FOCAL POINT REGARDING CORRESPONDENCE ON THIS QUESTIONNAIRE

(PARTS I AND II)

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Section IV – Table of Frequency Allocations (extract from the RR, 1998)

Read only			To be o	completed
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
27.5-28 METEOROLOGICAL A FIXED MOBILE	IDS		FIXED MOBILE	The numbers in the previous column "National Allocations" refer to the Notes to the National Frequency Plan following this table.
28-29.7 AMATEUR			AMATEUR	
AMATEUR-SATELLITI	Ξ		AMATEUR-SATELLITE	
29.7-30.005 FIXED			FIXED	
MOBILE			MOBILE	
			28	
30.005-30.01 SPACE OPERATIO	N (satellite identification)		FIXED	
FIXED			MOBILE	
MOBILE SPACE RESEARCH			SPACE OPERATION (satellite identification)	
			SPACE RESEARCH	
			28	
30.01-37.5 FIXED			30.01-31.25	
MOBILE			FIXED	
			MOBILE	
			28, 29, 32	
			31.25-37.5	
			MOBILE	
			28, 29, 30, 32	

Read only			To be co	ompleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
37.5-38.25 FIXED			MOBILE, except aeronautical	
MOBILE			mobile	
Radio astronomy			Radioastronomy	
S5.149			29, 30, 32	
38.25-39.986 FIXED			38.25-39.25	Notes:
MOBILE			MOBILE	
			29, 30, 32	
			39.25-40.66	
			FIXED	
			MOBILE	
			30, 32	
39.986-40.02 FIXED				
MOBILE				
Space research				
40.02-40.98 FIXED			40.66-40.7	
MOBILE			MOBILE	
S5.150			30, 32, 67	
40.98-41.015 FIXED			40.70-48.5	
MOBILE			FIXED	
Space research			MOBILE	
S5.160 S5.161			30, 31, 32, 75	
41.015-44 FIXED				
MOBILE				
S5.160 S5.161				

Read only			To be com	pleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
44-47 FIXED	-			
MOBILE				
S5.162 S5.162A				
47-68	47-50	47-50	48.5-51.425	
BROADCASTING	FIXED	FIXED	LAND MOBILE	
	MOBILE	MOBILE	33, 63, 75	
		BROADCASTING		
	50-54		51.425-54	
	AMATEUR		LAND MOBILE	
	S5.166 S5.167 S5.168	S5.170	13, 33	
	54-68	54-68	54-58	
	BROADCASTING	FIXED	LAND MOBILE	
	Fixed	MOBILE	13, 33	
	Mobile	BROADCASTING	58-66	
S5.162A S5.163 S5.164 S5.165	S5.172		BROADCASTING (Television)	
S5.169 S5.171			34	
68-74.8	68-72	68-74.8	66-73	
FIXED	BROADCASTING	FIXED	BROADCASTING (FM)	
MOBILE except aeronautical	Fixed	MOBILE	Land mobile	
mobile	Mobile		35	
	S5.173			
	72-73		73-76	
	FIXED		AERONAUTICAL	
	MOBILE		RADIONAVIGATION	
			36, 37	

	Read only			ıpleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
	73-74.6			
	RADIO ASTRONOMY			
	S5.178			
	74.6-74.8			
	FIXED			
	MOBILE			
S5.149 S5.174 S5.175 S5.177				
S5.179		S5.149 S5.176 S5.179		
74.8-75.2 AERONAUTICAL RAI	DIONAVIGATION			
S5.180 S5.181	<u>, </u>			
75.2-87.5	75.2-75.4		76-100	
FIXED	FIXED		BROADCASTING	
MOBILE except aeronautical	MOBILE		38, 39	
mobile	S5.179			
	75.4-76	75.4-87		
	FIXED	FIXED		
	MOBILE	MOBILE		
	76-88			
	BROADCASTING			
	Fixed	S5.149 S5.182 S5.183 S5.188	_	
	Mobile	87-100		
S5.175 S5.179 S5.184 S5.187		FIXED		
87.5-100		MOBILE		
BROADCASTING	S5.185	BROADCASTING		

Read only			To be con	npleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
	88-100			
S5.190	BROADCASTING			
100-108 BROADCASTING			100-108	
S5.192 S5.194			BROADCASTING (FM, stereo)	
			40	
108-117.975 AERONAUTICAL	RADIONAVIGATION		108-117.975	
S5.197			AERONAUTICAL RADIONAVIGATION	
			8	
117.975-137 AERONAUTICAL	MOBILE (R)		117.975-136	
S5.111 S5.198	S5.199 S5.200 S5.201 S5.203B	S5.202 S5.203 S5.203A	AERONAUTICAL MOBILE (R)	
			8, 41	
			136-137	
			AERONAUTICAL MOBILE (R)	
			8, 42	

Read only			To be comp	leted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
137-137.025 SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) S5.208A S5.209 SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) S5.204 S5.205 S5.206 S5.207 S5.208			AERONAUTICAL MOBILE (OR) SPACE OPERATION (telemetry and tracking) METEOROLOGICAL- SATELLITE SPACE RESEARCH (space-to-Earth) 42	
SPACE RESEARCH (space-to- Fixed Mobile-satellite (space-to- Mobile except aeronautic S5.204 S5.205 S5.206 S5 137.175-137.825 SPACE OPERA METEOROLOGICAL-S	ATELLITE (space-to-Earth) ace-to-Earth) D-Earth) S5.208A S5.209 ral mobile (R) .207 S5.208 TION (space-to-Earth) ATELLITE (space-to-Earth) space-to-Earth) S5.208A S5.209 ace-to-Earth) ral mobile (R)			

Read only			To be co	ompleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
SPACE RESEARCH (sp Fixed	SATELLITE (space-to-Earth)			
Mobile except aeronautic S5.204 S5.205 S5.206 S5	` /			
138-143.6 AERONAUTICAL MOBILE (OR) S5.210 S5.211 S5.212 S5.214 143.6-143.65 AERONAUTICAL MOBILE (OR) SPACE RESEARCH (space-to-Earth) S5.211 S5.212 S5.214	138-143.6 FIXED MOBILE RADIOLOCATION Space research (space-to-Earth) 143.6-143.65 FIXED MOBILE RADIOLOCATION SPACE RESEARCH (space-to-Earth)	138-143.6 FIXED MOBILE Space research (space-to-Earth) S5.207 S5.213 143.6-143.65 FIXED MOBILE SPACE RESEARCH (space-to-Earth) S5.207 S5.213	138-143.6 AERONAUTICAL MOBILE (OR) 143.6-143.65 AERONAUTICAL MOBILE (OR) SPACE RESEARCH (space-to-Earth) 43	
143.65-144 AERONAUTICAL MOBILE (OR) S5.210 S5.211 S5.212 S5.214	143.65-144 FIXED MOBILE RADIOLOCATION Space research (space-to-Earth)	143.65-144 FIXED MOBILE Space research (space-to-Earth) S5.207 S5.213	143.65-144 AERONAUTICAL MOBILE (OR)	

Read only			To be comp	leted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
144-146 AMATEUR S5.120			144-146	
AMATEUR-SATELLIT	E		AMATEUR	
S5.216			AMATEUR-SATELLITE	
146-148	146-148	146-148	146-148	
FIXED MOBILE except aeronautical mobile (R)	AMATEUR S5.217	AMATEUR FIXED MOBILE S5.217	AERONAUTICAL MOBILE (R)	
148-149.9	148-149.9	55.217	148-148.025	
FIXED MOBILE except aeronautical mobile (R) MOBILE-SATELLITE (Earth-to-space) S5.209 S5.218 S5.219 S5.221	FIXED MOBILE MOBILE-SATELLITE (S5.218 S5.219 S5.221	Earth-to-space) S5.209	LAND MOBILE FIXED 148.025-148.925 MOBILE-SATELLITE (Earth-to-space) MOBILE 148.925-149.9 LAND MOBILE FIXED	

	Read only		To be com	pleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
	ITE (Earth-to-space) S5.209 S5.224A	9	149.9-150 AERONAUTICAL-MOBILE LAND MOBILE SATELLITE RADIONAVIGATION 44, 45 150-150.05 SATELLITE RADIONAVIGATION MOBILE-SATELLITE (Earth-to-space) MOBILE 44, 45	
FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY S5.149 153-154 FIXED MOBILE except aeronautical mobile (R) Meteorological Aids	FIXED MOBILE		150.05-153 MOBILE except aeronautical mobile RADIO ASTRONOMY 80 153-153.425 MOBILE except aeronautical mobile 66 153.425-154 LAND MOBILE 66	

	Read only		To be comple	eted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
154-156.7625	·		154-156.025	
FIXED			LAND MOBILE	
MOBILE except aeronautical			66	
mobile (R)	S5.225 S5.226 S5.227		156.025-156.5125	
S5.226 S5.227			MOBILE except aeronautical mobile	
			17, 47, 66, 74	
			156.5125-156.5375	
			MARITIME MOBILE	
			17, 47, 66, 74	
			156.5375-156.7625	
			MOBILE except aeronautical mobile	
			17, 46, 47, 66, 74	
156.7625-156.8375MARITIME MO	BILE (distress and calling)		156.7625-156.8375	
S5.111 S5.226			MARITIME MOBILE	
			17, 46, 47, 66, 74	

Read only			To be compl	eted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
156.8375-174	156.8375-174		156.8375-157.425	
FIXED MOBILE except aeronautical	FIXED MOBILE		MOBILE except aeronautical mobile	
mobile except aeronauticar	S5.226 S5.230 S5.231 S5.232		46, 47, 66, 74, 80	
S5.226 S5.229			157.425-160.625	
			LAND MOBILE	
			66, 74	
			160.625-160.950	
			MOBILE except aeronautical mobile	
			47, 66, 74	
			160.950-160.975	
			LAND MOBILE	
			47, 66, 74	
			160.975-161.475	
			MOBILE except aeronautical mobile	
			66, 74	
			161.475-161.500	
			LAND MOBILE	
			46, 47, 66, 74	
			161.500-162.075	
			MOBILE except aeronautical mobile	
			47, 66, 68, 74, 80	
			162.075-174	
			LAND MOBILE	
			66, 74	

Read only			To be com	pleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
174-223	174-216	174-223	174-216	
BROADCASTING	BROADCASTING	FIXED	BROADCASTING	
	Fixed	MOBILE	(Television)	
	Mobile	BROADCASTING	3, 48	
	S5.234			
S5.235 S5.237 S5.243	216-220	S5.233 S5.238 S5.240 S5.245		
	FIXED			
	MARITIME MOBILE			
	Radiolocation S5.241			
	S5.242			
223-230	AMATEUR	223-230	216-230	
BROADCASTING	FIXED	FIXED	BROADCASTING	
Fixed	MOBILE	MOBILE	(Television)	
Mobile	Radiolocation S5.241	BROADCASTING		
	225-235	AERONAUTICAL		
	FIXED	RADIONAVIGATION		
	MOBILE	Radiolocation		
S5.243 S5.246 S5.247		S5.250		
230-235		230-235	230-300	
FIXED		FIXED	FIXED	
MOBILE		MOBILE	MOBILE	
S5.247 S5.251 S5.252		AERONAUTICAL	50	
		RADIONAVIGATION		
		S5.250		

Read only			To be completed	
Allocation to services				
Region 1	Region 2	Region 3	National Allocation	Remarks
235-267 FIXED				
MOBILE				
S5.111 S5.199 S5.252 S	S5.254 S5.256			
267-272 FIXED				
MOBILE				
Space operation (space	-to-Earth)			
S5.254 S5.257				
272-273 SPACE OPERATION (space-to-Earth)			
FIXED				
MOBILE				
S5.254				

Read only		To be com	pleted	
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
273-312 FIXED	·		300-301.1	
MOBILE			MOBILE	
S5.254			49, 71	
			301.1-306	
			MOBILE	
			49	
			306-306.225	
			MOBILE	
			49, 71	
			306.225-306.525	
			FIXED	
			MOBILE	
			49, 71	
			306.525-308	
			MOBILE	
			49, 71	
			308-310	
			MOBILE	
			71	
312-315 FIXED				
MOBILE				
Mobile-satellite (Earth-to	o-space) S5.254 S5.255			

Read only			To be com	pleted
Allocation to services				
Region 1	Region 2	Region 3	National Allocation	Remarks
315-322 FIXED				
MOBILE				
S5.254				
322-328.6 FIXED			310-328.6	
MOBILE			FIXED	
RADIO ASTRONOMY			MOBILE	
S5.149				
328.6-335.4 AERONAUTICAL RA	ADIONAVIGATION		328.6-336	
S5.258 S5.259			AERONAUTICAL RADIONAVIGATION	
			8	

	Read only			pleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
335.4-387 FIXED			336-337.1	
MOBILE			MOBILE	
S5.254			51, 71	
			337.1-342	
			FIXED	
			MOBILE	
			51	
			342-342.225	
			MOBILE	
			51, 71	
			342.225-342.525	
			FIXED	
			MOBILE	
			51, 71	
			342.525-344	
			MOBILE	
			51, 71	
387-390 FIXED			344-411	
MOBILE			MOBILE	
Mobile-satellite (space-to	o-Earth) S5.208A S5.254 S5.255		17, 52, 72, 84	
390-399.9 FIXED				
MOBILE				
S5.254				

Read only			To be co	ompleted	
	Allocation to services				
Region 1	Region 2	Regio	n 3	National Allocation	Remarks
399.9-400.05 MOBILE-SATE	LLITE (Earth-to-space) S5.209 S5.224A	A			
RADIONAVIGATIO	ON-SATELLITE S5.222 S5.224B S5.26	0			
S5.220					
400.05-400.15STANDARD	FREQUENCY AND SATELLITE (400.1 MHz)	TIME	SIGNAL-		
S5.261 S5.262					
400.15-401 METEOROLOG	SICAL AIDS				
METEOROLOGICA	L-SATELLITE (space-to-Earth)				
MOBILE-SATELLIT	TE (space-to-Earth) S5.208A S5.209				
	(space-to-Earth) S5.263				
Space operation (spa	ice-to-Earth)				
S5.262 S5.264					
401-402 METEOROLOGICA	L AIDS				
SPACE OPERATION	` •				
	TION-SATELLITE (Earth-to-space)				
	L-SATELLITE (Earth-to-space)				
Fixed					
Mobile except aerona	autical mobile				
402-403 METEOROLOGICA	L AIDS				
	TION-SATELLITE (Earth-to-space)				
	L-SATELLITE (Earth-to-space)				
Fixed					
Mobile except aerona	autical mobile				
403-406 METEOROLOGICA	L AIDS				
Fixed					
Mobile except aerona	nutical mobile				

Read only			To be comp	leted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
406-406.1 MOBILE-SATELL	ITE (Earth-to-space)			
S5.266 S5.267				
406.1-410 FIXED				
MOBILE except aerona	utical mobile			
RADIO ASTRONOMY				
S5.149				
410-420 FIXED			411-414	
MOBILE except aerona	utical mobile		MOBILE except	
SPACE RESEARCH (sp	pace-to-space) S5.268		aeronautical mobile	
			61	
			414-420	
			FIXED	
			MOBILE	
			17	

Read only Allocation to services			To be compl	eted
Region 1	Region 2	Region 3	National Allocation	Remarks
120-430 FIXED			420-421	
MOBILE except aeronautica	ıl mobile		FIXED	
Radiolocation			MOBILE except	
S5.269 S5.270 S5.271			aeronautical mobile	
			421-424	
			MOBILE except aeronautical mobile	
			Radiolocation	
			61	
			424-430	
			FIXED	
			MOBILE except aeronautical mobile	

Read only			To be comp	leted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
430-440	430-440		430-433.05	
AMATEUR	RADIOLOCATION		AMATEUR	
RADIOLOCATION	Amateur		RADIOLOCATION	
\$5.138 \$5.271 \$5.272 \$5.273			53, 73	
S5.274 S5.275 S5.276 S5.277 S5.280 S5.281 S5.282 S5.283	85 271 85 276 85 277 85 2	78 \$5 279 \$5 281 \$5 282	433.05-434.79	
	S5.271 S5.276 S5.277 S5.278 S5.279 S5.281 S5.282		AMATEUR	
			RADIOLOCATION	
			Land mobile	
			53, 67, 73	
			434.79-438	
			AMATEUR	
			AMATEUR-SATELLITE	
			RADIOLOCATION	
			53, 73	
			438-440	
			AMATEUR	
			RADIOLOCATION	
			53, 73	
440-450 FIXED	1		440-459	
MOBILE except aeronautical mobile			LAND MOBILE	
Radiolocation			FIXED	
\$5.269 \$5.270 \$5.271 \$5	5.284 S5.285 S5.286		MOBILE	
			11, 69	

Read only			To be co	ompleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
450-455 FIXED				
MOBILE				
S5.209 S5.271 S5.286 S5	5.286A S5.286B S5.286C S5.286D	S5.286E		
455-456	455-456	455-456		
FIXED	FIXED	FIXED		
MOBILE	MOBILE	MOBILE		
	MOBILE-SATELLITE			
	(Earth-to-space) S5.286A S5.286B S5.286C			
S5.209 S5.271 S5.286A S5.286B S5.286C S5.286E	S5.209 S5.271	S5.209 S5.271 S5.286A S5.286B S5.286C S5.286E		
456-459 FIXED				
MOBILE				
S5.271 S5.287 S5.288				
459-460	459-460	459-460	459-460	
FIXED	FIXED	FIXED	MOBILE	
MOBILE	MOBILE	MOBILE		
	MOBILE-SATELLITE (Earth-to-space) S5.286A S5.286B S5.286C			
S5.209 S5.271 S5.286A S5.286B S5.286C S5.286E	S5.209 S5.271	S5.209 S5.271 S5.286A S5.286B S5.286C S5.286E		

Read only Allocation to services			To be compl	leted
Region 1 Region 2 Region 3			National Allocation	Remarks
460-470 FIXED			460-469	
MOBILE			METEOROLOGICAL-	
Meteorological-Satellite	(space-to-Earth)		SATELLITE (space-to-Earth)	
S5.287 S5.288 S5.289 S5	5.290		Earth Exploration-Satellite	
			FIXED	
			MOBILE	
			11, 69	
			469-470	
			MOBILE	

Read only			To be compl	eted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
470-790	470-512	470-585	470-478	
BROADCASTING	BROADCASTING	FIXED	BROADCASTING (Television)	
	Fixed	MOBILE	Mobile	
	Mobile	BROADCASTING	3, 70	
	S5.292 S5.293		478-494	
	512-608	S5.291 S5.298	AERONAUTICAL	
	BROADCASTING	585-610	RADIONAVIGATION	
	S5.297	FIXED	BROADCASTING (Television)	
	608-614	MOBILE	3	
	RADIO ASTRONOMY	BROADCASTING	494-502	
	Mobile-satellite except	RADIONAVIGATION	BROADCASTING (Television)	
	aeronautical mobile-satellite	S5.149 S5.305 S5.306 S5.307	Mobile	
	(Earth-to-space)	610-890	3, 70	
	614-806	FIXED	502-510	
	BROADCASTING	MOBILE	AERONAUTICAL	
S5.149 S5.291A S5.294 S5.296	Fixed	BROADCASTING	RADIONAVIGATION	
\$5.300 \$5.302 \$5.304 \$5.306	Mobile		BROADCASTING (Television)	
S5.311 S5.312	S5.293 S5.309 S5.311		3, 70	
			510-590	
	806-890		BROADCASTING (Television)	
	FIXED MOBILE		Mobile	
			3, 70	
	BROADCASTING		590-614	
			AERONAUTICAL RADIONAVIGATION	
			BROADCASTING (Television)	
			3, 70	

Read only		To be completed		
Allocation to services				
Region 1	Region 2	Region 3	National Allocation	Remarks
			614-646	
			BROADCASTING (Television)	
			Mobile	
			3, 54, 70	
			646-686	
			AERONAUTICAL RADIONAVIGATION	
			BROADCASTING (Television)	
			3, 70	
			686-726	
			BROADCASTING (Television)	
			Mobile	
			3, 54, 70	
			726-758	
			AERONAUTICAL RADIONAVIGATION	
			BROADCASTING (Television)	
			3, 70	
			758-766	
			BROADCASTING (Television)	
			Mobile	
			3, 70	
			766-790	
			AERONAUTICAL RADIONAVIGATION	
			BROADCASTING (Television)	
			3, 70	

Read only			To be completed		
	Allocation to services				
Region 1	Region 2	Region 3	National Allocation	Remarks	
790-862			790-814		
FIXED BROADCASTING			AERONAUTICAL RADIONAVIGATION		
S5.312 S5.314 S5.315 S5.316			BROADCASTING (Television)		
S5.319 S5.321			3, 70		
			814-822		
			BROADCASTING (Television)		
			Mobile		
			3, 70		
862-890			822-890.2		
FIXED			LAND MOBILE		
MOBILE except aeronautical mobile			AERONAUTICAL RADIONAVIGATION		
BROADCASTING S5.322					
S5.319 S5.323	S5.317 S5.318	\$5.149 \$5.305 \$5.306 \$5.307 \$5.311 \$5.320			
890-942	890-902	890-942	890.2-890.8		
FIXED	FIXED	FIXED	MOBILE		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	MOBILE BROADCASTING	Radiolocation 77		
BROADCASTING S5.322	Radiolocation	Radiolocation			
Radiolocation	S5.318 S5.325				

Read only			To be co	ompleted
Allocation to services				
Region 1	Region 2	Region 3	National Allocation	Remarks
			890.8-895.4	
			LAND MOBILE	
			AERONAUTICAL RADIONAVIGATION	
			77	
	902-928		895.4-900	
	FIXED		MOBILE	
	Amateur		Radiolocation	
	Mobile except aeronautical		77	
	mobile Radiolocation S5.150 S5.325 S5.326		900-935.2	
			LAND MOBILE	
			AERONAUTICAL RADIONAVIGATION	
			77	
	928-942		935.2-939.8	
	FIXED		MOBILE	
	MOBILE except aeronautical		Radiolocation	
	mobile Radiolocation		77	
S5.323	S5.325	S5.327	939.8-940.4	
33.343	33.323	33.321	LAND MOBILE	
			AERONAUTICAL	
			RADIONAVIGATION	

Read only			To be completed		
	Allocation to services				
Region 1	Region 2	Region 3	National Allocation	Remarks	
942-960	942-960	942-960	940.4-945		
FIXED	FIXED	FIXED	MOBILE		
MOBILE except aeronautical	MOBILE	MOBILE	77		
mobile		BROADCASTING	945-1215		
BROADCASTING S5.322			LAND MOBILE		
			AERONAUTICAL RADIONAVIGATION		
			77		
S5.323		S5.320			

Notes:

- 3. Certain frequencies in these bands can be used for radio-microphones with a power of up to 50 W.
- 8. Certain frequencies can be used for radionavigational needs by the national defence and security after coordination with the Ministry of Transportation.
- 11. The frequency bands 457.525-457.775 MHz and 467.525-467.775 MHz can be used by on-board communication stations in territorial waters. The radio equipment shall meet the requirements of Recommendation ITU-R M.1174.
- 13. The frequency bands 51.425-52 MHz and 54-58 MHz are used for the needs of the national defence and security until expiry of the depreciation term of the Ministry of Defence equipment.
- 17. Certain frequencies in this band are allocated to the Global Maritime Distress and Safety System (GMDSS) in accordance with Article S31 and Appendix APS15.
- 28. The frequency band 29.7-33 MHz may also be used for radio links on the principle of ionospheric scattering or meteor-scatter.
- 29. The frequency bands 5500±50 kHz, 6500±50 kHz, 31.25±0.05 MHz, 33.25±0.05 MHz, 38.1±0.25 MHz and 38.9±0.25 MHz are used for intermediate frequencies in TV sets and any emissions in them are prohibited. The maximum transmitted power in the frequency band 31.25-39.25 MHz is up to 50 W and up to 10 W for civil needs.
- 30. The frequency band 36-46 MHz may be used by VHF mobile radiostations for civil needs.
- 31. The frequency band 45.5-46 MHz may be used for radiocontrol for civil needs.
- 32. In the frequency bands 30.1-33 MHz, 38-44 MHz and 46-48 MHz some frequencies may be used for communication on the principle of ionospheric scattering or or meteor-scatter. The frequency band 37.75-38.25 MHz may be also used for the needs of radioastronomy. The frequencies 36.3 MHz, 36.5 MHz, 36.7 MHz, 36.9 MHz and 37.1 MHz are used for wireless radio microphones with a power of up to 25 mW by priority.
- 33. This frequency band is allocated by priority for radiostations with power up to 10 W.
- 34. The frequency band 60-66 MHz is used for the needs of national defence and security until expiry of the depreciation term of the equipment under the condition that this shall not cause harmful interference to TV reception.
- 35. The frequency band 66-70 MHz is used for the needs of national defence and security until expiry of the depreciation term of the equipment under the condition that this shall not cause harmful interference to VHF-FM.
- 36. This frequency band (carrier 75 MHz) is used for marker beacons with continuos transmission in aeronautical landing systems.
- 37. The frequency bands 73-74.8 MHz and 75.2-76 MHz may also be used by the fixed and the mobile services, subject not to cause interference to the aeronautical radionavigation.
- 38. The frequency band 79.75-80.25 MHz may also be used for the needs of radio astronomy on a secondary basis.
- 39. The frequency 82 MHz may also be used for radio sounding on a secondary basis.
- 40. The frequency band 100-108 MHz is allocated to VHF-FM broadcasting. The frequency allocation for broadcasting is coordinated with respect to EMC with the aeronautical radionavigation systems.

- 41. The frequency 121.5 MHz is used by the aeronautical mobile service for distress and safety and for emergency radiobeacons.
- 42. The band ia allocated to the space operation service (space-to-Earth), meteorological-satellite service (space-to-Earth) and to the space research service (space-to-Earth) on a secondary basis.
- 43. The aeronautical mobile radio equipment /OR/ shall not cause interference to the space research earth stations.
- 44. In this frequency band the civil radiostations are with power up to 10 W.
- 45. In this frequency band the aeronautical and land aeronautical service radio equipment shall not cause interference to the satellite radionavigation service.
- 46. The frequency 156.8 MHz \pm 75 kHz is an international frequency for distress and calling in the maritime mobile service.
- 47. In the Black sea area and the Danube area the frequency bands 156.025-157.425 MHz, 160.625-160.975 MHz and 161.475-162.025 MHz are used by the maritime mobile service in accordance with Appendix S18. Their use by other services shall coordinated with the Ministry of Transportation.
- 48. The frequency band 183.1-184.1 MHz may be used for the needs of the space research service on a secondary basis.
- 49. The frequency band 300-308 MHz is allocated to the land mobile service until 2003.
- 50. The frequency 243 MHz is used by the aeronautical mobile service for distress and safety and for position-indicating emergency radiobeacons.
- 51. The allocation of this frequency band for civil needs shall be effective until 2003.
- 52. The frequency band 401-406 MHz may be used for the needs of the space research service.
- 53. The frequency band 430-440 MHz is used by the radio amateur service on a primary basis.
- 54. The frequency bands 638-646 MHz, 694-702 MHz are allocated to television broadcasting.
- 61. The frequency bands 411-414 MHz and 421-424 MHz may be used for the needs of the civil digital radio system TETRA.
- 63. The frequencies 50.100 MHz, 50.125 MHz and 50.150 MHz may be used for the needs of the radio amateur service with power up to 5 W on a secondary basis.
- 66. Честотната лента 153-174 MHz не може да бъде използвана в кабелните разпределителни системи. The frequency band 153-174 MHz shall not be used in the cable distribution systems.
- 67. The frequency bands 26.957-27.283 MHz, 40.660-40.700 MHz, 433.050-434.790 MHz, 2400-2483.5 MHz, 5725-5875 MHz, 24-24.25 GHz, 120.06-126 GHz, and 241-248 GHz are designated for industrial, scientific and medical (ISM) applications.
- 68. The frequency 161.900 MHz is used for a radio data transmission system for civil needs in the region of Sofia.
- 69. The bands 452.500-457.400 MHz and 462.500-467.400 MHz are used by the cellular system NMT 450-i., except 8 duplex channels, currently used by the Ministry of defence for a radiotelephone system.

70. The following bands may be used for television broadcasting: 470-478 MHz, 494-502 MHz, 510-590 MHz, 614-646 MHz, 686-726 MHz, 758-766 MHz and 814-822 MHz. The use of the band 726-734 MHz is subject to coordination. Its use is limited only to the following objects:

502-510 MHz - Oreliak, Smolian

590-598 MHz - Sofia

742-750 MHz - Smolian (Petrovica).

The band 646-686 MHz shall be used after 2000.

The band 766-814 MHz shall be used after 2008.

- 71. The frequency bands 300-301.100 MHz and 336-337.100 MHz shall also be used for simplex networks until 2003. The frequency bands 306-308 MHz and 342-344 MHz shall be used for duplex networks until 2003. The frequency band 308-310 MHz shall be used for low-power stations up to 5 W until 2003.
- 72. The frequency band 406-406.1 MHz is used by radiobeacons for distress by the mobile satellite service.
- 73. The folowing bands may be used by the amateur service: 1810-1850 kHz, 3500-3800 kHz, 18068-18168 kHz, 24890-24990 kHz, 144-146 MHz (some frequencies may be used by the amateur satellite service), 430-440 MHz (without causing harmful interference to the mobile and fixed services), 5650-5850 MHz, 10000-10025 MHz amateur service and amateur satellite service and 10025-10500 MHz-amateur service.
- 74. Some frequencies in the band 156.026-162.025 MHz are used for civil needs. The frequency band 162.225-162.850 MHz is allocated provisionally to the Ministry of health for a system for urgent medical aid until the National digital system is developed in accordance with the European standards.
- 75. The frequency bands 46.000-46.200 MHz and 46.600-47.000 MHz, 49.000-49.200 and 49.600-50.000 MHz may be used for wireless phones with power up to 100 mw or coverage area of up to 100 m
- 77. The basic frequency bands for GSM operators are 890.2-894.8 MHz + 935.2-939.8 MHz and 895.4-900 MHz + 940.4-945 MHz.

Additional frequency bands are used as follows:

For the area of Sofia:

a) for a first operator:

From 905.6 MHz to 907.8 MHz and from 950.6 MHz to 952.8 MHz

b) for a second operator:

From 908.0 to 910.2 MHz and from 953.0 to 955.2 MHz

For the area of Ploydiv:

a) for a first operator

From 903.0 to 903.8 MHz and from 948.0 to 948.8 MHz

b) for a second operator

From 904.0 to 904.8 MHz and from 949.0 to 949.8 MHz

For the area of Bourgas:

a) for a first operator

От 900.6 до 901.4 МНz и от 945.6 до 946.4 МНz

b) for a second operator:

От 901.6 до 902.4 МНz и от 946.6 до 947.4 МНz

For the area of Varna:

a) for a first operator

From 910.4 to 911.2 MHz and from 955.4 to 956.2 MHz

b) for a second operator:

From 911.4 to 912.2 MHz and from 956.4 to 957.2 MHz

For the area of Rousse:

a) for a first operator

From 912.6 to 913.6 and from 957.6 to 958.6 MHz

b) for a second operator:

From 913.8 to 914.8 MHz and from 958.8 to 959.8 MHz.

Some frequencies are also used by departmental police and by the Ministry of Defence.

84. The frequency band 400.15-406 MHz is used by the meteorological service (aerologic atmospheric probes).

QUESTIONNAIRE - PART II

(To be completed by Administrations only)

Describe succinctly the problems that your administration is currently experiencing in national spectrum management (for example subject areas in national spectrum management)

Cour	ntry BU I	LGARIA				
Foca		Nikola Mantchev, Committee of Posts and Telecommunica a 1000, 6 Gourko St., Bulgaria	tions,			
requi Man	rements of	neral questions on national spectrum management are based in spectrum management described in the handbook on you need additional space to answer the questions please co	"Natio	onal	Spectrun	n
1.	Do you hav	e a national law governing spectrum management?	YES	×	NO □]
	- Last date	e this law was changed or modified?		Aug	gust 1998	8
	Are any	actions planned to change this law?	YES	×	NO □]
2.		sublished regulations and procedures for national spectrum at (e.g. radio services, license requirements etc.)?	YES	×	№ □]
3.	Do you hav	ve a national radio frequency spectrum allocation table?	YES	×	NO □]
4.	Do you hav	re technical specifications for national spectrum use?	YES	×	NO □]
		problems been identified? and if so, do you need any from the ITU in solving them?				
	See Iten	m 3				
5.	Do vou hav	e a need for any spectrum redeployment*?	YES	×	NO □]
* Th	•	yment" is used here to refer to a process of national scope in which	-			
1)	to determine i	f portions of spectrum can be identified that are in limited use; and				
2)		f such spectrum segments can be reallocated for use in delivering ication services that have expanding spectrum requirements.				
	- If so, do	you have a strategy for achieving this redeployment in				

YES 🗷 NO 🗆

respective frequency bands and for given radiocommunication

services?

 Please define the established strategy and describe the nature of the consultation, if any, with users regarding the potential costs

resulting from the planned redeployment.

	This strategy is contained in the document "Telecommunication Sector Policy" prepared by the Committee of Posts and Telecommunications. Funding is necessary to change radio equipment in the Bulgarian Army in line with NATO standards.		
6.	What is the total cost of national spectrum management functions performed by your Government (expressed in Swiss francs)?		No data
	– What is the source of the funding required to accomplish these spectrum management functions?		
	Licence fees for utilisation of frequency resource and state budgeting		
7.	Do you have a method for establishing spectrum users' fees?	YES 🗷	NO 🗆
	Decree No.31, 1999, of the Council of Ministers (published in State Gazette, issue 16, 1999)		
	 If so, please give a brief description of the method used in establishing those fees. 		
	Based on type of service, frequency bandwidth, carrier frequency, effective antenna height, effective transmission power, coverage in terms of population		
8.	Do you maintain centralized databases for spectrum management?	YES 🗷	NO 🗆
	 What is the approximate size of your database (expressed in number of records)? 	Not available a	t present
	 Do you have a computerized data base management system (DBMS)? 	YES 🗷	NO 🗆
	- What DBMS system do you use? SPECTRAPlus, L&	&S, Lichtenau, (Germany
	– Are these frequency assignment records available to public?	YES 🗷	NO 🗆
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?		
	Shortage of hardware and software, training of personnel.		
9.	Do you notify frequency assignments to the ITU?	YES 🗷	NO □

10.	Do you have a policy and planning function for national spectrum management (i.e. a national strategy for future use of the spectrum)?	YES	×	NO 🗆
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?			
	See Item 6.			
11.	Do you perform technical analyses of frequency assignment requests?	YES	×	NO □
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?			
	See Item 8.			
12.	Do you perform radio monitoring? - number of fixed monitoring stations - facilities available at fixed monitoring stations - monitoring up to 1300 MHz	YES	×	NO 🗆
	 direction finding up to 1300 MHz number of mobile monitoring stations facilities available at mobile monitoring stations monitoring up to 2700 MHz direction finding up to 1300 MHz 			1
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?			
	Necessity of additional training of personnel, methodologies, equipment			
13.	Do you perform technical analyses of radio frequency interference complaints?	YES	×	NO □
	 established consultation process, involving Government and non- government organization, for resolving these complaints? 	YES	×	NO □
14.	What computers and operating systems are in use for national spectrum management?			
	Type of computers			PCs
	Operating system(s)		NT,	Windows
15.	Number of technical/professional staff in national spectrum management?		$\mathbf{A}_{\mathbf{l}}$	oprox. 20
16.	Number of support staff in national spectrum management?			22

17. Describe your country's spectrum management structure (Please enclose a copy of organization chart).

The Telecommunications Act specifies the National Radio Frequency Spectrum Council as the state body for spectrum management, together with departments that are part of the organization structures of the Committee of Posts and Telecommunications and the State Telecommunications Commission, as illustrated in WEB-sites www.cpt.bg and www.online.bg/dkd/.

- 18. Do you use the ITU-R Handbooks and Reports on:
 - a) National Spectrum Management, version 1995?

YES

b) Spectrum Monitoring¹, version 1995?

YES

- c) Computer-aided Techniques for Spectrum Management, version 1999?
- d) HF Broadcasting System Design, version 1999?
- e) Report SM.2012, Economic Aspects of Spectrum Management, version 1997²?

YES

f) Windows Basic Automated Spectrum Management System (WinBASMS) Software Version 1997, Manual Version 1997

What additional information/handbooks do you need from the ITU?

c), d), f)

To be returned no later than 31 January 2000 to:

ITU-D Study Groups Secretariat

Telecommunication Development Bureau

Fax: +41 22 730 54 84

E-Mail: devsg1@itu.int

THANK YOU FOR YOUR COOPERATION

The Spectrum Monitoring Handbook is currently being updated, therefore, you are urged to contact Mr Jan Verduijn (NL), the designated Rapporteur from ITU-R Study Group 1, Working Party 1C if you have any comments that you wish included in a future version of this Handbook.

² This Report SM.2012 was updated during the ITU-R Study Group 1 meeting in August 1999. This new version is expected to be available in the three working languages by January 2000.

FOCAL POINT REGARDING CORRESPONDENCE ON THIS QUESTIONNAIRE

(PARTS I AND II)

1.	Mr. X	GRIGOROV	GRIGOR
	Ms	Family Name	First Name
2.	Country	BULGARIA	
3.	Name of Administration/Organiz		NICATIONS COMMISSION
4.	Title	DIRECTOR OF FREQ MANAGEMENT_DIR	
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To be returned no later than 31 January 2000 to: ITU-D Study Groups Secretariat Telecommunication Development Bureau Fax: +41 22 730 54 84

E-Mail: devsg2@itu.int

Section IV - Table of Frequency Allocations (extract from the RR, 1998)

Read only			To be c	ompleted
Allocation to services				
Region 1	Region 2	Region 3	National Allocation	Remarks

27.5-47 MHz

27.5-28 METEOROLOGICAL AIDS		
FIXED	FIXED	
MOBILE	MOBILE	
28-29.7 AMATEUR	AMATEUR	
AMATEUR-SATELLITE	AMATEUR-SATELLITE	
29.7-30.005 FIXED	FIXED	Remark 28
MOBILE	MOBILE	
30.005-30.01 SPACE OPERATION (satellite identification)	FIXED	Remark 28
FIXED	MOBILE	
MOBILE	SPACE OPERATION	
SPACE RESEARCH	/identification/	
	SPACE RESEARCH	
30.01-37.5 FIXED	FIXED; MOBILE	Remark 28,29 and 32
	30,01-31,25	
MOBILE		
	MOBILE 31,25-37,5	Remark 28,29,30 and 32

	Read only			completed
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
37.5-38.25 FIXED			MOBILE	Remark 29,30 and 32
MOBILE			/EXCEPT aeronautical	
Radio astronomy			mobile/	
S5.149			radioastronomy	
38.25-39.986 FIXED			MOBILE	Remark 29,30 and 32
MOBILE			38,25-39,25	
39.986-40.02 FIXED			FIXED	Remark 30 and 32
MOBILE			MOBILE 39,25-40,66	
Space research				
40.02-40.98 FIXED			MOBILE	Remark 30, 32 and 67
MOBILE			40,66-40,7	
S5.150				
40.98-41.015 FIXED			FIXED	Remark 30, 31,32 and 75
MOBILE			MOBILE	
Space research			40,7-51,425	
S5.160 S5.161				
41.015-44 FIXED				
MOBILE				
S5.160 S5.161				
44-47 FIXED				
MOBILE				
S5.162 S5.162A				

47-75.2 MHz

	Read only		To be	completed
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
47-68	47-50	47-50		
BROADCASTING	FIXED	FIXED		
	MOBILE	MOBILE		
		BROADCASTING		
	50-54		L. MOBILE	Remark 13, 33,80
	AMATEUR		51,425-54,0	
	S5.166 S5.167 S5.168	S5.166 S5.167 S5.168 S5.170		
	54-68	54-68	L. MOBILE 54-58	Remark 13, 33
	BROADCASTING	FIXED		
	Fixed			
	Mobile	MOBILE		
		BROADCASTING		
			BROADCASTING(TV)	Remark 34
			58-66	
			66-73	
	85.165		BROADCASTING	Remark 35
S5.169 S5.171	S5.172			

		Read only		To be	e completed
		Allocation to services			
	Region 1	Region 2	Region 3	National Allocation	Remarks
68-74.8		68-72	68-74.8	BROADCASTING	
FIXED		BROADCASTING	FIXED	LAND MOBILE	Remarks 35
MOBILE	except aerona	1 11144	MOBILE	66-73	
mobile		Mobile			
		S5.173			
			S5.149 S5.176 S5.179		
		72-73			
		FIXED			
		MOBILE			
		73-74.6			
		RADIO ASTRONOMY			
		S5.178		AERONAUTICAL	Remarks 36 and 37
				RADIONAVIGATION	
				73-76	

	Read only		To be c	ompleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
S5.149 S5.174 S5.175 S5.177 S5.179	74.6-74.8 FIXED MOBILE			
74.8-75.2 AERONAUTICAL RADIONAVIGATION S5.180 S5.181				

Read only			To be c	ompleted
Allocation to services				
Region 1	Region 2	Region 3	National Allocation	Remarks

75.2-137.175 MHz

S5.197	DIONATION		RADIONAVIGATION	ixinal ky 0
S5.192 S5.194 108-117.975 AERONAUTICAL RADIONAVIGATION			stereo AERONAUTICAL	Remarks 8
100-108 BROADCASTING			BROADCASTING	Remarks 40
S5.190	BROADCASTING		DDC 4 DC 4 CTD 4 C	
	88-100			
BROADCASTING	S5.185	BROADCASTING		
87.5-100		MOBILE		
S5.175 S5.179 S5.184 S5.187		FIXED		
	Mobile	87-100		
	Fixed	S5.149 S5.182 S5.183 S5.188		
	76-88 BROADCASTING			
	MOBILE	MOBILE		
	FIXED	FIXED		
	75.4-76	75.4-87	1)
			76-100	
			BROADCASTING	Remarks 38 and 39
moone	S5.179			
MOBILE except aeronautica mobile				
FIXED	FIXED			
75.2-87.5	75.2-75.4			

Read only			To be	completed
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
117.975-137 AERONAUTICAL MOB	SILE (R)		AERONAUTICAL	Remarks 8 and 41
S5.111 S5.198 S5.19		S5.202 S5.203 S5.20	3A MOBILE (R)	
S5	5.203B		117,975-136	
			AERONAUTICAL	Remarks 8 and 42
			MOBILE (R)	
			Fixed 136-137	
METEOROLOGICAL-SATE MOBILE-SATELLITE (space- SPACE RESEARCH (space-trived) Mobile except aeronautical me S5.204 S5.205 S5.206 S5.207	LLITE (space-to-Earth) e-to-Earth) S5.208A S5.209 o-Earth) obile (R)		AERONAUTICAL MOBILE (OR SPACE RESEARCH (TELEMEASUREMENT and control) 137-138	

Read only			To be completed	
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
137.025-137.175 SPACE OPERAT	137.025-137.175 SPACE OPERATION (space-to-Earth)			
METEOROLOGICAL-SA	METEOROLOGICAL-SATELLITE (space-to-Earth)			
SPACE RESEARCH (space	ee-to-Earth)			
Fixed	Fixed			
Mobile-satellite (space-to-Earth) S5.208A S5.209				
Mobile except aeronautical mobile (R)				
S5.204 S5.205 S5.206 S5.2	07 S5.208			

137.175-148 MHz

137.175-137.825 SPACE OPERATION (space-to-Earth)	METEOROLOGICAL	
METEOROLOGICAL-SATELLITE (space-to-Earth)	SATELLITE	
MOBILE-SATELLITE (space-to-Earth) S5.208A S5.209	SPACE RESEARCH	
SPACE RESEARCH (space-to-Earth)	(SPACE-to-EARTH)	
Fixed	137-138	
Mobile except aeronautical mobile (R)		
S5.204 S5.205 S5.206 S5.207 S5.208		
137.825-138 SPACE OPERATION (space-to-Earth)		
METEOROLOGICAL-SATELLITE (space-to-Earth)		
SPACE RESEARCH (space-to-Earth)		
Fixed		
Mobile-satellite (space-to-Earth) S5.208A S5.209		
Mobile except aeronautical mobile (R)		
S5.204 S5.205 S5.206 S5.207 S5.208		

Read only			To be completed	
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
138-143.6	138-143.6	138-143.6	AERONAUTICAL	
AERONAUTICAL MOBILE (OR)	FIXED	FIXED	MOBILE (OR)	
	MOBILE	MOBILE		
	RADIOLOCATION	Space research (space-to- Earth)		
S5.210 S5.211 S5.212 S5.214	Space research (space-to- Earth)	S5.207 S5.213		
143.6-143.65	143.6-143.65	143.6-143.65	AERONAUTICAL	Remark 43
AERONAUTICAL MOBILE (OR)	FIXED	FIXED	MOBILE (OR)	
SPACE RESEARCH	MOBILE	MOBILE	SPACE RESEARCH	
(space-to-Earth)	RADIOLOCATION	SPACE RESEARCH	(SPACE-to-EARTH	
S5.211 S5.212 S5.214	SPACE RESEARCH	(space-to-Earth)		
	(space-to-Earth)	S5.207 S5.213		
143.65-144	143.65-144	143.65-144	AERONAUTICAL	
AERONAUTICAL MOBILE (OR)	FIXED	FIXED	MOBILE (OR)	
S5.210 S5.211 S5.212 S5.214	MOBILE	MOBILE		
	RADIOLOCATION	Space research (space-to-		
	Space research (space-to-	Earth)		
	Earth)	S5.207 S5.213	4.2.5.4 (MDV)	
144-146 AMATEUR \$5.120			AMATEUR	
AMATEUR-SATELLITE			AMATEUR-	
S5.216		Г	SATELLITE	
146-148	146-148	146-148	AERONAUTICAL	
FIXED	AMATEUR	AMATEUR	MOBILE (OR)	
MOBILE except aeronautical		FIXED		
mobile (R)		MOBILE		

Read only			To be o	completed
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
	S5.217	S5.217		
148-149.9	148-149.9		L. MOBILE	
FIXED	FIXED		FIXED	
MOBILE except aeronautical mobile (R) MOBILE-SATELLITE	MOBILE MOBILE-SATELLITE (Earth-to-space) S5.209	148-148,025	
(Earth-to-space) S5.209				
			MOBILE-SATELITE	Remark 80
			/Earth space/	
			MOBILE	
			148,025-148,925	
S5.218 S5.219 S5.221	S5.218 S5.219 S5.221		L. MOBILE	
			FIXED	
			148,925-149,9	
149.9-150.05 MOBILE-SATELLITE (RADIONAVIGATION-SAT	·		AERONAUTICAL MOBILE	Remark 44 and 45
S5.220 S5.222 S5.223			L. MOBILE	
			RADIONAVIGATION- SATELLITE	
			149,9-150	
			RADIONAVIGATION- SATELLITE	Remark 44 and 45
			(EARTH-TO-SPACE) MOBILE- SATELLITE	
			MOBILE SATELLITE	
			150-150,05	

Read only			To be c	ompleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
150.05-153 FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY S5.149	150.05-156.7625 FIXED MOBILE		MOBILE except aeronautical mobile RADIO ASTRONOMY	Remark 80
153-154 FIXED MOBILE except aeronautical mobile (R) Meteorological Aids			MOBILE except Aeronautical mobile 153-153,425	Remark 66
			LAND MOBILE 153,425-156,025	Remark 66

Read only		To be c	ompleted	
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
154-156.7625 FIXED MOBILE except aeronautical mobile (R)			MOBILE EXCEPT AERONAUTICAL MOBILE 156,025-156,5125	Remarks 17,47, and 66
S5.226 S5.227	S5.225 S5.226 S5.227		MARITIME MOBILE	Remarks 17,47, and 66
			156,5125-156,5375 MOBILE EXCEPT AERONAUTICAL MOBILE 156,5375-156,7625	Remarks 17,46,47, and 66
156.7625-156.8375 MARITIME MOBIL	LE (distress and calling) 5.111 S5.226		MARITIME MOBILE	Remarks 17,46,47, and 66

Read only		To be c	ompleted	
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
FIXED MOBILE except aeronautical mobile S5 226 S5 229	156.8375-174 FIXED MOBILE S5.226 S5.230 S 5 231 S 5.232		MOBILE EXCEPT AERONAUTICAL MOBILE 156,8375-157,425	Remarks 46,47,and 66and 80
			LAND MOBILE 157,425-160,625	Remarks 66 and 74
			MOBILE EXCEPT AERONAUTICAL MOBILE 160,625-160,95	Remarks 47 and 66
			MOBILE EXCEPT AERONAUTICAL MOBILE 160,95-161,475	Remarks 47, 66 and 74

	Read only			completed
	Allocation to services			
Region 1	Region 1 Region 2		National Allocation	Remarks
			MOBILE EXCEPT AERONAUTICAL MOBILE	Remarks 46,47, 66,68,74 and 80
			161,475-162,075	
			LAND MOBILE	Remarks 66 and 74
			162,075-174	
174-223	174-216	174-223	BROADCASTING (TV)	Remarks 3 and 48
BROADCASTING	BROADCASTING	FIXED	174-216	
	Fixed	MOBILE		
	Mobile	BROADCASTING		
	S5.234			
	216-220			
	FIXED			
	MARITIME MOBILE			
	Radiolocation S5.241			
	S5.242			
S5.235 S5.237 S5.243		S5.233 S5.238 S5.240 S5.245		

		C		
	Read only		To be co	ompleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
		220-335.4 MHz		
	220-225			
223-230	AMATEUR	223-230	BROADCASTING (TV)	
BROADCASTING	FIXED	FIXED	216-230	
Fixed	MOBILE	MOBILE		
Mobile	Radiolocation S5.241	BROADCASTING		
	225-235	AERONAUTICAL		
	FIXED	RADIONAVIGATION		
	MOBILE	Radiolocation		
S5.243 S5.246 S5.247		S5.250		
230-235		230-235	FIXED MOBILE	
FIXED		FIXED	230-300	
MOBILE		MOBILE		
		AERONAUTICAL		
		RADIONAVIGATION		
				Remark 50
S5.247 S5.251 S5.252		S5.250		

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235-267 FIXED

MOBILE

S5.111 S5.199 S5.252 S5.254 S5.256

Read only		To be	e completed	
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
267-272 FIXED				
MOBILE				
Space operation (s	space-to-Earth)			
S5.254 S5.257				
272-273 SPACE OPERATI	ON (space-to-Earth)			
FIXED				
MOBILE				
S5.254				
273-312 FIXED	300-30		MOBILE	Remarks 49 and 71
MOBILE	301.1-			
S5.254	306-306,225			
		306,225-306,525		
		306,525-308,0		
		308-310	MODILE	D 1.40
			MOBILE	Remark 49
			MOBILE	Remarks 49 and 71
			FIXED MOBILE	Remarks 49 and 71
			MOBILE	Remarks 49 and 71
			MOBILE	Remark 71
112-315 FIXED			MOBILE	D 1.51
MOBILE Mobile getallite (F	orth to appea) S5 254 S5 255		308-310	Remark 71
•	arth-to-space) S5.254 S5.255			_
315-322 FIXED Mobile				
S5.254				

Read only			To be completed	
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
322-328.6 FIXED			FIXED	
MOBILE			MOBILE	
RADIO ASTRONOMY			310-328,6	
S5.149				
328.6-335.4 AERONAUTICAL RAD	IONAVIGATION		AERONAUTICAL	Remark 8
S5.258 S5.259			RADIONAVIGATION	
			328,6-336	

335.4-410 MHz

335.4-387 FIXED	336-337,1		MOBILE	Remarks 51 and 71
MOBILE	337,1-342			
S5.254	342-342,225			
		342,225-342,525		
		342,525-344		
			FIXED; MOBILE	Remark 51
			MOBILE	Remarks 51 and 71
			FIXED; MOBILE	Remarks 51 and 71
			MOBILE	Remarks 51 and 71
387-390 FIXED				
MOBILE				
Mobile-satellite (space	ce-to-Earth) S5.208A S5.254 S5.255			
390-399.9 FIXED				
MOBILE				
S5.254				

Read only			To be completed		
	Allocation to services				
Region 1	Region 2	Region	3	National Allocation	Remarks
399.9-400.05 MOBILE-SATELLITE ((Earth-to-space) S5.209 S5.224	4A		MOBILE	
RADIONAVIGATION-SAT	TELLITE S5.222 S5.224B S5.2	260		344-411	
S5.220					
				MOBILE	Remarks 17,52,72,and 84
				344-411	
400.05-400.15 STANDARD SATELLITE (400.1	FREQUENCY AN MHz)	D TIME	SIGNAL-		
S5.261 S5.262	,				
400.15-401 METEOROLOGICAL A	AIDS				
METEOROLOGICAL-SATI	ELLITE (space-to-Earth)				
MOBILE-SATELLITE (space	ce-to-Earth) S5.208A S5.209				
SPACE RESEARCH (space-	-to-Earth) S5.263				
Space operation (space-to-E	arth)				
S5.262 S5.264					
401-402 METEOROLOGICAL AIDS	S				
SPACE OPERATION (space	e-to-Earth)				
EARTH EXPLORATION-SA	ATELLITE (Earth-to-space)				
METEOROLOGICAL-SATI	ELLITE (Earth-to-space)				
Fixed					
Mobile except aeronautical n	nobile				

Read only			To be com	pleted
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
402-403 METEOROLOGICAL AIDS				
EARTH EXPLORATION-SA	ATELLITE (Earth-to-space)			
METEOROLOGICAL-SATE	ELLITE (Earth-to-space)			
Fixed				
Mobile except aeronautical m	obile			
403-406 METEOROLOGICAL AIDS				
Fixed				
Mobile except aeronautical m	obile			
406-406.1 MOBILE-SATELLITE (Earth-to-space)			
S5.266 S5.267				
406.1-410 FIXED				
MOBILE except aeronautical	mobile			
RADIO ASTRONOMY				
S5.149				

410-470 MHz

410-420	FIXED			MOBILE EXCEPT	Remark 61
	MOBILE except aeronautical mobile	411-414		AERONAUTICAL	
	SPACE RESEARCH (space-to-space) S5.268			MOBILE	
			414-420		
				FIXED;	Remark 17
				MOBILE	

	To b	e completed		
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
420-430 FIXED	<u>.</u>		FIXED; MOBILE except	
MOBILE except aeronautical m	nobile 420-4	21	AERONAUTICAL	
Radiolocation			MOBILE	
S5.269 S5.270 S5.271	421-424			
		424-430		
			MOBILE exce	pt Remark 61
			AERONAUTICAL MOBILE,	
			RADIOLOCATION	
			FIXED ;MOBILE exce	pt
			AERONAUTICAL MOBILE	
430-440 4	130-440		AMATEUR	
AMATEUR	RADIOLOCATION		430- RADIOLOCATION	
	433,05		450- REIDIOLOCITION	
TO T	Amateur			
		433	3,05-	
4	134,79			
			AMATEUR	Remark 67
			RADIOLOCATION	
			L. MOBILE	

		Read only	To be o	completed	
		Allocation to services			
Re	gion 1	Region 2	Region 3	National Allocation	Remarks
S5.138 S5.271 S5.274 S5.275 S5.280 S5.281 S	S5.276 S5.2	77	434,79- 5.278 S5.279 S5.281 S5.282	AMATEUR; AMATEUR- SATELLITE, RADIOLOCATION	
			438-440		
				AMATEUR RADIOLOCATION	
440-450 FIXED			L. MOBILE	Remarks 11 and 69	
	E except aeronaut	ical mobile 440-	-459	FIXED	
Radiolo				MOBILE	
	S5.270 S5.271 S5.	284 S5.285 S5.286			
450-455 FIXED MOBIL	Æ				
S5.209	S5.271 S5.286 S5.	286A S5.286B S5.286C S5.286D S	5.286E		
455-456 FIXED MOBILE		455-456 FIXED	MOBILE MOBILE-SATELLITE (Earth-to-space) S5.286A S5.286B S5.286C	455-456 FIXED	MOBILE
S5.209 S5.271 S5.286C S5.286E		S5.209 S5.271		S5.209 S5.271 S5.286A S5.286B S5.286C S5.286E	
456-459 FIXED MOBIL	E			S5.288 S5.271 S5.287	

	Read only	To be	completed	
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
459-460	459-460	459-460	MOBILE	
FIXED	FIXED	FIXED		
MOBILE	MOBILE MOBILE-SATELLITE (Earth-to-space) S5.286A S5.286B S5.286C	MOBILE		
S5.209 S5.271 S5.286A S5.286B S5.286C S5.286E	S5.209 S5.271	S5.209 S5.271 S5.286A S5.286B S5.286C S5.286E		
460-470 FIXED MOBILE Meteorological-Satellite (spa	*	60-469	METEOROGICAL- SATELLITE /Space-to-Earth/,space research earth; FIXED;	Remarks 11 and 69
S5.287 S5.288 S5.289 S5.290		469-470	MOBILE MOBILE	

Read only			To be c	completed
	Allocation to services			
Region 1 Region 2		Region 3	National Allocation	Remarks

470-890 MHz

470-790 BROADCASTING		470-512 BROADCASTING Fixed	470-585 FIXED MOBILE	BROADCASTING MOBILE 470-478	(TV) Remarks 3 and 70
		Mobile S5.292 S5.293	BROADCASTING		
		512-608 BROADCASTING S5.297 608-614	S5.291 S5.298 585-610		
		RADIO ASTRONOMY Mobile-satellite except aeronautical mobile-satellite (Earth-to-space)	FIXED MOBILE BROADCASTING RADIO- NAVIGATION		
		614-806 BROADCASTING	S5.149 S5.305 S5.306 S5.307 610-890		
	S5.296 S5.306	Fixed Mobile	FIXED MOBILE		
790-862 FIXED		\$5.293 \$5.309 \$5.311 806-890 FIXED	BROADCASTING		
BROADCASTING \$5.312	\$5.316	MOBILE BROADCASTING			

	Read only		To be completed		
	Allocation to services				
Region 1	Region 2	Region 3	National Allocation	Remarks	
			AERONAUTICAL RADIO-R NAVIGATION; BROADCASTING (TV)	Remark 3	
			478-494		
			BROADCASTING (TV)R MOBILE	Remarks 3 and 70	
			494-502		
			AERONAUTICAL RADIO-R NAVIGATION;BROADCAS TING (TV)	Remarks 3 and 70	
			502-510		
			BROADCASTING (TV)R MOBILE	Remarks 3 and 70	
			510-590		
			AERONAUTICAL RADIO-R NAVIGATION; BROADCASTING (TV)	Remarks 3 and 70	
			590-614		
			BROADCASTING (TV)R MOBILE	Remarks 3,54 and 70	
			614-646		
			AERONAUTICAL RADIO-R NAVIGATION; BROADCASTING (TV)	temarks 3 and 70	
			646-686		
			BROADCASTING (TV)R MOBILE 686-726	Remarks 3,54 and 70	

Read only			To be	completed
	Allocation to services			
Region 1	Region 2	Region 3	National Allocation	Remarks
			AERONAUTICAL RADIO- NAVIGATION; TELEVISION	Remarks 3 and 70
			726-758	
			BROADCASTING (TV) MOBILE	Remarks 3 and 70
			758-766	
			AERONAUTICAL RADIO- NAVIGATION; BROADCASTING (TV) 766-814	Remarks 3 and 70
			BROADCASTING (TV) MOBILE	Remarks 3 and 70
			814-822	
862-890 FIXED MOBILE except aeronautical mobile			L. MOBILE AERONAUTICAL RADIO- NAVIGATION 822-890,2	
BROADCASTING S5.322		G5 140, G5 205, G5 207, G5 207		
S5.319 S5.323	S5.317 S5.318	S5.149 S5.305 S5.306 S5.307 S5.311 S5.320		

Read only			To be completed		
Allocation to services					
Region 1 Region 2		Region 3	National Allocation	Remarks	

890-1 350 MHz

890-942	890-902	890-942	MOBILE	Remark 77
FIXED	FIXED	FIXED	RADIOLOCATION	
MOBILE except aeronautical mobile	MOBILE except aeronautical	MOBILE	890,2-890,8	
BROADCASTING S5.322	mobile	BROADCASTING		
Radiolocation	Radiolocation	Radiolocation		
	S5.318 S5.325			
			L. MOBILE	Remark 77
			AERONAUTICAL	
			RADIONAVIGATION	
			890,8-895,4	
	902-928		MOBILE	Remark 77
	FIXED		RADIOLOCATION	
	Amateur		895,4-900	
	Mobile except aeronautical			
	mobile			
	Radiolocation			
	S5.150 S5.325 S5.326			
			L. MOBILE	Remark 77
			AERONAUTICAL	
			RADIONAVIGATION	
			900-935,2	

Read only			To be completed		
	Allocation to services				
Region 1	Region 2	Region 3	National Allocation	Remarks	
	928-942 FIXED MOBILE except aeronautical mobile Radiolocation		MOBILE RADIOLOCATION 935,2-939,8 L. MOBILE AERONAUTICAL RADIONAVIGATION 939,9-940,4	Remark 77	
S5.323 942-960 FIXED MOBILE except aeronautical mobile	S5.325 942-960 FIXED MOBILE	S5.327 942-960 FIXED MOBILE	MOBILE 940,4-945	Remark 77	
BROADCASTING S5.322 S5.323		BROADCASTING S5.320	L. MOBILE AERONAUTICAL RADIONAVIGATION 945-1215	Remark 8 and77	

QUESTIONNAIRE – PART II

(To be completed by Administrations only)

Describe succinctly the problems that your administration is currently experiencing in national spectrum management (for example subject areas in national spectrum management)

Country		BULGARIA			
Foca	point	NATIONAL SPECTRUM MANAGEMENT			
requi Mana	rements of speci	questions on national spectrum management are based in trum management described in the handbook on need additional space to answer the questions please of	"Natio	onal	Spectrum
1.	Do you have a na	tional law governing spectrum management?	YES	×	NO \square
	 Last date this ! 	law was changed or modified?			06.08.98
	 Are any action 	ns planned to change this law?	YES	×	NO \square
		ems been identified? and if so, do you need any ne ITU in solving them?			
	Planning of r	radio frequency spectrum			
2.		ned regulations and procedures for national spectrum a radio services, license requirements etc.)?	YES	×	NO 🗆
		ems been identified? and if so, do you need any ne ITU in solving them?			
	broadcast li	me problems regarding the radio and TV icensing, we would like to have more about the practices and procedures in the ies.			
3.	Do you have a na	tional radio frequency spectrum allocation table?	YES	×	NO 🗆
		ems been identified? and if so, do you need any ne ITU in solving them?			
		ne problems in the frequency range 29 MHz- this range the table isn't harmonized with			

4.	Do you have technical specifications for national spectrum use?	YES 🗷	NO L
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?		
	We have a big problem with the transition from OIRT standard to CCR and with the replanning for the harmonization with CEPT requirements		
5.	Do you have a need for any spectrum redeployment*?	YES 🗷	NO □
	e term "redeployment" is used here to refer to a process of national scope in which assessment is conducted		
1)	to determine if portions of spectrum can be identified that are in limited use; and		
2)	to determine if such spectrum segments can be reallocated for use in delivering radiocommunication services that have expanding spectrum requirements.		
	 If so, do you have a strategy for achieving this redeployment in respective frequency bands and for given radiocommunication services? 	YES 🗷	NO 🗆
	 Please define the established strategy and describe the nature of the consultation, if any, with users regarding the potential costs resulting from the planned redeployment. 		
	The established strategy is the following:		
	1. The main problems are as follows:		
	Regarding the forthcoming accession of Bulgaria in NATO it is necessary to reallocate some frequency bands and put them in accordance with NATO's standards. An economic problem will appear due to replacing the military facilities which are still working according to the Council of Economic Assistance		
	The suspension of rmer TV repeaters which are operating in the range of 1-5 channels according to OIRT/up to 100 MHz/		
	Releasing the range /66-73 MHz/ of the broadcasting for the aims of the mobile connections.		
	2. Replanning the TV network in the North East of Bulgaria with the purpose of removing the 5th channel OIRT (92-100 MHz). It will be necessary for releasing frequency resource in order to develope the broadcasting		

6.	What is the total cost of national spectrum management functions performed by your Government (expressed in Swiss francs)?			
	The Government is not in position to subsidize the STC			
	 What is the source of the funding required to accomplish these spectrum management functions? 			
	5 975 000 CHF from license fees and fees for frequency spectrum resource			
7.	Do you have a method for establishing spectrum users' fees?	YES	×	NO 🗆
	 If so, please give a brief description of the method used in establishing those fees. 			
	The level of the fees depends on maximal effective radiated power and maximal effective antenna height			
8.	Do you maintain centralized databases for spectrum management?	YES	×	NO 🗆
	 What is the approximate size of your database (expressed in number of records)? 			12 500
	Do you have a computerized data base management system (DBMS)?	YES	×	NO 🗆
	– What DBMS system do you use?		(ORACLE
	– Are these frequency assignment records available to public?	YES	X	NO \square
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?			
	We need assistance with automated coordination for broadcasting, fixed, mobile and satellite services			
9.	Do you notify frequency assignments to the ITU?	YES	×	NO 🗆
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?			
	We need some assistance with delivery of software for automated notification of the frequency assignment			
10.	Do you have a policy and planning function for national spectrum management (i.e. a national strategy for future use of the spectrum)?	YES	×	№ □
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?			
	We need assistance with policy and planning			

11.	Do you perform technical analyses of frequency assignment requests?	×	NO	
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?			
	We need assistance			
12.	Do you perform radio monitoring?	YES	×	NO 🗆
	 number of fixed monitoring stations 			2
	 facilities available at fixed monitoring stations 			
	 monitoring up to 2000 MHz 			
	 direction finding up to 1000 MHz 			
	 number of mobile monitoring stations 			1
	 facilities available at mobile monitoring stations 			
	 monitoring up to 1000 MHz 			
	 direction finding up to 1000 MHz 			
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?			
	We don't have monitoring coverage for all over the country. We're establishing regional monitoring stations, but we don't have with equipment for them; we need monitoring equipment above 2 GHz			
13.	Do you perform technical analyses of radio frequency interference complaints?	YES	×	NO □
	 established consultation process, involving Government and non- government organization, for resolving these complaints? 	YES	×	NO 🗆
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?			
	We need information for the international and EU practice in this field?			
14.	What computers and operating systems are in use for national spectrum management?			
	Type of computers		PCs	Pentium
	Operating system(s)		Win	dows NT
	Have any problems been identified? and if so, do you need any assistance from the ITU in solving them?			
	We require placing into operation and complementary of the software of the German company L&S			
15.	Number of technical/professional staff in national spectrum management?			17

16. Number of support staff in national spectrum management?

17 + 7

17. Describe your country's spectrum management structure (Please enclose a copy of organization chart).

www.stc.bg You are welcome to visit our web site!

- 18. Do you use the ITU-R Handbooks and Reports on:
 - a) National Spectrum Management, version 1995?

YES

- b) Spectrum Monitoring¹, version 1995?
- c) Computer-aided Techniques for Spectrum Management, version 1999?

YES

d) HF Broadcasting System Design, version 1999?

- YES
- e) Report SM.2012, Economic Aspects of Spectrum Management, version 1997²?
- f) Windows Basic Automated Spectrum Management System (WinBASMS) Software Version 1997, Manual Version 1997

What additional information/handbooks do you need from the ITU?

Planning and coordination handbooks for broadcasting, fixed, mobile, satellite services

To be returned no later than 31 January 2000 to:

ITU-D Study Groups Secretariat

Telecommunication Development Bureau

Fax: +41 22 730 54 84

E-Mail: devsg1@itu.int

THANK YOU FOR YOUR COOPERATION

The Spectrum Monitoring Handbook is currently being updated, therefore, you are urged to contact Mr Jan Verduijn (NL), the designated Rapporteur from ITU-R Study Group 1, Working Party 1C if you have any comments that you wish included in a future version of this Handbook.

² This Report SM.2012 was updated during the ITU-R Study Group 1 meeting in August 1999. This new version is expected to be available in the three working languages by January 2000.