

# Space Plans and Lists

Presented by Véronique GLAUDE

ITU – BR Space Service Department

# The fundamental ITU Constitution

## ● Article 44

- Radio frequencies and any associated orbits are *limited natural resources*
- Must be used *rationally, efficiently* and *economically* in conformity with the Radio Regulations
- To have *equitable access* to those resources

## ● Article 45

- *Not to cause harmful interference*

# The mechanism to control interference

## The Radio Regulations (RR)

- Allocation
- Coordination / Plan
- Technical and operational limit



- 
- 



# 2 approaches of regulations

## Coordination Approach

- ❑ First come, first served based on current requirement
- ❑ *Efficient/  
economical*

## Planning Approach

- ❑ Distribution of resources based on current and future requirement
- ❑ *Equitable access*

# Planning Approach:

## Space PLANS

for specific space services and frequency bands

Broadcasting Satellite  
Service and feeder-link Plans

11.7-12.2GHz (Region 3),  
11.7-12.5GHz (Region 1),  
12.2-12.7GHz (Region 2),  
17.3-18.1GHz (Region 1&3),  
17.3-17.8GHz (Region 2),

Fixed Satellite  
Service Plans

4.5-4.8GHz,  
6.725-7.025GHz,  
10.7-10.95GHz  
11.2-11.45GHz,  
12.75-13.25GHz



RR book 2 Appendices 30/30A



RR book 2 Appendix 30B



# Space Plans - HISTORY

Several World Radio Conferences were held for Space P

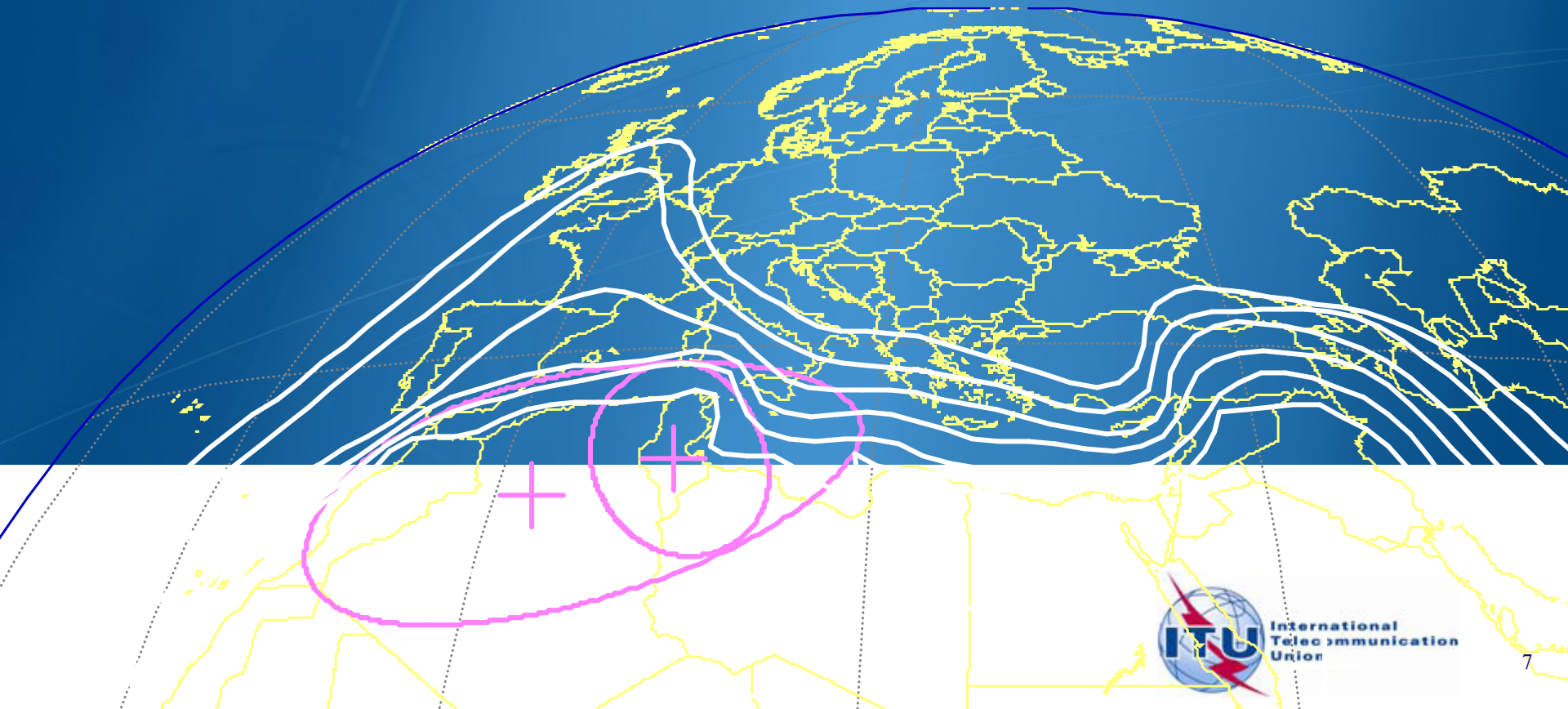
- WARC-77 established Region 1&3 BSS Plan
- RARC-83 established Region 2 BSS and associated feederlink
- WARC ORB-85 included Region 2 BSS and associate feederlink Plan into the Radio Regulations
- WARC ORB-88 established FSS Plan and Region 1 &3 BSS feederlin
- WRC-97 revised Region 1&3 BSS and associated feederlink P
- WRC-2000 revised Region 1&3 BSS and associated feederlink F
- WRC-07 revised FSS Plan



# Space Plans features

To guarantee equitable access:

Beam to cover national territory



# Space Plans features

To guarantee equitable access:

Reservation of capacity for future use

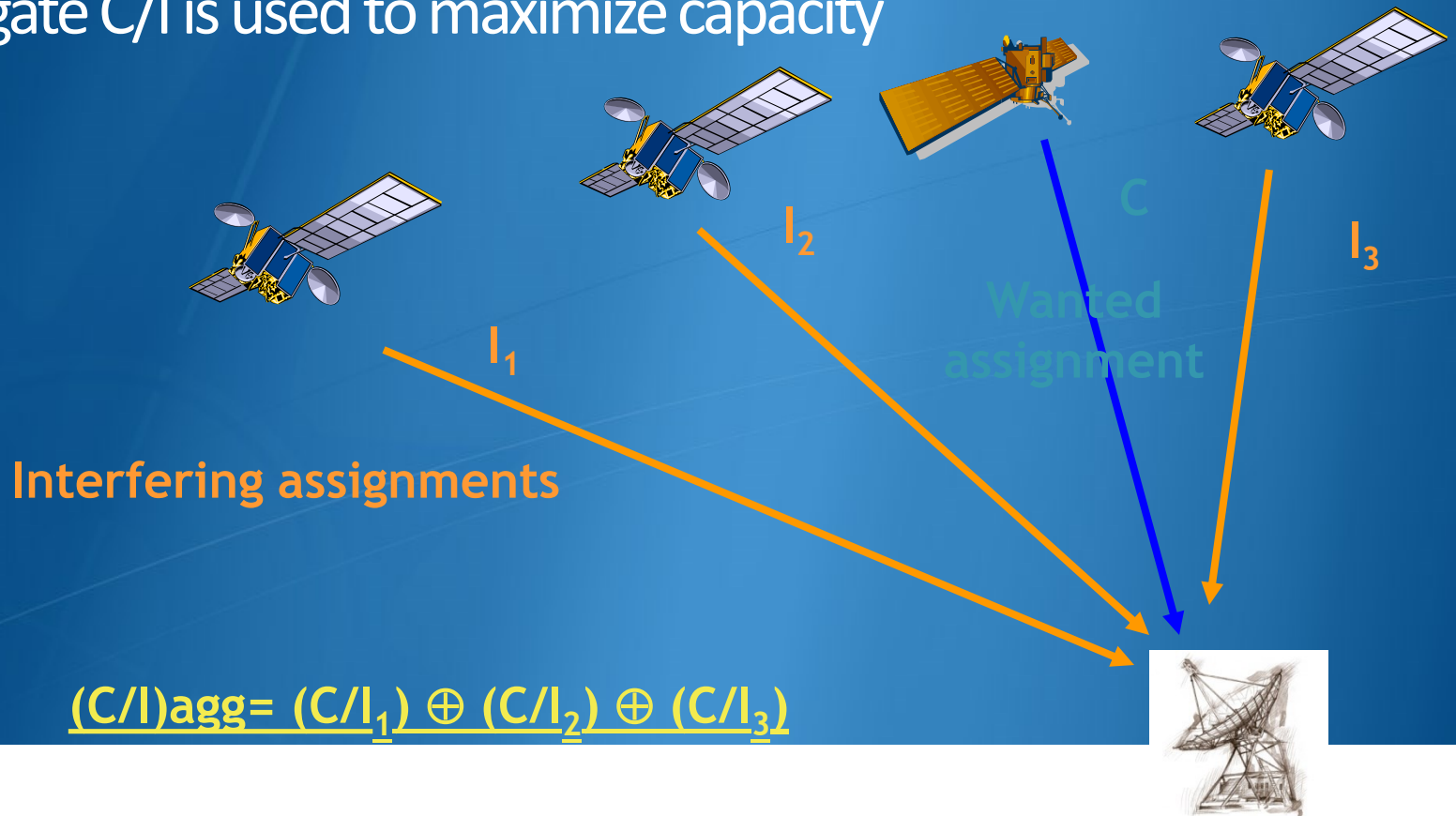
- In many cases Plan assignments are not in operation  
BUT will not be cancelled
- Standard parameters (assumption) are required



# Space Plans features

To use space resources rationally, efficiently and economically:

Aggregate C/I is used to maximize capacity



# Space Plans features

- Protection is given based on Plan characteristics  
(not characteristics in the Master Register)

# Space Plans

## Standard parameters

Main assumptions (with some exceptions)

- Same amount of frequency band for each beam
- National coverage
- Elliptical beam using defined space station antenna pattern
- Defined C/N
- Same values of system noise temperature
- Similar power level



# Some distinct features

## ● APPENDICES 30/30A

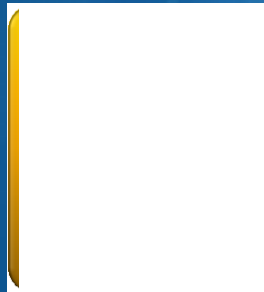
- Plans separated by Regions
- Shared with other space services in other Regions
- Coordination Arc, Lists for R1&3

## ● APPENDIX 30B

- World wide
- Allotment (conversion to assignment)
- Together with Single entry criteria
- Protection based on grid points in service areas for



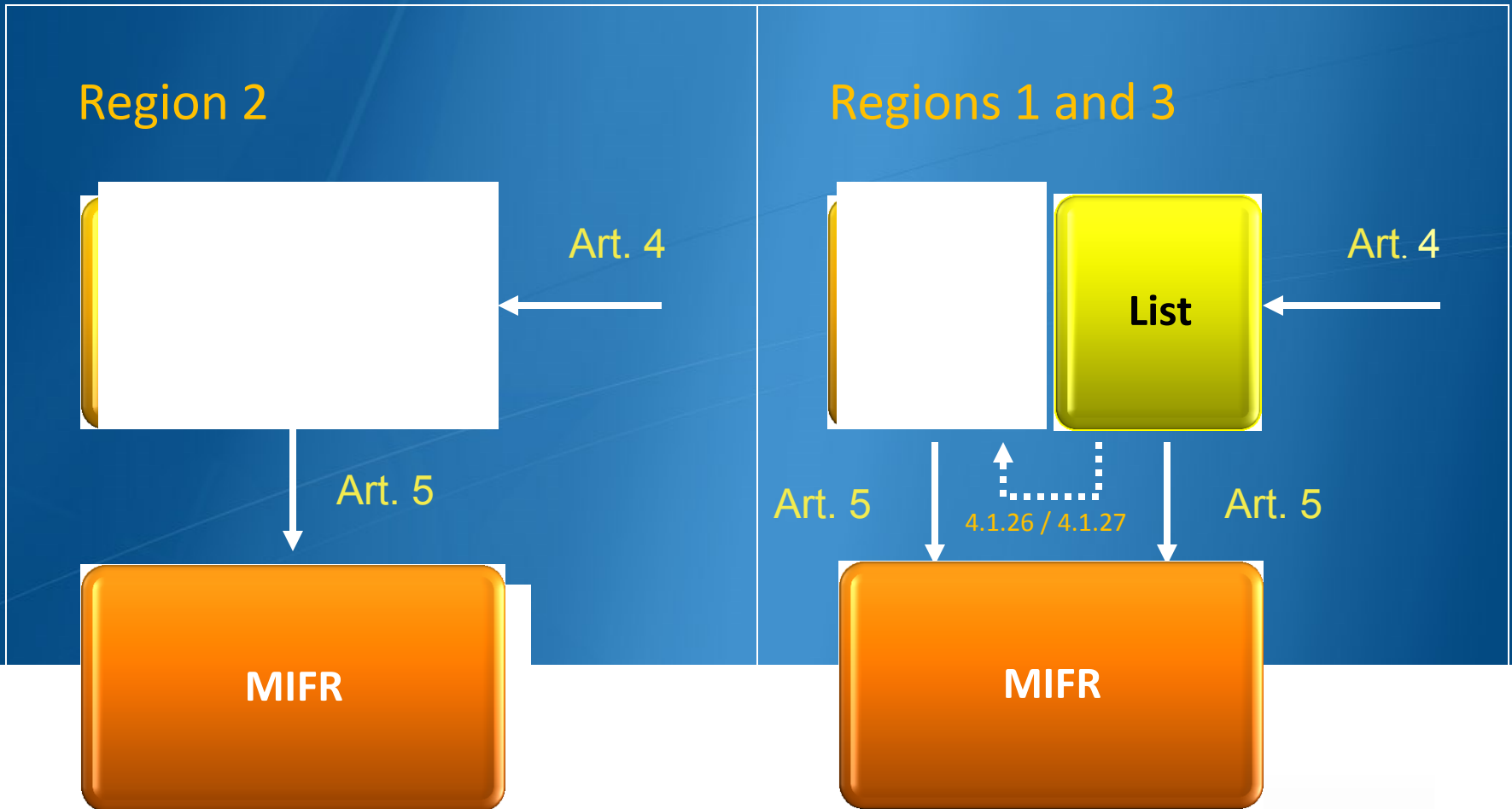
# Space Plans and operational systems



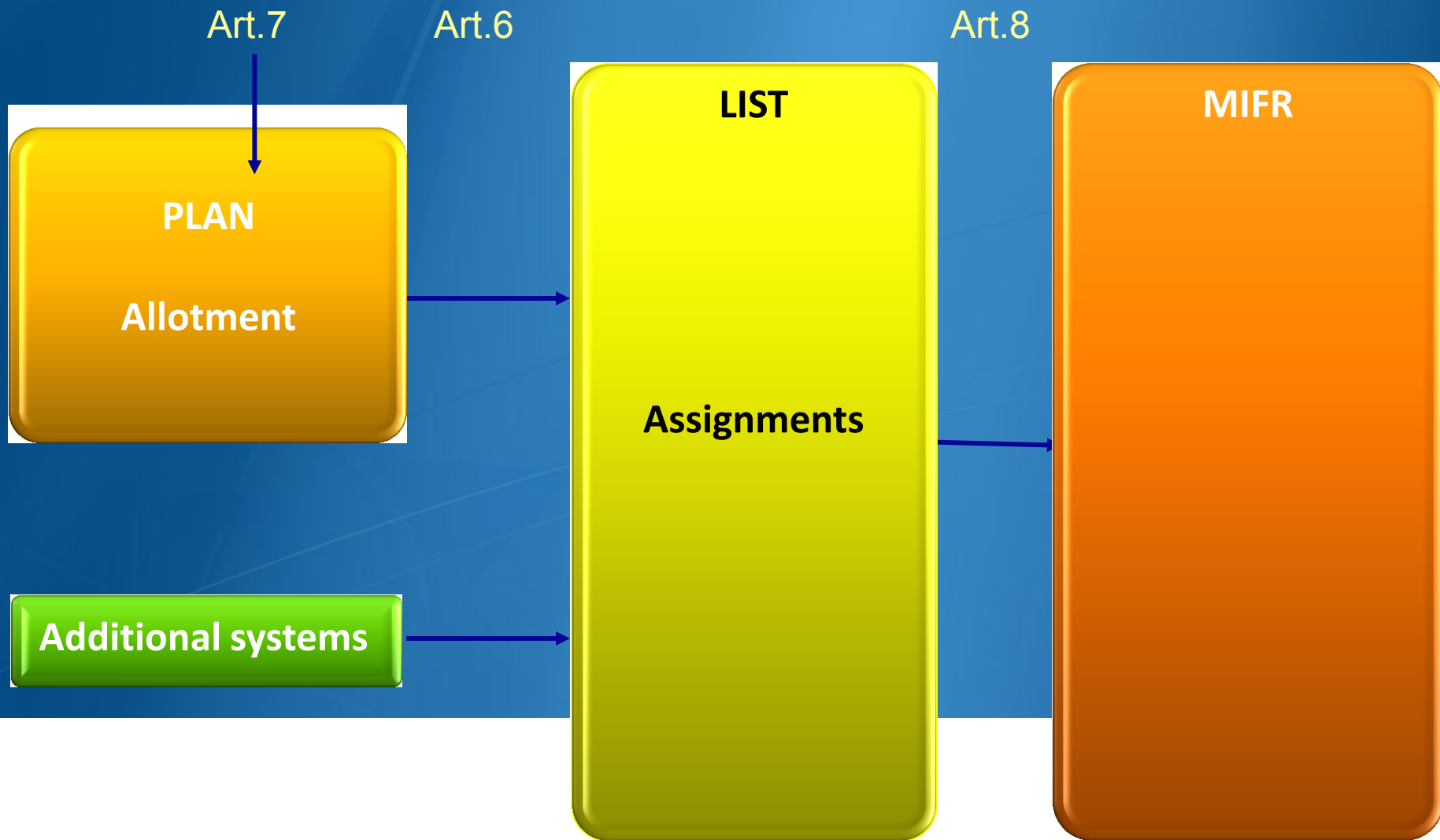
Articles of Appendices of the Radio Regulations

to change the status of allotments/assignments towards

# AP30/30A Procedure summary

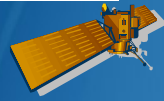
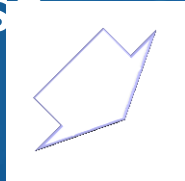


# AP30B Procedure summary



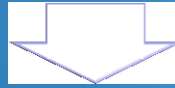
# Operational systems - Plan and Non Plan general procedure

Non Plan  
BSS/FSS GSO



APPENDICES 30/30A

BSS GSO



Proposed  
characteristics

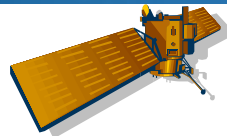


Coordination  
requirements  
identification

Comments to finalize the  
coordination requirements

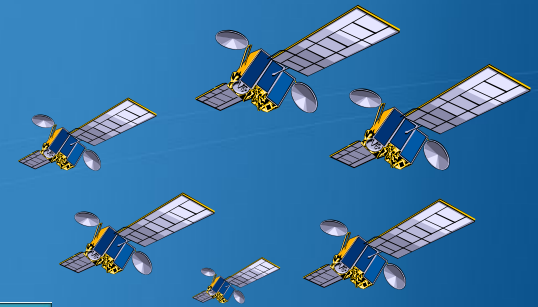
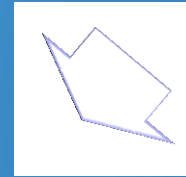


Final operational  
characteristics



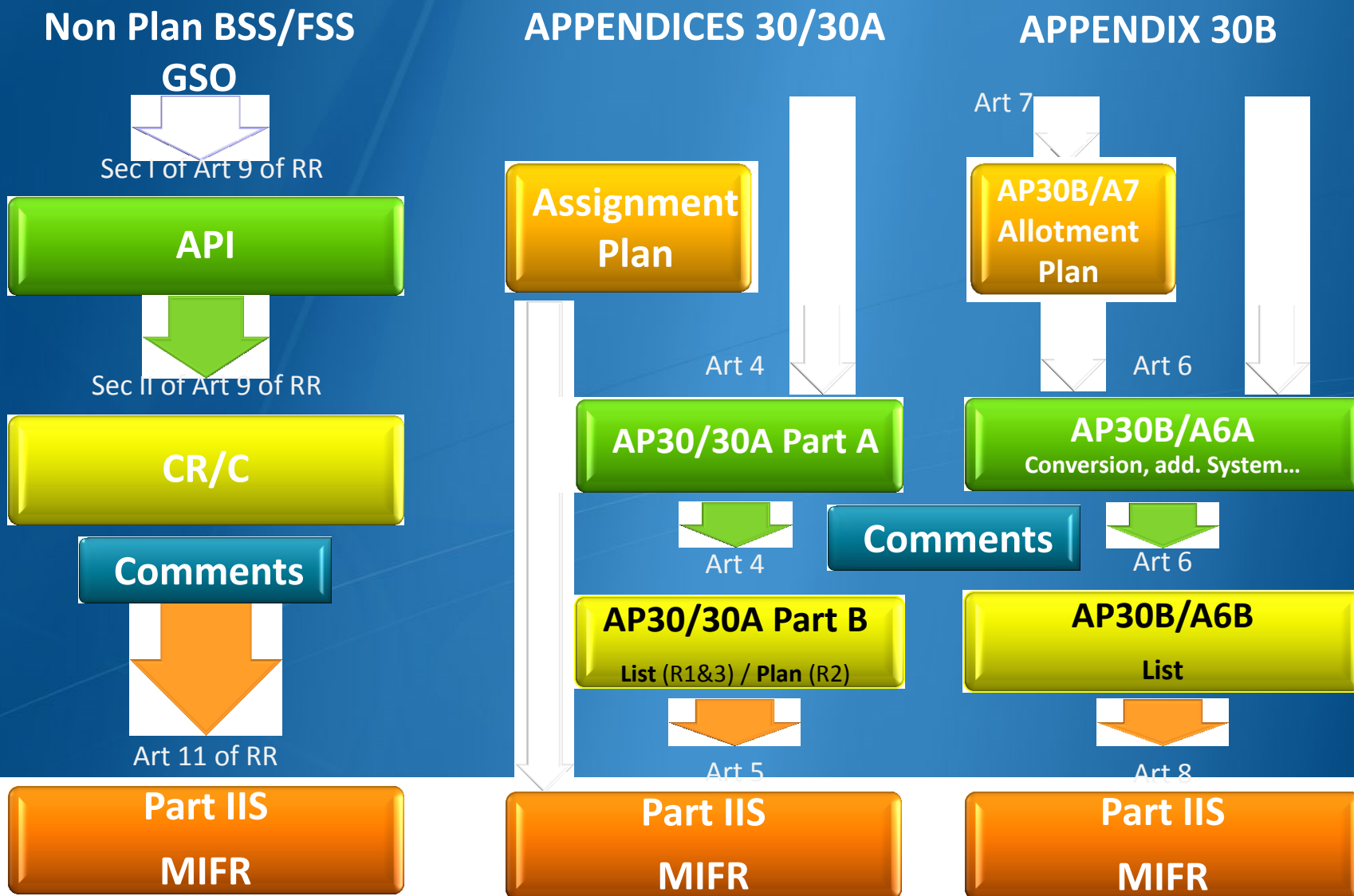
APPENDIX 30B

FSS GSO





# Plan and Non Plan procedures and publications in BR IFIC



# Plan and Non Plan procedures - Comparison

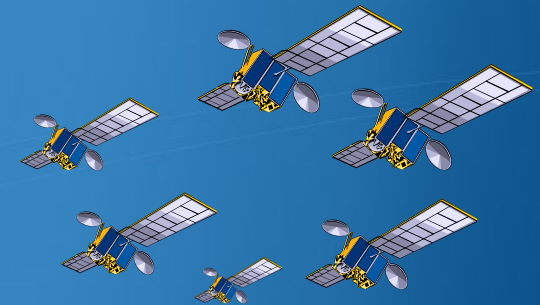
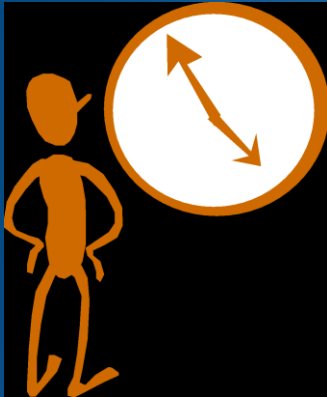
	Non Plan BSS/FSS GSO	APPENDICES 30/30A	APPENDIX 30B
<b>Regulatory Period</b>	7 years	8 years	8 years
<b>Res. 49</b>	All	Not all	All since WRC-07
<b>API</b>	Yes	NA	NA
<b>Inclusion in the List</b>	NA	AP30* Part B	AP30B/A6B
<b>Notification</b>	Yes	Yes but not for protection	Yes but not for protection
<b>To be compatible with</b>	Previously filed	Plan, List, previously filed	Allotment, List, previously filed
<b>Identification</b>	- Affecting and affected - Single entry criteria	- Affected only - Aggregate criteria	- Affected only - Single entry and aggregate criteria
<b>No comment within 4 m</b>	Assistance No.9.46	Agreement	Assistance §6.13

# Operational systems - Plan general procedure

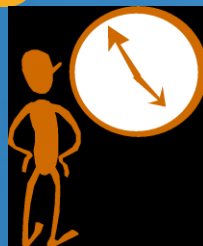
APPENDICES 30/30A APPENDIX 30B

BSS GSO

FSS GSO



# Tracking Regulatory deadlines



## APPENDICES 30/30A

- 4 months for comments
- 8 years for bringing into use, inclusion in the Plan/List, Res.49
- not later than 3 months before DBIU for notification
- 3 years after suspension for R1&3 List assignments (Rev. WRC-12)
- 30 days for confirmation of DBIU
- for R1&3 List

## APPENDIX 30B

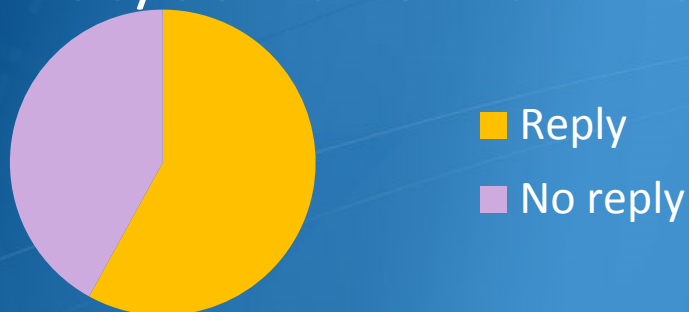
- 4 month for comments
- 30 days after §6.13 assistance
- 8 years for bringing into use, inclusion in the List, notification, Res.49
- 3 years after suspension (Rev. WRC-12)
- 30 days for confirmation of DBIU

# Importance of making comments

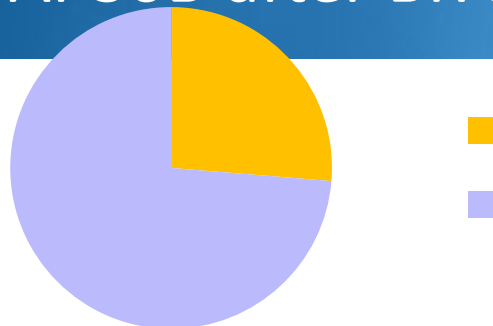


How many administrations are responding?

■ For AP30/30A after Part A Special Sections



■ For AP30B after BR assistance under §6.13



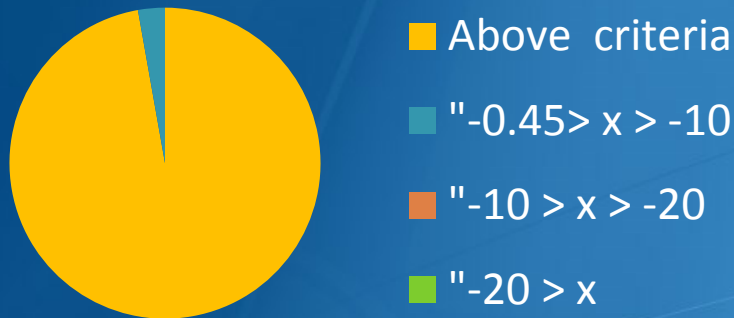
# Importance of making comments



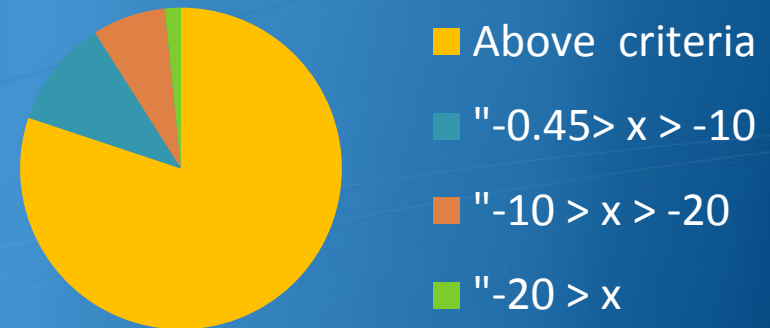
## Consequence of non-response

### Reference situation of AP30/30A Plans for R1&3

WRC-2000

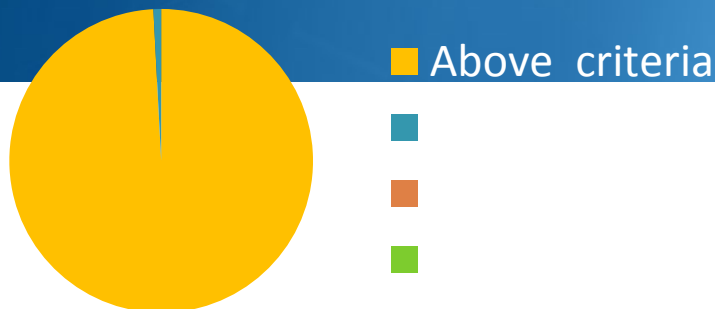


Now

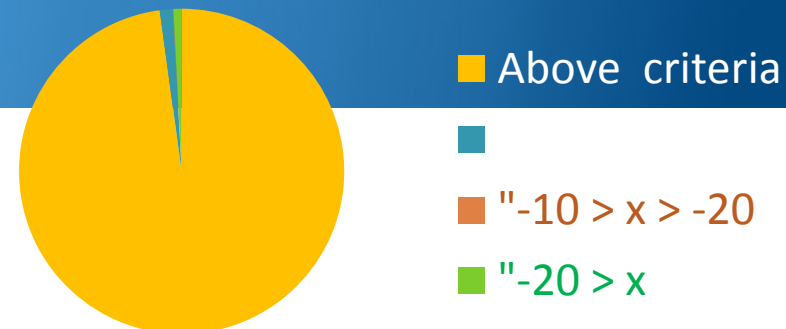


### Reference situation of AP30B Plans

WRC-07

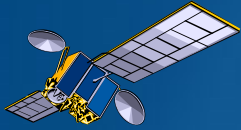


Now



# 5 key points

- Plans ensure equitable access and use of space frequency and orbital resources



- Plans and non-plan procedures have differences and similarities



- In the Radio Regulations, Appendices 30/30A, 30B contain the Plan/List/MIFR processes and definitions



- Processing deadlines should be carefully tracked



- It is important to comment when your Administration is identified as potentially affected by new

شكرا

Thank you!