

Procedure for Coordinating Spectrum and Orbital Positions for Non-Planned Services

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The International Telecommunications Union (ITU) regulates communication technology issues. ITU coordinates the shared global use of the radio spectrum, promotes international cooperation in assigning satellite orbits, works to improve telecommunication infrastructure in the developing world and establishes worldwide standards.

The ITU-R is the radiocommunication sector and has as a mission *“to ensure rational, equitable, efficient and economical use of the radio frequency spectrum by all radiocommunication services - including those using the geostationary satellite orbit or other satellite orbits - and to carry out studies on radiocommunication matters”*

The Radio Regulations (RR) is the compendium where the rights, obligations and applicable procedures reside. These regulations are binding a variety of international treaties, setting out the allocation of frequency bands, technical parameters to be respected by radio stations, procedures for the notification and international coordination of specific frequencies assigned to the stations by *Administrations*¹; and other procedures or operational provisions. The Radio Regulations are vital to the modern world, for if radio services are to operate efficiently worldwide (no harmful interference), frequency assignments must respect the prescribed allocations, technical requirements and operational procedures.

The ITU Radio Regulations also incorporate the decisions of the World Radiocommunications Conferences (WRC), including all articles, appendices, resolutions, recommendations and ITU-R recommendations incorporated by reference.

¹ *administration*: Any governmental department or service responsible for discharging the obligations undertaken in the Constitution of the International Telecommunication Union, in the Convention of the International Telecommunication Union and in the Administrative Regulations

Planned and Non-Planned Services

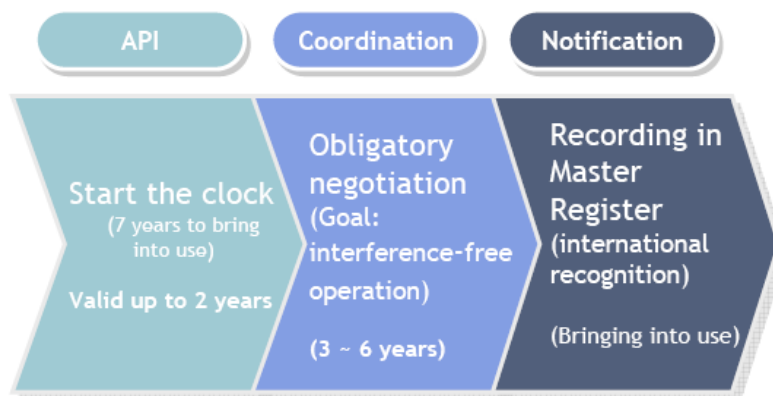
The ITU has Planned the space services in order to guarantee (in theory), for all countries, equitable access to the geostationary-satellite orbit and associated spectrum resources for specific satellite services, namely the fixed-satellite service (FSS) and broadcasting-satellite service (BSS), in specific bands. Many years after the establishment of those space Plans, few resources allocated to the Plans have in fact been used for the original purposes.

All the other services that were not in the original plan are dubbed Non-Planned services. Several of those Non-planned services include Non Geo Stationary Orbits (NGSO) which were not included in the original plan; others are countries that need to offer services in a different country. These services need to coordinate and notify to the ITU about their own plans, and technical details in order to ensure an interference free environment.

Coordination and Notification

Article 9 of the simplified Radio Regulations has been in force since 1 January 1999. The coordination procedure for Non-Planned services is based on the principle of "first come - first served". Successful coordination of space networks or earth stations gives an international recognition to the use of frequencies by these networks/stations. The relevant provisions involve three basic steps:

- i. Advance publication (Section I, Article 9); (API)
- ii. Coordination (Section II, Article 9); (CR/C/D)
- iii. Notification (Article 11)



Advanced Publication - The advance publication process is the obligatory first phase of the regulatory registration procedure. The aim of the advance publication procedure prescribed under Section I of Article 9 of the Radio Regulations is to inform all administrations of any planned satellite system using a geostationary or a non-geostationary satellite and of its general description. This procedure provides a formal mechanism whereby any administration can make an preliminary assessment of the effect that a planned satellite network is likely to have on the stations of existing or planned satellite systems as well as its terrestrial stations in certain frequency bands and comment accordingly.

The advance information should reach the Bureau not earlier than seven years and preferably not later than two years prior to the planned date of bringing the network into use (No. 9.1). This information, when complete, is published by the Bureau in an API/A special section annexed to its BR IFIC, a copy of which is sent to all administrations. Upon receipt of the advance publication, administrations should check whether the planned system is likely to affect their existing or planned systems or stations. Administrations which have any comments should send them to the administration responsible for the planned system, with a copy to the Bureau.

When it receives such comments under Subsection IA of Article 9, the administration responsible for the planned satellite network and the requesting administration shall endeavour to cooperate in joint efforts to solve any difficulties, with the assistance of the Bureau, if so requested. Under Subsection I of Article 9, the publishing administration may take those comments into consideration when initiating the coordination procedure.

Coordination - Coordination is a further step in the process leading up to notification of the frequency assignments for recording in the Master Register. It can be initiated not earlier than six months after the date of receipt by the Bureau of the complete information for advance publication but in any case within a period of 24 months after the date of receipt of the API information . This procedure is a formal regulatory obligation both for an administration seeking to assign a frequency assignment in its network and for an administration whose existing or planned services may be affected by that assignment.

Having received a coordination request, an administration studies the matter with a view to determining the level of interference likely to be caused to frequency assignments of its networks or stations or caused to assignments of the proposed network or station by its own assignments . Within a total period of **four months** from the date of the publication of the request for coordination in the relevant special section or the date of dispatch of the coordination data, as appropriate, it shall:

- Agree to the proposed coordination and communicate to the administration
- Communicate its disagreement to the administration including technical data upon which the disagreement is based on, along with suggestion for resolving the problem.

If the sought administration does not respond within the four month period after the notification, then such administration will be regarded as unaffected.

Notification - The procedure for notification and recording of space network frequency assignments in the Master International Frequency Register (MIFR) is described in Article 11 of the Radio Regulations. the regulatory time-limit for bringing a satellite network into use stipulates that the notified date of bringing into use of any assignment to a space station of a satellite network shall be no later than 7 years following the receipt of the advance publication information.

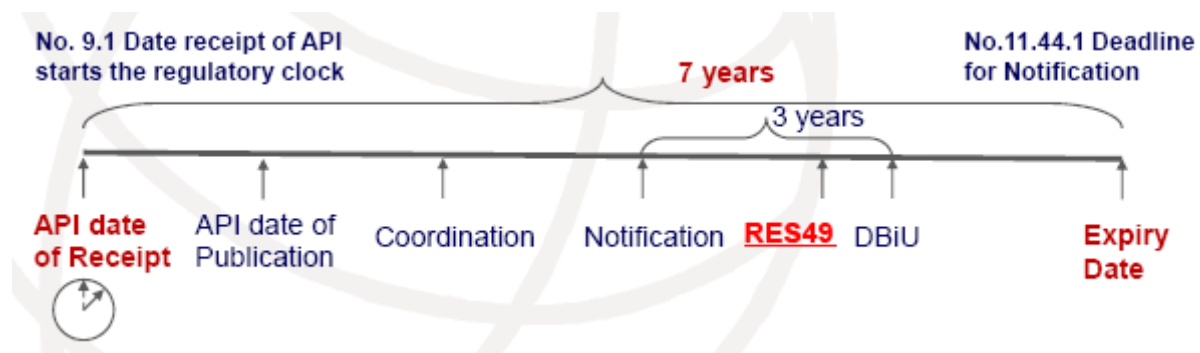
Frequency Allocations

Before considering how the spectrum is allocated, it is perhaps best to clarify three terms: allocation, allotment and assignment.

An **allocation** is an entry in a table of frequency allocations which sets out the use of a given frequency band for use by one or more radiocommunication services. The term allocation is also applied to the frequency band concerned. An allocation then is a distribution of frequencies to radio services.

An **allotment** is an entry of a designated channel in a plan for use by one or more countries in those countries or within designated areas for a radiocommunication service under specified conditions. An allotment then is a distribution of frequencies to geographical areas or countries.

An **assignment** is an authorization given for a radio station to use a radio frequency or a radio frequency channel under specified conditions. An assignment then is a distribution of a frequency or frequencies to a given radio station.



Primary and Secondary allocations

Allocations are made on a primary or on a secondary basis. Stations of a secondary service cannot cause harmful interference to stations of primary services to which frequencies are already assigned or to which frequencies may be assigned at a later date. Stations of a secondary service cannot claim protection from harmful interference from stations of a primary service to which frequencies are already assigned or to which frequencies may be assigned at a later date. Stations of a secondary service can, however, claim protection from stations of the same or other secondary service(s) to which frequencies may be assigned at a later date. In a given band of the Table of Allocations, there are often footnotes which allocate the band in question (or a portion of a band) only in a specified geographic area. When a band (or portion of a band) is indicated in a footnote as allocated to a service on a secondary basis in an area smaller than a Region, or in a particular country, this is a secondary service. Where a band (or portion of a band) is indicated in a footnote as allocated to a service on a primary basis in an area

smaller than a Region, or in a particular country, this is a primary service only in that area or country. The international Table of Frequency Allocations set out in the ITU Radio Regulations covers frequencies from 9 kHz to 275 GHz (or 1000 GHz for Radioastronomy and experimentation).