



ITUEvents

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www.itu.int/go/ITU-R/WRS-18



Notification and Recording of Frequency Assignments

(Non-plan, space services)

Mehtap Dufour, Akim Falou-Dine, Nick Sinanis



Article 11 Notification

- **It covers the notification for recording to the Master Register**
 - International recognition
- **Bringing into use**

- **It concerns **space stations** (S/S), but also**
 - **Earth stations** (E/S) No. 11.2
 - **Radio astronomy** (RA) stations – No. 11.12



Overview

- **Notice creation, validation, receivability and Part I-S publication**
 - Nick Sinanis
- **Technical examination**
 - Mehtap Dufour
- **Part III-S publication, return of notice and resubmission request**
 - Akim Falou-Dine
- **Findings and recording**
 - Mehtap Dufour



Notification Notice Lifetime

- Administration submits Art. 11 notification for recording
 - E-submission
- Receivability examination (completeness, correctness)
- Part I-S is published
- Regulatory examination
- Favorable findings* -> **Part II-S publication & Recording**
- Unfavorable findings -> **Part III-S publication**
 - Notice returned to administration

- Returned notices that **can be resubmitted**, will restart the above steps when requesting the application of Nos. **11.32A, 11.41** until the **final recording** takes place



Notification Notice Creation

- **Conversion of a Coordination to Notification filing**
 - Easiest way to have a starting point
 - See conversion exercise in this workshop
- **Conversion of API to Notification filing**
 - Space stations not subject to coordination only
 - See conversion exercise in this workshop (advanced session)
- **Manual capturing of all mandatory **Appendix 4** information**
 - Converted notices also need some manual treatment, in case some parameters need to be aligned to those that will be in operation
- **In all cases, **SpaceVal (and cross-validation)** is the recommended step, to identify problems before submitting the notice to BR**




Submission and Receivability of Notices

- Notices contain **mandatory** information contained in Annex 2 of Appendix 4 of RR
 - SNS data
 - Graphical data (GIMS)
- **Submission of information in electronic format**
 - E-submissions *Receivability* §2 (RoP 2017 Rev.2)
- **Establishment of Date of Receipt (RoP *Receivability* §3)**
 - Completeness and Correctness
 - *SpaceVal Fatal Errors are the main guideline for completeness checks*
 - *SpaceVal Warnings point to possible correctness issues*
 - Dealing with missing information
 - *Correspondence exchanges*



Notification of frequency assignments under No.4.4

- **RoP on No. 4.4 §1.6** : administrations prior to bringing into use any frequency assignment to a transmitting station operating under No. 4.4, shall determine:
 - a) That the intended use of the frequency assignment to the station under No. 4.4 will not cause harmful interference into the stations of other administrations operating in conformity with the Radio Regulations;
 - b) What measures it would need to take in order to comply with the requirement to immediately eliminate harmful interference pursuant to No. 8.5.
 - **When notifying the use of frequency assignments to be operated under No. 4.4, the notifying Administration shall provide a confirmation** that it has determined that these frequency assignments meet the conditions referred to above in item a) and that it has identified measures to avoid harmful interference and to immediately eliminate such in case of a complaint.
-  **The Bureau will request this information upon reception of a notice that does not contain the above confirmation**



Administration Notes and Attachments

- Notices containing steerable beams need to comply with RoP 21.16 and in particular provide the information in §3 b)

B3b1b - Method required in ROP 21.16

Applicable PFD will be met by applying the method in Annex 1 of ROP

Others, enter the attachment no.

- Notes specifying the method to meet those limits need to be provided during the notification step
 - Alternatively **an Administration may request BR to reuse these data** from the previous stage (API or CR/C)
- Graphical data (GIMS) and other notes from the previous stage (API or CR/C) need to be provided again
 - Alternatively **an Administration may request BR to reuse these data** from the previous stage (API or CR/C)
- **Coordination agreements are expected to be captured in mdb**



Understanding validation output

SNS Validation Errors

Rule Report First Prev Next Last Space Rules Earth Rules Plan Rules

Validation Report for 114500101 User SINANIS created on 16.12.2016 09:46:50 with SpaceVal 8.0
G:\BRIFIC-2834\Space\Databases_v8\SRS_Data\srs2834.mdb

Ntc ID: 114500101 Adm: CAN Sat Name: CANSAT-50 Orb Pos: -107.3 Action:A Status:50 D_RCV: 1
Fatal Errors: 0 Warnin

	Beam	E/R	Grp id	Table	Field	Value	Row no	Val err	Rule	Severit	Ap4_Ref	
	KNTH	E	114662739	e_as_stn	bmwidth	2.6	2 695	4	W	C.10.d.4	Value outside comput	
			114662740		bmwidth	2.6	2 695	4	W	C.10.d.4	Value outside comput	

- Double-click on a table line to display more details
- A longer description can be found in the **Space Rules** file



Understanding validation output

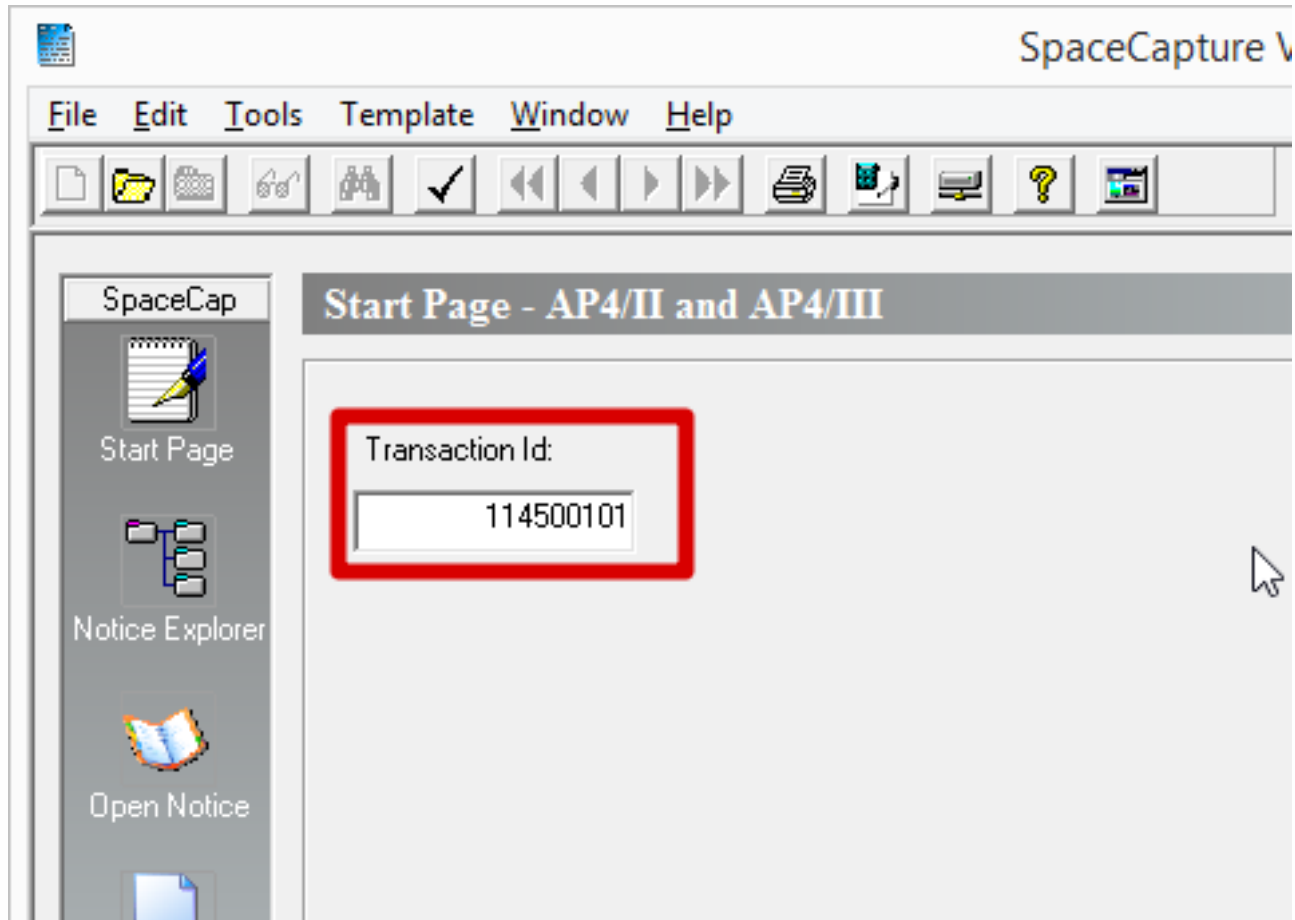


The screenshot shows a window titled "SNS Validation Rule" with a search bar containing "695". The results are as follows:

- Item no:** 695
- Field:** bmwidth
- Table:** e_as_stn
- Ap4 Ref:** C.10.d.4
- Field:** bmwidth, angular width of radiation main lobe expressed in degrees with two decimal positions
- Val No:** 695
- Applies to:** all except for ISS (inter-satellite-service)
- Val Rule:** E: value must be within the range from the minimum allowable to the maximum allowable calculated as per Appendix 6 of the Annex (W)
- Err Message:** Value outside computed allowable range (1.79 - 2.28)



Accessing Notice Data



- You may point SpaceCap to a **locally unzipped SRS database** to open notice **114500101**



Notice Publication – Starting SpacePUB

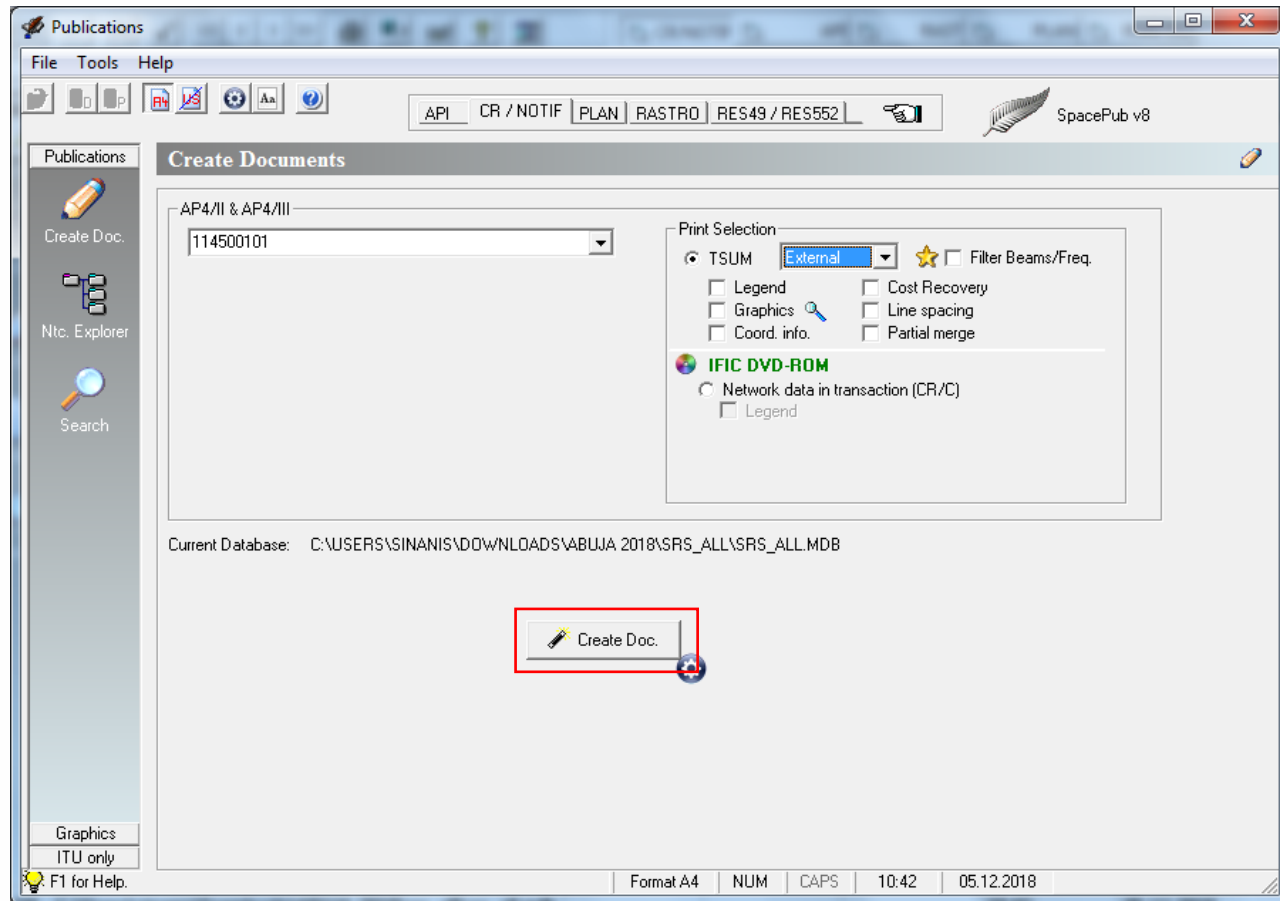
The screenshot shows the SpaceCapture V8 software interface. The title bar reads "SpaceCapture V8 - [Set Notice Template]". The menu bar includes "File", "Edit", "Tools", "Template", "Window", and "Help". The toolbar contains various icons, including a printer icon. The main window is titled "Notice Explorer - AP4/II and AP4/III". It displays a table of notices with columns: "Notice id.", "Type", "Adm./Org.", "Orb. Pos.", "Station name", "Date rcv.", and "Status". A "Count=1" indicator is visible. A context menu is open over the first notice, with the "Print Notice" option highlighted by a red rectangle. The sidebar on the left contains icons for "Start Page", "Notice Explorer", "Open Notice", "New Notice", and "Search".

Notice id.	Type	Adm./Org.	Orb. Pos.	Station name	Date rcv.	Status
114500101 [A]	G	CAN/	107.3W	CANSAT-5		

- Open Notice
- Show Selected Entity
- View History
- Print Notice**
- Export Notice(s)
- Clone
- Delete
- Assign Notice Id
- Renumber Notice Id
- Modify Notice Action Code
- Modify Date of Receipt
- Designate Group



SpacePub



- Click on Create Doc button



Part I-S publication



UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS
BUREAU DES RADIOCOMMUNICATIONS

INTERNATIONAL TELECOMMUNICATION UNION
RADIOCOMMUNICATION BUREAU

UNIÓN INTERNACIONAL DE TELECOMUNICACIONES
OFICINA DE RADIOCOMUNICACIONES

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RÉSEAU À SATELLITE SATELLITE NETWORK RED DE SATÉLITE	CANSAT-50		PARTIE PART PARTE	I-S
STATION TERRIENNE EARTH STATION ESTACIÓN TERRENA	---		BR IFIC / DATE BR IFIC / DATE BR IFIC / FECHA	2814 / 01.03.2016
ADM. RESPONSABLE RESPONSIBLE ADM. ADM. RESPONSABLE	CAN	LONGITUDE NOMINALE NOMINAL LONGITUDE LONGITUD NOMINAL	107.3 W	NUMÉRO D'IDENTIFICATION IDENTIFICATION NUMBER NÚMERO DE IDENTIFICACIÓN
RENSEIGNEMENTS REÇUS PAR LE BUREAU LE / INFORMATION RECEIVED BY THE BUREAU ON / INFORMACIÓN RECIBIDA POR LA OFICINA EL				10.04.2015

Notifications reçues au titre de		Notifications received under		Notificaciones recibidas en virtud de lo dispuesto en	
<input checked="" type="checkbox"/>	Article 11 du Règlement des radiocommunications	<input checked="" type="checkbox"/>	Article 11 of the Radio Regulations	<input checked="" type="checkbox"/>	Artículo 11 del Reglamento de Radiocomunicaciones
<input type="checkbox"/>	Article 5 des Appendices 30 et/ou 30A	<input type="checkbox"/>	Article 5 of Appendices 30 and/or 30A	<input type="checkbox"/>	Artículo 5 de los Apéndices 30 y/o 30A
<input type="checkbox"/>	Article 8 de l'Appendice 30B	<input type="checkbox"/>	Article 8 of Appendix 30B	<input type="checkbox"/>	Artículo 8 del Apéndice 30B

Pour plus d'informations sur les dispositions réglementaires et l'explication des codes ou symboles utilisés dans cette publication, veuillez consulter la Préface .	For more details on the regulatory provisions and the explanation of the codes or symbols used in this publication, please consult the Preface .	Para más detalles sobre las disposiciones reglamentarias y la explicación de los códigos o símbolos utilizados en esta publicación, sírvase consultar el Prefacio .
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- Can be found in the BR IFIC publication



A few hints...

- Ensure that an **appropriate explanation** is provided when **fatal errors** were not resolved
- **Plan for complete notice of the satellite network**
 - Adding at a later stage a few associated E/S will result into a MOD and extra cost
- **MODs are more involved transactions that BR will be happy to provide assistance**
 - Careful when modifying station-level data of recorded networks as this will very likely result in reexamining also the recorded network
 - The same applies for beam-level data of recorded beams



Notice Creation, Validation

Technical Examination

Part III-S, Return of Notice, Resubmission

Findings and Recording



Examination under No. 11.31

Conformity with
Table of
Frequency
Allocations
under Art. 5

Other relevant
provisions (Rules
of Procedure)

Footnotes, RESs,
RECs

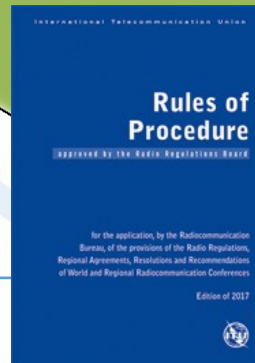
Successful
application of
No. 9.21

Articles 21 to 57
(Space →
21,22,23)

3 600-4 800 MHz

Allocation to services		
Region 1	Region 2	Region 3
3 600-4 200 FIXED FIXED-SATELLITE (space-to-Earth) Mobile	3 600-3 700 FIXED FIXED-SATELLITE (space-to- Earth) MOBILE except aeronautical mobile 5.434 Radiolocation 5.433	3 600-3 700 FIXED FIXED-SATELLITE (space-to- Earth) MOBILE except aeronautical mobile Radiolocation 5.433
	3 700-4 200 FIXED FIXED-SATELLITE (space-to- Earth) MOBILE except aeronautical mobile	
4 200-4 400	AERONAUTICAL MOBILE (M) 5.435	
4 400-4 900	FIXED MOBILE 5.440A	
4 600-4 800	FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE 5.440A	

**TABLE OF FREQUENCY
ALLOCATION EXAMPLE**



5.434 In Canada, Colombia, Costa Rica and the United States, the frequency band 3 600-3 700 MHz, or portions thereof, is identified for use by those administrations wishing to implement International Mobile Telecommunications (IMT). 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. At the state of coordination the provisions of



No. 11.31 Example Findings

Publications

File Tools Help



API CR / NOTIF PLAN RASTRO RES49 / RES552

SpacePub v8

Publications

Create Documents

AP4/II & AP4/III

118500004

Print Selection

TSUM Internal Filter Beams/Freq.

- Legend
- Graphics
- Coord. info.
- Cost
- Line spacing
- Partial merge

IFIC DVD-ROM

- Network data in transaction (CR/C)
 - Legend
- Last Special Section published
 - Legend
 - Remarks and graphics

CR/NOTIF

Step2: Select Notice Id
118500004

Current Database: C:\WRS-18\USB Key Material\BRIFIC2884_S\Databases\IFIC_Data\ific2884.mdb

Create Doc.

Step3: Create Doc

Step1:
:\WRS-18\USB Key
Material\BRIFIC2884_S\
Databases\IFIC_Data
\ific2884.mdb

Graphics

ITU only

F1 for Help.

Format A4 NUM CAPS 2:16 PM 04.12.2018



No. 11.31 Example Findings

TSUM Requested by: Date: 04.12.2018 4:13:32 PM DB: IFIC2884 MDB Plan id: Notice type: NONGEO

A A1a Sat. Network A1f1 Notif. adm. A1f3 Inter. sat. org. BR1 Date of receipt BR20 BR IFIC no.

BR6a/BR6b Id. no. BR3a/BR3b Provision reference N BR2 Adm. serial no. SBD1 K

BR92 Attach. for missing angle alpha/beta

Page no. IFIC I 2871 Part 1 IFIC II/III 2884 Part 2 Update date 15.11.2018 Finding required Cost Rec. Provision

Date of receipt of API 25.04.2017 Flag of bringing into use

Special Section 1 No. Special Section 2 No. Special Section 3 No.

Notes

Compare id. Records Structures Frequencies Emissions Assoc. Estns Assoc. Sstns Provision Beam: SBD1/E Findings

BR7a/BR7b Group id. 118616493 BR1 Date of receipt 08.02.2018 C2c RR No. 4.4 BR97 No. 11.43A BR98 For use in accordance with Res 163/164

A2a Date of bringing into use 21.10.2018 A2b Period of valid. 30 A3a Op. agency 019 A3b Adm. resp. A BR16 Value of type C8b

BR62 Expiry date for bringing into use 25.04.2024 BR63 Confirmed date of bringing into use BR64 Date of receipt of 1st Res49

Select Group Id
118616493

BR14 Special Section

C4a Class of station ET EW C3a Assigned to B4b5 Peak of pfd

C4b Nature of service OT OT C6a Polariz on angle

C8d1 Max. tot. peak pwr. 15.5 C8d2 Contiguous bandwidth

C11a1 Service area no. C11a2 Service area XAA C11a3 Service area diagram

A5/A6 Coordinations/Agreements

C2a1 Assigned frequency

A13 Ref. to Special Sections	C7a Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Attach.	C8c3 Min. pwr dens.	C8c4 Attach.	C8e1 C/N ratio	C8e2 Attach.
API/A/12004	1 5M00G7W--	3	-64	-3		-70		12	

C7b Carrier frequency of the emissions (5M00G7W--)

2202.5	MHz	2215	MHz	2227.5	MHz	2240	MHz	2252.5	MHz	2265	MHz	2277.5	MHz
2205	MHz	2217.5	MHz	2230	MHz	2242.5	MHz	2255	MHz	2267.5	MHz	2280	MHz
2207.5	MHz	2220	MHz	2232.5	MHz	2245	MHz	2257.5	MHz	2270	MHz	2282.5	MHz
2210	MHz	2222.5	MHz	2235	MHz	2247.5	MHz	2260	MHz	2272.5	MHz	2285	MHz
2212.5	MHz	2225	MHz	2237.5	MHz	2250	MHz	2262.5	MHz	2275	MHz	2287.5	MHz

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.	C10c2 Ctry	C10d1/C10d2 Cls. / Nat.	C10d3 Max. iso. gain	C10d4 Bmwidth	C10d6 Noise	C10d7 Ant. diameter
SBAND-TELEPORT	T			1 TT 2 TW OT	32			

C10b1 Assoc. earth station id.	Co-polar ref. pattern	Coef. A	Coef	C10d5e	Coef. D	Phi1	Co-polar rad. diag.
SBAND-TELEPORT	REC-465-5						

Findings 2D Date of protection 08.02.2018 13A Conformity with RR A- -- -- Prov.

13B2 Remarks 13B3 Date of Review A/26.03.2024

13C Remarks



Notice Id: 118500004



Examination under No. 11.31 (1)

Art 5

- *compliance with table of frequency allocation including footnotes*

**Art 21
Sect III**

- *power limits of earth stations are complied*

**Art 21
Sect V**

- *limits of power flux density from space stations*



Examination under No. 11.31 (2)

Article 22 Sect III

- *station keeping of space stations*

Article 22 Sect IV

- *pointing accuracies of antenna on geostationary satellites*

Article 22 Sect VI

- *earth station off-axis power limitations to fixed satellite service*



Conformity with Table of Frequency Allocations under Art.5

Network	Ntf Rsn	Name	Adm	Orb. pos
118500049	N	B-SAT-2J	B	-68

Receiving space station


Beam	Groups	FreqMin	FreqMax	Class	Coverage	9.7
CR1	118629052	5850	6425	EC	0 1 0	5850-6425
CR1	118629053	5925.2	6424.8	ED	0 1 0	5925.2-5925.8, 6424.2-6424.8
CR2	118629054	5850	6425	EC	0 1 0	5850-6425
CR2	118629055	5925.2	6424.8	ED	0 1 0	5925.2-5925.8, 6424.2-6424.8

5 850-5 925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	5 850-5 925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Amateur Radiolocation	5 850-5 925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Radiolocation
5.150	5.150	5.150
5 925-6 700 FIXED 5.457 FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B MOBILE 5.457C 5.149 5.440 5.458		




Conformity with Table of Frequency Allocations under Art.5 & Article 21

Transmitting space station



Beam	Groups	FreqMin	FreqMax	Class	Coverage	
CT1	118629050	3625	4200	EC	0 1 0	3625-4200
CT2	118629051	3625	4200	EC	0 1 0	3625-4200



Frequency band	Service*	Limit in dB(W/m ²) for angles of arrival (δ) above the horizontal plane			Reference bandwidth
		0°-5°	5°-25°	25°-90°	
3 400-4 200 MHz	Fixed-satellite (space-to-Earth) (geostationary-satellite orbit)	-152	$-152 + 0.5(\delta - 5)$	-142	4 kHz

START OF JOB SNSBPFDF 04.12.18 14.37.17 VERSION 8.3.0.0 118520049_H muluk 01N
EARTH STATION E.I.R.P. VALUES BE CHECKED AGAINST \$22.26 LIMIT (ONLY FOR AP30B NETWORKS) AND ARTICLE 21 LIMITS
SPACE STATION PFD VALUES WILL BE CHECKED AGAINST **HARD LIMITS ONLY**

```
CHN  SNS   HARD LIMITS for SIGNSAT-151E (118520049) EXAMINATION REQUESTED BY ; muluk DATE: 04/12/18 14:37:17
CHN  SIGNSAT-151E           151.00E  0.10  0.10           12.02.18           C 118.520049
ALL FINDINGS WITH RESPECT TO HARD LIMITS ARE FAVORABLE
PROGRAM SNSBPFDF TERMINATED OK
CPU TIME SPENT ON THIS JOB      :                8 ( 8 Sec )
ESTN POWER EXAM TOT CPU        :                3
NO. OF ESTN POWER EXAMS        :               861
CPU PER ESTN POWER EXAM (MS)   :                3
PFD EXAM TOT CPU               :                2
NO. OF PFD EXAMS               :               282
CPU PER PFD EXAM (MS)         :                7
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
END OF JOB SNSBPFDF 04.12.18 14.37.27 TERM=0000
```

Software interface for GIBC SNS VR. The window title is 'GIBC SNS VR'. It contains several sections:

- Power Control**: Includes 'Coordination 9.7B', 'PFD Earth-to-space', 'PFD NSGO', 'New Appendix 8', 'Tools / Options', 'Chaining Manager', 'PFD', 'Appendix 8 | FXT', 'Appendix 7', 'Appendix 30B', 'Appendix 30 30A | EFPD'. Buttons for 'Operator ID', 'Schedule', and 'Start' are visible.
- Network ID**: Displayed as '118520049'.
- Examination Data**: Includes 'Examination: [Hard Limits]', 'Power Control (dBW): 0', and 'Output Level: [Level 1]'. A large 'GIBC/PFD' watermark is overlaid on this section.
- Files Path**: Shows 'C:\BR_TEX_RESULTS\118520049\PFD_H_181204_143715'. There is an 'Open Folder' button.
- Version**: Shows '8.3.0.0 Part of TEX 8.10.0.0'.
- EXIT** button at the bottom.



Example of Unfavorable Findings under No. 11.31/Article 21

TSUM Requested by: NGLUR Date: 04.12.2018 4:32:15 PM DB: IFIC2884.MDR Plan Id: No. type: NONREQ

A1a Sat. Network: X-SAT A1f1 Notif. adm.: SNG A1f3 Inter. sat. org.: BR1 Date of receipt: 20.02.2018 BR20 BR IFIC no.: 2884

BR6a/BR6b Id. no.: 118512002 BR3a/BR3b Provision reference: 11.2 BR2 Adm. serial no.:

Date of receipt of API: 18.04.2011 Flag of bringing into use: C

Special Section 1 No. Special Section 2 No. Special Section 3 No.

Notes:

Compare id. Records Structures Frequencies Emissions Assoc. Estns Assoc. Sstns Provisions Publications Findings

BR7a/BR7b Group id.: 118627894 BR1 Date of receipt: 20.02.2018 C2c RR No. 4.4 BR97 No. 11.43A BR98 For use in accordance with Res 163/164

A2a Date of bringing into use: 20.04.2011 A2b Period of valid.: 10 A3a Op. agency: 014 A3b Adm. resp.: A BR16 Value of type C8b

BR62 Expiry date for bringing into use: 18.04.2018 BR63 Confirmed date of bringing into use: 20.04.2011 BR64 Date of receipt of 1st Res49

BR14 Special Section

C4a Class of station: ER C3a Assigned freq. band: 300 B4b5 Peak of pfd

C4b Nature of service: CV C6a Polarization type: CR C6b Polarization angle

C8d1 Max. tot. peak pwr.: 5 C8d2 Contiguous bandwidth

C11a1 Service area no. C11a2 Service area

A5/A6 Coordinations/Agreements

C2a1 Assigned frequency: 2210.7692 MHz

A13 Ref. to Special Sections API/A/2935	C7a Design. of emission	C8a1/C8b1 Max. peak pwr		C8a2/C8b2 Max. pwr dens.		C8c1 Min. peak pwr		C8c2 Attch.		Min
		1	300KG1DXN	5	-46	-20				

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.		C10c2 Ctry	C10d1/C10d2 Cls. / Nat.		C10d3 Max. iso. gain	C10d4 Bmwidth	C10d6 Noise temp.	C10d7 Ant. diameter
		103E46 54	01N17 32		1	TR CV				
CRISP-SNG	S			SNG	1	TR CV	40	1.49	171	6.1

C10d5a Co-polar antenna pattern

C10b1 Assoc. earth station id.	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D
CRISP-SNG					

Findings: 2D Date of protection: 13A Conformity with R: N- -- -- 13B1 Prov.: X/21.16 13B2 Remarks:

13C Remarks:

TABLE 21-4 (Rev. WRC-15)

Frequency band	Service*	Limit in dB(W/m ²) for angles of arrival (θ) above the horizontal plane			Reference bandwidth
		0°-5°	5°-25°	25°-90°	
1 670-1 700 MHz	Earth exploration-satellite Meteorological-satellite	-133 (value based on sharing with meteorological aids service)			1.5 MHz
1 518-1 525 MHz (Applicable to the territory of the United States in Region 2 between the longitudes 71° W and 125° W)	Mobile-satellite (space-to-Earth)	0° ≤ θ ≤ 4° -181.0	4° < θ ≤ 20° -193.0 + 20 log θ	20° < θ ≤ 60° -213.3 + 35.6 log θ	60° < θ ≤ 90° -150.0
1 518-1 525 MHz (Applicable to the territory of the United States in Region 2)	Mobile-satellite (space-to-Earth)	0° ≤ θ ≤ 4° -155.0	4° < θ ≤ 20° -213.3 + 35.6 log θ	20° < θ ≤ 60° -150.0	60° < θ ≤ 90° -150.0
1 525-1 530 MHz ⁷ (Region 1, Region 3)	Meteorological-satellite (space-to-Earth)	0°-5° -154 ⁹	5°-25° -154 + 0.5(θ - 5) ⁹	25°-90° -144 ⁹	4 kHz
1 670-1 690 MHz ¹²	Space research (space-to-Earth)				
1 690-1 700 MHz (Nos. 4.381 and 6.382)	Space operation (space-to-Earth)				
1 700-1 710 MHz	Space operation (space-to-space)				
2 025-2 110 MHz	Earth exploration-satellite				
2 200-2 300 MHz	Earth exploration-satellite (space-to-Earth)				

ARTICLE 21

Notice Id: 118512002



Example of Findings under No. 11.31

TSUM Requested by: MDLR Date: 04.12.2018 5:18:32 PM DB: TFIC2494.MDS Plan Id: Notice type: PRD

A A1a Sat. Network: SE-KA-56.5E A1f1 Notif. adm. NOR A1f3 Inter. sat. org. BR1 Date of receipt 14.03.2018 BR20 BR IFIC no. 2884

BR6a/BR6b Id. no. 118500056 BR3a/BR3b Provision reference 11.2 X BR2 Adm. serial no. CTU R

A1f2 Submitted on behalf

A4a1 Orbital long. 56.5 E BR61 Original orb. long. 56.5 E A4a2a East Long. tolerance limit 0.05 A4a2b West Long. tolerance limit 0.05 A4a2c Inclination excursion 3

A17a Compliance with PFD limit dB(W/(m²·1MHz)) in the band 1164 - 1215 MHz

A17b1 Calculated aggregate PFD value in the band 4990.0 - 5000.0 MHz dB(W/(m²·1MHz))

A17b2 Calculated aggregate PFD value in the band 5030.0 - 5150.0 MHz dB(W/(m²·1MHz))

A17d Mean PFD dB(W/(m²·1MHz))

A17e2a Calculated PFD value in the band 42.5 - 43.5 GHz at RA SDT dB(W/(m²·500 kHz))

A17e2b Calculated PFD value in the band 42.5 - 43.5 GHz at RA SDT dB(W/(m²·500 kHz))

A17e2c Calculated PFD value in the band 42.5 - 43.5 GHz at RA SDT dB(W/(m²·500 kHz))

A16a Compliance with off-axis power limitation Y

A16c Commitment to meet separation distance of No. 5.509E at

BR96 Commitment under resolves 1.5 of Res. 156

Section III – Station keeping of space stations²⁷

22.6 § 6 1) Space stations on board geostationary satellites which use any frequency band allocated to the fixed-satellite service or the broadcasting-satellite service²⁸:

22.7 a) shall have the capability of maintaining their positions within ±0.1° of the longitude of their nominal positions;

Station keeping

Int/Ext E First notif. or Resub. F IFIC I 2872 Part 1 IFIC II/III 2884 Part 3 Last modified 14.11.2018

Status 19 Date 14.11.2018 Prev. Status 37 Basic Mod. Y Cfx. C Val W Repub. flag Split flag Merge option

Special Section 1 No. Special Section 2 No. Special Section 3 No.

Compare id. Records Structures Straps Noise gamma Orbits Horizon elevations

Compare id. Compare beam Records Structures Finding required 3

B1a/BR17 Beam designation CTU B1b Steerable Y B2 Emi-Rop R B3a1 Max. co-polar gain 9 B3d Pointing accuracy 0.3

B3b1a Co-polar ant. gain contours diag.

B3c1 Co-polar antenna pattern

Co-polar ref. pattern	Coef. A	Coef. B	Co-polar rad. diag.

Page no. 8 IFIC I 2872 Part 1 IFIC II/III 2884 Part 3 Update date 14.11.2018 Finding required 3 Cost Rec. Y Provision

Date of receipt of API 11.05.2011 Flag of bringing into use C

Special Section 1 No. Special Section 2 No. Special Section 3 No.

Notes

Compare id. Records Structures Frequencies Emissions Assoc. Estns Assoc. Stns

BR7a/BR7b Group id. 118639247 BR1 Date of receipt 14.03.2018 C2c RR No. 4.4 BR97 No. 11.43A

A2a Date of bringing into use 18.04.2018 A2b Period of valid. 25 A3a Op. agency 080 A3b Adm. resp. A BR16 Valu

BR62 Expiry date for bringing into use 11.05.2018 BR63 Confirmed date of bringing into use 18.04.2018

Section IV – Pointing accuracy of antennas on geostationary satellites

22.19 § 7 1) The pointing direction of maximum radiation of any earthward beam of antennas on geostationary satellites³⁰ shall be capable of being maintained within:

a) 10 % of the half-power beamwidth relative to the nominal pointing direction, or

b) 0.3° relative to the nominal pointing direction, whichever is greater. This position applies only when such a beam is intended for less than global coverage.

Pointing Accuracy

BR14 Special Section

C4a Class of station ED ER C3a Assigned freq. band 900 C5a Noise temperatur

C4b Nature of service CV CV C6a Polarization type CR C6b Polarization angl

C11a1 Service area no. 1 C11a2 Service are

Notice Id: 118500056



Examination under No. 11.31 FOOTNOTES

Conformity with
Table of
Frequency
Allocations
under Art. 5

Other relevant
provisions (Rules
of Procedure)

Footnotes, RESs,
RECs

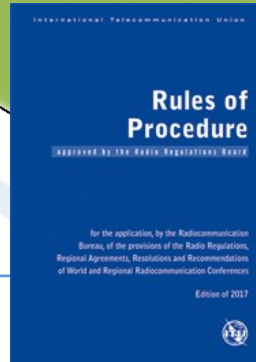
Successful
application of
No. 9.21

Articles 21 to 57
(Space →
21,22,23)

3 600-4 800 MHz

Allocation to services		
Region 1	Region 2	Region 3
3 600-4 200 FIXED FIXED-SATELLITE (space-to-Earth) Mobile	3 600-3 700 FIXED FIXED-SATELLITE (space-to- Earth) MOBILE except aeronautical mobile 5.434 Radiolocation 5.433	3 600-3 700 FIXED FIXED-SATELLITE (space-to- Earth) MOBILE except aeronautical mobile Radiolocation 5.433
	3 700-4 200 FIXED FIXED-SATELLITE (space-to- Earth) MOBILE except aeronautical mobile	
4 200-4 400	AERONAUTICAL MOBILE (M) 5.435	
4 400-4 900	MOBILE except aeronautical mobile 5.434 MOBILE 5.440A	
4 600-4 800	FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE 5.440A	

**TABLE OF FREQUENCY
ALLOCATION EXAMPLE**



5.434 In Canada, Colombia, Costa Rica and the United States, the frequency band 3 600-3 700 MHz, or portions thereof, is identified for use by those administrations wishing to implement International Mobile Telecommunications (IMT). 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. At the state of coordination the provisions of



Examination under No. 11.31 FOOTNOTES, i.e. X/5.503

START OF JOB SNSBPF 06.12.17 12.59.02 VERSION 8.0.0.6 117520221 H 01N
COORDINATION REQUEST CHECK AGAINST HARD LIMITS ONLY

SNS **HARD LIMITS for USASAT-80C (117520221)** EXAMINATION REQUESTED BY : DATE: 06/12/17 12:59:02

USA	USASAT-80C	125.00W	0.10	0.10	28.06.17	C 117.520221
CMD	22.0 DB	POINTING ACC	0.30 DEG		117.520221	
ED	575000 KHZ DP 28.06.17					A- 117.737377
6137.50000 M	575000 KHZ 700KF2D--	4.2 DBW (MIN)	40.0 DBW (MAX)	-12.5 DBW/HZ		A- 0001
(17) 21.8		TYPICAL C7.0M		51.0 29.0-25*LOG(FI)		REF. BW 0.004MHZ
ALL WORLD				046W4043 00N5845	00.00 17.1 40.6 0.6 40.0	
ED	300000 KHZ DP 28.06.17					A- 117.737380
6575.00000 M	300000 KHZ 700KF2D--	4.7 DBW (MIN)	40.0 DBW (MAX)	-12.5 DBW/HZ		A- 0001
(17) 21.8		TYPICAL C7.0M		51.0 29.0-25*LOG(FI)		REF. BW 0.004MHZ
ALL WORLD				046W4043 00N5845	00.00 17.1 40.6 0.6 40.0	
ED	250000 KHZ DR 28.06.17					N- 117.737444
13.87500 G	250000 KHZ 700KF2D--	14.2 DBW (MIN)	33.1 DBW (MAX)	-21.7 DBW/HZ		N- 0001
(10) 5.503		TYPICAL K9.0M		60.2 29.0-25*LOG(FI)		OVERLAP 0.040MHZ
ALL WORLD					84.5 29.3 55.2	N-
ED	250000 KHZ DR 28.06.17					N- 117.737445
13.87500 G	250000 KHZ 700KF2D--	10.8 DBW (MIN)	29.7 DBW (MAX)	-25.1 DBW/HZ		N- 0001
(10) 5.503		TYPICAL K13.0M		63.6 29.0-25*LOG(FI)		OVERLAP 0.040MHZ
ALL WORLD					84.5 26.1 58.4	N-
ED	250000 KHZ DR 28.06.17					N- 117.737446
13.87500 G	250000 KHZ 700KF2D--	17.5 DBW (MIN)	36.4 DBW (MAX)	-18.4 DBW/HZ		N- 0001
(10) 5.503		TYPICAL K6.1M		56.9 29.0-25*LOG(FI)		OVERLAP 0.040MHZ
ALL WORLD					84.5 32.7 51.8	N-

5.51 for stations operating on a secondary basis. Until those geostationary space stations in the space research service for which information for advance publication has been received by the Bureau prior to 31 January 1992 cease to operate in this band:

- in the band 13.77-13.78 GHz, the e.i.r.p. density of emissions from any earth station in the fixed-satellite service operating with a space station in geostationary-satellite orbit shall not exceed 51 dBW/Hz in the 6 MHz band from 13.772 to 13.778 GHz.
- i) 4.7 + 28 dB(W/40 kHz), where D is the fixed-satellite service earth station antenna diameter (m) for antenna diameters equal to or greater than 1.2 m and less than 4.5 m;
- ii) 49.2 + 20 log(D/4.5) dB(W/40 kHz), where D is the fixed-satellite service earth station antenna diameter (m) for antenna diameters equal to or greater than 4.5 m and less than 31.9 m;
- iii) 66.2 dB(W/40 kHz) for any fixed-satellite service earth station for antenna diameters (m) equal to or greater than 31.9 m;
- iv) 49.2 + 20 log(D/4.5) dB(W/40 kHz), where D is the fixed-satellite service earth station antenna diameter (m) for antenna diameters equal to or greater than 4.5 m and less than 31.9 m.

TABLE OF FREQUENCY ALLOCATION EXAMPLE



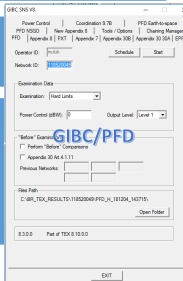
Earth station eirp density = P + G (Gr. Id: 117737444)

$$P = -21.7 \quad G = 60.2$$

$$\text{Eirp density} = -21.7 + 60.2 +$$

$$10\text{LOG}(40\text{KHz}) = 84.5 \text{ dBW/Hz} > 55.2$$

Automatic power control may be used to increase the e.i.r.p. density in these frequency ranges to compensate for rain attenuation, to the extent that the power flux-density at the fixed-satellite service space station does not exceed the value resulting from use by an earth station of an e.i.r.p. meeting the above limits in clear-sky conditions. (WRC-05)





After No. 11.31 Examination

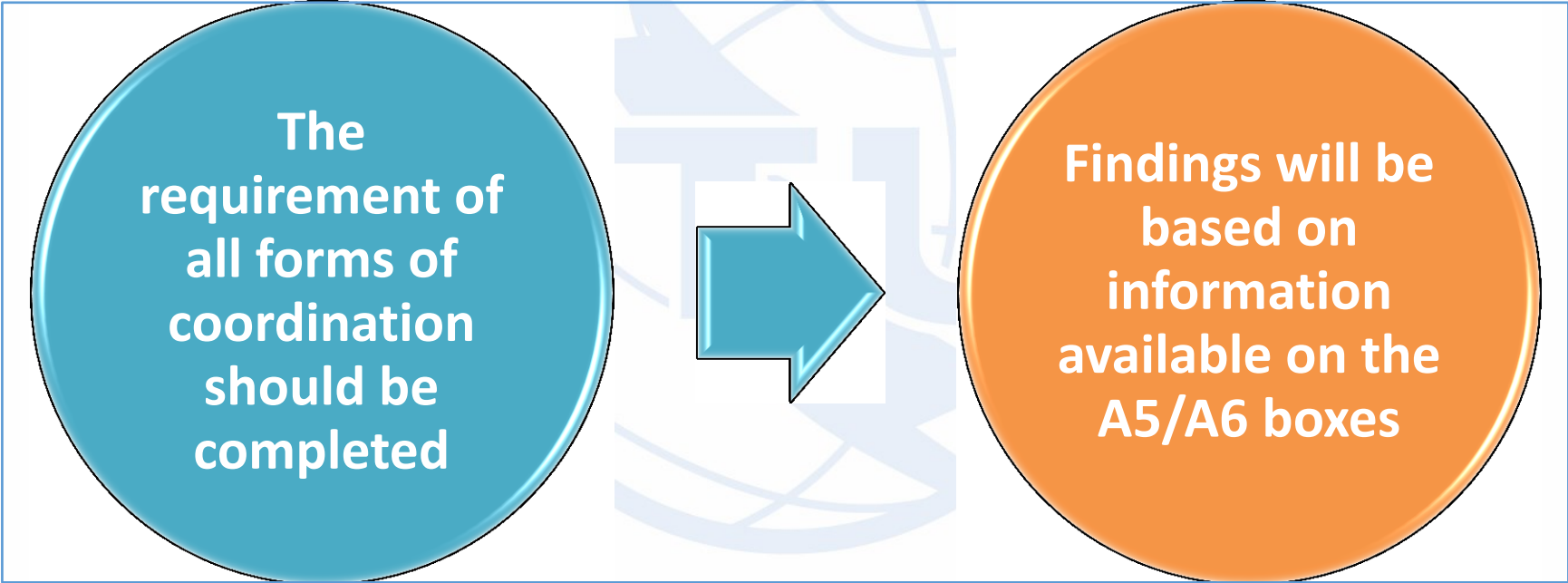
When No. 11.31 finding is favourable, the assignment shall be recorded in the Master Register,

or examined further to Nos. 11.32 to 11.33, as appropriate



Examination under No. 11.32

COORDINATION PROVISIONS



C11a1 Service area no. C11a2 Service area

A5/A6 Coordinations/Agreements	9.7	O	F	G	HOL	J	KOR	LUX	MLA
	V/11.32A	V	CAN	GRC	S	UAE			
	X/11.32A	X	AUS	NOR	QAT	USA			
C2a7 Assigned frequency									

A5/A6 boxes



Examination under No. 11.32

COORDINATION PROVISIONS

Appendix 5

TABLE 5-1 (Rev.WRC-15)
Technical conditions for coordination
 (see Article 9)

AP5-4

Reference of Article 9	Case	Frequency bands (and Region) of the service for which coordination is sought	Threshold/condition	Calculation method	Remarks
No. 9.7 GSO/GSO	A station in a satellite network using the geostationary-satellite orbit (GSO), in any space radiocommunication service, in a frequency band and in a Region where this service is not subject to a Plan, in respect of any other satellite network using that orbit, in any space radiocommunication service in a frequency band and in a Region where this service is not subject to a Plan, with the exception of the coordination between earth stations operating in the opposite direction of transmission	1) 3 400-4 200 MHz 5 725-5 850 MHz (Region 1) and 5 850-6 725 MHz 7 025-7 075 MHz 2) 10.95-11.2 GHz 11.45-11.7 GHz 11.7-12.2 GHz (Region 2) 12.2-12.5 GHz (Region 3) 12.5-12.75 GHz (Regions 1 and 3) 12.7-12.75 GHz (Region 2) and 13.75-14.8 GHz	i) Bandwidth overlap, and ii) any network in the fixed-satellite service (FSS) and any associated space operation functions (see No. 1.23) with a space station within an orbital arc of $\pm 7^\circ$ of the nominal orbital position of a proposed network in the FSS i) Bandwidth overlap, and ii) any network in the FSS or broadcasting-satellite service (BSS), not subject to a Plan, and any associated space operation functions (see No. 1.23) with a space station within an orbital arc of $\pm 6^\circ$ of the nominal orbital position of a proposed network in the FSS or BSS, not subject to a Plan iii) in the band 14.5-14.8 GHz any network in the space research service (SRS) or FSS not subject to a Plan and any associated space operation functions (see No. 1.23) with a space station within an orbital arc of $\pm 6^\circ$ of the nominal orbital position of a proposed network in the SRS or FSS not subject to a Plan		With respect to the space services listed in the threshold/condition column in the frequency bands in 1), 2), 2 <i>bis</i>), 3), 4), 5), 6), 7) and 5), an administration may request, pursuant to No. 9.41, to be included in requests for coordination, indicating the networks for which the value of $\Delta F/T$ calculated by the method in § 2.2.1.2 and 3.2 of Appendix 5 exceeds 6%. When the Bureau, on request by an affected administration, studies this information pursuant to No. 9.42, the calculation method given in § 2.2.1.2 and 3.2 of Appendix 5 shall be used



Example of Findings under No. 11.32 Assignments in MIFR (Part II-S)

Group Id:
117784170

TSUM Requested by: MLDGE Date: 04.12.2018 1:20:29 PM DB: ITTC2884.MDR Plan ID: Notice type: GEO
 M A1a Sat. Network EDRS-1 A1f1 Notif. adm. F A1f3 Inter. sat. org. BR1 Date of receipt 06.12.2017 BR20 BR IFIC no. 2884
 BR6a/BR6b Id. no. 113500064 BR3a/BR3b Provision reference 11.2 N BR2 Adm. serial no. FEDERAL E

2871 Part 1 IFIC II/III 2884 Part 2 Update date 15.11.2018 Finding required Cost Rec. Provision
 02.2011 Flag of bringing into use C
 No. Special Section 2 No. Special Section 3 No.
 Compare id. Records Structures Frequencies Emissions Assoc. Estns Assoc. Sstns Provisions Publications Findings

BR7a/BR7b Group id. 117844170 BR1 Date of receipt 06.12.2017 C2c RR No. 4.4 BR97 No. 11.43A BR98 For use in accordance with Res 163/164
 A2a Date of bringing into use 21.04.2016 A2b Period of valid. 20 A3a Op. agency 100 A3b Adm. resp. A BR16 Value of type C8b
 BR62 Expiry date for bringing into use 23.02.2018 BR63 Confirmed date of bringing into use 21.04.2016 BR64 Date of receipt of 1st Res49
 BR14 Special Secti
 C4a Class of station EH C3a Assigned freq. band 450000
 C4b Nature of servi CP C6a Polarization type CR C6b Polarization angle
 C8d1 Max. tot. peak pwr. 13.8 C8d2 Contiguous bandwidth 450000
 C11a1 Service area no. 1 C11a2 Service area C11a3 Service area diagram
 A5/A6 Coordinations/Agreements 9.7 O D/EUM

C2a1 Assigned frequency

Ref. to Special Sections	C7a Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Attach.	C8c3 Min. pwr dens.	C8c4 Attach.	C8e1 C/N ratio	C8e2 Attach.
API/A/6774 CR/C/3231	1 450MG1W--	13.8	-72.7	3.8		-82.7		11.7	

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.	C10c2 Ctry	C10d1/C10d2 Cls. / Nat.	C10d3 Max. iso. gain	C10d4 Bmwidth	C10d6 Noise temp.	C10d7 Ant. diameter	C10d9 Ant. dim. (DGSO)
TYPICAL2 6.8	T			1 TH CP	62.9	0.12	300	6.8	
TYPICAL2 8	T			1 TH CP	64.3	0.11	300	8	

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.
TYPICAL2 6.8	REC-465-5						
TYPICAL2 8	REC-465-5						

Findings 2D Date of protection 24.07.2012 13A Conformity with RR A- A- -- ov. 13B2 Remarks 13B3 Date of Review
 13C Remarks

Page no. IFIC I 2871 Part 1 IFIC II/III 2884 Part 2 Update date 15.11.2018 Finding required
 Date of receipt of API 23.02.2011 Flag of bringing into use C



Notice Id: 113500064





Examination under No. 11.32

Space Stations

Check if notified characteristics are the same or within the envelope of coordination characteristics

If not → relevant interference calculations are carried out on the basis of AP5

If additional administrations identified → unfavourable finding will be given and notice returned. → Administration would be requested to publish a modification to the related coordination Special Section

See RoP (Rules of Procedure) 11.32



Assignments in MIFR Part II-S Publication



UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS
BUREAU DES RADIOCOMMUNICATIONS

INTERNATIONAL TELECOMMUNICATION UNION
RADIOCOMMUNICATION BUREAU

UNIÓN INTERNACIONAL DE TELECOMUNICACIONES
OFICINA DE RADIOCOMUNICACIONES

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RÉSEAU À SATELLITE SATELLITE NETWORK RED DE SATÉLITE		EDRS-1		PARTIE PART PARTE		II-S	
STATION TERRIENNE EARTH STATION ESTACIÓN TERRENA		---		BR IFIC / DATE BR IFIC / DATE BR IFIC / FECHA		2884 / 27.11.2018	
ADM. RESPONSABLE RESPONSIBLE ADM. ADM. RESPONSABLE		F		LONGITUDE NOMINALE NOMINAL LONGITUDE LONGITUD NOMINAL		9 E	
				NUMÉRO D'IDENTIFICATION IDENTIFICATION NUMBER NÚMERO DE IDENTIFICACIÓN		117500331 / 113500064	
RENSEIGNEMENTS REÇUS PAR LE BUREAU LE / INFORMATION RECEIVED BY THE BUREAU ON / INFORMACIÓN RECIBIDA POR LA OFICINA EL						06.12.2017	

Assignations de fréquence inscrites dans le Fichier de référence au titre de		Frequency assignments recorded in the Master Register under		Asignaciones de frecuencia inscritas en el Registro con arreglo al	
X	Article 11 du Règlement des radiocommunications	X	Article 11 of the Radio Regulations	X	Artículo 11 del Reglamento de Radiocomunicaciones
	Article 5 des Appendices 30 et/ou 30A		Article 5 of Appendices 30 and/or 30A		Artículo 5 de los Apéndices 30 y/o 30A
	Article 8 de l'Appendice 30B		Article 8 of Appendix 30B		Artículo 8 del Apéndice 30B

Pour plus d'informations sur les dispositions réglementaires et l'explication des codes ou symboles utilisés dans cette publication, veuillez consulter la [Préface](#).

For more details on the regulatory provisions and the explanation of the codes or symbols used in this publication, please consult the [Preface](#).

Para más detalles sobre las disposiciones reglamentarias y la explicación de los códigos o símbolos utilizados en esta publicación, sírvase consultar el [Prefacio](#).





Notice Creation, Validation
Regulatory Examination
Part III-S, Return of Notice, Resubmission
Findings and Recording



RESUBMISSIONS


Unfavourable findings under No. 11.32/11.32A

- 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



RESUBMISSION NOT APPLICABLE

Unfavourable
finding under
No. 11.31

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



RESUBMISSION NOT APPLICABLE

Notice Id:118512002

**Group Id:
118627894**

TSUM Requested by: NGLUR Date: 04.12.2018 4:32:15 PM DB: IFC2884.MDR Plan Id: NoBoe type: NONREQ

A A1a Sat. Network X-SAT A1f1 Notif. adm. SNG A1f3 Inter. sat. org. BR1 Date of receipt 20.02.2018 BR20 BR IFIC no. 2884

BR6a/BR6b Id. no. 118512002 BR2 Adm. serial no. BR11 BR12

Date of receipt of API 18.04.2011

Special Section 1 No. Special Section 3 No.

Notes

Compare id. Records Structures Frequencies Emissions Assoc. Estns Assoc. Sstns Provisions Publications Findings

BR7a/BR7b Group id. 118627894 BR1 Date of receipt 20.02.2018 C2c RR No. 4.4 BR97 No. 11.43A BR98 For use in accordance with Res 163/164

A2a Date of bringing into use 20.04.2011 A2b Period of valid. 10 A3a Op. agency 014 A3b Adm. resp. A BR16 Value of type C8b

BR62 Expiry date for bringing into use 18.04.2018 BR63 Confirmed date of bringing into use 20.04.2011 BR64 Date of receipt of 1st Res49

BR14 Special Section

C4a Class of station ER C3a Assigned freq. band 300 B4b5 Peak of pfd

C4b Nature of service CV C6a Polarization type CR C6b Polarization angle

C8d1 Max. tot. peak pwr. 5 C8d2 Contiguous bandwidth C11a1 Service area no. C11a2 Service area C11a3 Service area diagram 4

A5/A6 Coordinations/Agreements

C2a1 Assigned frequency

2210.7692 MHz

A13 Ref. to Special Sections	C7a Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Attch.	C8c3 Min. pwr dens.	C8c4 Attch.	C8e1 C/N ratio	C8e2 Attch.
API/A/2935	1 300KG1DXN	5	-46	-20		-72		10	

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.	C10c2 Ctry	C10d1/C10d2 Cls. / Nat.	C10d3 Max. iso. gain	C10d4 Bmwidth	C10d6 Noise temp.	C10d7 Ant. diameter
CRISP-SNG	S	103E46 54 01N17 32	SNG	1 TR CV	40	1.49	171	6.1

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.
CRISP-SNG							3

Findings 2D Date of protection 13A Conformity with R N- -- -- 13B1 Proc. X/21.16 13B2 Remarks 13B3 Date of Review

13C Remarks





PART III-S PUBLICATION



UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS
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RÉSEAU À SATELLITE SATELLITE NETWORK RED DE SATÉLITE	X-SAT	PARTIE PART PARTE	III-S
STATION TERRIENNE EARTH STATION ESTACIÓN TERRENA	---	BR IFIC / DATE BR IFIC / DATE BR IFIC / FECHA	2884 / 27.11.2018
ADM. RESPONSABLE RESPONSIBLE ADM. ADM. RESPONSABLE	SNG	LONGITUDE NOMINALE NOMINAL LONGITUDE LONGITUD NOMINAL	NGSO
RENSEIGNEMENTS REÇUS PAR LE BUREAU LE / INFORMATION RECEIVED BY THE BUREAU ON / INFORMACIÓN RECIBIDA POR LA OFICINA EL			20.02.2018

Assignations de fréquence retournées à l'administration notificatrice au titre de		Frequency assignments returned to the notifying Administration under		Asignaciones de frecuencia devueltas a la Administración notificante en virtud del	
X	Article 11 du Règlement des radiocommunications	X	Article 11 of the Radio Regulations	X	Artículo 11 del Reglamento de Radiocomunicaciones
	Article 5 des Appendices 30 et/ou 30A		Article 5 of Appendices 30 and/or 30A		Artículo 5 de los Apéndices 30 y/o 30A
	Article 8 de l'Appendice 30B		Article 8 of Appendix 30B		Artículo 8 del Apéndice 30B

<p>Pour plus d'informations sur les dispositions réglementaires et l'explication des codes ou symboles utilisés dans cette publication, veuillez consulter la Préface.</p>	<p>For more details on the regulatory provisions and the explanation of the codes or symbols used in this publication, please consult the Preface.</p>	<p>Para más detalles sobre las disposiciones reglamentarias y la explicación de los códigos o símbolos utilizados en esta publicación, sírvase consultar el Prefacio.</p>
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RESUBMISSION APPLICABLE

Notice Id:115500228

Docket/Notice Id. no. 115500228		Docket/Notice Provision reference 11.2		M	Docket Adm.	
C2A7 Assigned frequency						
7926	MHz	7966	MHz	8022	MHz	
A73 Ref. to Special Sections		C7A Design. of emission		C2A7/C2A7	C2A2/C2A2	C2C7
API/A	/5513	1 10M0G70--		15.3	-54.7	-0.7
CR/C	/2566	2 36M0G70--		20.8	-54.7	4.8
		3 2M04GXX--		8.3	-54.7	-7.7
		4 384KGXX--		1.1	-54.7	-14.9
		5 22M0GXX--		8.3	-54.7	-25.7
C7007	C7002	C7007	C7002	C7007/C7002	C7003	C7004
Assoc. earth station id.	Type	Geographical coord.	Utry	Dis. / Nat.	Max. iso. gain	Bandwidth
TYPICAL X7.2 METER	T			1 TC CU	53.7	0.37
C7005a Co-polar antenna pattern						
C7007 Assoc. earth station id.	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Coef. E
TYPICAL X7.2 METER	REC-580-b					
Findings	20 Date of protection	73A Conformity with RR	S-	M-	--	73B7 Provision
73C Remarks						
Page no.	16	IFIL I	2820	Part	1	IFIL IVIII
			2820	Part	31	Update date
						29.09.2016
						Findings result

First Submission, No. 11.32A requested!



Return of Notice Letter

Radiocommunication Bureau (BR)

Our Ref.: 11SG(SPR)O-2016-003297 **Geneva, 7 September 2016**

Contact: Attila Matas
Telephone: +41 22 730 6105
E-mail: attila.matas@itu.int

Ministry of Information and Communications (MIC)
18, Nguyen Du Street
VN - HANOI, 10000
Viet Nam

For your reply:
Fax: +41 22 730 5785
E-mail: BRmail@itu.int

Faxes: +84 4 35564930
+84 4 35564916

Subject: Return of notice for the VIETSAT-132 satellite network

Dear Madam/Sir,

The notice of the subject satellite network or the part of it with frequency assignments which has been given an unfavourable finding is returned to your Administration in accordance with the procedure prescribed in Article 11 of the Radio Regulations. The reason for the unfavourable finding is explained below by an X in the square opposite the appropriate text.

Please note that the printed copy of the satellite network summary is no longer enclosed with this communication. However, a detailed printout of the satellite network characteristics and its findings can be generated from the BRIFIC mentioned in paragraph 1 of the Remarks. Detailed instructions for printing the related information may be found at: <http://www.itu.int/en/ITU-R/space/Documents/part3s.pdf>.

Yours faithfully,

Jian Wang,
Chief a.i., Space Services Department

International Telecommunication Union • Place des Nations • CH-1211 Geneva 20 • Switzerland
Tel: +41 22 730 5111 • Fax: +41 22 733 7256 • E-mail: itu@itu.int • www.itu.int • www.itu150.org

Dispatch date:

Sets the **six months deadline** to request **No. 11.46** resubmission, when applicable



Return of Notice Letter - summary

- 2/7 -

Enclosures



Finding(s) unfavourable with respect to No. 11.31 (see Remarks overleaf).
The notice is returned according to No. 11.36¹.

Cannot be resubmitted!

Finding(s) unfavourable with respect to No. 11.32 (see Remarks overleaf).
The notice is returned according to No. 11.37².

Can be resubmitted!

Finding(s) unfavourable with respect to No. 11.32A or 11.33 (see Remarks overleaf).
The notice is returned according to No. 11.38².

Can be resubmitted!

Non-compliance with No. 9.1 (see Remarks overleaf).

IMPORTANT:

¹ Please note that a notice returned under No. 11.36 cannot be resubmitted under No. 11.46. If the notice is submitted again, the notice will receive a new date of receipt and will be subject to cost recovery fees.

² In accordance with No. 11.46, a notice return under No. 11.37 or No. 11.38, according to the case, has to be resubmitted within six months from the date of the present letter in order to keep its original date of receipt.

Any resubmitted notice which is received by the Bureau more than six months after the date of this letter shall be considered as a new notification with a new date of receipt (see No. 11.46) and will be subjected to cost recovery fees.



Return of Notice Letter - Tables

1. The finding has been promulgated in Part III-S of BRIFIC No. 2822 of 21 June 2016.
2. The Bureau has examined the notice under No. **11.32A** as requested by your Administration and the frequency assignments mentioned in Table 2 have been given an unfavourable finding under No. **11.32A** and are being returned to your Administration under No. **11.38**.

Table 2

Beam	R/E	Frequency assignment group ID	Administrations having assignments that resulted in unfavourable finding under No. 11.32A (No. 9.7)
TC1	R	115691455	CHN LUX RUS
TC1	R	115691456	CHN LUX RUS
TCK1	R	115691336	CHN RUS
TCK2	R	115691337	CHN RUS
UK2R	R	115691321	AUS CHN
UK2R	R	115691322	CHN
UK2R	R	115691323	CHN
UK2R	R	115691324	CHN
UK2R	R	115691325	CHN

The correspondence includes **explicative text** to guide Administrations through the steps it needs to follow in order to resubmit



Preparing the Response to the Return Letter

- Unless otherwise requested, it is **preferable to NOT send an updated mdb** database. Just a response letter is sufficient with an update of the coordination status
 - indicating which agreements have been obtained
- **When requesting No. 11.41:**

The Bureau notes that your Administration has requested for application of No. **11.41**. In this regard, the Bureau would like to draw your attention to the entry into force on 1 January 2013, of No. **11.41** as modified by WRC-12 and provision **No. 11.41.2** which stipulates that:

*“When submitting notices in application of No. **11.41**, the notifying Administration shall indicate to the Bureau that **efforts have been made to effect coordination** with those administrations whose assignments were the basis of the unfavourable findings under No. **11.38**, without success”.*

When No. 11.46 applies, remember the six months deadline to respond!



Resubmitting after six months

Any resubmitted notice which is received by the Bureau more than six months after the date of this letter shall be considered as a new notification with a new date of receipt (see No. 11.46) and will be subjected to cost recovery fees.

In addition, the Bureau would like to highlight that if this notice is also received beyond the seven-year regulatory period as stipulated in No. 11.44.1, the notice will not be receivable.



Notice Creation, Validation
Technical Examination
Part III-S, Return of Notice, Resubmission
Findings and Recording



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



Nos. 11.32A & 11.33 Examination

Procedure of 11.32A → *C/I*
calculation
(the methodology is described
in Rules of Procedure)

International Telecommunication Union

Rules of Procedure

APPROVED BY THE RADIO REGULATIONS BOARD

for the application, by the Radiocommunication
Bureau, of the provisions of the Radio Regulations,
Regional Agreements, Resolutions and Recommendations
of World and Regional Radiocommunication Conferences

Edition of 2017



Part B | B3 | page 1 | rev. -

PART B

SECTION B3

Rules concerning methodology for calculation of probability of harmful interference between satellite networks (*C/I* ratios)

1 Introduction

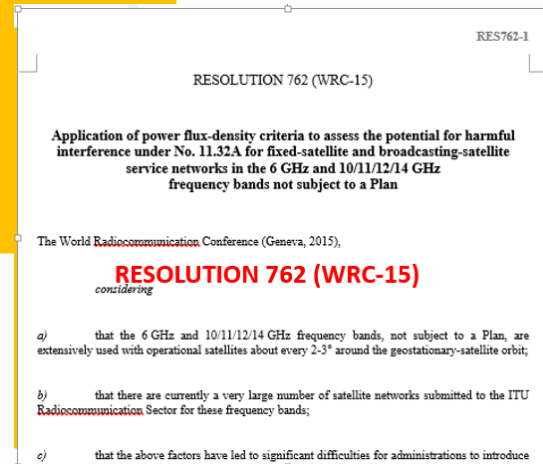
In application of the provisions of No. 11.32A when, as a consequence of continuing disagreement (Nos. 9.63 to 9.65) between two (or a limited number of) administrations, the notifying administration requests the Radiocommunication Bureau, an examination of the probability of harmful interference under No. 11.32A is carried out. For the calculation method and criteria to be used for the interference assessment as well as the findings to be formulated with respect to coordination of their networks under No. 9.7, the Bureau shall proceed as follows.

2 Probability of harmful interference



Nos. 11.32A & 11.32A.2 (WRC-15)

Procedure of 11.32A.2 → *Resolution 762* *(WRC-15)*





PROCEDURE OF No. 11.32A

Notice Id:118500008

BR7a/BR7b Group id. 118612048 BR1 Date of receipt 05.01.2018 C2c RR No. 4.4 BR97 No. 11.43A BR98 For use in accordance with Res 163/164

A2a Date of bringing into use 01.09.2016 A2b Period of valid. 50 A3a Op. agency 029 A3b Adm. resp. G BR16 Value of type C8b

BR62 Expiry date for bringing into use 03.09.2016 BR63 Confirmed date of bringing into use 01.09.2016 BR64 Date of receipt of 1st Res49

BR14 Special Section

C4a Class of station EC C3a Assigned freq. band 40000 C5a Noise temperature 725

C4b Nature of service CP C6a Polarization type M C6b Polarization angle

C11a1 Service area no. 1 C11a2 Service area C11a3 Service area diagram

A5/A6 Coordinations/Agreements 9.7
 V/11.32A
 X/11.32A
 O V X F G HOL LUX MLA
 IND INS RUS

C2a1 Assigned frequency
 5945 MHz 5985 MHz 6345 MHz 6385 MHz 6405 MHz

A13 Ref. to Special Sections	7a Design of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Attach	C8c3 Min. pwr dens.	C8c4 Attach	C8e1 C/N ratio	C8e2 Attach
API/A/5877	1 3G7W--	23.2	-47.1	13.2		-57.1		12	
CR/C/2698	2 6G7W--	17	-57.1	7		-57.1		12	
	3 6G7W--	11	-57.1	1		-57.1		12	

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.	C10c2 Ctry	C10d1/C10d2 Cls. / Nat.	C10d3 Max. iso. gain	C10d4 Brn	C10d7 Ant. diameter	C10d9 Ant. dim. (DGSO)	C8g1 Max. aggr. pwr.	C8g2 Aggr. bandwidth	C8g3 Transp. bandwidth = Aggr. bandwidth
TYP-RC1 (3.7M)	T			1 TC CP	45.1	0.9	3.7		26.2	40000	Y

C10d5a Co-polar antenna pattern

C10b1 Assoc. earth station id.	Co-polar pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
TYP-RC1 (3.7M)	REC-5						

Findings 2D Date of protection 13A Conformity with RR A- N- N- 13B1 Prov. 13B2 Remarks 13B3 Date of Review

13C Remarks

Page no. 3 IFIC I 1 IFIC II/III 2884 Part 3 Update date 14.11.2018 Finding res. Cost Rec. Y Provision

Date of receipt of API Flag of bringing into use C

Special Section 2 No. Special Section No.

V/11.32A IVI: IND

X/11.32A IXI: INS RUS



Case of No. 11.35

In cases where the Bureau is not in a position to conduct the examination under No.11.32A or No.11.33 (i.e. other than No. 9.7)

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.



Case of No. 11.35

Notice Id: 118500008

BR7a/BR7d Group id. 118612033 BR7 Date of receipt 03.01.2018 C2c RR No. 4.4 BR07 No. 11.43A BR08 For use in accordance with Res 163/164

A2a Date of bringing into use 01.09.2016 A2b Period of valid. 50 A3a Op. agency 023 A3b Adm. resp. C BR10 Value of type C8b

BR02 Expiry date for bringing into use 03.09.2016 BR03 Confirmed date of bringing into use 01.09.2016 BR04 Date of receipt of 1st Res49

BR14 Special Section

C4a Class of station EC C3a Assigned freq. band 300000 C5a Noise temperature 1000

C4b Nature of service CP C6a Polarization type M C0b Polarization angle

C11a1 Service area no. 1 C11a2 Service area C11a3 Service area diagram

A5/A6 Coordinations/Agreements 9.7
V/11.32A X/11.32A O X F G HOL J KOR LUX MLA
CAN GRC S UAE
ATN NOR QAT USA

C2B1 Assigned frequency

27.65	GH#	27.97	GH#	28.29	GH#	29.72	GH#	30.04	GH#	30.36	GH#	30.68	GH#
27.8	GH#	28.12	GH#	28.44	GH#	29.89	GH#	30.21	GH#	30.53	GH#	30.85	GH#

A73 Ref. to Special Sections

Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Attach.	C8c3 Min. pwr dens.	C8c4 Attach.	C8e1 C/N ratio	C8e2 Attach.
1 312KG3W--	19.5	-37.6	-0.5		-37.6		8	
2 3K00G3W--	-2.8	-37.6	-22.8		-37.6		8	

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.	C10c2 City	C10d1/C10d2 Cls. / Nat.	C10e3 Max. iso. gain	C10e4 Bmwidth	C10e7 Ant. diameter	C10e9 Ant. dim. (DGSO)	C8g1 Max. aggr. pwr.	C8g2 Aggr. bandwidth	C8g3 Transp. bandwidth = Aggr. bandwidth
TYF-KA4 (0.5M)	T			1 TC CP	41.4	1.4	0.5		33	300000	Y

C10d5a Co-polar antenna pattern

C10e1 Assoc. earth station id.	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
TYF-KA4 (0.5M)	REC-580-E						

Findings 2D Date of protection 13A Conformity with RR A- X- W- 13B1 Prov. 13B2 Remarks 13B3 Date of Review

13C Remarks

Page no. 4 IFIC1 2884 Part 1 IFIC VIII 2884 Part 3 Update date 14.11.2018 Finding required 3 Cost Rec 3 Provision

Date of receipt of API 03.09.2009 Flag of bringing into use C

Special Section 1 No. Special Section 2 No. Special Section 3 No.

Notes

Compare id. Records Structures Frequencies Emissions Assoc. Estns Assoc. Stns Provisions Publications Findings

Page / Página 7



ITU Requested by: MELCOR Date: 03.12.2008 9:28:02 AM DB: 1312988K.BDB Plan id.: Notice type: g2c

A A7a Sat Network CHESAT-W-101.4E A77 Notif. adm. CHX A73 Inter. sat. org BR1 Date of receipt 03.01.2018 BR20 BR IFIC no. 2884

BR0a/BR00 id. no. 118500008 BR3a/BR3b Provision reference 11.2 BR2 Adm. serial no. 330

BR7a/BR7d Group id. 118612034 BR7 Date of receipt 03.01.2018 C2c RR No. 4.4 BR07 No. 11.43A BR08 For use in accordance with Res 163/164

A2a Date of bringing into use 01.09.2016 A2b Period of valid. 50 A3a Op. agency 023 A3b Adm. resp. C BR10 Value of type C8b

BR02 Expiry date for bringing into use 03.09.2016 BR03 Confirmed date of bringing into use 01.09.2016 BR04 Date of receipt of 1st Res49

BR14 Special Section

C4a Class of station EC C3a Assigned freq. band 300000 C5a Noise temperature 1000

C4b Nature of service CP C6a Polarization type M C0b Polarization angle

C11a1 Service area no. 1 C11a2 Service area C11a3 Service area diagram

A5/A6 Coordinations/Agreements 9.7
X/9.13 O X F G HOL J KOR LUX MLA
CAN GRC S UAE
ATN NOR QAT USA

C2B1 Assigned frequency

28.61	GH#	28.93	GH#										
-------	-----	-------	-----	--	--	--	--	--	--	--	--	--	--

A73 Ref. to Special Sections

Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Attach.	C8c3 Min. pwr dens.	C8c4 Attach.	C8e1 C/N ratio	C8e2 Attach.
1 300MG3W--	28.2	-56.6	8.2		-81.6		12	
2 35W0G3W--	20.9	-56.6	0.9		-81.6		12	
3 2M50G3W--	7.4	-56.6	-19.5		-81.6		12	
4 312KG3W--	0.5	-56.6			-81.6		12	

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.	C10c2 City	C10d1/C10d2 Cls. / Nat.	C10e3 Max. iso. gain	C10e4 Bmwidth	C10e7 Ant. diameter	C10e9 Ant. dim. (DGSO)	C8g1 Max. aggr. pwr.	C8g2 Aggr. bandwidth	Tran A
TYF-KA1 (13M)	T			1 TC CP	69.7	0.06	13		33	300000	

C10d5a Co-polar antenna pattern

C10e1 Assoc. earth station id.	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
TYF-KA1 (13M)	REC-580-E						

Findings 2D Date of protection 13A Conformity with RR A- X- W- 13B1 Prov. 13B2 Remarks 13B3 Date of Review

13C Remarks 11.35/9.13

X/9.13 IXI G





Recording under No. 11.41

When findings unfavorable under Nos. 11.32A & 11.33, a notice can be resubmitted for recording under No. 11.41

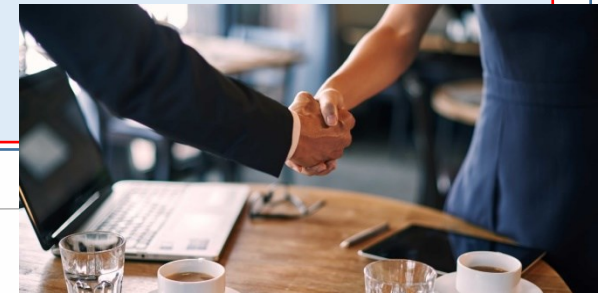
- *Administration has to indicate that performed efforts to coordinate with those Administrations for which unfavorable findings resulted in the examination under No. 11.32A, without success (No. 11.41.2)*

MIFR recording (Part II-S) with an indication:

- 13A: ANN, 13B1: 11.41/9.7, A5/A6: 11.41/9.7|X| ADM

Upon completion of coordination and in application of **No. 11.41B** an Administration may request BR to update the coordination status:

- 13A: AA-, 13B1: empty, A5/A6: 9.7|O| ADM1





Example: Recording under No. 11.41

Notice Id:118500049

TSUM Requested by: MULLUK Date: 04.12.2018 11:44:02 AM DB: IFIC2884.MDB Plan Id: Notice type: GEO

A1a Sat. Network: B-SAT-2J A1f1 Notif adm: B A1f3 Inter. sat org: BR1 Date of receipt: 08.03.2018 BR20 BR IFIC no.: 2884

BR6a/BR6b Id. no.: 118500049 BR3a/BR3b Provision reference: 11.2 N BR2 Adm. serial no. C7a: R

BR7a/BR7b Group id: 118629053 BR1 Date of receipt: 08.03.2018 C2c RR No. 4.4 BR97 No. 11.43A BR98 For use in accordance with Res 163/164

A2a Date of bringing into use: 30.06.2016 A2b Period of valid: 30 A3a Op. agency: 043 A3b Adm. resp: A BR16 Value of type C8b

BR62 Expiry date for bringing into use: 07.10.2016 BR63 Confirmed date of bringing into use: 30.06.2016 BR64 Date of receipt of 1st Res49

BR14 Special Section

C4a Class of station: ED ED ED C3a Assigned freq. band: 600 C5a Noise temperature: 600

C4b Nature of service: CV CO CP C6a Polarization type: M C6b Polarization angle

C11a1 Service area no.: 1 C11a2 Service area C11a3 Service area diagram

A5/A6 Coord: 11.41/9.7 X G USA 9.7 O CLM/ASA URG

C2a1 Assigned frequency: 5925.5 MHz 6424.5 MHz

A13 Ref. to Special Sections	C7a Design. of emission	C8a1/C8b1 Max. peak pwr.	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr.	C8c2 Atch.	C8c3 Min. pwr dens.	C8c4 Atch.	C8e1 C/N ratio	C8e2 Atch.
API/A/5900 CR/C/2644	1 600KF1D--	18.5	-39.5	5.5		-52.5		30	

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.	C10c2 City	C10d1/C10d2 Cls. / Nat.	C10e1 Max. gain	C10e2 Br width	C10f1 Int. dist. (km)	C10f2 Alt. (m)	C10f3 DGSO	C8g1 Max. aggr. pwr.	C8g2 Aggr. bandwidth	C8g3 Transp. bandwidth = Aggr. bandwidth
TAC	T			1 TD CP 2 TD CV	49	0.6			6			
TTAC	T			1 TD CP 2 TD CV 3 TD CO	57.9	0.22			16			

C10b1 Assoc. earth station id.	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
TAC	REC-465-5						
TTAC	REC-465-5						

Findings 2D Date of protection: 10.04.2010 13A Conformity with: A- N- N- 13B Prov.: 11.41 13B2 Remarks: 13B3 Date of Review:

13C Remarks: E/080318

Compare id. Compare beam Records Structures Finding required

ADM has indicated that efforts have been made to effect coordination with the relevant ADMs, without success - No. 11.41.2



Page no.: 3 IFIC I: 2870 Part: 1 IFIC II/III: 2884 Part: 2 Update

Date of receipt of API: 07.10.2009 Flag of bringing into use: C

Special Section 1 No. Special Section 2 No.

Cost Rec. Provision



Example: Recording for information purposes only, No. 8.4



ITU Form Requested by: MUMBA Date: 09.11.2016 22:27:49 File: ITUFORM4.MUM Plan Id: Notice type: MUMB50

A1a Sat. Network: USASAT-30P A1f1 Notif. adm. USA A1f3 Inter. sat. org. BR1 Date of receipt: 14.09.2016 BR20 BR IFIC no. Z884

BR6a/BR6b Id. no. 11550083 BR3a/BR3b Provision reference 11-2 BR2 Adm. serial no.

BR7a/BR7b Group id. 116763766 BR1 Date of receipt: 11.02.2014 C2 RR No. 4.4 BR97 No. 11.43A BR98 For use in accordance with Res 163/164

A2a Date of bringing into use: 11.02.2014 A2b Period of valid: 15 A3a Op. agency: 178 A3b Adm. resp.: A BR16 Value of type C8b

BR62 Expiry date for bringing into use: 14.11.2020 BR63 Confirmed date of bringing into use: 11.02.2014 BR64 Date of receipt of 1st Res49

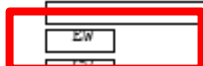
BR14 Special Section

C4a Class of station: EW C3a Assigned freq. band: 6U C5a Noise temperature: 100 B4b5 Peak of pfd

C4b Nature of service: C6a Polarization type: L C6b Polarization angle: U

C11a1 Service area no. C11a2 Service area: AFS ARG AUS CAN CHL D G ISL C11a3 Service area diagram

NOT RR. 4.4 Y



A5/A6 Coordinations/Agreements

C2a1 Assigned frequency

Ref. to Special Sections	C7a Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Atch.	C8c3 Min. pwr dens.	C8c4 Atch.	C8e1 C/N ratio	C8e2 Atch.
AF1/A/8957	6URUF1DCN								

X/11.31 ?

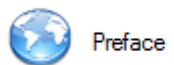
C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.	C10c2 City	C10d1/C10d2 Cts. Int.	C10d3 Max. pwr dens.	C10d4 Bandwidth	C10d7 Ant. diameter	C8g1 Max. aggr. pwr.	C8g2 Aggr. bandwidth	C8g3 Transp. bandwidth = Aggr. bandwidth
BREWSTER	S	119W42 04 48N08 47	USA	1 TW CV	16.4	30				
FAIRBANKS	S	147W51 28 64N51 31	USA	1 TW CV	16.4	30				
GOONHILLY	S	005W10 56 50N03 07	G	1 TW CV	16.4	30				
AWARUA	S	168E22 48 46S31 47	NZL	1 TW CV	16.4	30				
HALF MOON BAY	S	122W24 48 37N23 06	USA	1 TW CV	16.4	30				
FARGO	S	096W47 48 46N54 37	USA	1 TW CV	16.4	30				
MOREHEAD	S	083W25 48 38N11 27	USA	1 TW CV	16.4	30				
CHILBOLTON	S	001W26 13 51N08 34	G	1 TW CV	16.4	30				
USINGEN	S	008E28 26 50N19 52	D	1 TW CV	16.4	30				
NMSU	S	106W45 00 32N16 48	USA	1 TW CV	16.4	30				
MADDOCK	S	099W31 46 47N57 40	USA	1 TW CV	16.4	30				
MAUI	S	156W20 39 20N50 06	USA	1 TW CV	16.4	30				
NINGI	S	153E03 50 27S03 29	AUS	1 TW CV	16.4	30				
YELLOWKNIFE	S	114W23 51 62N26 32	CAN	1 TW CV	16.4	30				
HARTEBEESTHOEK	S	027E41 05 25S53 14	AFS	1 TW CV	16.4	30				
BUENOS AIRES	S	058W22 54 34S36 12	ARG	1 TW CV	16.4	30				
LONGOVILLO	S	071W24 24 33S56 18	CHL	1 TW CV	16.4	30				
KEFLAVIK	S	022W37 24 63N58 06	ISL	1 TW CV	16.4	30				
SAPPORO	S	141E21 00 43N04 00	J	1 TW CV	16.4	30				
KUMSAN	S	127E55 00 36N26 00	KOR	1 TW CV	16.4	30				
JOHANNESBERG	S	028E02 44 26S12 16	AFS	1 TW CV	16.4	30				
PUNTA ARENAS	S	070W56 00 53S10 00	CHL	1 TW CV	16.4	30				
ITHACA	S	076W30 00 42N26 36	USA	1 TW CV	16.4	30				
ST JOHNS NL	S	052W42 26 47N34 03	CAN	1 TW CV	16.4	30				
PERTH	S	115E51 32 31S57 08	AUS	1 TW CV	16.4	30				

Notice Id: 11550083

C10d5a Co-pd	ref. pattern	Coef. A	Coef. B
440-450			
450-455			

440-450 FIXED MOBILE except aeronautical mobile Radiolocation 5.269 5.270 5.271 5.284 5.285 5.286

450-455 FIXED MOBILE 5.286AA 5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286



Preface EW Space station in the earth exploration-satellite service





Example: Recording for information purposes only, No. 8.4



TSAM Requested by: MULLUK Date: 04.12.2013 3:22:27 PM DB: 1F12884.MDB Plan Id: Notice type: MIFRSEP

M A1a Sat Network USA3AT-30F Affl. Notif. adm. USA Affl. Inter. sat. org. BR1 Date of receipt 14.09.2016 BR20 BR IFIC no. 2884

BR6a/BR6b Id. no. 115500083 BR3a/BR3b Provision reference 11.2 N BR2 Adm. serial no. 00001 B

- FAIRBANKS
- GOONHILLY
- AWARUA
- HALF MOON BAY
- FARGO
- MOREHEAD
- CHILBOLTON
- USINGEN
- NMSU
- MADDOCK
- MAUI
- NINGI
- YELLOWKNIFE
- HARTEBEESTHOEK
- BUENOS AIRES
- LONGOVILLO
- KEFLAVIK
- SAPPORO
- KUMSAN
- JOHANNESBERG
- PUNTA ARENAS
- ITHACA
- ST JOHNS NL
- PERTH

8.4 A frequency assignment shall be known as a non-conforming assignment when it is not in accordance with the Table of Frequency Allocations or the other² provisions of these Regulations. Such an assignment shall be recorded for information purposes, only when the notifying administration states that it will be operated in accordance with No. 4.4 (see also No. 8.5).

IMMEDIATELY ELIMINATE HARMFUL INTERFERENCE

8.5 If harmful interference to the reception of any station whose assignment is in accordance with No. 11.31 is actually caused by the use of a frequency assignment which is not in conformity with No. 11.31, the station using the latter frequency assignment must, upon receipt of advice thereof, immediately eliminate this harmful interference.

Notice Id: 115500083

Findings 2D Date of protection 13A Conformity with RR N- -- -- 13B1 Prov. 8.5 13B2 Remarks Y 13B3 Date of Review

13C Remarks 4.4

Page no. IFIC I 2837 Part 1 IFIC II/III 2884 Part 2 Update date 15.11.2018 Finding required Cost Rec. Provision

Date of receipt of API 14.11.2013 Flag of bringing into use C

Special Section 1 No. Special Section 2 No. Special Section 3 No.

Notes

- ADM has requested No. 4.4, Non conforming assignment under No. 8.4, it is recorded into MIFR for information purposes only, under No. 8.5



EARTH STATIONS NOTIFICATION SPECIAL SECTION PART II-S



Notice Id:
118627894

UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS
BUREAU DES RADIOCOMMUNICATIONS

INTERNATIONAL TELECOMMUNICATION UNION
RADIOCOMMUNICATION BUREAU

UNIÓN INTERNACIONAL DE TELECOMUNICACIONES
OFICINA DE RADIOCOMUNICACIONES

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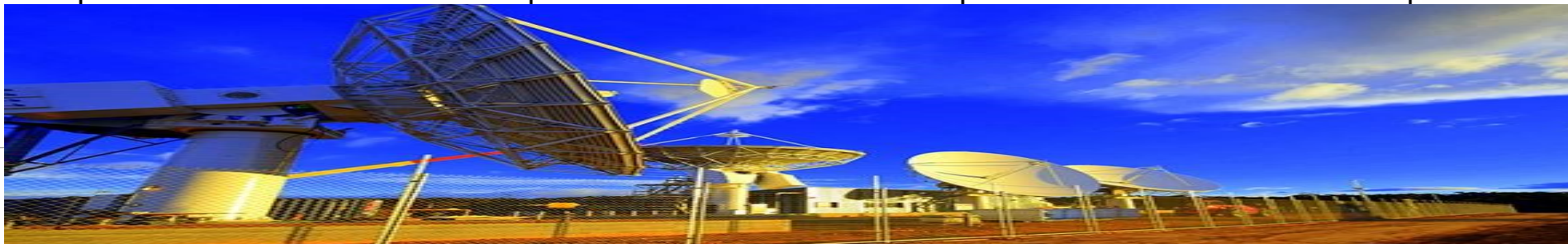
RÉSEAU À SATELLITE SATELLITE NETWORK RED DE SATELITE		EXPRESS-4B		PARTIE PART PARTE	II-S
STATION TERRIENNE EARTH STATION ESTACIÓN TERRENA		KURGAN15/EXPRESS-TCS		BR IFIC / DATE BR IFIC / DATE BR IFIC / FECHA	2884 / 27.11.2018
ADM. RESPONSABLE RESPONSIBLE ADM. ADM. RESPONSABLE	RUS	LONGITUDE NOMINALE NOMINAL LONGITUDE LONGITUD NOMINAL	40 E	NUMÉRO D'IDENTIFICATION IDENTIFICATION NUMBER NÚMERO DE IDENTIFICACIÓN	118505123
RENSEIGNEMENTS REÇUS PAR LE BUREAU LE / INFORMATION RECEIVED BY THE BUREAU ON / INFORMACIÓN RECIBIDA POR LA OFICINA EL					09.07.2018

Assignations de fréquence inscrites dans le Fichier de référence au titre de		Frequency assignments recorded in the Master Register under		Asignaciones de frecuencia inscrites en el Registro con arreglo al título de	
X	Article 11 du Règlement des radiocommunications	X	Article 11 of the Radio Regulations	X	Artículo 11 del Reglamento de Radiocomunicaciones
	Article 5 des Appendices 30 et/ou 30A		Article 5 of Appendices 30 and/or 30A		Artículo 5 de los Apéndices 30 y/o 30A
	Article 8 de l'Appendice 30B		Article 8 of Appendix 30B		Artículo 8 del Apéndice 30B

Pour plus d'informations sur les dispositions réglementaires et l'explication des codes ou symboles utilisés dans cette publication, veuillez consulter la [Préface](#).

For more details on the regulatory provisions and the explanation of the codes or symbols used in this publication, please consult the [Preface](#).

Para más detalles sobre las disposiciones reglamentarias y la explicación de los códigos o símbolos utilizados en esta publicación, sírvase consultar el [Prefacio](#).





EARTH STATIONS NOTIFICATION AND COORDINATION CONTOUR



PARTIE II-S / PART II-S / PARTE II-S / 第II-S部分 / 4ACTb II-S / II-Sجزء										
A	A1e2 Station name	KURGAN15/EXPRESS-TCS	A1f1 Notif. adm.	RUS	A1f3 Inter. sat. org.		BR1 Date of receipt	09.07.2018	BR20/BR21 BR IFIC no/part	2884/2
	BR6a/BR6b Id. no.	118505123	BR3a/BR3b Provision reference	11.2	N	BR2 Adm. serial no.	17-3-067342		OGE	E

BR19 Ref. to BR IFIC I	2877									
A1e1 Type	S	A1e3a Ctry	RUS	A1e3b Geo. coord.	065E16 20 55N25 30		A4c1 Assoc. space station	EXPRESS-4B	A4c2 Orbital long.	40 E
BR59 Azimuth	0	180								
A7a1 Hor. elev. angle	0	0								
A7a2 Distance										
A7b1 Min. elev. angle	22.9	A7c1 Start azimuth	209.7	A7c2 End azimuth	209.9	A7d Altitude	81	A7a3 Horiz. elev. diag.		
A16b Single entry pfd commitment		A18a Aircraft earth station commitment								

B1a/BR17 Beam designation	OGE	B2 Emi-Rcp	E	B5a Isotropic gain	48.3	B5b Beamwidth	0.64	A7f Ant. diameter	4.9	A10a Coord. area diag.	1
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B5c Co-polar antenna pattern					
Ref. pat.	Coef. A	Coef. B	Coef. D	Phi1	Rad. diag.
A-25*LOG (PI)	29				

B5d Antenna dimension (DGSO)	
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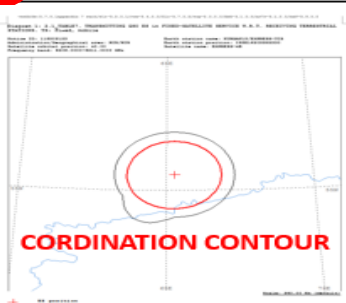
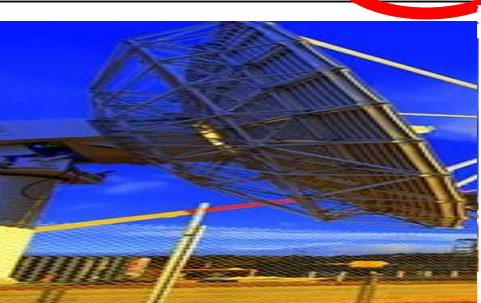
BR7a/BR7b Group id.	118662651	BR1 Date of receipt	09.07.2018	C2c RR No. 4.4			
A2a Date of bringing into use	09.10.2017	A3a Op. agency	012	A3b Adm. resp.	A	BR16 Value of type C8b	
BR14 Special Section		C3a Assigned freq. band	5000	C6a Polarization type	CL	C6b Polarization plane	
C4a Class of station	TC	C8g1 Max. aggr. pwr.	11	C8g2 Aggr. bandwidth		C8g3 T...	
C4b Nature of service	CP	A5/A6 Coordinations/Agreements	9.17 Z/11.41 Z/9.7 Z/V/11.32A	O	X	KAZ	
				O		CYP	
				O		ARS/ARB	CZE EGY F/EUT GRC INS IRN ISR J LUX MLA PAK S THA TUR UAE USA
				V		IND	

C2a1 Assigned frequency								
€20B.5	MHz							
A13 Ref. to Special Sections		C7a Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Atch.	C8c3 Min. pwr dens.	C8c4 Atch.
		1 3M74G7W--		-54.7	11		-54.7	

Operator ID	118505123	13A Conformity with R	A- A- --	13B1 Prov.		13B2 Remarks		13B3 Date of Review	
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Coordination No.9.17 IOI KAZ

GIBC/Appendix 7



Technical report data showing various parameters and values.



EARTH STATIONS NOTIFICATION



PARTIE II-S / PART II-S / PARTE II-S / 第II-S部分 / ЧАСТЬ II-S / II-S

A A1e2 Station name KURGAN15/EXPRESS-TCS A1f1 Notif. adm. RUS A1f3 Inter. sat. org. BR1 Date of receipt 09.07.2018 BR20/BR21 BR IFIC no./part 2884/2
 BR6a/BR6b Id. no. 118505123 BR3a/BR3b Provision reference 11.2 N BR2 Adm. serial no. 17-3-067342 OGE E

BR19 Ref. to BR IFIC I 2877
 A1e1 Type S A1e3a Ctry RUS A1e3b Geo. coord. 065E16 20 55N25 30 A4c1 Assoc. space station EXPRESS-4B A4c2 Orbit
 BR59 Azimuth 0 180
 A7a1 Hor. elev. angle 0 0
 A7a2 Distance
 A7b1 Min. elev. angle 22.9 A7c1 Start azimuth 209.7 A7c2 End azimuth 209.9 A7d Altitude 81 A7a3 Horiz. elev. diag.
 A16b Single entry pfd commitment A18a Aircraft earth station commitment

B1a/BR17 Beam designation OGE B2 Emi-Rcp E B5a Isotropic gain 48.3 B5b Beamwidth 0.64 A7f Ant. diameter 4.9 A10a C

Ref. pat.	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Rad. diag.
A-25*LOG (P1)	29					

B5d Antenna dimension (DGSO)

BR7a/BR7b Group id. 118662651 BR1 Date of receipt 09.07.2018 C2c RR No. 4.4
 A2a Date of bringing into use 09.10.2017 A3a Op. agency 012 A3b Adm. resp. A BR16 Value of
 BR14 Special Section
 C4a Class of station TC C3a Assigned freq. band 5000
 C4b Nature of service CP C6a Polarization type CL
 C8g1 Max. aggr. pwr. 11 C8g2 Aggr. bandwidth Aggr. transp. bandwidth = Aggr. bandwidth

A5/A6 Coordinations/Agreements

9.17	O	KAZ
Z/11.41	X	CYP
Z/9.7	O	ARS/ARB CZE EGY F/EUT GRC INS IRN ISR J LUX MLA PAK S THA TUR UAE USA
Z/V/11.32A	V	IND

C2a1 Assigned frequency

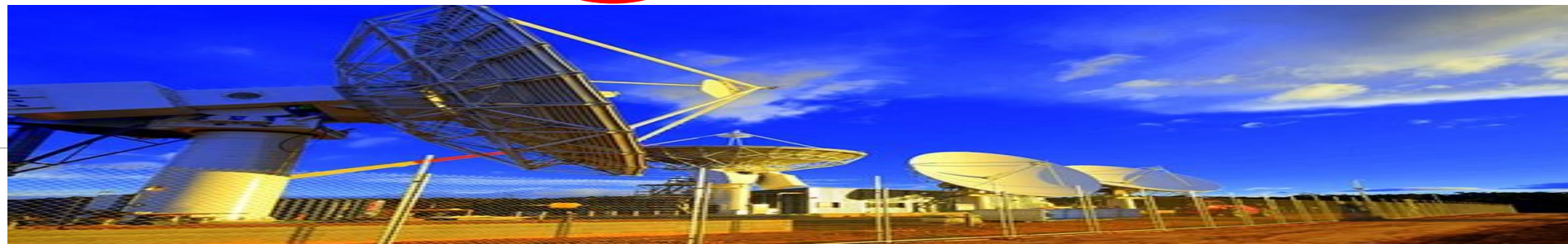
6208.5	MHz																		
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A13 Ref. to Special Sections	C7a Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Atch.	C8c3 Min. pwr dens.	C8c4 Atch.
API/A /908 CR/C /368	1 3M74G7W--		-54.7	11		-54.7	

Findings 2D Date of protection 09.07.2018 13A Conformity with R A- A- -- 131 Prov. 13B2 Remarks 13B3 Date of Review
 13C Remarks

No.11.31 Verified, No.11.32 verified
 Will be recorded in MIFR

Coordinations
 No.9.17 IOI
 KAZ
 Associated
 Space station
 recorded in
 MIFR





Comments/Objections to coordination status in Part-IS, Part-IIS or Part-IIIS

Inquiry/clarification process will be initiated for the following conditions

i) **Notifying administration indicated coordination agreement has been obtained while objecting administration indicated that coordination agreement has not been obtained**

and

ii) **The frequency assignments to which the objecting administration objects are subject to a coordination procedure under Section II of Article 9**

and

iii) **The objecting administration is considered an affected administration for those frequency assignments the objecting administration indicated as coordination agreement has not been obtained**



Summary

- The notification process from the notice creation, through Part I-S publication, the technical examination and the final recording in MIFR was presented
- **Some helpful tips:**
 - Notice validation **without fatal errors** minimizes delays in publication/examination
 - Monitor **IFIC publications**
 - When difficulties occur, do not hesitate to contact us in **BRMAIL@itu.int**



Thank you!



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