

Fixed-Satellite Service Plan (Appendix 30B)

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BR/SSS/SNP

Appendix 30B - FSS Plan



Adopted by **WARC ORB-88** (World Administrative Radio Conference on the Use of the Geostationary-Satellite Orbit and the Planning of Space Services Utilizing It)

Modified by **WRC-07** (World Radio Conference) to improve its efficiency and reflect the development of technology

Objective:

to **guarantee** in practice, for all countries, **equitable access** to the geostationary-satellite orbit in the frequency bands of the fixed-satellite service covered by Appendix 30B

Elements of allotment:

- **Nominal orbital position**
- **Frequency:**
bandwidth of $800\text{MHz} \times 2$ (uplink and downlink)
- **Service area:**
national coverage
- **Technical characteristics:**
power levels, ellipse parameters, and other standard characteristics...
(described in Article 10 and Annex 1 of AP30B)

Frequency Bands



6 / 4 GHz (300 MHz)

6725 - 7025 MHz (up)

4500 - 4800 MHz (down)

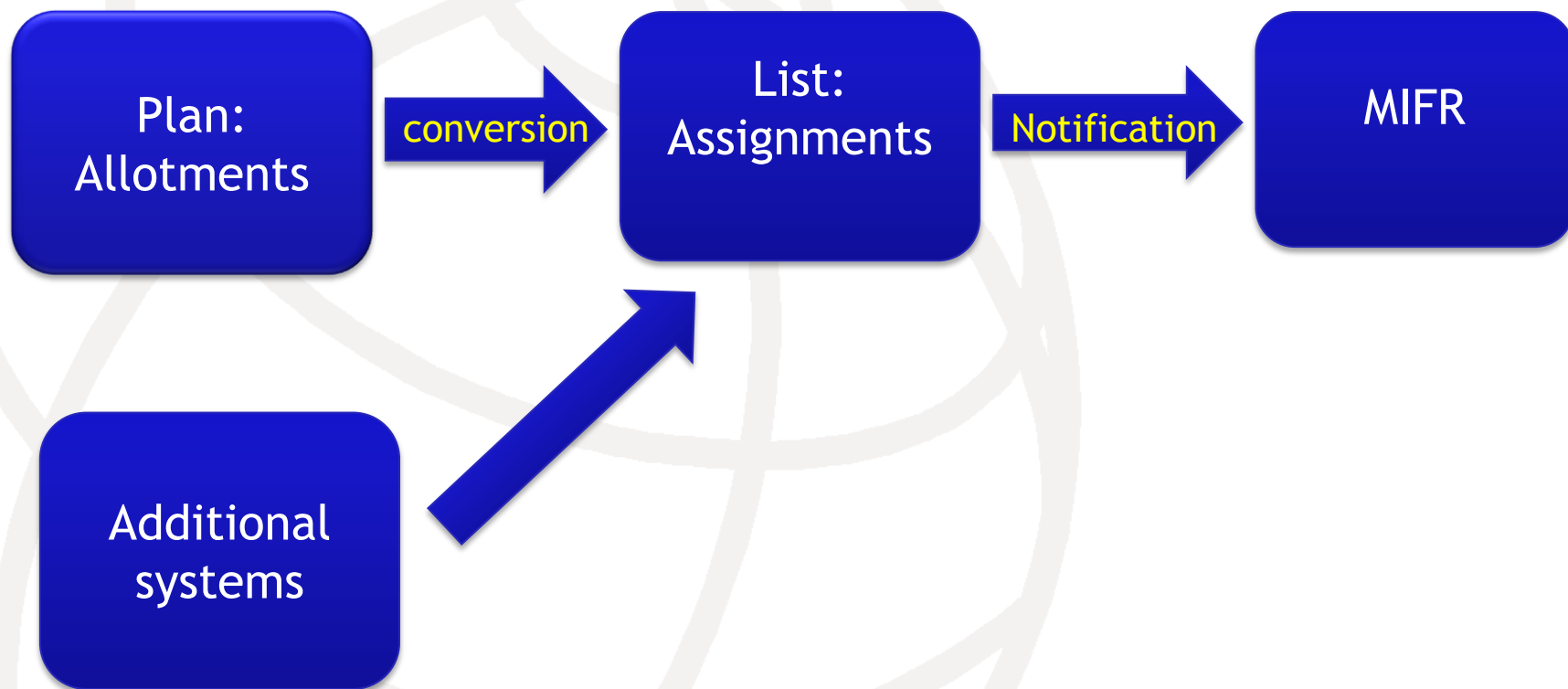
13 / 10-11 GHz (500 MHz)

12.75 - 13.25 GHz (up)

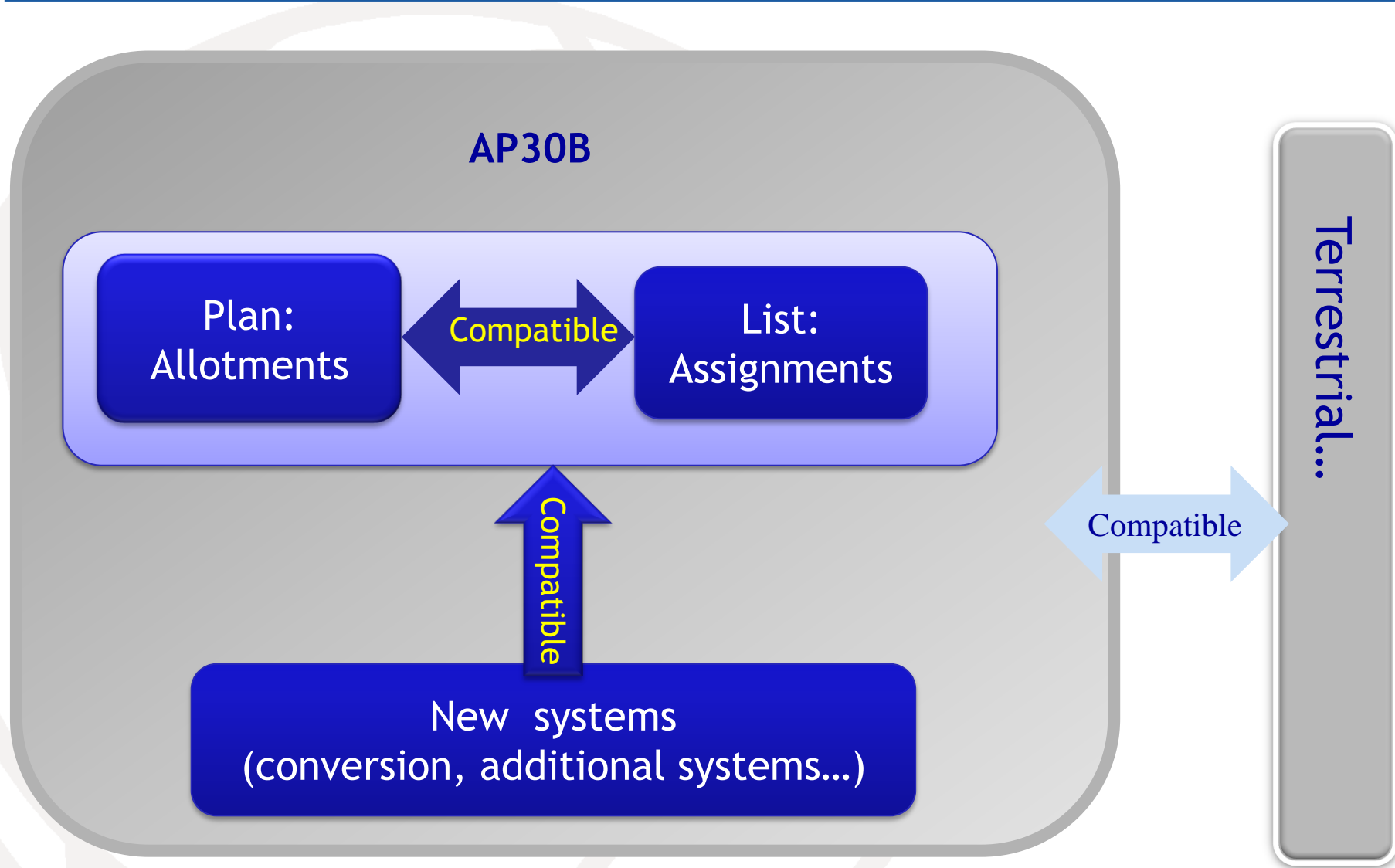
10.70 - 10.95 GHz (down)

11.20 - 11.45 GHz (down)

List of Assignments



COMPATIBILITY



Appendix 30B (I)



Article 1	Objective of the provisions and associated Plan
Article 2	Definitions
Article 3	Frequency bands
Article 4	Execution of the provisions and associated Plan
Article 5	(SUP - WRC-07)
Article 6	Procedures for the conversion of an allotment into an assignment, for the introduction of an additional system or for the modification of an assignment in the List
Article 7	Procedure for the addition of a new allotment to the Plan for a new Member State of the Union
Article 8	Procedure for notification and recording in the Master Register
Article 9	General provisions
Article 10	Plan
Article 11	Period of validity of the provisions and associated Plan

Appendix 30B (II)



Annex 1	Parameters used in characterizing the fixed-satellite service allotment Plan
Annex 2	(SUP - WRC-07)
Annex 3	Limits applicable to submissions received under Article 6 or Article 7
Annex 4	Criteria for determining whether an allotment or an assignment is considered to be affected

PFD limits for both uplink and downlink

Single entry (uplink & downlink) and aggregate C/I

Article 7 - New Allotment



A new Member State can obtain a national allotment in the Plan.

Required information:

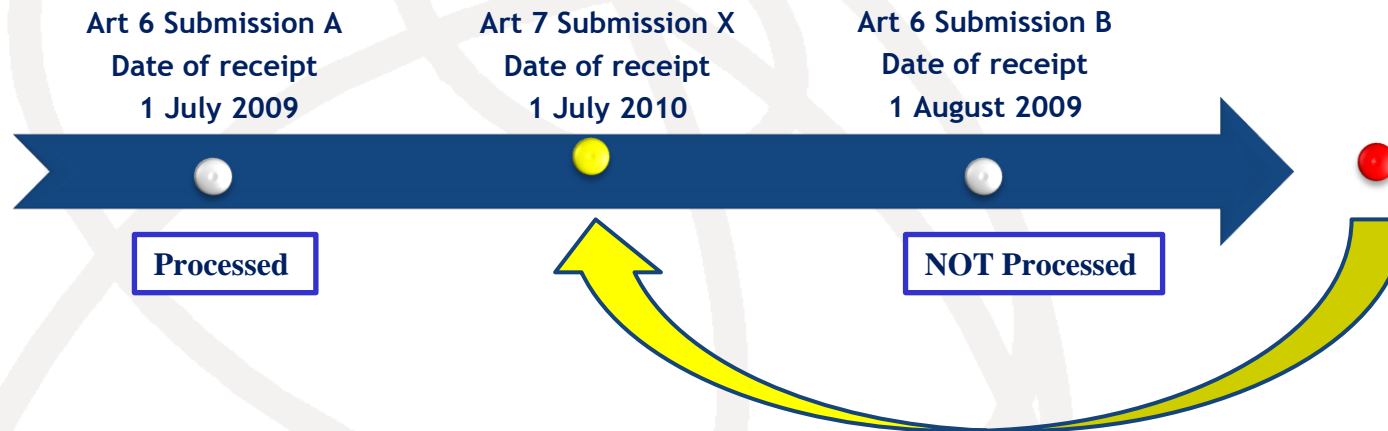
- Geographical coordinates of 20 test points (max.)
- Height above sea of each test point
- Any special requirement, other than a fixed orbital position

The Bureau identifies the proposed orbital locations with associated technical parameters

Article 7



Processing the request ahead of pending submissions for Article 6



In case of incompatibility the request will be placed ahead of pending submissions Article 6 and Article 6 procedure applies

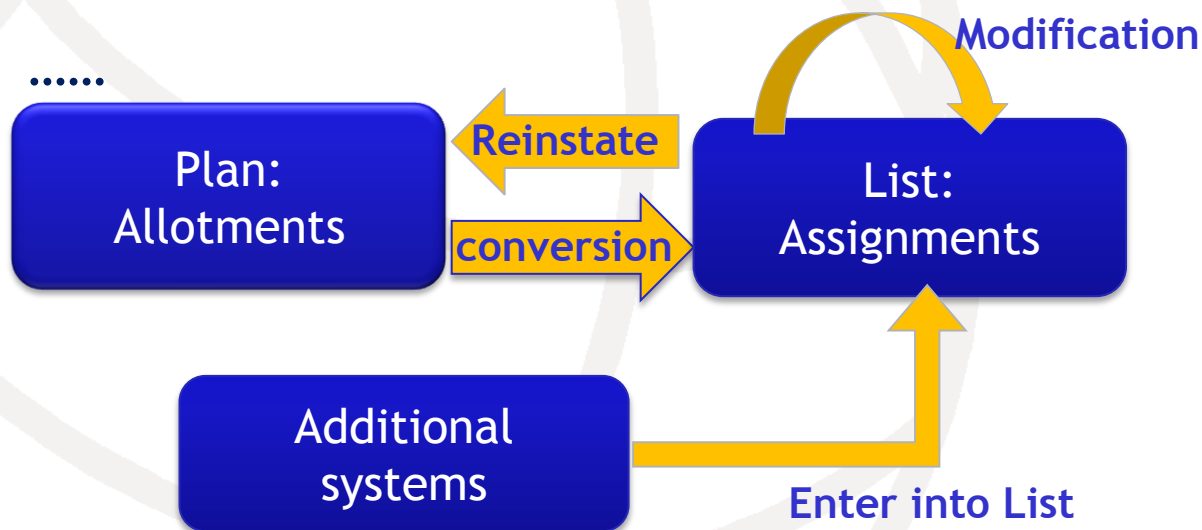
8 years Regulatory period from receipt of Article 6 submission

- to complete Article 6 procedure to be included in the List
- to bring assignments into use (confirmation through notification procedure)
- to submit due diligence information (Res.49)



Procedure applicable for :

- Conversion of an allotment into an assignment
- Introduction of an additional system
- Modification of an assignment which has already been brought into use
-



Processing of Article 6 Submissions (1)



Submission of validated AP4 data under §6.1 (not late than 8 years and not early than 2 years before planned date of bringing into use)

Fail

Validation Check



OK

Acknowledgement telefax

Publication of “as received” BR
IFIC & SNL Part C
<http://www.itu.int/itu-r/space/snl/>



Processing of Article 6 Submissions (2)



Completeness examination and telefax

Reply must be sent within 30 days (receivability RoP)

Regulatory/technical Examinations (§6.3, §6.5)



Unfavorable assignments return to notifying Administration

Publication of AP30B/A6A Special Section (satellite network characteristics and potentially affected administrations)



Processing of Article 6 Submissions (3)



Administrations should examine each BR IFIC to see if their assignments are affected and respond within 4 months



Affected administrations that do not comment within the 4 month period are deemed to have not agreed

Notifying administration can request assistance of the BR to receive replies from affected administrations

The BR sends reminders to the affected administration which has not replied

No response from Affected administrations to the BR's reminders is considered as agreement

Processing of Article 6 Submissions (4)



Submission of validated AP4 data under §6.17 (final characteristics) with required agreements

Validation Check



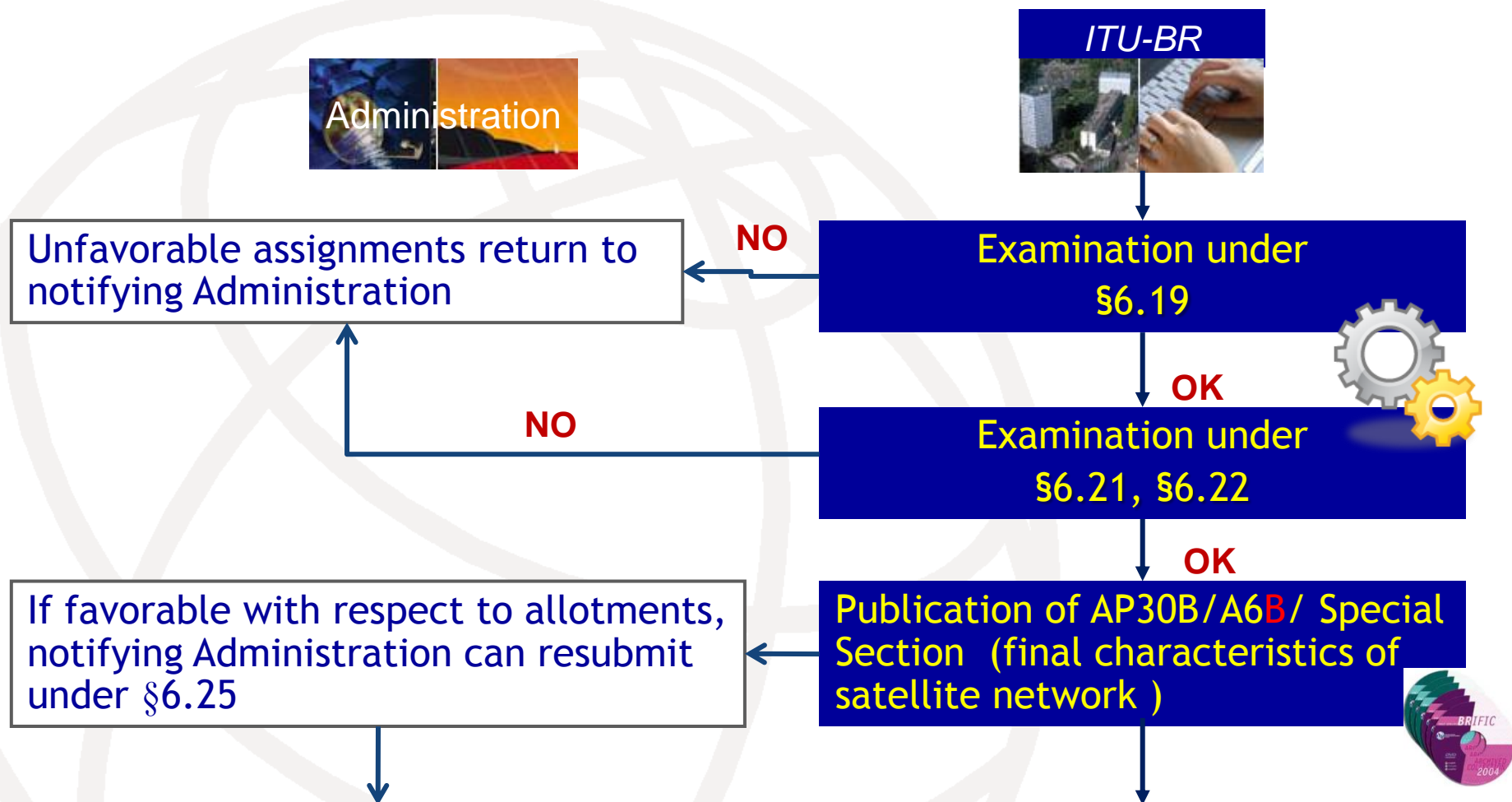
Fail

Completeness examination and telefax

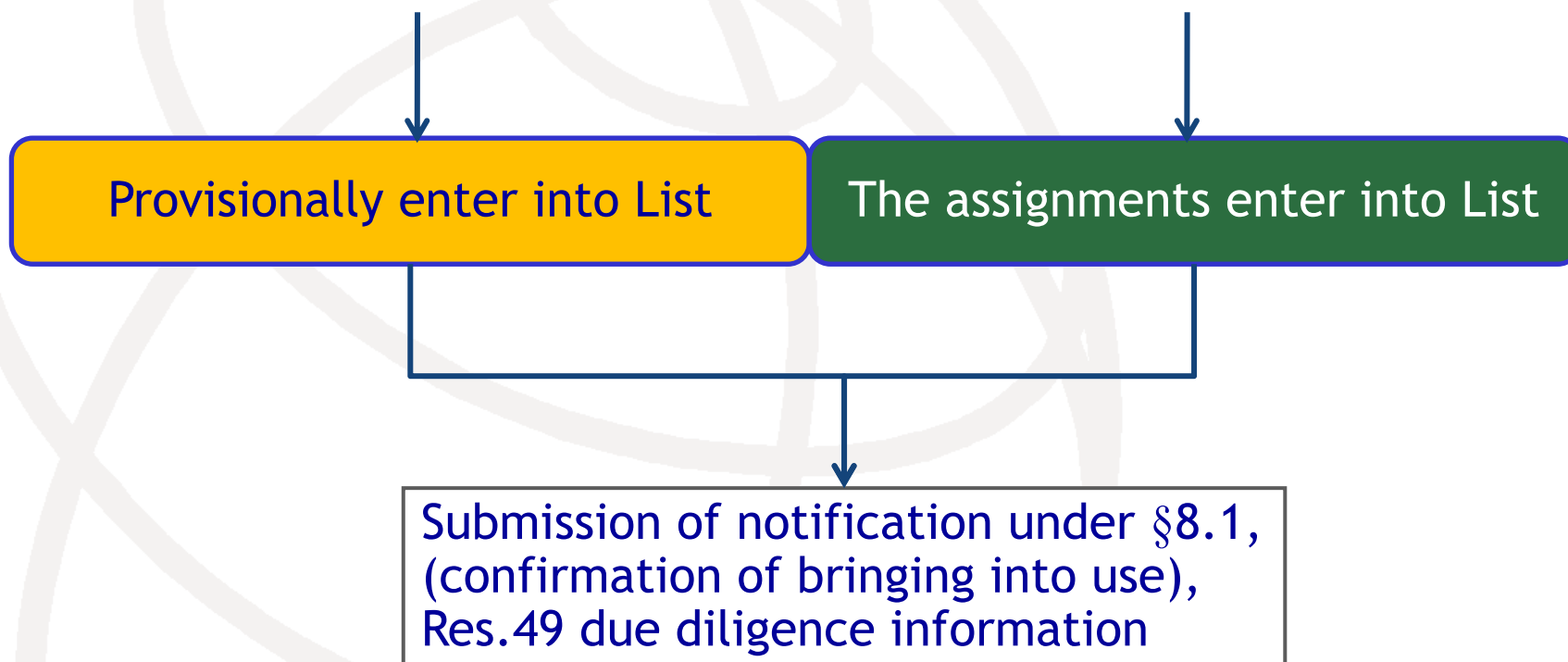
OK

Reply must be sent within 30 days (receivability RoP)

Processing of Article 6 Submissions (5)



Processing of Article 6 Submissions (6)



Article 8 - Notification of assignments



Any assignment for which Article 6 procedure has been successfully applied shall be notified in accordance with Article 8 of AP30B

- Final characteristics for List assignments to be recorded in MIFR (not taken into account in subsequent technical examinations under Article 6, Article 7 and Article 8)
- Confirmation of the date of bringing into use
- If not submitted, cancellation of Article 6 submission

Processing of Article 8 Submissions (1)



Submission of validated Appendix 4 data (characteristics (to be) brought into use(BIU)) not earlier than 3 years before BIU but not later than 8 years after submission under §6.1



Validation Check



Fail

OK
Acknowledgement telefax

Completeness examination



Reply must be sent within 30 days (receivability RoP)



Processing of Article 8 Submissions (2)



Publication of Part IS of BR IFIC that contains the characteristics (to be) brought into use

Regulatory/technical examinations



favorable

Publication of Part IIS
Record in MIFR
<http://www.itu.int/sns/>

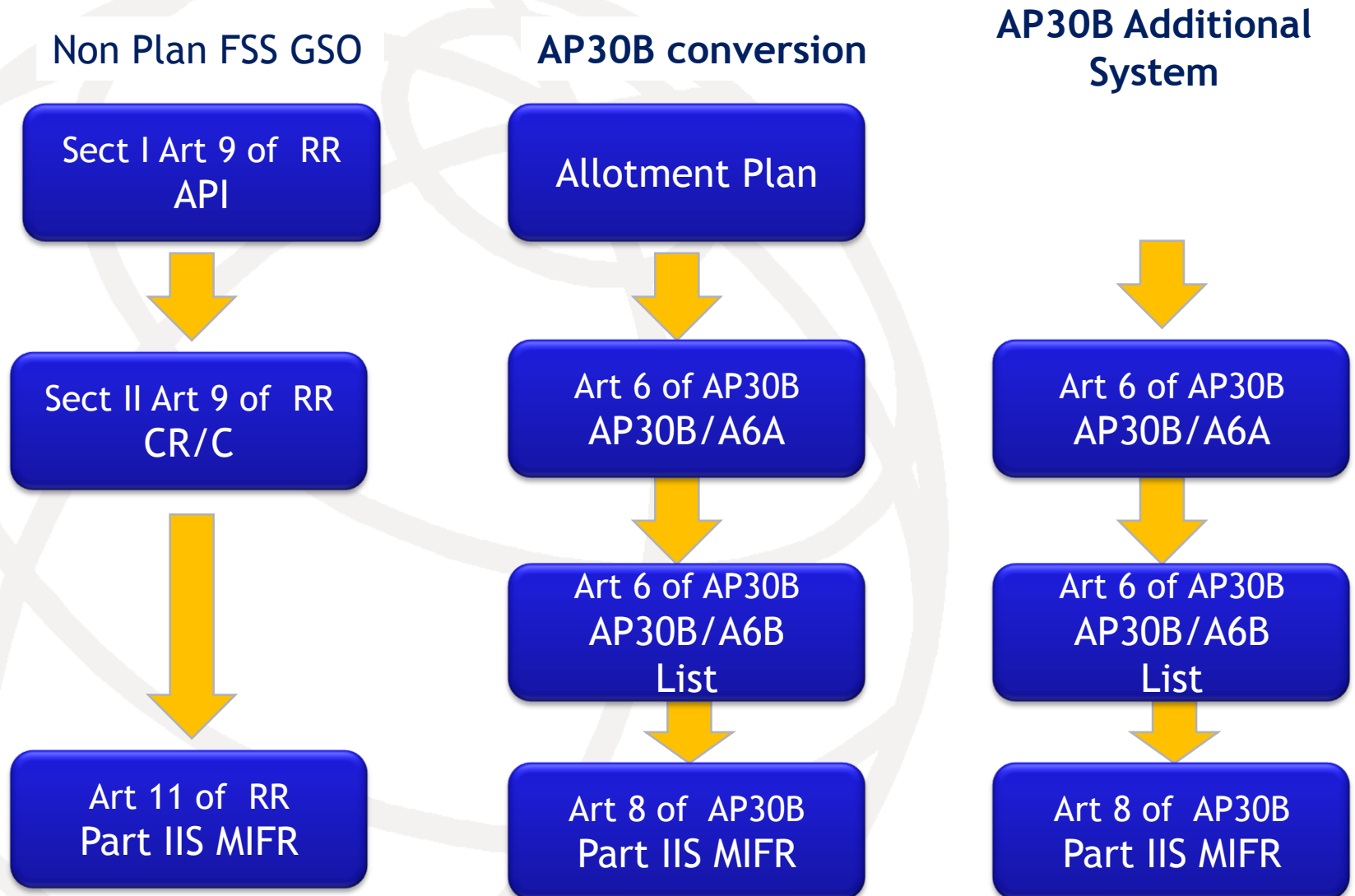
return the notice to notifying Administration

unfavorable

Publication of Part IIIS
<http://www.itu.int/sns/>



AP30B and Non Plan procedures



AP30B and Non Plan procedures



	Non Plan GSO FSS	-Additional System -Conversion with modification	-Conversion without modification
Regulatory Period	7 years	8 years	8 years
Res. 49	Yes	Yes	Yes
API	Yes	NA	NA
Coordination Publication	CR/C	A6A	A6A
Inclusion in the List	NA	A6B	A6B
Notification	Yes	Yes but not for protection	Yes but not for protection
Service Area	Any	Any with agreement	National
To be compatible with	Previously filed	Allotment, List, previously filed	Already compatible
Identification	Both direction Single entry	One direction Single entry and aggregate	One direction Single entry and aggregate
No comment within 4 M	Assistance No.9.46	Assistance §6.13	NA

Technical Examinations (I)



Examinations under 6.3b), 6.5, 6.19c), 6.21(6.22), 7.5b) and 8.9 of AP30B

Annex 3: PFD limits

- Downlink PFD
- Uplink PFD outside the coordination arc

Annex 4: C/I degradation

- Consider networks within the coordination arc
- Uplink single entry C/I at test points
- Downlink single entry C/I everywhere within the service area (test and grid points)
- Aggregate C/I at test points

(coordination arc : 10° in 6725-7025MHz band and 9° in 12.75-13.25MHz band)

Examinations under 6.6 of AP30B: identify territories inside the service area

Technical Examinations (II)



Examinations under 6.3a), 6.19b), 7.5a) and 8.8 of AP30B

“Other provisions”:

- Earth station **e.i.r.p** limits for angle from horizon $\leq 5^\circ$ (§21.8- 21.12 of RR)
- Earth station **elevation angle** must $>3^\circ$ (§21.14 of RR)
- Downlink **PFD Limits** in table 21-4 of RR (§21.16 -21.17 of RR)
- Uplink **e.i.r.p** limits towards GSO orbit for 3° or more off the main-lobe axis (§22.26-22.31 and §22.37 of RR)
- Longitude tolerance ($\pm 0.1^\circ$) (§22.8 of RR)
- Pointing accuracy (§22.19 of RR)



For more information

<http://www.itu.int/en/ITU-R/space/plans/Pages/AP30B.aspx>

Latest AP30B database, video presentations on software usage

<http://www.itu.int/ITU-R/space/plans/index.html>

General information relating to space plan services

<http://www.itu.int/ITU-R/space/snl/index.html>

SNL On-Line; list of published networks, AP30B pending networks

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Any Question?