

# IARU Monitoring System Region 1



Monthly Newsletter - November 2022

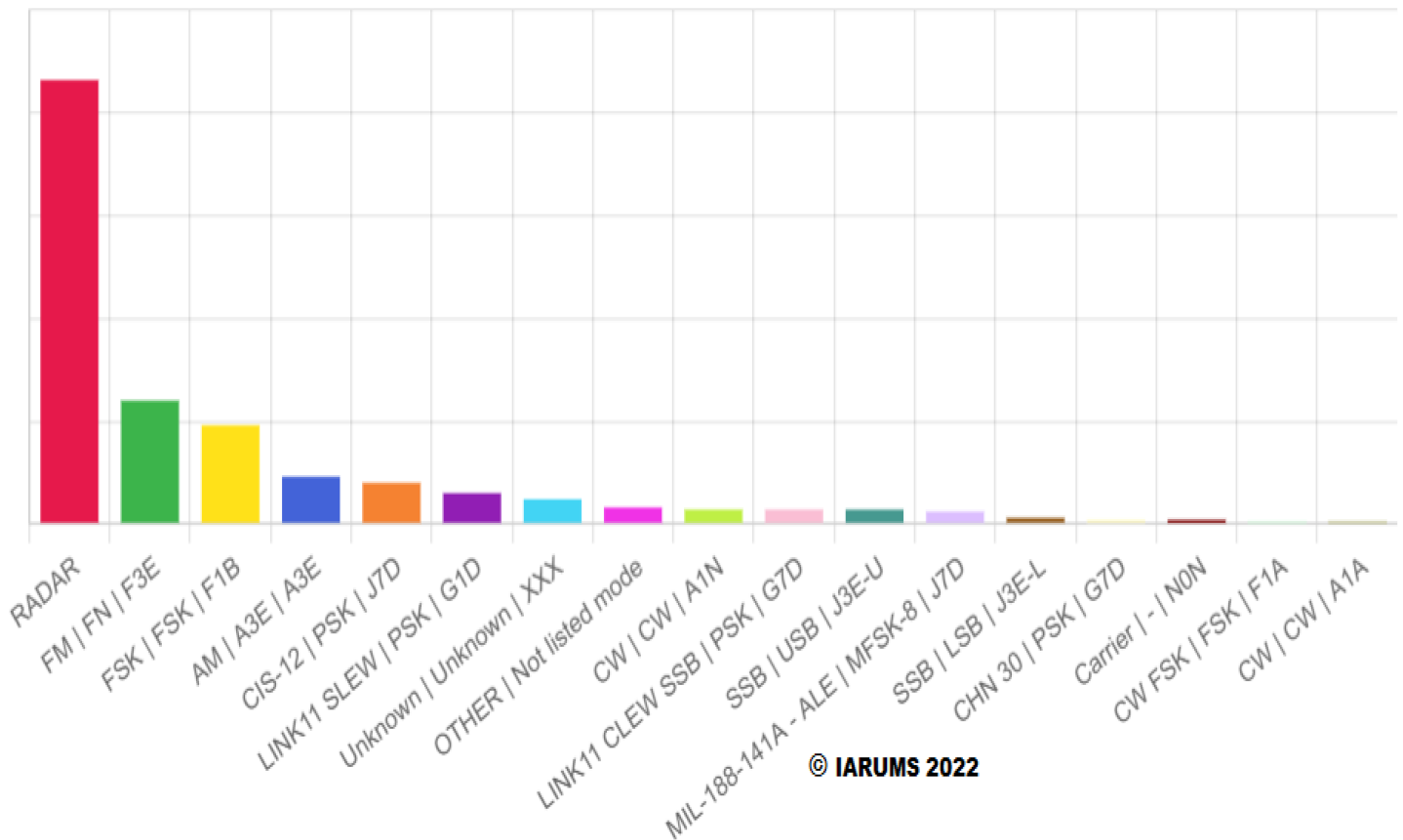
## News and info

As we can see in this month's statistic graph, once again the Over the Horizon radars' have been the transmissions have been the most reported during November, followed by transmissions sent in different MIL modes. It is these types of transmissions that cause the most damage to our HF amateur radio bands.

However, we must not forget the existence of other intrusions on these bands. Many of them are also received on a daily basis and their emissions are also annoying, and some of them, long - lasting.

For instance, just to we often received A3E (AM) transmissions from the broadcasting station "Radio Ethiopia" on 7110 kHz. We could also get many times F3E (FM) transmissions from several RUS taxi dispatch stations on different frequencies in the 10 m band, or Spanish fishers sending their J3E (USB) transmissions on the 15 m band, putting very strong signals; or the daily A1A /CW) QTC sent on 21438 kHz by the RUS navy station "RCV".

Reports



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## 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 | **CF** = Center frequency | **DF** = Direction finding (radio location; see also TDoA) | **FMCW** = frequency modulated continuous wave | **FMOP** = frequency modulated on pulse | **OTHR** = over the horizon radar | **Radar** = if exact mode unknown | **SH** = Shift (Hz) | **sps** = sweeps per second | **TDoA** = Time difference of arrival | **ui** = unidentified.

**DARC; Daniel, DL3RTL. Credit to monitors: DL2SCH, Jürgen; DL8SER, Klaus; F4FPR, Benjamin; DL4HG, Olaf; DK8WG, Claus; DJ4WT, Christian; DG6MDG, Helmut; DL1IAV, Eduard; DO3KIM, Detlef; DB3TA, Alex**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
6997,0	1912	01	11	RUS		FMOP	40	12k	OTHR Contayner
7001,0	1735	14	11	RUS		FMOP	40	12k	OTHR Contayner
7005,0	1745	07	11	RUS		FMOP	40	12k	OTHR Contayner
7014,8	1750	07	11	RUS		PSK		2k4	CIS-12
7021,0	1942	01	11	CHN		FMCW	50	10k	OTHR 5,1s bursts
7040,0	1942	01	11	CHN		FMCW	50	10k	OTHR 5,1s bursts
7046,0	1630	17	11	RUS		FMOP	40	12k	OTHR Contayner
7047,0	1825	14	11	RUS		FMOP	40	12k	OTHR Contayner
7055,0	1625	14	11	UKR		J3E-L		3k	RUS/UKR radio war
7065,0	1756	18	11	RUS		FMOP	40	12k	OTHR Contayner
7066,0	1802	14	11	RUS		FMOP	40	12k	OTHR Contayner
7085,0	1648	15	11	RUS		FMOP	40	12k	OTHR Contayner
7088,8	1744	18	11	RUS		PSK		2k4	CIS-12
7089,8	1846	01	11			PSK	2400	2k5	LINK11 SLEW
7089,8	1635	17	11			PSK	2400	2k5	LINK11 SLEW
7090,0	1926	08	11				2400	3k	LINK11 SLEW
7090,8	1722	19	11	RUS		FMOP	40	12k	OTHR Contayner
7102,0	1708	19	11	RUS		FMOP	40	12k	OTHR Contayner
7103,0	1945	01	11	RUS		FMOP	40	12k	OTHR Contayner
7115,0	1940	27	11	RUS		FMOP	40	12k	OTHR Contayner
7119,0	1735	14	11	RUS		FMOP	40	12k	OTHR Contayner
7126,0	1644	14	11	CHN		FMCW	50	10k	OTHR 5,1s bursts
7130,0	1627	15	11	RUS		FMOP	40	12k	OTHR Contayner
7148,0	1642	14	11	RUS		FMOP	40	12k	OTHR Contayner
7160,8	1846	01	11			PSK		2k4	LINK11 CLEW SSB
7165,0	1947	01	11	CHN		FMCW	50	10k	OTHR 5,1s bursts
7171,0	1947	01	11	CHN		FMCW	50	10k	OTHR 5,1s bursts
7172,0	1644	14	11	CHN		FMCW	50	10k	OTHR 5,1s bursts
7173,0	1830	07	11	RUS		FMOP	40	12k	OTHR Contayner
7174,0	1748	25	11	RUS		FMOP	40	12k	OTHR Contayner
7176,0	1627	17	11	RUS		FMOP	40	12k	OTHR Contayner
7181,0	1850	01	11	CHN		FMCW	66,67	10k	OTHR 3,8s bursts
7186,0	1738	18	11	RUS		FMOP	40	12k	OTHR Contayner
7187,0	1644	14	11	CHN		FMCW	50	10k	OTHR 5,1s bursts

**DARC; Daniel, DL3RTL. Credit to monitors: DL2SCH, Jürgen; DL8SER, Klaus; F4FPR, Benjamin; DL4HG, Olaf; DK8WG, Claus; DJ4WT, Christian; DG6MDG, Helmut; DL1IAV, Eduard; DO3KIM, Detlef; DB3TA, Alex**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7188,0	1748	17	11	RUS		FMOP	40	12k	OTHR Contayner
7190,0	1927	08	11	RUS		FMOP	40	12k	OTHR Contayner
14100,0	1426	05	11	RUS		FMOP	40	12k	OTHR Contayner
14134,0	1608	13	11	RUS		FMOP	40	12k	OTHR Contayner
14165,0	1535	10	11	RUS		FMOP	40	12k	OTHR Contayner
14171,0	1608	13	11	RUS		FMOP	40	12k	OTHR Contayner
14187,0	1515	13	11	RUS		FMOP	40	12k	OTHR Contayner
14191,0	1602	05	11	RUS		FMOP	40	12k	OTHR Contayner
14197,0	1353	18	11	RUS		FMOP	40	12k	OTHR Contayner
14293,0	1105	19	11	RUS		FMOP	40	12k	OTHR Contayner
14296,0	1647	14	11	RUS		FMOP	40	12k	OTHR Contayner
14304,0	1647	14	11	RUS		FMOP	40	12k	OTHR Contayner
14346,0	1120	19	11					2k7	unid
21290,0	1228	27	11	CYP		FMCW	50	20k	OTHR Pluto Cyprus
28010,2	1015	05	11			F1B		300	fishing buoys
28065,2	1342	05	11			F1B		300	fishing buoys
28100,0	0827	19	11	IRN					Iranian OTHR
28100,2	1325	05	11			F1B		300	fishing buoys
28400,0	0850	05	11	CYP		FMCW		20k	OTHR Pluto Cyprus

**IRTS; Michael EI3GYB**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3657	2145	9	11	TJK		CW			Letter "V" beacon form Tashkent. Medium signal, daily
3762	1700	1	11	F		LSB			D-QRM by a French station. Music being played, shouting of profane slogans, rebroadcasting of conversations. Total chaos- no change to other months. Nearly daily from around 1700 to 1930z.
3731	2215	10	11	UKR /RU S		LSB			Patriotic music. Loud. Russian-Ukrainian radio war.
6950	1830	6	11			RADAR			Radar from 6950 to 7010 kHz. Very strong and persistent. Also heard next evening at the same time.
7000	1500	11	11	INS		LSB			Indonesian fishermen, medium signals. Nearly daily.
7050	1800	2	11	UKR /RU S		LSB			Russian-Ukrainian radio war. Nearly daily with strong signals.
7055	1845	5	11	UKR /RU S		LSB			Russian-Ukrainian radio war. Usual chaos with rebroadcasting of audio of Russian or Ukrainian radio stations. Daily. Huge signals, persistent.
7110	1805	7	11	ETH		AM			Radio Ethiopia, heard with variable signal levels during the month.
7136.5	2130	6	11			F1B			Medium signal. Persistent.

<b>IRTS; Michael EI3GYB</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>
7145	1805	2	11			RADAR			Radar from 7145 to 7160 kHz. Medium signal. Persistent.
7166	1830	6	11			RADAR			Radar from 7166 to 7193 kHz. Very strong and persistent.
7194.5	840	11	11			F1B			Strong and persistent. Still on 13th at 1245z.
7205	1925	7	11	CHN		AM			China Radio International, splattering down to 7198. Strong signal.
14000	1130	14	11			USB			Male voices in a SE Asian language. Medium signals. Most likely fishermen.
14000	1500	1	11	CHN		AM			CRI. Mixing product. Nearly daily with a medium to weak signal.
14192	1400	17	11			RADAR			Radar from 14192 to 14203 kHz. Strong and persistent.
14304.5	1235	30	11			FSK			North Korean embassy traffic. Strong and persistent.
14320	1210	3	11	CHN		RADAR			Chinese Foghorn. 14320 to 14325 kHz. On and off.
14345	1210	15	11			PSK			Very strong and persistent signal. Also heard on 18th at 1145z.
18135	1100	14	11	Brit. Base on Cyprus		RADAR			Pluto active from 18135 to 18172 kHz. Strong and persistent.
18145	1110	17	11	Brit. Base on Cyprus		RADAR			Pluto active from 18145 to 18185 kHz. Strong and persistent.
18147	1245	13	11	Brit. Base on Cyprus		RADAR			Pluto active from 18147 to 18182 kHz. Strong and persistent.
18150	1600	2	11	Brit. Base on Cyprus		RADAR			Pluto active form 18150 to 18195 kHz. Strong and persistent. Also 11.11 at 0855z. A real pest.
21000	1300	24	11	E or MM		USB			Group of Spanish fishermen. Strong signals.
21086	1225	10	11	Brit. Base on Cyprus		RADAR			Pluto active from 21086 to 21110 kHz. Very strong and persistent.
21164	950	15	11	Brit. Base on Cyprus		RADAR			Pluto active from 21164 to 21175 kHz. Weak to medium signal. Persistent. Also 25th at 1125z

<b>IRTS; Michael EI3GYB</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>
				us					
21168	900	11	11	Brit. Base on Cyprus		RADAR			Pluto active from 21168 to 21181 kHz. Very strong and persistent.
21245	1105	14	11	Brit. Base on Cyprus		RADAR			Pluto active from 21245 to 21258 kHz. Medium signal, persistent.
21280	1130	15	11	Brit. Base on Cyprus		RADAR			Pluto active from 21280 to 21310 kHz. Strong and persistent.
21340	1215	24	11	Brit. Base on Cyprus		RADAR			Pluto active from 21340 to 21368 kHz. Strong and persistent.
21375	1105	15	11	Brit. Base on Cyprus		RADAR			Pluto active from 21375 to 21403 kHz. Strong and persistent.
21390	1330	24	11	Brit. Base on Cyprus		RADAR			Pluto active from 21390 to 21415 kHz. Strong and persistent.
21438	1230	10	11	Ukraine		CW			Russian navy, Sevastopol. Medium signal, daily.
24975	1140	16	11	Brit. Base on Cyprus		RADAR			Pluto active from 24975 to 24998 kHz. Strong and persistent.
25000	1305	5	11	B		USB			Brazilian Cbers. Medium signals. Often.
28000	1215	1	11	IRN		RADAR			Iranian radar from 28 to 30 MHz. Daily, all hours of daylight. Medium to strong signals. Moving up and down the band or staying inside certain parameters. Very serious pest.
28022	1255	7	11	B		USB			Brazilian Cbers. Medium signal.
28265	845	11	11	RUS		FM			Russian taxi service. Female voice. Persistent.
28285	920	10	11	B		AM			Brazilian Cbers. Group of male voices. Medium to strong signals. Heard until fade out around 1045z.
28455	850	11	11			FM			Male voice in a SE Asian language.

**IRTS; Michael EI3GYB**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
									Medium signal, in and out.
28515	1330	28	11	Brit. Base on Cyprus		RADAR			Pluto active from 28515 to 28540 kHz. Strong and persistent.
28698	1220	24	11	Brit. Base on Cyprus		RADAR			Pluto active from 28698 to 28720 kHz. Medium signal, persistent.
28700	920	12	11			FM			SE Asian fishermen. Weak to medium signal. In and out.
29150	1310	5	11			FM			SE Asian fishermen. Weak to medium signals. In and out.
29425	925	12	11			FM			SE Asian fishermen. Weak to medium signals. In and out.

**PZK; SP3AMO, SP5GNI**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7014.0	0835	21	11			PSK	120	4K0E	QRT 08.35 UTC
7015.0	1615	7	11			PSK	120	2K70E	RST 599+++
7055.0	1045	17	11			J2E-L		2K7	In Russian as usually, also 7050.0
7066.0	1700	15	11			RADAR	40	12K0E	599++
7088.0	1325	10	11			CIS-12		2K7	S7
7094.0	2120	26	11			RADAR		12K0E	S7
7186.0	1701	15	11			RADAR	40	12K0E	599++
7187.0	0735	16	11			PSK	120	2K70E	
7193.0	2032	11	11			RADAR		10K0E	burst
14006.0	0920	8	11			CIS-12		2K7	S9 pilot 14007.3
14115.0	1145	22	11			RADAR		8K0E	S7 burst
14127.0	1145	22	11			J3E-U		2K7	S9+ religious speach in Russian
14130.0	1610	6	11			J3E-U		2K7	S8 religious speach in Russian
14168.0	1235	1	11			RADAR		8K0E	
14186.0	1455	24	11			RADAR		10K0E	S7
14346.0	vt	vd	11			CIS-12		2K7	S9
18107.0	vt	vd	11			F1B		200H	
18118.0	1125	2	11			RADAR		12K0E	S9+
18157.0	1215	10	11	G		RADAR		12K0E	S9+
18162.0	0838	21	11			RADAR	40	12K0E	599++
18165.0	0925	1	11			RADAR		40K0E	
18170.0	1208	2	11			RADAR		20K0E	S9 partially in the band
21000.0	0740	16	11		UI	J3E-U			
21100.0	vt	vd	11			RADAR		20K0E	S9
21164.0	0953	8	11			RADAR		10K0E	bursts also 21193.0
21173.0	1030	22	11			RADAR		16K0E	S7
21175.0	1450	17	11			RADAR		20K0E	S9+10dB



**PZK; SP3AMO, SP5GNI**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
21175.0	vt	22	11			RADAR		12K0E	S9+
21176.0	1205	1	11			RADAR		12K0E	S9+
21185.0	0837	17	11			RADAR	66/900	10K0E	S99++
21255.0	1025	24	11			RADAR		20K0E	S9+26dB!
21300.0	0900	1	11			RADAR		10K0E	
21335.0	1100	3	11			RADAR		10K0E	
21339.0	0905	1	11			RADAR		10K0E	
21360.0	0940	22	11			RADAR		10K0E	S9
21383.0	0920	8	11			RADAR		10K0E	
21390.0	1108	15	11			RADAR		20K0E	S9+12dB Cyprus?
21400.0	1140	11	11			RADAR		20K0E	S9+
28204.5	1008	29	11			A3E		6K0	
28240.0	1150	22	11	IRN		RADAR		100K0E	Bursts a few seconds
28600.0	0840	vt	vd	IRN		RADAR	300/870	46K0E	599
28860.0	0742	vt	vd	IRN		RADAR	150/300	46K0E	
28980.0	0841	17	11	IRN		RADAR	150/300	46K0E	599
29090.0	1005	29	11			RADAR		40K0E	a few seconds burst, also 28550.0
29310.0	1200	10	11	IRN		RADAR		100K0E	also at 29200.0
29345.0	1105	15	11			RADAR		20K0E	S5 not like IRN
29350.0	1227	29	11	IRN		RADAR	300/870	46K0E	

**REF; Francis, F5MIU**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
28600	0840	2	11			fmcw	Multiple	100kHz	OTH Radar pulsed multiple rate, S9+20dB
28860	0848	2	11			fmcw	Multiple	50kHz	OTH Radar pulsed multiple rate, S9+20dB
7132	1725	10	11			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9+5dB
7065	1718	15	11			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9+5dB
7085	1750	15	11			fmcw	40	20kHz	OTH Radar pulsed 25ms, S8
7100	1748	18	11			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9
7100	1730	19	11			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9
21400	0904	21	11			fmcw	50	20kHz	OTH Radar pulsed 20ms, S9+
18165	914	21	11			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9
24903	0842	22	11			fmcw	40	10kHz	OTH Radar pulsed 25ms, S9
28410	0901	23	11			fmcw	25	20kHz	OTH Radar pulsed 40ms, S8
28471	0847	25	11			fmcw	25	20kHz	OTH Radar pulsed 40ms, S9
21000	0858	25	11			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9
7175	1754	25	11			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9
7190	1707	26	11			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9
21370	0901	30	11			fmcw	50	20kHz	OTH Radar pulsed 20ms, S9

**RSGB; Richard, G4DYA**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3756.0	1707	02	11			J3E		1K70E	USB 'The Pip'. Daily. Also heard 251633z, 291932z
7008.6	0752	30	11			J7D		2K70E	USB 7006.6 / CIS-12
7015.0	1546	07	11			J7D		2K70E	USB 7013.0 / CIS-12
7018.9	1102	25	11			NON			Plain carrier
7022.0	1149	22	11			J7D		2K70E	USB 7020.0 / CIS-12
7025.0	0857	03	11			F1B		200	FSK
7027.0	0810	12	11			J7D		2K70E	USB 7025.0 / CIS-12
7036.0	1634	14	11			F1B	50	250	FSK
7054.0	1457	29	11			F1B		200	FSK
7066.0	1651	15	11	RUS		P0N	40	15K0E	Container pulse radar
7075.00	1624	25	11			A1N			Continuous groups of 16 dashes
7075.01	1353	07	11			A1N			Continuous groups of 16 dashes. Also heard 141639z, 161401z
7075.02	0854	01	11			A1N			Continuous groups of 16 dashes. Also heard 180916z, 280815z
7085.0	1652	15	11	RUS		P0N	40	15K0E	Container pulse radar
7089.8	1502	01	11			G1D		2K40E	USB 7088.0 / Link 11 SLEW. Also heard 071601z, 081642z, 141640z, 150851z, 221523z, 241509z, 291929z
7091.0	1508	24	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
7098.0	0937	12	11			F1B		250	FSK
7110.0	1635	02	11	ETH	R. Ethiopia	A3E			AM broadcasting. Also heard 061727z, 081643z, 101643z, 141642z, 161653z, 231443z, 251625z, 301756z
7136.48	0829	21	11					200HE	Unidentified. Ceased at 1126z.
7148.0	1644	14	11	RUS		P0N	40	15K0E	Container pulse radar
7151.7	1555	07	11					1K20E	Unidentified – same type as 7176.7
7152.0	1627	25	11			J7D		2K70E	USB 7150.0 / CIS-12
7159.0	1444	01	11			J7D		2K40E	USB 7159.0 / Link 11 CLEW. Also heard 281352z, 291127z, 300845z
7162.0	0756	30	11			F1B		250	FSK
7172.0	1845	07	11	RUS		P0N	40	14K0E	Container pulse radar
7176.7	1558	07	11					1K20E	Unidentified – same type as 7151.7
7182.0	1520	22	11	RUS		P0N	40	15K0E	Container pulse radar
7187.0	1658	15	11	RUS		P0N	40	15K0E	Container pulse radar
7190.0	1603	07	11	RUS		P0N	40	12K0E	Container pulse radar
7193.0	0735	01	11			F1B		200	FSK. Also heard 030856z, 040846z, 060800z, 071349z, 130908z, 150837z
7193.0	1334	11	11			F1B		250	FSK
7196.0	1526	22	11	RUS		P0N	40	12K0E	Container pulse radar
10110.0	1502	24	11	RUS		P0N	40	15K0E	Container pulse radar
14002.0	0805	28	11			F1B		850	FSK
14053.0	0938	20	11	CHN		F3N	50	10K0E	FMCW radar bursts
14055.0	0908	18	11	CHN		F3N	66.7	10K0E	FMCW radar bursts
14095.0	0935	20	11	CHN					
14098.5	0844	01	11					1K20E	Unidentified bursts
14105.0	0905	17	11	CHN		F3N	50	10K0E	FMCW radar bursts



**RSGB; Richard, G4DYA**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
14119.0	0902	06	11			F1B		200	FSK
14124.0	0903	18	11	CHN		F3N	66.7	10K0E	FMCW radar bursts
14140.0	1431	22	11	RUS		P0N	40	15K0E	Container pulse radar
14160.0	0809	21	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
14160.0	1442	29	11	RUS		P0N	40	14K0E	Container pulse radar
14181.0	0913	18	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
14181.0	1509	26	11	RUS		P0N	40	14K0E	Container pulse radar
14185.0	0903	17	11	CHN		F3N	50	10K0E	FMCW radar bursts
14244.0	0843	30	11	CHN		F3N	50	10K0E	FMCW radar bursts
14246.0	0910	18	11	CHN		F3N	47.6	10K0E	FMCW radar bursts
14251.0	0905	18	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
14253.0	0954	26	11			F3N	50	10K0E	FMCW radar
14260.0	0942	16	11	CHN		F3N	50	10K0E	FMCW radar bursts
14273.0	0906	18	11	CHN		F3N	50	10K0E	FMCW radar bursts
14277.0	0948	14	11	CHN		F3N	50	10K0E	FMCW radar bursts
14284.0	0819	21	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
14296.0	1632	14	11	RUS		P0N	40	15K0E	Container pulse radar
14303.5	0805	21	11					1K20E	Unidentified bursts. Also heard 230830z, 280803z, 300806z
14308.0	0842	01	11			F1B		200	FSK
14346.0	0937	14	11			J7D		2K70E	USB 14344.0 / CIS-12. Also heard 150847z, 160940z, 170906z, 180859z
18060.0	0821	30	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
18084.0	0841	30	11	CHN		F3N	50	10K0E	FMCW radar bursts
18090.0	1000	20	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
18107.0	0839	01	11	RUS	RDL	F1B		200	FSK. Ident in F1A. Also heard 021603z, 030900z, 040842z, 060859z, 101208z
18155.0	1351	15	11	G		F3N	25	20K0E	FMCW radar, UK SBA, Cyprus
18159.0	0910	20	11	RUS		P0N	40	15K5	Container pulse radar
18162.0	1018	12	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
18162.0	0835	30	11	CHN		F3N	66.7	10K0E	FMCW radar bursts
18168.0	0926	13	11	RUS		P0N	40	15K3	Container pulse radar
18170.0	1139	10	11	RUS		P0N	40	15K0E	Container pulse radar
18170.0	0852	21	11	CHN		F3N	50	10K0E	FMCW radar bursts
18172.0	1206	12	11	RUS		P0N	40	15K0E	Container pulse radar. Also heard 261023z, 270853z
18173.0	1347	12	11	RUS		P0N	40	15K2	Container pulse radar
18175.0	1601	02	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21000.0	0854	25	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21100.0	1126	10	11	G		F3N	25	20K0E	FMCW radar, UK SBA, Cyprus
21100.0	1146	11	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus. Also heard 151127z.
21118.0	0839	21	11	CHN		F3N	50	10K0E	FMCW radar bursts
21123.0	0858	20	11	CHN		F3N	50	10K0E	FMCW radar bursts
21155.0	1106	18	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21155.0	1348	28	11	RUS		P0N	40	10K0E	Container pulse radar
21166.0	1441	22	11	RUS		P0N	40	15K0E	Container pulse radar

**RSGB; Richard, G4DYA**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
21170.0	0931	16	11	RUS		P0N	40	10K0E	Container pulse radar
21174.0	1107	18	11	RUS		P0N	40	10K0E	Container pulse radar
21175.0	0843	27	11	RUS		P0N	40	10K0E	Container pulse radar
21179.0	0859	15	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
21180.0	1011	25	11	RUS		P0N	40	10K0E	Container pulse radar
21185.0	0854	17	11			F3N	50	10K0E	FMCW radar
21210.0	1414	23	11	G		F3N	12.5	40K0E	FMCW radar, UK SBA, Cyprus
21243.0	0856	17	11	CHN		F3N	50	10K0E	FMCW radar bursts
21255.0	1009	24	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21295.0	1128	15	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21299.0	0832	01	11	CHN		F3N	50	10K0E	FMCW radar bursts
21304.0	0828	04	11	CHN		F3N	66.7	10K0E	FMCW radar bursts
21311.0	0836	22	11	CHN		F3N	47.6	10K0E	FMCW radar bursts
21313.0	0920	16	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
21317.0	0855	06	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
21329.0	0831	22	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
21335.0	0831	04	11	CHN		F3N	66.7	10K0E	FMCW radar bursts
21340.0	0751	06	11	CHN		F3N	50	10K0E	FMCW radar bursts
21348.0	0842	15	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
21359.0	0754	06	11	CHN		F3N	50	10K0E	FMCW radar bursts
21360.0	0809	22	11			F3N	50	10K0E	FMCW radar
21360.0	1444	29	11	G		F3N	12.5	40K0E	FMCW radar, UK SBA, Cyprus
21370.0	0748	30	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21371.0	0841	04	11	CHN		F3N	47.6	10K0E	FMCW radar bursts
21388.0	0744	06	11	CHN		F3N	66.7	10K0E	FMCW radar bursts
21395.0	0833	01	11	CHN		F3N	50	10K0E	FMCW radar bursts
21395.0	0744	06	11	CHN		F3N	66.7	10K0E	FMCW radar bursts
21399.0	0902	01	11	CHN		F3N	66.7	10K0E	FMCW radar bursts
21400.0	1147	11	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus. Also heard 210846z
21400.0	0843	15	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
21407.0	0859	13	11	CHN		F3N	41.7	10K0E	FMCW radar bursts
21421.0	0907	25	11	RUS		P0N	40	11K0E	Container pulse radar
21430.0	1135	12	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21450.0	1342	21	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
28530.0	1346	28	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
28595.0	1013	26	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
28600.0	1036	17	11	IRN		P0N		45K0E	Pulse radar 307.1 / 869.5 pps
28710.0	1435	24	11	G		F3N	25	20K0E	FMCW radar, UK SBA, Cyprus
28860.0	0824	01	11	IRN		P0N		45K0E	Pulse radar 150.2 / 313.0 pps. Also heard 021534z, 040834z, 060738z, 071336z, 101000z, 111128z, 130919z, 140943z, 171037z
28905.0	0836	04	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
28985.0	0833	25	11	IRN		P0N	313.0	45K0E	Pulse radar
29000.0	1339	19	11	G		F3N	25	20K0E	FMCW radar, UK SBA, Cyprus
29150.0	0740	06	11	IRN		P0N		45K0E	Pulse radar 224.5 / 333.8 pps

**RSGB; Richard, G4DYA**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
29150.0	0917	13	11	G		F3N	25	20K0E	FMCW radar, UK SBA, Cyprus
29400.0	0921	13	11	IRN		P0N	313.0	45K0E	Pulse radar
29450.0	0825	01	11	IRN		P0N	313.0	45K0E	Pulse radar. Also heard 101002z, 111130z
29450.0	1338	07	11	IRN		P0N		45K0E	Pulse radar 224.5 / 333.8 pps
29490.0	0852	25	11	IRN		P0N	313.0	45K0E	Pulse radar
29500.0	0841	06	11	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
29550.0	0837	04	11	IRN		P0N		45K0E	Pulse radar 224.5 / 333.8 pps
29550.0	0941	13	11	IRN		P0N	313.0	45K0E	Pulse radar
29625.0	0949	13	11	G		F3N	25	20K0E	FMCW radar, UK SBA, Cyprus
29650.0	0843	06	11	IRN		P0N		45K0E	Pulse radar 224.5 / 333.8 pps

**SRAL; Pekka, OH2BLU**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7 MHz	1530-0515	*	11	RUS		RADAR	40sps	13k0E	*)Days: 2. - 5. 8. 10. 11. 14. 15. 17. 18. 21. - 23. 26. 28. - 30. (WebSDR 29d)
7 MHz	1130-1930	*	11	CHN		RADAR	50/67sps	10k0E	*) Days: 1. 3. 4. 6. 10. 11. 13. 14. 18. 20. 22. 24. 25. 29. 30. 'foghorn'
7000.0	0900-1900	*	11			NON		40H	*)Days: 1. 3. 7. 8. 20. 29.
7006.0	0950	07	11	RUS		F1B		500H	
7010.0	0520-1015	*	11	RUS		J7D	120	2k60E	*)Days: 22. 25. 30.
7015.0	1530-1545	02	11	RUS	RIT	A1A	18 wpm	40H	navip
7019.0	0840-1800	25	11	RUS		F1B/A NON		200H	5BL
7025.0	0545-1845	01 - 06	11	RUS		F1B		200H	
7027.0	0730-0830/	12	11	RUS		J7D	120	2k60E	
7029.0	1005-1540	22	11	RUS		J7D	120	2k60E	
7030.0	0545-1155/	*	11	RUS		F1B/ NON		250H	*) Days: 1. 9. 29.
7031.0	0600-1400	16 - 20	11	RUS		R3E-u		3k6E	brum
7032.0	0945-1130	11 18	11	RUS		J7D	120	2k60E	
7036.0	1630-1900	14 16	11	RUS		F1B		250H	
7052.0	0630-1900	19	11	RUS		F1B		250H	
7053.9	1125	15	11	RUS		F1B		400H	
7054.0	1400-1545	*	11	RUS		F1B		200H	*)Days: 1. 2. 5. 6. 13. - 30.
7057.0	1400-1545/	18	11	RUS		J7D	120	2k60E	
7089.0	0600-	*	11	RUS		J7D	120	2k60E	*)Days: 3. 10. 16. 18.

SRAL; Pekka, OH2BLU									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
	1905/								
7089.8	1430-0800	*	11	IW		G1D		2k40	*) Days: 1. - 22. 28. - 30. SLEW
7098.0	0830-0945	13	11	RUS		F1B		250H	
7101.0	1400-1415	21	11	RUS		A1A	20 wpm	40H	5BL
7110.0	1600-1810/	01 - 31	11	ETH	R. Ethiopia	A3E		9k0	
7110.0	1345-1500/	01 - 31	11	ETH	R. Ethiopia	A3E		9k0	
7111.0	0545-0619/	01 27	11	RUS		F1B/NON		250H	
7135.0	0600-0700	*	11	RUS		F1A/B		200H	*)Days: 1. 7. 10. 5F
7159.0	1420-0810	*	11	IW		G7D-u		2k40E	*) Days: 1. 2. 4. 5. 8. 28. 30. CLEW
7160.0	0645-0730	15	11	RUS	RBL88	A1A	20 wpm	40H	
7162.0	0800-0840/	30	11	RUS		F1B		250H	
7193.0	0500-1800	*	11	RUS		F1A/B/NON		250H	5F
7200.0	1500-1530	29	11			A3E		9k0	English PX
10 MHz			11	G		RADAR	50sps	20k0	(WebSDR 3d)
10 MHz	1445-1800	*	11	RUS		RADAR	40sps	13k0E	*) Days: 5. 9. 25. (WebSDR 4d)
10127 A	1415-1600	09 - 30	11		TWR	A3E?		4k0E	Spurious from 9900 kHz
14 MHz	0600-1600	*	11	RUS		RADAR	40sps	13k0E	*) Days: 1. 5. 10. 13. - 16. 19. 25. 29. 30. (WebSDR 19d)
14 MHz	0830-1315	*	11	CHN		RADAR	50/67sps	10k0E	*) Days: 1. 2. 5. 6. 7. 9. 14. 16. 23. 25. 29. 'foghorn'
14006.0	0910-0955	08	11	RUS		J7D	120	2k60E	
14014 A	1000-1015	30	11	CHN		A3E?		4k0E	Spurious from 13830 kHz
14090.0	0610	27	11	CHN		RADAR	47H6	10k0	
14169.0	0710-0725/	21 30	11	RUS		F1B		200H	
14200.0	0600-1300	01 - 08	11		Superdarn	RADAR	10sps	4k0	
14221.0	0500-0600/	01 - 31	11	KAZ		F1B		200H	
14258.0	0850-0945	03 07	11	RUS		F1B		500H	
14308.0	0740-1010	*	11	RUS		F1B		500H	*) Days: 12. 14. 16. 30.
14334.3	0840-	*	11	RUS		F1B/		250H	*)Days: 2. 7. 8. 9. 13. 16. 23. 24. 25.

**SRAL; Pekka, OH2BLU**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
	1140					NON			
14346.0	0600-1300	*	11	RUS		J7D	120	2k60E	
18 MHz	0530-1645	*	11	G		RADAR	25/50s ps	20k0	*)Days: 1. 2. 15. 20. 30. (WebSDR 3d)
18 MHz	0800-1300	*	11	RUS		RADAR	40 sps	13k0E	*) Days: 1. 2. 12.13. 15. 20. 22. 25. 26. 27. (WebSDR 21d)
18080.0	0615-0800	*	11	TWN		A3E		9k0	*) Days: 1. 2. 9. 27.
18107.0	0625-1300	06 07	11	RUS		F1B		200H	
21 MHz	0600-1520	*	11	G		RADAR	12.5/25/50s ps	20k0	*) Days: 9. - 18. 20. - 23. 25. 27. 30. (WebSDR 24d)
21 MHz	0600-1400	*	11	RUS		RADAR	40 sps	13k0E	*) Days: 1. 3. 7. 8. 11. 13. - 16. 19. 22. 25 - 29. . (WebSDR 16d)
21 MHz	0630-1030	*	11	CHN		RADAR	50/67s ps	10k0E	*) Days: 1. 3. 4. 6. - 9. 12. 14. 16. 18. 20. 22. 23. 26. 30. 'foghorn'
21185.0	0700-1000	17 22	11	CHN		RADAR	50 sps	10k0E	
21438.0	/0830-1400	01 - 30	11	RUS	RCV	A1A	20 wpm	40H	navip
28 MHz	0615-1415	*	11	G		RADAR	12.5/25/50s ps	20k0	*) Days: 3. 6. 9. 11. - 17. 20. 22. - 29. (WebSDR 22)
28 MHz	0600-1400	*	11	IRN		RADAR	150/313	60k0E	*)Days: 1. 2. 5. 6. 7. 9. 14. 16. 23. 25. 29. (WebSDR 21d)
28 MHz	0545-1400	*	11	IRN		RADAR	310/870	120k0E	*)Days: 1. 2. 3. 17. 19. - 27.(WebSDR 8d)
28 MHz	0655-1255	*	11	IRN		RADAR	312 sps	50k0E	*) Days: 3. 7. 8. 10. - 16.
28860.0	0600-1430	*	11	IRN		RADAR	150/313	60k0E	*)Days: 1. 3. 4. 6. - 9. 12. 13. 16. 18. 20. 22. 23. 26. 30. (WebSDR 19d)
29030.0	0845-0930	25 29	11	G		RADAR	12.5 sps	40k0E	'
28 MHz	0600-1300	*	11	RUS	Taxi disp.	F3E		3k0E	*) Days: 3. 5. - 17. 19. 22. 23. 25. 26. 29. 187 reports

**USKA Peter, HB9CET**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD / sps	SH / BW	DETAILS
7000.0 USB	1754	18	11			unid		ca 3k	Burst signal; Hybrid system FSK Intro
7002.00	1317	22	11			NON			Long lasting carrier
7002.0	1943	29	11			FMOP	40 sps	12k0E	OTHR; Contayner
7004.8	1726 1314	01 19	11			G1D PSK8	2400 Bd	ca 2k4	short bursts; 1800 Hz single tone modem MIL 188-xxx often
7005.0	2301 1521	01 23	11			J3E-L			LSB; unid language, maybe village radio from Indonesia
7006.5	0817	30	11	RUS		F1B	50 Bd	250H	FSK

USKA Peter, HB9CET									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD / sps	SH / BW	DETAILS
7008.0	1012	29	11			J7D	12x 120 Bd	2k60E	CIS12; BPSK; additional carrier at 7006.0 kHz
7010.0	1501	22	11			J3E-L			LSB; unid language, maybe village radio from Indonesia
7015.0	1439	07	11			J7D	12x 120 Bd	2k60E	CIS12
7015.0	1319	21	11			J3E-L			LSB; unid language, maybe village radio from Indonesia
7015.5	1432	28	11			X		2k70E	CF: 7017.3 kHz: short bursts
7022.0	1151	22	11			J7D		2k60E	CIS12: 13 tones only; jammed
7022.08	1151	22	11			A1N			Jammer, dashes and dots
7029.0	1436	22	11			J7D	12x 120 Bd	2k60E	CIS12; weak
7030.0	1029 1025	09 29	11			F1B	75 Bd	250H	FSK; long lasting often
7054.0	2249	01	11			F1B	50 Bd	400H	FSK; 2nd of 3527 kHz
7054.0	1452 1602	02 23	11			F1B	50 Bd	200H	almost daily
7055.0 LSB	1239	27	11			J3E-L		ca 3k0	RUS-UKR Radio War
7057.0 USB	1814	18	11			J7D	12x 120 Bd	2k60E	CIS12; BPSK; strong often
7075.009	1503	07	11			A1N			Group of dashes, long lasting
7087.0 USB	0926 1458	03 18	11			J7D	12x 120 Bd	2k60E	CIS12; idling only
7089.8	0953 1449	01 28	11			G1D PSK-8	2400	ca 2k70E	LINK 11 SLEW long lasting, daily
7108.0 LSB	1605	02	11			PSK-4	30x 60 Bd	2k50E	CHN30 (PRC30); Burst system Pilot tone at 450Hz
7110.0	1439 1431	23 28	11	ETH		A3E		ca 9k0E	BC: Radio Ethiopia almost daily
7111.0	1211	27	11			F1B	75 Bd	250H	FSK
7115.0	1438	23	11			OTHR	50 sps	10k0E	OTHR; Bursts
7119.0	2318	01	11			J7D	12x 120 Bd	2k60E	CIS12; weak, fading
7131.0	1723	02	11			OTHR	50 sps	10k0E	OTHR; Bursts
7133.0	1737	10	11			FMOP	40 sps	12k0E	OTHR; Contayner
7140.0	1714	03	11			FMOP	40 sps	12k0E	OTHR; Contayner
7159.0 USB	1421 1501	01 28	11			G7D DQPSK	75 Bd	ca 2k40E	LINK11 CLEW SSB; 16 tones spacing 110Hz often
7162.0	0814	30	11	RUS		F1B	50 Bd	250H	FSK
7188.0	2132	30	11			FMOP	40 sps	12k0E	OTHR; Contayner
7193.0	0950	01	11	RUS	RDL	F1B	50 Bd	200H	FSK
7193.0	0958	01	11	RUS	RDL	F1A		200H	CW-FSK
7196.0	1531	22	11			FMOP	40 sps	12k0E	OTHR; Contayner; strong
14119.0	1004	01	11			F1B	50 Bd	200H	FSK
14140.0	1431	21	11			FMOP	40 sps	12k0E	OTHR; Contayner
14169.0	0714	30	11			F1B	50 Bd	200H	FSK
14176.0	0725	30	11			F1B	50 Bd	200H	FSK
14200.0	1147	04	11			Radar		ca 6k	Super Darn Radar



USKA Peter, HB9CET									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD / sps	SH / BW	DETAILS
14201.7	1054	09	11		CHN	BPSK	16x 75 Bd	ca 2k20	PRC 16; burst system
14292.0	0923	01				FSK		500H	
14298.5	1234	21	11			ARQ PSK	600 Bd	600H	DPRK ARQ system often
14315.0	1633	04	11			OTHR	66.66 sps	10k0E	OTHR; weak
14324.0	1040	09	11			OTHR	50 sps	10k0E	OTHR
14334.3	1259 0925	21 24	11			F1B	50 Bd	250H	FSK
14340.0	1511	18	11			Radar	2.9 sps	12k0E	most likely Ocean wave radar
18060.0	0819	30	11			FMCW	50 sps	20k0E	OTHR; UK base Cyprus
18090.0	0959	20	11			FMCW	50 sps	20k0E	OTHR; UK base Cyprus
18107.0	0932	01	11			F1B	36+50 Bd	200H	CIS 36-50
18132.0	0947	04	11			OTHR		10k0E	OTHR; bursts
18175.0	1536	02	11			FMCW	50 sps	20k0E	OTHR; UK base Cyprus partially in 17m band
21176.0	1210	01	11			OTHR	40 sps	12k0E	OTHR; Contayner
21180.0	1014	25	11			OTHR	40 sps	12k0E	OTHR; Contayner
21185.0	1315	22	11			FMCW	50 sps	20k0E	OTHR; UK base Cyprus
21186.0	1044	22	11			OTHR	40 sps	12k0E	OTHR: Contayner
21210.0	1431	23	11			OTHR	12.5 sps	40k0E	OTHR
21210.0	1200	27	11			FMCW	50 sps	20k0E	OTHR; UK base Cyprus
21290.0	1217	27	11			FMCW	50 sps	20k0E	OTHR; UK base Cyprus
21335.0	1016	03	11			OTHR	66.66 sps	10k0E	OTHR; bursts
21370.0	0754	30	11			FMCW	50 sps	20k0E	OTHR; UK base Cyprus
21400.0	0931	02	11			FMCW	50 sps	20k0E	OTHR; UK base Cyprus
21420.0	1216	22	11			OTHR	40 sps	12k0E	OTHR; Contayner
21421.0	0910	25	11			OTHR	40 sps	12k0E	OTHR; Contayner
21435.0	1214	22	11			FMCW	50 sps	20k0E	OTHR; UK base Cyprus
21438.0	0937	01	11	RUS	RCV	A1A		10H	Area of Sevastopol daily
28000.0	1025	11	11			F3E			short traffic only; Russian
28035.0	0958	30	11			A3E			unid language, weak, fading
28055.0	1033	11	11			F3E		ca 9k0	Short traffic only; Taxi
28065.0	1122	04	11			F3E		ca 9k0	Short traffic only; Taxi
28135.0	1240	07	11			F3E		ca 9k0	short traffic only; Taxi
28145.0	1155	27	11			F3E		ca 9k0	short traffic only; Taxi
28155.0	1252	07	11			F3E		ca 9k0	short traffic only; Taxi
28165.0	0941 1222	02 07	11			F3E		ca 9k0	short traffic only; Taxi
28185.0	1238	07	11			F3E		ca 9k0	short traffic only; Taxi
28195.0	1255	07	11			F3E		ca 9k0	short traffic only; Taxi often
28200.0	1122	09	11			F3E		ca 9k0	short traffic only; Taxi
28215.0	1000	04	11			F3E		ca 9k0	short traffic only; Taxi
28600.0	0940	01	11	IRN			307 + 870 sps	ca 45k	OTHR; Bursts; long lasting sweeprate alternating
28735.0	1259	07	11			F3E		ca 9k0	short traffic only; Taxi
28815.0	1007	09	11			F3E		ca 9k0	short traffic only; Taxi
28860.0	0943	01	11	IRN			150 + 313 sps	ca 50k	OTHR; Bursts; long lasting, sweeprate alternating often
28965.0	0938	02	11			F3E		ca 9k0	short traffic only; Taxi

<b>USKA Peter, HB9CET</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD / sps	SH / BW	DETAILS
29070.0	0944	02	11			NON			Long lasting carrier
29090.0	0958	29	11			FMCW	12.5 sps	40k0	OTHR; long lasting
29325.0	1305	07	11			F3E		ca 9k0	short traffic only; Taxi
29400.0	1010	03	11			OTHR	313 sps	ca 45k	OTHR; bursts, long lasting 313 sps only
29690.0	1127	09	11			F3E		ca 9k0	short traffic only; Taxi

<b>VERON; Ruud, PG1R. Credits to observers Dick PA0GRU, Arie PA3CNK</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3548.0	2008	12	11	RUS		F1B			UiPtr; Revs (shared band)
3569.0	2116	26	11	RUS	5BL	A1A			5BL (shared band)
3569.0	1812	29	11	RUS		F1B			UiPtr; Revs (shared band)
3608.0	2140	12	11	RUS		F1B		250H	UiPtr; idle (shared band)
3608.0	2108	23	11	RUS		F1B			UiPtr; Revs (shared band)
3699.5	2020	12	11	RUS		F1B			UiPtr; Revs (shared band)
3710.0	2114	23	11	RUS		F1B			UiPtr; Revs (shared band)
3725.0	2114	26	11	RUS		F1B			UiPtr; Revs (shared band)
3750.8	2013	19	11			J3E-L			Music & shouting; UKR/RUS radio war?
7015.0	1538	06	11			F1B		200H	UiPtr
7054.0	1141	29	11	RUS		F1B		200H	Ptr
7055.0	1510	06	11	UKR /RU S		J3E-L		3K0E	2 TX same freq; one with comments other with music.
7055.0	1543	12	11	UKR /RU S		J3E-L		3K0E	2 TX same freq; both with comments
7060.0	1819	09	11	RUS		RADAR		12K0E	OTHR Contayner
7159.0	0946	30	11			G7D		2K50E	LINK 11 CLEW USB
7172.5	1421	11	11		RXF4	XXX			CF; Unknown mode; RXF4 ID at the end; maybe Russian?.
7193.0	0925	08	11	RUS		F1B		250H	UiPtr; almost daily
7193.0	1804	14	11	RUS		F1B		200H	UiPtr
7198.0	1804	17	11	RUS		RADAR		12K0E	OTHR Contayner
21099.0	1415	11	11	CYP		RADAR	50	20K0E	CF; OTHR SBA Cyprus
21408.0	1032	09	11	RUS		RADAR			Wide band Radar Woodpecker

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