

# TERRESTRIAL SERVICES PLANS AND MASTER REGISTER other than Broadcasting service

Evghenii Sestacov Radiocommunication Bureau





### **Overview**

- Relevant Frequency allotment plans
- Coordination procedures for aeronautical mobile and maritime mobile services
- Article 11 procedures





### Frequency allotment plans

- AP25: Worldwide frequency allotment plan for coast radio telephone stations in band 4000 - 27500 kHz
- AP26: Worldwide frequency allotment plan for aeronautical mobile (OR) service in 3025 – 18030 kHz
- AP27: Worldwide frequency allotment plan for aeronautical mobile (R) service in 2850 – 22000 kHz





# Allotment plan for the maritime mobile service (AP25 to RR)

#### Scope

- Worldwide allotment plan, maritime mobile service (MMS)
- Coast radiotelephone stations in 4 000 27 500 kHz
- 240 channels; allotment areas
- Number of "restricted" allotments: limitations on service area, power, hours of operation, etc.

#### Characteristics

- 3 kHz channels (separation between reference frequencies)
- Bandwidth 2.8 kHz
- Class of emission J3E
- Maximum peak envelope power 10 kW





# Allotment plan for the maritime mobile service (AP25 to RR)

Example: use of 8783.4 kHz from AP25 plan



Frequency channel on 8783.4 kHz is allotted to geographical area AUS Australia may assign this channel to coast stations in the allotted area

8 783.4	(AUS )
(8 782)	В
	CHN
(8/22)	G
	HNG
	HRV
	IRN
	KEN
	MRC
	SUI
	UKR
	USA E
	USA SO
	USA W





# Allotment plan for the maritime mobile service (AP25 to RR)

8 783.4	AUS	
(8 782)	В	
	CHN	
(822)	G	Coast station "TOM/NCVIIIIE"
	HNG	Coast station "TOWNSVILLE"
	HRV	
	IRN	
	KEN	Coast station "DUNSIDE"
	MRC	
	SUI	
	UKR	Coast station "CAP SCHANCK"
	USA E	
	USA SO	
	USA W	

Channel on 8783.4 kHz has been assigned to 3 coast stations of AUS





### **AP25** plan modification procedure (1)

- Plan modification procedure (AP25, Section I) applies when:
  - Administration needs a new allotment (AP25/1.1.1)
  - Administration needs an additional allotment (AP25/1.1.2)
  - Administration intends to replace an allotment by another one in the same band (AP25/1.1.2)





### AP25 plan modification procedure (2)

- Submission of AP4 information to the BR (<u>electronic</u> T15 form)
- Publication of the information and apparent incompatibilities in Special Section of BRIFIC
- Coordination with affected administrations
- Possible assistance of the BR at different stages of coordination





### AP25 plan modification procedure (3)

- Successful coordination recording in the Plan
- Non-reply or continuing disagreement examination by the BR
- The examination results are favorable Plan update
- The examination results are unfavorable BR searches for the least effected channel and enters it in the Plan, if requested by the administration





# Regulation of aeronautical mobile service (AMS)

- AMS is subdivided into <u>route (R)</u> and <u>off-route (OR)</u> services
- Worldwide allotment plans of AP26 and AP27
- Coordination procedures through ICAO
- RR contains some additional mandatory provisions, e.g.
  prohibition of public correspondence (nature of Service CP
  and CR) in the exclusive aeronautical bands





# Allotment plan for aeronautical mobile (OR) service (AP26)

#### Scope

- Worldwide plan for aeronautical mobile off-route service
- Planned band: 3 025 18 030 kHz (10 sub-bands)
- Carrier frequencies, allotment areas

#### Characteristics

- Maximum bandwidth 2.8 kHz
- Classes of emission J3E; A1A; A1B; F1B(A,H)2(A,B);
   (R,J)2(A,B,D); J(7,9)(B,D,X)
- Mean effective radiated power:
  - 1 kW (aeronautical stations)
  - 50 W (aircraft stations)





#### Procedure for modification of AP26 Plan

#### An administration:

- Requests for a new allotment BR selects an appropriate allotment and enters it in the Plan
- Requests for an additional allotment the allotment is entered in the Plan only if it is compatible with the remaining allotments
- Requests for the suppression of an allotment BR cancels the allotment from the allotment arrangement





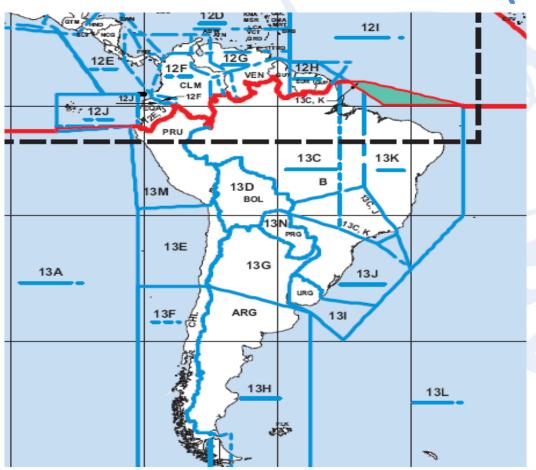
# Allotment plan for aeronautical mobile (R) service (AP27)

- Scope
  - Worldwide plan for aeronautical mobile route service
  - Planned band: 2 850 22 000 kHz
  - Carrier frequencies, geographical areas (MWARA, RDARA, VOLMET areas)
- Characteristics
  - Classes of emission: J3E; H2B, J7B, J2D, J9X (A1A/A1B) and F1A/F1B
  - Frequency separation 3 kHz, multiple to 1 kHz
- No plan modification procedure





# Allotment plan for aeronautical mobile (R) service (AP27)



Regional and domestic route areas of AP27 Plan in the South America





## Coordination procedures for maritime mobile service

- Standard procedure of Article 9
- Res. 339 (Rev.WRC-07): coordination of NAVTEX services on
   490 kHz, 518 kHz and 4209 kHz
  - Performed through IMO
  - IMO provides ITU with coordination information
  - ITU publishes the information in List IV (List of Coast Stations and Special Services Stations)





## Coordination procedures in the aeronautical mobile service

- No special procedures, but coordination is desirable
- Role of ICAO and its regional offices: coordination of frequencies for (R) service in exclusive HF bands and in 117.975 - 137 MHz band
- Notification after coordination trough ICAO regional office



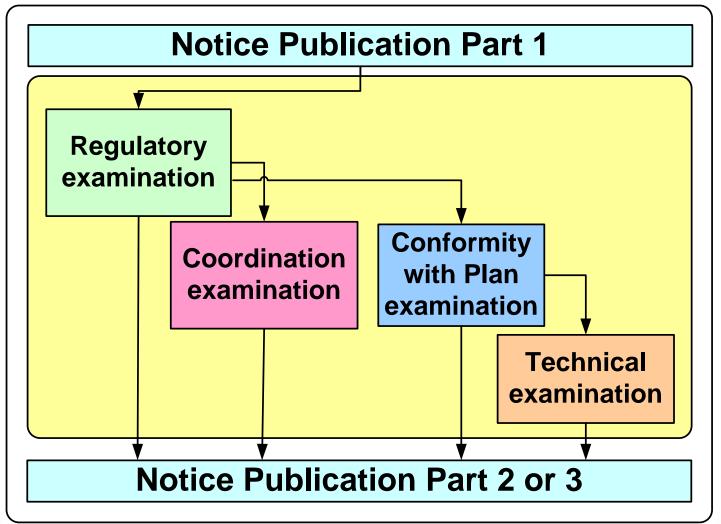


Examination procedures
for Frequency Assignments Notices
concerning Terrestrial Services
(except LF/MF and VHF/UHF
Broadcasting Service)
under Article 11 RR





### **General procedure Article 11**







### **Examination types**

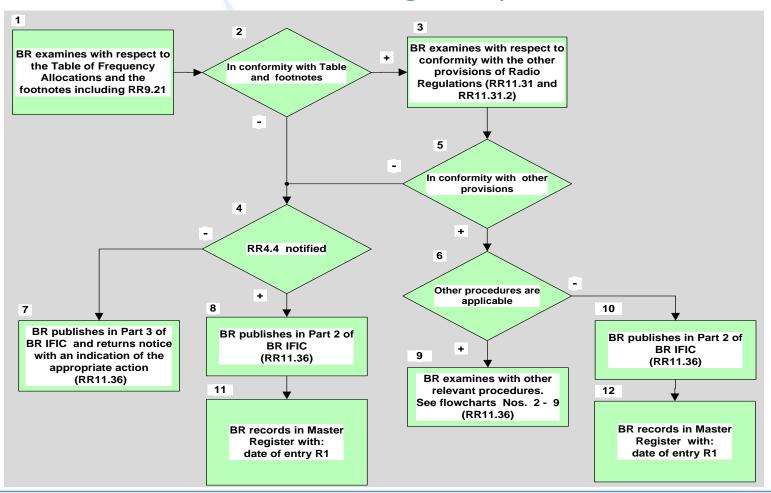
- Regulatory examination
  - conformity with the Table of Frequency Allocations and associated provisions in Article 5 of the RR and with other provisions of the Radio Regulations
- Conformity with respect to a coordination procedure
- Conformity with respect to world-wide or regional plans
- Technical examination





### **Regulatory examination**

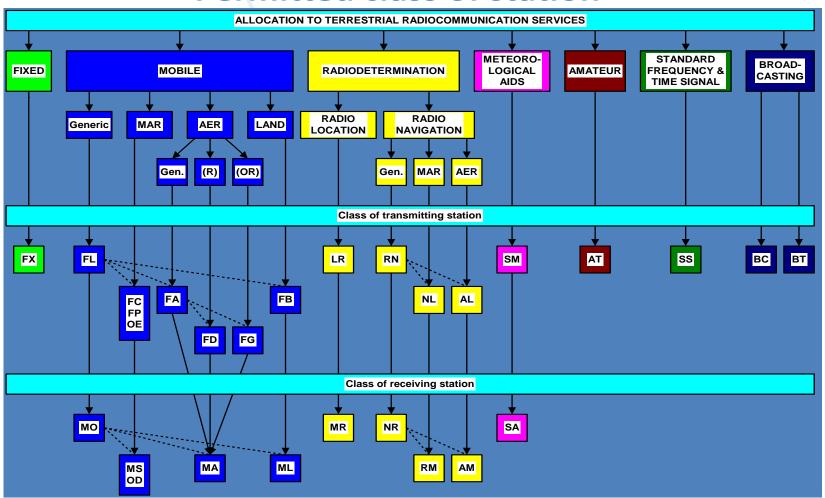
#### Procedures related to regulatory examination







### Regulatory examination Permitted class of station







### Regulatory examination (example)

Allocation to services			
Region 1	Region 2	Region 3	
322-328.6	FIXED	1	
	MOBILE		
	RADIO ASTRONOMY		
	5.149		
Example for FIXED	service with <u>Favourable</u> find	ing	
Class of station FX			
Assigned frequency	327.0 MHz		
Bandwidth 3 MHz			
Example for FIXED	service with <u>Unfavourable</u> fi	nding	
Class of station FX			
Assigned frequency	330.0 MHz		
Bandwidth 3 MHz			
328.6-335.4	AERONAUTICAL RADI	ONAVIGATION	

5.259





### Coordination examination Coordination procedures

Where appropriate, the notices are also examined with respect to their conformity with the procedures relating to coordination with other administrations applicable to the radiocommunication service and the frequency band concerned (No. 11.32)





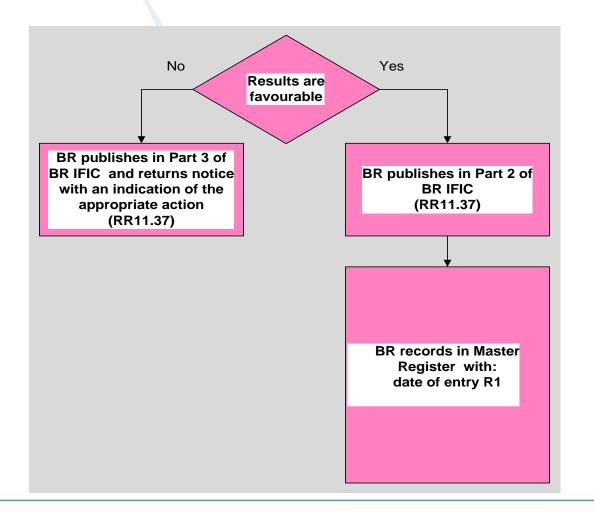
#### Cases of coordination examination

- ✓ Case 1 Terrestrial transmitting station operates in frequency bands above 100 MHz shared with space services with equal rights and is located inside the coordination area of a receiving earth station (Nos. 9.16, 9.18)
- ✓ Case 2 Terrestrial station operates in a frequency band shared on an equal primary basis with the broadcasting-satellite service (No. 9.19)
- ✓ Case 3 Terrestrial station of a non-planned service operates in the bands and areas covered by a regional agreement
- ✓ Case 4 Coordination examination applies to any station of a service for which requirement to seek the agreement of other administration is included in a footnote to the Table of Frequency Allocations referring to No. 9.21.





#### **Coordination examination results**







### **Conformity with world-wide Plans**

With respect to Appendixes 25, 26 and 27:

A notice has to conform with the frequency allotment plan and allotment area:

- Notified frequency in an allotted channel listed in appropriate plan
- Geographical area and Administration correspond to a Plan allotment
- Receiving point or receiving area within the allotment area

BR examines with respect to Appendix 25 allotments (RR11.34) BR examines notice with respect to Part III of AP26 (RR11.34)

BR examines with respect to conformity with Appendix 27 Part II (RR11.34)





### **Technical examination – Appendix 26**

A notice in conformity with the technical principles of Appendix 26, but not in conformity with the Allotment Plan, shall be examined with respect to the allotments in Part III of Appendix 26 (No. 11.39C)





### **Technical examination – Appendix 27**

In the case of a notice in conformity with the technical principles of Appendix 27, but not in conformity with the Allotment Plan, the Bureau shall examine whether the protection specified in Appendix 27 is afforded to the allotments in the Plan and to assignments already recorded in the Master Register with a favourable finding (No. 11.39A).





### Thank you for your attention!

Questions?

evghenii.sestacov@itu.int



