



# ITU - ATU REGIONAL RADIOCOMMUNICATION SEMINAR FOR AFRICA

**DAKAR, SENEGAL  
27-31 MARCH 2017**

[www.itu.int/go/ITU-R/seminars](http://www.itu.int/go/ITU-R/seminars)



Organised by:



## BR Space Databases



**Akim FALOU DINE**

Akim.Falou-Dine@itu.int

International Telecommunication Union



# BR Space Databases



Akim Falou Dine

Akim.Falou-Dine@itu.int

International Telecommunication Union



**ITSO/ITU Workhop on Satellite Communications**

**AFRALTI, Nairobi, 17-21 July 2017**

# BR Space Databases



Why?

- Purpose of BR databases and Software

what are they?

- What is in BR Databases?

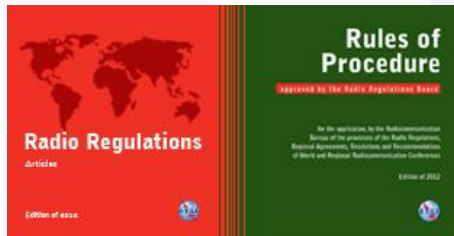
Format and Version

- SNS Format and Versioning

# Purpose of BR Databases and Software

## Radio Regulations

Incorporate the decisions of the World Radiocommunication Conference



## Rules of Procedure

Complement the RR by providing clarification of the application of particular Regulations

**BR Space  
Software  
And  
Databases**



Streamline the Implementation of the RR and Rules of Procedure

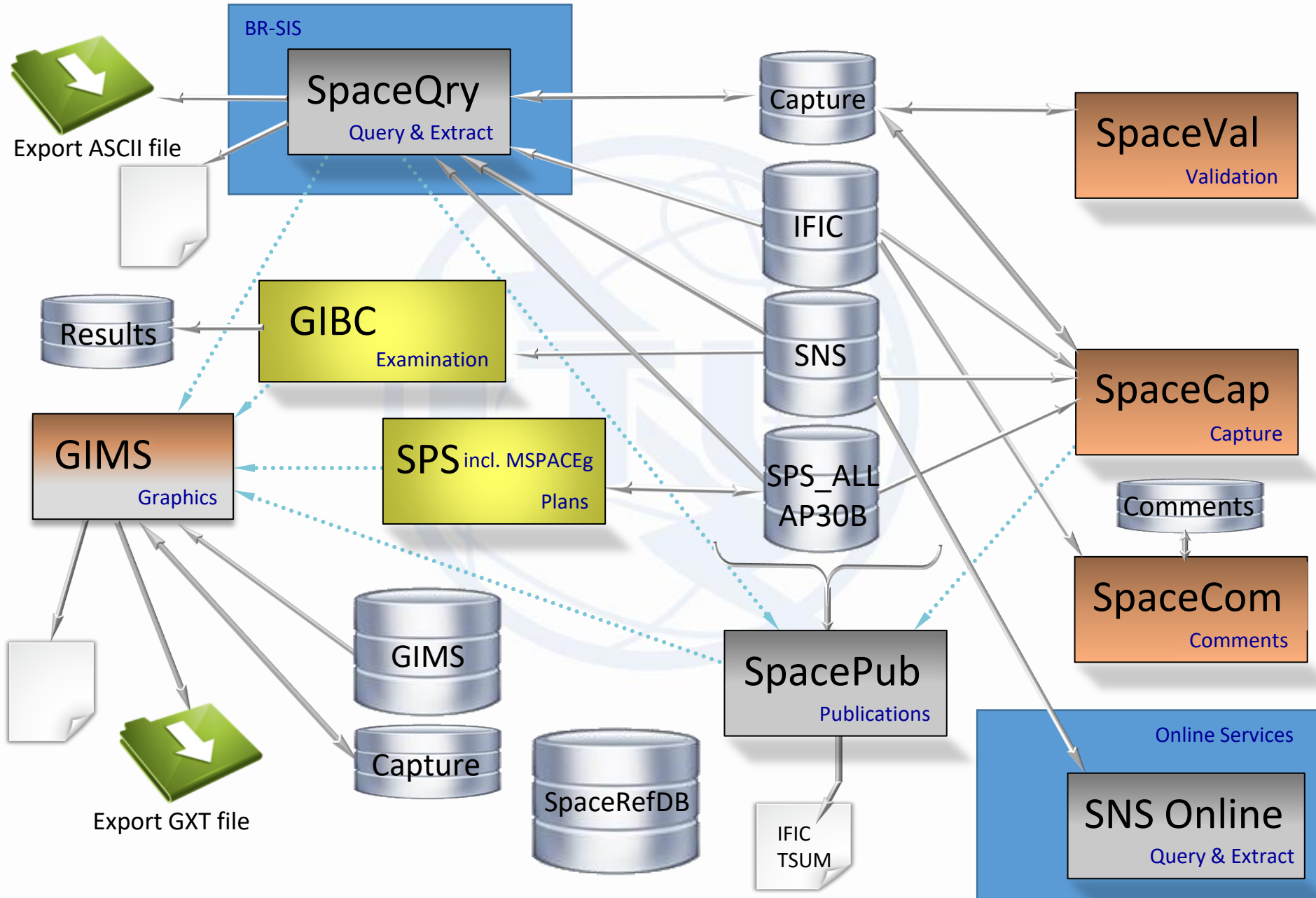


Help you prepare electronic filings according to the RR



Process the electronic filings sent to the BR

# Space Network System



# BR Space Databases



Why?

- Purpose of BR databases and Software

what are they?

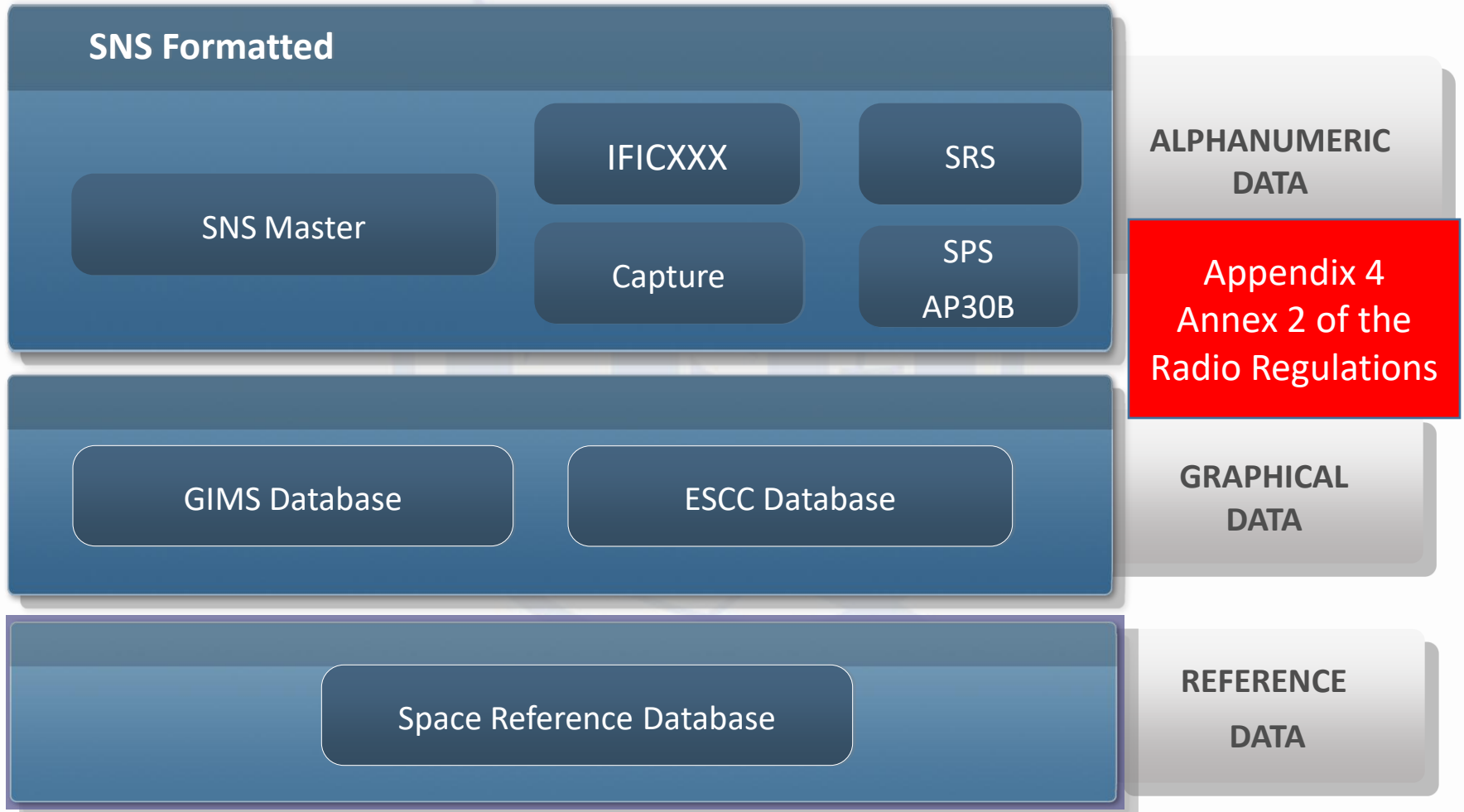
- What is in BR Databases?

Format and Version

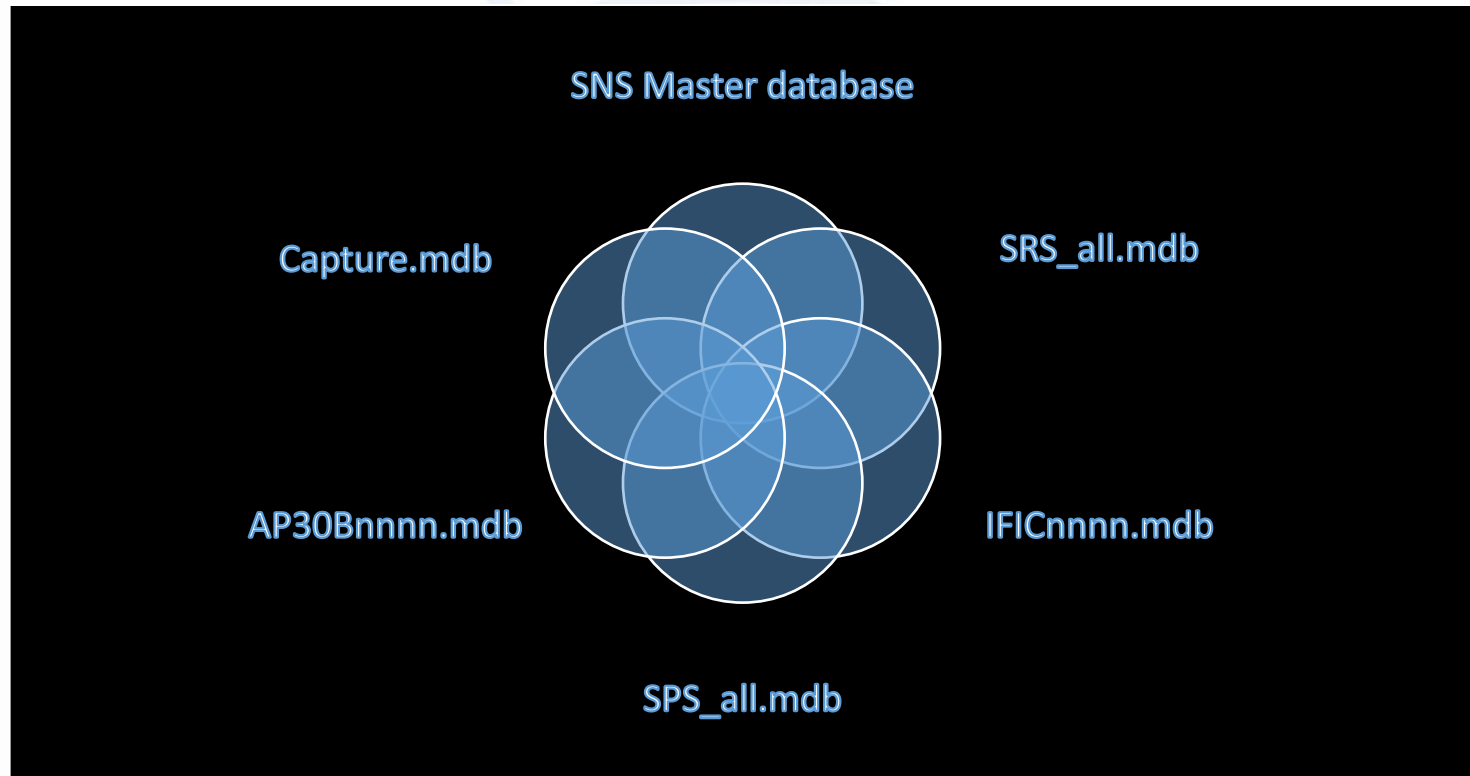
- SNS Format and Versioning



# BR Space Databases



# BR SNS Format databases





# SNS Databases


## SNS Master Database



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

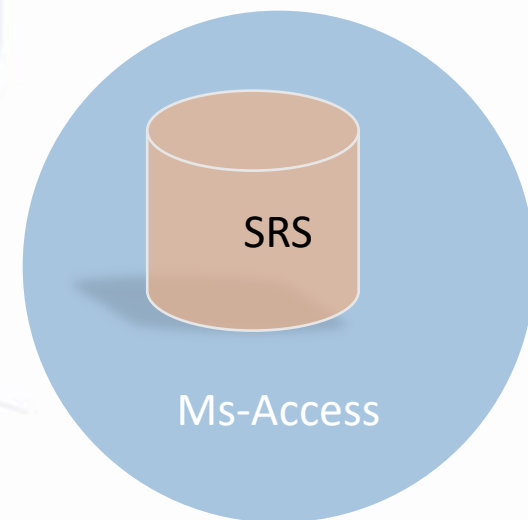
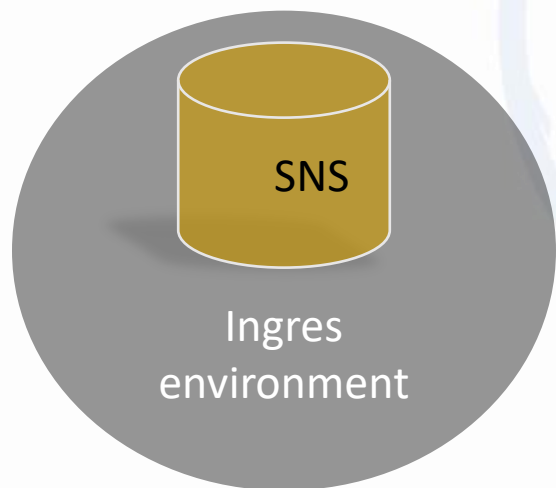
# SNS Databases



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

- Published every IFIC DVD
- Snapshot of the SNS Master Database

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



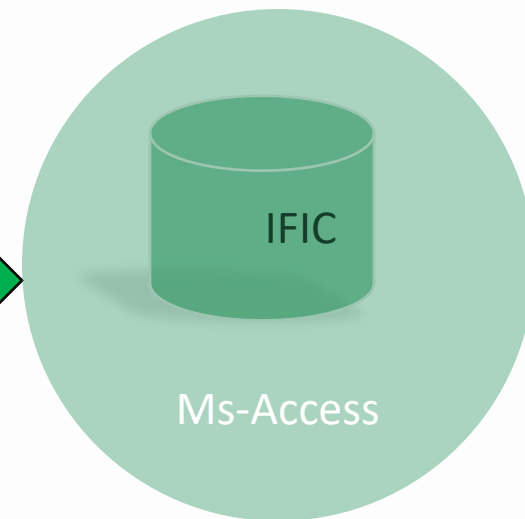
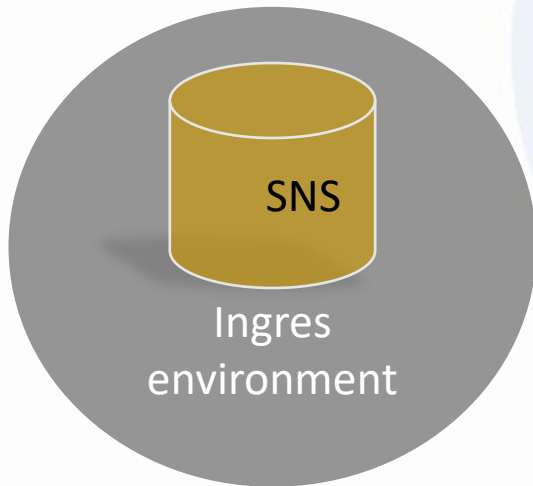
# SNS Databases

## 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, CR/D, CR/E, CR/F



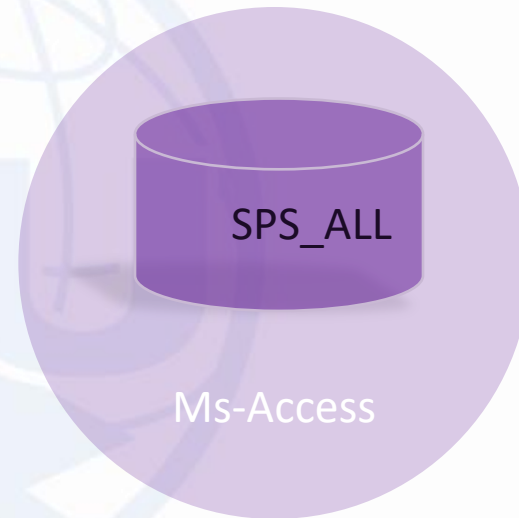
# SNS Databases

## 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/en/ITU-R/space/plans/Pages/default.aspx>

# SNS Databases

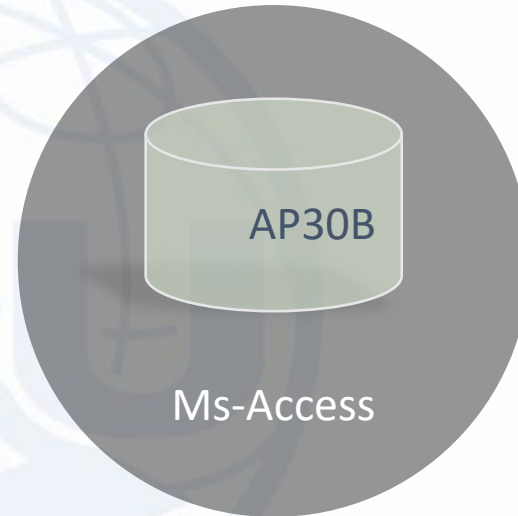
## Appendix 30B Database on the BR IFIC DVD



### Published on the IFIC

- **Appendix 30B**

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

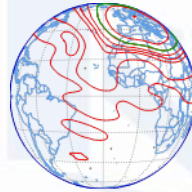


- Download from <http://www.itu.int/en/ITU-R/space/plans/Pages/default.aspx>

# Graphical Data

## ➤ GIMS diagrams

- Appendix 4 – GSO and Non GSO Satellites
- Contains Graphical data for both Non-plan and Plan



## ➤ ESCC Diagrams

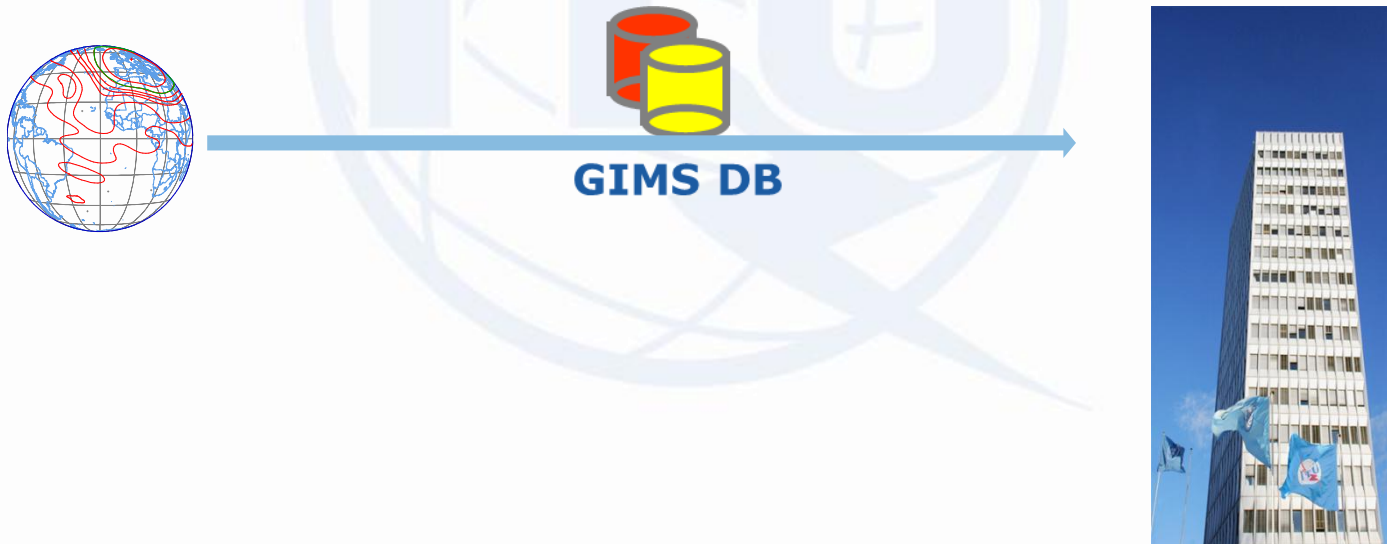
- Earth Stations Coordination Contours

# Graphical Data

## GIMS Format



- **Where to find information on the GXT file format?**
  - Section III Chapter 2 of the Space Preface
  - **Circular Letter 337**



# Graphical Data

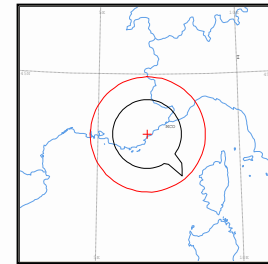
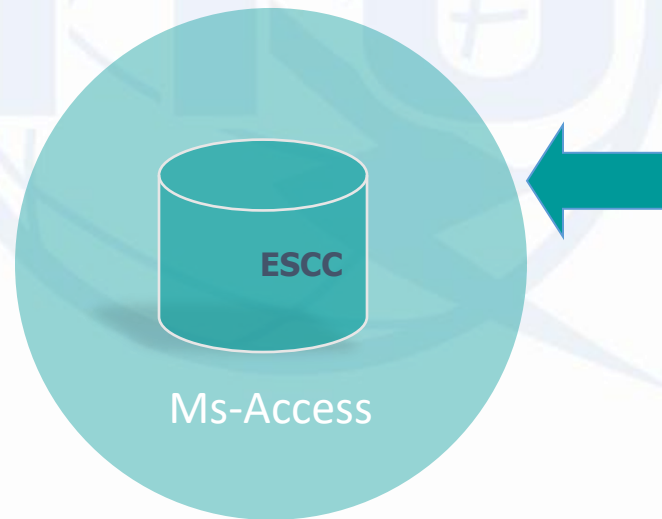
## ESCC Database



### Master repository for Earth Station Coordination Contours

#### Graphical Data for Earth Stations

- used in-house
- used by Technical Examination software
- Available via SNS Online

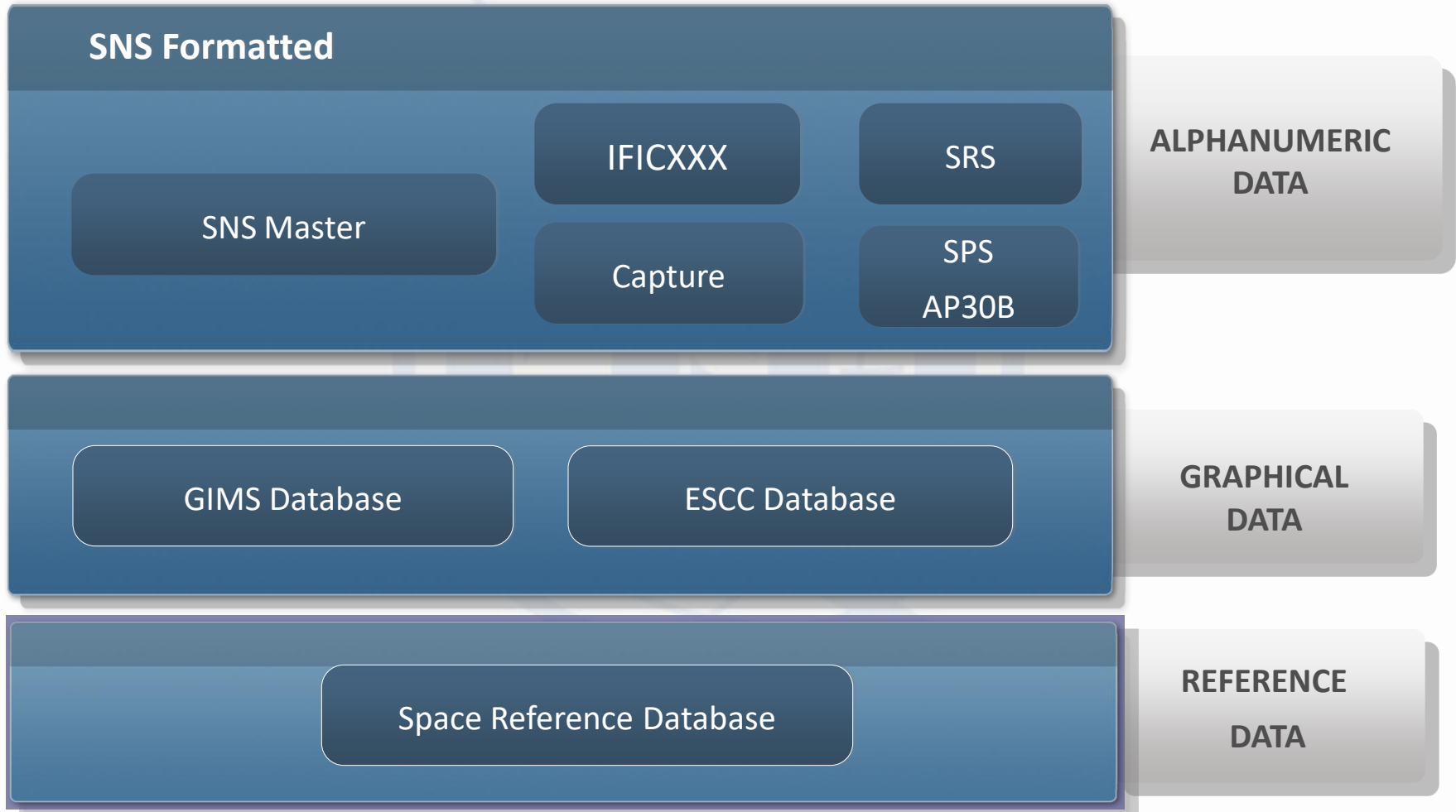


Generated by the  
Appendix 7 software





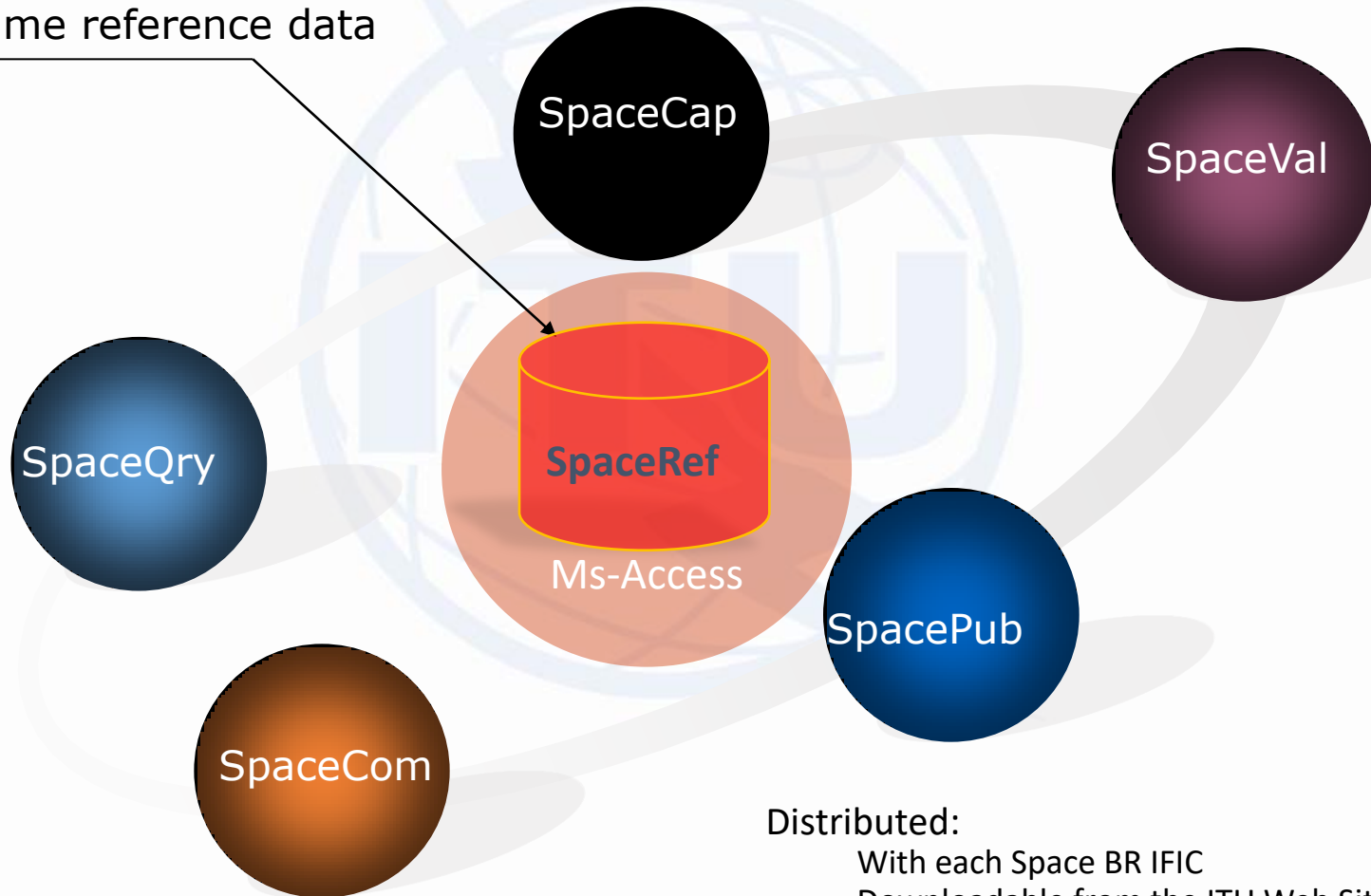
# BR Space Databases



# Space Reference Database



Ensures all BR Soft use  
The same reference data



Distributed:

With each Space BR IFIC

Downloadable from the ITU Web Site

# BR Space Databases



Why?

- Purpose of BR databases and Software

what are they?

- What is in BR Databases?

Format and Version

- SNS Format and Versioning

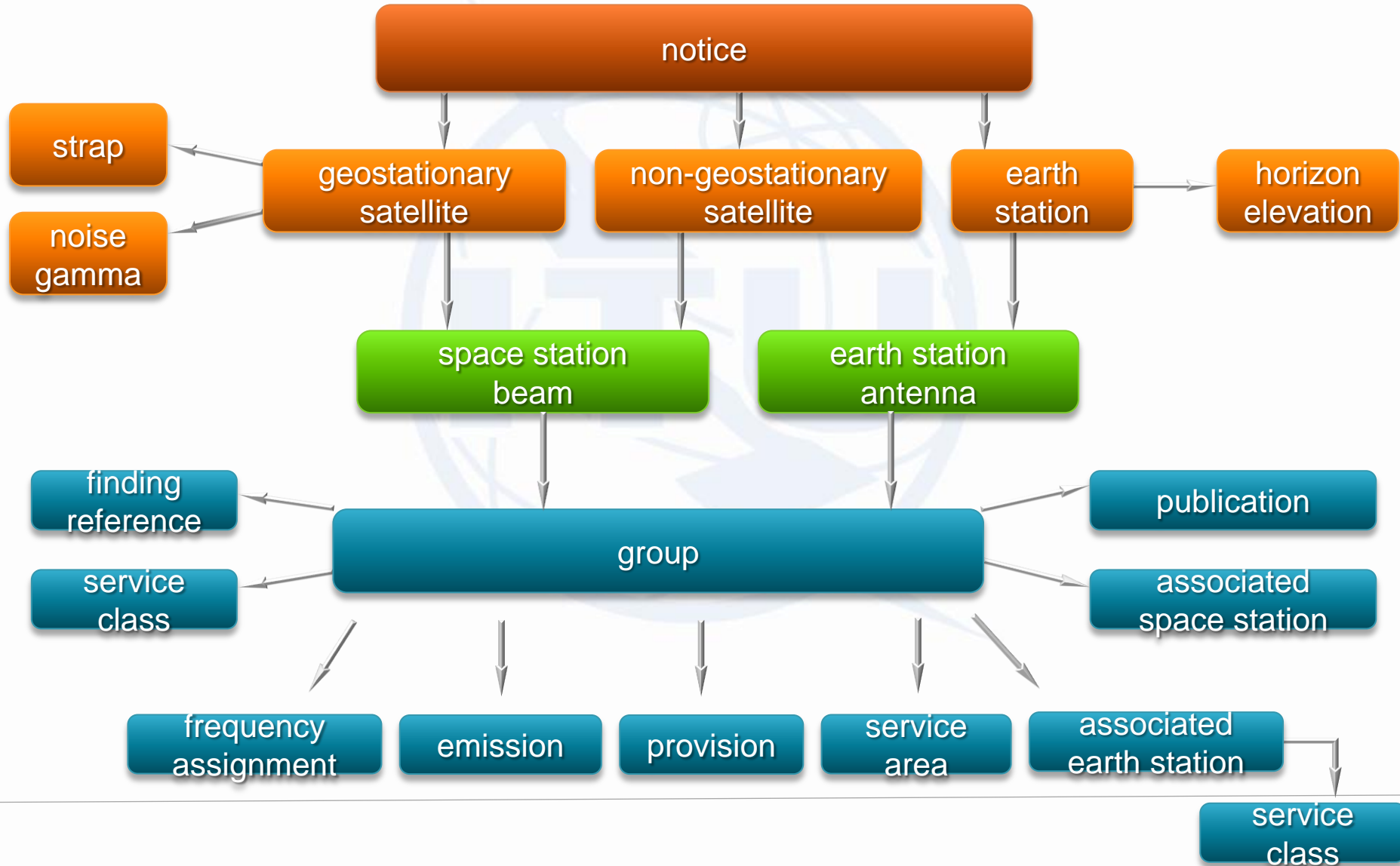
# SNS Format version 8



- Each World Radio Communication Conference introduces new resolutions and changes to the Radio Regulations
  - **Decisions taken at WRC 2012 : v 7** (e.g. New tables to support the new due diligence procedure for 21-22.4 GHz (RES552), DGSO as new AP4 data)
  - **Decisions taken at WRC 2015 : v 8** (e.g. A16c as new AP4 data for a commitment to meet separation distance of No. 5.509E and PFD limits of 5.509D)
  - **Data structure improvements for internal processing**
- Where to find information on the V7 and V8 SNS Format?
  - Section III of the Space Preface  
Description of the SNS V7 and V8 format  
[http://www.itu.int/en/ITU-R/space/Preface/preface\\_e.pdf](http://www.itu.int/en/ITU-R/space/Preface/preface_e.pdf)



# SNS data structure



# SNS data structure – Tree View

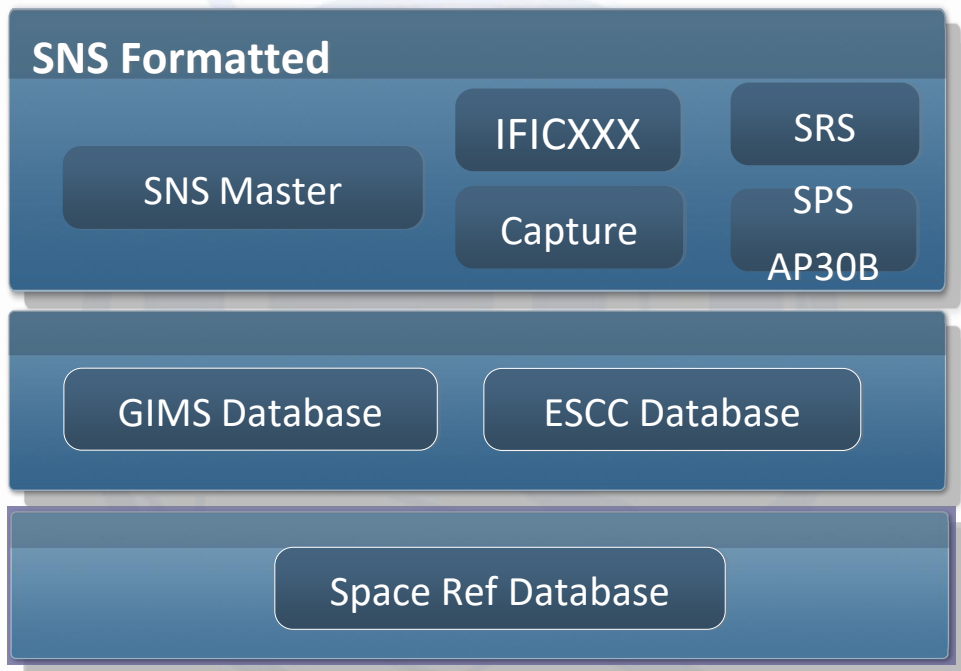


Notice id.	Type	Adm./Org.	Orb. Pos.	Station name	Date rcv.	Status
112520119[A]	G	I /	38W	NEWSAT-1F-38W	24.02.2012	50
List of notices						
Count=1						
Beam id: BSR						
Beam id: BWR						
Beam id: GS						
Group id: 112651322			(p83)			
Group id: 112651323			(p84)			
Beam id: GSF						
Group id: 112651324			(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						

# Regulations – Databases - Software



Appendix 4  
Annex 2 of  
the Radio  
Regulations



Databases



Regulations

Software