



Workshop on FSS Space Plan

AP30B Submission

Presented by
ITU-R/SSD Space Notification and Plans Division

You have learned

- Concept of Space Plans
- Regulatory procedures in AP30B
- Validation and correction of an submission



SpaceCap



SpaceVal

You will exercise to

- ❑ Validate an AP30B submission
- ❑ Correct errors/omissions in an AP30B submission

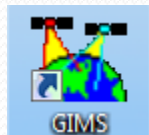


SpaceCap



SpaceVal

- ❑ Find errors/omissions in diagrams



Exercise



SpaceCap

➤ View and Modify AP30B notice in SpaceCap

1. File -> Open Database

..\16_A30B exercise\itu-sat-submission.mdb

2. Plan-> Plan/List/Pending

3. uncheck the “read only mode” to enable the modification

4. Double click the line of “AP30B....”

5. Show

6. Go through the notice....

Start Page - PLAN - WRC07 FSS Plan 6/4 AND 13/10-11 GHz Band (Appendix 30B)

Transaction Id:



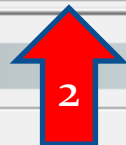
Plan / List / Pending Plan / List Notification Space Operation Functions

| PLAN ID | Description | Notice Count |
|---------|--|--------------|
| 00DN | WRC-00 BSS Down-link Plan & List for Regions 1 & 3 (Appendix 30) | 0 |
| 00UP | WRC-00 Feeder-link Plans and Lists for Regions 1 and 3 at 14&17 GHz (Appendix 30A) | 0 |
| 30_2 | RARC BC SAT83 Plan for Region 2 (Appendices 30 & 30A) | 0 |
| A30B | WRC07 FSS Plan 6/4 AND 13/10-11 GHz Band (Appendix 30B) | 1 |

Select a Plan



Plan/List/Pending notices (Status above 01) read-only mode





SpaceCap

➤ View Diagrams in GIMS

1. Database -> Open ->

..\6_A30B exercise\gims-itu.mdb

2.  or 

3. Select the beams/Diagrams you want to see

4. Open

The screenshot shows the GIMS software interface. The main window has a menu bar (Diagram, Database, Edit, View, Tools, Window, Help) and a toolbar. A red arrow labeled '1' points to the 'Database' menu. Below the menu bar, the file path is shown as `c:\users\administrator\desktop\wrs-12\wrs\ap30b-e`. A second red arrow labeled '2' points to the 'GIMS Database Explorer' window. This window displays the following information:

- Database Name: gims-itu
- Location: c:\users\administrator\desktop\wrs-12\wrs\ap30b-exercise\
- Browse for ...: Geostationary Satellites, Non-geostationary Satellites
- Notice ID: [Dropdown]
- Filter by: Administration [Dropdown]
- Apply last filters at startup
- Filter Off

The Explorer window contains a tree view on the left and a table on the right. A red arrow labeled '3' points to the tree view. The table has the following columns: Notice, Reason, Admin., Satellite Name, and Position.

| Notice | Reason | Admin. | Satellite Name | Position |
|--------------------|--------|--------|----------------|----------|
| 1 | P | SUI | ITU-SAT | 20 |
| CE1 | | | | |
| CR1 | | | | |
| CO (Gain Contours) | | | | |
| SA (Service Area) | | | | |

For Help, press F1

➤ Validate a submission

The screenshot shows the 'Space Validation 7.0 (05/11/2012)' application window. The interface includes the following elements:

- Operator Id:** ADMINIST
- Database Info:** Location: c:\users\administrator\desktop\wrs-12\wrs\ap30b-exercise; Notice Id: 1; ITU-SAT
- Error Message Level Selection:** Show fatal messages only; Show all messages
- Buttons:** Open, Validate, Report, Help, Exit
- Options:** Cross validation with Gims mdb file; Gims database: C:\Users\Administrator\Desktop\WRS-12\WRS\AP...
- Status Bar:** Validation completed. Click on the <Report> button to view results

Numbered red arrows indicate the following steps:

- 1: Points to the **Open** button.
- 2: Points to the **Database Info** section.
- 3: Points to the **Cross validation with Gims mdb file** checkbox.
- 4: Points to the **Validate** button.
- 5: Points to the **Report** button.

A green arrow points from the **Report** button to the right.

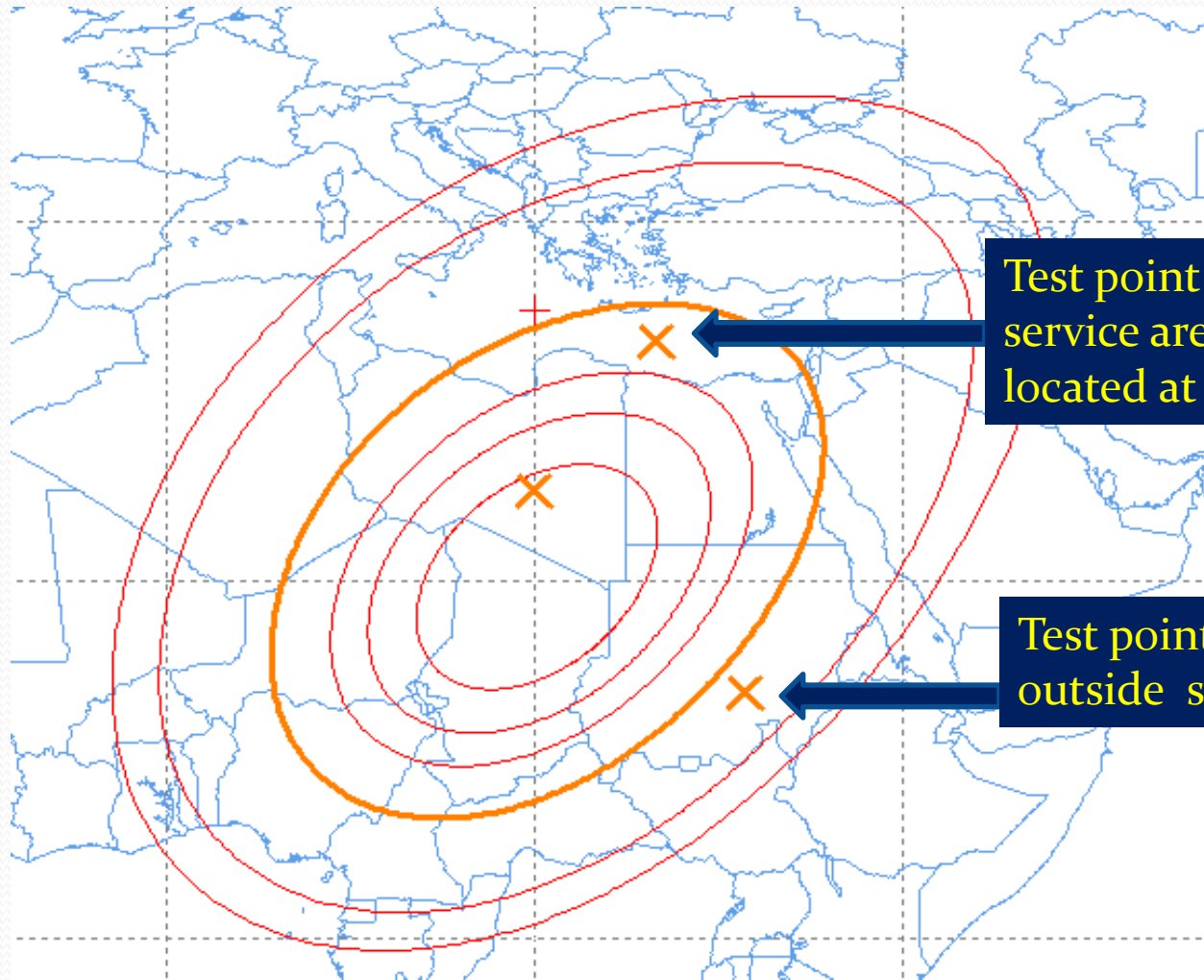


Exercise

Find and correct the errors in the
submission of satellite network
ITU-SAT

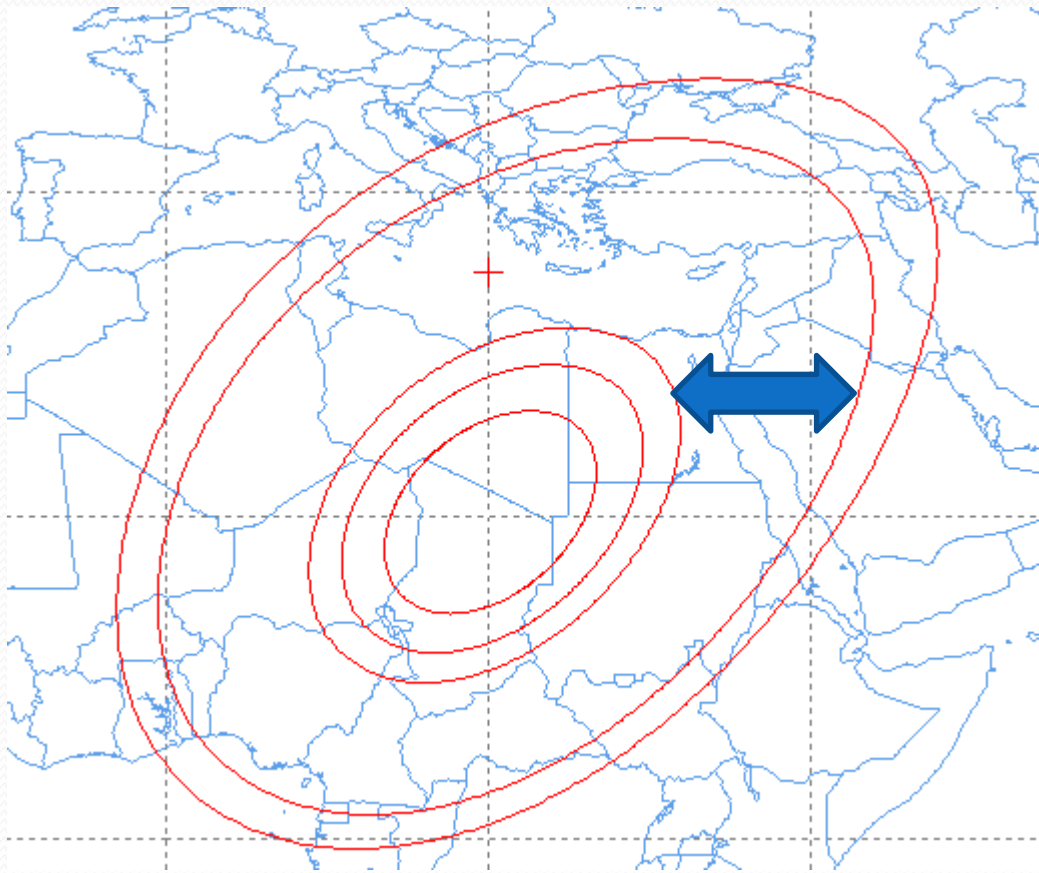
Common errors (1)

- Wrong value of ES antenna half-power beam width
- Test Points located at sea or outside its service area
- Omission in diagrams
- Difference between GIMS data and AP₄ Data
(e.g. boresight, satellite name, beam name...)
- Inconsistences and wrong data format
(cased by capturing data without using SpaceCap)



Test point inside service area but located at sea

Test point located outside service area



-10dB contour is missing in satellite antenna gain diagram

- ❑ Contours required : -2dB, -4dB, -6dB, -10dB, -20dB.....
(10dB interval after -10dB contour)
- ❑ ZERO dB contour is required for steerable beams.

Warning messages in SpaceVal results

- Submission is receivable with warning message
- Investigation is necessary

*e.g. Warning of power density :
PFD value exceeds the limits ?*

Any Question ?