

**ITUEvents** 

# ITU World Radiocommunication Seminar 2018

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## Administrative Due Diligence Resolution 49 and Resolution 552

**Lilian Marin, Nick Sinanis** 



#### **Overview**

- Overview of Resolution 49 procedure
  - Nick Sinanis
- Creating a Resolution 49 notice
  - Lilian Marin
- Overview of Resolution 552 procedure
  - Nick Sinanis



## **Overview of Resolution 49**

**Preparing a Resolution 49 Notice** 

**Resolution 552** 



#### **Resolution 49 Overview**

### An administrative due diligence procedure that applies to

- All satellite network or satellite system of the fixed-satellite service (FSS), mobile-satellite service (MSS) or broadcasting-satellite service (BSS) with frequency assignments that are subject to coordination under Nos. 9.7, 9.11, 9.12, 9.12A and 9.13 and Resolution 33
- All submissions under Article 4 of Appendices 30 and 30A
  - Any request for modifications of the Region 2 Plan under the relevant provisions of Article 4 of Appendices 30 and 30A that involve the addition of new frequencies or orbit positions
  - or for modifications of the Region 2 Plan under the relevant provisions of Article 4 of Appendices 30 and 30A that extend the service area to another country or countries in addition to the existing service area
  - or request for additional uses in Regions 1 and 3 under the relevant provisions of Article 4 of Appendices 30 and 30A
- Any submission of information under Article 6 of Appendix 30B, with the exception of submissions of new Member States seeking the acquisition of their respective national allotments for inclusion in the Appendix 30B Plan



#### **WRC-2012 Modification**

Resolution 49 does not apply to satellite networks or satellite systems of the broadcasting satellite service in the 21.4-22GHz band in Regions 1 and 3.

For those satellite systems of the broadcasting satellite service in the 21.4-22 GHz band in Regions 1 and 3, the due diligence information requirements are spelt out in Resolution 552 (WRC-2012).



#### **Res 49 Procedure**

- Deadline for submission of due diligence information :
  - as early as possible, but must be received by BR before the end of the period established as a limit to bringing into use
    - 7 years from the date of receipt of CR/C for submissions under Article 9
    - 8 years from the date of receipt of Art.4 (Part A) submissions of AP30/30A
    - 8 years from the date of receipt of Art.6 (Part A) submissions of AP30B
- Before a notification for recording in the Master Register can be confirmed as brought into use, the relevant due diligence information must be received by BR
- Six months before expiry of the regulatory period, BR sends a reminder if the information has not yet been received
- If the complete due diligence information is not received within the specified time limit, the network shall be cancelled from the Master Register or Appendices 30/30A/30B Lists or Plan



#### Res 49 Procedure ...

- Upon receipt of due diligence information, BR examines the information for completeness
  - if information is complete, BR publishes it in a BR IFIC (within 30 days)
- If a notification is received before the date of bringing into use, the assignments may be recorded provisionally in the MIFR. When the administration then confirms that they have been brought into use, BR will check whether the due diligence has been submitted
- If a notification is received after the date of bringing into use, BR will check whether the due diligence has been submitted.
  - If not, the BR will request the DDI from the notifying administration and until its reception the notification notice will stay in abeyance



#### Res 49 Information in the Case of Launch Failure

In the case of launch failure of a satellite subject of the provisions of the Appendices 30/30A/30B the notifying Administration (in accordance with § 4.1.3bis or § 4.2.6bis of Article 4 of Appendices 30 and 30A and § 6.31bis of Article 6 of Appendix 30B) shall provide to the Bureau:

**Before** the end of the regulatory time-limit of 8 years to bringing into use of the subject network

due diligence information as required in Resolution **49** for the assignment with respect to the satellite that suffered the launch failure (if that information has not already been provided)

Within one year after the launch failure of the subject network

updated Resolution 49 information for the new satellite under procurement

Otherwise the related frequency assignments shall lapse



## **DDI Required Information**

Not listed in Appendix 4!

- Data elements are listed in Annex 2 to Resolution 49 with the following subsections:
  - A. Identity of the satellite network
  - B. Spacecraft manufacturer
  - C. Launch services provider



## A. Identity of the satellite network

- a) Identity of the satellite network
- b) Name of the administration
- c) Country symbol
- d) Reference to the API special section, modification of AP30/30A, or information of Article 6 of AP30B(Rev.WRC-07)
- e) Reference to the CR/C special section (not applicable for AP30/30A/30B)
- f) Frequency band(s)
- g) Name of the operator
- h) Name of the satellite
- i) Orbital characteristics



## **B.** Spacecraft manufacturer

- a) Name of the spacecraft manufacturer
- b) Date of execution of the contract
- c) Contractual "delivery window"
- d) Number of satellites procured



## C. Launch services provider

- a) Name of the launch vehicle provider
- **b)** Date of execution of the contract
- c) Anticipated launch or in-orbit delivery window
- d) Name of the launch vehicle
- e) Name and location of the launch facility



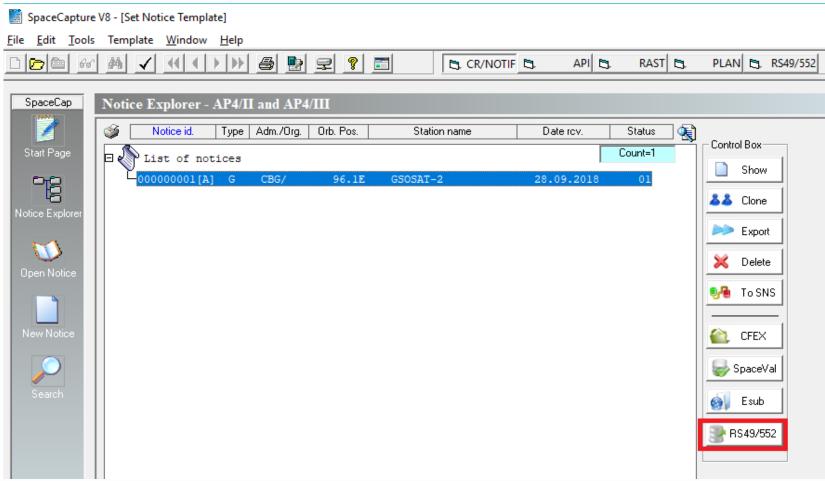
## **Overview of Resolution 49**

**Preparing a Resolution 49 Notice** 

**Resolution 552** 



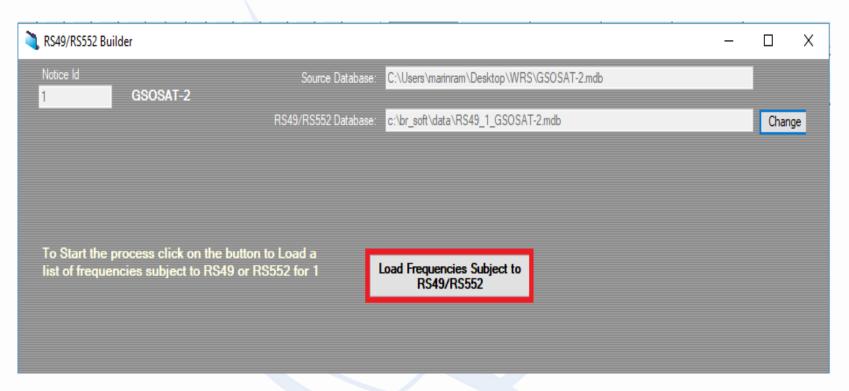
#### **Tools**



To start with the exercise, open: <USB KEY>\Space Workshop\Day 3\ \Coordination\_Request\_Exercise\GSOSAT-2 (full).mdb

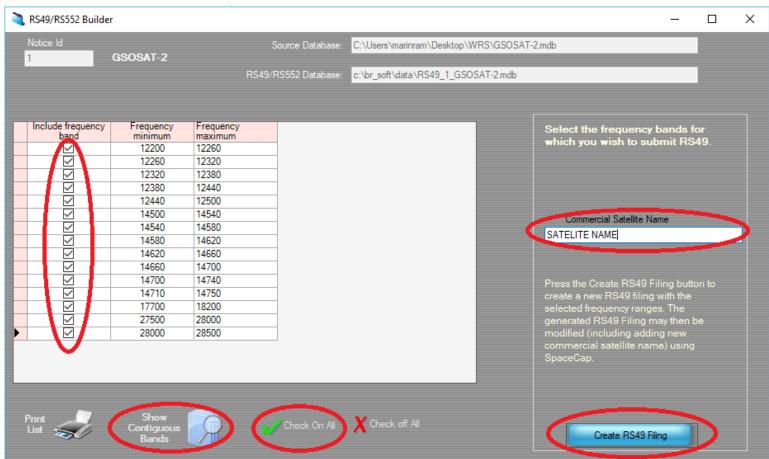


## **Run the Builder**





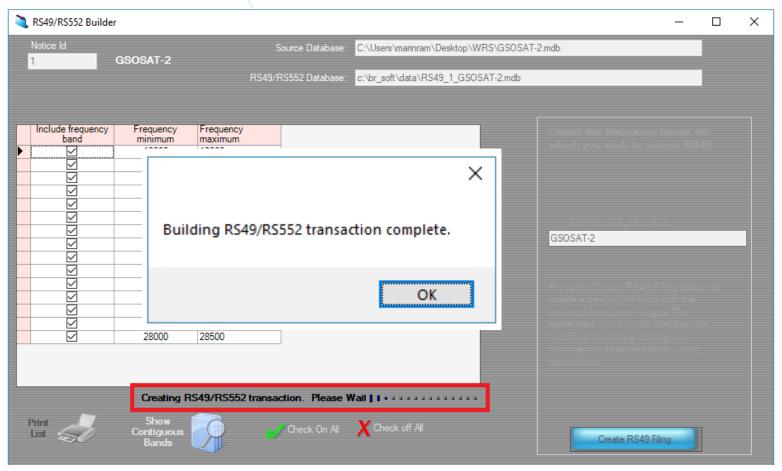
## **Select Frequency Bands**



- Enter the commercial name
- Click on "Create RS49 Filing"

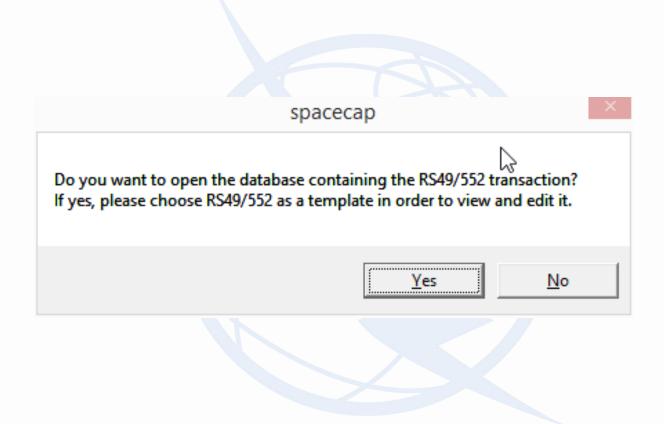


### **Res49 Notice is Created**





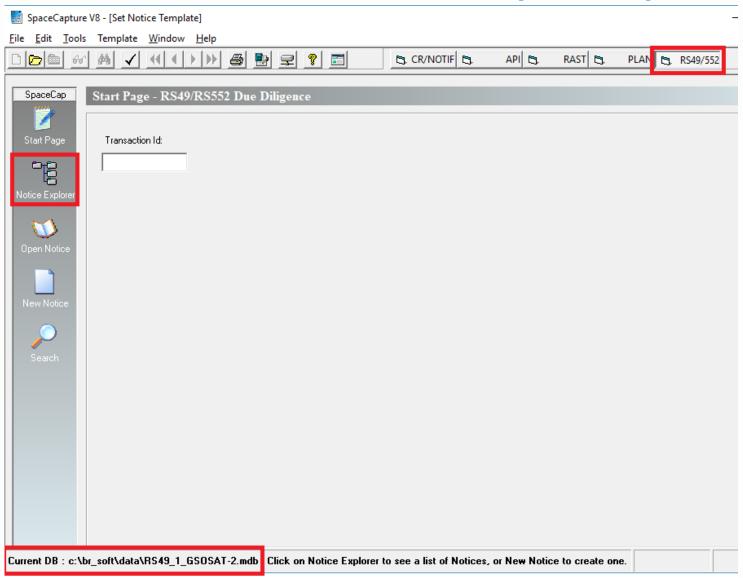
## Access Notice with SpaceCap



#### Click on "YES"

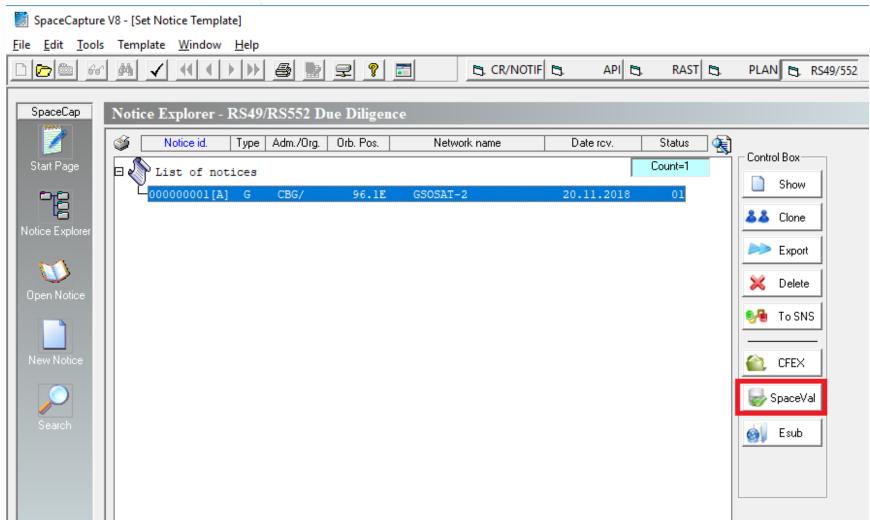


## Access Notice with SpaceCap



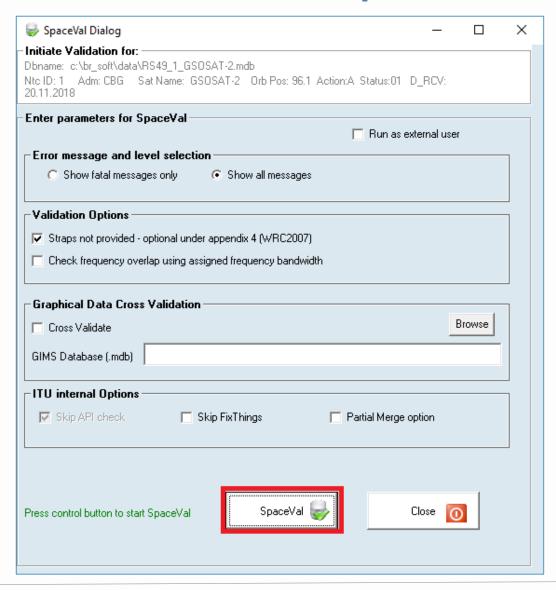


#### **Run Validation**





## Validation with SpaceVal





## **SpaceVal Report**

SNS Validation Errors —



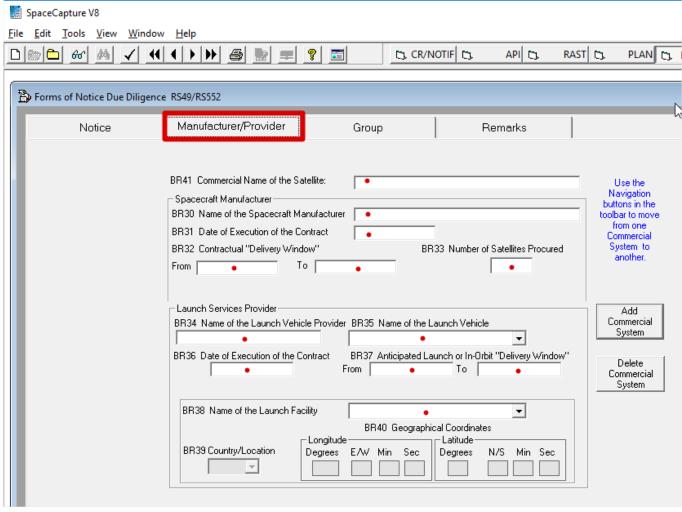
Ntc ID: 1 Adm: CBG Sat Name: GSOSAT-2 Orb Pos: 96.1 Action: A Status: 01 D\_RCV: 20.11.2018

Fatal Errors: 11 Warnings:

|          | Beam | E/R | Grp id | Table    | Field           | Value           | Row no | Val err | Rule | Severit | Ap4_Ref | Text  |
|----------|------|-----|--------|----------|-----------------|-----------------|--------|---------|------|---------|---------|---|
| <b> </b> |      |     |        | cmr_syst | lsp_name        |                 |        | 122     | 1    |         |         | Value missing   |
|          |      |     |        |          | vehicle         |                 | 1      | 123     | 1    | F       |         | Value missing   |
|          |      |     |        |          | d_exe           |                 | 1      | 124     | 1    | F       |         | Value missing   |
|          |      |     |        |          | d_deliv_fr      |                 | 1      | 125     | 1    | F       |         | Value missing   |
|          |      |     |        |          | d_deliv_to      |                 | 1      | 126     | 1    | F       |         | Value missing   |
|          |      |     |        |          | facility        |                 | 1      | 127     | 1    | F       |         | Value missing   |
|          |      |     |        |          | mfct_nam<br>e   |                 | 1      | 128     | 1    | F       |         | Value missing   |
|          |      |     |        |          | nbr_sat         |                 | 1      | 129     | 1    | F       |         | Value missing   |
|          |      |     |        |          | d_exe_m         |                 | 1      | 130     | 1    | F       |         | Value missing   |
|          |      |     |        |          | d_deliv_fr<br>m |                 | 1      | 131     | 1    | F       |         | Value missing   |
|          |      |     |        |          | d_deliv_to<br>m |                 | 1      | 132     | 1    | F       |         | Value missing   |
|          |      |     |        | geo      |                 | Α               |        | 9354    | 1    | W       |         | CORRECTED: set f_active to 'A'                                      |
|          |      |     |        | notice   | f_int_ext       | E               |        | 9348    | 1    | W       |         | CORRECTED: cleared data not applicable to notice type               |
|          | RS49 | E   |        | s_beam   | freq_max        | 28500.<br>00000 |        | 9332    | 1    | W       |         | CORRECTED: set beam min and max frequencies                         |
|          |      |     |        |          | freq_min        | 12200.<br>00000 |        | 9332    | 1    | W       |         | CORRECTED: set beam min and max frequencies                         |
|          | ??   |     | 0      | freq     | <all></all>     |                 | 0      | 9329    | 1    | W       |         | CORRECTED: freq table rebuilt for RS49                              |
|          |      |     |        | grp      | act_code        |                 |        | 9342    | 1    | W       |         | CORRECTED: set act_code to null for entities related to add notices |
|          |      |     |        |          |                 |                 |        |         |      |         |         |   |

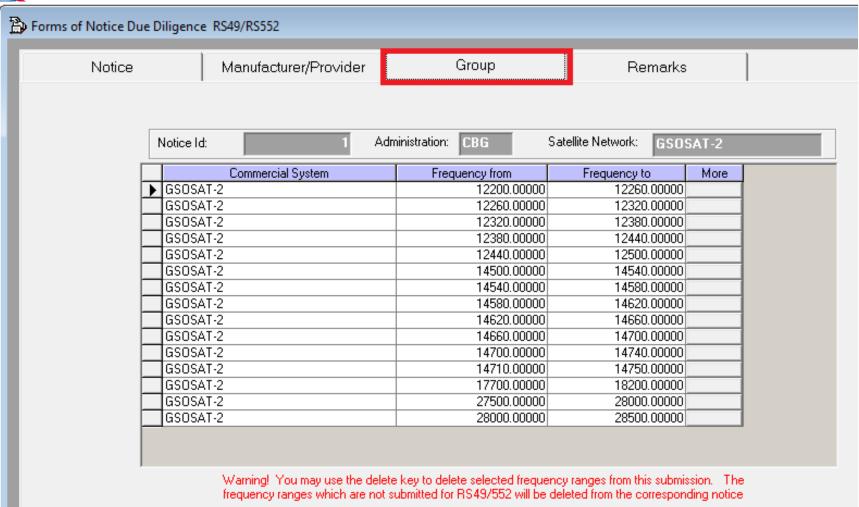


## **Manufacturer/provider Data**



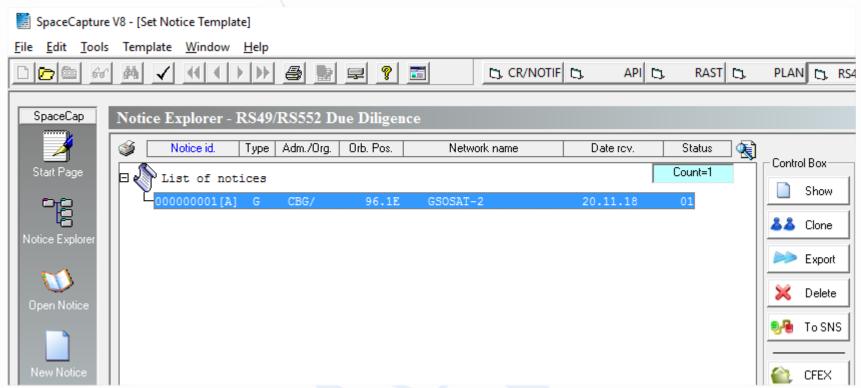


## **Group Data**





#### **Res49 Notice**







UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS
BUREAU DES RADIOCOMMUNICATIONS

#### INTERNATIONAL TELECOMMUNICATION UNION RADIOCOMMUNICATION BUREAU

UNIÓN INTERNACIONAL DE TELECOMUNICACIONES
OFICINA DE RADIOCOMUNICACIONES

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| RÈSEAU À SATELLITE<br>SATELLITE NETWORK<br>RED DE SATÉLITE  | GSOSAT-2  |        | SECTION SPÉCIALE Nº<br>SPECIAL SECTION No.<br>SECCIÓN ESPECIAL N.º           |   |  |
|---|---|--------|--|---|--|
| ADM. RESPONSABLE RESPONSIBLE ADM. ADM. RESPONSABLE  CBG   | LONGITUDE NOMINALE<br>NOMINAL LONGITUDE<br>LONGITUD NOMINAL | 96.1 E | BR IFIC / DATE<br>BR IFIC / DATE<br>BR IFIC / FECHA                          |   |  |
| NUMÉRO D'IDENTIFICATION LIÉ<br>LINKED IDENTIFICATION NUMBER<br>NÚMERO DE IDENTIFICACIÓN ASOCIADO                                  | 1   |        | NUMÉRO D'IDENTIFICATION<br>IDENTIFICATION NUMBER<br>NÚMERO DE IDENTIFICACIÓN | 1 |  |
| RENSEIGNEMENTS REÇUS PAR LE BUREAU LE / INFORMATION RECEIVED BY THE BUREAU ON / INFORMACIÓN RECIBIDA POR LA OFICINA EL 20.11.2018 |   |        |  |   |  |

| - 1 | +   |
|-----|-----|
| - 1 | *** |
|     |     |

| +  |                                 |  |  |  |  |
|--|---------------------------------|--|--|--|--|
| Les renseignements ont été reçus conformément aux § 4, 5 ou 6 de l'annexe 1 à la Résolution 49. Ils sont publiés par le Bureau des radiocommunications en application du § 8 de cette même annexe. |                                 |  | This information has been received pursuant to § 4, 5 or 6 of Annex 1 to Resolution 49. It is published by the Radiocommunication Bureau in accordance with § 8 of that Annex. | La información ha sido recibida de conformidad con los<br>§ 4, 5 ó 6 del Anexo 1 a la Resolución 49. Se publica por la<br>Oficina de Radiocomunicaciones en virtud del § 8 de este<br>anexo. |  |
|  | Ces                             | renseignements sur le réseau à satellite sont soumis | This information is submitted on the satellite network   | Las informaciones en la red de satélite están sometidas  |  |
|  | dans le cadre de                |  | within the scope of  | en el cuadro del   |  |
|  | § 1                             |  |  |  |  |
|  | § 2 Annexe 1 à la Résolution 49 |  | Annex 1 to Resolution 49   | Anexo 1 a la Resolución 49   |  |
|  | § 3                             |  |  |  |  |

Informations détaillées aussi disponibles sur:

 les bases de données SRS ou SPS que l'on peut consulter à l'aide du logiciel SpaceQry

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- Space Network Systems Online Service: http://www.itu.int/sns/

Detailed information also available on the:

- SRS or SPS databases which can be viewed using SpaceQry software

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- Space Network Systems Online Service: http://www.itu.int/sns/

Información detallada también disponible en:

 las bases de datos SRS o SPS que pueden consultarse utilizando el programa SpaceQry

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- Space Network Systems Online Service: http://www.itu.int/sns/



| SECTION SPECIALE / SPECIAL SECTION / SECCIÓN ESPECIAL / 特节 / СПЕЦИАЛЬНАЯ СЕКЦИЯ / القسم الخاص |            |                    |             |                    |  |  |
|---|------------|--------------------|-------------|--------------------|--|--|
| A A1a Sat. Network  | INMARSA    | T-KA 63E           |             | A1f1 Notif. adm.   | n. G A1f3 Inter. sat. org. BR1 Date of receipt 13.12.2016      |  |
| BR6a/BR6b Id. no. 11  | 6590073    | BR6c I             | inked Id. n | o. 111520391       | BR3a Provision reference RS49 BR2 Adm. serial no.              |  |
| -   |            | •                  |             |                    |  |  |
| A4a1 Orbital long. 63   | E          |                    |             |                    |  |  |
| BR41 Commercial name  | IN         | MARSAT-5 F1        |             |                    |  |  |
| BR30 Spacecraft manufac   | turer BC   | EING SATELLITE SYS |             |                    |  |  |
| BR31 Date of execution of   | the contra | ct 05.08.2010      | BR32        | Contractual deliv  | ivery window From: 24.07.2013 To: 09.07.2014 BR33 Number of sa |  |
| BR34 Launch vehicle prov  | ider II    | .s                 |             |                    | BR35 Launch vehicle PROTON M BREEZE M                          |  |
| BR36 Date of execution of   |            | -                  | 0.007       |                    |  |  |
| _   |            | ct 29.07.2011      |             |                    | nch or delivery window From: 08.12.2013 To: 08.12.2013         |  |
| BR38 Launch facility  | BAIKONUR   |                    | BR39 C      | Country / location | KAZ BR40 Geographical coordinates 063E15 36 45N37 48           |  |
|   | C1 Freque  | ency Range         |             | BR1                | ]  |  |
| C1a Lower limit   |            | C1b Upper limit    | i           | Date of receipt    |  |  |
| 4198.91   | MHz        | 4199.09            | MHz         | 13.12.2016         |  |  |
| 4199.41   | MHz        | 4199.59            | MHz         | 13.12.2016         |  |  |
| 5926.05   | MHz        | 5926.95            | MHz         | 13.12.2016         |  |  |
| 6422.05   | MHz        | 6422.95            | MHz         | 13.12.2016         |  |  |
| 17700   | MHz        | 17800              | MHz         | 13.12.2016         |  |  |
| 17700   | MHz        | 18100              | MHz         | 13.12.2016         |  |  |
| 17800   | MHz        | 18100              | MHz         | 13.12.2016         |  |  |
| 18100   | MHz        | 18400              | MHz         | 13.12.2016         |  |  |
| 18400   | MHz        | 18600              | MHz         | 13.12.2016         |  |  |
| 18600   | MHz        | 18800              | MHz         | 13.12.2016         |  |  |
| 18800   | MHz        | 19075              | MHz         | 13.12.2016         |  |  |
| 18800   | MHz        | 19300              | MHz         | 13.12.2016         |  |  |
| 19075   | MHz        | 19300              | MHz         | 13.12.2016         |  |  |
| 19300   | MHz        | 19700              | MHz         | 13.12.2016         |  |  |
| 19700   | MHz        | 20100              | MHz         | 13.12.2016         |  |  |
| 19700   | MHz        | 20200              | MHz         | 13.12.2016         |  |  |
| 20100   | MHz        | 20200              | MHz         | 13.12.2016         |  |  |
| 27500   | MHz        | 28500              | MHz         | 13.12.2016         |  |  |
| 28500   | MHz        | 28875              | MHz         | 13.12.2016         |  |  |
| 28500   | MHz        | 29100              | MHz         | 13.12.2016         |  |  |
| 28875   | MHz        | 29100              | MHz         | 13.12.2016         |  |  |
| 29100   | MHz        | 29500              | MHz         | 13.12.2016         |  |  |
| 29500   | MHz        | 29900              | MHz         | 13.12.2016         |  |  |
| 29500   | MHz        | 30000              | MHz         | 13.12.2016         |  |  |
| 29900   | MHz        | 30000              | MHz         | 13.12.2016         |  |  |



| A4a1 Orbital long. 🏻 ๒๖ ธ  |                      |  |     |
|--|----------------------|--|-----|
| BR41 Commercial name   | INMARSAT-5 F1        |  |     |
| BR30 Spacecraft manufacturer BR31 Date of execution of the cor                             | BOEING SATELLITE SYS | BR32 Contractual delivery window From: 24.07.2013 To   | : [ |
| BR34 Launch vehicle provider BR36 Date of execution of the cor BR38 Launch facility BAIKON |                      | BR35 Launch vehicle PROTON M BREEZE BR37 Anticipated launch or delivery window From: 08.12.201 BR39 Country / location KAZ BR40 Geographical | 3   |
| C1 Ero   | augnov Danag         | PD1  |     |

|           | BR1   |          |                 |            |
|-----------|-------|----------|-----------------|------------|
| C1a Lower | limit | C1b Uppe | Date of receipt |            |
| 4198.91   | MHz   | 4199.09  | MHz             | 13.12.2016 |
| 4199.41   | MHz   | 4199.59  | MHz             | 13.12.2016 |
| 5926.05   | MHz   | 5926.95  | MHz             | 13.12.2016 |
| 6422.05   | MHz   | 6422.95  | MHz             | 13.12.2016 |
| 17700     | MHz   | 17800    | MHz             | 13.12.2016 |



| SECTION SPECIALE / SPECIAL SECTION / SECCIÓN ESPECIAL / 特节 / СПЕЦИАЛЬНАЯ СЕКЦИЯ / القسم الخاص |            |                    |             |                    |  |  |
|---|------------|--------------------|-------------|--------------------|--|--|
| A A1a Sat. Network  | INMARSA    | T-KA 63E           |             | A1f1 Notif. adm.   | n. G A1f3 Inter. sat. org. BR1 Date of receipt 13.12.2016      |  |
| BR6a/BR6b Id. no. 11  | 6590073    | BR6c I             | inked Id. n | o. 111520391       | BR3a Provision reference RS49 BR2 Adm. serial no.              |  |
| -   |            | •                  |             |                    |  |  |
| A4a1 Orbital long. 63   | E          |                    |             |                    |  |  |
| BR41 Commercial name  | IN         | MARSAT-5 F1        |             |                    |  |  |
| BR30 Spacecraft manufac   | turer BC   | EING SATELLITE SYS |             |                    |  |  |
| BR31 Date of execution of   | the contra | ct 05.08.2010      | BR32        | Contractual deliv  | ivery window From: 24.07.2013 To: 09.07.2014 BR33 Number of sa |  |
| BR34 Launch vehicle prov  | ider II    | .s                 |             |                    | BR35 Launch vehicle PROTON M BREEZE M                          |  |
| BR36 Date of execution of   |            | -                  | 0.007       |                    |  |  |
| _   |            | ct 29.07.2011      |             |                    | nch or delivery window From: 08.12.2013 To: 08.12.2013         |  |
| BR38 Launch facility  | BAIKONUR   |                    | BR39 C      | Country / location | KAZ BR40 Geographical coordinates 063E15 36 45N37 48           |  |
|   | C1 Freque  | ency Range         |             | BR1                | ]  |  |
| C1a Lower limit   |            | C1b Upper limit    | i           | Date of receipt    |  |  |
| 4198.91   | MHz        | 4199.09            | MHz         | 13.12.2016         |  |  |
| 4199.41   | MHz        | 4199.59            | MHz         | 13.12.2016         |  |  |
| 5926.05   | MHz        | 5926.95            | MHz         | 13.12.2016         |  |  |
| 6422.05   | MHz        | 6422.95            | MHz         | 13.12.2016         |  |  |
| 17700   | MHz        | 17800              | MHz         | 13.12.2016         |  |  |
| 17700   | MHz        | 18100              | MHz         | 13.12.2016         |  |  |
| 17800   | MHz        | 18100              | MHz         | 13.12.2016         |  |  |
| 18100   | MHz        | 18400              | MHz         | 13.12.2016         |  |  |
| 18400   | MHz        | 18600              | MHz         | 13.12.2016         |  |  |
| 18600   | MHz        | 18800              | MHz         | 13.12.2016         |  |  |
| 18800   | MHz        | 19075              | MHz         | 13.12.2016         |  |  |
| 18800   | MHz        | 19300              | MHz         | 13.12.2016         |  |  |
| 19075   | MHz        | 19300              | MHz         | 13.12.2016         |  |  |
| 19300   | MHz        | 19700              | MHz         | 13.12.2016         |  |  |
| 19700   | MHz        | 20100              | MHz         | 13.12.2016         |  |  |
| 19700   | MHz        | 20200              | MHz         | 13.12.2016         |  |  |
| 20100   | MHz        | 20200              | MHz         | 13.12.2016         |  |  |
| 27500   | MHz        | 28500              | MHz         | 13.12.2016         |  |  |
| 28500   | MHz        | 28875              | MHz         | 13.12.2016         |  |  |
| 28500   | MHz        | 29100              | MHz         | 13.12.2016         |  |  |
| 28875   | MHz        | 29100              | MHz         | 13.12.2016         |  |  |
| 29100   | MHz        | 29500              | MHz         | 13.12.2016         |  |  |
| 29500   | MHz        | 29900              | MHz         | 13.12.2016         |  |  |
| 29500   | MHz        | 30000              | MHz         | 13.12.2016         |  |  |
| 29900   | MHz        | 30000              | MHz         | 13.12.2016         |  |  |



## Finishing Res49 Notice preparation

- Once created and all information identified as missing (Fatal Errors) by SpaceVal has been entered, it can be submitted to BR
  - Use e-Submission
- Complete notices will avoid delays to publish the Special Section



**Overview of Resolution 49** 

**Preparing a Resolution 49 Notice** 

**Resolution 552** 



#### **Overview**

- Applies to geostationary-satellite networks in the BSS in the 21.4-22 GHz band
  - Within 30 days after the actual commencement, or resumption, of use of the frequency assignments to a satellite network subject to these procedures, the notifying administration shall send to the Bureau the information specified in Annex 2 to this Resolution
  - If the spacecraft is used for the first time under this Resolution, the information could be supplemented by a copy of the contract with the launch services provider.
  - The information shall be updated and resubmitted to the Bureau by the notifying administration not later than 30 days after the *end of life* or the *relocation* of the spacecraft



#### **Res 552 Procedure**

- Upon receipt of the information, BR examines it for completeness
  - If it is complete, BR shall publish it in a BR IFIC (two months)
- Within 30 days after the 7-year limit and after the end of the three-year period following the date of suspension
  - if the complete information under this Resolution is not yet received by the Bureau, the corresponding frequency assignments shall be cancelled by the Bureau



## **Required Information**

- Data elements are listed in Annex 2 to Resolution 552 with the following subsections:
  - 1. Identity of the satellite network
  - 2. Identity of the spacecraft
  - 3. Suspension information



## 1. Identity of the satellite network

- a) Identity of the satellite network
- b) Name of the notifying administration
- c) Orbital characteristics
- d) Reference to the API special section
- e) Reference to the CR/C special section
- f) Reference to the notification, when available
- g) Frequency band(s)
- h) First date of bringing into use\*
- i) Regulatory status
  - satellite network under operation (§2 data only)
  - satellite network suspended (§3 data only)

\* Inserted by the Bureau



## 2. Identity of the spacecraft

- a) ITU ID number, or
- **b)** spacecraft manufacturer
  - Name of the spacecraft manufacturer
  - Date of execution of the contract
  - Delivery date
- c) Launch services provider
  - Name of the launch vehicle provider
  - Date of execution of the contract
  - Name of the launch vehicle
  - Name and location of the launch facility
  - Launch date
- d) Frequency band(s) present on board the spacecraft



## 3. Suspension information

- a) Date of suspension\*
- b) Reason of suspension
  - Spacecraft moved to another orbital position, or
  - In-orbit failure of the spacecraft, or
  - Spacecraft de-orbited, or
  - Other reasons (to be specified)

\* Inserted by the Bureau



## Receivability of Res49 and Res552 notices

- Resolution 55 (rev. WRC-12) and Rules of Procedure on Receivability
  - Information shall be submitted in electronic format compatible with SpaceCap
  - From 1st August 2018, in accordance to the revised Rules of procedure relating to Receivability of space notices, all satellite filings and Spacecom comments shall be submitted using the ITU web interface "e-Submission of satellite network filings" available at <a href="https://www.itu.int/itu-r/go/space-submission">https://www.itu.int/itu-r/go/space-submission</a> (see Circular Letter CR/434 dated 1 August 2018 for more information).





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