



# IARU Monitoring System Region 1

## Monthly Newsletter 9 - September 2020

edited by Peter Jost, HB9CET, assisted by Gaspar Miró, EA6AMM

### News and Info's

Dear colleagues

Many thanks to all of you who regularly help to carry out our important monitoring work and to document it in monthly reports. Without your reports, no Newsletters would be possible.

The virtual IARU R1 general conference (VGC) will soon take place from October 11th to 16th. Two decisions that are important for IARUMS will be made there. A new coordinator must be elected and it will be decided whether the new online logger developed by URE will be designated as an IARU R1 logger. Both should go through without any problems. I myself will be available as Vice Coordinator, if this is so desired and confirmed.

What the future of the IARUMS will bring remains to be seen. Personally, continuity and stability of our team are very important to me. And we are in a good position, only our aging worries me a little, as well as the fact that actually far too few R1 societies actively participate in IARUMS. Another problem is the fact that we have too few colleagues who are really familiar with digital modes and can seriously analyze and classify them. And yes, it requires suitable software, appropriate specialist literature and, above all, a lot of practice. Monitoring is not only a multiple choice from a given "picking list". Mere

guesswork about what it might be should be avoided, it doesn't help anyone. Only facts count!

### From the monitoring desk

As was the case all year round, the numerous OTH radars plagued us massively. In addition to the daily active Russian Contayner radar, also OTHR' from the Far East were often heard. A system with 50 sps (chirps) and approx. 10 kHz bandwidth was increasingly noticed. It is very likely that it comes from China. We are not sure whether it is a variant of the burst system known as "Foghorn" (Nickname) or a new one.

In addition to the radars, we are also regularly bothered by various digital emissions, especially several FSK variants, but also the well known MPSK CIS12 or OFDM systems etc, all mainly from CIS countries. Western systems such as LINK11 CLEW or SLEW, STANAG 4285 or MIL 188-110x etc. on the other hand, could hardly be heard in September.

vy 73, stay safe  
Peter Jost, HB9CET,  
IARUMS R1 Coordinator a.I.

### Detailed reports of national coordinators

**Abbreviations used** (as per IARUMS definitions)

**aka** = also known as | **BC** = Broadcast | **BD** = Baud, (or also Burst duration) | **BRI** = Burst repetition interval | **BW** = Bandwidth | **ca** = approximate | **CHN** = **PRC** = People's Republic of China | **DF** = Direction finding (radio location; see also TDoA) | **OTHR** = over the horizon radar | **FMCW** = frequency modulated continuous wave | **FMOP** = frequency modulated on pulse | **SH** = Shift (Hz) | **sps** = sweeps per second | **TDoA** = Time difference of arrival | **ui** = **unid** = unidentified | **vd** = various dates | **vt** = various times.

<b>DARC; Credits to monitors:</b> Wolf DK2OM, Tom DF5JL, Alex DB3TA, Roman DL3TU, Maurice, Sigmar DG5VE, Uli DG4SFS, Christian, Sebastian, Holger DO3MHA, Harald DJ3AS, Daniel DL3RTL									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3500.0	2000	30	09	E		USB			Spanish fishery
3581.8	div	dly	09	TUR		PSK8A	2400	2400	Stanag-4285 - 600 bps long - Ankara - <b>shared band!</b>
3756.8 RF	1800	dly	09	RUS		USB			RUS MIL - channel marker - 4 tones - Tuapse - East Black Sea (nw of Sochi) - night QRG

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kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7013.0	1603	28	09	CHN		FMOP	50 sps	10k	Chinese OTH radar - 7008 - 7018 kHz - - 5 sec bursts
7022.0	1015	16	09	RUS		PSK2A	120	2600	CIS12 = AT3004D - Kaliningrad
7022.0	1959	20	09	CHN		FMOP	66.66 sps	10k	Chinese OTH radar - 7017 - 7027 kHz - - 3.8 sec bursts - "Foghorn"
7029.0	1940	08	09	RUS		F1B	75	200	St. Petersburg
7035.0	1737	14	09	RUS		F1B	75	250	Moscow
7038.0	2032	02	09	CHN		FMOP	50 sps	10k	Chinese OTH radar - 7033 - 7043 kHz - - 5 sec bursts
7055.0	vt	dly	09	UKR		LSB			Music and Russian voices
7066.0	1326	07	09	RUS		F1B	50	200	mostly transmitting carrier on 7065.9 (space QRG) - Moscow
7070.0	1600	05	09	RUS		PSK2A	120	2600	CIS12 = AT3004D - Sevastopol
7071.0	0618	23	09			OFDM			CIS-45
7075.0	1100	19	09			A1A			Series of five dashes in CW
7080.0	1850	03	09	RUS	RDL	F1B	50	200	Kaliningrad - daily
7085.0	1906	29	09	RUS		FMOP	40 sps	12k	OTH radar Contayner - - nw of Saransk - 7079 - 7091 kHz
7109.0	2107	17	09	CHN		FMOP	50 sps	10k	Chinese OTH radar - 7104 - 7114 kHz - - 5 sec bursts
7114.0	1754	02	09	RUS	RDL	F1B	50	200	ident on F1A "RDL" - St. Petersburg
7122.0	1506	09	09	RUS	RDL	F1B	50	200 250	RUS Navy - Severomorsk or Moscow-daily - various times - also: 28.09.2020 at 1727 utc
7125.0	1654	11	09	CHN		FMOP	50 sps	10k	Chinese OTH radar - 7120 - 7130 kHz - - 5 sec bursts
7124.5	1340	29	09	RUS		PSK2A	120	2600	CIS12 = AT3004D - submode idle - north of Bryansk
7127.0	0558	23	09		MKBF	A1A			Kind of QSO
7134.0	2005	29	09	CHN		FMOP	50 sps	10k	Chinese OTH radar - 7129 - 7139 kHz - - 5 sec bursts
7137.0	1743	05	09	RUS	RDL	F1B	50	200	Kaliningrad - RUS navy - often
7138.0	1723	06	09	RUS		F1B	50	200	idling - Kaliningrad
7139.0	1643	07	09	CHN		FMOP	66.66 sps	10k	Chinese OTH radar - 7134 - 7144 kHz - - 3.8 sec bursts - "Foghorn"
7140.0	1700	01	09	ERI		A3E		9k	7140.021 kHz - Radio Eritrea
7149.0	1612	09	09	CHN		FMOP	66.66 sps	10k	Chinese OTH radar - 7144 - 7154 kHz - - 3.8 sec bursts - "Foghorn"
7163.0	1749	18	09	CHN		FMOP	50 sps	10k	Chinese OTH radar - 7158 - 7168 kHz - - 5 sec bursts
7165.0	1846	18	09	RUS		FMOP	40 sps	12k	OTH radar Contayner - nw of Saransk - 7159 - 7171 kHz
7177.0	1628	26	09	RUS		FMOP	40 sps	12k	OTH radar Contayner - nw of Saransk - 7171 - 7183 kHz
7178.0	1821	17	09	CHN		FMOP	66.66 sps	10k	Chinese OTH radar - 7173 - 7183 kHz - - 3.8 sec bursts - "Foghorn"
7180.0	1700	01	09	ERI		A3E		9k	7180.021 kHz - Radio Eritrea
7184.0	1918	04	09	CHN		FMOP	50 sps	10k	Chinese OTH radar - 7179 - 7189 kHz - - 5 sec bursts
7190.0	1820	09	09	CHN		A3E		40k	China Radio International on 7210 kHz - with splatters 7190 kHz - 7230 kHz - daily 1800 - 1900 utc - German PTT filed an official complaint
7198.0	1515	17	09	RUS		PSK2A	120	2600	CIS 12 = AT3004D - Moscow

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kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
10100.8	ady	dly	09	D	DDK9	F1B	50	450	Baudot - German Weather service - <b>legal!</b>
10115.0	1311	07	09	RUS		FMOP	40 sps	12k	OTH radar Contayner - nw of Saransk - 10109 - 10121 kHz
10115.0	1913	15	09	E		USB			Spanish fishery
10131.0	1620	04	09	RUS		F1B	75	250	Moscow - Shared band!
10144.0	ady	dly	09	D	DK0WCY	A1A			10144.000 kHz - DK0WCY - German aurora beacon - just for info!
14000.0	1400	01 daily	09	CHN		A3E		9k	China Radio International - inter-modulation from 13855 and 13710 kHz - 13855 x 2 - 13710 = 14000 kHz
14032.0	0844	05	09	CHN		FMOP	66.66 sps	10k	Chinese OTH radar - 14027 - 14037 kHz - - 3.8 sec bursts - "Foghorn"
14056.0	1543	05	09	RUS		FMOP	40 sps	12k	OTH radar Contayner - nw of Saransk - 14050 - 14062 kHz
14101.9	0757	22	09			OFDM			OFDM CIS-60
14128.0	0846	13	09	CHN		FMOP	66.66 sps	10k	Chinese OTH radar - 14123 - 14133 kHz - 3.8 sec bursts - "Foghorn"
14160.0 CF	1652	12	09	RUS		FMOP	40 sps	32k	OTH radar Contayner - nw of Saransk - 14144 - 14176 kHz - 2 systems side by side with alternating sweeps similar to "Sunflower "
14186.0	1247	14	09	RUS		FMOP	40 sps	12k	OTH radar Contayner - nw of Saransk - 14180 - 14192 kHz
14194.0	1305	02	09	CHN		FMOP	50 sps	10k	Chinese OTH radar - 14189 - 14199 kHz - - 5 sec bursts
14203.0	0951	14	09	CHN		FMOP	66.66 sps	10k	Chinese OTH radar - 14198 - 14208 kHz - - 3.8 sec bursts - "Foghorn"
14212.0	1214	17	09	UKR		A3E			Female voice with encrypted msgs - figures - "SZRU " = Foreign Intelligence Service of Ukraine in Rivne - every Thursday at 1206 utc - msgs at 1214 utc
14221.0	2032	dly	09	KAZ		F1B	50	200	Kazakhstan - west of Almaty - mostly idling - every evening
14260.0	0829	30	09	CHN		FMOP	50 sps	10k	Chinese OTH radar - 14255 - 14265 kHz - - 5 sec bursts
14300.0 RF	0851	16	09	RUS		OFDM	29.64	2760	14301.9 CF - OFDM 60 - PSK4B - Arkhangelsk
14328.0	0840	05	09	CHN		FMOP	66.66 sps	10k	Chinese OTH radar - 14323 - 14333 kHz - 3.8 sec bursts - "Foghorn"
14334.0	1402	09	09	RUS		FMOP	40 sps	12k	OTH radar Contayner - nw of Saransk - 14328 - 14340 kHz
14338.0	0900	04	09	CHN		FMOP	66.66 sps	10k	Chinese OTH radar - 14333 - 14343 kHz - 3.8 sec bursts - "Foghorn"
14338.0	1024	26	09	CHN		FMOP	66.66 sps	10k	Chinese OTH radar - 14333 - 14343 kHz - - 3.8 sec bursts - "Foghorn"
14342.0	1457	01	09	CHN		FMOP	66.66 sps	10k	Chinese OTH radar - 14337 - 14347 kHz - - 3.8 sec bursts - "Foghorn"
14351.0	0945	21	09	RUS		FMOP	40 sps	12k	OTH radar Contayner - nw of Saransk - 14345 - 14357 kHz
18080.0	0750	dly	09	TWN		A3E			BC: Sound of Hope - Taiwan and Chinese BC jammer - daily at 06 utc and later
18090.0	0835	06	09	CYP		FMOP	50 sps	20k	UK OTH radar Cyprus - 18080 -18100 kHz
18107.0	0906	07	09	RUS	RDL	F1B	36/50	200	CIS-36-50 - Moscow - idle and traffic - often - Russian Navy - shared band
21438.0	vt	vd	09	RUS	RCV	A1A			RUS Navy Sevastopol with QTCs for RIP90, RHL82, RCIG - RCV daily active

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kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
28005.0	0950	24	09	RUS		F3E			RUS taxi - base station - female voice - St. Petersburg
28860.0	1121	03	09	IRN		AMOP		45k	Iranian radar - 28837 - 28883 kHz - 150 + 313 sps alternating - North Iran daily!

**IRTS; Michael, EI3GYB**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3535	1415	17	09	E or MM		USB			Spanish fishermen. Huge signals.
3677	1520	21	09	HOL or MM		USB			Dutch fishermen. Loud motor noise from one of the ships. Bad audio from the other ship. Big signals. Must be around EI land.
3731	2210	17	09	RUS/UKR		LSB			Russian propaganda music. Shouting of slogans. Very strong signal.
3762	1615	11	09	F or MM		LSB			Loud French music. Shouting and messing around in French. Persistent for at least a full hour. Again on the 20 <sup>th</sup> at 1500z.
7012	1745	05	09			FMOP			Radar from 7012 to 7040 kHz. Strong and persistent.
7055	1430	01	09	UKR/RUS		LSB			Russian-Ukrainian radio war. Loud music, propaganda slogans. Persistent. Heard many days of the month.
7075	1815	17	09			CW			CW signals made up out of 5 dashes. Looks like the number zero. Noticed quite often on other days as well. Not every day. Observed and reported by EI4HWB Zbigniew.
7081	1920	28	09			F1B			Strong and persistent.
7099	2230	01	09			FMOP			Radar from 7099 to 7132 kHz. Huge and persistent signals.
7111	1515	22	09			F1B			Strong signal.
7123.5	1305	21	09	F or MM		USB			French fishermen. Very strong signals from both ships. Loud motor noise from both of the ships as well.
7138	1730	29	09			FMOP			Radar from 7138 to 7152 kHz. On and off. Very strong signals.
7140	1205	08	09			PSK			Link-11 CLEW. Strong and persistent. Still on at 2215z. Gone the next morning at 0900z.
7155	1535	28	09			FMOP			Radar from 7155 to 7167 kHz. Very strong. On and off.
7164	0700	09	09			F1B			Strong and persistent. Still on at 0830z.
7171	1500	22	09			FMOP			Radar from 7171 to 7183 kHz. Strong and persistent.
7172	1705	26	09			FMOP			Radar from 7172 to 7198 kHz. Huge and persistent signals.
7187	1115	22	09			PSK			Strong signal.
7190	1420	28	09			FMOP			7190 to 7202 kHz. Strong signals. On and off.
14000	1420	22	09	CHN		AM			China Radio International. Strong harmonic- as heard for some months now.
14314	1215	03	09			RTTY			Very strong from 1215 to 1245z.
14326	1740	09	09			FMOP			Radar from 14326 to 14338 kHz. Medium strength. Persistent.

<b>MRASZ; Laci, HA7PL</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD / SPS	SH/BW	DETAILS
3545.0	1753	14	09			F1B		200	
3546.0	1626	03	09		RDL	F1A		200	5 fig
3546.0	1625	10	09			F1B		200	
3546.0	1634	10	09			F1A			5 fig
3546.0	1618	20	09			F1B		200	
3548.0	1645	20	09			F1A			
3581.8	1834	07	09			PSK8A	2400		STANAG-4285
3581.8	1811	22	09			PSK8A	2400		STANAG-4285
3581.8	0500	28	09	TUR		PSK8A	2400		STANAG-4285; DF:35,6 E/39,2 N *
3589.0	1716	07	09			F1B		250	
3593.0	1808	07	09			PSK2			CIS 12 (AT3004D)
3632.0	1617	20	09			PSK2A			CIS 12 (AT3004D)
3655.4	0645	30	09	GER		PSK8A	2400		STANAG-4285; DF:8,7 E/49,7 N *
7009.0	1751	22	09			OTHR			7000 - 7018 kHz
7027.0	1644	10	09			F1B		200	
7033.0	1638	14	09			F1B		250	
7055.0	1714	07	09			LSB			chaos
7055.0	1450	22	09			LSB			chaos
7055.0	1151	25	09			LSB			chaos
7111.0	1637	14	09			PSK2			CIS 12 (AT3004D)
7119.0	1644	14	09			F1B		200	
7124.0	1400	29	09	RUS		MPSK			CIS 12; DF:31,4 E/55,0 N *
7134.0	1710	07	09			F1B		200	
7135.0	1635	14	09			F1B		200	
7135.0	1615	23	09			F1B		200	
14055.0	0932	04	09			OTHR			14045 -14065 kHz
14178.0	1100	30	09	CHN		OTHR			*

\*) by HG5ACZ, Zsolt Ács

<b>PZK; Marek, SP3AMO + Miro, SP5GNI</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3510.0	1905	17	09		UI				S 7-9 Chirp
3517.8	1910	02	09			F1B	50	200	S8
3525.0	1912	04	09	FRA		J3E-U			S8
3527.0	2001	19	09		UI	F1B			S 7, Emisja wielotorowa
3547.8	vt	vd	09		UI	F1B	50	200	S 9
3552.0	1920	02	09			MFSK		1k60E	S9 sps 40 Hz
3552.0	1913	17	09			F1B	50	200	S 9, 19.15 UTC QRT
3582.0	0510	16	09			PSK		1k0E	S 9, sps 40 Hz, changable modes
3740.0	0543	18	09		UI	F1B	150	500	S 8-9
3741.5	vt	vd	09		UI	F1B	50	200	S 9 - 20.10 UTC - still QRV
3747.0	2209	02	09			UI		3k0	STANAG?
3750	1310	14	09			PSK		2k9	CIS-12 pilot 3751,3 S9+20
7004.0	0520	15	09			FMOP		16k0E	S 9, sps 40Hz, [6988,0 - 7004,0 kHz]
7028.9	vt	vd	09			F1B	50	200	S 9
7029.9	0858	09	09			PSK		500Hz	S7 sps 40 Hz 9,00 UTC QRT
7050.0	1640	24	09		UI	FMOP		22k0E	sps 40Hz, [7050,0 - 7072,0 kHz], 16.42 UTC QRT

**PZK; Marek, SP3AMO + Miro, SP5GNI**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7067	2148	24	09			FMOP		14k	OTHR S9
7070	1822	05	09	RUS		PSK		2k9	CIS-12 pilot 7071,3 S9
7106	2058	14	09			FMOP		12k	OTHR S8
7109.7	0921	22	09		UI	F1B	50	200	S 3-7
7112	1048	03	09	RUS		PSK		2k9	CIS-12 S7
7115	2148	24	09			FMOP		14k	OTHR S9+
7120	1610	05	09			FMOP		16k	OTHR S9+20
7121.5	vt	vd	09			F1B	50	200	
7161.8	0842	09	09			F1B	50	200	S 7
7186.0	0600	22	09		UI	PSK		1k6E	S 9, multitone sps 40 Hz
7186	2058	14	09			FMOP		12k	OTHR S9
7191	2008	14	09			FMOP		14k	OTHR S9
10114.75	723	23	09			F1B		1000	
10116.0	0635	18	09			FMOP		14k0E	S 5, sps 40 Hz, [10116 - 10130 kHz]
14008	912	03	09			F1B		500	
14156	908	03	09			FMOP		12k	OTHR S9+ (changing QRG to 14148 from time to time)
14178	908	30	09			FMOP		10k	OTHR S7
14185	908	23	09			FMOP		10k	OTHR S8 (irregular 4 second bursts)
14317	855	23	09			FMOP		10k	OTHR S8 (irregular 4 second bursts)
21005.6	1235	06	09		UI	NON			S2
21198.5	0643	16	09		UI	NON			S 0+
21198.6	0642	18	09		UI	PSK		700E	S0+
21398.6	0645	18	09		UI	PSK		700E	S0+
21437.5	0647	18	09		UI	NON			S0+
21437.8	0645	16	09		UI	NON			S 0+
24890.0	0649	18	09		UI	UI			Full band sweeping [24890 - 24990 kHz]
28182.0	0656	16	09		UI	UI		5k0E	Sweeping
28198.2	0653	16	09		UI	UI		5k0E	Sweeping [28195 - 28200 kHz]
28633.0	0652	18	09		UI	NON			S0+

**REF; Francis, F5MIU**

kHz	UTC	DD	MM	ITU	IDENT	MODE	Baud	SH / BW	DETAILS
3727.5 3762	1621 - 1632	23	9		Idem	USB		3kHz	Long voluntary QRM (music & QSO records) well over a regular French QSO (45min)
3727.5 3762	1610 End 1735	30	9		Idem	USB		4.5kHz	Long voluntary QRM (music & old QSO records, insults) well over a regular French QSO F6CDX ++ (> 1h) S9+20, - 51dBm
3762	1610	18	9		Idem	USB		3kHz	Long voluntary QRM (music + French insults) well over a regular French QSO (>1h)
3762 3745 3758	1612	22	9		Idem	USB		3kHz	Long voluntary QRM (music) well over a regular French QSO. >1h chasing the QSO on different QRG

<b>REF; Francis, F5MIU</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	Baud	SH / BW	DETAILS
3762	1615	24	9		Idem	USB		3kHz	Long voluntary QRM (music & QSO records, insults) well over a regular French QSO (> 1h)
3762	1525 End 1700	25	9		Idem	USB		3kHz	Long voluntary QRM (music & QSO records, insults) well over a regular French QSO F6CDX + (> 1h)
3762	1600	28	9		Idem	USB		3kHz	Long voluntary QRM (music & old QSO records, insults) well over a regular French QSO F6CDX + (> 1h)
3762	1619 End 1715	29	9		Idem	USB		4.5kHz	Long voluntary QRM (music & old QSO records, insults) well over a regular French QSO F6CDX + (> 1h) S9+20, -51dBm
7056	1725	22	9			FMCW		20kHz	OTH Radar pulsed 25ms,S9+10
7060	1622	18	9			FMCW		15kHz	OTH Radar pulsed 25ms,S9+
7180	1600	26	9			FMCW		20kHz	OTH Radar pulsed 25ms,S9+
10155	1630	20	9			FMCW		20kHz	OTH Radar pulsed 25ms,S9+10 splatters 4kHz inside 30m band
21000.0	1640	2	9			USB			Monolog : unident (Asiatic or Portuguese ?) S9

<b>RSGB; Richard, G4DYA</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3510.0	ady	dly	09			J3E		2K70E	USB 'The Air Horn'
3756.0	vt	dly	09			J3E		1K70E	USB 'The Pip'
5314.5	0847	23	09			J3E			USB fishing unid. language
5363.6	1836	25	09	DNK		G1D		2K40E	For info: primary user: STANAG 4285
7038.485 7038.489 7038.492	ady	dly	09	CZE	OK0EU	A1A			For info: QRP propagation beacon cluster. Measured freqs ~11 Hz below nominal.
7012.0	1807	09	09	CHN		F3N	66.7	10K0E	'Foghorn' OTH radar bursts
7016.0	1325	07	09			F1B		200	
7019.0	0825	11	09			F1B		200	Also NON and F1A
7029.0	0903 0749 1052 0816 0837 0822	08 09 10 11 12 13	09			F1B		200	
7030.0	0749	09	09			F1B		250	
7065.9	1322 1104 0815	07 10 14	09			NON			Probably idling 7066.0 F1B
7074.39	1854	14	09			A1A			Continuous 0s (five dashes)
7074.80	0842	23	09			A1A			Continuous 0s (five dashes)
7074.99	0824 1129 0809 0732	17 26 27 30	09			A1A			Continuous 0s (five dashes)
7075.00	0844 0807	12 20	09			A1A			Continuous 0s (five dashes)

<b>RSGB; Richard, G4DYA</b>									
<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD /sps</b>	<b>SH / BW</b>	<b>DETAILS</b>
7075.19	1102 0742 0700	08 09 19	09			A1A			Continuous 0s (five dashes)
7080.0	1852 1856 1734 1821 1802	07 14 21 25 29	09			F1B		200	
7087.0	2026	12	09	RUS		P0N	40	14K0E	Container OTH radar
7107.0	1824	16	09	RUS		P0N	40	14K0E	Container OTH radar
7108.0	1027	11	09			J7D		2K70E	USB 7106.0 / CIS-12
7114.0	1006	11	09			J7D		2K70E	USB 7112.0 / CIS-12
7114.3	1902	14	09			J7D		2K60E	Approx 12 tones, 200 Hz apart. Might be defective CIS-12.
7115.0	1904	18	09	RUS		P0N	40	14K0E	Container OTH radar
7122.0	0739 1108 1004 1907	09 10 11 14	09			F1B		200	
7126.0	2137	18	09	RUS		P0N	40	14K0E	Container OTH radar
7127.0	1901	18	09	RUS		P0N	40	12K0E	Container OTH radar
7136.0	1820	26	09	RUS		P0N	40	14K0E	Container OTH radar
7137.0	1848 1818 2137 2209	07 16 18 21	09	RUS	RDL	F1B		200	Ident in F1A
7138.0	0720 0811	07 08	09			F1B	50	200	
7140.02	1615 1802 1540 1814 1534	04 09 10 16 17	09	ERI	VoBM1	A3E			BC
7162.0	0734	09	09			F1B		250	
7168.0	1751	21	09	RUS		P0N	40	14K0E	Container OTH radar
7169.0	2158	18	09	RUS		P0N	40	14K0E	Container OTH radar
7178.0	1757	29	09	RUS		P0N	40	14K0E	Container OTH radar
7182.0	1714	26	09	RUS		P0N	40	14K0E	Container OTH radar. QSY'd to 7136 at 1720z.
7187.0	1859	18	09	RUS		P0N	40	14K0E	Container OTH radar
7187.66	1620	27	09	D	DH8WR	F1B	45.45	340	S8 harmonic 2 x 3593.83
7190.0	1753	21	09	RUS		P0N	40	14K0E	Container OTH radar. Ceased at 1804z.
7192.0	1811	16	09	RUS		P0N	40	14K0E	Container OTH radar
7196.0	1759	29	09	RUS		P0N	40	14K0E	Container OTH radar
10100.8	ady	dly	09	D	DDK9	F1B	50	450	For info: Primary user: WX broadcast
10114.0	1317	07	09	RUS		P0N	40	12K0E	Container OTH radar
10152.0	1605	27	09	RUS		P0N	40	14K0E	Container OTH radar
14105.0	0830	23	09			F3N	50	10K0E	OTH radar bursts
14112.0	0906	25	09	RUS		P0N	40	14K0E	Container OTH radar
14171.0	0732	07	09			J7D		2K70E	USB 14169.0 / CIS-12



<b>RSGB; Richard, G4DYA</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
14178.0	1600	27	09	RUS		P0N	40	14K0E	Container OTH radar
14194.0	0937	01	09	RUS		P0N	40	12K0E	Container OTH radar
14225.0	0826	23	09	CHN		F3N	66.7	10K0E	'Foghorn' OTH radar bursts
14260.0	0814	30	09			F3N	50	10K0E	OTH radar bursts
14301.9	0814	17	09			J7D		2K80E	USB 14300.0 / CIS-60. ITU RR 5.152 may apply.
14305.0	0814	30	09			F3N	50	10K0E	OTH radar bursts
14317.0	0833	23	09			F3N	50	10K0E	OTH radar bursts
14333.0	1758	09	09	RUS		P0N	40	12K0E	Container OTH radar
14337.0	0857	25	09	RUS		P0N	40	14K0E	Container OTH radar

<b>SRAL; Pekka, OH2BLU</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/BW	DETAILS
7 MHz	1530-0530	*	9	RUS	Kontainer	FMOP	40sps	13k0E	*) Days: 1. 11. - 19. 22. - 28. (WebSDR 28d)
7 MHz	0515-1630	*	9	RUS		FMOP	10sps	10k0E	*) Days: 5. 7. 8. 9. 12. 15. - 19. 23. 26. 27.
7000.0	0845-1515	16 22	9	RUS		J7D	120	2k60E	
7008.5	0845-1000	9 16	9	RUS		J7D	120	2k60E	
7019	0730-0800	3	9	RUS		F1B		500H	Unstable fq
7019.0	0700-1445/	*	9	RUS		F1B/A NON		200H	*) Days: 8. 11. 15. alternative fq 7066.0 kHz
7021.0	0855-0902/	10	9	RUS		J7D	120	2k60E	
7022.0	0930-1030	16	9	RUS		J7D	120	2k60E	
7029.0	0500-1900	*	9	RUS		F1B		250H	*) Days: 8. - 14.
7030.0	0715--0900	9	9			F1B		250	
7042.0	1615-1745/	22	9	RUS		J7D	120	2k60E	
7048.5	1410	25	9			A1A	16	20H	MR 5BL
7049.0	1410-1505/	25	9	RUS		F1B		200H	
7055.0	1145-1215	3	9	RUS		F1B		250H	
7057.0	0930-1545/	1 21	9	UKR		J7D	120	2k60E	
7062.0	1200-1300/	4	9	RUS		J7D	120	2k60E	
7066.0	0800-1412/	*	9	RUS		F1B/A NON		200H	*) Days: 7. 10. 14. alternative fq 7019 kHz
7088.0	0515-0545	5	9	RUS		F1B		200H	
7099.0	'0545	17	9	RUS	7S9O	A1A		20H	
7102.0	1335	15	9	RUS		J7D	120	2k60E	
7108.0	0605-1210	*	9	RUS		J7D	120	2k60E	*) Days: 11. 14. 16.

<b>SRAL; Pekka, OH2BLU</b>									
<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD</b>	<b>SH/BW</b>	<b>DETAILS</b>
7110.0	0915-1555	22	9	RUS		F1B		250H	
7112.0	1100-1200	6	9	RUS		F1B		500H	
7112.0	0700-1415	*	9	RUS		J7D	120	2k60E	*) Days: 1. 4. 15. 23.
7114.0	1015-1715	11 14	9	RUS		J7D	120	2k60E	
7122.0	0530-1830	*	9	RUS	RDL	F1B/A NON		200H	*) Days: 1. 3. 4. 9. - 12. 14. - 18.
7125.95	1140-1815	*	9	RUS	8	A2A	250	500H	*) Days: 4. 15. 18. 19. time stamp, UT + 3h (2 tone MR)
7127.0	0520-1330	*	9	RUS	VPGX etc	A1A	16	20H	*) Days: 4. 7. 8. 10. 11. 16. - 20. 23. 25. 29. MR 5F, 5BL
7130.0	1245-1300	1 15	9	RUS		F1B		1k0	
7132.0	1800	7	9	RUS		J7D	120	2k60E	
7137.0	1615-1830	*	9	RUS	RDL	F1B/A NON		200H	*) Days: 5. 7. 23.
7138.0	0520-1800	*	9	RUS		F1B		200H	*) Days: 1. - 8. 14.
7140.0	0400-0630	*	9	ERI	VoBME	A3E		9k0	*) Days: 2. 6. 11. - 18.
7140.0	1430-1840/	*	9	ERI	VoBME	A3E		9k0	*) Days: 1. 4. - 10. 12. 15. 16. 17.
7147.0	1520-1538/	8	9	RUS		J7D	120	2k60E	
7151.0	1155-1220	9	9	RUS	VB	A1A		20H	Beacon?
7152.0	1430-1540	8	9	RUS		J7D	120	2k60E	
7158.0	0700-1500	*	9	RUS		F1B/ NON		250H	*) Days: 3. 13. 22.
7160.0	0600-1300	*	9	RUS		J7D	120	2k60E	*) Days: 4. 9. 12. 14. 15.
7162.0	0630-0900/	9	9	RUS		F1B		250H	
7169.0	0715-0730	9	9	RUS		F1B		250H	
7171.0	1045-1700	*	9	RUS		J7D	120	2k60E	*) Days: 1. 3. 9. 10. 30.
7171.5	0600-0809/	18	9	RUS		J7D	120	2k60E	
7174.0	0600-0630	14	9	RUS		F1B		250H	
7180.0			9	ERI	VoBME	A3E		9k0	Not heard
7184.5	1320-1410	25	9	RUS		J7D	120	2k60E	
7186.0	0530-1155/	22	9	RUS		J7D	120	2k60E	
7190 A	1455-1835	*	9			A3E?		5k0E	*) Days: 7. - 10. 17. - 27. spurious?
7196.0	0800-1100	18 20	9	RUS	CJTK	A1A	16	20H	MR 5BL

<b>SRAL; Pekka, OH2BLU</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/BW	DETAILS
7198.0	1000-1056/	29	9	RUS		J7D	120	2k60E	
7200.0	1445	19	9	RUS		F1B		200H	
10 MHz	0400-1500	*	9	RUS	Kontainer	FMOP	40sps	13k0E	*) Days: 25. 26. 27. (WebSDR 13d)
14 MHz	0510-1100	*	9	RUS		FMOP	10sps	10k0E	*) Days: 7. 9. 25.
14 MHz	0530-1830	*	9	RUS	Kontainer	FMOP	40sps	13k0E	*) Days: 1. - 7. 11. - 19. 22. 24. 26. - 29. (WebSDR 24d)
14 MHz	0410-1330	*	9	CHN	'foghorn'	FMOP	50/67sps	10k0E	*) Days: 1. 2. 4. 5. 8. - 12. 14. - 19. 21. - 25. 29.
14000.0	/1357-1457/	dly	9	CHN	CRI	A3E		9k0	// 13710 kHz & 13855 kHz
14008.0	0815-1145	2 3	9	RUS		F1B/ N0N		500H	
14110.0	1050-1100/	28	9	CHN	CRI	A3E		9k0E	// 13870 kHz
14212.0	1210-1216/	3	9	RUS	175	R3E-u		2k70E	Synthetic female, numbers
14221.0	0400-0600	dly	9	KAZ		F1B		200H	
14260.0	0805-0806	3	9	RUS	217	R3E-u		2k70E	Synthetic female, numbers
14302.0	0735	23	9	RUS		J7D	120	2k60E	
18 MHz	0800-0830	5 6	9	CYP		FMCW	50sps	20k0	
18 MHz	0730-1100	4 5	9	RUS	Kontainer	FMOP	40sps	13k0E	
18080.0	0700-0800	*	9	TWN	Sound of Hope	A3E		9k0	*) Days: 3. 19. 20. 22. 24. jammed by CNR
18107.0	0730	9	9	RUS		F1A		200H	xxx - msg
21150.0	0730	3	9	RUS		R3E-u		3k80E	numbers
21438.0	0830-1230	*	9	RUS	RCV	A1A	16	20H	*) Days: 2. 3. 4. 6. 24. 26.
24 MHz			9	CYP		FMCW	50sps	20k0	(WebSDR 0d)
28 MHz			9	IRN		FMCW	*	60k0E	*) 307 & 870sps
28860.0	0515-1100	2 3	9	IRN		FMCW	*	60k0E	*) 150 & 313sps
28 MHz	0530-1100	2 3	9	RUS	Taxi disp.	F3E		3k0E	8 reports
29660.0	'0555	3	9	IRN		FMCW	312.5sps	60k0E	QSY to 29750 kHz

<b>URE; Gaspar, EA6AMM</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
6994	2016	11	09			FMOP	40	12K0E	OTHR Contayner, to 7003 kHz
6997	2111	24	09			FMOP	40	12K0E	OTHR Contayner
6999	1647	30	09			FMOP	40	12K0E	OTHR Contayner
7000	1806	03	09			J7D	120	2K70E	CIS-12
7005	1716	01	09			J3E-L			unid ST talking
7012	2025	06	09			FMOP	40	12K0E	OTHR Contayner.

<b>URE; Gaspar, EA6AMM</b>									
<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD /sps</b>	<b>SH / BW</b>	<b>DETAILS</b>
7012	2012	09	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
7013	1559	28	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
7017.8	1758	08	09			J7D	120	2K70	CIS-12
7021	2018	18	09			FMOP	40	12KOE	OTHR Contayner
7025	1743	05	09			FMOP	40	12KOE	OTHR Contayner
7029	1652	01	09			FMOP	40	12KOE	OTHR Contayner
7029	1740 vt	08 vd	09			F1B	75	200H	Often
7031	1918	06	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7031 + 7097 kHz
7035	1734	14	09			F1B	75	250H	
7042	2012	11	09			FMOP	40	12KOE	OTHR Contayner
7045	2003	12	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
7048	1552	28	09			FMOP	40	12KOE	OTHR Contayner
7051	1956	23	09			F1B		200H	
7054	1809	08	09			F1B	50	200	
7055	1807 vt	02 vd	09			J3E-L			Speech, music, propaganda, UKR / RUS "radiowar". Often
7057	1951	21	09			J3E-L			Speech loop, propaganda, UKR / RUS "radiowar"
7060	1801	16	09			FMOP	40	12KOE	OTHR Contayner
7060	1832	30	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7060 + 7133 kHz
7060	1950	16	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7060 + 7130 kHz
7062	1840	19	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
7062	2019	20	09			J3E-L			Music, like BC being relayed. Long-lasting
7064	1759	18	09			FMOP	40	12KOE	OTHR Contayer
7064	1803	18	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7064 + 7195 kHz.
7066	2005 vt*	24 vd*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 30/09, 1534 UTC
7070	1711	05	09			J7D	120	2K70E	CIS-12
7073	1834	19	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
7074.390	1740 vt	08 vd	09			A1A	12		Series of 5 dashes (number 0) constantly repeated. Long - lasting. Often
7074.8	0634	23	09			A1A	12		Series of 5 dashes (number 0) constantly repeated. Long - lasting.
7075	0657 vt	20 vd	09			A1A	12		Series of 5 dashes (number 0) constantly repeated. Long - lasting. Often
7078	1744	29	09			FMOP	40	12KOE	OTHR Contayner
7080	1841 vt	03 vd	09			F1B	50	200H	Daily
7085	1712	17	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m 7085 + 7149 kHz
7085	1802	29	09			FMOP	40	12KOE	OTHR Contayner
7087	2135 vt*	10 vd*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 12/09, 2028 UTC
7088	0533	05	09			F1B	50	200H	
7092	1753	28	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7092 + 7195 kHz

<b>URE; Gaspar, EA6AMM</b>									
<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD /sps</b>	<b>SH / BW</b>	<b>DETAILS</b>
7092	1814	28	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7092 + 7178 kHz
7094	1839	06	09			FMOP	40	12KOE	OTHR Contayner
7097	1918	06	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous tx on 40m: 7097 + 7031 kHz
7107	1933	16	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7017 + 7130 kHz
7107	1937	19	09			FMOP	40	12KOE	OTHR Contayner
7110	2106	19	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7110 + 7180 kHz
7112	1810	18	09			FMXX	66.66	10KOE.	Radar bursts. "Foghorn"
7113	1645	14	09			XXX		ca 4K80E	CIS-12 idling; defective
7114	1748	02	09			F1B	50	200HE	
7114	1910	18	09			FMOP	40	12KOE	OTHR Contayner. 3 simultaneous TX on 40m: 7114 + 7127 + 7187 kHz
7114.27	1714	14	09			XXX		2K70E	CIS-12 idling, defective
7115	1809	19	09			FMOP	40	12KOE	OTHR Contayner
7116	1633	30	09			J3E-L			Music, long - lasting
7122	1909	09	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
7122	0534 vt	09 vd	09			F1B	50	200H	Often
7122	1831	27	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7122 + 7163 kHz
7127	1856	18	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7127 + 7187 kHz
7130	1728	14	09			FMOP	40	12KOE	OTHR Contayner
7130	1933	16	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40M: 7130 + 7107 kHz
7130	1950	16	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7130 + 7060 kHz
7133	1832	30	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7166 + 7060 kHz.
7137	1724 vt	05 vd	09			F1B	50	200H	Often
7138	1720 vt	06 vd	09			F1B	50	200H	Often
7140.02	1719	17	09			A3E			BC: "VoBM1"
7149	1712	17	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7149 + 7085 kHz
7149	1733	17	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40 m: 7149 + 7171 kHz
7150	1809	16	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
7163	1831	27	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7163 + 7122 kHz
7164	1939	02	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
7164	1842	18	09			FMOP	40	12KOE	OTHR Contayner
7167	2141 vt*	09 vd*	09			FMOP	40	12KOE	OTHR Contayner. Long-lasting. *Also on 10/09 0505 UTC
7168	1749	21	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7168 + 7190 kHz
7168	1732	29	09			FMOP	40	12KOE	OTHR Contayner. 2 TX side by side: 7168 + 7178 kHz
7169	1755	10	09			FMOP	40	12KOE	OTHR Contayner

<b>URE; Gaspar, EA6AMM</b>									
<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD /sps</b>	<b>SH / BW</b>	<b>DETAILS</b>
7171	1733	17	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40M: 7171 + 7149 kHz
7171	1855	22	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
7175	2031	26	09			FMXX	66.66	10KOE	Radar brusts. "Foghorn"
7177	1555	28	09			FMOP	40	12KOE	OTHR Contayner
7178	1732	29	09			FMOP	40	12KOE	OTHR Contayner. 2 TX side by side: 7178 + 7168 kHz
7178	1814	28	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7178 + 7092 kHz
7180	2106	19	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7180 + 7110 kHz
7186	2038	14	09			FMOP	40	12KOE	OTHR Contayner
7186	0542	22	09			J7D		2K7OE	CIS-12, idling
7187	1853	18	09			FMOP	40	12KOE	OTHR Contayner
7187	1856	18	09			FMOP	40	12KOE	OTHR contayner. 2 simultaneous TX on 40m: 7178 + 7127 kHz
7190	1749	21	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7190 + 7168 kHz
7191	2017	14	09			FMOP	40	12KOE	OTHR Contayner
7193.73	1947	26	09			F1B		340HE	FSK bursts. Long - lasting. QSY to 7193.8, then 7194.460 kHz
7194	1744	16	09			FMOP	40	12KOE	OTHR Contayner.
7195	1803	18	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40m: 7195 + 7064 kHz.
7195	1753	28	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 40n: 7195 + 7092 kHz
7197	1735	08	09			FMOP	40	12KOE	OTHR Contayner
7199	0550	27	09			F1B		340HE	FSK bursts. Long - lasting. QSY QSY to 7199.4 kHz
7210	1849	11	09			A3E			BC: RCI CF = 7210 kHz, splatter to 7190 kHz
10105	1957	18	09			J3E-U			Unid sts talking. Male voices, Arabic dialect.
10111	1951	21	09			FMOP	40	12KOE	OTHR Contayner
10111	209	23	09			J3E-U			Unid sts. Male voices. Arabic dialect
10115	1858	15	09			J3E-U			Spanish fishery
10115	1453	28	09			FMOP	40	12KOE	OTHR Contayner
10116	2017	02	09			F1B	50	200H	Shared band. Just for info.
10118.5	0518	04	09			F1B	600	600	DPRK-FSK 600 ARQ. Shared band. Just for info
10120	2019 vt	12 vt	09			J3E-U			Unid people talking. Male voices. Unknown language.
10121	0604	25	09			FMOP	40	12KOE	OTHR Contayner
10125	1801	05	09			FMOP	40	12KOE	OTHR Contayner
10125	2027	12	09			XXX	7	ca 10KOE	Radar sweeps.
10131.5	1902	15	09			J3E-U			Spanish fishery
10149	1741	21	09			FMOP	40	12KOE	OTHR Contayner
13995	1502	16	09			FMOP	40	12KOE	OTHR Contayer. 2 simultaneous TX on 20m: 13995 + 14155 kHz
14000	1603	06	09			XXX		ca 20KOE	Unknown signal
14000	1413 vt	12 vd	09			A3E			BC intermodulation. Often
14000	1431	14	09			J3E-U			Unid people talking. Unid language

<b>URE; Gaspar, EA6AMM</b>									
<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD /sps</b>	<b>SH / BW</b>	<b>DETAILS</b>
14001	1003 vt*	04 vd*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 19/09, 0512 UTC
14007.7	1223	10	09			XXX		ca 8KOE	Probably FSK signal
14008	0715	02	09			F1B	50	250H	
14008	1126	03	09			F1B	50	500H	
14018.5	0615	03	09			F1B	600	600H	DPRK-FSK 600 ARQ
14029	0645	28	09			FMOP	40	12KOE	OTHR Contayner
14031	0538	21	09			J7D		2K70E	CIS-12, idling
14050	0607	20	09			FMXX	40	10KOE	Radar bursts. "Foghorn"
14051.8	0521	10	09			J7D	120	2K70E	CIS-12
14053	0647	10	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14054	0716	11	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14055	1544	05	09			FMOP	40	12KOE	OTHR Contayner
14058.5	1703 vt	01 vd	09			F1B	600	600H	DPRK-FSK 600 ARQ. Often
14090	1215	30	09			FMOP	40	12KOE	OTHR Contayner
14090	0749	20	09			FMOP	40	12KOE	OTHR Contayner
14091	0820	29	09			J7D	120	2K70E	CIS-12
14096	1120	28	09			FMOP	40	12KOE	OTHR Contayner
14100	0630	28	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14101.9	0738	22	09			OFDM		2K80E	OFDM. CIS-60 HRD Modem
14104	1005	22	09			FMOP	40	12KOE	OTHR Contayner
14107	0641	30	09			FMOP	40	12KOE	OTHR Contayner
14109	1111	04	09			FMOP	40	12KOE	OTHR Contayner
14110	1806	28	09			FMOP	40	12KOE	OTHR Contayner
14113	0617	21	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14113.5	0756 vt*	vd*	09			F1B	600	600H	DPRK-FSK 600 ARQ *Also on 19/09, 1400 UTC
14115	0812	08	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14117	0546 vt*	vd*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 16/09, 1306 UTC
14118	1518	24	09			FMOP	40	12KOE	OTHR Contayner
14120	0546	23	09			FMOP	40	12KOE	OTHR Contayner
14123	0533	16	09			FMOP	40	12KOE	OTHR Contayner
14123	1243	16	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14123	0622	27	09			FMOP	40	12KOE	OTHR Contayner
14124	1433	25	09			FMOP	40	12KOE	OTHR Contayner
14127	1018	21	09			J3E-U			Music, BC relayed. RUS language. Long-lasting
14134	0735	22	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14140	0657	24	09			FMOP	40	12KOE	OTHR Contayner
14144	2009	12	09			FMOP	40	12KOE	OTHR Contayner
14146	1002	22	09			FMOP	40	12KOE	OTHR Contayner
14148.5	1410 vt	03 vd	09			F1B	600	600H	DPRK-FSK 600 ARQ. Often
14149	1710 vt*	06 vd*	09			FMOP	40	12KOE	OTHR Contayner. Also on 20/09, 1715 UTC
14150	0530	04	09			FMXX	50	10KOE	Radar bursts. "Foghorn"

<b>URE; Gaspar, EA6AMM</b>									
<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD /sps</b>	<b>SH / BW</b>	<b>DETAILS</b>
14150	1818 vt*	04 vd*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 09/16, 1252 UTC
14151.84	1402	21	09			N0N			Carrier, long-lasting
14152	1811 vt*	04 vd*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 12 / 09, 1843 UTC
14153	1412	03	09			FMOP	40	12KOE	OTHR Contayner
14155	1508	16	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 20m: 14155 + 13995 kHz
14158.5	1600 vt*	01 vd*	09			F1B	600	600H	DPRK-FSK 600 ARQ. Also on 20/09, 1716 UTC & 24/09, 0608 UTC
14159	1820	14	09			FMOP	40	12KOE	OTHR Contayner
14159	1250	21	09			XXX		1KOE	Unknown signal. 4 tones. Spacing = 330 Hz. FSK 4 system?
14161	1414	14	09			FMOP	40	12KOE	OTHR Contayner
14161	0656	25	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 20m: 14161 + 14195 kHz
14162	1715	20	09			FMOP	40	12KOE	OTHR Contayner. 2 TX side by side: 14162 + 14149 kHz
14169	1814	04	09			FMOP	40	12KOE	OTHR Contayner
14175	1131	22	09			FMOP	40	12KOE	OTHR Contayner.
14183	1308	20	09			FMOP	40	12KOE	OTHR Contayner
14185	1308 vt*	15 vd*	09			FMXX	50	10KOE	Radar bursts. "Foghorn". *Also on 28/09, 0633 UTC
14187	0537 vt*	04 vd*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 14/09, 1006 UTC & 19/09, 0954 UTC
14188	0556	24	09			FMOP	40	12KOE	OTHR Contayner.
14189	1821 vt*	04 vd*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 23/09, 0553 UTC
14191	0607 vt*	04 vd*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 16/09, 0545 UTC
14193	1038	18	09			FMOP	40	12KOE	OTHR Contayner
14193	0807	22	09			FMXX	50	10KOE	Radar, unknown. Long-lasting
14194	0535	03	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14194	0516	19	09			FMOP	40	12KOE	OTHR Contayner
14194	0516	19	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 20m: 14194 + 14101 kHz.
14195	0656	25	09			FMOP	40	12KOE	OTHR Contayner. 2 simultaneous TX on 20m: 14195 + 14161 kHz
14196	0948	11	09			FMOP	40	12KOE	OTHR Contayner
14198	0857	18	09			FMXX	50	10KOE	Unknown radar
14200	1235	02	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14200	1541	16	09			FMOP	40	12KOE	OTHR Contayner
14203	1458	24	09			FMXX	66	10KOE	Radar bursts. "Foghorn"
14203.5	0647 vt*	15 vd*	09			F1B	600	600H	DPRK-FSK 600 ARQ. *Also on 25/09, 0710z
14203.9	0900 vt*	18 vd*	09			OFDM		2K8OE	CIS-60 HDR modem. *Also on 30/09, 0813z
14204	1118 vt*	02 vd*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 02/09 1741 UTC; 08/09, 1108



<b>URE; Gaspar, EA6AMM</b>									
<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD /sps</b>	<b>SH / BW</b>	<b>DETAILS</b>
14208	0528	19	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn".
14212	1210	17	09			A3E			Numbers station "S06s - Russian lady". RUS language, female voice
14213	0724	25	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14215	0711	02	09			FMOP	40	12KOE	OTHR Contayner
14215	0918	11	09			XXX		ca 6KOE	Unknown digital signal.
14215	0612	16	09			XXX		ca 2K6OE	Tones spacing = 200 Hz. Probably CIS-12 idling.
14220	1240	02	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14221	0546 vt	02 vd	09			F1B	50	200H	Often
14224	0852	26	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14225	0616	23	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14230	1029	14	09			FMXX	50	10KOE	Radar bursts. "Foghorn".
14233	0751	07	09			FMXX	83.33	10KOE	Radar bursts. "Foghorn"
14234	1043	07	09			FMOP	40	12KOE	OTHR Contayner
14235	0551	23	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14240	1100	02	09			J7D	120	3K6OE	CIS-12 DSB
14240	0732	22	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14240	0650	13	09			F1B	75	250H	
14242	1014	29	09			J7D	120	2K7OE	CIS-12
14248	0615	22	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14249	0627	28	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14250	0820	08	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14253	0849	26	09			FMXX	66.6	10KOE	Radar bursts. "Foghorn"
14258	0613	24	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14259	0845	18	09			FMXX	50	10KOE	Unknown radar
14260	0737	30	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14261	0740	27	09			FMXX	50	10KOE	Radar, unknown. Long - lasting
14276	0632 vt*	21 vd*	09			FMXX	50	10KOE	Radar bursts. "Foghorn". *Also on 21/09, 0632 UTC
14281	0819	02	09			FMOP	40	12KOE	OTHR Contayner
14285	0639	28	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14289	0753	07	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14296	0705	25	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14299	1302	15	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14301.9	0711	23	09			XXX		2K8OE	OFDM. CIS-60 HDR modem
14302	0555	30	09			FMXX	66.66	10KOE	Radar Bursts. "Foghorn"
14304	0631	24	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14305	0740	30	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14307	0802	08	09			FMXX	50	10KOE	Radar bursts."Foghorn"
14309	0630	11	09			FMOP	40	12KOE	OTHR Contayner
14312	0657	28	09			FMXX	66.66	10KOE	Radar bursts. "Foghorn"
14314.5	1222	03	09			XXX		1K85E	PSK-4 unid signal
14317	1814	02	09			FMOP	40	12KOE	OTHR Contayner
14325	0807	08	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
14326	0655	10	09			FMXX	50	10KOE	Radar bursts. "Foghorn"

<b>URE; Gaspar, EA6AMM</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
14327	1742	02	09			FMOP	40	12KOE	OTHR Contayner
14332	0615	16	09			FMOP	40	12KOE	OTHR Contayner
14333	1353 vt*	09 vt*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 10/09, 0604z
14337	1416	16	09			FMOP	40	12KOE	OTHR Contayner
14342	1450 vt*	01 vd*	09			FMOP	40	12KOE	OTHR Contayner. *Also on 04/09, 1106z
14348	1139	21	09			FMXX	50	10KOE	Radar bursts. "Foghorn"
18070	0951	05	09			FMCW	50	20KOE	OTHR PLUTO
18080	0757 vt	07 vd	09			A3E			BC. "Sound of Hope"
18090	0826	06	09			FMCW	50	20KOE	OTHR PLUTO
18107	0935 vt	08 vd	09		RDL	F1B	50	200H	FSK with ID + QTC TXd in F1A. Shared band. Just for info. Almost daily
21022.6	1025	29	09			J3E-U			Unid sts talking. Male voices. Unknown language.
21250	110	03	09			FMCW	50	20KOE	OTHR PLUTO

<b>USKA; Peter, HB9CET</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD / sps	SH / BW	DETAILS
<b>80m band informational only! - Amateur co-primary, shared with other also primary allocated services!</b>									
3525.0	1138	23	09			B7D	75 Bd	ca 6kOE	LINK 11 CLEW, DSB/ISB mode often <b>Legal, shared band</b>
7005.0	1719	01	09			J3E-L		ca 2k10E	Asian language, maybe village radio
7008.0	0916	16	09			J7D	12x120 Bd	2k70E	CIS12, BPSK or QPSK
7016.0	1337	07	09			F1B		200H	
7019.0	0833	11	09			F1B		200H	
7019.0	0836	11	09			F1A		200H	FSK-CW emission; long lasting
7021.0	0901	08	09			J7D	12x120 Bd	2k70E	CIS12; BPSK or QPSK
7025.0	2153	17	09			FMOP	66.66 sps	10kOE	OTHR; Burstsystm, BD 3.8s: Foghorn
7029.0	1715	01	09			FMOP	40 sps	12kOE	OTHR; Contayner
7029.0	0907	08	09			F1B	75 Bd	200H	long lasting, since many days
7047.0	0921	16	09			F1B		500H	strong
7054.0	1612	01	09			F1B	50 Bd	ca 185H	weak and fading; strong via JA
7060.0	2047	30	09			FMOP	40 sps	12kOE	OTHR; Contayner
7066.0	0827	07	09			F1B		200H	often
7066.0	0831	07	09			F1A		200H	FSK CW, encrypted, than QRT
7080.0	1953	08	09			F1B		200H	often
7080.0	1955	08	09			F1A		200H	FSK CW, encrypted
7080.0	1715	28	09			F1B	50	200H	often
7102.0	1259	15	09			J7D		ca 2k70E	CIS12 idling (13 carriers only)
7108.0	1106	10	09			J7D	12x120 Bd	2k70E	CIS12 idling (BPSK or QPSK) often
7108.0	2120	17	09			FMOP	50 sps	ca 10kOE	OTHR
7112.0	1732	01	09			FMxx		30kOE	Radar; Codar like
7115.0	22191	18	09			FMOP	40 sps	12kOE	OTHR; Contayner
7122.0	1431	09	09			F1B		200H	sometimes F1A FSK-CW; often
7128.0	2018	21	09			FMOP	66.66 sps	10kOE	OTHR, "Foghorn"
7133.0	2041	30	09			FMOP	40 sps	12kOE	OTHR; Contayner
7134.0	2012	31	09			F1B	50 Bd	200H	
7137.0	1601 2103	07 11	09			F1B	50 Bd	200H	often

<b>USKA; Peter, HB9CET</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD / sps	SH / BW	DETAILS
7137.0	2309	17	09			MPSK	75 Bd	ca 2k50E	CHN 4+4: 2 groups of 4 tones QPSK with 300 Hz spacing, with a 450 Hz gap in the center.
7138.0	0837 1601	01 07	09			F1B	50 Bd	200H	almost daily
7140.0	1451	02	09	ERI	VOBM	A3E		ca 9k0E	BC: Voice of the broad Masses 1 often
7174.0	2052	11	09			FMCW	41 sps	10k0E	OTHR
7176.0	2055	11	09			FMOP	50 sps	10k0E	OTHR
7186.0	0756	22	09			13 tones + carrier		2k70E	CIS 12: carrier at 7184, 12 unmodulated tones 200Hz spacing, pilottone at 3300Hz
7188.0	2231	18	09			FMOP	40 sps	12k0E	OTH Radar: Contayner; up to -30dBm!
7189.0	1653	30	09			PSK8	2400Bd	2k70E	MIL 188-110B
7196.0	1647	15	09			FMOP	40 sps	12k0E	OTHR; Contayner
7198.0	1512	17	09			J7D	12x120Bd	2k70E	CIS12; TDoA near Moscow
14101.0	0837	14	09			FMOP	25 sps	50k0E	OTHR
14102.0	0831	22	09			OFDM 60	29.6 Bd	2k80E	OFDM; with pilottone
14112.0	0905	25	09			FMOP	40 sps	12k0E	OTHR; Contayner
14140.0	1432	24	09			FMOP	40 sps	12k0E	OTHR; Contayner
14144.0	1442	19	09			FMOP	40 sps	12k0E	OTHR; Contayner
14169.0	0851	25	09			FMOP	50 sps	10k0E	OTHR; probably CHN ?
14183.0	1332	20	09			FMOP	40 sps	12k0E	OTHR; Contayner
14184.0	1331	21	09			FMOP	40 sps	12k0E	OTHR; Contayner
14187.0	1011	14	09			FMOP	40 sps	12k0E	OTHR; Contayner
14193.0	0807	22	09			FMXX	50 sps	10k0E	OTHR
14194.0	0943	01	09			FMOP	40 sps	12k0E	OTHR; Contayner
14203.0	1406	24	09			FMOP	66.66 sps	10k0E	OTHR; "Foghorn"
14204.0	0731	01	09			FMOP	40 sps	12k0E	OTHR; Contayner
14242.0	1019	29	09			J7D	12x120 Bd	2k70E	CIS12, BPSK or QPSK
14245.0	0911	22	09			FMOP	66.66 sps	10k0E	OTHR; "Foghorn"
14294.0	0821	21	09			J7D	12x120 Bd	2k70E	CIS12, BPSK or QPSK
14296.0	0847	25	09			FMXX	50 sps	10k0E	OTHR
14302.0	0901	17	09			OFDM 60		2k80E	with pilottone
14317.0	1019	15	09			FMOP	66.66 sps	ca 10k0E	OTHR, type "Foghorn"
14317.0	0855	23	09			FMxx	50 sps	ca 10k0E	OTHR
14333.0	1427	09	09			FMOP	40 sps	12k0E	OTHR; Contayner
14337.0	0900	25	09			FMOP	40 sps	12k0E	OTHR; Contayner
18080.0	0747	10	09	TWN	Sound of Hope	A3E		ca 12k	BC; Chinese language (daily if condx allow) often
18107.0	0901	07	09	RUS	RDL	F1B	36-50	200H	CIS 36-50 often

<b>VERON; Ruud, PG1R</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3501.5	2005	30	09		UiMOD				Sounds like Pactor
3548.0	1900	15	09	CIS	UiPTR	F1B			Revs/Ptr
3548.0	1914	15	09	RUS	RDL	F1A			RDL 84278 72986 K
3552.0	1910	15	09	CIS	UiPTR	F1B			Revs/Ptr
7029.0	0940	09	09		UiPTR	F1B			Ptr
7029.0	1928	10	09		UiPtr	F1B		200H	Ptr
7029.0	1830	28	09	RUS	OTHR	FMOP			51.8N 39.8 E
7052.0	1916	05	09		UiPtr	F1B		200H	

<b>VERON; Ruud, PG1R</b>									
<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD /sps</b>	<b>SH / BW</b>	<b>DETAILS</b>
7055.0	vt	vd	09	UKR/ RUS	UiBC	J3E-L		3K0E	Propaganda speech & music; almost daily
7080.0	1842	15	09	CIS	UiPTR	F1B			Revs/Ptr
7080.0	1850	15	09	CIS	UiCW	F1A			XXX followed by F1B Revs/Ptr
7080.0	1826	30	09	CIS	UiCW	F1A			UUU XXX followed by F1B Revs/Ptr
7122.0	1909	15	09		UiPTR	F1B			Revs
10114.9	1024	08	09	RUS		PSK4B	29.63	2K70E	CF; OFDM60; shared band!
10121.0	1025	08	09		UiPtr	F1B		250H	Idling; shared band!
14008.0	1015	03	09	RUS	UiPtr	F1B		500H	Ptr
14152.0	1021	03	09		OTHR	FMOP			Radar, 10.23 utc qrt
14165.0	1215	11	09	RUS	OTHR	FMOP			Radar, 51N 55 E
14185.0	1031	30	09		OTHR	FMOP			Short time.
14240.0	0953	29	09	RUS	UiMux	PSK2			CIS 12 - AT3004D TD0A

**Explanation about frequency allocations**  
(refers to ITU RR, CEPT and also National allocation plans)

Some amateurs sometimes have difficulty distinguishing primary and secondary allocations and we sometimes get complaints about radio services that are legal! Especially in the bands that are only secondary to us.

**Primary:** Where a band is allocated to more than one service and the name of the service is printed in "capitals" (example: **AMATEUR**) these are called "primary" services. Within a band, primary services have prior choice of frequencies.

**Secondary:** Where a band is allocated to more than one service and the name of the service is printed in "normal characters" (example: **Amateur**) these are called "secondary services". Stations of a secondary service cannot claim protection from harmful interference from stations of a primary service and shall not cause harmful interference to stations of primary services.

(Source: Swiss OFCOM)

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**Many thanks to everyone who helps us in any manner, be it with hardware or professional software. We cannot be successful without your valuable support!**