

ITUEvents

ITU World Radiocommunication Seminar 2018

3-7 December 2018
Geneva, Switzerland

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



Cost Recovery for satellite networks filings

Akim Falou-Dine
akim.faloudine@itu.int

BR Space Services Department

ITU HQ Geneva
4 December, 2018



Implementation of cost recovery

Council Decision 482

The ITU Council determines the cost recovery principles and fees for satellite network filings

Radio Regulations No.9.38.1 etc.

The WRC determines regulation covering satellite network filings, in particular, the penalty in the event of non-payment of cost recovery fee



Council Decision 482

Established a schedule of processing charge that relates to the complexity and size of a filing

Complexity is modeled with **categories**

Size is modeled by **units**

6 months to make payment

One free entitlement a year for each member state



What Filings are chargeable?

1/ API

- * API for NGSO not subject to coordination

2/ Coordination Requests

3/ Plans

- * Modifications of the Space Service Plans and Lists
- * The use of guard bands
 - * Conversion of an allotment into assignment with modification beyond the envelop characteristics of the initial allotment
- * Requests for implementation of the FSS plans

4/ **Notification** for recording space stations in the MIFR

5/ **Consolidation** for of different GSO at the same orbital position into a single satellite network

Filings



Which Filings are not chargeable?

Filings

- 1/ Notification for recording earth stations in the MIFR
- 2/ Publication of special sections and Parts for the amateur-satellite service
- 3/ Conversion of an allotment into an assignment with modification which is not beyond the envelop characteristics of the initial allotment
- 4/ Addition of a new allotment to the plan for a new Member State of the Union in accordance with the procedure of Article 7 of Appendix 30B



Fees for API (Art. 9 – Section IA)

Flat fee

570 CHF

API for NGSO
(not subject
to
coordination)



Categorization of Coordination Requests (Art. 9 – Section II)

1 form of
coordination **C1**

Fee depends
on the number
of forms of
coordination
and units

4 or more forms of
coordination **C3**

2 or 3 forms of
coordination **C2**



What are forms of coordination?

Cost recovery form of coordination

A

B

C

D

E

F

RR forms of coordination

No. 9.7, RS33.3

AP30 7.1, AP30A 7.1

No. 9.11, RS33 2.1, RS539

Nos. 9.7B, 9.11A, 9.12,
9.12A, 9.13, 9.14

No. 9.7A

No. 9.21



Example (Forms of coordination):



UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS
BUREAU DES RADIOCOMMUNICATIONS

INTERNATIONAL TELECOMMUNICATION UNION
RADIOCOMMUNICATION BUREAU

UNIÓN INTERNACIONAL DE TELECOMUNICACIONES
OFICINA DE RADIOCOMUNICACIONES

© I.T.U.

RÉSEAU À SATELLITE SATELLITE NETWORK RED DE SATELITE		LUX-G6-12		SECTION SPÉCIALE N° SPECIAL SECTION No. SECCIÓN ESPECIAL N.º	CR/C/2245
STATION TERRIENNE EARTH STATION ESTACIÓN TERRENA		---		BR IFIC / DATE BR IFIC / DATE BR IFIC / FECHA	2632 / 11.11.2008
ADM. RESPONSABLE RESPONSIBLE ADM. ADM. RESPONSABLE	LUX	LONGITUDE NOMINALE NOMINAL LONGITUDE LONGITUD NOMINAL	43.5 E	NUMÉRO D'IDENTIFICATION IDENTIFICATION NUMBER NÚMERO DE IDENTIFICACIÓN	108520161
RENSEIGNEMENTS REÇUS PAR LE BUREAU LE / INFORMATION RECEIVED BY THE BUREAU ON / INFORMACIÓN RECIBIDA POR LA OFICINA EL					18.06.2008

<p>Cette demande de coordination, reçue par le Bureau des radiocommunications en vertu du numéro 9.30 du Règlement des radiocommunications, a été examinée au titre des numéros 9.35 et 9.36 et est publiée conformément au numéro 9.38. Elle est au bordonnée au type de coordination indiqué dans la colonne de gauche par un X dans la case pertinente.</p>	<p>This request for coordination, received by the Radiocommunication Bureau pursuant to No. 9.30 of the Radio Regulations, has been examined under Nos. 9.35 and 9.36 and is published in accordance with No. 9.38. It is subject to the form of coordination indicated in the left-hand column by an X in the relevant box.</p>	<p>Esta solicitud de coordinación, recibida por la Oficina de Radiocomunicaciones de conformidad con el punto N° 9.30 del Reglamento de Radiocomunicaciones, se ha examinado de conformidad con los N° 9.35 y 9.36 y se publica de conformidad con el N° 9.38. Está sujeta al formulario de coordinación indicado en la columna de la izquierda con una X en la casilla correspondiente.</p>
--	--	--

Type de coordination mentionné dans le Tableau I / Form of coordination referred to in Table I / Forma de coordinación mencionada en el cuadro I		
<input checked="" type="checkbox"/> 9.7 <input type="checkbox"/> 9.7A <input type="checkbox"/> 9.7B <input type="checkbox"/> 9.42 <input checked="" type="checkbox"/> AP30#7.1 <input checked="" type="checkbox"/> AP30A#7.1 <input type="checkbox"/> RS77 <input type="checkbox"/> RS84 <input type="checkbox"/> RS539 <input type="checkbox"/> RS33#3	<p>Conformément aux numéros 9.50 à 9.52 du Règlement des radiocommunications, les Administrations identifiées dans le Tableau I ci-après sont priées de communiquer leur décision à l'Administration responsable et au Bureau avant la date limite indiquée ci-dessous.</p>	<p>In accordance with Nos. 9.50-9.52 of the Radio Regulations, the Administrations identified in Table I below are requested to communicate their decision to the Responsible administration and the Bureau by the deadline indicated below.</p>

Type de coordination mentionné dans le Tableau II / Form of coordination referred to in Table II / Formulario de coordinación remitido al cuadro II		
<input checked="" type="checkbox"/> 9.11 <input checked="" type="checkbox"/> 9.11A <input type="checkbox"/> 9.12 <input type="checkbox"/> 9.12A <input checked="" type="checkbox"/> 9.13 <input checked="" type="checkbox"/> 9.14 <input checked="" type="checkbox"/> 9.21/A <input checked="" type="checkbox"/> 9.21/B <input checked="" type="checkbox"/> 9.21/C <input type="checkbox"/> RS33#2.1	<p>Les Administrations, énumérées ou non énumérées dans le Tableau II ci-après, qui n'acceptent pas la demande de coordination au titre des numéros 9.11 à 9.14, 9.21 et RS33#2.1, sont priées de communiquer leurs observations à l'Administration responsable et au Bureau avant la date limite indiquée ci-dessous. Toute Administration qui ne réagira pas au titre du numéro 9.52 avant cette date limite sera considérée comme n'étant pas défavorablement influencée et, dans les cas couverts par les numéros 9.11 à 9.14 et RS33#2.1, les dispositions des numéros 9.48 et 9.49 s'appliqueront.</p>	<p>Administrations listed or not listed in Table II below, which do not agree to the request for coordination under Nos. 9.11 to 9.14, 9.21 and RS33#2.1 are requested to communicate their comments to the responsible administration and the Bureau by the deadline indicated below. Any administration not responding under No. 9.52 within this deadline shall be regarded as unaffected and, in the cases of Nos. 9.11 to 9.14 and RS33#2.1, the provisions of Nos. 9.48 and 9.49 shall apply.</p>

DATE LIMITE POUR LA DÉCISION / EXPIRY DATE FOR DECISION / FECHA LÍMITE PARA LA DECISIÓN	11.03.2009
---	-------------------



Cost recovery summary in CR/C

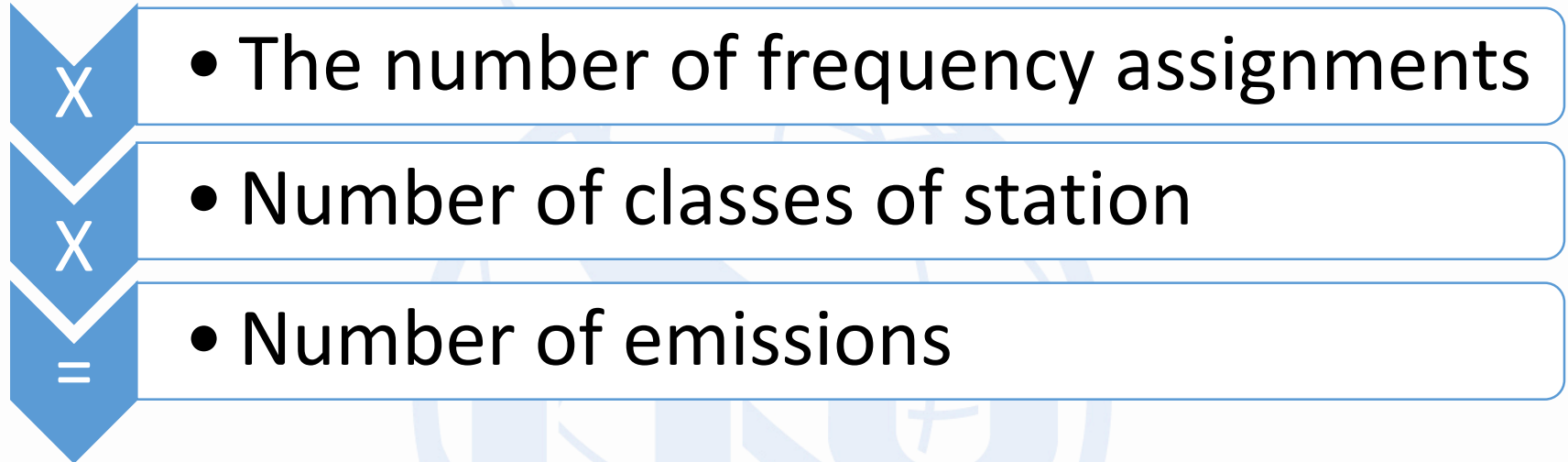
SECTION SPECIALE / SPECIAL SECTION / SECCIÓN ESPECIAL / 特节 / СПЕЦИАЛЬНАЯ СЕКЦИЯ / القسم الخاص											CR/C/2245
A	A1a Sat. Network	LUX-G6-12	A1f1 Notifying adm.	LUX	A1f3 Inter. sat. org.		BR1 Date of receipt	18.06.2008	BR20/BR21	BR IFIC no./part	2632/
	BR6a/BR6b Id. no.	108520161	BR3a/BR3b Provision reference	9.6	C	BR2 Adm. serial no.					

B1a Beam designation	B2 Emi-Rcp	BR8 Action code	BR7a Group id.	BR9 Action code	13A Conformity with RR	C3a Assigned freq. band	BR47 Frequency band (MHz)			BR15 Provision reference	BR53 Nb of freq.	C4a Class of station	BR54 Nb of emiss.	BR55 Nb of units
TUHR	E		108627556		A-----	77000	235	-	312	9.21, 9.7	1	EI	2	2
			108627557		A-----	7000	315	-	322	9.21, 9.7	1	EI	2	2
			108627558		A-----	64500	335.4	-	399.9	9.13, 9.21, 9.7	1	EI	2	2
TV1R	E		108627559		A-----	2000000	37500	-	42500	9.7	2	EC	1	2
			108627560		A-----	1000000	39500	-	40500	9.7	1	EC	1	1
			108627561		A-----	1000000	39500	-	40500	9.7	1	EI	1	1
			108627562		A-----	1000000	41000	-	42000	9.7	1	EV	1	1
TV2R	E		108627563		A-----	2000000	37500	-	42500	9.7	2	EC	1	2
			108627564		A-----	1000000	39500	-	40500	9.7	1	EC	1	1
			108627565		A-----	1000000	39500	-	40500	9.7	1	EI	1	1
			108627566		A-----	2000000	40500	-	42500	9.7	1	EV	1	1
TVR	E		108627757		A-----	30000	2170	-	2200	9.13, 9.14, 9.7	1	EI	6	6
TX1R	E		108627567		A-----	125000	7250	-	7375	9.7	1	EC	1	1
			108627568		A-----	125000	7250	-	7375	9.7	1	EC	1	1
			108627569		A-----	125000	7250	-	7375	9.7	1	EC	1	1
			108627570		A-----	375000	7375	-	7750	9.7	1	EC	1	1
			108627571		A-----	375000	7375	-	7750	9.7	1	EC	1	1
			108627572		A-----	375000	7375	-	7750	9.7	1	EC	1	1
			108627573		A-----	125000	7250	-	7375	9.21, 9.7	1	EI	1	1
			108627574		A-----	125000	7250	-	7375	9.21, 9.7	1	EI	1	1
			108627575		A-----	125000	7250	-	7375	9.21, 9.7	1	EI	1	1

BR57 Category		C3
BR56 Total number of units		398



What are the Units?



Units

- summed up for all frequency-assignment groups
- Only applicable for categories C1, C2, C3, N1, N2, N3
- For these categories, flat fee applies for units > 100



Example of units calculation

Nb. of Freq x Class of station x Nb. of emiss. = Number of units

SECTION SPECIALE / SPECIAL SECTION / SECCIÓN ESPECIAL / 特节 / СПЕЦИАЛЬНАЯ СЕКЦИЯ / القسم الخاص CR/C/2222

A A1a Sat. Network SWANSAT-3A A1f1 Notifying adm. NRS A1f3 Inter. sat. org. BR1 Date of receipt 15.05.2008 BR20/BR21 BR IFC no./part 2629/

BR6a/BR6b Id. no. 108520131 BR3a/BR3b Provision reference 9.7 C BR2 Adm. serial no.

B1a Beam designation	B2 Emi-Rcp	BR8 Action code	BR7a Group id.	BR9 Action code	13A Conformity with RR	C3a Assigned freq. band	BR47 Frequency band (MHz)	BR15 Provision reference	BR53 Nb of freq.	BR4a Class of station	BR54 Nb of emiss.	BR55 Nb of units
			108617349		A-----	3000000	71000 - 74000	9.7	1	EC	3	3
			108617350		A-----	3000000	71000 - 74000	9.7	1	EC	3	3
			108617351		A-----	3000000	71000 - 74000	9.7	1	EI	3	3
			108617352		A-----	3000000	71000 - 74000	9.7	1	EI	3	3
			108617353		A-----	3000000	71000 - 74000	9.7	1	EI	3	3
			108617354		A-----	2000000	74000 - 76000	9.7	1	EB, EV	3	6
			108617355		A-----	2000000	74000 - 76000	9.7	1	EB, EV	3	6
			108617356		A-----	2000000	74000 - 76000	9.7	1	EB, EV	3	6
WD2	E		108617357		A-----	3000000	71000 - 76000	9.7	2	EC	3	6
			108617358		A-----	3000000	71000 - 76000	9.7	2	EC	3	6
			108617359		A-----	3000000	71000 - 76000	9.7	2	EC	3	6
			108617360		A-----	3000000	71000 - 74000	9.7	1	EI	3	3
			108617361		A-----	3000000	71000 - 74000	9.7	1	EI	3	3
			108617362		A-----	3000000	71000 - 74000	9.7	1	EI	3	3
			108617363		A-----	2000000	74000 - 76000	9.7	1	EB, EV	3	6
			108617364		A-----	2000000	74000 - 76000	9.7	1	EB, EV	3	6
			108617365		A-----	2000000	74000 - 76000	9.7	1	EB, EV	3	6
WD3	E		108617378		A-----	3000000	71000 - 76000	9.7	2	EC	3	6
			108617379		A-----	3000000	71000 - 76000	9.7	2	EC	3	6
			108617380		A-----	3000000	71000 - 76000	9.7	2	EC	3	6
			108617381		A-----	3000000	71000 - 74000	9.7	1	EI	3	3
			108617382		A-----	3000000	71000 - 74000	9.7	1	EI	3	3
			108617383		A-----	3000000	71000 - 74000	9.7	1	EI	3	3
			108617384		A-----	2000000	74000 - 76000	9.7	1	EB, EV	3	6
			108617385		A-----	2000000	74000 - 76000	9.7	1	EB, EV	3	6
			108617386		A-----	2000000	74000 - 76000	9.7	1	EB, EV	3	6

BR57 Category C1
BR56 Total number of units 369



Fees for Coordination Requests

Category	Number of cost recovery forms of coordination	Fees
C1	1	5 560 + 150 x Units (max 20 560)
C2	2 or 3	9 620 + 150 x Units (max 24 620)
C3	4 or more	18 467+ 150 x Units (max 33 467)



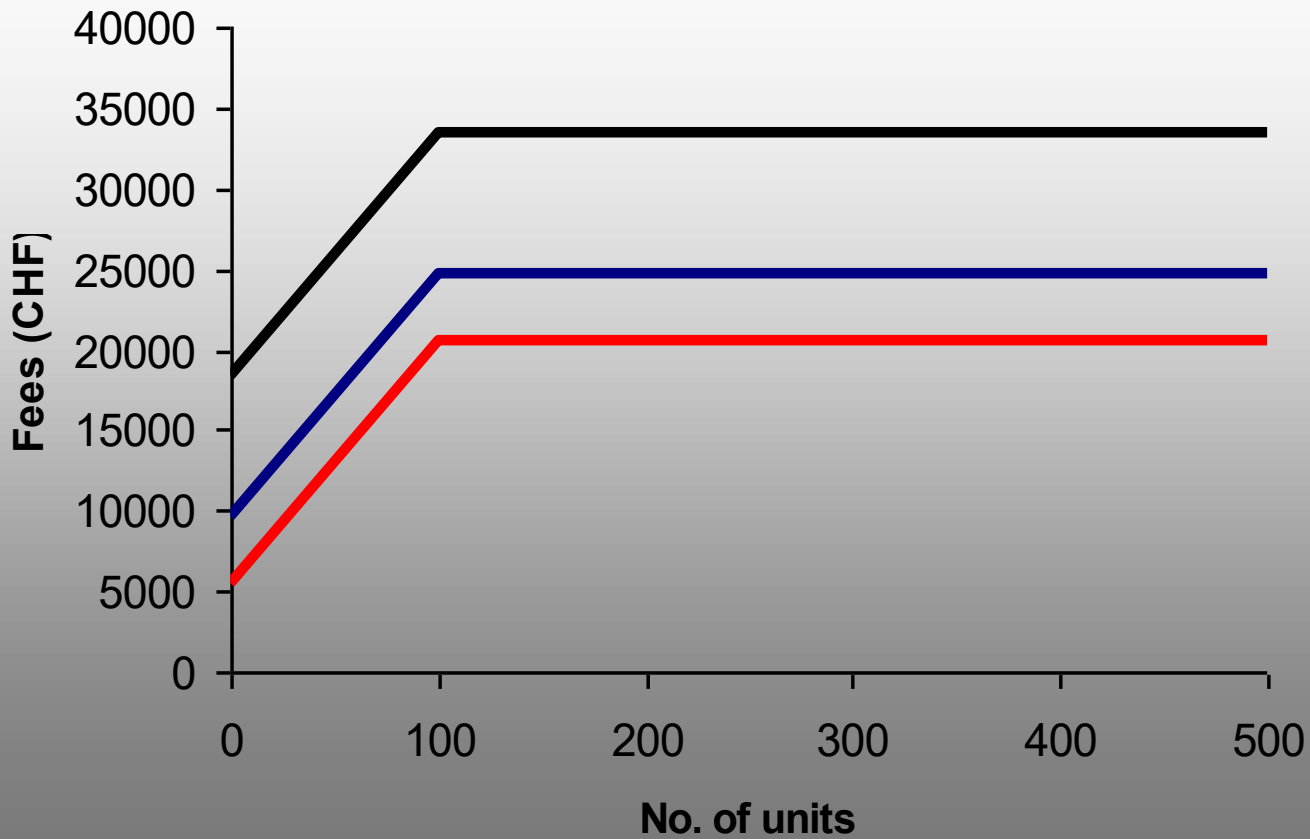
Fees for Coordination Requests of a non-GSO with mutually exclusive sets (**Decision 482, Modified in 2018!!!!**)

For coordination requests of a non-geostationary satellite network with different sub-sets of orbital characteristics mutually exclusive, the processing charges are separately computed for **each of the sub-sets and thereafter added** to produce the processing charge of the satellite network



Fees Scaling for Coordination Requests

Fees for category C1, C2 and C3 filing





Article 11 Notifications

Date of receipt: **on or after 1/1/2006**

API date of receipt: **after 19/10/2002**

Conditions

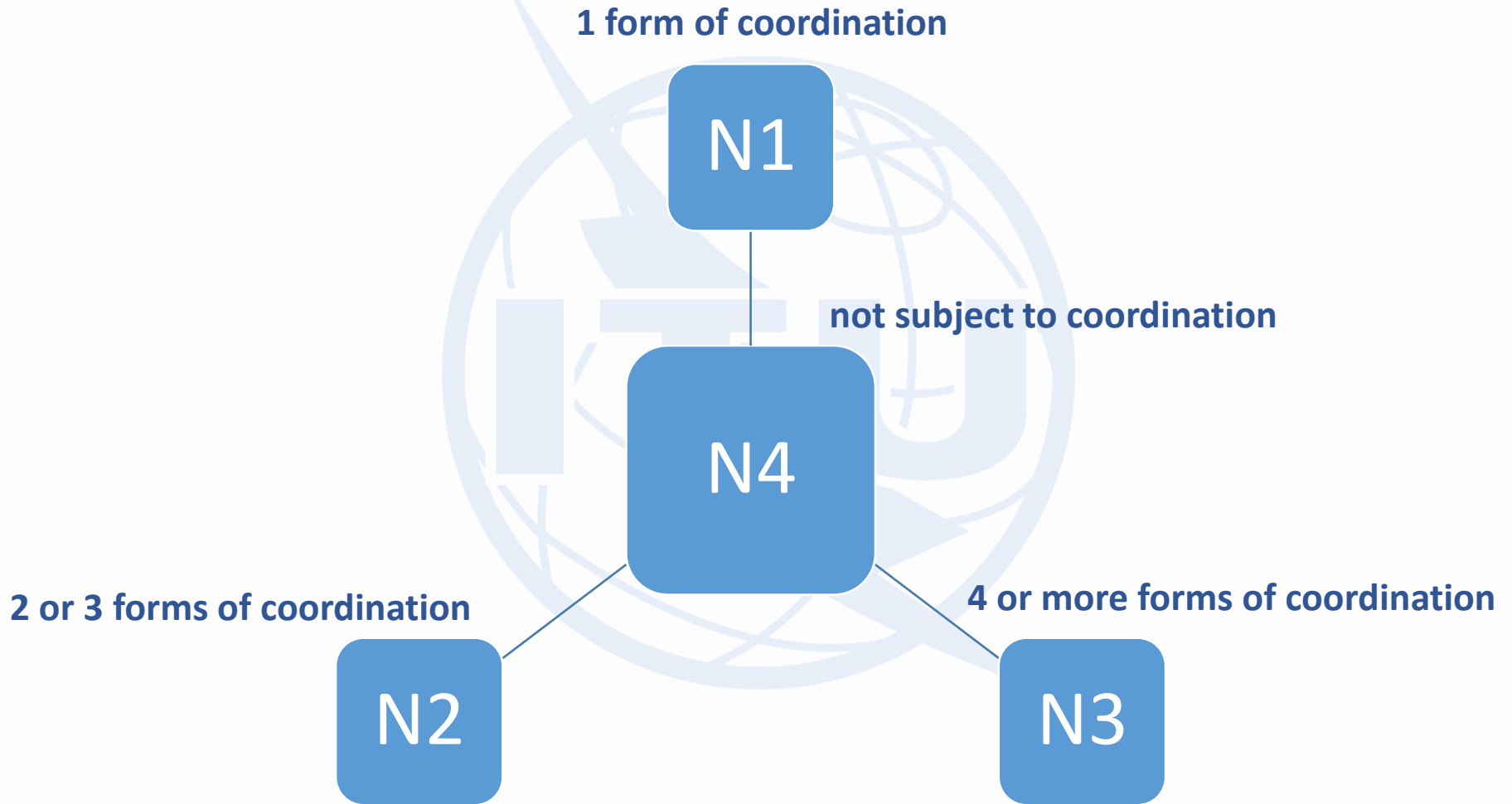
For N1, N2, N3 only:

If application of **No.11.32A** has been requested, invoice will be issued for **100% of the fee**.

Otherwise, only **70% of the fee** will be invoiced and the **remaining 30%** will be invoiced if and when **No.11.32A** will be requested by the Administration.



Categorization of Notifications





Fees for Notification (Art 11)

Category

Number of cost recovery forms of coordination

Fees

N1

1

15 910 + 150 x Units
(max 30 910)

N2

2 or 3

42 920 + 150 x Units
(max 57 920)

N3

4 or more

42 920+ 150 x Units
(max 57 920)

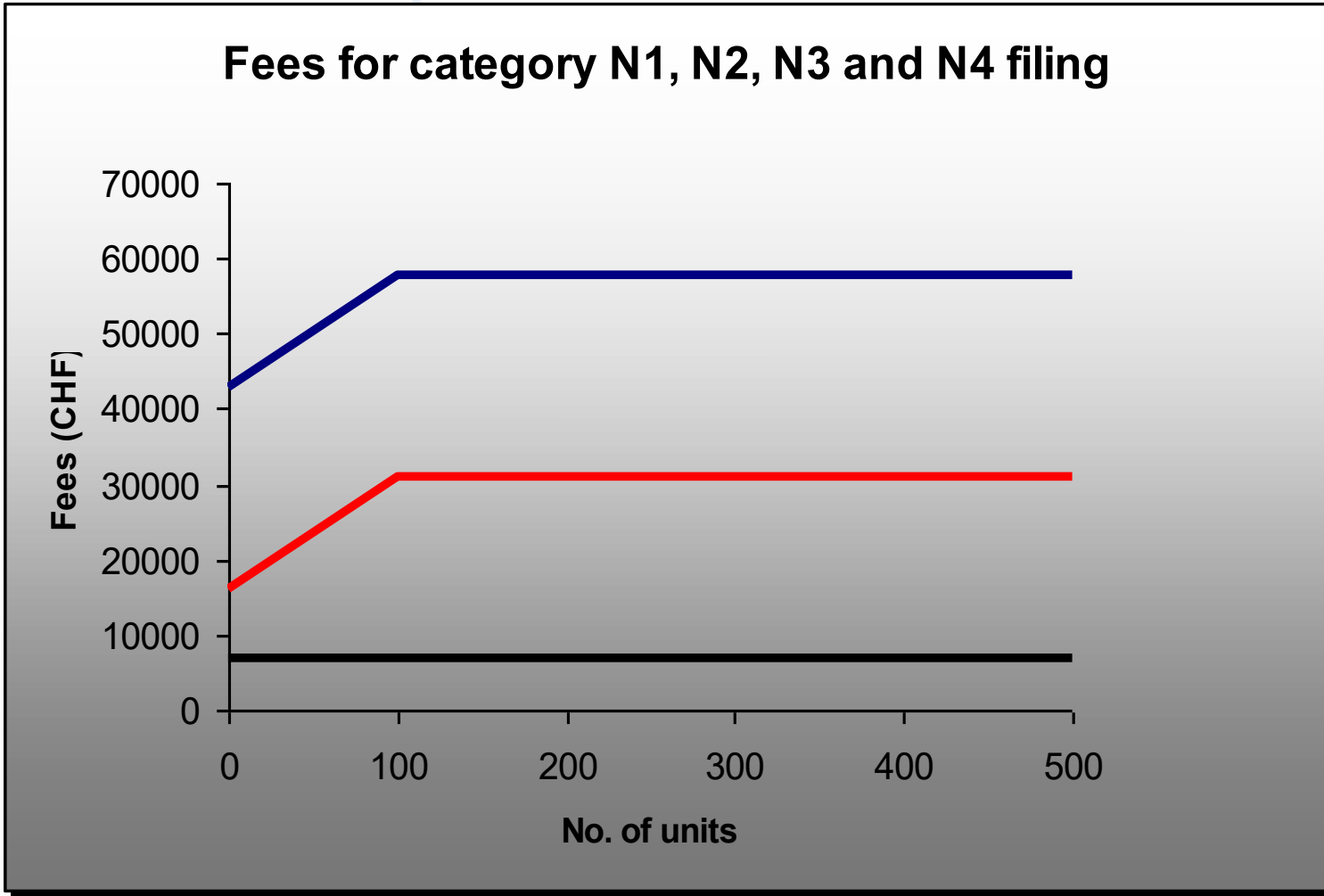
N4

—

7030

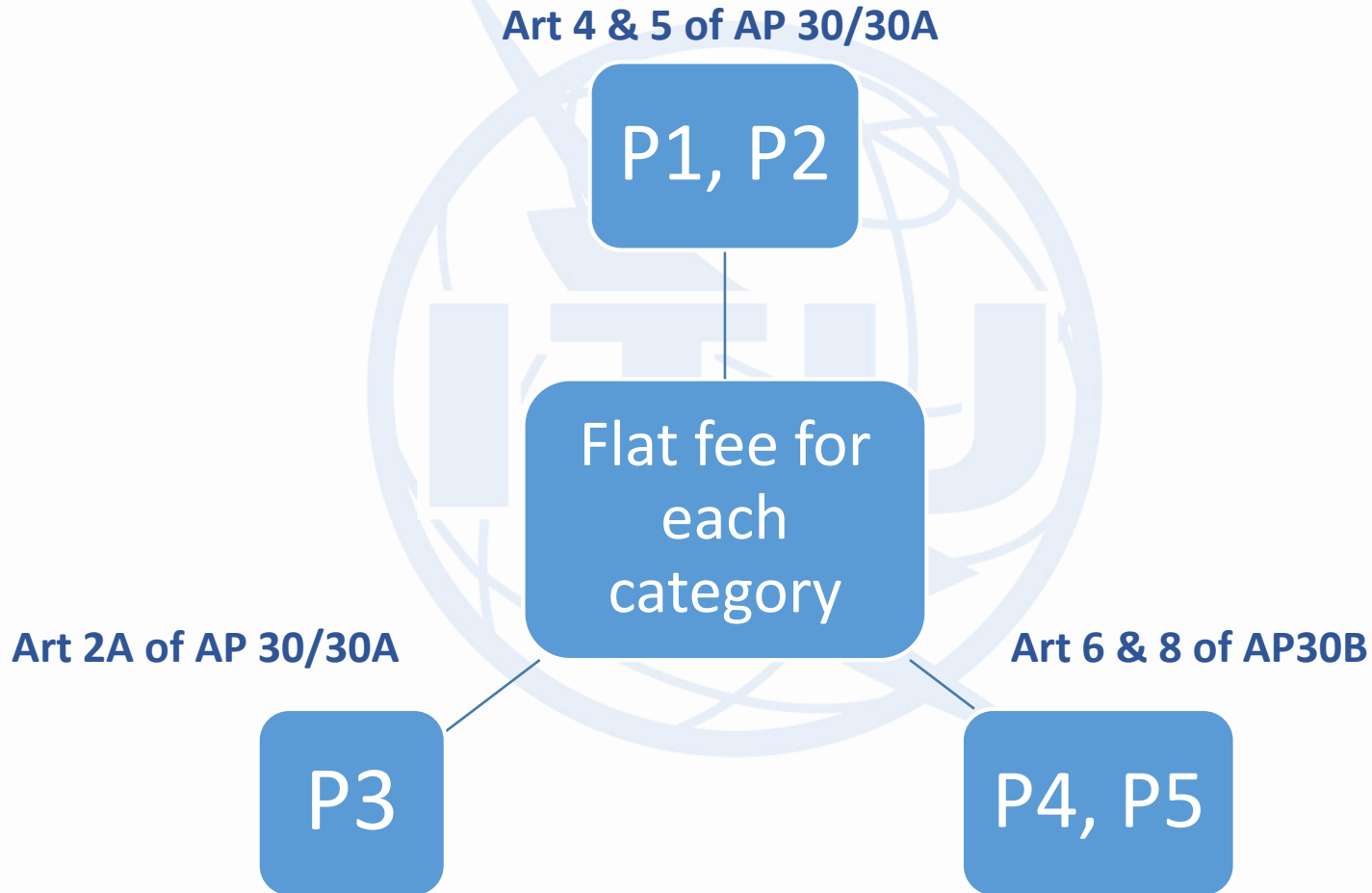


Fees Scaling for Notification Filings





Categorization of Plans





Fees for Plans (AP30/30A/30B)

Category

Description

Flat fee CHF

P1

AP30/E, AP30A/E, AP30-30E/ (Part A or Part B)
- Part B chargeable only if that Part A received after 7/11/98

28 870

P2

Notification under Article 5 of AP30/30A
- Notification chargeable only if Part A received on or after 19/10/2002

11 550

P3

Coordination request under Article 2A of AP30/30A

12 000

P4

Procedures under Article 6 of AP30B

25 350

P5

Notification under Article 8 of AP30B

20 280



Fees for Consolidation of frequency assignments in the MIFR of different GSO networks (WRC-12)

Category	Description	Flat fee CHF
N1	Networks submitted under Article 11	15 910 +150xUnits (max 30 910)
P3	Networks submitted under Appendices 30 or 30A	11550
P5	Networks submitted under Appendix 30B	20 280



Invoicing

Invoicing process

Upfront Stage:

Upon receipt of filing, the BR examines receivability
Invoice will be issued based on the category and
units of the filing at that time (see SpaceCap)

Publication Stage (IFIC):

Following the detailed examination of the notice, if
the category or units of the filing is found to be
different, any resulting excess fee (or refund) will be
invoiced after the publication of the notice



SpaceCap

SpaceCapture V8 - [Set Notice Template]

File Edit Tools Template Window Help

CR/NOTIF API RAST PLAN RS49/552

SpaceCap

- Start Page
- Notice Explorer
- Open Notice
- New Notice
- Search

Notice Explorer - AP4/II and AP4/III

Notice id	Type	Adm./Org.	Orb. Pos.	Station name	Date rcv.	Status
List of notices Count=2						
000000001[A]	G	SEY/	136E	FIRST-G		

- 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
- Paginate Groups
- Sort Frequencies
- Structure Groups
- Delete Notice and Grp Links
- Create Notice Links
- Create Grp Links
- Create Regulatory Dates
- Cost Recovery Analysis (Dec 482 C2008)**
- Cost Recovery Analysis (Use Findings)
- Run SRSFixdb for notice

Control Box

- Show
- Clone
- Export
- Delete
- To SNS
- CFEX
- SpaceVal
- Esub
- RS49/552

Current DB : C:\Users\sianis\Desktop\WBS-16 local\FIRST-GEOSAT - SOLUT 15:33



SpaceCap Cost Analysis Results

Cost Recovery Analysis

Cost Recovery Analysis (Dec 482 C2008)

Analysis run at: 15:36:41 on 12.12.2016

Notice id: 1

Satellite Network: FIRST-GEOSAT

Services: EC

Provisions: AP30#7.1,9.7,AP30A#7.1

Category: C2

Cost Recovery Units: 123

Estimate of Cost Recovery Fee

Flat Fee: CHF 24,620 (Category C2)

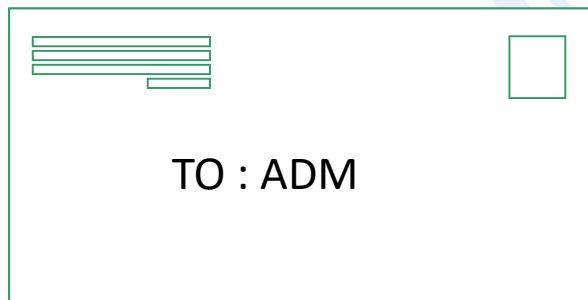
Total Fee: = CHF 24,620



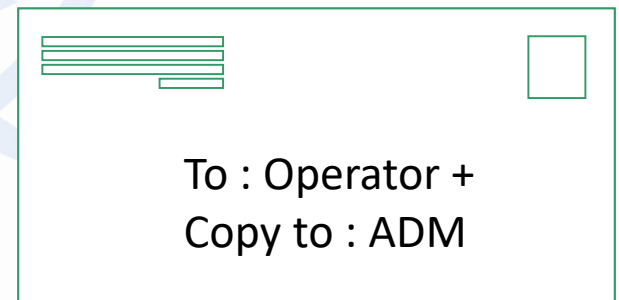
Address field on the invoice

Invoice will be issued to the **Administration**

Only if an Administration requests in writing, the invoice can be issued **directly to the operator**, with a **copy** to the Administration

A diagram of an invoice form with a green border. In the top left corner, there are four horizontal lines representing a header. In the top right corner, there is a small square box. The text 'TO : ADM' is centered in the middle of the form.

TO : ADM

A diagram of an invoice form with a green border, identical in layout to the first one. It features a header in the top left, a small square box in the top right, and the text 'To : Operator + Copy to : ADM' centered in the middle.

To : Operator +
Copy to : ADM



Invoice example



UNION INTERNATIONALE DES TELECOMMUNICATIONS
INTERNATIONAL TELECOMMUNICATION UNION
UNIÓN INTERNACIONAL DE TELECOMUNICACIONES



Place des Nations | Telephone National (022) 730 01 11 | Tg. BURINTERNA GENEVE | TELEFAX | TELETEX
CH 1211 Genève 20 | International +41 22 730 51 11 | Téléc. +421 000 UIT-CH | +41 22 730 73 56 | 338-49815100=uit

Invoice	
Invoice number	6100015063
Invoice date	13 Nov 2014
Due date	13 May 2015
Customer Number	2115
Reference	G LD101

To:
OFCOM
Riverside House
2a Southwark Bridge Road
LONDON
SE1 9HA
ROYAUME-UNI

On behalf of:
Avanti Communications Ltd.
74 Rivington Street
LONDON
E4A 3AY
ROYAUME-UNI

Specific address

Currency CHF

Description		Unit	Value
Space Station	UKDIGISAT-4A		
Date of Receipt	05.11.2014		
Responsible Administration	G		
Administration's reference	SSU 1706		
Administration's ref. date	05.11.2014		
Category	Plans (P1)		
Notice ID	107552002		
Items total:			28,870.00
Price Type		Unit	Value
Sat Network Filing	Flat fee		28,870.00
Final amount:			28,870.00

Notice that any additional charges will be invoiced after the publication of the above notice.

Please quote invoice number 6100015063 with your payment.

For the payment status for this invoice, please contact
Claire Evangelisti, Financial Resources Management Department
E-mail: claire.evangelisti@itu.int
telephone: +41 22 730 5851

Les paiements sont à effectuer en francs suisses à l'ordre du Secrétariat général de l'UIT.
Payments should be made in Swiss Francs to the General Secretariat of the I.T.U.
Los pagos deben efectuarse en francos suizos a la orden de la Secretaría General de la U.I.T.
Banque - Bank - Banco: UBS SA, PO Box 2500, 1211 Genève, Account No CH9600240240C87655650, Swift No : UBSWCH2H80A



Cancellation of a filing due to non-payment

WRC-2003

No.9.2B.1, 9.38.1 etc.

- The Bureau shall send a reminder 60 days before the due date for payment
 - If payment is not received by the due date (which is 6 months from the date of the invoice), the Bureau shall cancel the publication

WRC-2007

Extended to all notifications and some additional sections of Appendix 30B

- If notifications received and or after 1st December 2006
 - If payment is not received by 15 May 2008, the filings will be cancelled



Withdrawal or suppression of a filing by the Administration

Condition

Upon submission of a filing, an Administration can withdraw a filing within 15 days with no charge

After that, the filing is chargeable even if it was withdrawn before its publication



Annual Free entitlement

Each member state shall be entitled to the publication of special sections or parts of the BR IFIC for one satellite network **each year** without charge



Nomination of free entitlement

Conditions

To be made by the **member state** in its role as the notifying administration

Should correspond to the **year of receipt** of the filing

To be made **by the end of the period for payment of the invoice**



References

- Council Decision 482 (modified C2018)
- BR Circular letter CR/245
- BR web site
<http://www.itu.int/ITU-R/go/space-cost-recovery/en>

Thank you



Akim Falou-Dine Akim.Falou-Dine@itu.int

**Please remember to visit
the WRS-18 Exhibition
located at the entrance of the
ITU Montbrillant building**