IARU Monitoring System Region 1

Monthly Newsletter - March 2022

News and info

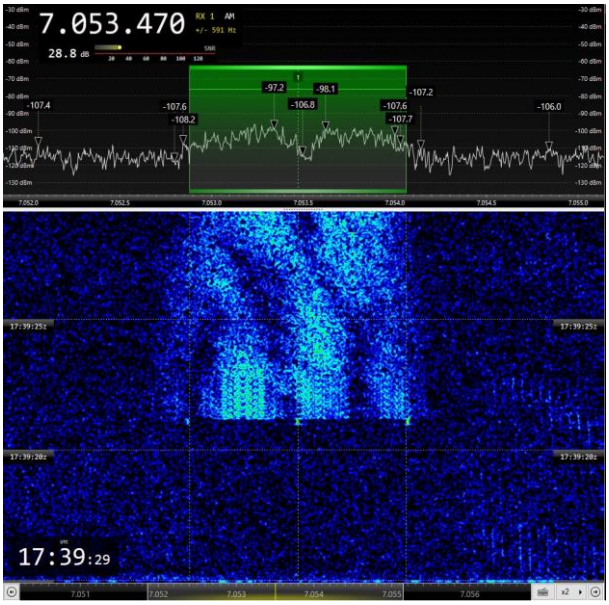
During March, as a more than likely consequence of the current military situation in the IARU Region 1, we noticed an increase of transmissions in unknown modes in our HF amateur radio bands.

In many cases, their most probably function was to act as jammers (signals intentionally transmitted over other transmissions in order to disrupt or nullify their reception).

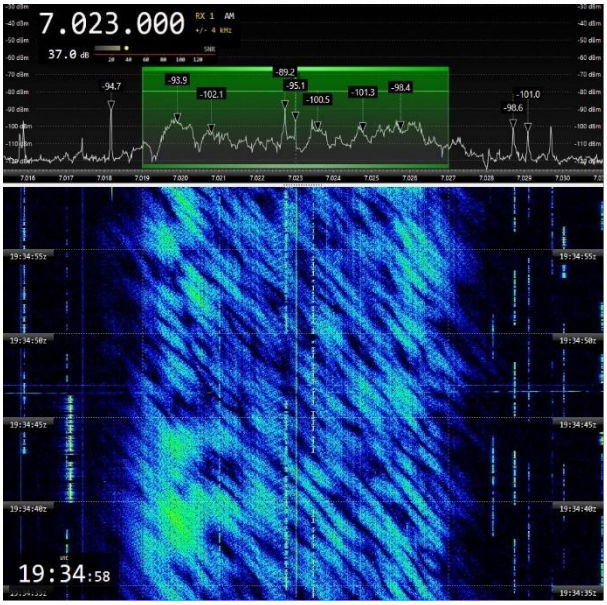
We also received on several occasions a signal whose possible function, given its behaviour (transmission of short but powerful bursts jumping in an organised and repetitive way along the radio spectrum), could be to act as an ionosonde (radar used to examine the ionosphere in order to determine the optimum frequency for the transmission of signals in HF bands).

Also, military modes that we had not observed for long time, such as the Russian digital mode T-230-1A, also known as "Mahovik" were copied.

Most of these signals were received in the 20 and 40 metre bands.



T-230-1A a.k.a „Mahovik“. PSK. BW = 2.5 kHz



XXX. BW ca 8 kHz. Most probably, jammer.

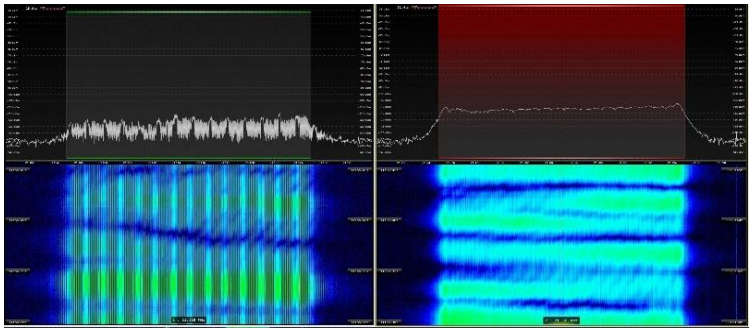
Find more screenshots of the signals received along March 2022 at the bottom section of this Newsletter.

Radars

Throughout the month, the annoying and already too high rate of reception of radar transmissions also increased. The Russian OTH (Over the Horizon) radar Contayner once again topped the list in terms of number of transmissions, being received on several occasions making up to four simultaneous transmissions on the 40-m band, each with a necessary

bandwidth of 12 kHz and using a 40 sweeps per second rate (sps). It was also observed on the 40, 30, 20, 17, 15 and 12 m bands.

In relation to other months, the British OTH radar located at the UK Sovereign Base Area of the RAF in Cyprus, also increased its transmissions, of 20 kHz bandwidth and 50 or 25 sps. It was received mainly on the 15-metre band, although it was also observed on 17 and 10 metres.



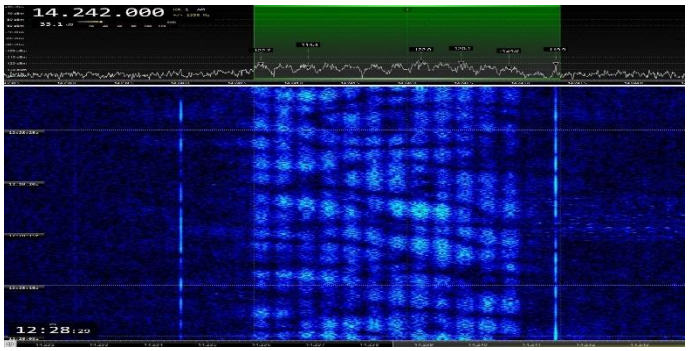
OTH Radar. G. UK SBA, Cyprus. BW = 20 kHz. 50 or 25 sps. Two

This was also the case with the transmissions sent by the Iranian radar (BW = 45 kHz), which in addition to being received almost daily on its usual transmission frequency (28860 kHz CF), made simultaneous transmissions that jumped frequency every 4 minutes over the entire 10 m band. It usually sends short bursts of 150 and 313 sps alternately, but it was also received using other sweep rates, as 226 and 333 sps, or 307 and 870 sps, even sometimes sending only 313 sps bursts.

Unlike those mentioned above, Chinese radars were received to a relatively lesser extent during March on our HF amateur bands.

Digital

There was a significant increase during March in the number of FSK CIS-## type transmissions on well-known frequencies like 7080 kHz CF or 7193 Hz CF (mostly on 40 and 20 meters), and also some new ones appeared. An example of these was the daily transmission on 18107 kHz CF, in FSK, CIS-36/50 (36 + 50 baud), with a shift of 200 Hz by the Russian navy station "RDL", transmitting encrypted signals using F1B (for automatic reception) and F1A (telegraphy for aural reception).



CIS-12. BW = 2.7 kHz. 12 x 120 Bd + pilot line

On the contrary, for reasons which may well be related to simple frequency and/or transmission time changes, the usual DPRK digital mode transmissions (DPRK-FSK 600 ARQ and DPRK-PSK 1200 ARQ), so frequent lately in the 20-metre band (on frequencies 14098.5 kHz, 14198.5 kHz and 14298.5 kHz) have greatly reduced their presence, being picked up only on rare occasions.

Other military modes such as CIS-12, LINK-11 CLEW SSB (several times on 7159 kHz RF) or STANAG-4285 were also received.

We could also note the reception of transmissions sent by intruders on the 40 meters band using modes allowing the displaying of images on the waterfall of SDR type receivers, related to the military conflict actually happening.

SSB and CW

In addition to the usual intrusions on 40 metres (on 7055 kHz LSB and nearby frequencies, such as 7050 kHz LSB and 7060 kHz LSB) that we usually nickname “UKR/RUS radio-war”, we have received on numerous occasions similar type transitions in this band (frequencies close to 7100 kHz) including similar content.

Also close to 7100 kHz (but also noticed on the 20 m band), several A1A (CW) transmissions of unknown origin were sent by stations not identifying themselves as radio amateurs sending loop messages for hours, all of them related to the military situation currently happening in our Region.

Broadcasting

In addition to these intrusions in the amateur HF bands, we unfortunately keep regularly receiving the A3E (AM) transmissions of the broadcasting stations “Ethiopia Radio” (ETH) on 7110 kHz CF, “Voice of the Broad Masses” (ERI) on 7140.02 kHz CF and “Radio Taiwan International” (TWN) on 7200 kHz CF.

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** = **unid** = unidentified.

DARC; Daniel, DL3TRL. Credit to monitors: DL2SCH, Jürgen; DL1KGT, Gerhard; DF2KS, Sven; DB4UP, Christoph; DL8LAQ, Norbert; DG2DBT, Tobias; DL4XU, Uwe; DO1QK, Klaus; OE8ACT, Patrick; DO2PF, Florian; DL4HG, Olaf; DG6MDG, Helmut; F4FPR, Benjamin; DF9AO, Wolfgang; Christoph Gaessler; DL5CL, Roland; DF5SF, Uli; DL2LFH, Martin; DL6BW, Ben; DF5JL, Tom; DB3TA, Alex

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
6996,0	2058	19	03	RUS		FMOP	40	12k	Contayner, partially in 40m band
7000,0	1925	10	03	RUS		FMOP	40	12k	OTHR Contayner
7001,0	1918	18	03	RUS		FMOP	40	12k	Contayner
7002,0	2032	23	03					8k	unid
7006,8	1542	30	03			PSK		2k4	CIS-12 on idle
7011,8	1504	31	03			PSK		2k4	CIS-12
7012,0	2130	19	03			PSK		8k	unid digital
7015,0	1507	27	03			PSK		8k	unid
7016,0	2046	27	03	RUS		FMOP	40	12k	OTHR Contayner
7016,0	1847	28	03			PSK		8k	unid
7020,0	2010	26	03	RUS		FMOP	40	12k	OTHR Contayner
7021,0	1843	08	03					8k	unid digital
7021,0	1852	24	03	RUS		FMOP	40	12k	OTHR Contayner
7024,0	1855	07	03					8k	unid digital
7025,8	1528	30	03			PSK		2k4	CIS-12
7026,0	2035	26	03	RUS		FMOP	40	12k	OTHR Contayner
7028,0	1940	23	03			PSK		8k	unid digital
7029,0	1736	12	03	RUS		FMOP	40	12k	OTHR Contayner
7030,0	2058	23	03	RUS		FMOP	40	12k	OTHR Contayner
7034,0	2104	02	03	CHN		FMOP	50	10k	OTHR 5,1s bursts
7034,0	2222	04	03	RUS		FMOP	40	12k	OTHR Contayner
7034,8	1802	02	03			PSK		2k4	CIS-12
7037,0	1838	01	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts
7049,5	0918	06	03	UKR		J3E-L		2k9	UKR/RUS radio war
7050,0	vt	vd	03	UKR		J3E-L		2k9	UKR/RUS radio war
7053,0	1726	01	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts
7055,0	vt	dly	03	UKR		J3E-L		2k9	UKR/RUS radio war
7055,0	1000	12	03	UKR		SSTV			UKR/RUS radio war in SSTV
7055,3	2035	27	03			PSK		5k	unid
7056,0	2114	02	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts
7059,0	1855	07	03	RUS		FMOP	40	12k	OTHR Contayner
7060,0	2215	07	03	RUS		FMOP	40	12k	OTHR Contayner
7060,0	1736	12	03	UKR		J3E-L		2k9	UKR/RUS radio war
7061,0	2036	02	03	RUS		FMOP	40	12k	OTHR Contayner
7061,0	1552	03	03			J3E-L		2k9	clandestine
7062,0	1901	15	03	RUS		FMOP	40	12k	OTHR Contayner

DARC; Daniel, DL3TRL. Credit to monitors: DL2SCH, Jürgen; DL1KGT, Gerhard; DF2KS, Sven; DB4UP, Christoph; DL8LAQ, Norbert; DG2DBT, Tobias; DL4XU, Uwe; DO1QK, Klaus; OE8ACT, Patrick; DO2PF, Florian; DL4HG, Olaf; DG6MDG, Helmut; F4FPR, Benjamin; DF9AO, Wolfgang; Christoph Gaessler; DL5CL, Roland; DF5SF, Uli; DL2LFH, Martin; DL6BW, Ben; DF5JL, Tom; DB3TA, Alex

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7063,0	1744	04	03	RUS		FMOP	40	12k	OTHR Contayner
7064,8	1550	03	03			PSK		2k4	CIS-12
7065,0	1750	02	03	RUS		FMOP	40	12k	OTHR Contayner
7065,0	0855	05	03	UKR		J3E-L		2k9	UKR/RUS radio war
7065,3	vt	vd	03			PSK		2k4	CIS-12
7066,0	1925	10	03	RUS		FMOP	40	12k	OTHR Contayner
7069,8	1928	01	03			PSK		2k4	CIS-12
7070,0	0647	07	03	UKR		J3E-L		2k9	UKR/RUS radio war
7080,0	1900	02	03			F1B	50	200	FSK-Traffic
7085,0	2036	02	03	RUS		FMOP	40	12k	OTHR Contayner
7086,0	1940	23	03	RUS		FMOP	40	12k	OTHR Contayner
7088,0	2024	03	03	RUS		FMOP	40	12k	OTHR Contayner
7089,0	1703	06	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts
7089,0	1948	07	03	RUS		FMOP	40	12k	OTHR Contayner
7089,7	1738	12	03			PSK		2k6	LINK11 SLEW
7090,0	2038	02	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts
7090,0	2055	10	03	RUS		FMOP	40	12k	OTHR Contayner
7092,0	1945	02	03	RUS		FMOP	40	12k	OTHR Contayner
7093,0	2008	19	03	RUS		FMOP	40	12k	OTHR Contayner
7094,0	1930	15	03	RUS		FMOP	40	12k	OTHR Contayner
7096,0	1952	21	03	RUS		FMOP	40	12k	OTHR Contayner
7097,0	2003	14	03	RUS		FMOP	40	12k	OTHR Contayner
7100,0	1755	21	03	UKR		J3E-L			UKR/RUS radio war
7101,0	2157	19	03	CHN		FMOP	81,67	10k	OTHR 3,1s bursts
7104,0	2157	19	03	CHN		FMOP	50	10k	OTHR 5,1s bursts
7107,0	2201	20	03	RUS		FMOP	40	12k	OTHR Contayner
7108,0	2110	22	03	RUS		FMOP	40	12k	OTHR Contayner
7110,0	1618	03	03	ETH		A3E		9k	Radio Ethiopia
7112,0	1952	02	03	RUS		FMOP	40	12k	OTHR Contayner
7113,0	2032	23	03	RUS		FMOP	40	12k	OTHR Contayner
7116,0	2045	14	03	RUS		FMOP	40	12k	OTHR Contayner
7117,0	1832	02	03	UKR		J3E-L		2k9	UKR/RUS radio war
7117,0	2115	16	03	RUS		FMOP	40	12k	OTHR Contayner
7119,5	1435	12	03	UKR		J3E-L		2k7	UKR/RUS radio war
7120,0	1931	01	03	RUS		FMOP	40	12k	OTHR Contayner
7124,0	2048	01	03	CHN		FMOP	50	10k	OTHR 5,1s bursts
7124,4	1650	03	03					3k4	unid digital
7126,0	1622	28	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts
7127,0	2104	10	03	RUS		FMOP	40	12k	OTHR Contayner
7128,0	1940	23	03	RUS		FMOP	40	12k	OTHR Contayner
7130,0	2109	23	03	CHN		FMOP	50	10k	OTHR 5,1s bursts
7137,0	2050	19	03	RUS		FMOP	40	12k	OTHR Contayner
7139,0	1500	12	03	UKR		J3E-L		2k7	UKR/RUS radio war
7139,0	1535	28	03			J3E-L		3k	50 Hz humm
7140,0	2202	20	03	CHN		FMOP	47,62	10k	OTHR 2,63s bursts
7143,0	1853	24	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts

DARC; Daniel, DL3TRL. Credit to monitors: DL2SCH, Jürgen; DL1KGT, Gerhard; DF2KS, Sven; DB4UP, Christoph; DL8LAQ, Norbert; DG2DBT, Tobias; DL4XU, Uwe; DO1QK, Klaus; OE8ACT, Patrick; DO2PF, Florian; DL4HG, Olaf; DG6MDG, Helmut; F4FPR, Benjamin; DF9AO, Wolfgang; Christoph Gaessler; DL5CL, Roland; DF5SF, Uli; DL2LFH, Martin; DL6BW, Ben; DF5JL, Tom; DB3TA, Alex

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7149,0	1548	03	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts
7154,0	2046	01	03	CHN		FMOP	41,67	10k	OTHR 6,1s bursts
7160,0	2003	07	03	UKR				4k	unid digital
7160,8	vt	vd	03			PSK		2k4	LINK11 CLEW SSB
7167,3	1743	12	03			PSK		2k4	CIS-12
7172,0	1705	01	03	RUS		FMOP	40	12k	OTHR Contayner
7177,0	1904	02	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts
7186,0	1913	07	03	RUS		FMOP	40	12k	OTHR Contayner
7188,0	1814	03	03	RUS		FMOP	40	12k	OTHR Contayner
7192,0	2237	04	03	RUS		FMOP	40	12k	OTHR Contayner
7193,0	2045	14	03	RUS		FMOP	40	12k	OTHR Contayner
7194,0	1705	01	03	RUS		FMOP	40	12k	OTHR Contayner
7196,0	1814	03	03	RUS		FMOP	40	12k	OTHR Contayner
10128,0	2105	04	03	RUS		FMOP	40	12k	OTHR Contayner
14005,0	0843	06	03			F1B			CIS-50-50
14007,9	1143	20	03			RTTY	75	240	short transmissions
14014,0	1548	06	03					12k	unid digital
14017,0	1500	06	03						unid digital
14046,0	1020	05	03	RUS		FMOP	40	12k	OTHR Contayner
14114,0	2016	31	03	CHN		FMOP	41,67	10k	OTHR 2,98s bursts
14148,0	1715	24	03	RUS		FMOP	40	12k	OTHR Contayner
14161,0	0806	06	03	CHN		FMOP	50	10	OTHR cont. mode
14167,0	0915	25	03	RUS		FMOP	40	12k	OTHR Contayner
14184,0	0915	25	03	RUS		FMOP	40	12k	OTHR Contayner
14185,0	1623	07	03			FMOP	40	12k	OTHR Contayner
14189,0	1954	31	03	RUS		FMOP	40	12k	OTHR Contayner
14224,0	1208	28	03	RUS		FMOP	40	12k	OTHR Contayner
14253,0	1717	25	03			F1B			RTTY
14273,0	0858	12	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts
18063,0	1220	31	03	RUS		FMOP	40	12k	OTHR Contayner
18070,0	1500	03	03						OTHR
18070,0	0655	30	03	RUS		FMOP	40	12k	OTHR Contayner
18078,6	1625	30	03					1k5	unid
18107,0	1025	05	03			F1B	50	200	FSK-Traffic
18112,0	0852	05	03	CHN				3k2	CHN MIL Hybrid 8FSK-PSK
18162,0	0658	20	03	RUS		FMOP	40	12k	OTHR Contayner
21053,0	1553	03	03	RUS		FMOP	40	12k	OTHR Contayner
21061,0	1553	03	03	RUS		FMOP	40	12k	OTHR Contayner
21112,0	0734	05	03	CHN		FMOP	50	10k	OTHR 5,1s bursts
21130,0	0733	05	03	RUS		FMOP	40	12k	OTHR Contayner
21162,0	1144	20	03	CHN		FMOP	50	10k	OTHR 5,1s bursts
21186,0	1000	05	03	CHN		FMOP	41,67	10k	OTHR 6,1s bursts
21190,0	1423	30	03						OTHR
21251,0	1625	05	03	CHN				3k2	CHN MIL Hybrid 8FSK-PSK
21280,0	0724	08	03	CYP		FMCW	50	20k	OTHR Pluto Cyprus
21288,0	0848	05	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts

DARC; Daniel, DL3TRL. Credit to monitors: DL2SCH, Jürgen; DL1KGT, Gerhard; DF2KS, Sven; DB4UP, Christoph; DL8LAQ, Norbert; DG2DBT, Tobias; DL4XU, Uwe; DO1QK, Klaus; OE8ACT, Patrick; DO2PF, Florian; DL4HG, Olaf; DG6MDG, Helmut; F4FPR, Benjamin; DF9AO, Wolfgang; Christoph Gaessler; DL5CL, Roland; DF5SF, Uli; DL2LFH, Martin; DL6BW, Ben; DF5JL, Tom; DB3TA, Alex

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
21315,0	0842	05	03	CYP		FMCW	50	20k	OTHR Pluto Cyprus
21320,0	1308	20	03	CYP		FMCW	50	20k	OTHR Pluto Cyprus
21329,0	0812	20	03	CHN		FMOP	50	10k	OTHR 5,1s bursts
21344,0	1549	03	03	RUS		FMOP	40	12k	OTHR Contayner
21345,0	1117	25	03	CYP		FMCW	50	20k	OTHR Pluto Cyprus
21348,0	0741	05	03	CHN		FMOP	50	10k	OTHR 5,1s bursts
21355,0	0949	12	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts
21379,0	0655	20	03	CHN		FMOP	66,67	10k	OTHR 3,8s bursts
21410,0	1143	20	03	CYP		FMCW	50	20k	OTHR Pluto Cyprus
21413,0	1218	27	03	RUS		FMOP	40	12k	OTHR Contayner
21415,0	1031	20	03	CYP		FMCW	50	20k	OTHR Pluto Cyprus
21420,0	0812	20	03	CHN		FMOP	50	10k	OTHR 5,1s bursts
21438,0	0953	15	03			A1A			MIL CW RIP90
21449,0	0835	20	03	CHN		FMOP	50	10k	OTHR 5,1s bursts
28000,0	1016	05	03	IRN			150/313	46k	Iranian OTHR
28860,0	0828	20	03	IRN			150/313	46k	Iranian OTHR
29118,0	0902	05	03	IRN			307/870	46k	Iranian OTHR

IRTS; Michael, EI3GYB

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3675	2025	6	3	UKR/ RUS		LSB			Non stop playing of the Ukrainian national anthem. Shouting of anti Russian or anti Ukrainian slogans by males and females. Playing of Kremlin bells and Soviet TV news opening sound “Wremja”.Songs “Putin Khyilo!” and “Bella Ciao”. Playing of fire sirens and grunting pigs. Daily. Also heard on 3640,3647,3657, 3661,3663,3665.5,3668,3671,3672,3675,3681,3685, 3693,3703,3731 kHz. Moving up and down the band every day. Always huge signals. Ends around 2300z on most days.
6978	2045	8	3			RADAR			Radar form 6978 to 7009 kHz.|Strong and persistent.
7028	2020	4	3			RADAR			Radar from 7028 to 7044 kHz. Weak. Intermittent.
7028	1215	10	3			PSK			Strong, persistent. Still on at 1630z.
7048	2100	21	3			RADAR			Radar from 7048 to 7078 kHz. Huge and persistent signals.
7050	1555	4	3	RUS/ UKR		LSB			Russian- Ukrainian radio war. Daily.
7054	1800	1	3			RADAR			Radar from 7054 to 7100 kHz. Persistent-still on 3 hours later. Also on 10th at 1930z and 11th 2145z.
7055	1815	2	3	RUS/ UKR		LSB			Russian-Ukrainian radio war. Patriotic music and shouting of slogans. “Russki fascista!””Putina khyla!” “Fuck Putin, fuck Moscow!” “Russenschweine!” “Putin katsapi!”Daily with huge signals.
7060	1800	18	3	RUS/ UKR		LSB			Rebroadcasting of a Russian BC station. Shouting of slogans on 31st at 2050z.

IRTS; Michael, EI3GYB

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7061	1610	3	3			LSB			Rebroadcasting of the sound of a Russian TV show. Huge signal. Ends on the 4th at 2200z.
7067	1615	10	3			PSK			Strong and persistent.
7067.5	1520	15	3			PSK			Weak and intermittent.
7081	2020	6	3			F1B			Medium signal, on and off. Also on 15th at 1725z.
7082.5	1955	5	3			USB			2 male voices chatting in Japanese.
7089.5	2040	14	3			FSK			Medium signal, persistent.
7090	2040	14	3			RADAR			Radar from 7090 to 7183 kHz. Strong and persistent.
7093	1945	9	3			RADAR			Radar from 7093 to 7116 kHz. Huge and persistent signals.
7095	2100	21	3			RADAR			Radar from 7095 to 7127 kHz. Huge and persistent signals.
7097	2120	16	3			RADAR			Radar from 7097 to 7136 kHz. Persistent and very strong.
7099.5	1505	15	3	UKR/ RUS		LSB			“Bella Ciao”.Endless recording. A male voice keeps asking between the songs “the radio lovers of the free world” for a 2 to 5 kw radio amplifier to jam Russian military communications. Mentions an internet blog. QSY first to 7103, then to 7123, then to 7050 kHz. Ends at 1715z.
7100	1950	5	3			LSB			Rebroadcasting of a political radio show in the Russian language. Strong and persistent.
7110	510	24	3			PSK			Strong and persistent.
7115	2101	14	3			FSK			Medium signal, persistent.
7119	2045	6	3			LSB			Propaganda broadcast in Ukrainian. “Russki banditski!”
7125	1615	3	3			PSK			Strong and persistent.
7130	2045	19	3			RADAR			Radar from 7130 to 7150 kHz. Strong and persistent.
7133	2115	16	3	RUS/ UKR		LSB			Patriotic music, shouting of slogans.
7136	1730	15	3	RUS/ UKR		LSB			Shouting of anti Russian pro Ukrainian slogans. Patriotic music. Loud and persistent. Moves to 7110 kHz at 1800z.
7139	1950	6	3			F1B			On a and off, medium signal.
7149.5	1625	15	3			F1B			Strong and persistent.
7160.5	1430	18	3			PSK			Link-11 Clew. Huge signal. Persistent. Still on 19th at 2100z.
7163	1120	22	3			PSK			Link-11 Clew. Very strong.
7163	2000	1	3			RADAR			Radar from 7163 to 7184 kHz. Strong and persistent.
7181	2050	19	3			RADAR			Radar from 7181 to 7205 kHz. Strong and persistent. Also 14th at 2101z.
7182	1920	7	3			RADAR			Radar from 7182 to 7197 kHz. Strong and persistent.
7187.5	2000	5	3			PSK			Medium signal, persistent.
14107	1250	7	3			RADAR			Radar from 14107 to 14128 kHz. Strong and persistent.
14130	750	1	3			USB			Rebroadcasting of a religious program in

IRTS; Michael, EI3GYB

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
									the Russian language. Male voice, dramatic tone. Ends at 0830z. Very strong signal.
14141	1310	4	3	RUS/ UKR		USB			Rebroadcasting of a Russian radio program. Strong signal.
14150	1410	17	3	RUS/ UKR		USB			Non stop playing of the Ukrainian national anthem. Strong signals.
14155.5	1415	17	3			F1B			Medium signal, persistent.
14185	1055	22	3	RUS/ UKR		USB			Rebroadcasting of an Ukrainian radio program. Huge signal.
14202	1200	29	3			RADAR			Radar from 14202 to 14245 kHz. Huge and persistent.
14240	1225	3	3			PSK			“AT3004D”. Very strong and persistent.
14256	1240	3	3			RADAR			Radar from 14256 to 14276 kHz. Weak, persistent.
14297.5	1235	14	3			FSK			Medium signal. Persistent.
14298	1245	3	3			FSK			Medium signal.
18140	1600	3	3			F1B			Medium signal, in and out.
18144	1300	18	3			RADAR			Radar from 18144 to 18193 kHz. Very strong and persistent.
18150	1235	14	3			RADAR			Radar from 18150 to 18183 kHz. Huge and persistent. Still on at 1500z.
18163	1210	11	3			RADAR			Radar from 18163 to 18180 kHz. Weak, in and out.
21000	1255	7	3	E or MM		USB			At least 3 Spanish fishing ships having a chat with each other. All signals are very strong.
21118	1245	7	3			RADAR			Radar from 21118 to 21137 kHz. Very strong and persistent.
21137	1230	14	3			RADAR			Radar from 231137 to 21160 kHz. Huge and persistent. Still on at 1500z.
21155	1130	9	3			RADAR			Radar from 21155 to 21183 kHz. Very strong and persistent.
21167	1100	16	3			RADAR			Radar from 21167 to 21203 kHz. Strong and persistent.
21320	1215	4	3	IRN		RADAR			Iranian radar from 21320 to 21465 kHz in AM mode. Moving up and down the band. Persistent.
21320	1410	15	3	British Cyprus		RADAR			Pluto active from 21320 to 21343 kHz. Huge and persistent.
21337	1550	3	3			RADAR			Radar from 21337 to 21350 kHz. Persistent, medium signal.
21400	1150	29	3	British Cyprus		RADAR			Pluto active from 21400 to 21432 kHz. Huge and persistent.
21438	1240	15	3	UKR/ RUS		CW			Russian navy Sevastopol. Medium signals, many days.
24935	1100	31	3						Pulsing sound. Very strong from 1100 to 1440z. Also heard via Web SDR in UK.
28000	1000	10	3	IRN		RADAR			Iranian radar in AM mode moving up and down the entire 10 meter HAM band. Medium signal, in and out.
28060	1245	16	3	RUS		FM			Taxi traffic, female voice.

IRTS; Michael, EI3GYB

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
28170	1225	4	3	IRN		RADAR			Radar from 28170 to 28670 kHz in AM mode. Moving up and down the band. Also heard 16th at 1100z, 17th at 1300z.
28334.5	1220	10	3	THL or MM		LSB			Thai fishermen, medium signal.
28499.5	1440	20	3			F1B			Weak, on and off.
28462	1615	21	3	THL or MM		FM			Fishermen, medium signal. In and out.
28615	1240	16	3	RUS		FM			Taxi traffic, female voice.
28830	1130	1	3	IRN		RADAR			Radar from 28830 to 28890 kHz. Medium signal, persistent.
29010	1225	10	3	RUS		FM			Taxi, female voice. Very strong.
29012	1215	10	3	THL or MM		FM			Thai fishermen. Medium signals. In and out.
29200	1220	10	3	RUS/ UKR		USB/FM			Male voice, Russian language. Good signal. Handing out military information. Switching between modes FM and USB. Mariupol mentioned.
29449	1410	20	3			F1B			Small but persistent signal.
29619	1620	15	3			PSK			Weak, on and off.

OeVSV; Christoph, OE1VMC

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7049.0	2122	05	03			XXX		150	
7021.0	1755	07	03			XXX		8K0E	
7059.0	1904	07	03			RADAR		12K0E	
6995.0	1940	08	03	RUS	Kontayner	RADAR	40	12K0E	Occupies 6990-7002 kHz
7089.0	2003	08	03	RUS	Kontayner	RADAR	40	12K0E	
7026.0	2242	14	03	RUS		J7D		2K0E	CIS-12
7116.5	2041	16	03	RUS	Kontayner	RADAR	40	12K0E	
7000.0	2123	21	03			RADAR			Several OTH Radars on 40m simultaneously

PZK; SP3AMO, SP5GNI

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7000.0	2034	18	03			RADAR	40	12K0E	
7006,8	1723	30	03			PSK	120	2K30E	
7025.0	0600	30	03			PSK	120	2K70E	RSQ 595
7026.0	1200	11	03			PSK		2K9	CIS-12 S8
7025.8	0955	11	03			UI		1K0	S9 12 spectral lines
7048.0	1000	11	03			UI		400	
7050.0	1545	15	03			J3E-L		2K7	S9 Music in Russian
7055,5	1728	30	03			PSK	120	2K30E	
7057.0	1130	09	03			PSK		2K9	CIS-12 S8
7060.0	1440	13	03			LSB		2K7	Pro-russian propaganda S9
7065.5	1600	15	03			PSK		2K7	CIS-12 S8 vd vt

PZK; SP3AMO, SP5GNI

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7085.0	1435	13	03			LSB		2K7	Anti-russian noise S9+20dB
7088.0	1729	30	03			F1B		200	
7103.0	1543	15	03			J3E-L		2K7	S9 Ukrainian war songs
7120.0	1120	14	03			RADAR		8K0E	S9 Burst
7128.0	1650	15	03			J3E-L		2K7	S9+20dB Hate speech
7172.0	1735	01	03			RADAR		10K0E	S9 continous also 7194.0
7185.0	1630	01	03			RADAR		10K0E	S6 Burst
14000.0	1018	29	03			J3E-U		2K7	Transmision in Italian (numbers?)
14005.0	0947	21	03			PSK		2K9	CIS-12 S9
14008.0	0947	21	03			F1B		250	S9+30dB
14015.0	1145	24	03			UI		3K0E	S9 5 strong spectral lines and many weaker up to 15 kHz from the center
14019.0	0702	31	03			UI	40	800	
14059.0	1250	09	03			PSK		2K9	CIS-12 S9
14062.0	1320	15	03			RADAR		10K0E	S6 Burst also 14300.0
14109.9	1136	24	03			PSK		2K0E	S8 2 to 16 spectral lines
14126.0	1540	15	03			J3E-U		3K0	S9 Religious speech in Russian
14127.0	1600	07	03			J3E-U		3K0	S6 Religious anti-russian propaganda
14132.0	1150	14	03			J3E-U		3K0	S9 Religious propaganda in Russian and English
14134.0	1315	17	03			RADAR		10K0E	S9 Burst
14140.0	0955	07	03			RADAR		8K0E	S7 Burst
14143.0	0730	18	03			RADAR		8K0E	S8 bursts
14146.0	1020	24	03			RADAR		10K0E	S9 Burst
14147.0	1602	07	03			RADAR		8K0E	S9 also at 14183.0
14171.0	0704	31	03			PSK	120	2K70E	
14180.0	1200	22	03			RADAR		10K0E	S9 Burst
14182.0	0910	10	03			RADAR		8K0E	S7 Burst also 14140.0
14190.0	1058	05	03			RADAR		10K0E	S9 Burst
14190.0	1530	12	03			RADAR		8K0E	S7 Burst
14192.0	1035	07	03			RADAR		8K0E	S7 Burst
14192.0	1133	23	03			RADAR		20K0E	S9
14192.0	1245	27	03			RADAR		14K0E	S9
14194.0	1025	29	03			RADAR		8K0E	S8 bursts
14203.0	0822	25	03			RADAR	66	10k0E	Bursts
14221.0	0542	30	03			F1B		200	
14225.0	1233	29	03			RADAR		20K0E	S9+
14253.0	0639	21	03			F1B		250	
14265.0	1005	04	03			RADAR		40K0E	S6
14313.0	1005	25	03			RADAR		14K0E	S9
14317.0	1500	29	03			RADAR		30K0E	S5
14320.0	0819	25	03			A1A			Dashes
14328.0	0930	07	03			RADAR		10K0E	S7 Burst
14335.0	1400	29	03	G		RADAR		14K0E	S9+
14339.0	1200	11	03			RADAR		8K0E	S7 Burst
14350.0	0730	17	03			RADAR		8K0E	S8 bursts
18064.0	1143	31	03	G		RADAR		16K0E	S9 partially in the band

PZK; SP3AMO, SP5GNI

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
18069.0	0711	21	03			RADAR	40	12K0E	
18070.0	0617	30	03			RADAR	40	12K0E	
18072.0	0825	25	03			RADAR	40	12K0E	
18078.0	0959	15	03			RADAR		10K0E	S6 Burst
18107.0	0705	18	03			F1B		200	HDD Crash
18145.0	0945	25	03			RADAR		10K0E	S6 Bursts
18149.0	1144	31	03	G		RADAR		10K0E	S9 Burst
18162.0	1003	15	03			RADAR		12K0E	S9 Burst
18167.0	0616	30	03			RADAR	40	12K0E	
21130.0	1040	07	03	G		RADAR		10K0E	S9
21170.0	0749	31	03			RADAR	50	10k0E	
21183.0	0751	31	03			RADAR	66	10k0E	
21185.0	1050	16	03	G		RADAR		20K0E	S9 vd vt
21190.0	1122	08	03	G		RADAR		20K0E	S9
21246.0	0955	15	03			RADAR		10K0E	S7 Burst also 21340.0
21289.0	1125	23	03			RADAR		10K0E	S6 Bursts
21291.0	1120	08	03			RADAR		10K0E	S7 Burst
21300.0	1330	15	03	G		RADAR		20K0E	S9
21315.0	1045	05	03	G		RADAR		20K0E	S9
21319.0	0733	25	03			RADAR	66	10k0E	Bursts
21340.0	0920	21	03	G		RADAR		20K0E	S9+20dB
21340.0	0918	31	03			RADAR		10K0E	S6 Bursts
21361.0	0813	25	03			RADAR	50	10k0E	Bursts
21364.0	0850	17	03			RADAR		10K0E	S6 Burst
21370.0	1115	08	03	G		RADAR		20K0E	S9
21383.0	0850	10	03	G		RADAR		10K0E	S8 bursts also 21369.0
21418.0	1027	29	03			RADAR		10K0E	S5 continous
21422.0	0937	25	03			RADAR		10K0E	S6 Bursts
21445.0	1025	18	03	G		RADAR		20K0E	S9+20dB
24943.0	0950	15	03			RADAR		10K0E	S6 Burst
28150.0	1000	02	03	IRN		RADAR		60K0E	S6 vd vt
28550.0	0726	25	3			RADAR	150/300	46k0E	
28860.0	1005	02	03	IRN		RADAR	150/300	60K0E	S7 vd vt
28950.0	0612	30	03			RADAR	50	20K0E	S2
28970.0	0611	30	03			RADAR	50	20K0E	S2
29250.0	0925	21	03	IRN		RADAR		60K0E	S6
29250.0	0814	19	03			RADAR	150/300	46k0E	
29395.0	1220	04	03	IRN		RADAR		60K0E	S6
29450.0	1415	13	03	IRN		RADAR		45K0E	S6
29600.0	0735	18	03	IRN		RADAR	150/300	100K0E	S9 vd vt
29650.0	0920	07	03	IRN		RADAR		40K0E	S7
29700.0	1155	11	03	IRN		RADAR	150/300	45K0E	S5 partially in the band vd vt

REF; Francis, F5MIU

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7171	1810	1	3			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9

REF; Francis, F5MIU

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7195	1810	1	3			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9
21438	0851	4	3			cw			Russian Navy HQ Sevastopol. S9+
21438	0851	8	3			cw			Russian Navy HQ Sevastopol. S7
14210	1706	9	3			fmcw	40	150kHz	OTH Radar pulsed 25ms, S9+10
5358	1719	9	3			fmcw	40	20kHz	OTH Radar pulsed 25ms, S7
14145	1701	16	3			fmcw	40	25kHz	OTH Radar pulsed 25ms, S9+25db
21438	0909	17	3			cw			Russian Navy HQ Sevastopol. S7
18060	0914	17	3			fmcw	50	20kHz	OTH Radar pulsed 20ms, S8
7000	1846	18	3			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9+10db
21128	1742	21	3			fmcw	40	20kHz	OTH Radar pulsed 25ms, S8 on pair with below
21175	1742	21	3			fmcw	40	20kHz	OTH Radar pulsed 25ms, S8
18165	0858	22	3			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9+20dB on pair with below
18187	0858	22	3			fmcw	40	20kHz	OTH Radar pulsed 25ms, S9+20dB
21438	0921	22	3			cw			Russian Navy HQ Sevastopol. S8
14147	1725	24	3			fmcw	40	17kHz	OTH Radar pulsed 25ms, S9

RSGB; Richard, G4DYA

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3510.0	1703	03	03			J3E		2K70E	USB 'The Air Horn'. Daily. Also heard 091939z
3756.0	1703	03	03			J3E		1K70E	USB 'The Pip'. Daily. Also heard 091940z.
7000.0	1843	10	03	RUS		P0N	40	12K0E	Container pulse radar
7001.0	0718	31	03			N0N			Plain carrier
7005.0	2307	21	03	RUS		P0N	40	12K0E	Container pulse radar
7013.0	2153	26	03	RUS		P0N	40	12K0E	Container pulse radar
7016.0	0811	24	03			F1B		250	FSK
7018.0	1342	23	03			J7D		2K70E	USB 7016.0 / CIS-12
7026.0	0830	11	03			J7D		2K70E	USB 7024.0 / CIS-12. Also heard 291616z.
7057.0	2304	21	03	RUS		P0N	40	12K0E	Container pulse radar
7064.0	1934	09	03	RUS		P0N	40	12K0E	Container pulse radar
7065.5	1703	15	03			J7D		2K70E	USB 7063.5 / CIS-12
7075.000	2141	29	03			A1N			Continuous groups of 16 dashes
7080.0	1712	03	03			F1B		200	FSK. Also heard 041840z, 072053z, 091955z, 151722z
7088.0	2037	03	03	RUS		P0N	40	12K0E	Container pulse radar
7088.0	0731	30	03			F1B		200	FSK
7089.0	2041	07	03	RUS		P0N	40	12K0E	Container pulse radar
7102.0	1953	09	03	RUS		P0N	40	12K0E	Container pulse radar
7110.0	1651	03	03	ETH	R. Ethiopia	A3E			BC. Also heard 151709z.
7110.0	2305	21	03	RUS		P0N	40	12K0E	Container pulse radar
7114.0	2211	04	03	RUS		P0N	40	12K0E	Container pulse radar
7124.5	1657	03	03			J7D		3K30E	USB 7122.5 / CIS-12, bad IMD, wider than usual.
7137.0	2051	07	03	RUS		P0N	40	12K0E	Container pulse radar
7137.0	1720	15	03			F1B		200	FSK

RSGB; Richard, G4DYA

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7138.0	0837	24	03			F1B		250	FSK
7140.02	1652	03	03	ERI	VoBM	A3E			BC
7147.5	1707	15	03			F1B		200	FSK
7159.0	0849	22	03			J7D		2K40E	USB 7159.0 / Link 11 CLEW. Also heard 250736z, 270709z
7190.0	2136	29	03	RUS		P0N	40	12K0E	Container pulse radar
7194.0	1836	04	03	RUS		P0N	40	12K0E	Container pulse radar
14008.0	0828	06	03			F1B		250	FSK. Also heard 210852z, 240757z, 310735z.
14049.0	1001	22	03					8K00E	Unidentified noise-like signal
14098.5	0825	10	03					1K20E	Unidentified bursts. Also heard 280817z.
14160.0	0828	11	03			F1B		250	FSK
14161.0	0825	06	03	CHN		F3N	50	10K0E	FMCW radar
14171.0	0818	07	03			J7D		2K70E	USB 14169.0 / CIS-12. Also heard 310715z.
14184.0	1130	22	03	RUS		P0N	40	12K0E	Container pulse radar
14191.0	0904	07	03	RUS		P0N	40	12K0E	Container pulse radar
14202.0	0802	24	03	CHN		F3N	66.7	10K0E	FMCW radar bursts
14224.0	1146	29	03	RUS		P0N	40	12K0E	Container pulse radar
14232.0	0919	05	03	CHN		F3N	66.7	10K0E	FMCW radar bursts
14253.0	0820	07	03			F1B		250	FSK. Also heard 210854z.
14290.4	1510	05	05					8K00E	Unidentified noise-like signal
14298.5	0829	08	03					1K20E	Unidentified bursts
14305.0	0958	22	03	CHN		F3N	66.7	10K0E	FMCW radar bursts
14316.0	1431	22	03	CHN		F3N	50	10K0E	FMCW radar bursts
14337.0	0826	11	03	RUS		P0N	40	12K0E	Container pulse radar
14338.0	0850	21	03	CHN		F3N	83.3	10K0E	FMCW radar bursts
18069.0	0705	27	03	RUS		P0N	40	12K0E	Container pulse radar
18107.0	0824	03	03	RUS	RDL	F1B		200	FSK. Ident in F1A. Also heard 040804z, 051052z, 070804z, 080823z, 090800z, 100823z, 121148z, 150811z, 160721z, 191419z, 211203z, 220919z, 250741z, 260724z, 290924z, 310731z.
18110.0	0911	29	03	CHN		F3N	66.7	10K0E	FMCW radar bursts
18130.0	1038	19	03	CHN		F3N	50	10K0E	FMCW radar bursts
18155.0	0811	22	03	CHN		F3N	41.7	10K0E	FMCW radar bursts
18159.0	0928	03	03	CHN		F3N	66.7	10K0E	FMCW radar bursts
18166.0	0848	22	03	RUS		P0N	40	12K0E	Container pulse radar
18170.0	1006	18	03	RUS		P0N	40	12K0E	Container pulse radar
18170.0	1201	31	03	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
18171.0	0716	27	03	RUS		P0N	40	12K0E	Container pulse radar
18172.0	0802	09	03	RUS		P0N	40	12K0E	Container pulse radar
18175.0	0806	24	03	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21049.0	0852	22	03	CHN		F3N	66.7	10K0E	FMCW radar bursts
21107.0	0937	10	03	CHN		F3N	41.7	10K0E	FMCW radar bursts
21130.0	0802	04	03	RUS		P0N	40	12K0E	Container pulse radar. Also heard 050911z.
21160.0	1714	15	03	RUS		P0N	40	12K0E	Container pulse radar
21165.0	1007	07	03	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21173.0	0939	10	03	CHN		F3N	41.7	10K0E	FMCW radar bursts

RSGB; Richard, G4DYA

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
21294.0	0833	10	03	CHN		F3N	50	10K0E	FMCW radar bursts
21304.0	0940	10	03	CHN		F3N	50	10K0E	FMCW radar bursts
21315.0	0913	05	03	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus. Also heard 290952z.
21318.0	0739	25	03	CHN		F3N	66.7	10K0E	FMCW radar bursts
21330.0	1355	15	03	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21342.0	1659	15	03	RUS		P0N	40	12K0E	Container pulse radar
21345.0	0702	29	03	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21347.0	0954	29	03	CHN		F3N	50	10K0E	FMCW radar bursts
21369.0	0831	10	03	CHN		F3N	50	10K0E	FMCW radar bursts
21370.0	1420	19	03	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21374.0	0827	22	03	CHN		F3N	66.7	10K0E	FMCW radar bursts
21383.0	0831	10	03	CHN		F3N	50	10K0E	FMCW radar bursts
21407.0	1702	15	03	RUS		P0N	40	12K0E	Container pulse radar
21410.0	0936	10	03	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21415.0	1026	20	03	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus
21418.0	1147	29	03	RUS		P0N	40	12K0E	Container pulse radar
21422.0	1702	15	03	RUS		P0N	40	12K0E	Container pulse radar
21426.0	1005	07	03	RUS		P0N	40	12K0E	Container pulse radar
21431.0	1439	04	03	RUS		P0N	40	12K0E	Container pulse radar
21438.0	0915	05	03	RUS	RCV	A1A			Morse
21439.0	0742	25	03	CHN		F3N	47.6	10K0E	FMCW radar bursts
21440.0	0911	29	03	G		F3N	50	20K0E	FMCW radar, UK SBA, Cyprus

RSK; Kamweti, 5Z4BV

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3696	1013	vd	3			FMOP		3K0E	OTHR
3717	1412	29	3			J3E-U		2K5E	Sino-vernacular QSO
5365	1610	18	3			FMOP		30K0E	Jammer?
7000	vt	vd	3			PSK		2K5E	STANAG 4285
7070	vt	12	3			J3E-U		2K5E	Vernacular/Kiswahili QSO
7085	1415	29	3			J3E-L		2K5E	Unintelligible cacophonous chanting
7110	vt	dly	3	ETH		A3E		22kE	Radio Ethiopia National Service
7140	vt	vd	3	ERI		A3E		10kE	Radio Eritrea Voice of Broad Masses
7140	vt	vd	3			J3E-U		2K5E	Vernacular/Kiswahili QSO
7150	vt	dly	3	KEN		MFSK	128	2k2	2G ALE Call transmission
7165	1417	29	3			J3E-U		2K5E	Indo-Asian vernacular QSO
10100	0835	24	3			PSK		2K7E	STANAG 4285
10127	1421	29	3			J3E-U		2K5E	Vernacular QSO
10138	1554	15	3			PSK		2K7E	STANAG 4285
14140	1550	15	3			FMOP	5 sps	10K0E	Kontayner
14340	1019	1	3			J3E-U		2K5E	Unid. voice QSO
18152	1428	1	3			CW		50	Intermittent long on-off keying
21175	vt	1	3	CHN		FMOP		10K0E	Foghorn' bursts OTHR
24845	1038	1	3			fMOP		10K0E	Variety of pulses
28300	1024	1	3					60K0E	Broad cellular-like digital signal

SRAL; Pekka, OH2BLU

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7 MHz	1630-0800	*	3	RUS		RADAR	40sps	13k0E	*) Days: 1. 2. 3. 6. 7. 9. 10. 12. 14. 24. (WebSDR 31d)
7 MHz	0600-1800	*	3	RUS		RADAR	10sps	10k0E	*) Days: 2. - 5. 7. - 9. 14. 15. 17. 19. 24. 27. - 29.
7 MHz	1615-1945	*	3	CHN		RADAR	50/67sps	10k0E	*) Days: 1. 18. 23. 24. 25. 'foghorn'
7 MHz	0805-1855	*	3			PSK		8k0E	*) Days: 5. 11. 12. 17. 20. 24. 25. 27. 29. noise with central carrier
7016.0	0800-1315	*	3	RUS		F1B		250	*) Days: 24. 25. 29.
7020.0	0800-1805	*	3	RUS		F1B/ N0N		250	*) Days: 14.23. 24. 25.
7026.0	0510-1900	*	3	RUS		J7D	120	2k60E	*) Days: 11. 14. 28. 29. 30.
7031.0	0600-1600/	*	3	RUS		J3E-u		3k0E	brum
7035.0	0615-1900	02	3	RUS		J7D	120	2k60E	
7048.0	0500-1445	*	3	RUS		A1A		1k0E	‘) Days: 1. -31. key failure, 5BL
7052.0	0715-1130	21	3	RUS		F1B	16 wpm	250H	
7057.5	0500-1520	*	3	RUS	GT8J etc	A1A	20 wpm	40H	*) Days: 1. 3. 5. - 11. 13. - 24. 26. 29.
7065.5	1300-1630	*	3	RUS		J7D	120	2k60E	*) Days: 14. - 19. 24. 28. 30. 31.
7088.0	0600-1815	*	3	RUS		F1B		200H	*) Days: 13. 14. 15. 30. 31.
7110.0	0500-0645	01 - 31	3	ETH	R. Ethiopia	A3E		9k0	
7110.0	1400-1505/	01 - 31	3	ETH	R. Ethiopia	A3E		9k0	
7110.0	1600-1810/	01 - 31	3	ETH	R. Ethiopia	A3E		9k0	
7110.2	0630-1815	01 - 31	3		RSS	A1A	22 wpm	20H	English news, days 30. 31. 7110.4
7131.0	0820	16	3	RUS	RMP	A1A	20 wpm	40H	5BL
7140.0	1445-1835/	01 - 31	3	ERI	VoBME	A3E		9k0	+20Hz offset, on day 6. - 1945/
7147.5	0600-1920/	*	3	RUS		F1B		200H	*) Days: 15. 16. 17.
7152.0	1015-1130	16 27	3	RUS		J7D	120	2k60E	
7157.0	1730-1830	*	3	RUS		F1B		200H	*) Days: 6. 7. 15. 16.
7159.0	0800-1930	*	3			G7D		3k00E	*) days: 18. 19. 22. - 27. 31.
7196.0	0620-1340	*	3	RUS	8IXI etc	A1A	15 wpm	40H	*) Days: 9. 14. 15. 18. 20. 22. 28. 30. 5BL
7196.0	0600-0800	26 - 28	3			N0N		10H	
7198.0	1000-1240/	11 25	3	RUS		J7D	120	2k60E	
7200.0	1020-1100/	01 - 26	3	TWN	RTI	A3E		9k0	Radio Taiwan International, to 1030 N0N

SRAL; Pekka, OH2BLU

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7200.0	1200-1500/	27 - 31	3	TWN	RTI	A3E		9k0	Radio Taiwan International
10 MHz			3	G		RADAR	50sps	20k0	(WebSDR 5d)
10 MHz			3	RUS		RADAR	40sps	13k0E	(WebSDR 12d)
10 MHz	1340-1630	*	3	CHN		RADAR	50/67sps	10k0E	*) Days: 2. 18. 23. 28. 'foghorn'
14 MHz	0715-1900	*	3	RUS		RADAR	40sps	13k0E	*) Days: 1. 3. 4. 5. 9. 11. 15. 19. 25. 29. 30. (WebSDR 18d)
14 MHz	0500-1510	*	3	RUS		RADAR	10sps	10k0E	*) Days: 1. - 4. 7. 9. 14. 16. - 21. 23. 24. 27. 28. 29.
14 MHz	0615-1615	*	3	CHN		RADAR	50/67sps	10k0E	*) Days: 1. 2. 3. 7. - 12. 14. - 17. 21. 22. 24. 25. 27. 29. 31. 'foghorn'
14000.0	1357-1457/	27 - 31	3	CHN	CRI	A#E		9k0	Tx intermodulation, //13710 & 13855 kHz
14005.0	0950-1100	21	3	RUS		J7D	120	2k60E	
14221.0	0500-0600/	*	3	KAZ		F1B		200H	*) Days: 3. 4. 23. 24. 27. - 31.
14253.0	0600-1515	*	3	RUS		F1B		250H	*) Days: 4. 7. 18. 21. 25. 28. (ERP > 400 W)
18 MHz	0630-1520	*	3	G		RADAR	25/50sps	20k0	*) Days: 1. 3. 4. 8. 17. 20. 21. 23. 24. (WebSDR 13d)
18 MHz	0615-1630	*	3	RUS		RADAR	40sps	13k0E	*) days: 2. 4. 9. 10. 14. 18. 21. 22. 25. 30. (WebSDR 19d)
18 MHz	0820-1450	*	3	CHN		RADAR	50/67sps	10k0E	*) Days: 1. 14. 21. 25. 29. 30. 'foghorn'
21 MHz	0530-1530	*	3	G		RADAR	25/50sps	20k0	*) Days: 1. 2. 3. 5. 7. - 10. 13. - 17. 20 21. 28 – 30. (WebSDR 24d)
21 MHz	0750-1630	*	3	RUS		RADAR	40sps	13k0E	*) Days: 4. 5. 13. 20. 24. 25. 27. 29. (WebSDR 15d)
21 MHz	0555-1200	*	3	CHN		RADAR	50/67sps	10k0E	*) Days: 1. 2. 4. 5. 10. 12. 15. - 25. 27. 31. 'foghorn'
21438.0	/0830-1600	01 - 31	3	RUS	RCV	A1A	20 wpm	40H	
24 MHz	0650-0735	16 29	3	CHN		RADAR	50/67sps	10k0E	'foghorn'
28 MHz	0600-1500	*	3	IRN		RADAR	150/313	60k0E	*) Days: 1. 4. 5. 10. 13. - 20. 25. - 27. alternating fq (WebSDR 10d)
28 MHz	0630-1500	01 - 04	3	IRN		RADAR	310/870	60k0E	
28860.0	0550-1430	*	3	IRN		RADAR	150/313	60k0E	*) Days: 1. - 10. 12. 14. 15. 17. -20. 25. - 31. (WebSDR 21d)
28 MHz			3	RUS	Taxi disp.	F3E		3k0E	no reports

URE; Gaspar, EA6AMM

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
6994.0	19:23	05	03	RUS		RADAR	40	12K0E	OTHR Contayner. Partially inside the 40m band
6996.0	20:46	19	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7137 kHz CF and 7192 kHz CF
6996.0	21:12	20	03	RUS		RADAR	40	12K0E	OTHR Contayner
7000.0	17:56 vt*	10 vd*	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 18/03, 2001 UTC

URE; Gaspar, EA6AMM

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7000.0	20:01	13	03			N0N			-75 dBm
7005.0	18:12	02	03			N0N			Long-lasting. -75 dBm
7010.0	20:06	06	03	RUS		RADAR	40	12K0E	OTHR Contayner
7011.2	18:08	23	03			XXX		CA8K60E	XXX. With central carrier. Jammer?
7012.0	21:31 vt*	19 vd*	03			XXX		8K0E	XXX. With central carrier. Jammer? *Also on 20/10, vt
7012.0	18:33	25	03	RUS		RADAR	40	12K0E	OTHR Contayner
7012.0	18:36	25	03			XXX		CA2K50E	XXX. Bursts. Also on 7012, 7023, 7033 and 7050 kHz CF. Jammer?
7013.0	21:13	20	03			XXX		8K0E	XXX. With central carrier. Jammer?
7019.7	18:01	24	03			XXX		CA2K0E	XXX: BW ca 2K0E
7020.0	23:17	07	03	RUS		RADAR	40	12K0E	OTHR Contayner
7020.0	17:27	14	03			F1B	50	250H	
7021.0	17:53 vt*	07 vd*	03			XXX		CA8K0E	XXX. With central carrier. Jammer? *Also on 08/03, 1740 UTC
7021.0	18:38	24	03	RUS		RADAR	40	12K0E	OTHR Contayner
7022.0	18:07	04	03	RUS		RADAR	40	12K0E	OTHR Contayner
7023.0	19:35	23	03			XXX		8K0E	XXX. With central carrier. Jammer?
7024.0	16:57	11	03			XXX		8K0E	XXX. With central carrier. Jammer?
7024.1	22:05	19	03			XXX		CA1K20E	XXX. BW ca 1K20E. T-230 1A, jammed
7024.3	18:19	18	03	RUS		XXX		CA2K50E	XXX. BW ca 2K50E
7025.0	22:22	26	03			XXX		8K0E	XXX. With central carrier. Jammer?
7026.0	17:16	14	03	RUS		J7D	120	2K70E	CIS-12
7026.0	20:13	25	03	RUS		RADAR	40	12K0E	OTHR Contayner
7030.0	22:04	15	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7107kHz CF
7031.0	17:46	21	03	RUS		RADAR	40	12K0E	OTHR Contayner
7034.0	21:20	04	03	RUS		RADAR	40	12K0E	OTHR Contayner
7035.0	16:27	02	03			J7D	120	2K70E	CIS-12
7049.9	17:47 vt*	01 vd*	03			A1N			7049.895 kHz. A1N. Continuous dots *Also on 02/03, 1811 UTC
7052.0	16:47	08	03			J3E-L			UKR/RUS "radiowar"
7053.0	17:42	01	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
7053.5	17:40	09	03			OTHER	1200	1K20E	BW = 1K20E Hz. 1200 Bd. With 3 initial tones. ID by Wolf DK2OM. T-230-1A, a.k.a “Mahovik”.
7053.5	19:19	19	03			XXX		2K80E	UKR/RUS “radiowar”. Images on waterfall
7055.0	16:45 vt*	08 vd*	03			J3E-L			UKR/RUS "radiowar" *Often
7058.0	20:18	05	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
7059.0	19:01	07	03	RUS		RADAR	40	12K0E	OTHR Contayner
7059.0	17:26	09	03			XXX		8K0E	XXX. With central carrier. Jammer?
7059.0	19:13	23	03	CHN		RADAR	40	12K0E	OTHR Contayner. Also on 7169 kHz CF
7059.7	18:08	16	03			A1A			UI st. CW loop about war in UKR. Repeats every 5 min. Almost same content as on 14134.34 kHz CW at 1234 UTC. QSY to 7059.28 kHz
7060.0	22:18 vt*	07 vd*	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 14 and 16/10, vt
7060.0	18:48	18	03			J3E-L			Speech. Like BC.
7061.0	21:26	02	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7085 kHz CF

URE; Gaspar, EA6AMM

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7061.0	17:15	03	03			J3E-L			Broadcasting-like TX. UI lang. Male speakers.
7061.0	20:06 vt*	21 vd*	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 25/10, 2014 UTC
7062.0	19:31	23	03	RUS		RADAR	40	12K0E	OTHR Contayner
7063.0	17:10	04	03			J3E-L			Music, UKR/RUS „radiowar“. Report by EA3HYN
7063.0	17:44 vt*	04 vd*	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 06 and 24/03, vt
7064.0	19:22 vt*	05 vd*	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 09/03, 1920 UTC
7065.0	17:55	02	03	RUS		RADAR	40	12K0E	OTHR Contayner
7065.0	17:33	03	03			J7D	120	2K70E	CIS-12. Long-lasting
7065.5	16:22 vt*	10 vd*	03			J7D	120	2K70E	CIS-12 *Also on 14 and 24/03, vt
7066.0	18:11	10	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7000 kHz CF
7070.0	19:59	01	03			J7D	120	2K70E	CIS-12
7075.0	17:50	20	03			A1N			Series of 16 dashes
7075.1	18:45	16	03			A1N			Continuous dashes
7080.0	18:26 vt*	02 vd*	03	RUS		F1B	50	200H	*Often
7081.5	17:35	20	03			XXX		1K86E	XXX. Images on waterfall. No callsign (same as seen on 7055 kHz on UKR/RUS "radiowar")
7085.0	21:27	02	03	RUS		RADAR	40	12K0E	OTHR Contayner
7085.0	19:10	06	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7194 kHz CF
7086.0	19:39	23	03	RUS		RADAR	40	12K0E	OTHR Contayner
7088.0	20:19 vt*	03 vd*	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 08/03, 1953 UTC
7088.0	07:01 vt*	14 vd*	03			F1B	50	200H	*Also on 14 and 15/03, 1733 UTC
7089.0	19:47 vt*	vd*	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 23/03, 2021 UTC
7094.0	19:48	19	03	RUS		RADAR	40	12K0E	OTHR Contayner
7096.0	19:48	21	03	RUS		RADAR	40	12K0E	OTHR Contayner
7097.0	20:03	14	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7060 kHz CF
7097.0	20:42	24	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7063 kHz CF
7100.0	18:08 vt*	08 vd*	03			XXX	81	CA40K0E	XXX. Bursts. Possible new ionosonde. Also on 7000 and 7200 kHz CF. *Often
7100.0	17:15	21	03			J3E-L			Speech and music. Male voices. Long-lasting
7102.0	20:28	09	03	RUS		RADAR	40	12K0E	OTHR Contayner
7103.5	19:45	21	03			XXX			XXX: BW ca 2K60E. Images on waterfall. No callsign
7104.9	19:54	21	03			XXX		CA2K60E	XXX. BW = 2K60E. images on waterfal (Same as used on UKR / RUS "radiowar"; QSY from 7103.5 kHz CF to 7104.9 kHz CF; right netxt to OTHR Contayaner)
7105.1	17:53	24	03			XXX		CA2K0E	XXX. BW ca 2K0E
7107.0	22:05	15	03	RUS		RADAR	40	12K0E	OTHR Contayner
7109.8	17:50	02	03			A1A			UI st. News about Ukraine. CW Loop
7110.0	17:58	01	03	ETH		A3E			BC. Ethiopia radio

URE; Gaspar, EA6AMM

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
	vt*	vd*							*Often
7110.0	15:21	04	03			A1A		11	7110.025 kHz. UI ST. CW Loop message warning about a possible nuclear war
7110.0	19:02	14	03			J3E-L			Speech, music (like BC). Long-lasting
7110.6	19:14	05	03			A1A			UI st. CW loop: "UA UA FREE"
7112.0	20:03	02	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7194 kHz CF
7112.0	21:10	24	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7063 kHz CF
7117.0	20:25	16	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7060 kHz CF
7124.5	16:59	03	03			J7D	120	2K70E	CIS-12
7128.0	19:19	23	03	RUS		RADAR	40	12K0E	OTHR Contayner
7137.0	18:56	02	03			F1B		200H	
7137.0	20:28	19	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7094 kHz CF and 7192 kHz CF
7140.0	18:12 vt*	14 vd*	03	ERI		A3E			BC. "VoBM" *Often
7141.0	20:14	25	03	RUS		RADAR	40	12K0E	OTHR Contayner
7147.5	21:03 vt*	15 vd*	03			F1B	75	200H	SH = 200 HZ. 75 Bd *Also on 16/03, 1711 UTC
7149.0	17:17	08	03	RUS		RADAR	40	12K0E	OTHR Contayner
7160.0	18:34	07	03			XXX		CA3K50E	XXX: continuous digital signal
7160.0	19:55	08	03	RUS		XXX		CA8K0E	XXX. With central carrier. Jammer?
7160.8	18:36 vt*	18 vd*	03			G7D		2K40E	LINK-11 CLEW SSB. 7159 kHz LSB RF. *Often
7169.0	19:17	23	03	RUS		RADAR	120	40	OTHR Contayner
7172.0	17:35	01	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7194 kHz CF
7172.7	16:37	04	03			A1A		11	7172.725 kHz. A1A. UI st. CW Loop; message warning about possible nuclear war. Same as on 7110.025 kHz, QSY to 7180.025 kHz)
7176.0	20:00	13	03	RUS		RADAR	40	12K0E	OTHR Contayner
7186.0	19:19	07	03	RUS		RADAR	40	12K0E	OTHR Contayner
7187.0	19:50	11	03	RUS		RADAR	40	12K0E	OTHR Contayner
7188.0	18:20	03	03	RUS		RADAR	40	12K0E	OTHR Contayner. 2 systems side by side: 7188 kHz CF+ 7196 kHz CF
7189.0	18:09	04	03	CHN		RADAR	62.5	10K0E	Short bursts. "Foghorn"
7190.0	20:15	25	03	RUS		RADAR	40	12K0E	OTHR Contayner. 4 simultaneous TX on 40m: 7026 kHz CF + 7061 kHz CF + 7141 kHz CF + 7190 kHz CF
7192.0	20:14	19	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 7094 kH CF
7194.0	17:37 vt*	01 vd*	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 02, 04, 06 and 09/10. Vt
7196.0	18:22	03	03	RUS		RADAR	40	12K0E	OTHR Contayner. 2 systems side by side: 7196 kHz CF + 7188 kHz CF
7198.6	15:32	13	03			G1D	2400	2K40E	STANAG-4285
10157.0	19:10	19	03	RUS		RADAR	40	12K0E	OTHR Contayner. Splatter to 10145 kHz
14000.1	13:02	03	03			N0N			Long-lasting
14000.3	13:58	03	03			XXX		CA2K60E	XXX. Digital bursts. BW ca 2K60E
14005.0	11:08	21	03			J7D	120	2K70E	CIS-12
14006.0	16:39	24	03			XXX		CA3K0E	XXX. Bursts. BW ca 3K0E. Overdriven
14007.7	14:16	07	03			XXX		CA2K30E	XXX. BW ca 2K30E
14008.0	09:45	02	03	RUS		F1B		250H	*Also on 06, 21, 23 and 24/03, vt

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kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
	vt*	vd*							
14008.0	08:55	23	03			XXX		CA3K0E	XXX. BW ca 3K0E
14016.0	12:13	23	03			XXX		8K0E	XXX. With central carrier. Jammer?
14016.9	14:27	24	03			XXX			XXX. Bursts. Overdriven.
14017.0*	07:49	06	03			XXX		CA3K0E	XXX. *Also on 14026 14197 and 14290 kHz CF
14017.0	16:07	08	03	RUS		XXX		CA8K0E	XXX. With central carrier. Jammer?
14020.0	09:59	26	03			XXX		CA3K0E	XXX. BW ca 3K0E. Bursts
14023.1	12:59	23	03			XXX		CA2K50E	XXX: BW ca 2K50E
14026.0	15:17	10	03			XXX		2K70E	CIS-12, Probably CIS-20 - 20 x 75 Bd PSKA2A?
14030.0	16:09	20	03			F1B		CA400HZ	SH ca 400 Hz
14032.0	12:33	07	03			XXX		10K0E	XXX. BW = 10K0E
14033.4	13:59	14	03			F1B	600	600H	DPRK-FSK 600 ARQ
14048.0	15:04	24	03			XXX		8K0E	XXX. With central carrier. Jammer?
14050.0	08:59	11	03			J7D		6K60E	CIS-12 DSB. Idling
14052.0	09:06	11	03			J7D	120	2K70E	CIS-12
14068.7	08:04	23	03			N0N			Unclean
14098.5	08:13	08	03			F1B	600	600H	DPR-FSK 600
14098.5	08:18 vt*	vd*	03					1K20E	DPRK-PSK 1200 ARQ *Also on 18/03, 0802 UTC
14105.0	10:52	07	03	RUS		RADAR	40	12K0E	OTHR Contayner
14108.0	08:35	13	03	RUS		F1B	50	250H	*Also on 23/10, 0807 UTC
14116.6	13:27	03	03			XXX		CA6K0E	XXX. With carrier on 14116.6 kHz. Jammer?
14117.0	12:50	03	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 14132 kHz CF
14122.0	11:58	07	03	RUS		RADAR	40	12K0E	OTHR Contayner
14123.0	14:08	06	03			J3E-L			Music
14123.0	14:38	24	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
14123.5	10:16	20	03			XXX		CA6K0E	XXX. BW ca 6K0E.
14130.0	17:11	21	03			J3E-U			Speech. Male voice. Long-lasting
14132.0	12:51 vt*	03 vd*	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 20/03, 1607 UTC
14134.3	12:43	16	03			A1A	17		UI st. CW loop about war in UKR. Restarting after 30 sec silence. Long-lasting
14140.0	14:51	01	03	RUS		RADAR	40	12K0E	OTHR Contayner
14140.0	13:54	25	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 14180 kHz CF
14148.0	17:27	24	03	RUS		RADAR	40	12K0E	OTHR Contayner
14158.0	14:40	24	03			XXX		8K0E	XXX. With central carrier. Jammer?
14161.0	08:25	06	03	CHN		RADAR	50	10K0E	CHN OTHR. BW = 10K0E. 50 sps
14161.0	08:26	11	03			F1B	50	250H	SH = 250 Hz. Bd = 50
14161.0	12:00	25	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 14181 kHz CF
14162.0	08:50	11	03			J7D	120	2K70E	CIS-12
14168.0	09:12	25	03	RUS		RADAR	40	12K0E	OTHR Contayner
14171.0	07:48	07	03			J7D	120	2K70E	CIS-12
14175.0	10:42	02	03			J3E-U			14175 kHz USB. Music and advertising being relayed.
14181.0	12:01	25	03	RUS		RADAR	40	12K0E	OTHR Contayner
14184.0	09:13	25	03	RUS		RADAR	40	12K0E	OTHR Contayner. 4 simultaneous TX on 20 m. 3 systems side by side: 14184 kHz CF +

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kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
									14168 kHz CF + 14199 kHz CF. Plus 14313 kHz CF
14187.0	10:09	10	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
14190.0	16:05 vt*	01 vd*	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 09/03, 1614 UTC
14191.0	10:08	08	03	RUS		RADAR	40	12K0E	OTHR Contayner
14193.0	17:14	08	03	RUS		RADAR	40	12K0E	OTHR Contayner
14198.0	15:21	01	03	RUS		RADAR	40	12K0E	OTHR Contayner
14198.5	12:35	23	03			OTHER		1K20E	DPRK-PSK 1200 ARQ
14200.0	11:44	23	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 25/03, 09/04 UTC
14202.0	08:05	24	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
14203.0	08:19	25	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
14208.0	07:42 vt*	14 vd*	03	RUS		F1B	50	250H	*Also on 20/03, 0828 UTC
14211.0	16:26	09	03	RUS		RADAR	40	12K0E	OTHR Contayner
14220.0	10:37 vt*	01 vd*	03			J7D	120	2K70E	CIS-12 *Also on 08/03, 0815 UTC
14223.8	08:19	23	03			N0N			Carrier. Long-lasting
14242.0	12:26	03	03			J7D	120	2K70E	CIS-12
14253.0	15:45 vt*	04vv d*	03			F1B	75	250H	*Often
14260.0	17:20	23	03			A1A			A1A. UI st. Loop. Repeats every 5 min. (contet related to war in UKR)
14262.0	15:04	09	03	RUS		RADAR	40	12K0E	OTHR Contayner
14291.0	16:15	20	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
14297.0	08:47	07 vt*	03 vd*	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn" *Also on 08/03, 0844 UTC
14298.5	08:14 vt*	08 vd*	03			F1B	600	600H	DPRK-FSK 600 *Often
14298.0	11:33	18	03	CHN		RADAR	47.6	10K0E	Short bursts. "Foghorn"
14298.5	13:10 vt*	23 vd*	03					1K20E	DPRK-PSK 1200 ARQ *Often
14303.0	12:03	25	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
14305.0	12:04	25	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
14306.0	13:10	05	03			XXX		10K0E	XXX. Unknown signal. BW = 10K0E
14308.0	09:52	10	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
14312.0	11:50	11	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
14313.0	09:06	25	03	RUS		RADAR	40	12K0E	OTHR Contayner.
14320.0	08:38	25	03			A1N			Continuous long dashes
14324.0	10:45	01	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
14324.0	09:05	18	03			A1A			UI st. Figures. Distorted
14327.0	07:12	14	03	RUS		RADAR	40	12K0E	OTHR Contayner
14337.0	08:25	11	03	RUS		RADAR	40	12K0E	OTHR Contayner
14338.0	08:47	21	03	CHN		RADAR	83.3	10K0E	Short bursts. "Foghorn"
14345.0	07:51	02	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
18060.0	08:33	09	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus. Partially inside 17m band *Also on 16, 17 and 24/03, vt
18071.0	08:42	25	03			XXX		CA1K50E	XXX. BW ca 1K50E. UI bursts.3 carriers. separation = 500 Hz.0844 UTC, signal

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kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
									changed. BW ca 2K60E
18080.0	14:28	09	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus. *Also on 10/03, 0817 UTC
18107.0	09:14 vt*	01 vd*	03	RUS	RDL	F1B F1A	50	200H	CIS-36/50. "RDL". RUS *Almost daily
18119.0	06:49	17	03	RUS		RADAR	40	12K0E	OTHR Contayner
18153.0	09:21	19	03	RUS		RADAR	40	12K0E	OTHR Contayner
18160.0	07:21	18	03	RUS		RADAR	40	12K0E	OTHR Contayner
18161.0	09:37	04	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
18164.0	12:40	18	03	RUS		RADAR	40	12K0E	OTHR Contayner
18165.0	12:12	09	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus.
18165.0	08:29	21	03	RUS		RADAR	40	12K0E	OTHR Contayner
18170.0	12:58	01	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus *Also on 21/03, 1106 UTC
18171.0	13:36	14	03	RUS		RADAR	40	12K0E	OTHR Contayner
18172.0	07:48	09	03	RUS		RADAR	40	12K0E	OTHR Contayner
18175.0	10:53 vt*	04 vd*	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus. *Also on 24/03, 0809 UTC
21060.0	08:32	17	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
21095.0	09:14	14	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21107.0	09:54	10	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
21115.0	09:35 vt*	09 vd*	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus *Also on 13/03, 1145 UTC
21118.6	07:48	19	03			F1B	600	600H	DPRK-FSK 600 ARQ
21120.0	07:24	09	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
21120.0	07:44	09	03	G		RADAR	20	50K0E	OTHR Pluto. UK SBA, Cyprus *Also on 17/03, 0722 UTC
21125.0	10:26 vt*	11vv d*	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus *also on 11/03, 1026 UTC
21129.0	08:23	23	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21130.0	09:36 vt*	04 vd*	03	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 05 and 07/03, vt
21132.0	16:39	19	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 21401 kHz CF
21150.0	12:52	14	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21150.0	13:35	14	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21155.0	07:37	18	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21160.0	06:57	06	03	RUS		RADAR	40	12K0E	OTHR Contayner
21169.0	07:52	19	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21170.0	12:40	02	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21170.0	07:56	09	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21170.0	11:15	09	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21180.0	09:24	14	03	RUS		RADAR	40	12K0E	OTHR Contayner
21205.0	09:55	10	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
21210.0	09:07	01	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21235.0	09:39	02	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
21250.0	11:38	01	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21270.0	07:47	02	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21285.0	07:46	14	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21290.0	11:01	07	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus

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kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
21292.0	08:14	07	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
21294.0	08:30	10	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21304.0	09:59	10	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21310.0	09:35	02	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21311.0	09:12	01	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
21313.0	07:47	18	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21315.0	08:24 vt*	01 vd*	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus *Also on 05/03, 0906 UTC
21315.0	08:24	07	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21318.0	08:23	25	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
21321.0	09:52	13	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
21325.0	08:16	24	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
21327.0	09:53	13	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
21327.0	08:25	21	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21329.0	08:18	20	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21330.0	07:57	08	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
21330.0	07:33	14	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21335.0	10:39 vt*	02 vd*	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus *Also on 08/03, 1205 UTC
21339.0	08:18	14	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21340.0	09:22	21	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus. BW = 20K0E. 50 sps
21343.0	10:40	11	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
21343.0	08:28	23	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21348.0	09:18	05	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21350.0	12:21	17	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21355.0	12:34	01	03	G		RADAR	25	20K0E	OTHR Pluto. UK SBA, Cyprus. BW = 20K0E. 25 sps. 1239 UTC, changed to 50 sps
21355.0	10:11	12	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
21355.0	08:52	25	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21358.0	09:08	13	03	CHN		RADAR	41.7	10K0E	Short busts. "Foghorn"
21361.0	08:22	25	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21364.0	08:54	17	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21366.0	07:22	09	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
21369.0	08:26	10	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21370.0	09:03	04	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus.
21370.0	11:50	04	03	G		RADAR	25	4K0E	OTHR. BW = 4K0E. 25 sps. Most probably, OTHR Pluto (G). QRT: 1150 UTC)
21370.0	10:57	08	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus *Also on 08, 16, 17 and 19/03, vt
21370.0	15:44	13	03	G		RADAR	25	20K0E	OTHR Pluto. UK SBA, Cyprus
21371.0	08:43	01	03	CHN		RADAR	47.6	10K0E	Short bursts. "Foghorn"
21374.0	07:55	09	03	CHN		RADAR	62.5	10K0E	Short bursts. "Foghorn"
21380.0	07:38	18	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21383.0	07:35	08	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
21383.0	08:28	10	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21385.0	08:35	07	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21385.0	11:46	13	03	G		RADAR	25	20K0E	OTHR Pluto. UK SBA, Cyprus. BW = 20K0E. 25 sps. (Also on 21115 kHz CF: 20K0E, 50

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kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
									sps)
21390.0	07:58	18	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
21400.0	14:40 vt*	10 vd*	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus *Also on 13/03, 0916 UTC
21401.0	16:37	19	03	RUS		RADAR	40	12K0E	OTHR Contayner
21405.0	09:17	17	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
21406.0	08:26	21	03	CHN		RADAR	62.5	10K0E	Short bursts. "Foghorn"
21409.0	07:36	08	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
21409.0	08:09	19	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21410.0	08:30	09	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus *Also on 10, 20 and 24/03, vt
21410.0	16:37	24	03	RUS		RADAR	40	12K0E	OTHR Contayner. Also on 21425 kHz CF
21410.0	10:30	25	03	RUS		RADAR	40	12K0E	OTHR Contayner
21415.0	12:07 vt*	03 vd*	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus *Also on 20/03, 1030 UTC
21415.0	12:40	17	03			XXX		6K80E	XXX. BW = 6K80E. Multitone bursts. Possibly MFSK-16, non-HAM
21420.0	07:13	17	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
21420.0	08:19	20	03	CHN		RADAR	50	10K0E	Short bursts. "Foghorn"
21425.0	16:37	24	03	RUS		RADAR	40	12K0E	OTHR Contayner
21428.0	08:28	02	03	CHN		RADAR	41.7	10K0E	Short bursts. "Foghorn"
21429.0	10:29	11	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
21430.0	11:09	04	03	RUS		RADAR	40	12K0E	OTHR Contayner
21432.0	13:36	04	03	RUS		RADAR	40	12K0E	OTHR Contayner
21438.0	08:34 vt*	01 vd*	03	RUS	RCV	A1A			"RCV" QTC. RUS navy *Almost daily
21442.0	07:55	23	03	CHN		RADAR	66.7	10K0E	Short bursts. "Foghorn"
24890.0	09:09	14	03	RUS		RADAR	40	12K0E	OTHR Contayner
24894.0	11:03	04	03	RUS		RADAR	40	12K0E	OTHR Contayner
24895.0	14:14	16	03	RUS		RADAR	40	12K0E	OTHR Contayner
24896.0	10:32	17	03	RUS		RADAR	40	12K0E	OTHR Contayner
24905.0	07:55	02	03	RUS		RADAR	40	12K0E	OTHR Contayner
28000.0	10:02	13	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
28000.0	08:07	18	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
28050.0	09:51	06	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
28130.0	08:32	19	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
28150.0	08:26	01	03	IRN		RADAR	307 870	45K0E	OTHR. Bursts. 307 and 870 sps, alternating
28150.0	08:24	02	03	IRN		RADAR	313	45K0E	OTHR. Bursts. Only 313 sps
28150.0	09:40	06	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating.
28150.0	11:01	11	03	IRN		RADAR	313	45K0E	OTHR. Bursts. Only 313 sps bursts. Jumping
28150.0	09:15	21	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
28150.0	08:15	23	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
28200.0	09:00	20	03	IRN		RADAR	150	45K0E	OTHR. BW = 45K0E. 150 and 313 sps,

URE; Gaspar, EA6AMM

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
							313		alternating. Jumping
28210.0	10:05	10	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
28240.0	12:34	03	03	IRN		RADAR	313	45K0E	OTHR. Only 313 sps bursts. Jumping
28260.0	08:52	01	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
28280.0	07:56	10	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
28330.0	08:01	15	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
28350.0	08:11	15	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
28650.0	12:07	13	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
28860.0	08:28 vt*	01 vd*	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. Sps = 150 and 313, alternating *Almost daily
29100.0	11:22	16	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
29150.0	09:11	14	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
29210.0	10:47	17	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
29250.0	08:25	02	03	IRN		RADAR	226	45K0E	OTHR. Bursts. 226 and 31 sps, alternating. Jumping
29250.0	10:02	10	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating
29280.0	08:54	01	03	IRN		RADAR	226 333	45K0E	OTHR. Bursts. 226 and 333 sps, alternating
29290.0	08:12	15	03	G		RADAR	50	20K0E	OTHR Pluto. UK SBA, Cyprus
29400.0	08:37	04	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
29500.0	12:15	03	03	IRN		RADAR	150 313	45K0E	OTHR. Bursts. 150 and 313 sps, alternating. Jumping
29500.0	08:06	09	03	IRN		RADAR	226 333	45K0E	OTHR. Bursts. 226 and 333 sps, alternating.
29712.0	07:39	09	03			RADAR	50	10K0E	Short bursts. With initial short tone. BW = 10K0E. 50 sps

USKA; Peter, HB9CET

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
6998.0	0031	05	03			FMOP	40 sps	12k0E	OTHR; Contayner; partially in 40m band
7000.00	1714	12	03			N0N		10H	long lasting carrier often
7007.0	0801	31	03			J7D	12x120 Bd	2k70E	CIS12
7009.0	1351	02	03			J7D	12x120 Bd	2k70E	CIS12
7012.0	1534	31	03			J7D	12x120 Bd	2k70E	CIS12
7016.0	0852	24	03			F1B	75 Bd	200H	FSK
7020.0	1817	14	03			F1B	50 Bd	250H	TDoA: Kaliningrad
7024.0	0841	24	03			XXX		ca 8 k	unident, unknown signal
7026.0	1720	14	03			J7D	12x120	2k70E	CIS12; long lasting (2156z still activ)

USKA; Peter, HB9CET

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
	0630	30					Bd		TDoA: Moscow
7035.0	0804 1801	02	03			J7D	12x120 Bd	2k70E	CIS12, long lasting
7037.0	0849	21	03			J7D		2k70E	CIS12: 12 tones 200Hz spacing + pilottone only
7040.0	0001	03	03			FMOP	40 sps	12k0E	OTHR; Contayner
7049.895	1749	01	03			A1N		10H	dots only often
7053.0	1754	01	03			OTHR	66.66 sps	10k0E	OTHR; Bursts
7055.0 LSB	0700 1642	18 23	03			J3E-L		ca. 3k0E	RUS-UKR Radio War almost daily Music and voice
7057.0	2351	21	03			FMOP	40 sps	12k0E	OTHR; Contayner
7060.0	2230	07	03			FMOP	40 sps	12k0E	OTHR; Contayner
7065.0	2018	03	03			J7D	12x120 Bd	2k70E	CIS12; long lasting
7065.5	1539 1541	10 24	03			J7D	12x120 Bd	2k70E	CIS12 often
7070.0	1800	01	03			J7D	12x120 Bd	2k70E	CIS12
7080.0	1819	16	03			F1B	50 Bd	200H	FSK
7088.0	2021 1955	03 08	03			FMOP	40 sps	12k0E	OTHR; Contayner; long lasting!often
7088.0	2154 0635	14 30	03			F1B	75 Bd	200H	often
7089.0	2049	07	03			FMOP	40 sps	12k0E	OTHR; Contayner; long lasting!
7099.0	2231	23	03			F1B	75 Bd	200H	FSK;
7110.0	1759	01	03	ETH		A3E		ca 9k0E	BC: Radio Ethiopia daily
7119.0	1957	08	03			J7D	12x120 Bd	2k70E	CIS12
7133.0	2356	21	03			FMOP	40 sps	12k0E	OTHR; Contayner
7137.0	1713 1754	02 20	03			F1B	50 Bd	200H	TDoA: Kaliningrad often
7140.0	1715	02	03	ERI	VOBM 1	A3E		ca 9k0E	BC: Voice of the broad Masses 1 almost daily
7142.0	1541	02	03			F1B		250H	FSK; weak, fading
7147.5	1809	16	03			F1B	75 Bd	200H	FSK; weak, fading
7158.0	2200	03	03			J7D MFSK8	125	1750 H	ALE, MIL188-141A; To: 178
7159.0 USB	2219 0748	19 25	03			G7D DQPSK	75 Bd	ca 2k50E	LINK11 CLEW SSB mode; almost daily
7162.0	0856	24	03			F1B	75 Bd	250H	FSK
7166.0	0003	22	03			FMOP	40 sps	12k0E	OTHR; Contayner
7172.0	1714	01	03			FMOP	40 sps	12k0E	OTHR; Contayner
7194.0	1714	01	03			FMOP	40 sps	12k0E	OTHR; Contayner
14005.0	0957	21	03			J7D	12x120 Bd	2K70E	CIS12, strong fading
14008.0	0731 1213	21 24	03			F1B	50 Bd	250H	often
14016.0	1211	23	03			XXX		ca 8 k	unident, unknown signal
14025.0	1425	30	03			XXX		ca 8 k	unident, unknown signal
14026.0	1530	10	03			J7D	12x120 Bd	2K70E	CIS12; idling only

USKA; Peter, HB9CET

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS	
14032.0	1236	07	03			XXX		ca 12k0E	Unknown signal	
14098.5	0820 0821	08 28	03			ARQ		1k20H	DPRK ARQ system	often
14117.0	1754	24	03			OTHR	41 sps	10k0E	OTHR; Bursts	
14145.0	1011	31	03			OTHR	83 sps	10k0E	OTHR	
14148.0	1750	24	03			FMOP	40 sps	12k0E	OTHR; Contayner	
14171.0	0709	31	03			J7D	12x120 Bd	2k70E	CIS12	
14184.0	1136	22	03			FMOP	40 sps	12k0E	OTHR; Contayner	
14185.0	1624	07	03			FMOP	40 sps	12k0E	OTHR; Contayner	
14198.0	1521	01	03			FMOP	40 sps	12k0E	OTHR; Contayner	
14203.0	0824	25	03			OTHR	62 sps	10k0E	OTHR; Bursts	
14220.0	1041 0818	01 09	03			J7D	12x120 Bd	2K70E	CIS12	often
14221.0	0553z	29	03			F1B	50 Bd	200H		
14253.0	0728 0722	21 28	03			F1B	75 Bd	250H	often	
14298.5	0832 0821	08 25	03			ARQ	600 Bd / 1200Bd	600H 1200H	DPRK: ARQ system FSK and PSK mode	often
14339.0	1313	11	03			OTHR	66.66 sps	10k0E	OTHR; Bursts	
14348.0	1037	01	03			OTHR	48 sps	10k0E	OTHR; Bursts; weak, fading	
18071.0	0643	30	03			FMOP	40 sps	12k0E	OTHR; Contayner	
18080.0	0726	31	03			A3E		ca 9k	BC: Sound of Hope - Taiwan;	often
18083.0	0751	22	03			OTHR	66.66 sps	10k0E	OTHR; Bursts	
18107.0	0946 0827	01 21	03			F1B	36 + 50 Bd	200H	CIS 36-50, also F1A (FSK CW)	often
18107.0	0829	03	03			F1A		200H	CIS 36-50, F1A (FSK CW)	often
18161.0	0757	21	03			FMOP	40 sps	12k0E	OTHR; Contayner	
18162.0	0655	20	03			FMOP	40 sps	12k0E	OTHR; Contayner; partially in 17m band	
18166.0	0928	22	03	G		FMOP	40 sps	12k0E	OTHR; Contayner	
18170.0	1329	08	03	G		FMCW	50 sps	20k0E	OTHR; UK base Cyprus; partially in 17m band	
18172.0	0835	02	03			FMOP	40 sps	12k0E	OTHR; Contayner; partially in 17m band	
21000.0	1619	07	03			J3E-U		ca 2k1	Spanish: fishermen, talking	
21001.5	1617	07	03			F1B/ARQ	600 Bd	600H	DPRK 600/600 ARQ system	
21129.0	0844	23	03			FMCW	50 sps	10k0E	OTHR; Bursts	
21130.0	0751 1039	04 07	03			FMOP	40 sps	12k0E	OTHR; Contayner, long lasting	
21158.0	1229	31	03	G		FMOP	40 sps	12k0E	OTHR; Contayner	
21165.0	1002	07	03	G		FMCW	50 sps	20k0E	OTHR,UK-base Cyprus	
21170.0	0755	31	03			OTHR	50 sps	10k0E	OTHR; Bursts	
21190.0	1427	30	03	G		FMCW	50 sps	20k0E	OTHR,UK-base Cyprus	
21270.0	0830	02	03	G		FMCW	50 sps	20k0E	OTHR; UK base Cyprus	
21316.0	0810	21	03			OTHR	50 sps	10k0E	OTHR; Bursts	
21318.0	0744	25	03			OTHR	66.66 Bd	10k0E	OTHR; Bursts	
21340.0	0801	21	03			OTHR	50 sps	10k0E	OTHR; Bursts	
21340.0	0926	21	03			FMCW	50 sps	20k0E	OTHR; UK-base Cyprus	

USKA; Peter, HB9CET

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
21341.0	0916	31	03			OTHR	66.66 Bd	10k0E	OTHR; Bursts
21382.0	0814	31	03			OTHR	66.66 Bd	10k0E	OTHR; Bursts
21400.0	1442	10	03	G		FMCW	50 sps	20k0E	OTHR; UK-base Cyprus
21410.0	1013 0722	10 28	03	G		FMCW	50 sps	20k0E	OTHR; UK-base Cyprus often
21415.0	0947	08	03	G		FMCW	50 sps	20k0E	OTHR; UK-base Cyprus
21415.0	0741	21	03			FMCW	50 sps	10k0E	OTHR; Bursts often
21420.0	0711	17	03	G		FMCW	50 sps	20k0E	OTHR; UK-base Cyprus
21426.0	1014	07	03			FMOP	40 sps	12k0E	OTHR; Contayner
21438.0	1243	07	03	RUS	RCV	A1A		10H	TDoA: Area of Sevastopol daily
21439.0	0746	25	03			OTHR	48 sps	10k0E	OTHR; Bursts
28100.0	0823	31	03			F1B	51 Bd	300H	Bursts; probably ENAGAL buoy
28100.15	0827	31	03			F1B	51 Bd	300H	Bursts; probably ENAGAL buoy
28101.85	0741	31	03			F1B	51 Bd	300H	Bursts; probably ENAGAL buoy
28150.0	1006 0811	01 02	03	IRN			307 + 870 sps	ca 45k	OTHR; Bursts; long lasting, sweep rate alternating
28500.0	0912	21	03			F1B	81.9	140H	Datawell Waverider buoy
28860.0	1009 0657 0757	01 17 31	03	IRN			150 + 313 sps	ca 45k	OTHR; Bursts; long lasting, sweep- rate alternating almost daily

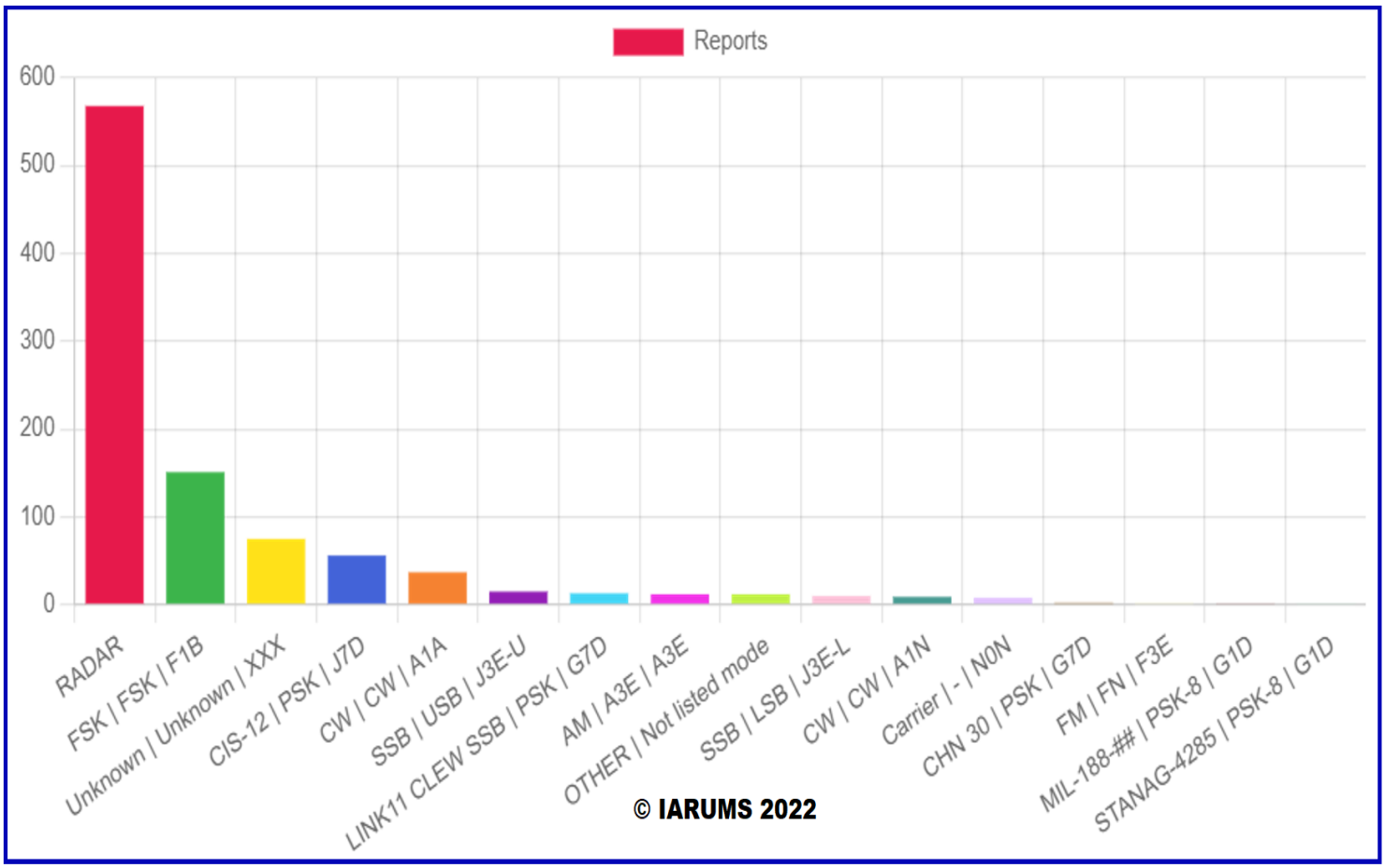
VERON: Ruud PG1R. Credits to observers Dick PA0GRU, Joeke PA0VDV, Kees PA2CHM, Arie PA3CNK, Rene PA3EQO

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3527.0	2036	17	03	RUS		F1B			Revs/UiPtr
3527.0	2002	18	03	RUS		F1B			Revs/UiPtr
3552.0	1940	18	03	RUS		F1B			UiPtr
3680.0	2111	26	03			J3E-L			Music & comments; RUS/UKR language
3688.0	2107	26	03			J3E-L			Music & slogans; RUS/UKR language
3752.0	2038	17	03	RUS		F1B			UiPtr
3752.0	2000	18	03	RUS		F1B			UiPtr
3797.0	2040	17	03	RUS		A1A			5BL
3797.0	2048	17	03	RUS	BSDV	A1A			CSIW de BSDV QTC 396 461 17 0005 396 = MMMMM 5BL
7024.0	2036	16	03	RUS		F1B			UiPtr
7038.5	1150	13	03	RUS		F1B			UiPtr
7048.0	0930	23	03	RUS		F1B			Revs/UiPtr
7050.0	1815	06	03	UKR/ RUS					UKR-RUS radiowar; several days
7055.0	1828	06	03	UKR/ RUS		J3E-L			UKR-RUS radiowar; speeches; sometimes music; almost daily
7061.0	1908	23	03			RADAR			
7137.0	1603	05	03	RUS		F1B		200H	Ptr; Kaliningrad
7141.0	2048	05	03			NON			Long lasting unstable carrier
10120.0	1155	13	03	RUS		F1B			Revs/UiPtr
14008.0	1113	06	03			F1B		250H	Ptr
14143.0	1336	06	03	RUS		RADAR	40	12K0E	OTHR Contayner
14146.0	1114	05	03			J3E-U			Music; S6-7
14160.0	0920	27	03			F1B		250H	Ptr

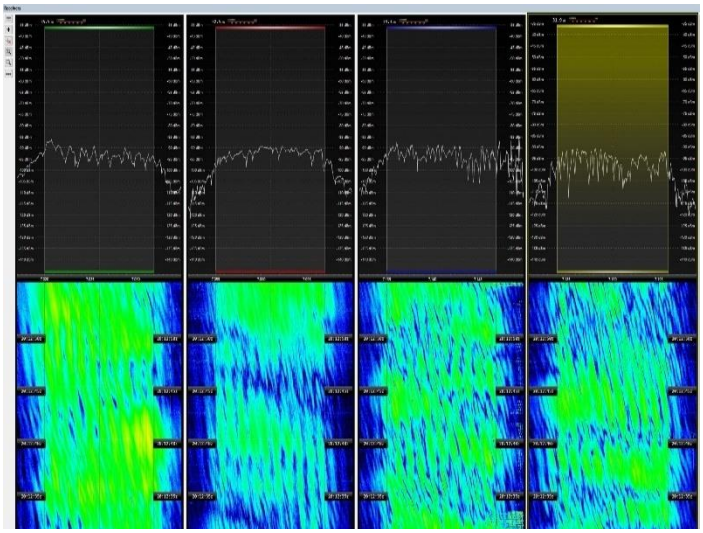
VERON: Ruud PG1R. Credits to observers Dick PA0GRU, Joeke PA0VDV, Kees PA2CHM, Arie PA3CNK, Rene PA3EQO

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
14226.0	1421	27	03			F1B		250H	Ptr
14253.0	1545	25	03			F1B		250H	UiPrinter
14290.0	1814	05	03			XXX		3K0E	CF; unknown signals; 6 carriers with some tone bursts
14305.0	1817	05	03			XXX		3K0E	CF; unknown signals; 6 carriers with some tone bursts
18078.8	1325	06	03			A1A			Continuous dits; longlasting
18087.0	1322	06	03			XXX		3K0E	CF; unknown signals
18107.0	1110	05	03	RUS	RDL	F1B		200H	Ptr
18107.0	1319	06	03	RUS	RDL	F1B		200H	Ptr
18107.0	1125	13	03	RUS		F1B			Revs/UiPtr
21128.0	0952	05	03	RUS		RADAR	40	24K0E	CF; 2 adjacent Contayner OTHRs?
21304.0	0927	05	03	G		RADAR	50	20K0E	CF; OTHR Cyprus
21314.0	1105	05	03	G		RADAR	50	20K0E	CF; OTHR Cyprus
21338.0	0841	24	03	RUS		F1B			Revs/UiPtr
21410.0	1340	27	03			RADAR			
21416.0	1644	27	03			RADAR	40	12K0E	CF; OTHR Contayner; frequency jumping
24892.0	1116	17	03			RADAR			

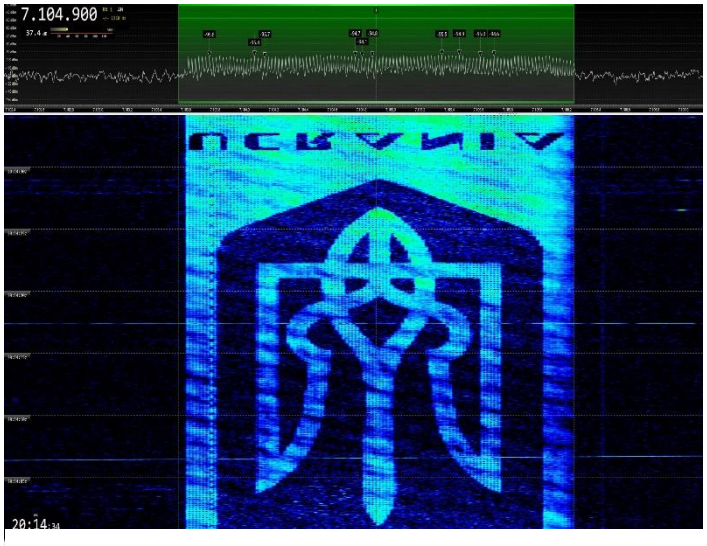
Statistics and screenshots



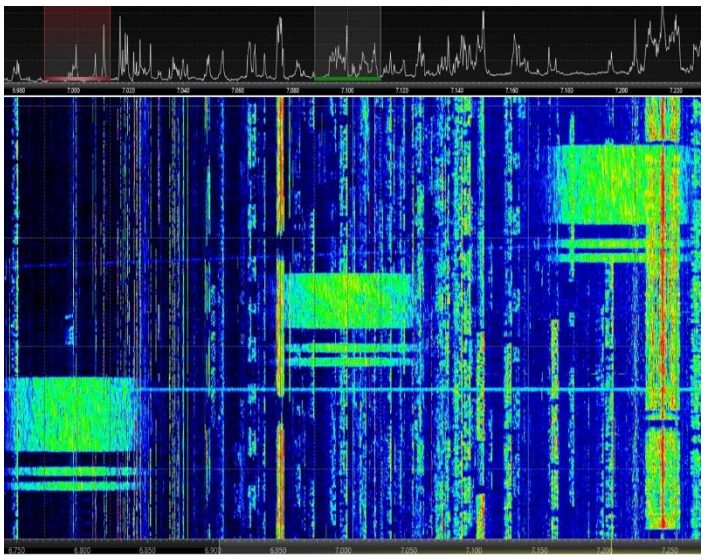
Reports sent some by some IARUMS R1 Coordinators in the IARUMS Database during March 2022



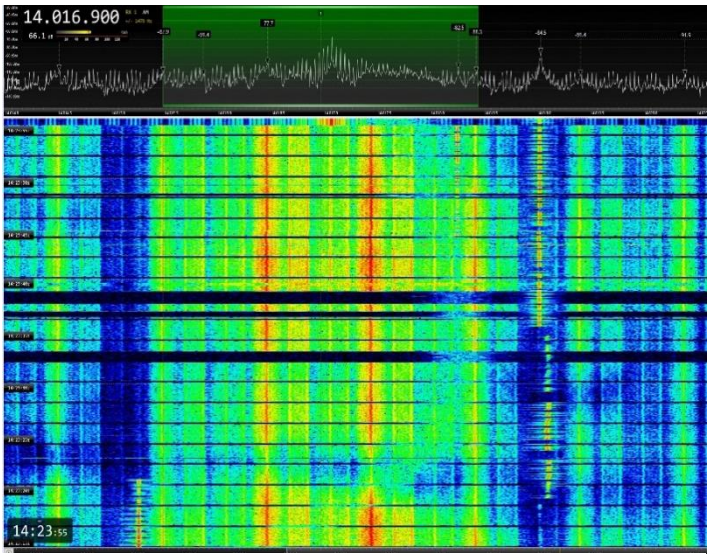
OTHR Contayner. RUS. BW = 12 kHz. 40 sps. 4 simultaneous TX on 40 m



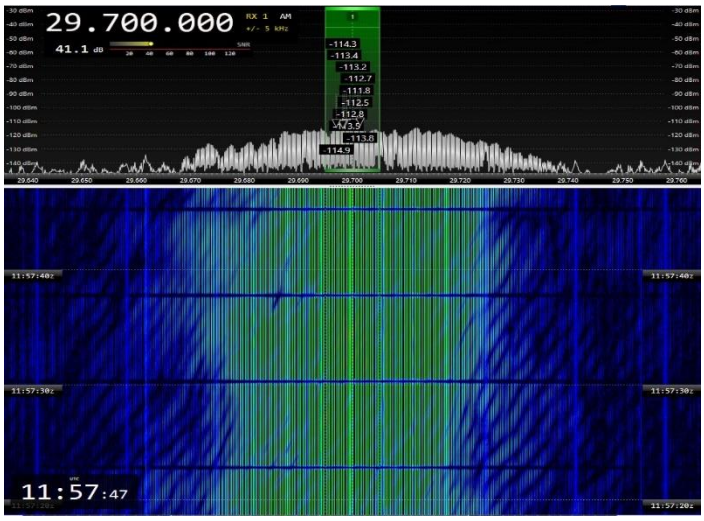
Images on waterfall. 40 m



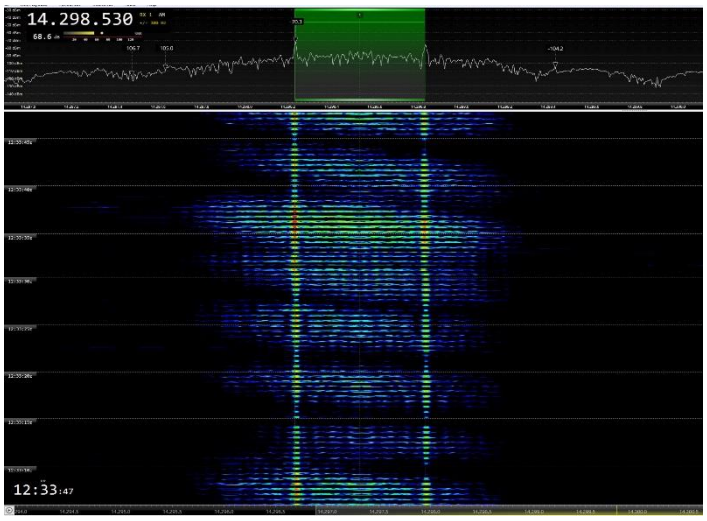
XXX. 40 and 20 m. Often. BW ca 20 kHz. Possible ionosonde?



XXX. 40 and 20 m. Various BW. Most probably, jammer



OTHR IRN. Bursts. BW = 45 kHz. 313 sps only



DPRK-FSK 600 ARQ. SH = 600 Hz. Bd = 600

Contact: Gaspar Miró, EA6AMM, ea6amm@iaru-r1.org
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