

# Introduction to the BR Space Databases

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# BR Space Databases

SNS Formatted

Currently SNS V V7

SNS on Ingress

SRS

SPS

IFICXXX

Capture

AP30B

ALPHANUMERIC  
DATA

GIMS Database

ESCC Database

GRAPHICAL  
DATA

Space Reference Database

REFERENCE  
DATA



# SNS Format – Alphanumeric Data – V 7

SNS Database Design is based on Appendix 4, Annex 2 Of the Radio Regulations  
Each World Radio Communication Conference introduces new resolutions and changes to the Radio Regulations

SNS  
V 6.1

- **Decisions taken at WRC 2007**
  - AP30B
  - Sensor Information

SNS  
V 7.0

- **Decisions taken at WRC 2012**
  - New AP4 data items
  - New tables to support the new due diligence procedure for 21-22. (RES553)
  - New table to maintain the link to group level diagrams in the GIMS database
  - Mandatory list of satellite networks identified under No.9.36.2 and 9.41
  - Implementation of Resolution 908 – Electronic API
  - Improvements for internal processing





# SNS Format – Alphanumeric Data

Where to find information on the new V7 SNS Format?

- Details of Changes from version 6 to 7 at ITU's web site:

[http://www.itu.int/sns/sns\\_v7\\_changes.html](http://www.itu.int/sns/sns_v7_changes.html)

[http://www.itu.int/sns/sns\\_dbv7.pdf](http://www.itu.int/sns/sns_dbv7.pdf)

- Diagrams provided on the IFIC DVD:

**srs\_dbv7.pdf**

**srs\_dbv7\_diagram.pdf**

- Description of the SNS V7 format  
Section III of the Space Preface

Note that not  
compliant with SNS V7  
Not receivable!





# SNS Format – Alphanumeric Data

Complies  
with SNS  
V7 format



2013  
SpaceVal\_V7  
will verify  
SNS V7  
format

Does not  
comply  
with SNS  
V7 format

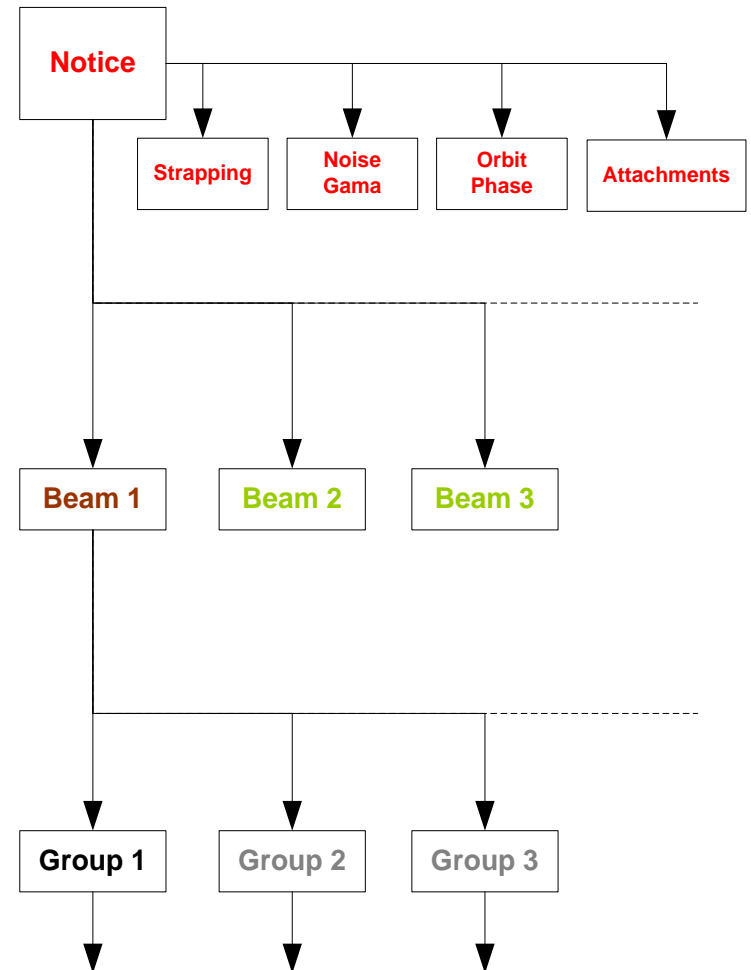


**Not receivable!**



# SNS Data organization

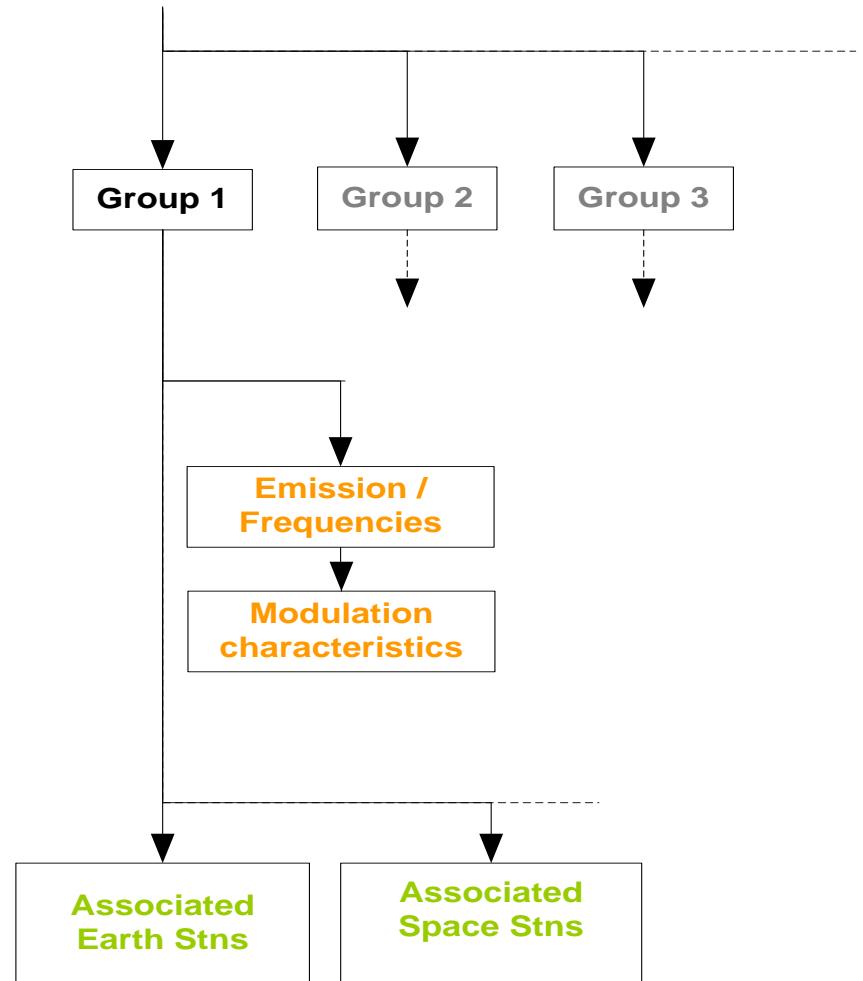
- Common to all frequencies of a network
  - satellite name, orbital position...
  - Attachments to submission. Type Paper, GXT, File, file name, description
  - Strapping and Noise gamma information for Geo
  - Orbit and Phase information for Non-Geo
- Satellite beam characteristics
  - satellite antenna gain, antenna radiation pattern...
- Groups of frequencies
  - Common characteristics such as polarization type and service area...





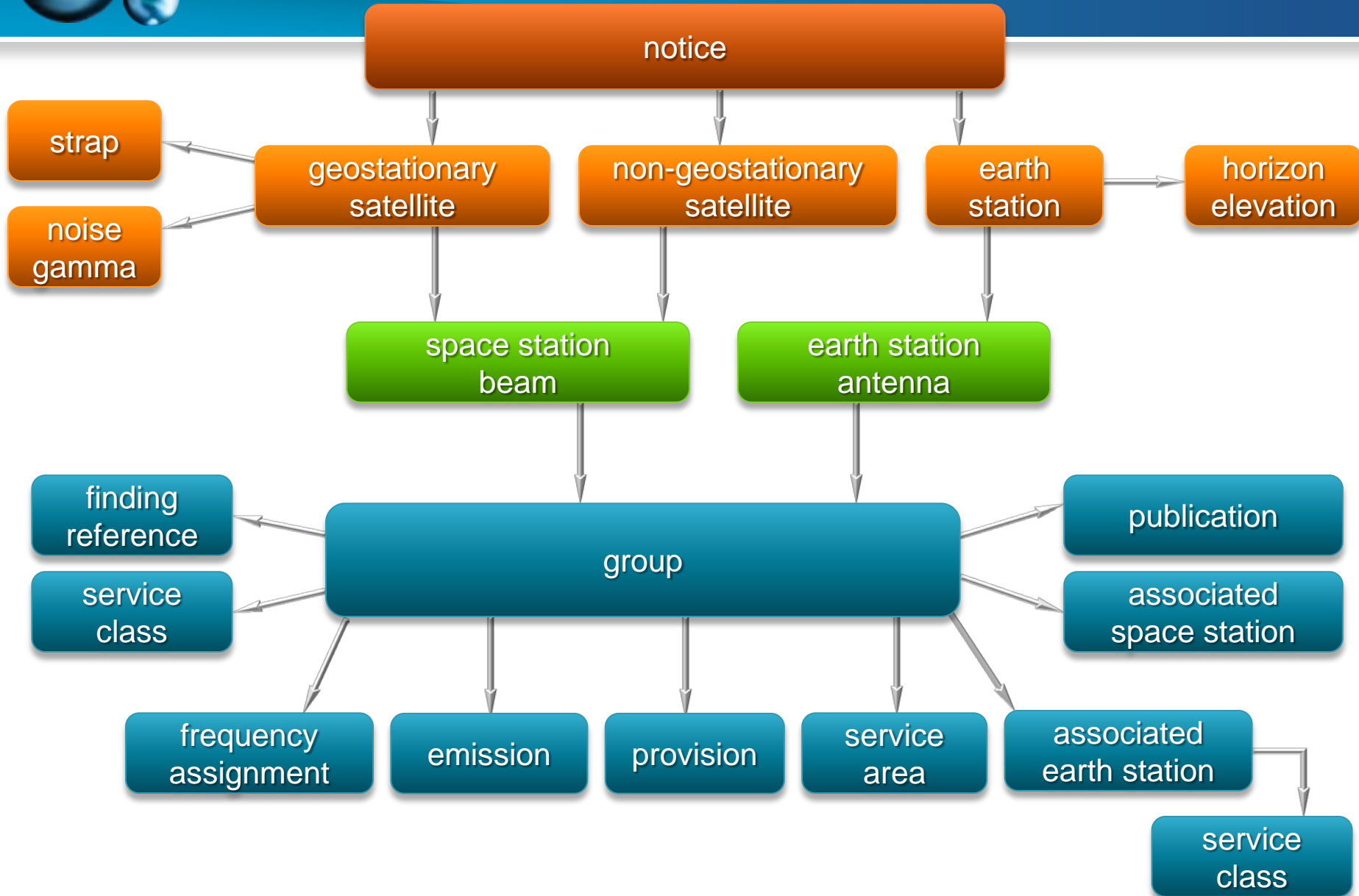
# SNS Data organization

- Emission characteristics of a specific group:
  - frequencies, power and modulation characteristics
- Associated earth station antenna characteristics
- Associated Space Stations





# SNS Data organization







# SNS DB Structure – Tree view

Notice id.	Type	Adm./Org.	Orb. Pos.	Station name	Date rcv.	Status
112520119[A]	G	I /	38W	NEWSAT-1F-38W	24.02.2012	50
List of notices <span style="float: right;">Count=1</span>						
├─ Beam id: BSR						
├─ Beam id: BWR						
├─ Beam id: GS						
│   ├── Group id: 112651322 (p83)						
│   └── Group id: 112651323 (p84)						
├─ Beam id: GSF						
│   ├── Group id: 112651324 (p85)						
│   └── Group id: 112651325 (p86)						
├─ Beam id: KAR						
└─ Beam id: BSR						
└─ Beam id: BTR						
└─ Beam id: BWR						
└─ Beam id: GS						
└─ Beam id: GSF						
└─ Beam id: KAR						



## SNS formatted databases



**SNS** on Ingres: **MASTER** database used in-house for production in BR and externally via SNS-online



**SRS** on MS Access: Snapshot of the Master International Frequency Register taken at the time the BR IFICxxxx DVD-ROM is produced



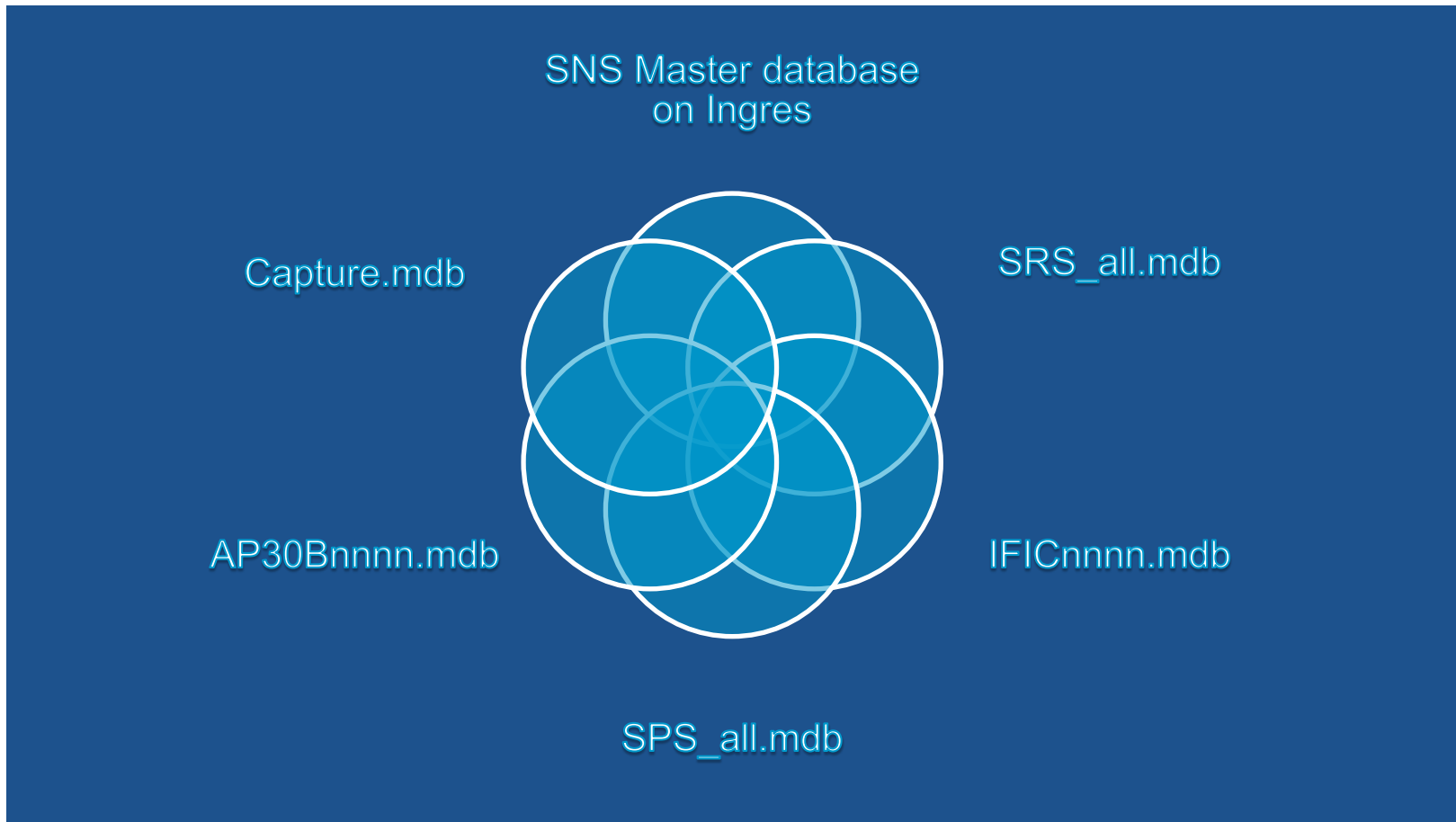
**IFICxxxx** on MS Access: Contains Part-IS, Part-IIS, Part-IIIS and Special Sections API/A, CR/C and RES49 present in the BR IFICxxxx DVD-ROM.



**SPS and AP30B** on MS Access: Contain data concerning the technical characteristics and reference situation for networks of the planned space services



# BR SNS Databases





# SNS Databases

## SNS Master Database On Ingres

### in the Master Register

- Coordination and Notification
- Advance Publication
- Resolution 49



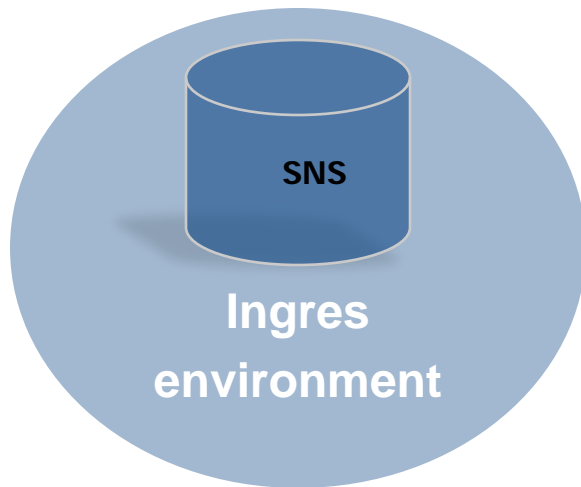
- Electronic Filings received by the BR
  - New assignments
  - Mod of existing
  - Delete existing
- Notifications in technical Examination



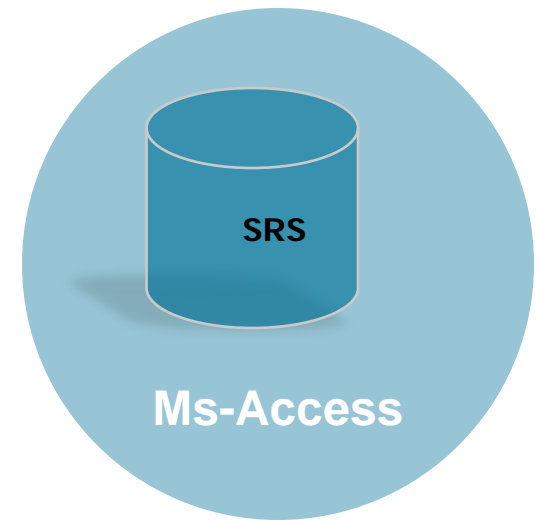


## SRS\_all.mdb on the BR SPACE IFIC DVD

- Published every IFIC DVD
- Snap-shot of the SNS Master Database

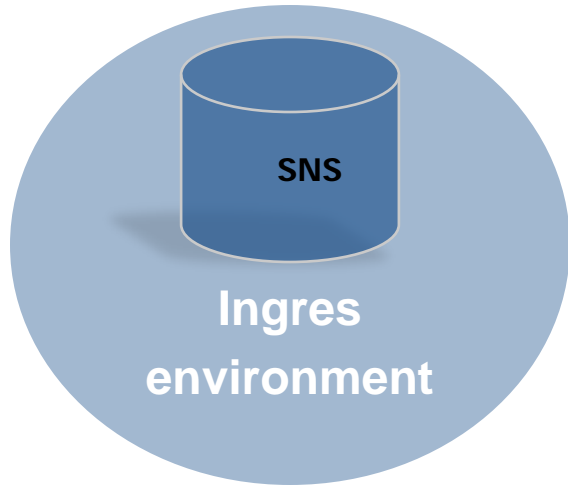


- Coordinations and Notifications in the Master Register
- in Technical Examination
- for Advance Publication
- for Resolution 49

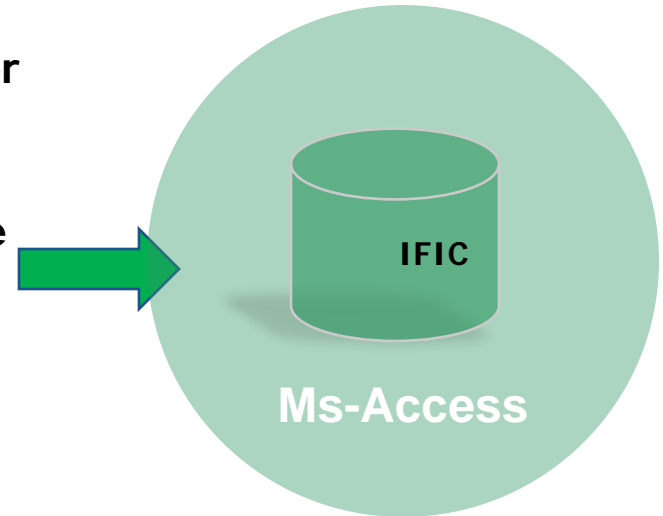


# IFICnnnn.mdb on the BR IFIC DVD

- **Published every 2 weeks**



- **Part IS** – new frequencies or modifications, cancellations of assignments in the Master Register received by the BR
- **Part IIS** – Updates to the Master Register with Findings
- **Part IIIS** – Notifications returned to ADM with unfavourable findings
- **Special Sections** – Notifications published API/A, CR/C, API/B, CR/D, CR/E, CR/F

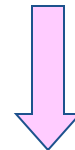
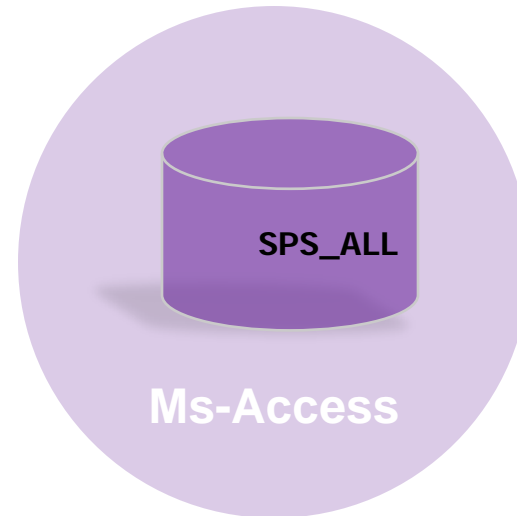




# SPS\_ALL.mdb on the BR IFIC DVD

## Published on the IFIC

- **Appendices 30/30A**
  - Region 1 and 3 Plan, List and Pending Article 4 networks
  - Article 2a of Appendices 30 and 30A
- **RARC SAT-R2 Region 2 Plan**
- **Article 5 of Appendices 30 and 30A**
- **Resolution 49**



- Download from <http://www.itu.int/ITU-R/space/plans>

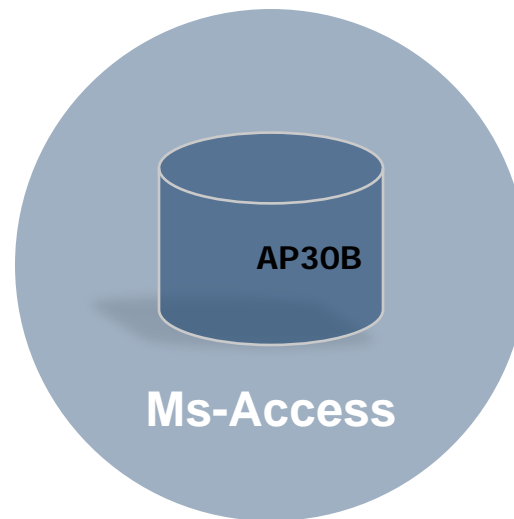


## Appendix 30B Database on the BR IFIC DVD

- Published on the **IFIC**

- **Appendix 30B**

- Plan, List and Pending Article 6 networks
- Article 8 of Appendix 30B



- Download from <http://web/ITU-R/space/plans>





## Graphical Data – GIMS Format

- Gims diagrams
  - Appendix 4 – GSO and Non Gso Satellites
  - Contains Graphical data for both Non-plan and Plan
- Complete database included in every BR IFIC
- Where to find information on the Gims Database Format?
  - Section III Chapter 2 of the Space Preface (format for electronic submission of graphical data)
- Circular Letter 337



**Submission of graphical data in GIMS database.**

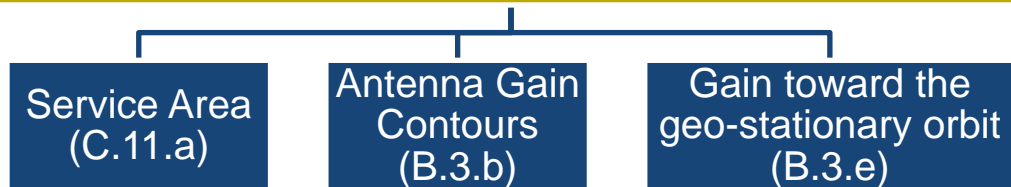
**GXT file no longer accepted in 2013!**



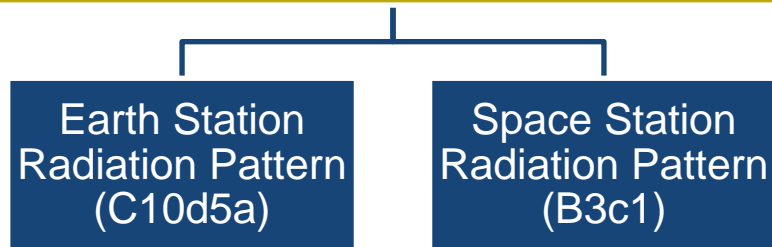
# Gims Database

## Content of the GIMS database

### Graphical Data for geo-stationary Satellites



### Graphical Data for non\_geo-stationary Satellites

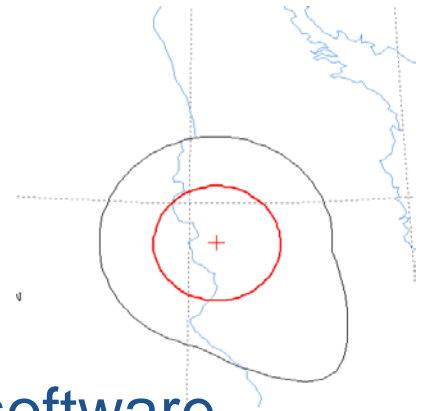




# ESCC DB

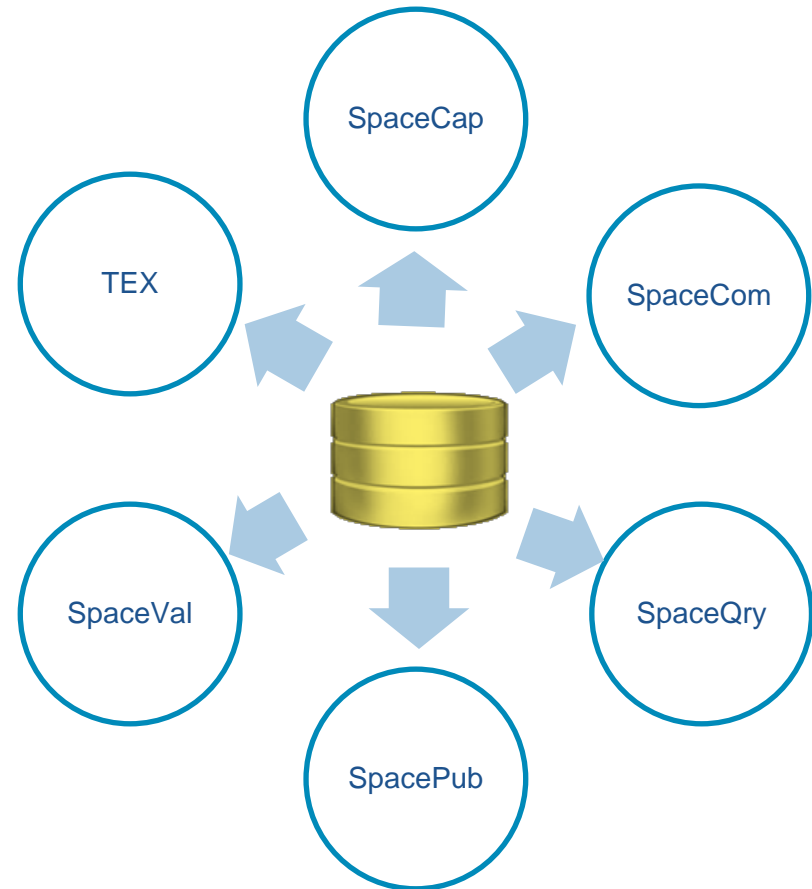
## Earth Stations Coordination Contours

- ESCC\_ALL.MDB
  - Master repository for Earth Station Coordination Contours
  - Used in-house
  - By Technical Examination software
  - Available via SNS-on-Line
- ESCC format compliant databases
  - Generated by means of the Appendix 7 software



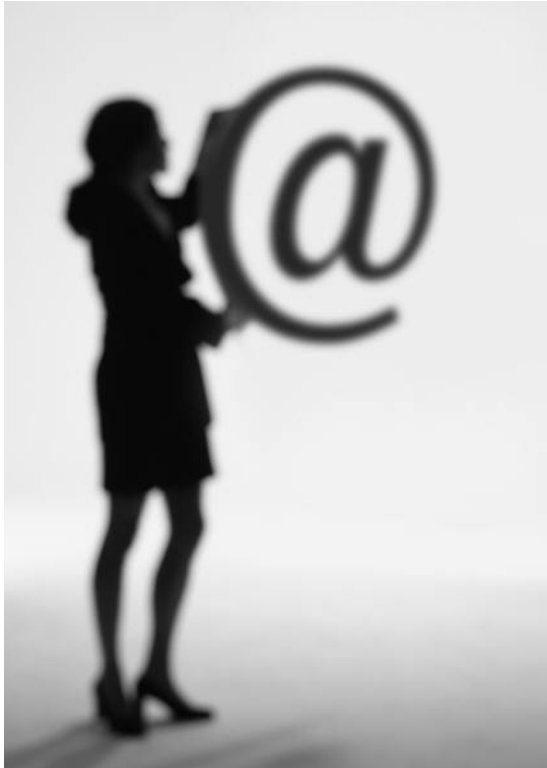
# SpaceReference Database

- Updated Regularly
- Common point to all BR Space Software
- Ensures all BR Soft use the same reference data
- Distributed with each BR IFIC or downloadable from the ITU Web Site





# Contact information



Thanks for your kind attention!

Contact BR IAP SAS for more information

Email us at [BRSAS@itu.int](mailto:BRSAS@itu.int)