



Notification and Recording of Frequency Assignments in Space Services

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OVERVIEW

- Which frequency assignments shall be notified
- When to notify
 - Space stations
 - Earth stations
- Notification Tools and Aids
 - What are they
 - Where can they be found
- Examinations carried out at Notification
- Where findings are published

WHICH FREQUENCY ASSIGNMENTS SHALL BE NOTIFIED?

- Frequency assignments of transmitting and receiving earth and space stations
 - Capable of causing harmful interference
 - Used for international radiocommunication
 - Subject to a world or regional frequency plan which does not have its own notification procedure
 - Subject to coordination procedure of Article 9
 - Seeking international recognition
 - Non conforming assignment under No. 8.4 seeking to be recorded into MIFR for information purposes only

PRIOR TO NOTIFICATION PROCEDURE

API

Coordination

Notification

NOTIFICATION PROVISIONS

Article 11 of the Radio Regulations

WHEN TO INITIATE THE NOTIFICATION PROCEDURE(1)

SPACE STATIONS

- Assignments that do not require coordination under Sect II of Article 9
 - Generally upon the completion of the Advance Publication procedure
- Assignments that require coordination under Sect II of Article 9
 - Generally upon the completion of the Coordination procedure

WHEN TO INITIATE THE NOTIFICATION PROCEDURE(2)

No.11.44.1

The first notice for recording the space station frequency assignments must be carried out before the end of 7 years from the date of receipt of (API) information under No. 9.1.

WHEN TO INITIATE THE NOTIFICATION PROCEDURE(3)

When notification information is communicated the same time as the advance publication procedure, the date of having received this information by the BR (No. 9.1) is established as follows:

- For Assignments that do not require coordination under Sect II of Article 9

6 months after the date of publication of API

- For Assignments that require coordination under Sect II of Article 9

6 months after the date of receipt of API

BEFORE NOTIFICATION PROCEDURE OF EARTH STATIONS

EARTH STATIONS

- **Associated space station must already be recorded into the MIFR**
- **Thereafter, notification of earth station should be initiated**

ARTICLE 11 NOTIFICATION PROCEDURE

- SECTION I – Notification

Description of procedures related to initiating the notification procedure

- SECTION II – Examination and recording of frequency assignments

Description of procedures related to the processing and recording/or returning of the notification information

SECTION I - NOTIFICATION

- Provide the relevant characteristics as specified in Appendix 4 (No. 11.15)
- Res 55 requires all notice forms to be submitted in electronic format after 3 June 2000
- Graphical data can be submitted either in electronic format or paper form
- Tools available from BR IFIC on CD ROM and ITU Website

NOTIFICATION SOFTWARES (1)

Space Capture Software (Space Cap)

Electronic AP4/II and III forms

www.itu.int/ITU-R/Space/services/space_soft/space_Cap

NOTIFICATION SOFTWARES (2)

Space Filing Validation software (Space Val)

PC based software for validating electronic notices captured by the SpaceCap software

[www.itu.int/ITU-R/Space/services/space soft/ space Val](http://www.itu.int/ITU-R/Space/services/space_soft/space_Val)

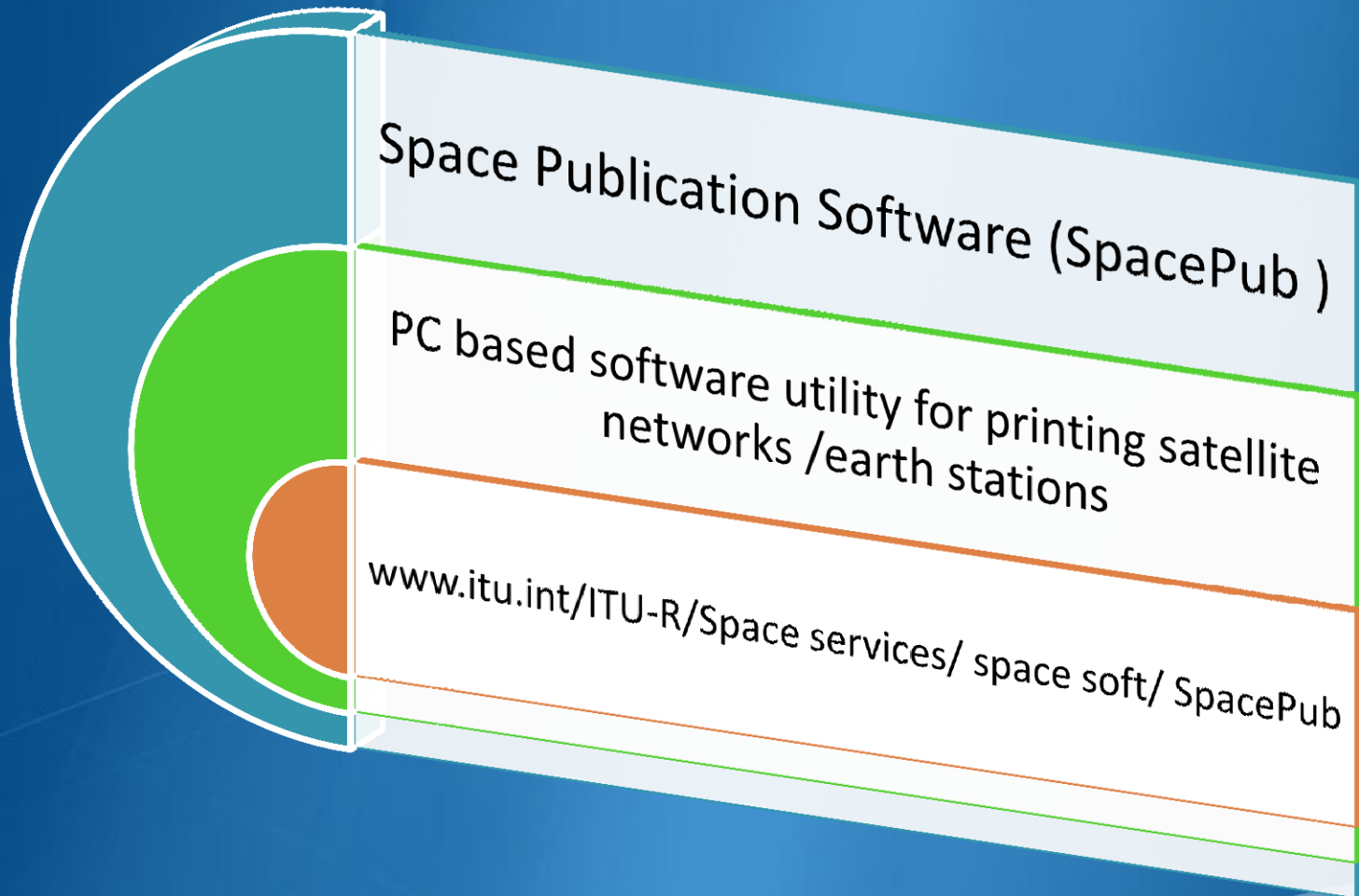
NOTIFICATION SOFTWARES (3)

Graphical Interface Management (GIMS)

PC based software package which allows the capture, modification and validation of graphical data

www.itu.int/ITU-R/Space/services/space_soft/GIMS

NOTIFICATION SOFTWARES (4)



NOTIFICATIONS "AS RECEIVED"

Notifications "as received" are made available by the BR within 30 days (Res 55)

- International Frequency Information Circular(IFIC) CD-ROM

- This information can also be monitored through the ITU website

www.itu.int → Radiocommunication(ITU-R) → Space Services → BR IFIC → List of information "as received"

USEFUL REMINDERS DURING NOTIFICATION SUBMISSIONS

- Ensure forms are filled up accurately and correctly – use SpaceCap, GIMS and SpaceVal software for preparation of submissions in electronic format
- Submit forms in electronic format – Access files with .mdb extension, and NOT the Acrobat (.PDF) or Word (.doc) files, should be submitted to the BR
- Ensure most up-to-date coordination information has been provided
- Ensure the relevant Advance Publication and Coordination Special Sections exist for the assignments being notified
- Take note of the regulatory time constraints (Nos. 11.44, 11.44.1, No.11.43A, RES49 and 11.25)

COMPLETENESS CHECK

Upon receiving the notices, the Bureau as specified in No. 11.27, shall check for the **completeness** of the notice.

INCOMPLETE NOTICES & NON-RECEIVABLES

- Mandatory data has not been provided or incorrect
- A notification received by the BR earlier than the prescribed date limit in No. 11.25
- A notice for a particular procedure is receivable only if the previously applicable procedures have been effected. If not, the notice will be deemed not receivable.

- Examples

A notification relating to a satellite network, or an earth station whose associated space station, is not supported by an advance publication

A notification relating to a satellite network which is not supported by a publication of request for coordination

ESTABLISHMENT OF DATE OF RECEIPT OF NOTIFICATION(1)

- **Formal date of receipt is established when the Bureau confirms that the information submitted is complete and correct**
- **Accordingly, where a notice does not contain all of the mandatory information as defined in the AP4 of the Radio Regulations, further processing of the notice will remain in abeyance and a date of receipt will not be established until the missing information is received.**

ESTABLISHMENT OF DATE OF RECEIPT OF NOTIFICATION(2)

If upon establishment that all mandatory data have been submitted and there are further clarification required, the Bureau shall request the administration to provide the clarification within 30 days.

If the information is received within the 30 days period, the original date of receipt is retained, otherwise, a new date of receipt will be established.

After one year, any pending submission containing incomplete information or clarification shall be returned to the notifying administration.

PUBLICATION OF COMPLETE INFORMATION

- **Complete notices are published in part I-S of the BR IFIC CD-ROM**
- **Complete notices will be used for further examination and may differ from those published “as received”**

EXAMINATION OF NOTICES

- **Regulatory deadlines – Nos. 11.25, 11.44, 11.44.1, 11.43A, RES 49**
- **No. 11.31- conformity with the Table of Frequency Allocations and other provisions of the Radio Regulations**
- **No. 11.32- conformity with the coordination procedures**
- **Nos. 11.32A & 11.33 – probability of harmful interference**

Regulatory Deadline Check

- **No. 11.44.1**

The first notice for recording of the assignments must be within 7

- **No. 11.44**

Notified date of bringing into use should be within 7

- **No. 11.25**

Date of bringing into use cannot be more than 3 years from date of notification

DATE OF BRINGING INTO USE

No. 11.44B

A frequency assignment to a space station in the geostationary-satellite orbit shall be considered as having been brought into use when a space station in the geostationary-satellite orbit with the capability of transmitting or receiving that frequency assignment has been deployed and maintained at the notified orbital position for a **continuous period of ninety days**.

The notifying administration shall so inform the Bureau **within thirty days from the end of the ninety-day period**.

AFTER SEVEN YEARS PERIOD

- **No. 11.48**

- Frequency assignments are not brought into use or

- first notice has not been submitted or

- due diligence information has not been submitted

- **Information published under Nos. 9.2B and 9.38, as appropriate, shall be cancelled**

SUSPENSION OF ASSIGNMENTS

- **No. 11.49**

- Recorded frequency assignment is suspended more than six months
- Bureau will be informed not later than six months
- When the recorded assignments brought back into use not later than **three years** from the date of suspension

Examination under No. 11.31 (1)

- **Article 5 – Table of Frequency Allocations**
- **Articles 21 & 22**
- **Agreement under No. 9.21**
- **Other relevant provisions**

Examination under No. 11.31 (2)

Provisions	General Description of the Examination
Art 5	Checks if frequency is in compliance with table of frequency allocation including footnotes
Art 21 Sect III	Checks that power limits of earth stations are complied
Art 21 Sect IV	Checks that minimum elevation angles of earth stations are complied
Art 21 Sect V	Checks that limits of power flux density (PFD) from space stations are complied
Article 22 Sect II	Checks the PFD limits on NGSO networks are complied
Article 22 Sect III	Checks that station keeping of space stations are complied
Article 22 Sect IV	Checks that pointing accuracies of antennae on geostationary satellites are complied
Article 22 Sect VI	Checks that earth station off-axis power limitations in the fixed satellite service are complied
Article 23 Sect II	Checks the condition "a space station in the BSS shall reduce to the maximum the radiation over the territory of other countries unless an agreement has been previously reached with such countries" is complied
9.21	Checks if agreement has been achieved when applicable

Examination under No. 11.31 (3)

When No. 11.31 finding is favourable, the assignment shall be recorded in the Master Register, or examined further to Nos. 11.32 to 11.33, as appropriate

Examination under No. 11.32 (1)

- Basically, to determine the appropriate coordination procedure has been completed
- Findings will be based on information available on the A5/A6 boxes

Examination under No. 11.32 (2)

Should the result of coordination during notification differs from coordination requirement, administration are requested to make specific reference to the relevant regulatory provisions provide explanation on cover letters

Examination under No. 11.32 (3)

Space Stations

- Check if notified and coordination characteristics are similar
 - If changes are within the envelope of those published in Special Section(s), the result of calculations already made for these Special Section(s) is used.

No. 11.32 Examination(4)

- **If the notified characteristics are not within the envelope of coordination characteristics, relevant interference calculations are carried out on the basis of AP5**
- **If additional administrations are identified, and these additional administrations are not found in the agreements indicated in the A5/A6 boxes, an unfavourable finding shall be given**

RESUBMISSIONS(1)

Unfavourable finding under No. 11.32

- No. 11.46 is applicable
- The resubmission will retain the original date of submission, unless the resubmission is received more than 6 months after the date of which the original submission was returned
- In other words, important to resubmit within 6 months to retain the original date of submission

RESUBMISSIONS(2)

Unfavourable finding under No. 11.31

- No. 11.46 is not applicable
- Will have a new date of receipt upon resubmission

No. 11.32 Examination(5)

Earth Stations

- Establishment that the corresponding assignments of associated space station has been recorded into the MIFR
- Establishment that the earth station has completed coordination
- Establishment that the earth station is located in the service area of the associated space station

NOS. 11.32A & 11.33 EXAMINATION

The examination of the probability of harmful interference under Nos. 11.32A & 11.33 is carried out when the notifying administration states that the coordination procedure could not be successfully completed for the assignments being notified

RESUBMISSION RECORDING UNDER NO: 11.41

Unfavourable finding under Nos. 11.32A & 11.33

- Possible to be resubmitted under No. 11.41
- **All efforts have been made to effect coordination however no success**
- Bureau enters the assignment in Master Register with an indication
- Upon completion of coordination relevant remark or indications will be removed

INTERFERENCE FROM ASSIGNMENTS RECORDED UNDER NO: 11.41 (1)

- Upon receipt of a report providing the particulars relating to the harmful interference immediately **eliminate this harmful interference**
- The format prescribed in Appendix 10, when providing the particulars relating to the harmful interference

INTERFERENCE FROM ASSIGNMENTS RECORDED UNDER NO: 11.41 (2)

- **administrations shall cooperate in elimination of harmful interference**
- **assistance from Bureau may be requested to resolve the issue**
- **The Bureau will prepare a report for the next meeting of Board for its consideration and any required action (including the possible cancellation of the assignment recorded under No.11.41)**

No. 11.35 - Cases where probability of harmful interference cannot be carried out

In cases where the Bureau is not in a position to conduct the examination under No.11.32A or No.11.33, the Bureau shall immediately inform the notifying administration, which may then resubmit its notice under No.11.41, under the assumption that the finding under No.11.32A or No.11.33 is unfavourable.

ASSIGNMENT LEVELS(1)

- Finding is established at assignment levels
- Different frequency assignments may be notified at different times

ASSIGNMENT LEVELS(2)

Split findings (Group I.D. No. 99999991)

Example 1 (Class of Station : TC)

13730 MHz

13770 MHz

13810 MHz

Unfavourable
(99999992)

Favourable (99999991)

Example 2 (Class of Station : TC & TM)

TC 5945 MHz

5985 MHz

6025 MHz

TM 5945 MHz

5985 MHz

6025 MHz

Favourable

Unfavourable

PUBLICATION OF FINDINGS

Favourable Findings

- Published in Part II-S of the BR-IFIC CD-ROM

Unfavourable findings

- Published in Part III-S of the BR-IFIC CD-ROM
- BRIFIC publications also available on the ITU website

www.itu.int → Radiocommunication (ITU-R) → Space Services → BR IFIC → BR IFIC data

Definition in the BR IFIC

- **Part II-S - Findings adopted concerning new frequency assignments or modifications to existing frequency assignments resulting in the recording of the frequency assignment in the Master Register;**
- **Part III-S - Unfavourable Findings adopted concerning new frequency assignments or modifications to existing frequency assignments resulting in the return of the notice to the notifying administration.**

BR IFIC 2731

International Frequency
Information Circular
(Space Services)

30.10.2012



BR IFIC Publications

Databases

As received (Res.55)

Preface

Cost Recovery

BR Software

BR Circular Letters

Special Sections

-- ALL --

AP30-30A/F/D

AP30/E

AP30A/E

API/A

API/B

CR/C

Parts I-S, II-S, III-S

-- ALL --

PART I-S

PART II-S

PART III-S

Administrations

-- ALL --

CAN

CHN

F

G

MLA

RUS

NEWS

BR IFIC PUBLICATIONS – TABLE OF CONTENTS

Print: PART II-S

Print Table of Contents

SPECIAL SECTION / PART	PLAN PART	RESPONSIBLE ADMINISTRATION		NAME OF THE SPACE STATION	ORB. POS.	NAME OF THE ASSOCIATED EARTH STATION	IDENTIFICATION NUMBER
		ADM.	INTERG. ORG.				
PART II-S/		F		NSS-19	-177	GALILEO GDDN NOUMEA	112505216
PART II-S/		CAN		RADARSAT-3B	NGSO		112500061
PART II-S/		RUS		EXPRESS-10KA	140		112500064
PART II-S/		USA		USASAT-60H	-123		112500081
PART II-S/		THA		THAICOM-N3	120		112500127
PART II-S/		CHN		CHNSAT-2-130E	130		112500129
PART II-S/		RUS		EXPRESS-10B	140	BUREVES1/SKYEDGE	112505189
PART II-S/		RUS		RST-1A	36		112560009
PART II-S/		RUS		EXPRESS-7B	90	KAMYSH6/HN7000	112505360
PART II-S/		RUS		EXPRESS-7B	90	KRASA/HN7000	112505361
PART II-S/		USA		RBSP	NGSO		109500198
PART II-S/		MLA		MEASAT-2R	148		112500073 / 1
PART II-S/		G		ICO-G	-93		112500128 / 1

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Exit

عربي

English

中文

Español

Français

Русский

PART III-S DETAILS

PARTIE III-S / PART III-S / PARTE III-S / 第三-S部分 / ЧАСТЬ III-S / III-S-جزء																									
A1a Sat. Network		EXPRESS-5KA		A1f1 Notifying adm.		RUS		A1f3 Inter. sat. org.		BR1 Date of receipt		02.04.2012		BR20/BR21 BR IFIC no./part		2731/3									
BR6a/BR6b Id. no.				112500062				BR3a/BR3b Provision reference				11.2				KAUR		R							
C10d5a Co-polar antenna pattern																									
C10b1 Assoc. earth station id.		Co-polar ref. pattern		Coef. A		Coef. B		Coef. C		Coef. D		Phi1		Co-polar rad. diag.											
TYPICAL KA1		A-25*LOG(FI)		29																					
Findings		2D Date of protection		13A Conformity with RR		A- N- N-		13B1 Provision		13B2 Remarks		13B3 Date of Review													
13C Remarks																									
BR7a/BR7b Group id.												112621635		BR1 Date of receipt		02.04.2012		C2c RR No. 4.4							
A2a Date of bringing into use		16.06.2014		A2b Period of valid.		20		A3a Op. agency		11		A3b Adm. resp.		A		BR16 Value of type C8b									
BR62 Expiry date for bringing into use				11.12.2015				BR63 Confirmed date of bringing into use				BR64 Date of receipt of 1st Res49													
BR14 Special Section																									
C4a Class of station		EC		C3a Assigned freq. band		100000		C5a Noise temperature		600															
C4b Nature of service		CP		C6a Polarization type		V		C6b Polarization angle																	
C11a1 Service area no.		1		C11a2 Service area				C11a3 Service area diagram								1									
A5/A6 Coordinations/Agreements		9.7		O		ARS		CZE		F/EUT		IRN		MLA		PAK		RUS/IK		UAE					
		X/11.32A		X		CHN		CYP		D F		HOL		KAZ		LUX		MCO		PNG		THA		TUR	
C2a1 Assigned frequency																									
27.55		GHz		27.75		GHz		27.95		GHz		28.15		GHz		28.35		GHz		28.55		GHz			
27.65		GHz		28.05		GHz		28.25		GHz		28.45		GHz											
A13		Ref. to Special Sections		C7a		C8a1/C8b1		C8a2/C8b2		C8c1		C8c2		C8c3		C8c4		C8e1		C8e2					
API/A		/5491		1		100MG7W--		30		-50		20		-60		10		10		10					
CR/C		/2427		2		50M0G7W--		27		-50		17		-60		10		10		10					
				3		2M40G7W--		13.7		-50		3.7		-60		10		10		10					
				4		64K0G7W--		-1.9		-50		-11.9		-60		10		10		10					
C10b1 Assoc. earth station id.		C10b2 Type		C10c1 Geographical coord.		C10c2 Ctry		C10d1/C10d2 Cls. / Nat.		C10d3 Max. iso. gain		C10d4 Bmwdth		C10d7 Ant. diameter		C8g1 Max. aggr. pwr.		C8g2 Aggr. bandwidth		C8g3 Transp. bandwidth = Aggr. bandwidth					
TYPICAL KA1		T						1 TC CP		39.7		1.7													
C10d5a Co-polar antenna pattern																									
C10b1 Assoc. earth station id.		Co-polar ref. pattern		Coef. A		Coef. B		Coef. C		Coef. D		Phi1		Co-polar rad. diag.											
TYPICAL KA1		A-25*LOG(FI)		29																					
Findings		2D Date of protection		13A Conformity with RR		A- N- N-		13B1 Provision		13B2 Remarks		13B3 Date of Review													
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BR7a/BR7b Group id.												112621636		BR1 Date of receipt		02.04.2012		C2c RR No. 4.4							
A2a Date of bringing into use		16.06.2014		A2b Period of valid.		20		A3a Op. agency		11		A3b Adm. resp.		A		BR16 Value of type C8b									
BR62 Expiry date for bringing into use				11.12.2015				BR63 Confirmed date of bringing into use				BR64 Date of receipt of 1st Res49													
BR14 Special Section																									
C4a Class of station		EC		C3a Assigned freq. band		100000		C5a Noise temperature		600															
C4b Nature of service		CP		C6a Polarization type		H		C6b Polarization angle																	

Preface to BR IFIC

- Refer to Tables in PREFACE to understand findings

<http://www.itu.int/ITU-R/space/preface/index.html>

- Table 11 (A, B, C related to Col.A5/A6)
- Table 13 (A1,A2, A3, B1, B2, B3, C) Related to Cols: 13A, 13B, 13C

Preface to BR IFIC

SECTION IV - Table 11B: Symbols used for coordination and agreement status

11B Notification phase

TABLE 11B.1

Symbols in provision column currently in use*

Symbol used in provision column	Description
N/9.7 N/9.7A N/9.7B N/9.15 N/9.17 N/9.17A	The administration responsible for this entry asked the Bureau to seek coordination under the provisions of the Radio Regulations indicated in this remark with the administration of the country whose name is designated by the symbol in the "adm" column of the coordination table A5/A6, and this administration has not answered within the time limits specified. Consequently, the provisions of No. 9.47 or No. 9.48 are applicable for the administration whose symbol is indicated in this remark.
AP5#6A/9.---A P5#6B/9.---AP S#6C/9.---	The Finding was formulated on the understanding that, according to the provisions of Appendix 5 Paragraph 6a, 6b and/or 6c no coordination under No. 9.--- was required.
AP5#6D1/9.---	The notifying administration has informed the Bureau that, for the present assignment to a receiving station, it accepts the interference resulting from the frequency assignments which should have been the subject of a coordination agreement under No. 9.---. When this remark is followed by symbols indicating one or more administrations, the interference acceptance statement refers to the administration of the country whose symbol is inserted in the "adm" column of the coordination table A5/A6.
AP5#6E1 AP5#6E2 AP5#6F AP5#6G	The Finding was formulated on the understanding that, according to the provisions of Paragraph 6e1, 6e2, 6f or 6g of Appendix 5, no coordination under Nos.9.15 to 9.19 was required.
AP5#6E3	The notifying administration has informed the Bureau that, for the present assignment to a receiving earth station, it accepts the interference resulting from the existing or future terrestrial station assignments or assignments to earth stations operating the opposite direction of transmission. When this remark is followed by symbols in the "adm" column of the coordination table A5/A6 indicating one or more administrations, the interference acceptance statement refers to the administration of the country designated by the symbol inserted in the "adm" column of the coordination table A5/A6.

Preface to BR IFIC

SECTION IV - Table 11B: Symbols used for coordination and agreement status

TABLE 11B.2

Symbols in agreement status column currently in use

Symbol used in agreement status column	Description
O	Coordination or agreement has been obtained, or this assignment is in conformity with Plans/R1 and R3 Lists
X	Required Coordination or agreement has not been obtained, or this assignment is not in conformity with Plans/R1 and R3 Lists
V	Required Coordination or agreement has not been obtained but a favourable finding is given

THANK YOU

