



# Notification of Earth Stations

BR-SSD e-Learning Center

# Request for Notification of an Earth station– Radio Regulations

- Section I of Article 11 : Notification
- 11.2 :
  - Any frequency assignment to a transmitting station and to its associated receiving stations shall be notified to the Bureau
  - After the completion of the coordination procedure with the concerned Administrations under 9.17 (Coordination of earth stations)

# Coordination of earth stations (9.17)

- Coordination request (9.17) should not be sent to the Bureau
- It is recommended to use SpaceCap software for the submission of the coordination request to the affected Administrations

# Coordination of earth stations (9.17)

Notice Id:  AP4/II and AP4/III (Appendix 4 - Annex 2A)  Status

## Notice submitted under:

- No. 11.2 Notification [  First Notification  Resubmission ]
- No. 9.6 Coordination  No. 9.11A Applies
- No. 9.7A Specific Receive GSO FSS Earth stn Coordination
- No. 9.17 Coordination amongst Administrations
- RR1488 Notification
- RR1060 Request for Coordination  RS46 Applies
- RR1107 Request for Coordination
- RR1610 Agreement Under Art. 14

Date: DD.MM.YYYY  Administration Serial Nbr

A1f1. Notifying Administration

A1f3. Intergovernmental Satellite System

A1f2. Notice submitted on behalf of these administrations.  +  x

Notice intended for

- Addition
- Modification
- Suppression

BR Identification No. of Station to be modified/suppressed

## Type of Satellite Network or Earth Station

- GeoStationary Satellite Network
- NonGeoStationary Satellite Network
- Specific Earth Station
- Typical Earth Station



More...

# Rules concerning Receivability

- Associated space station must already be notified
- Provide the correct name used in BR databases
- Check also the beam names/ if the frequency bands are covered by the bands used by the space station

# Common Errors

- Space station name/beam name/ frequency band not covered
- Missing horizon elevation angle
- Missing minimum angle of elevation
- Missing coordination area diagram
- Missing antenna diameters when required
- Missing antenna radiation patterns
- Missing coordination agreements



# Reasons for unfavorable findings (Part III-S): examples of paragraphs

## Notes for return of notices for earth station

Provision	Examples of paragraphs	Resubmission Within 6 months
<p><b>A N - X/9.17[X]</b></p>	<p>With respect to the frequency assignment groups Nos. (...) of your earth station (...), it is noted that the <u>coordination procedure under No. 9.17 has not been shown as completed with the Administrations of (...) since the coordination area of your earth station includes the territories of those Administrations</u> (see coordination contours attached). Thus, an unfavorable finding with respect to <b>No. 11.32</b> has been reached and the notice in question is being returned to you in conformity with <b>No. 11.37</b>.</p> <p>Should the notice <u>be resubmitted with the indication that coordination has been successfully completed with the Administration(s) mentioned above</u>, a favorable finding might result.</p> <p>However, these being frequency assignments for reception, your Administration may be prepared to accept the interference resulting from existing and future terrestrial stations of the countries concerned. In this event, should your Administration resubmit the notice concerned and insist upon its reconsideration, the assignment will be recorded in the Master Register; symbol "H" will be inserted in Column 13B2 as well as <b>AP5 PARA 6E(III)</b> in the column reserved for coordination information.</p>	<p>Yes</p>
<p><b>A N - X/9.7[X]</b> <b>No SS subject to coord.)</b></p>	<p>With regard to the frequency assignment groups Nos. (...) of your earth station (...), it is noted that the <u>corresponding frequency assignments of the associated space station (...) have not yet been communicated to the Radiocommunication Bureau</u> for recording. Thus, these frequency assignments have been given an <u>unfavourable finding with respect to No. 11.32</u> (see paragraph 2.1.2.1 of the Rules of Procedure relating to <b>No. 11.32</b>) and the notice in question is being returned to you in conformity with <b>No. 11.37</b>.</p> <p>Once the corresponding assignments of the associated space station have been notified and recorded in the Master Register, it will be possible to examine again your earth station notice.</p>	<p>Yes</p>
<p><b>A N - X/9.7[X]</b> <b>Outside SA</b></p>	<p>With respect to the frequency assignments groups Nos. (...) of your earth station (...), it is noted that the <u>station is outside the service area of the transmitting/receiving beam (...) of the associated space station (...)</u>. Consequently, your earth station frequency assignments have been given an unfavorable finding with respect to <b>No. 11.32</b> (see paragraph 2.1.3 of the Rules of Procedure relating to <b>No. 11.32</b>) and the notice in question is being returned to you in conformity with <b>No. 11.37</b>.</p>	<p>Yes</p>
<p><b>N X/ROP RCV4.4</b></p>	<p>With regard to the frequency assignments groups Nos. (...) of your earth station (...), it is noted that the <u>associated space station (...) does not have any valid publication in the Radiocommunication Bureau</u>.</p> <p>As stated in paragraph 2.1.2.1 of Rules of Procedure relating to <b>No. 11.32</b>, starting from the principle that the leading element of a space network is the space station and that it would be misleading to record in the Master Register earth stations for which a space station (network) is not recorded, the Radio Regulation Board decided that an earth station cannot be recorded in the Master Register before its associated space station.</p> <p>In view of the above, according to <b>Rules of Procedure, paragraph 4.4</b> of "Rules concerning the <u>Receivability</u> of forms of notice generally applicable to all notified assignments submitted to the <u>Radiocommunication Bureau</u> in application of the Radio Regulatory Procedures relating to space services" the subject notice is not receivable.</p>	<p>Yes</p>

# Reasons for unfavorable findings (Part III-S): examples of paragraphs

<p><b>PFD limits No. 21.16</b></p>	<p>With regard to the frequency assignments groups Nos. (...) of your earth station (...), it is noted that the <u>value of the power flux-density</u> at the earth's surface produced by emissions from the space station (...) <u>exceeds the limits specified in No. 21.16</u>. Consequently, an <u>unfavorable</u> finding with respect to <b>No. 11.31</b> has been reached, and the notice in question is being returned to you in conformity with <b>No. 11.36</b>.</p>	<p><b>No</b></p>
<p><b>Min. elev. angle No. 21.14</b></p>	<p>With regard to the frequency assignments groups Nos. (...) of your earth station (...), it is noted that the <u>minimum elevation angle</u> of your earth station (...) <u>does not meet the limit specified in No. 21.14</u>. Thus, the frequency assignments of this earth station have been given an unfavorable finding with respect to <b>No. 11.31</b> and the notice in question is being returned to you in conformity with <b>No. 11.36</b>.</p>	<p><b>No</b></p>
<p><b>eirp density limits No. 5.503</b></p>	<p>With regard to the frequency assignments groups Nos. (...) of your earth station (...), it is noted that the <u>e.i.r.p. density</u> of emissions from earth stations <u>is not within the limits specified in No. 5.503</u>. Thus, these frequency assignments have been given an unfavorable finding with respect to <b>No. 11.31</b> and the notice in question is being returned to you in conformity with <b>No. 11.36</b>.</p>	<p><b>No</b></p>
<p><b>eirp limits No. 21.8</b></p>	<p>With regard to the frequency assignments groups Nos. (...) of your earth station (...), it is noted that the <u>earth station e.i.r.p. towards the horizon</u> is not <u>within the limits specified in No. 21.8</u>. Thus, this frequency assignment of this earth station has been given an unfavorable finding with respect to <b>No. 11.31</b> and the notice in question is being returned to you in conformity with <b>No. 11.36</b>.</p>	<p><b>No</b></p>
<p><b>Min. elev. angle No. 21.15</b></p>	<p>With respect to the frequency assignments groups Nos. (...) of your earth station (...), it is noted that the <u>minimum elevation angle</u> of the earth station <u>does not meet the limit specified in No. 21.15</u> (for space research service). Thus, the frequency assignments of this earth station have been given an unfavorable finding with respect to <b>No. 11.31</b> and the notice in question is being returned to you in conformity with <b>No. 11.36</b>.</p>	<p><b>No</b></p>
<p><b>eirp No. 22.26</b></p>	<p>With regard to the frequency assignments groups Nos. (...) of your earth station (...), it is noted that the <u>off-axis e.i.r.p.</u> from the earth station <u>is not within the limits specified in No. 22.26</u>. Thus, this assignment has been given an unfavorable finding with respect to <b>No. 11.31</b> and the notice in question is being returned to you in conformity with <b>No. 11.36</b>.</p>	<p><b>No</b></p>
<p><b>No. 4.5</b></p>	<p>With regard to the frequency assignments groups Nos. (...) of your earth station (...), it is noted that the <u>frequency assignments overlap a band not allocated to the service concerned</u> (see <b>No. 4.5</b> and its related Rules of Procedure). Consequently, an <u>unfavourable</u> finding with respect to <b>No. 11.31</b> has been reached and the notice in question is being returned to you in conformity with <b>No. 11.36</b>.</p>	<p><b>No</b></p>



# Guidance for the exercise

## Notification Earth station

- Please Validate the file  
Notif\_SEMINAR\_ES\_with\_Errors.mdb (can be found on ...\\Workshop\\Space\\SPR\\5 NOTIFICATION\_EARTH STATION
- Launch SpaceVal/Click on Open/Browse and select the database  
Notif\_SEMINAR\_ES\_with\_Errors.mdb/select the correct notice ID/Click Validate/Click Report

# Validation report

QuickQuery Result for Network(s): 112505900

Validation Report for Network: 112505900 On: 23.11.2012 @ 12:38:18 By Operator: FALOUDIN (notif\_seminar\_es\_with\_errors.mdb)

Network ID: 112505900 Adm: HOL Station name: SEMINAR\_ES Satellite name: ITUSAT Orbital Pos: 7.00°

Validation Message Counts: Total: 9, FataIs: 5, Warnings: 3; Message Option: All

Beam Name	E / R	Group ID	Row No	Item Number	Rule ID	Severity Code	Table Name	Field Name	Field Value	Validation Error Message
				0		A				VALIDATION COMPLETED; v7.0; ERRORS F/W:
				1000	2	W	e_stn	stn_name	EMINAR_E	Invalid earth station name (not in reference table)
				1011	2	W	e_stn	sat_name	ITUSAT	Invalid Value (not in reference table)
				1014	4	F	e_stn	elev_min		Value missing for station-type = S (geo) or R
KR1	E			1037	3	F	e_ant	atrch_e		Value missing and item 1045 not provided
KR1	E			1045	3	F	e_ant	pattern_id		Value missing and item 1037 not provided
KR1	E	1		1603	3.2	W	grp	d_inuse	05.12.1994	For <N> filing, date < date-of-receipt - 3 months
KR1	E	1	1	1621	2	F	provn	coord_prov	9.7	Invalid value
KR1	E	1	1	1623	3	F	provn	adm		Value missing; incompatible with item 1621

# Correction of fatal errors

- Minimum elevation angle (A7b1) = 30 degrees
- Horizon elevation angle (A7a) = 0 degree for all azimuths (ex: azimuth 0/90/180/270)
- Antenna radiation pattern (B5c) = REC-580-6
- Coordination obtained (A5/A6 ) = 9.17 | O | BEL  
Instead of 9.7 (coordination of space stations)

