, the software “creates” the appropriate “new sub-boxes” accordingly, so that the resulting allocation modifiers fit appropriately within the boundaries of every original allocation box.

The simple case example of the additional allocation resulting from No. 5.379, illustrated here, clarifies the idea.

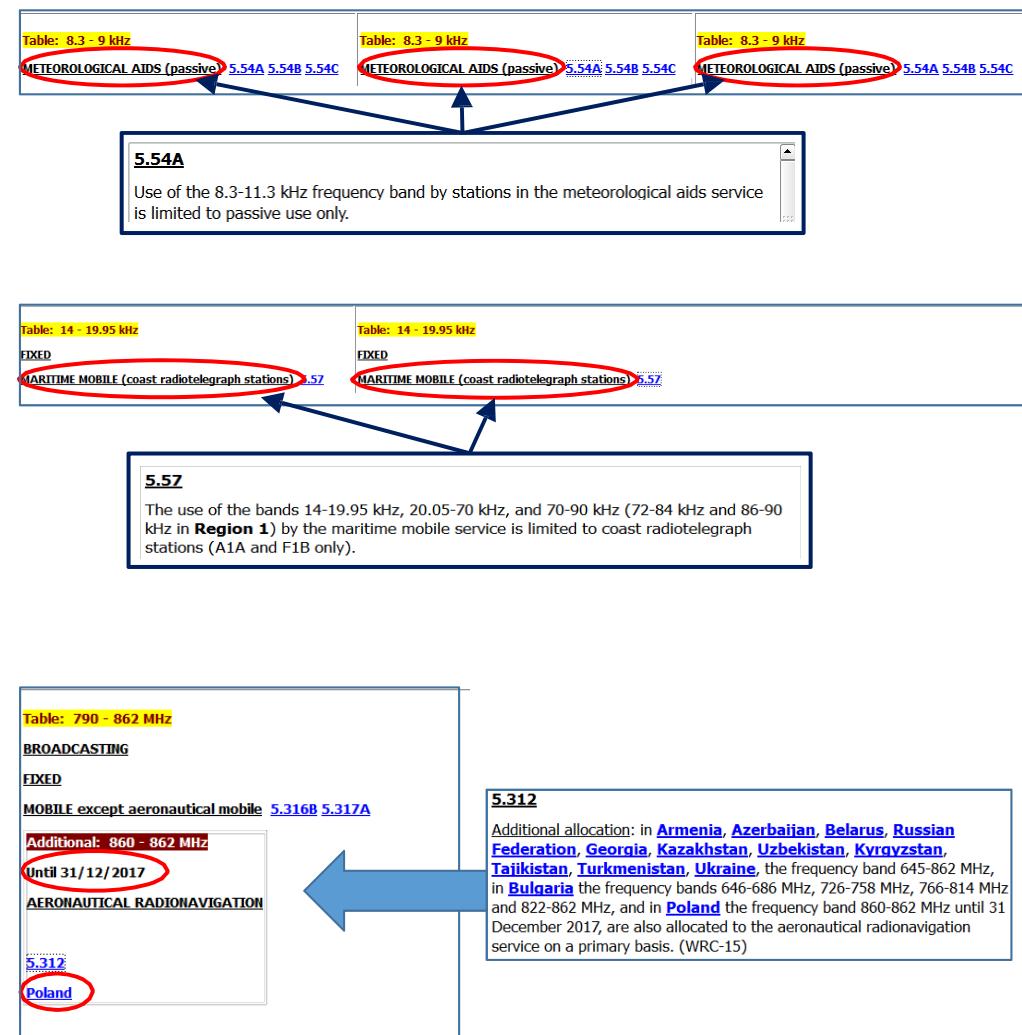
When working with the software, other more complex cases can be found, applying to “overlapping” box frequency bands, as well as radiocommunication services (this typically occurs when a given footnote concerns more than one service).

In this context, the following example illustrates how the data model and the software handles the (complex) case resulting from No. 5.276.

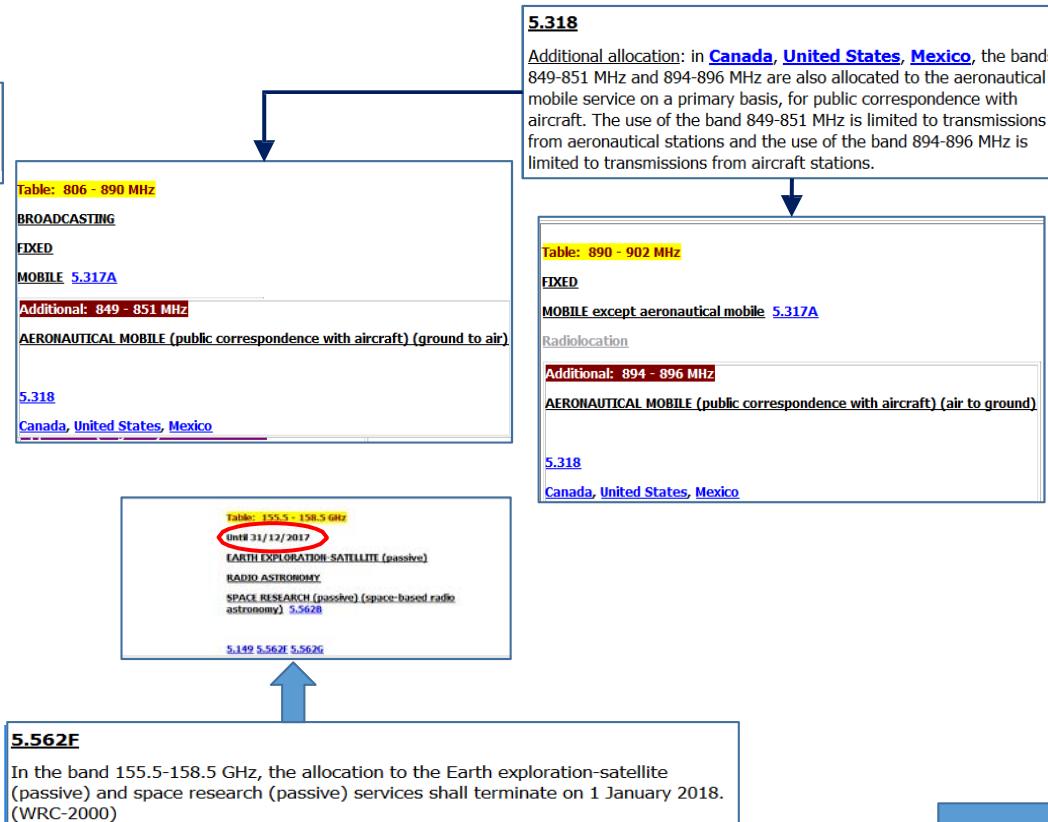
The Main Table View – Fully Customized Mode

<p>Table: 430 – 432 MHz</p> <p>AMATEUR</p> <p>RADIOLOCATION</p> <p>Additional: 430 – 432 MHz</p> <p>FIXED</p> <p>5.276</p> <p>Algeria, Saudi Arabia, Bahrain, Burkina Faso, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Greece, Guinea, Iraq, Israel, Italy, Jordan, Kenya, Kuwait, Libya, Niger, Nigeria, Oman, Qatar, Syrian Arab Republic, Somalia, Sudan, Switzerland, Togo, Turkey, Yemen</p> <p>Additional: 430 – 432 MHz</p> <p>MOBILE except aeronautical mobile</p> <p>5.276</p> <p>Algeria, Saudi Arabia, Bahrain, Burkina Faso, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Greece, Guinea, Iraq, Israel, Italy, Jordan, Kenya, Kuwait, Libya, Niger, Nigeria, Oman, Qatar, Syrian Arab Republic, Somalia, Sudan, Switzerland, Togo, Turkey, Yemen</p>	<p>Table: 430 – 432 MHz</p> <p>RADIOLOCATION</p> <p>Amateur</p> <p>Additional: 430 – 432 MHz</p> <p>FIXED</p> <p>5.276</p> <p>Ecuador</p>	<p>Table: 430 – 432 MHz</p> <p>RADIOLOCATION</p> <p>Amateur</p> <p>Additional: 430 – 432 MHz</p> <p>FIXED</p> <p>5.276</p> <p>Afghanistan, Bangladesh, Brunei Darussalam, India, Indonesia, Iran (Islamic Republic of), Malaysia, Pakistan, Philippines, Dem. People's Rep. of Korea, Singapore, Thailand</p> <p>Additional: 430 – 432 MHz</p> <p>MOBILE except aeronautical mobile</p> <p>5.276</p> <p>Afghanistan, Bangladesh, Brunei Darussalam, India, Indonesia, Iran (Islamic Republic of), Malaysia, Pakistan, Philippines, Dem. People's Rep. of Korea, Singapore, Thailand</p>
<p>Table: 432 – 438 MHz</p> <p>AMATEUR</p> <p>RADIOLOCATION</p> <p>Earth exploration-satellite (active) 5.279A</p> <p>Additional: 432 – 438 MHz</p> <p>FIXED</p> <p>5.276</p> <p>Algeria, Saudi Arabia, Bahrain, Burkina Faso, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Greece, Guinea, Iraq, Israel, Italy, Jordan, Kenya, Kuwait, Libya, Niger, Nigeria, Oman, Qatar, Syrian Arab Republic, Somalia, Sudan, Switzerland, Togo, Turkey, Yemen</p> <p>Additional: 432 – 435 MHz</p> <p>MOBILE except aeronautical mobile</p> <p>5.276</p> <p>Algeria, Saudi Arabia, Bahrain, Burkina Faso, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Greece, Guinea, Iraq, Israel, Italy, Jordan, Kenya, Kuwait, Libya, Niger, Nigeria, Oman, Qatar, Syrian Arab Republic, Somalia, Sudan, Switzerland, Togo, Turkey, Yemen</p>	<p>Table: 432 – 438 MHz</p> <p>RADIOLOCATION</p> <p>Amateur</p> <p>Earth exploration-satellite (active) 5.279A</p> <p>Additional: 432 – 438 MHz</p> <p>FIXED</p> <p>5.276</p> <p>Ecuador</p>	<p>Table: 432 – 438 MHz</p> <p>RADIOLOCATION</p> <p>Amateur</p> <p>Earth exploration-satellite (active) 5.279A</p> <p>Additional: 432 – 438 MHz</p> <p>FIXED</p> <p>5.276</p> <p>Afghanistan, Bangladesh, Brunei Darussalam, India, Indonesia, Iran (Islamic Republic of), Malaysia, Pakistan, Philippines, Dem. People's Rep. of Korea, Singapore, Thailand</p>
<p>Table: 438 – 440 MHz</p> <p>AMATEUR</p> <p>RADIOLOCATION</p> <p>Additional: 438 – 440 MHz</p> <p>FIXED</p> <p>5.276</p> <p>Algeria, Saudi Arabia, Bahrain, Burkina Faso, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Greece, Guinea, Iraq, Israel, Italy, Jordan, Kenya, Kuwait, Libya, Niger, Nigeria, Oman, Qatar, Syrian Arab Republic, Somalia, Sudan, Switzerland, Togo, Turkey, Yemen</p> <p>Additional: 438 – 440 MHz</p> <p>MOBILE except aeronautical mobile</p> <p>5.276</p> <p>Algeria, Saudi Arabia, Bahrain, Burkina Faso, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Greece, Guinea, Iraq, Israel, Italy, Jordan, Kenya, Kuwait, Libya, Niger, Nigeria, Oman, Qatar, Syrian Arab Republic, Somalia, Sudan, Switzerland, Togo, Turkey, Yemen</p>	<p>Table: 438 – 440 MHz</p> <p>RADIOLOCATION</p> <p>Additional: 438 – 440 MHz</p> <p>FIXED</p> <p>5.276</p> <p>Ecuador</p>	<p>Table: 438 – 440 MHz</p> <p>RADIOLOCATION</p> <p>Additional: 438 – 440 MHz</p> <p>FIXED</p> <p>5.276</p> <p>Afghanistan, Bangladesh, Brunei Darussalam, India, Indonesia, Iran (Islamic Republic of), Malaysia, Pakistan, Philippines, Dem. People's Rep. of Korea, Singapore, Thailand</p> <p>Additional: 438 – 440 MHz</p> <p>MOBILE except aeronautical mobile</p> <p>5.276</p> <p>Afghanistan, Bangladesh, Brunei Darussalam, India, Indonesia, Iran (Islamic Republic of), Malaysia, Pakistan, Philippines, Dem. People's Rep. of Korea, Singapore, Thailand</p>

The Main Table View – Fully Customized Mode



In the Fully Customized Mode, when the provisions of a given Article 5 footnote introduce a limitation, condition or expiry date, the Main Table View takes into account these various “conditional footnotes” and accordingly displays “service declensions”, limitations and expiry dates, to the extent feasible. This applies to the Main Table allocation boxes, as well as to any derived “sub-box” as shown in the examples here.



The Main Table View – Fully Customized Mode

Radiocommunication services “applications”

<p>Table: 1 427 - 1 429 MHz FIXED MOBILE except aeronautical mobile 5.341A 5.341B 5.341C SPACE OPERATION (Earth-to-space) Application (Region 1): 1 427 - 1 429 MHz [INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT)]</p> <p>5.341A 5.338A 5.341</p> <p>Table: 1 429 - 1 452 MHz FIXED MOBILE except aeronautical mobile 5.341A Application (Region 1): 1 429 - 1 452 MHz [INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT)]</p> <p>5.341A 5.342 Armenia, Azerbaijan, Belarus, Russian Federation, Uzbekistan, Kyrgyzstan, Ukraine 5.338A 5.341 5.342</p>	<p>Table: 1 427 - 1 429 MHz FIXED MOBILE except aeronautical mobile 5.341A 5.341B 5.341C SPACE OPERATION (Earth-to-space) Application (Region 2): 1 427 - 1 429 MHz [INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT)]</p> <p>5.341B 5.338A 5.341</p> <p>Table: 1 429 - 1 452 MHz FIXED MOBILE 5.341B 5.341C 5.343 Application (Region 2): 1 429 - 1 452 MHz [INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT)]</p> <p>5.341B 5.338A 5.341</p>	<p>Table: 1 427 - 1 429 MHz FIXED MOBILE except aeronautical mobile 5.341A 5.341B 5.341C SPACE OPERATION (Earth-to-space) Application (Region 3): 1 427 - 1 429 MHz [INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT)]</p> <p>5.341C 5.338A 5.341</p> <p>Table: 1 429 - 1 452 MHz FIXED MOBILE 5.341B 5.341C 5.343 Application (Region 3): 1 429 - 1 452 MHz [INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT)]</p> <p>5.341C 5.338A 5.341</p>
<p>5.341A In Region 1, the frequency bands 1 427-1 452 MHz and 1 492-1 518 MHz are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Res. 223 (Rev.WRC-15). This identification does not preclude the use of these frequency bands by any other application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of IMT stations is subject to agreement obtained under No. 9.21 with respect to the aeronautical mobile service used for aeronautical telemetry in accordance with No. 5.342. (WRC-15)</p>	<p>5.341B In Region 2, the frequency band 1 427-1 518 MHz is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Res. 223 (Rev.WRC-15). This identification does not preclude the use of this frequency band by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-15)</p>	<p>5.341C The frequency bands 1 427-1 452 MHz and 1 492-1 518 MHz are identified for use by administrations in Region 3 wishing to implement International Mobile Telecommunications (IMT) in accordance with Res. 223 (Rev.WRC-15). The use of these frequency bands by the above administrations for the implementation of IMT in the frequency bands 1 429-1 452 MHz and 1 492-1 518 MHz is subject to agreement obtained under No. 9.21 from countries using stations of the aeronautical mobile service. This identification does not preclude the use of these frequency bands by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. (WRC-15)</p>

When applicable, in the Fully Customized Mode, the software tentatively embeds specific-boxes in the Main Table original boxes, showing “particular” radiocommunication services applications identifications specified in the provisions of Article 5 footnotes.

“Applications” sub-boxes are marked with a specific color, with an indication of the frequency band, the application label and the footnote inducing the identification.

The above shown example applies to the identification to **International Mobile Telecommunications**, resulting (for instance) in the appropriate Regions from the provisions of Nos. 5.314A, 5.314B and 5.314C.

When appropriate, similar sub-boxes corresponding to other applications, such as **HAPS**, are also displayed. In abstract, the applications are surrounded with square brackets ([]) to distinguish them from the radiocommunication services, but they are also made clickable so as to retrieve “all” the corresponding frequency bands where an identification to the concerned application appears in the Article 5.

Continued...

The Main Table View – Fully Customized Mode

Effects on the Main Table search utilities

The Fully Customized Mode of the Main Table also affects the ways the software uses to perform the “search and walk” through the Main Table boxes. In particular, when clicking on a given service label, the software then performs the corresponding search taking into account “all” customized sub-boxes which were embedded in the Main Table original allocation boxes.

Table: 14 - 19.95 kHz

FIXED

MARITIME MOBILE (coast radiotelegraph stations) 5.57

Additional (Regions 1, 2, 3): 14 - 19.95 kHz

STANDARD FREQUENCY AND TIME SIGNAL

5.56

Additional: 14 - 17 kHz

RADIONAVIGATION

5.55

Armenia, Russian Federation, Georgia, Kyrgyzstan, Tajikistan, Turkmenistan

5.55 5.56

RED PRIMARY Allocations to FIXED

Region 1 Region 2 Region 3

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Table: 8.3 - 9 kHz

METEORLOGICAL AIDS (passive) 5.54A 5.54B 5.54C

Additional: 8.3 - 9 kHz

FIXED

MARITIME MOBILE (coast radiotelegraph stations) 5.57

Additional (Regions 1, 2, 3): 14 - 19.95 kHz

STANDARD FREQUENCY AND TIME SIGNAL

5.56

5.55 5.56

Table: 14 - 19.95 kHz

FIXED

MARITIME MOBILE (coast radiotelegraph stations) 5.57

Additional (Regions 1, 2, 3): 14 - 19.95 kHz

STANDARD FREQUENCY AND TIME SIGNAL

5.56

Table: 20.05 - 70 kHz

FIXED

MARITIME MOBILE (coast radiotelegraph stations) 5.57

Additional (Regions 1, 2, 3): 20.05 - 70 kHz

STANDARD FREQUENCY AND TIME SIGNAL

5.56

Table: 70 - 90 kHz

FIXED

MARITIME MOBILE (coast radiotelegraph stations) 5.57

MARITIME RADIONAVIGATION

5.56 5.58

Table: 70 - 72 kHz

RADIONAVIGATION 5.60

Fixed

Maritime mobile (coast radiotelegraph stations) 5.57

Different Category of Service: 70 - 72 kHz

FIXED

MARITIME MOBILE (coast radiotelegraph stations)

5.59

Bangladesh, Pakistan

Radiolocation

5.59

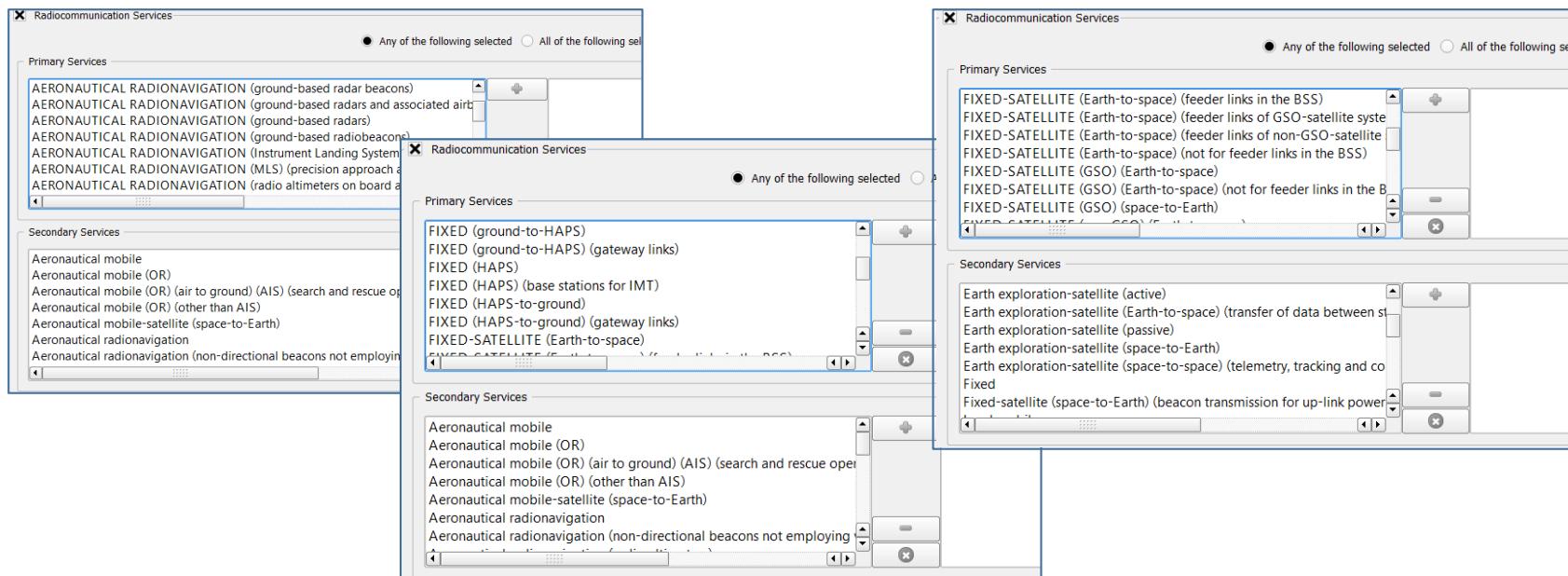
Continued...

The Main Table View – Fully Customized Mode

Effects on the Main Table search utilities

The Fully Customized Mode of the Main Table similarly affects the search options in the “[Query Main Table Allocations](#)” dialog.

More precisely, the lists of radiocommunication services, available for search and selection, are “updated” as consequence of the full customization. As shown here, all the used declensions of services, derived from the appropriate conditional footnotes and Main Table modifiers are then available, including “radicomunication services applications”.

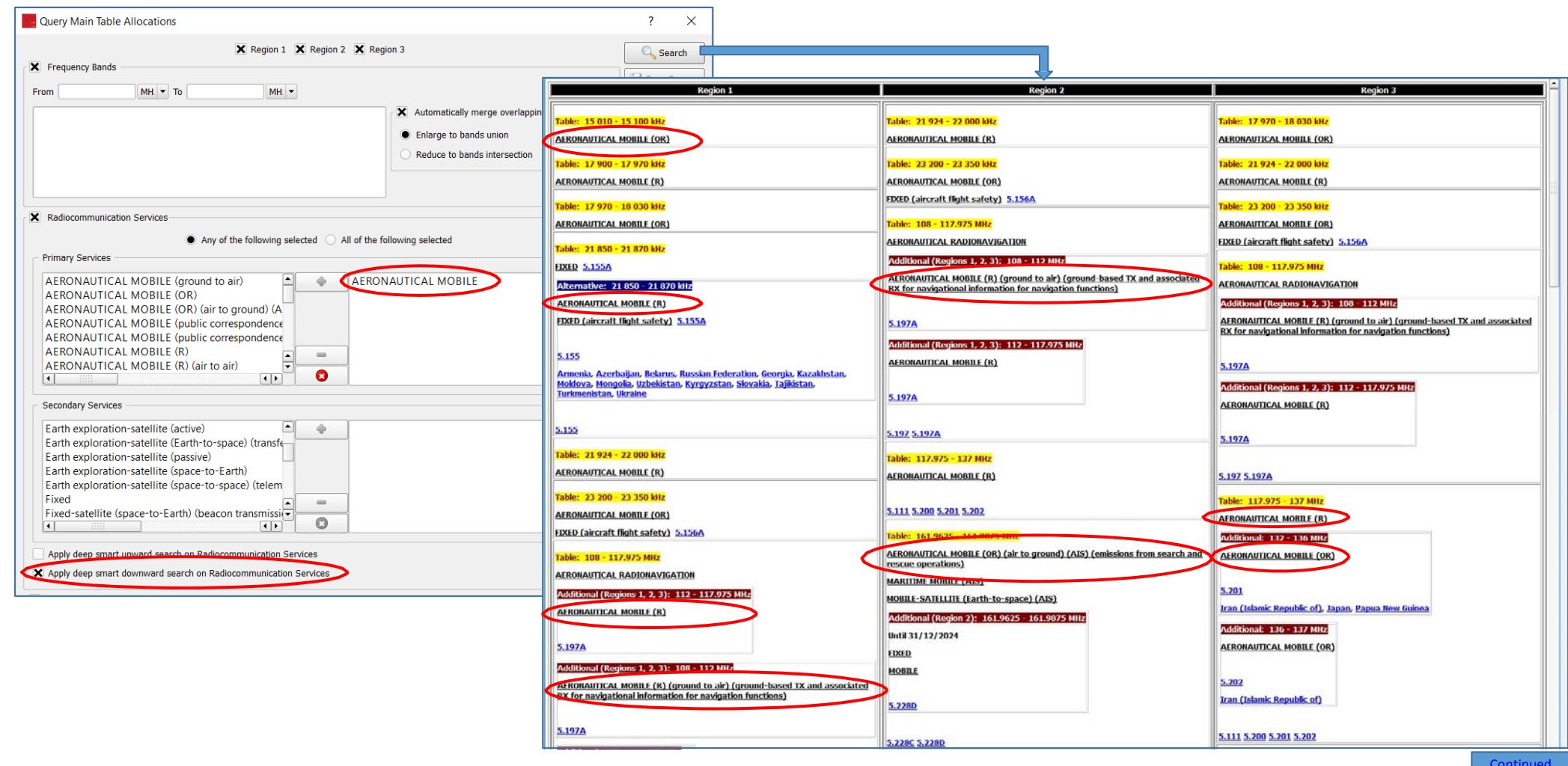


The following example shows the effect of this “full customization”, when performing for instance a “smart downward search” on all derived “declensions” from the AERONAUTICAL MOBILE service.

[Continued...](#)

The Main Table View – Fully Customized Mode

Effects on the Main Table search utilities



Continued...

The Main Table View – Fully Customized Mode

Effects on the Footnotes View

The Fully Customized Mode of the Main Table also induces a modification in the display of footnotes when working with the Footnotes View. Indeed, when browsing footnotes specifying additional or alternative allocations, or different categories of services provisions, the **footnote text area** contains an additional link which leads to displaying the “resulting sub-box” which is embedded in the Main Table.

List of footnotes in the Table of Frequency Allocations

Displayed 794/794 footnotes.  

Find footnote 5. Show all u

Number	Source	Description	Scope	Entry into force	Applicable until
5.133	WRC-2012	Different Category of Service - Limitation		In force	
5.133A	WRC-2015	Alternative Allocation - Limitation		In force	
5.133B	WRC-2015	Limitation		In force	
5.134	WRC-2007	Guidance		In force	
5.135	WRC-1997	Suppress			
5.136	WRC-2007	Additional Allocation - Limitation		In force	
5.137	WRC-1997	Limitation		In force	
5.138	WRC-1997	Guidance - Limitation		In force	
5.138A	WRC-2012	Suppress			
5.139	WRC-2012	Suppress			
5.140	WRC-2015	Additional Allocation		In force	
5.141	WRC-2012	Alternative Allocation		In force	
5.141A	WRC-2003	Additional Allocation		In force	
5.141B	WRC-2015	Additional Allocation - Limitation		In force	
5.141C	WRC-2012	Suppress			

Footnote text

[5.133](#) [View History](#) [Print](#) [View Main Table Related Allocations](#) [View Related Different Categories of Services](#)

Different category of service: in [Armenia](#), [Azerbaijan](#), [Belarus](#), [Russian Federation](#), [Georgia](#), [Kazakhstan](#), [Latvia](#), [Lithuania](#), [Niger](#), [Uzbekistan](#), [Kyrgyzstan](#), [Tajikistan](#), [Turkmenistan](#), [Ukraine](#). The allocation of the band 5 130-5 250 kHz to the mobile, except aeronautical mobile, service is...

Footnote text

[5.140](#) [View History](#) [Print](#) [View Main Table Related Allocations](#) [View Related Additional Allocations](#)

Additional allocation: in [Angola](#), [Iraq](#), [Somalia](#), [Togo](#), the frequency band 7 000-7 050 kHz is also allocated to the fixed service on a primary basis. (WRC-15)

Footnote text

[5.141](#) [View History](#) [Print](#) [View Main Table Related Allocations](#) [View Related Alternative Allocations](#)

Alternative allocation: in [Egypt](#), [Eritrea](#), [Ethiopia](#), [Guinea](#), [Libya](#), [Madagascar](#), [Niger](#), the band 7 000-7 050 kHz is allocated to the fixed service on a primary basis. (WRC-12)

Region 1	Region 2	Region 3
Different Category of Service: 5 130 - 5 250 kHz MOBILE except aeronautical mobile 5.133 Armenia, Azerbaijan, Belarus, Russian Federation, Georgia, Kazakhstan, Latvia, Lithuania, Niger, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine		

Region 1	Region 2	Region 3
Additional: 7 000 - 7 050 kHz FIXED 5.140 Angola, Iraq, Somalia, Togo		

Region 1	Region 2	Region 3
Alternative: 7 000 - 7 050 kHz FIXED 5.141 Egypt, Eritrea, Ethiopia, Guinea, Libya, Madagascar, Niger		

Fully Customized Mode – Advanced Features

RR 5 important allocations expiry/entry into force dates

The diagram illustrates the process of managing RR 5 allocations' expiry and entry into force dates. It shows a main interface with a date button, a detailed date dialog, and two tables of allocations for different regions.

Main Interface: Shows a date button labeled "As of 16/02/2017" with a red circle and a blue arrow pointing to it. A red box highlights the "View and set effective dates" button.

Date Dialog: A modal dialog titled "RR5 effective dates" with two options: "Track Today's date" (radio button) and "Set a specific effective date" (radio button, selected). A date input field shows "01-Jan-18". Buttons for "OK" (green checkmark) and "Cancel" (red X) are at the top right, and an "Info" button is highlighted with a red box and a red arrow pointing to it.

Important Allocations Expiry Dates: A table showing allocations for Region 1, Region 2, and Region 3. The table includes columns for "Table", "Until date", and "Concerned Allocations".

Region	Table	Until date	Concerned Allocations
Region 1	Table: 155.5 - 158.5 GHz	Until 31/12/2017	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) (space-based radio astronomy) 5.562B 5.149 5.562F 5.562G Additional: 860 - 862 MHz Until 31/12/2017 AERONAUTICAL RADIONAVIGATION 5.312 Poland Additional: 862 - 876 MHz Until 31/12/2017 AERONAUTICAL RADIONAVIGATION (ground-based radio beacons) 5.323 Poland
Region 2	Table: 155.5 - 158.5 GHz	Until 31/12/2017	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) (space-based radio astronomy) 5.562B 5.149 5.562F 5.562G
Region 3	Table: 155.5 - 158.5 GHz	Until 31/12/2017	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) (space-based radio astronomy) 5.562B 5.149 5.562F 5.562G

Important Allocations Entry Into Force Dates: A table showing allocations for Region 1, Region 2, and Region 3. The table includes columns for "Table", "From date", and "Concerned Allocations".

Region	Table	From date	Concerned Allocations
Region 1	Table: 155.5 - 158.5 GHz	From 01/01/2018	FIXED MOBILE RADIO ASTRONOMY 5.149 5.562F 5.562G
Region 2	Table: 155.5 - 158.5 GHz	From 01/01/2018	FIXED MOBILE RADIO ASTRONOMY 5.149 5.562F 5.562G
Region 3	Table: 155.5 - 158.5 GHz	From 01/01/2018	FIXED MOBILE RADIO ASTRONOMY 5.149 5.562F 5.562G

Annotations:

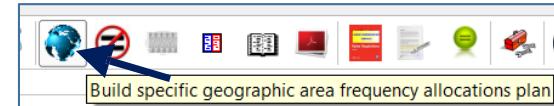
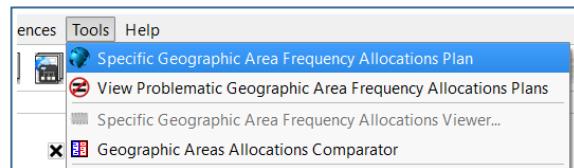
- Click the date button to invoke the important dates dialog.
- Set the desired date here (points to the date input field in the dialog).
- Then click here to "re-create" the Main Table as it would look like at that date: the software recombines the Main Table, taking into account all effective dates for expiry and entry into force of the relevant allocations, as it derives from the various Article 5 conditional footnotes.
- Click the "Info" button to see the important dates detected by the software and the data model, and to check the corresponding "before/after" effects on the relevant allocations.

Fully Customized Mode – Advanced Features

Derived “International” allocations table for specific geographic area

When in its **Fully Customized Mode**, the software provides for viewing the international allocations table applicable to a given geographic area (country) by using an algorithm* for combining all of the following:

- The Original Main Table allocation boxes
- The Global additional allocations applicable to the Region to which that country belongs
- All of the Table Modifiers (additional allocations, alternative allocations, different categories of services) induced by footnotes which apply to that specific country (generally because the country name directly appears in the footnote, but also in some cases because it may be induced that the provisions of the footnote apply to that country).
- All of the conditional footnotes (specifying exceptions, prohibited emissions, service limitations, expiry dates, entry into force dates, etc.).

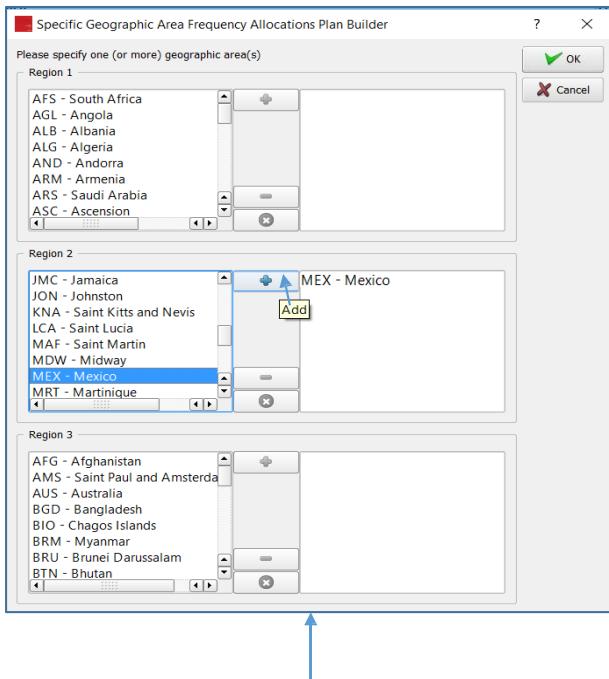


This is accessible via the menu item “**Tools – Specific Geographic Area Frequency Allocations Plan**” or, alternatively, by clicking on the corresponding icon on the main toolbar, as shown here.

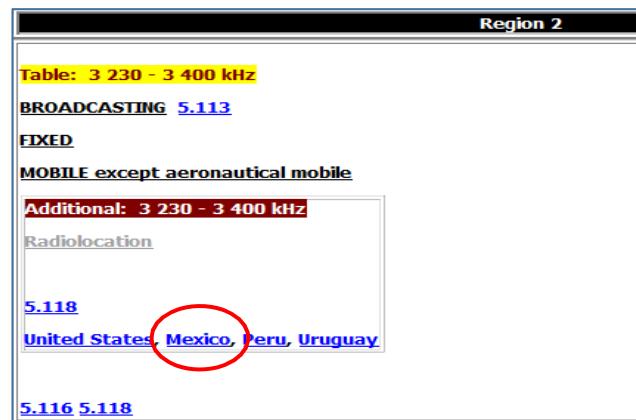
*Note: detailed description of the used algorithm is under preparation for this guide.

Fully Customized Mode – Advanced Features

Derived “International” allocations table for specific geographic area



When invoked, as shown here, this utility allows the user to specify one or more geographic area(s) (country(ies)), in order to obtain its (their) resulting combined international allocations table.



When working with the fully customized Main Table view, the same functionality can be obtained by clicking on the country name when it appears in any allocation sub-box embedded into the original allocation box, as shown here.

It should therefore be noted that the effect of clicking on a given country name is “context dependent”:

- When working with the Fully Customized Main Table View, it leads to building and displaying the derived country specific international allocations table;
- When working with the Footnotes View, it leads to displaying the list of Article 5 footnotes where the name of that country appears.

Fully Customized Mode – Advanced Features

Derived “International” allocations table for specific geographic area

The allocations table derived for a specific geographic or country is organized mainly in three columns:

- The frequency bands, as they result from the “merge/split” process of combining the various Article 5 components (original Table and footnotes table modifiers).
- The radicommuniacion services to which the frequency band is allocated in that country. Service declensions and categories are those resulting from the “merge/split” process of combining the various Article 5 components. When appropriate, indications of radiocommunication applications are also given.
- The list of references (footnotes) applicable to the concerned allocation box. Footnotes marked in red indicate that they are further referencing other RR provisions.

Frequency Band		References
Below 8.3 kHz	(not allocated)	5.53 5.54
8.3 - 9 kHz	METEOROLOGICAL	5.54A
9 - 11.3 kHz	METEOROLOGICAL RADIONAVIGATION	5.54A References Rec. ITU-R RS.1881
11.3 - 14 kHz	RADIONAVIGATION	
14 - 19.95 kHz	FIXED MARITIME MOBILE (coast radiotelegraph stations) STANDARD FREQUENCY AND TIME SIGNAL	5.57
19.95 - 20.05 kHz	STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)	
20.05 - 70 kHz	FIXED MARITIME MOBILE (coast radiotelegraph stations) STANDARD FREQUENCY AND TIME SIGNAL	5.57
70 - 90 kHz	FIXED MARITIME MOBILE (coast radiotelegraph stations) MARITIME RADIONAVIGATION Radiolocation	5.57 5.60 5.61 References 9.21
90 - 110 kHz	RADIONAVIGATION Fixed	5.62 5.64

Frequency bands may be “navigated” as usual.

[Continued...](#)

Fully Customized Mode – Advanced Features

Derived “International” allocations table for specific geographic area

The screenshot shows a software interface for frequency allocations. The top bar includes 'Geographic Area' (MEX - Mexico), 'Frequency Band' (410 - 460 MHz), and a 'View Main Table Allocations' button (circled in red). The main window displays 'Frequency Allocations for MEX - Mexico - As of 16/02/2017'. On the left, a 'Main Table Allocations - Region 2' panel shows a tree structure for the 430-432 MHz band, with nodes for Amateur, FIXED, and LAND MOBILE services, and specific entries for Ecuador, Mexico, and other countries. A red arrow points from the 'View Main Table Allocations' button to this panel. The main table on the right lists frequency bands from 410 to 450 MHz, their services (e.g., FIXED, MOBILE, RADIOLOCATION), and references (e.g., 5.268, 5.279, 5.282, 5.286). The table also includes notes about space research and Earth exploration-satellite services.

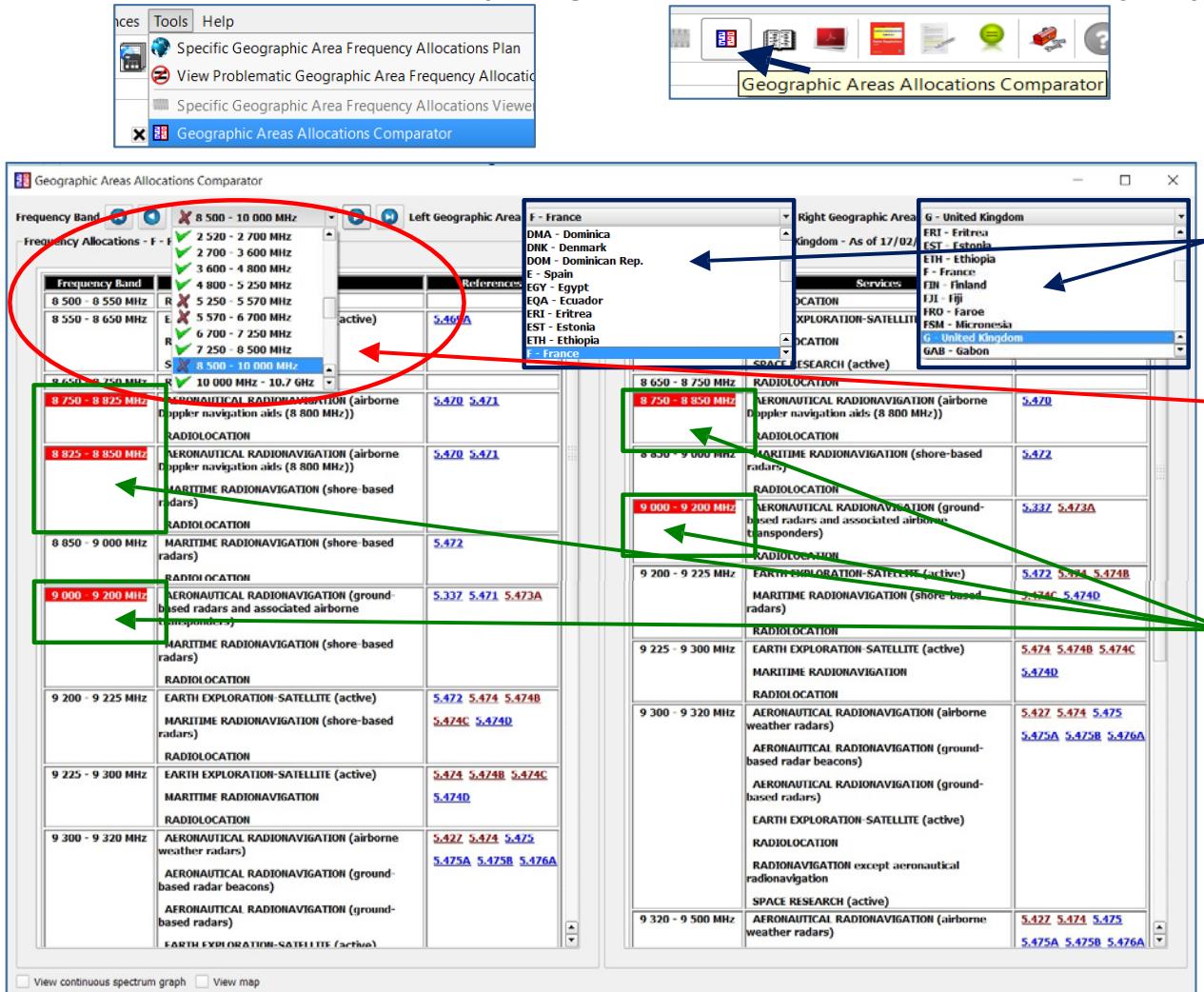
Frequency Band	Services	References
410 - 420 MHz	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-space) (communication links with an orbiting, manned space vehicle)	5.268
420 - 430 MHz	FIXED MOBILE except aeronautical mobile Radiolocation	
430 - 432 MHz	LAND MOBILE RADIOLOCATION Amateur	5.279
432 - 435 MHz	LAND MOBILE RADIOLOCATION Amateur Earth exploration-satellite (active)	5.279 5.282
435 - 438 MHz	RADIOLOCATION Amateur Amateur-satellite Earth exploration-satellite (active)	5.279 5.282
438 - 440 MHz	LAND MOBILE RADIOLOCATION Amateur	5.279
440 - 449.75 MHz	FIXED MOBILE except aeronautical mobile Radiolocation	5.286
449.75 - 450 MHz	FIXED MOBILE except aeronautical mobile SPACE OPERATION (Earth-to-space) SPACE RESEARCH (Earth-to-space)	5.286

When displaying the allocations table derived for a specific geographic or country, the software provides for the adjacent display of the fully customized Main Table allocations for the appropriate Region. This is accessible by checking the box shown here.

This allows to check the details of the way in which the various components were combined all together to derive the allocations table for a specific geographic or country (the example shown here illustrates the case of the frequency band 430-432 MHz for Mexico).

Fully Customized Mode – Advanced Features

Comparing “International” allocations tables for specific geographic areas



With the Fully Customized Main Table Mode, the software provides a utility for comparing the specific derived allocations table for two (usually neighboring) countries. This is accessible via the menu item and the corresponding icon as shown here.

- Use these two lists to specify the countries (geographic areas) for which the software compares the specific allocation tables.

Upon comparison, the frequency bands from the Main Table partition are then marked to indicate the presence or absence of “differences” between the two compared specific tables, as shown here.

The software appropriately highlights the frequency bands where differences are found. This may result from either:

- A difference in the frequency bands boundaries (usually resulting from a split due to a specific footnotes inducing a Main Table Modifier for one of the two countries).
- A difference in the radiocommunication services or in their categories.
- A difference in the list of references (footnotes provisions) applicable to one of the tow countries in the relevant frequency band.



Limitations and Future Enhancements

Incorporate cross-references to the relevant **Rules of Procedure**.

The software currently **works in English only**: future enhancements to introduce **multilingual** user interface and data display.

Create possible **cross-links to the terrestrial and space BR IFICs**.

Elaborate a **programming interface (API)** so as to allow third party software to query and use the data model programmatically.

Describe the data model and the various used algorithms.

Provide for the extraction of data and creation of a “writable” data model, allowing the user to modify the model according to national use.

Investigate portability to platforms other than Windows.