Fixed-Satellite Service Plan
(Appendix 30B)

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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 800MHz × 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

Plan: Allotments

Additional systems

List: Assignments

conversion

Notification

MIFR
COMPATIBILITY

Plan: Allotments

Compatible

List: Assignments

New systems (conversion, additional systems...)

Compatible

Terrestrial...
# Appendix 30B (I)

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Appendix 30B (II)

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**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
Article 6

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)

Year -8

Submission under Article 6

Year -3

Year -2

Notification under Article 8

Year 0

Bring into use
Article 6

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
- ……

**Plan:** Allotments

**List:** Assignments

**Additional systems**

- Reinstate
- Conversion
- Modification
- Enter into List
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)

Validation Check

Fail

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)

Reply must be sent within 30 days (receivability RoP)

Unfavorable assignments return to notifying Administration

Completion examination and telefax

Regulatory/technical Examinations ($6.3, $6.5)

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

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

The BR sends reminders to the affected administration which has not replied.
Processing of Article 6 Submissions (4)

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

Validation Check
- OK
- Fail

Completeness examination and telefax

Reply must be sent within 30 days (receivability RoP)

Administration

ITU-BR

ITU
Processing of Article 6 Submissions (5)

Unfavorable assignments return to notifying Administration

If favorable with respect to allotments, notifying Administration can resubmit under §6.25

Examination under §6.19

Publication of AP30B/A6B/ Special Section (final characteristics of satellite network)
Processing of Article 6 Submissions (6)

Provisionally enter into List

The assignments enter into List

Submission of notification under §8.1, (confirmation of bringing into use), Res.49 due diligence information
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
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

Acknowledgement telefax

Completeness examination

ITU-BR

Reply must be sent within 30 days (receivability RoP)
Processing of Article 8 Submissions (2)

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

return the notice to notifying Administration

unfavorable

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/
AP30B and Non Plan procedures

Non Plan FSS GSO
- Sect I Art 9 of RR API
- Sect II Art 9 of RR CR/C
- Art 11 of RR Part IIS MIFR

AP30B conversion
- Allotment Plan
- Art 6 of AP30B AP30B/A6A
- Art 6 of AP30B AP30B/A6B List
- Art 8 of AP30B Part IIS MIFR

AP30B Additional System
- Art 6 of AP30B AP30B/A6A
- Art 6 of AP30B AP30B/A6B List
- Art 8 of AP30B Part IIS MIFR
## AP30B and Non Plan procedures

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<th>Non Plan GSO FSS</th>
<th>-Additional System</th>
<th>-Conversion without modification</th>
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<tbody>
<tr>
<td><strong>Regulatory Period</strong></td>
<td>7 years</td>
<td>8 years</td>
<td>8 years</td>
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<tr>
<td><strong>Res. 49</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>API</strong></td>
<td>Yes</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td><strong>Coordination Publication</strong></td>
<td>CR/C</td>
<td>A6A</td>
<td>A6A</td>
</tr>
<tr>
<td><strong>Inclusion in the List</strong></td>
<td>NA</td>
<td>A6B</td>
<td>A6B</td>
</tr>
<tr>
<td><strong>Notification</strong></td>
<td>Yes</td>
<td>Yes but not for protection</td>
<td>Yes but not for protection</td>
</tr>
<tr>
<td><strong>Service Area</strong></td>
<td>Any</td>
<td>Any with agreement</td>
<td>National</td>
</tr>
<tr>
<td><strong>To be compatible with</strong></td>
<td>Previously filed</td>
<td>Allotment, List, previously filed</td>
<td>Already compatible</td>
</tr>
<tr>
<td><strong>Identification</strong></td>
<td>Both direction</td>
<td>One direction</td>
<td>One direction</td>
</tr>
<tr>
<td></td>
<td>Single entry</td>
<td>Single entry and aggregate</td>
<td>Single entry and aggregate</td>
</tr>
<tr>
<td><strong>No comment within 4 M</strong></td>
<td>Assistance No.9.46</td>
<td>Assistance §6.13</td>
<td>NA</td>
</tr>
</tbody>
</table>
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
Examinations under 6.3a), 6.19b), 7.5a) and 8.8 of AP30B

“Other provisions”:

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

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
Any Question?