

# IARU Monitoring System Region 1



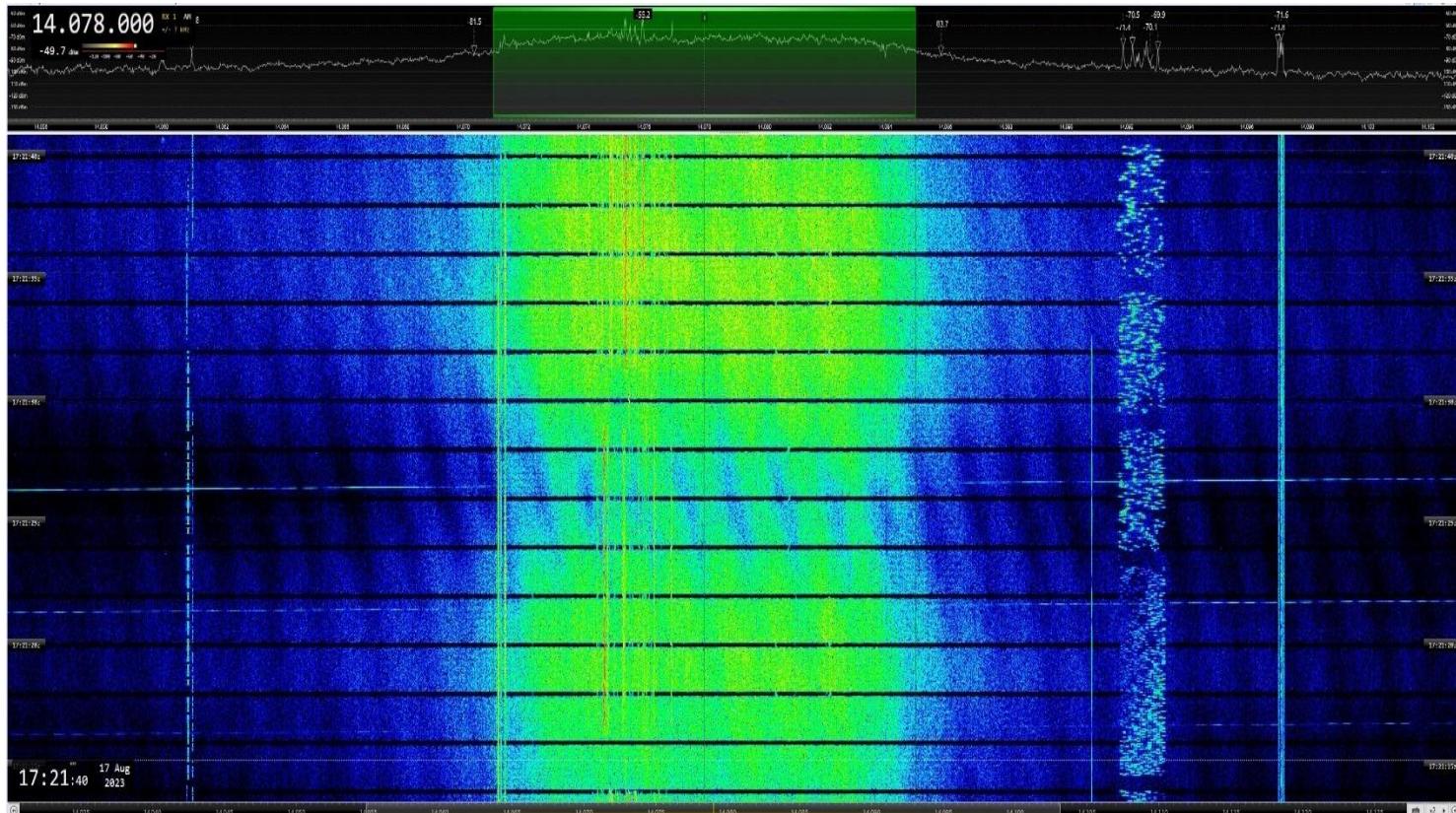
Monthly Newsletter - August 2023

## News and info

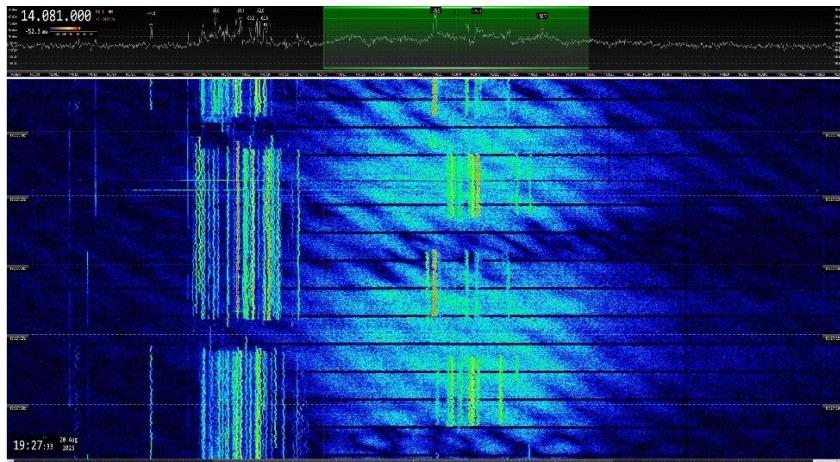
Despite the fact that they were sometimes observed and reported during June and July, this month we highlight the very frequent reception of burst systems used as jammers transmitting in unknown modes, disturbing the segments dedicated to FT-8, FT-4 and other amateur digital modes in different amateur bands, interfering, compromising and/or cancelling the reception of the amateur transmissions in these frequencies.

Although at first, among the different possibilities, it was considered that these emissions could be DQRM (deliberate QRM) sent by an amateur, later this possibility was ruled out due to the bandwidths used in some of the transmissions, as well as their simultaneous use in several frequencies in the same band with different bandwidths as well, or the simultaneous transmissions of these signals in different bands.

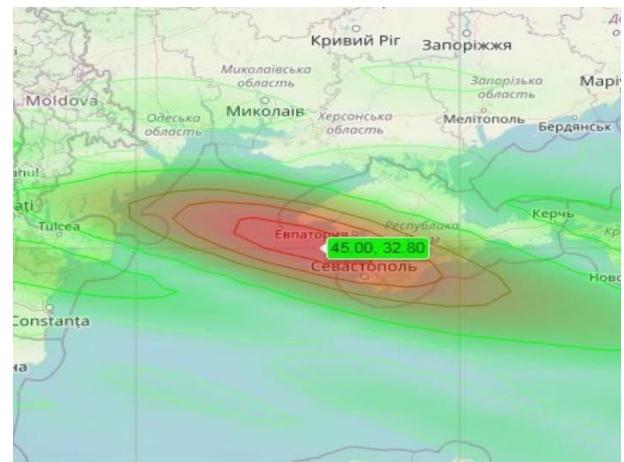
Mostly observed in the 20-meter band, mainly on 14078 kHz, 14075 kHz CF and 14081 kHz CF, they are also sometimes received in the 17-meter band (18100 kHz CF), the 12 m band (24916 kHz CF) and in the 10 m band (28075 kHz CF). These transmissions are most probably used as jammers with the intentional purpose of interfering or cancelling the reception of other transmissions in the frequency range in which they are sent.



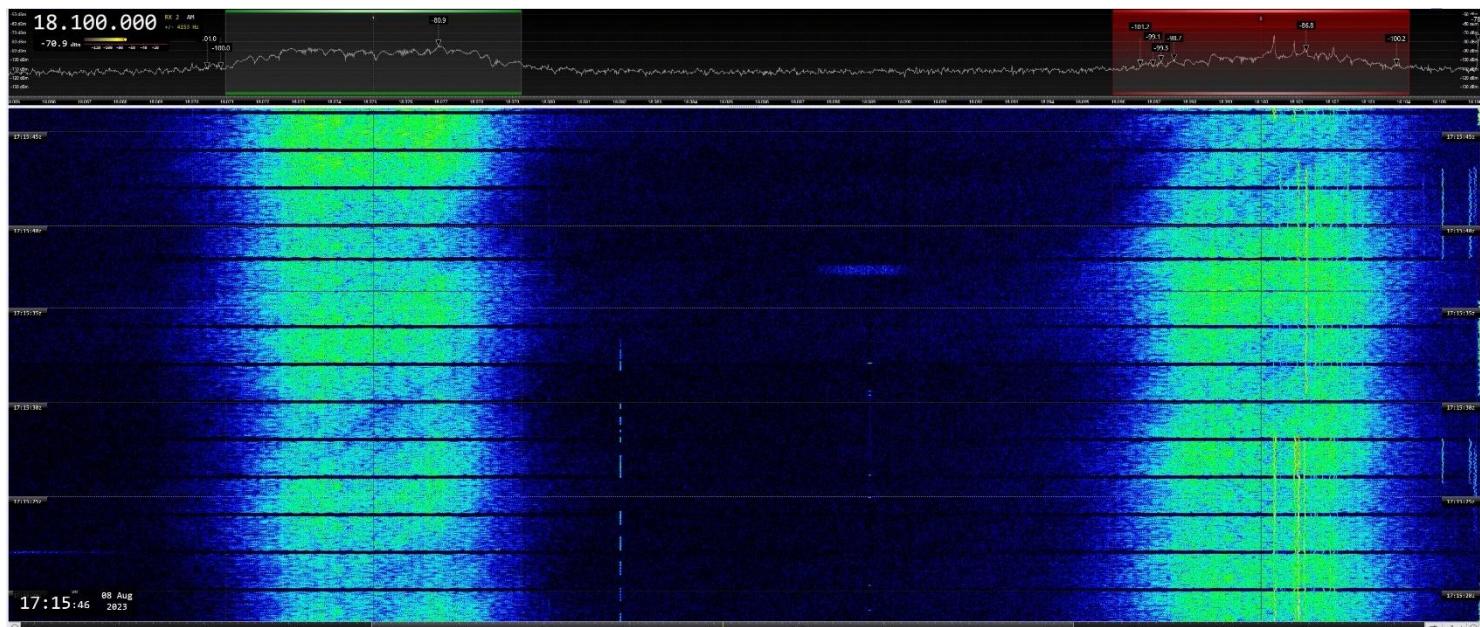
14078 kHz CF: XXX. Unidentified bursts. BW ca 14 KOE. Jammer; disturbing amateur digital activity.



14081 kHz CF: XXX: Unidentified bursts. BW ca 8K0E. Most probably, jammer



14081 kHz CF XXX. Jammer. TDoA by Wolf, DK2OM



18075 kHz CF and 18100 kHz CF: XXX. Unidentified bursts. Simultaneous transmission. BW ca 8K0E. Jammer

As for MIL transmissions on the amateur bands, the well-known CIS-## systems were received on 14192 kHz CF (F1B; FSK. Shift = 200 Hz. 50 Bd; shift changed to 400 Hz around the second half of the month until the end of it) and 14008 kHz CF (F1B. Shift = 250 Hz. 50 Bd; often) as well as the RUS MIL QTC traffic and encrypted QTC on 14108 kHz A1A (CW).

The DPRK PSK or FSK ARQ systems on 14098.5 kHz CF, 14198 kHz CF and 14298.5 kHz CF were often observed. On 20 m we also received F1B (FSK) transmission (Shift = 850 Hz. 75 Bd on this month) from the area of Guam, as well as transmissions using the ISR navy hybrid modem (14001.5 kHz CF. G1D. BW = 2K40E. 2400 Bd). Long-lasting LINK-11 SLEW transmissions were received during several days on 40 m (PSK. G1D. BW = 2400 Hz. 2400 Bd), and also on this band we sometimes receive LINK 11 CLEW SSB (G7D. BW = 2400 Hz. Bd = 75) transmissions on 7159 kHz, as well as some CIS-12 (BW = 2K70E; 12 x 120 Bd + pilot line) long-lasting transmissions on 7000 kHz CF (RUS) and 7060 kHz CF (RUS). Several transmissions in different CHN MIL modes were also received on the 40, 20 and 15 m bands.

The broadcasting station “National Unity Radio” transmitting from Taiwan was daily received on 7200 kHz A3A (AM), jammed by China.

*Find other screenshots about the intrusions received during August at the end of this Newsletter*

## 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.

<b>DARC; Daniel, DL3RTL. Credit to monitors: DL8LAQ, Norbert; DL2SCH, Jürgen; DO1LR, Christian; F4FPR, Benjamin; DO1TEI, Frank; DL4YCD, Jürgen; DL4MCA, Rainer; DB1TH, Tobias; DB3TA, Alex</b>									
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7000,0	2230	03	08	RUS		PSK		2k7	CIS-12
7006,0	1552	08	08	RUS		FMOP	40	12k	OTHR Contayner
7009,8	1801	15	08	RUS		PSK		2k7	CIS-12
7032,0	0546	12	08			J3E-U		3k3	music, russian national anthem
7033,5	2245	03	08	RUS		PSK		2k7	CIS-12 on idle
7041,5	1930	30	08					10k	unid
7060,0	vt	dly	08	RUS		PSK		2k7	CIS-12
7060,0	1812	22	08	RUS		PSK		2k7	CIS-12 on idle
7089,8	1712	18	08			PSK		2k6	LINK11 SLEW
7191,0	1521	08	08	RUS		FMOP	40	12k	OTHR Contayner
14002,0	1813	11	08			F1B	50	850	
14002,0	1708	15	08			F1B	50	850	
14007,0	1201	02	08			F1B		250	FSK-Traffic
14023,0	1906	23	08					3k	unid
14023,0	1722	29	08					2k7	unid
14025,8	1525	08	08	RUS		PSK		2k7	CIS-12
14025,8	1509	08	08	RUS		CIS-12		2k7	CIS-12
14026,0	1409	08	08	RUS		PSK		2k7	CIS-12 NOR
14046,0	1523	08	08	RUS		FMOP	40	12k	OTHR Contayner
14055,0	1730	28	08	CHN		FMCW	50	10k	OTHR 5,1s bursts
14075,0	0848	12	08					6k	unid
14075,0	0718	13	08					6k	unid
14078,0	1525	18	08					11k	unid
14078,0	0739	30	08					10k	unid
14078,0	1322	30	08					10k	unid
14078,0	1600	30	08					10k	unid
14081,0	1930	20	08						unid
14091,0	1308	12	08	RUS		FMOP	40	12k	OTHR Contayner
14097,0	1539	08	08				82	10k	OTHR 1,67s bursts
14112,0	1125	12	08	RUS		FMOP	40	12k	OTHR Contayner
14122,0	0757	06	08	RUS		FMOP	40	12k	OTHR Contayner
14124,0	0944	12	08	RUS		FMOP	40	12k	OTHR Contayner
14124,0	1332	12	08	RUS		FMOP	40	12k	OTHR Contayner
14141,0	1950	09	08	RUS		FMOP	40	12k	OTHR Contayner
14146,0	1854	07	08	RUS		FMOP	40	12k	OTHR Contayner
14148,0	1135	03	08	RUS		FMOP	40	12k	OTHR Contayner

**DARC; Daniel, DL3RTL.** Credit to monitors: **DL8LAQ, Norbert; DL2SCH, Jürgen; DO1LR, Christian; F4FPR, Benjamin; DO1TEI, Frank; DL4YCD, Jürgen; DL4MCA, Rainer; DB1TH, Tobias; DB3TA, Alex**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
14163,0	1335	12	08	RUS		FMOP	40	12k	OTHR Contayner
14164,0	1030	02	08	RUS		FMOP	40	12k	OTHR Contayner
14177,0	1515	02	08	RUS		FMOP	40	12k	OTHR Contayner
14179,0	1740	09	08	RUS		FMOP	40	12k	OTHR Contayner
14185,0	1259	02	08	RUS		FMOP	40	12k	OTHR Contayner
14191,0	1218	20	08	RUS		FMOP	40	12k	OTHR Contayner
14192,0	1512	08	08				800		unid
14201,0	1230	08	08	RUS		FMOP	40	12k	OTHR Contayner
14207,0	1515	20	08	RUS		PSK		2k7	CIS-12
14212,0	1055	20	08	RUS		FMOP	40	12k	OTHR Contayner
14240,0	0720	13	08	RUS		F1B	50	250	CIS-50-50
14259,0	1301	02	08	RUS		FMOP	40	12k	OTHR Contayner
14260,0	1548	31	08	CHN		FMOP	47,62	10k	OTHR 2,63s bursts
14263,0	1649	23	08	RUS		FMOP	40	12k	OTHR Contayner
14297,0	1014	02	08						unknown ARQ
14300,0	1619	18	08	CHN		FMCW	66,67	10k	OTHR 3,8s bursts
14301,9	1825	23	08			PSK		2k8	CIS-60
14302,0	1537	08	08	CHN		FMCW	66,67	10k	OTHR 3,8s bursts
14305,0	1129	11	08	RUS		FMOP	40	12k	OTHR Contayner
14390,0	0601	23	08	G		FMCW	50	50k	OTHR Pluto Cyprus
18070,0	1357	22	08	G		FMCW	50	20k	OTHR Pluto Cyprus
18100,0	1531	29	08				8k		unid
18101,0	1428	19	08				2k7		unid
18101,0	1930	20	08						unid
18101,0	1432	24	08				5k		unid
18101,0	1712	29	08				2k7		unid
18101,0	0739	30	08				6k		unid
18101,0	1550	30	08				2k		unid
18101,0	1553	30	08				6k		unid
18106,0	1544	31	08				2k		unid
18117,0	1945	31	08	RUS		FMOP	40	12k	OTHR Contayner
18147,0	1712	29	08	RUS		FMOP	40	12k	OTHR Contayner
18158,0	1744	25	08	RUS		FMOP	40	12k	OTHR Contayner
21000,0	vt	vd	08		J3E-U		3k		spanish speaking fisher in intercom
21127,0	1542	21	08	RUS		FMOP	40	12k	OTHR Contayner
21130,0	1625	21	08	RUS		FMOP	40	12k	OTHR Contayner
21133,0	1709	23	08	CHN		FMCW	41,67	10k	OTHR 6,1s bursts
21150,0	1605	28	08	G		FMCW	25	20k	OTHR Pluto Cyprus
21152,0	0719	21	08	RUS		FMOP	40	12k	OTHR Contayner
21160,0	1518	18	08	RUS		FMOP	40	12k	OTHR Contayner
21170,0	1440	21	08	RUS		FMOP	40	12k	OTHR Contayner
21174,0	1617	09	08	RUS		FMOP	40	12k	OTHR Contayner
21174,0	1648	23	08	RUS		FMOP	40	12k	OTHR Contayner
21175,0	1010	31	08	CHN		FMCW	41,67	10k	OTHR 6,1s bursts
21190,0	1137	13	08	G		FMCW	25	20k	OTHR Pluto Cyprus
21210,0	1535	18	08	G		FMCW	25	20k	OTHR Pluto Cyprus

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kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
21282,0	1430	24	08	CHN		FMCW	50	10k	OTHR 5,1s bursts
21356,0	1843	18	08	RUS		FMOP	40	12k	OTHR Contayner
21378,0	1725	18	08	RUS		FMOP	40	12k	OTHR Contayner
21380,0	1000	13	08	G		FMCW	50	20k	OTHR Pluto Cyprus
21385,0	0654	23	08	RUS		FMOP	40	12k	OTHR Contayner
21387,0	1746	24	08	RUS		FMOP	40	12k	OTHR Contayner
21390,0	1424	24	08	G		FMCW	50	20k	OTHR Pluto Cyprus
21414,0	0656	23	08	RUS		FMOP	40	12k	OTHR Contayner
21415,0	1443	21	08	RUS		FMOP	40	12k	OTHR Contayner
21415,0	1746	24	08	RUS		FMOP	40	12k	OTHR Contayner
21440,0	0552	12	08	G		FMCW	25	20k	OTHR Pluto Cyprus
21440,0	0600	12	08	G		FMCW	25	20k	OTHR Pluto Cyprus
28075,0	0700	29	08					500	unid
28370,0	0739	30	08	G		FMCW	25	20k	OTHR Pluto Cyprus
28400,0	0942	30	08	G		FMCW	25	20k	OTHR Pluto Cyprus
28430,0	1147	20	08	G		FMCW	25	20k	OTHR Pluto Cyprus
28540,0	0750	24	08	IRN			307/870	45k	Iranian OTHR 5,84/3,26s bursts
28860,0	0831	06	08	IRN			150/313	45k	Iranian OTHR 9,98/7,19s bursts
28860,0	0835	13	08	IRN			150/313	45k	Iranian OTHR 9,98/7,19s bursts
28860,0	0816	20	08	IRN			150/313	45k	Iranian OTHR 9,98/7,19s bursts
28860,0	1314	26	08	IRN			150/313	45k	Iranian OTHR 9,98/7,19s bursts
29450,0	0831	06	08	IRN			150/313	45k	Iranian OTHR 9,98/7,19s bursts
29550,0	1442	21	08	IRN			150/313	45k	Iranian OTHR 9,98/7,19s bursts

### IRTS; Michael, EI3GYB

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
6977	2110	31	8			RADAR			Radar from 6977 to 7060 kHz. Huge and persistent.
7000	210	1	8			PSK			Strong and persistent signal.
7032	855	30	8			USB			Non stop repeat playing of the same Russian song. Medium signal. Ends 1035z. Starts again at 1238 and ends at 1338z.
7050	1950	25	8	RUS/UKR		LSB			Russian-Ukrainian radio war. Strong and persistent.
7052	620	17	8	E or MM		USB			Group of Spanish fishermen. Loud. Endless chat.
7055	1945	25	8	RUS/UKR		LSB			Russian-Ukrainian radio war. Strong and persistent.
7060	1955	25	8			PSK			Huge, non stop signal
7080	2110	31	8			RADAR			Radar from 7080 to 7110 kHz. Big signal and no end to it.
7103.5	1955	25	8			PSK			Link-11 Clew. Strong and persistent. Still on 26 <sup>th</sup> at 1930z.
7161.5	1240	16	8			PSK			Link- 11 Clew. Strong and persistent.
7179.5	625	17	8			PSK			Link- 11 Clew. Strong signal.
14000	1430	3	8	CHN		AM			Chinese Radio International. Mixing product of transmissions on other frequencies. Weak- heard several times during the month.

**IRTS; Michael, EI3GYB**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
14020	850	30	8			RADAR			Radar from 14020 to 14058 kHz. Weak but persistent.
14150	1315	25	8			RADAR			Radar from 14150 to 14354 kHz. Weak in the background across a large section of the band. Still audible on the 26 <sup>th</sup> at 1630z.
14174	1245	20	8			RADAR			Radar from 14174 to 14195 kHz. Strong and persistent.
14180	630	17	8			RADAR			Radar from 14180 to 14200 kHz. Very strong and persistent.
14191	1520	1	8			F1B			Daily all hours of daylight with a medium to strong signal.
14198	1235	1	8			FSK			Very strong and persistent. On and off for hours. Probably a North Korean embassy.
14206	1245	20	8			PSK			Monster signal, on for hours.
14235	1320	15	8			RADAR			Radar from 14235 to 14268 kHz. Huge and persistent signals.
14265	1530	11	8			RADAR			Radar from 14265 to 14335 kHz. Very strong and persistent.
14266	1400	2	8			RADAR			Radar from 14266 to 14283 kHz. Huge and persistent signal.
14280	1130	7	8			RADAR			Chinese Foghorn from 14280 to 14290 kHz. Weak to medium signals. Heard from 1130 to fade out at around 1400z.
14324	1405	2	8			FSK			Medium signal. On and off.
18080	625	17	8	TWN		AM			Voice of Hope, Taipeh. Medium signal. Nearly daily.
21000	1315	4	8	E or MM		USB			Spanish fishermen, medium signals.
21148	1400	18	8	G		RADAR			Radar from 21148 to 21168 kHz. Strong and persistent. UK SBA, Cyprus
21149	1235	31	8	G		RADAR			Radar from 21149 to 21169 kHz. Huge and persistent signals. UK SBA, Cyprus
21271	945	27	8	G		RADAR			Radar from 21271 to 21295 kHz. Huge and persistent. UK SBA, Cyprus
21343	1245	16	8	G		RADAR			Radar from 21343 to 21389 kHz. Huge and persistent signals. UK SBA, Cyprus
21397	1315	26	8	G		RADAR			Radar from 21397 to 21416 kHz. Strong and persistent. UK SBA, Cyprus
21419	845	30	8	G		RADAR			Radar from 21419 to 21431 kHz. Medium but persistent signals. UK SBA, Cyprus
21438	1310	26	8	UKR		CW			Russian naval base in Crimea. Daily with a medium to strong signal.
24980	1115	6	8	B		LSB			Brazilian Cbers. Medium signals.
28335	1300	26	8	G		RADAR			Radar from 28335 to 28360 kHz. Medium but persistent signal. Still audible at 1630z. UK SBA, Cyprus
28430	1345	18	8	IRN		RADAR			Radar from 28430 to 28480 kHz. Strong and persistent.
28443	900	12	8			RADAR			Radar from 28443 to 28461 kHz. Weak but persistent.
28830	1255	26	8	IRN		RADAR			Radar from 28830 to 28890 kHz. Strong.

<b>PZK; SP3AMO, SP5GNI</b>										
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS	
7000.0	1750	3	08			PSK	120	2K50E		
7060.0	vt	vd	08			CIS-12		2K7	S9+	
7088.0	1753	3	08			F1B		200H		
7102.0	0636	28	08			F1B		200H		
7116.0	1605	10	08			RADAR		10KOE	short 3 sec. bursts	
7122.0	0830	21	08			RADAR		10KOE	5 sec. burst	
14008.0	0917	26	08			F1B		250H		
14078.0	0820	22	08			UI		10KOE	S9, overdrive?	
14082.0	1543	14	08			RADAR		12KOE	S9+	
14146.0	2109	06	08			RADAR		12K06	S9	
14175.0	0935	26	08			RADAR		10KOE	S9+	
14183.0	1120	17	08			RADAR		10KOE	short 3 sec. bursts	
14207.0	1330	20	08			CIS-12		2K7	S9	
14220.0	1100	25	08			RADAR		200KOE	Storng and wide	
14222.0	0821	22	08			Radar	40	12KOE		
14223.0	0825	21	08			RADAR		20KOE	strong	
14224.0	0825	22	08			RADAR		20KOE	S9+, 8:28 finished	
14245.0	2125	13	08			RADAR		12KOE	S8	
14250.0	1313	15	08			RADAR		20KOE	S9++	
14260.0	1635	25	08			RADAR		10KOE	short 3 sec. bursts	
14292.0	0820	09	08			RADAR		10KOE	5 sec. burst	
14307.0	2210	12	08			RADAR		10KOE	short 3 sec. bursts	
14311.0	0740	19	08			RADAR		8KOE	5 sec. Burst	
18101.0	0824	22	08			UI		1K50E		
21000.0	0725	25	08			USB		2K7	Conversation in Spanish (?)	
21010.0	0758	24	08			RADAR		10KOE	3 sec. bursts also at 21047.0	
21136.0	1040	18	08			RADAR		10KOE	S5	
21141.0	1010	12	08			UI		600	59, 3 spectral lines	
21148.0	0720	25	08			RADAR		10KOE	3 sec. Bursts	
21172.0	1122	17	08			RADAR		12KOE	S8	
21190.0	1143	13	08			RADAR		20KOE	S7	
21244.0	0750	27	08			RADAR		10KOE	3 sec. Bursts	
21248.0	0810	24	08	G		RADAR		20KOE	storng signal	
21257.0	0820	21	08			RADAR		10KOE	short 3 sec. bursts	
21285.0	1230	27	08	G		RADAR		20KOE	storng signal 14:45 still on	
21305.0	0802	24	08			RADAR		10KOE	3 sec. bursts also at 21397.0	
21306.0	0815	09	08			RADAR		10KOE	short 3 sec. bursts	
21310.0	0910	26	08			RADAR	25	20KOE	S9	
21328.0	0830	22	08			RADAR		10KOE	S5	
21382.0	0910	26	08			RADAR		10KOE	3 sec. bursts also at 21407.0	
21400.0	1610	14	08			RADAR		20KOE	S8	
28040.0	0750	24	08			RADAR		40KOE	1 sec. bursts	
28250.0	1440	27	08			FM		6KOE	in Russian (taxi?)	
28430.0	1015	12	08			RADAR		20KOE	S5 continous	
28540.0	0755	24	08	IRN		RADAR		200KOE		
28860.0	vt	vd	08	IRN		RADAR	150/300	46KOE	S9	

**PZK; SP3AMO, SP5GNI**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
29330.0	0715	25	08			RADAR		20KOE	S5
29331.0	1013	12	08			RADAR		20KOE	S5 short bursts

**RSGB; Richard, G4DYA**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3756.0	1948	14	08			J3E		2K20E	USB 'The Pip'. Daily.
7018.9	1942	14	08			N0N			Plain carrier. Probably idling F1B. Also heard 180521z, 202141z
7060.0	1805	22	08			J7D		2K70E	USB 7058.0 / CIS-12. Also heard 231851z, 260531z
7102.0	0528	26	08			F1B		200	FSK. Also heard 290706z
7135.0	2142	20	08			F1B		200	FSK
7159.0	0528	18	08			J7D		2K40E	USB 7159.0 / Link 11 CLEW
7179.0	0532	18	08			F1B		200	FSK
14008.0	0516	18	08			F1B		250	FSK
14183.0	2137	20	08	RUS		P0N	40	14KOE	Container pulse radar
14192.0	1252	01	08			F1B		200	FSK
14207.0	2131	20	08			J7D		2K70E	USB 14205.0 / CIS-12
14251.0	2148	20	08	CHN		F3N	47.6	10KOE	FMCW radar bursts
14289.0	0835	18	08	RUS		P0N	40	14KOE	Container pulse radar
14298.35	1249	01	08			F1D		1K20E	DPRK FSK 600 Hz shift. Also heard 260700z, 290711z
14301.9	1847	23	08			J7D		2K80E	USB 14300.0 / CIS-60
14306.0	1442	26	08	CHN		F3N	66.7	10KOE	FMCW radar bursts
18065.0	1026	01	08	G		F3N	50	20KOE	FMCW radar, UK SBA, Cyprus
18066.0	0806	01	08	CHN		F3N	50	10KOE	FMCW radar bursts
18108.0	0729	06	08	CHN		F3N	50	10KOE	FMCW radar
18116.0	0732	26	08	CHN		F3N	50	10KOE	FMCW radar bursts
18145.0	1845	23	08	CHN		F3N	41.7	10KOE	FMCW radar bursts
18161.0	0623	26	08	CHN		F3N	66.7	10KOE	FMCW radar bursts
21023.4	0811	18	08					1K20E	Unidentified
21039.0	0802	14	08	CHN		F3N	66.7	10KOE	FMCW radar bursts
21105.0	0827	18	08	CHN		F3N	50	10KOE	FMCW radar bursts
21169.0	1011	21	08	CHN		F3N	47.6	10KOE	FMCW radar bursts
21170.0	0803	18	08	G		F3N	50	20KOE	FMCW radar, UK SBA, Cyprus
21272.0	1013	21	08	CHN		F3N	66.7	10KOE	FMCW radar bursts
21274.0	0829	18	08	CHN		F3N	47.6	10KOE	FMCW radar bursts
21276.0	0810	23	08	CHN		F3N	66.7	10KOE	FMCW radar bursts
21309.0	0804	14	08	CHN		F3N	50	10KOE	FMCW radar bursts
21310.0	0730	26	08	G		F3N	25	20KOE	FMCW radar, UK SBA, Cyprus
21318.0	0805	18	08	RUS		P0N	40	14KOE	Container pulse radar
21318.0	0712	26	08	CHN		F3N	83.3	10KOE	FMCW radar bursts
21328.0	1015	21	08	CHN		F3N	66.7	10KOE	FMCW radar bursts
21377.0	0656	26	08	CHN		F3N	50	10KOE	FMCW radar bursts
21379.0	0832	18	08	CHN		F3N	50	10KOE	FMCW radar bursts
21385.0	0555	23	08	RUS		P0N	40	14KOE	Container pulse radar
21390.0	0718	01	08	G		F3N	50	20KOE	FMCW radar, UK SBA, Cyprus

**RSGB; Richard, G4DYA**

<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>
21390.0	0618	18	08	CHN		F3N	66.7	10KOE	FMCW radar bursts
21398.0	0806	14	08	CHN		F3N	41.7	10KOE	FMCW radar bursts
21398.0	0808	18	08	RUS		PON	40	14KOE	Container pulse radar
21410.0	0950	01	08	G		F3N	50	20KOE	FMCW radar, UK SBA, Cyprus
21414.0	0557	23	08	RUS		PON	40	14KOE	Container pulse radar
21450.0	0809	14	08	CHN		F3N	66.7	10KOE	FMCW radar bursts
28540.0	1840	23	08	IRN		PON		45KOE	Pulse radar 307.1 / 869.5 pps

**SRAL; Pekka, OH2BLU**

<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>
7 MHz	0500-0520	01	8	RUS		RADAR	40 sps	13k0E	(WebSDR 14d)
7000.0	0000-2400	01 - 06	8	RUS		J7D	120	2k60E	
7000.0	1530-1830	23 - 30	8			A3E			BC, weak modulation
7008.0	0530-1800	*	8	RUS		F1B		250H	*) Days: 1. 6. 11. 13. 14. 21.
7008.0	1030-1440/26	23 - 26	8	RUS		J7D	120	2k60E	+ / - 10 kHz high shoulders
7008.5	0645-1000	24 - 25	8	RUS		J7D	120	2k60E	
7010.0	0845-1820	13 - 17	8	RUS		J7D	120	2k60E	
7019.0	0500-1830	03 - 22	8	RUS		F1B/A		200H	5BL
7020.0	0510-1745	*	8	RUS		F1B/ NON		250H	*) Days: 4. 6. 13. 14.
7025.0	0510-1630	20 - 23	8	RUS		F1B		200H	
7032.0	0455-1720	01 - 31	8	RUS		J3E-u		3k50	Non-stop Russian anthem / mx, spur to 7000.0 & 7064.5 & 7101.7
7032.0	0000-2400	01 - 31	8	RUS		J3E-u		2k50	Brum, when not music
7060.0	0445-1900	*	8	RUS		J7D	120	2k60E	*) Days: 2. - 9. 16. - 19. 22. - 31.
7072.0	0755-1405	*	8	RUS		J7D	120	2k60E	*) Days: 9. 10. 12. 18.
7088.0	0515-1815	03 - 05	8	RUS		F1B		200H	
7090.5	0640-1000	06 - 23	8	RUS		J7D	120	2k60E	N0 on 7088.5 kHz
7102.0	0500-2000	24 - 30	8	RUS		F1B		200H	(0000 - 2400)
7110.0	1600-1805/31	01 - 31	8	ETH	R. Ethiopia	A3E		9k0	
7111.0	0500-1330	*	8	RUS		F1B		250H	*) Days: 1. 3. 6. 7. 8. 10.
7118.0	1245-1645	22 - 25	8	RUS		J7D	120	2k60E	N0 on 7116.0 kHz
7122.0	0800-0840	26	8	RUS	RDL	F1B/A		250H	
7135.0	0500-	19 -	8	RUS	RDL	F1B/A		200H	MR 5F

**SRAL; Pekka, OH2BLU**

<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>
	1830	22							
7159.0	0500-1500	16 - 18	8	IW		G7D		2k40E	LINK11 usb
7164.0	0745-1100	13	8	RUS		J7D		2k60E	
7179.0	0545-1700	*	8	RUS		F1B		200H	*) Days: 9. 10. 17.
7186.0	1100-1200	22	8	RUS		J7D	120	2k60E	N0 on 7184.0 kHz
7192.0	0830-1800	01 12	8	RUS		J7D	120	2k60E	
7200.0	1200-1500/	01 - 31	8	TWN	NUR	A3E		9k0	National unity radio to KRE. Frequency offset – 7 Hz
10 MHz	(2300-0400)		8	G		RADAR	50sps	20k0	(WebSDR 9d)
10 MHz			8	RUS		RADAR	40sps	13k0E	(WebSDR 8d)
10124A	1500-1600	01 - 31	8	TWN	KTWR	xxx		5k0E	// 9900 kHz, spurious
10134A	1200-1230	*	8	TWN	KTWR	xxx		5k0E	*) Days: 11. 13. 14. 19. 21. // 9910 kHz, spurious, also DRM
14 MHz	0000-2300	01 - 30	8	RUS		RADAR	40sps	13k0E	(WebSDR 27d)
14 MHz	0815-1815	*	8	CHN		RADAR	50/67sp s	10k0E	*) Days: 1. - 4. 7. 8. 9. 11. - 15. 17. - 21. 23. 24. 27. 31. 'foghorn'
14000.0	1357-1500/	01 - 31	8	CHN	RCI	A3E		9k0	TX intermod. // 13710 & 13855 kHz
14002.0	1255-1810	11 - 16	8	GUM ?		F1B		850H	
14026.0	0925-1200	*	8	RUS		J7D	120	2k60E	*) Days: 17. 23. 24.
14096.0	0740-0810	09 22	8	RUS	H11C	A1A	15 wpm	40H	MR 5BL
14192.0	0530-1800	*	8	RUS		F1B		200H	*) Days: 1. 3. 5. - 13.
14240.0	0750-0825	10 22	8	RUS		F1B		250H	
18 MHz	0500-1600	*	8	G		RADAR	50 sps	20k0	*) Days: 9. 16. 18. 22. 24. 28. 29. (WebSDR 6d)
18 MHz	0600-1415	*	8	RUS		RADAR	40 sps	13k0E	*) Days: 3. 5. 9. 10. 14. 15. 16. 29. 30. (WebSDR 11d)
21 MHz	0430-1815	*	8	G		RADAR	25/50sps	20k0	*) Days: 1. 3. 5. 8. 9. 10. 12. 14. - 18. 21. - 30. (WebSDR 20d)
21 MHz	0615-1245	*	8	RUS		RADAR	40 sps	13k0E	*) Days: 9. 18. 21. 22. 24. 26. 30. (WebSDR 13d)
21 MHz	0500-1730	*	8	CHN		RADAR	50/67sp s	10k0E	*) Days: 1. - 4. 7. 8. 9. 11. - 15. 17. - 21. 23. 24. 27. 31. 'foghorn'
21095A	1325-1400/	*	8			XXX		6k5E	*) Days: 1. 8. 13. 15. 21. 25. 27. 29. 30. 31.
21151.5	1650-1800	10	8			XXX		6k5E	.
21438.0	/0830-1215	*	8	RUS	RCV	A1A	24 wpm	40H	*) Days: 1. - 7. 9. 11. 12. 13. 17. - 21. 23. 24. 25. 27. 29. 30. 31.
24 MHz			8	G		RADAR	25/50sp s	20k0	(WebSDR 0d)
28 MHz	0500-	*	8	G		RADAR	25/50sp	20k0	*) Days: 18. 20. 22. 24. 28. 29. (WebSDR

**SRAL; Pekka, OH2BLU**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
	1230						S		11d)
28 MHz	0500-1700	*	8	IRN		RADAR	150/313	60kOE	*) Days: 1. 6. 7. 9. 14. 18. 24. (WebSDR 5d)
28 MHz	0500-1730	*	8	IRN		RADAR	310/870	120kOE	*) Days: 7. 18. 20. 23. 24. (WebSDR 2d)
28860.0	0500-1815	*	8	IRN		RADAR	150/313	60kOE	*) Days: 1. - 4. 19. 20. 22. 27. -30. (WebSDR 7d)
28960.0	0445-1800	*	8	IRN		RADAR	150/313	60kOE	*) Days: 1. 3. 4. 6. 7. 9. 10. 11. 13. 14. 15. 17. 18. 20. - 31. (WebSDR 22d)
28 MHz	0800-1300	*	8	RUS	Taxi disp.	F3E		3kOE	*) Days: 5. 6. 24. 26. 14 reports

**URE; Gaspar, EA6AMM**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7000.0	20:03 vt*	02 vd*	08	RUS		J7D	120	2K70E	CIS-12. Long-lasting *Also on 04 and 05/08, vt
7008.0*	21:17	31	08	RUS		RADAR	40	12K0E	OTHR Contayner. *Also on 7086 kHz CF and 7092 kHz CF. 3 simultaneous TX on 40 m
7005.0	19:54	14	08			NON			Carrier
7008.0	18:12	03	08			XXX		CA700H	XXX
7008.0	19:34	06	08			F1B	50	250H	
7018.9	19:49 vt*	19 vd*	08			NON			Carrier of 7020 kHz CF F1B system. Long-lasting. *Also on 20 and 21/08, vt
7020.0	19:25	06	08			F1B	50	250H	
7023.2	19:46	19	08			XXX		2K40E	XXX. Digital short TXs. STANAG-4285?
7055.0	19:58 vt*	08 vd*	08			J3E-L		2K80E	UKR/RUS "radiowar" *Often
7060.0	19:26 vt*	05 vd*	08	RUS		J7D	120	2K70E	CIS-12. Long-lasting *Often
7086.0	21:17	31	08	RUS		RADAR	40	12K0E	OTHR Contayner
7088.0 USB	18:34 vt*	17 vd*	08			G1D	2400	2K40E	LINK 11 SLEW. Long-lasting *Also on 18 and 19/08, vt
7092.0	21:17	31	08	RUS		RADAR	40	12K0E	OTHR Contayner
7102.0	18:03 vt*	24 vd*	08	RUS		F1B	75	200H	Long-lasting *Also on 25, 26, 27 & 28/08, vt
7113.9	20:56	21	08			NON			Carrier; from the 7114 kHz CF F1B system
7114.0	21:04	21	08			F1B	50	200H	
7125.0	19:33	10	08			J7D	120	2K70E	CIS-12
7135.0	22:19 vt*	20 vd*	08	RUS		F1B	50	200H	*Also on 21 and 22/08, vt
7155.0 LSB	20:12	11	08			G7D	60	2K40E	CHN 30; aka PRC 30
7159.0 USB	20:07 vt*	11 vd*	08			G7D	75	2K40E	LINK 11 CLEW SSB *Also on 17 and 18/08, vt
7159.0	20:08	16	08			G1D	2400	2K40E	LINK 11 SLEW
7159.0	06:18	17	08			F1B		200H	
7179.0	18:28	17	08			F1B	75	200H	
10127.0	22:27	20	08	RUS		RADAR	40	12K0E	OTHR Contayner
10144.0	19:58	02	08			A1A			Unid st. Groups of figures and letters
14000.0	21:28	08	08			J3E-U			Non-amateur coms. Unid sts. Male (Slavic

**URE; Gaspar, EA6AMM**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
									language) and female (Spanish language with foreign accent) voices. Music
14001.0	14:30	19	08			XXX		CA2K50E	XXX: unid bursts. BW ca 2K50E
14001.5	18:19 vt*	13 vd*	08			G1D	2400	2K40E	ISR navy hybrid modem. *Also on 20, 21 and 22/08, vt
14001.8	20:16 vt*	09 vd*	08			G1D	2400	2K40E	STANAG-4285 short TXs *Often
14002.0	18:31 vt*	11 vd*	08	GUM		F1B	75	850H	TDoA: Area of Guam. Long-lasting *Also on 14, 15 & 16/08, vt
14008.0	06:00 vt*	03 vd*	08	RUS		F1B	50	250H	*Often
14016.0	15:27	27	08	CHN		RADAR	50	10K0E	OTHR short bursts
14021.0	12:02	08	08	RUS		RADAR	40	12K0E	OTHR Contayner
14023.0	07:18	21	08			XXX		CA2K40E	XXX. Unid bursts. BW ca 2K40E
14026.0	13:44 vt*	08 vd*	08			J7D	120	2K70E	CIS-12 *Also on 10 and 17/08, vt
14046.0	15:31	08	08	RUS		RADAR	40	12K0E	OTHR Contayner
14047.6 USB	18:53	13	08			W7D	2400	2K40E	CHN OFDM 39. BW = 2K40E. 39 tones. 44.44 Bd each; with pilot tone on 400 Hz
14051.0	06:18	08	08	RUS		RADAR	40	12K0E	OTHR Contayner
14055.0	18:01	28	08	CHN		RADAR	50	10K0E	OTHR short bursts
14075.0	12:35	12	08			XXX		CA7K0E	Unid bursts. BW ca 7K0E
14075.0*	06:20	14	08			XXX		CA1K0E	XXX: unid bursts. Jammer *Also on 14082 kHz CF
14075.0	14:32 vt*	15 vd*	08			XXX		CA10K0E	XXX. Intermittent unid bursts. Jammer *Also on 25/08, 0647 UTC (BW ca 8K0E)
14078.0	06:38 vt*	17 vd*	08			XXX		CA10K0E	XXX. Intermittent unid bursts. Jammer. *Also on 18/08 1349 UTC & 30/08, 1346 UTC
14079.0*	12:24	11	08			XXX		10K0E	14079 kHz CF (10K0E) and 14192* kHz CF (5K0E): simultaneous intermittent jamming of TX in these QRGs: FT-8 segment and 14192 kHz CF F1B (RUS. SH 200 Hz; 50 Bd)
14079.0	17:04	20	08			XXX		14K0E	XXX. Unid bursts. Jammer
14081.0	19:29	20	08			XXX		CA7K0E	XXX. Unid bursts. BW ca 7K0E. Jammer
14082.0*	06:22	14	08			XXX		CA1K0E	XXX: unid bursts. Jammer *Also on 14075 kHz CF
14085.0	08:01	08	08	RUS		RADAR	40	12K0E	OTHR Contayner
14089.0	10:42	07	08	RUS		RADAR	40	12K0E	OTHR Contayner
14090.0	12:51	02	08			XXX		CA11K0E	Unid digital bursts. Jammer. Also observed on 2023-07-29
14090.9	09:44	03	08			W7D		2K80E	OFDM. CIS-60
14091.0	12:16	12	08	RUS		RADAR	40	12K0E	OTHR Contayner
14091.0	07:23	21	08			XXX		BWCA7K0	XXX. Unid bursts. Jammer
14093.0*	13:59	07	08	RUS		RADAR	40	12K0E	OTHR Contayner. *Also on 14216 kHz CF. 2 simultaneous TX on 20m
14097.0	15:39	08	08			XXX		CA10K0E	XXX. Unid bursts. Jammer
14098.5	12:05 vt*	04 vd*	08			F1D	600	600H	DPRK-FSK 600 ARQ *Very often
14098.5	12:32	31	08			G1D		1K20E	DPRK-PSK 1200 ARQ
14100.0	20:01	11	08	CHN		RADAR	50	10K0E	OTHR short bursts

**URE; Gaspar, EA6AMM**

<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>
14101.0	15:30	16	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14108.0	10:04 vt*	03 vd*	08		6OLH VQSK 8UAX 7WBU 6PFH XFLA NS6P LCVJ OQZV OVP2 ZSAL...	A1A			RUS MIL CW traffic. Encrypted QTC. 5 characters groups. Cyrillic CW alphabet used. Split traffic with other (out of band) sts. "RK". *Almost daily
14109.0	18:05	03	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14110.0	15:14	27	08	CHN		RADAR	50	10KOE	OTHR short bursts
14111.0*	18:20	05	08	RUS		RADAR	40	12KOE	OTHR Contayner. *Also on 14140 kHz CF and 14182 kHz CF. 3 simultaneous TX on 20m
14111.0	11:23	12	08	RUS		RADAR	40	12KOE	OTHR Contayner
14112.0*	19:32	05	08	RUS		RADAR	40	12KOE	OTHR Contayner. *Also on 14160 kHz CF and 14182 kHz CF. 3 simultaneous TX on 20m
14113.0	20:21	11	08	CHN		RADAR	50	10KOE	OTHR short bursts
14113.0	13:19	20	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14113.3	06:50 vt*	22 vd*	08			F1B	600	600H	DPRK-FSK 600 ARQ *also on 24/08, 0657
14115.0	19:05 vt*	01 vd*	08			XXX		10KOE	XXX: continuous unid sweeps (1 sweep = 4 sec). Long-lasting. *Almost daily
14115.0	22:30	11	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14116.0	05:39	05	08			F1B	75	200H	
14116.0	15:56	26	08	CHN		RADAR	50	10KOE	OTHR short bursts
14117.0	21:57	24	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14121.0	08:39 vt*	06 vd*	08	RUS		RADAR	40	12KOE	OTHR Contayner *also on 07/08, 0912UTC
14122.0	08:11 vt*	06 vd*	08	RUS		RADAR	50	12KOE	OTHR Contayner *Also on 11/08, 1128 UTC
14123.0	12:17	13	08			J3E-U		2K80E	USB. BC relaying. Speech. Slavic language. Male voice. Music
14123.0	08:37	19	08	CHN		RADAR	50	10KOE	OTHR short bursts
14124.0	09:41	12	08	RUS		RADAR	40	12KOE	OTHR Contayner
14127.0	16:02 vt*	06 vd*	08			J3E-U		2K80E	USB. Music and speech. Male voice. Slavic language. Religious content. Often on this QRG. *Also on 13/08, 1422 UTC
14127.0	11:42	07	08	RUS		RADAR	40	12KOE	OTHR Contayner
14132.0	19:55	19	08	RUS		RADAR	40	12KOE	OTHR Contayner
14135.0	22:31	11	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14137.0	15:40	25	08			J3E-U		2K80E	Music
14140.0	16:40	05	08	RUS		RADAR	40	12KOE	OTHR Contayner
14141.0	20:02	09	08	RUS		RADAR	40	12KOE	OTHR Contayner
14143.0	20:39	21	08	CHN		RADAR	50	10KOE	OTHR short bursts
14148.0	11:14	03	08	RUS		RADAR	40	12KOE	OTHR Contayner
14150.0*	22:51	17	08	RUS		RADAR	40	12KOE	OTHR Contayner. *Also on 14186 kHz CF. 2 simultaneous TX on 20m

**URE; Gaspar, EA6AMM**

<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>
14151.0	17:49	05	08	RUS		RADAR	40	12K0E	OTHR Contayner
14151.4	06:52	22	08			XXX		CA2K50E	14150 kHz USB: XXX. Long-lasting
14152.0	12:01	15	08	RUS		RADAR	40	12K0E	OTHR Contayner
14157.0*	22:50	20	08	RUS		RADAR	40	12K0E	OTHR. Contayner. *Also on 14183 kHz CF. 2 simultaneous TX on 20m
14158.0	20:26	18 vt*	08 vd*	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 30/08, 0703 UTC
14160.0	19:33	05	08	RUS		RADAR	40	12K0E	OTHR Contayner
14160.0	14:12	06	08	CHN		RADAR	66.7	10K0E	OTHR short bursts
14162.0	07:17	03 vt*	08 vd*			J7D	120	2K70E	CIS-12 *Also on 08/08, 0826 UTC
14163.0	15:13	12	08	RUS		RADAR	40	12K0E	OTHR Contayner
14164.0	20:14	05	08	RUS		RADAR	40	12K0E	OTHR Contayner
14166.0	12:37	04	08	RUS		RADAR	40	12K0E	OTHR Contayner
14169.0	09:20	03	08	CHN		RADAR	66.7	10K0E	OTHR short bursts
14171.0	07:14 vt*	03 vd*	08			J7D	120	2K70E	CIS-12 *Also on 10/08, 0715 UTC
14172.0	21:29	24	08	RUS		RADAR	40	12K0E	OTHR Contayner
14175.0	10:54 vt*	14 vd*	08			J3E-U		3K80E	Music *Also on 31/08, 1808 UTC
14177.0	14:51	02	08	RUS		RADAR	40	12K0E	OTHR Contayner
14179.0	20:15	09	08	RUS		RADAR	40	12K0E	OTHR Contayner
14180.0	13:36	09	08	RUS		RADAR	40	12K0E	OTHR Contayner
14182.0	06:06 vt*	03 vd*	08	RUS		RADAR	40	12K0E	OTHR Contayner. *Also on 05/08, 1804 UTC & 11/08, 1904 UTC
14183.0	22:13	20	08	RUS		RADAR	40	12K0E	OTHR Contayner
14184.0	17:35	05	08	RUS		RADAR	40	12K0E	OTHR Contayner
14184.0*	05:54	10	08	RUS		RADAR	40	12K0E	OTHR Contayner. *Also on 14217 kHz CF. 2 simultaneous TX on 20m
14186.0	22:53	17	08	RUS		RADAR	40	12K0E	OTHR Contayner
14188.0	09:21	14	08	RUS		RADAR	40	12K0E	OTHR Contayner
14189.0	09:55 vt*	05 vd*	08	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 13/08, 1328 UTC
14191.0	12:10	20	08	RUS		RADAR	40	12K0E	OTHR Contayner
14191.9*	07:04	17	08	RUS		F1B	50	400H	*Daily since 17/08. Shift = 400 Hz
14192.0*	12:35 vt**	02 vd**	08	RUS		F1B	50	200H	*Daily until 12/08. Started AGN on 17/08 on *14191.92 kHz CF with new shift (= 400 Hz)
14192.0	12:36 vt*	02 vd*	08	RUS		RADAR	40	12K0E	OTHR Contayner *Also on 17/08, 0635 UTC
14192.0	11:19	08	08			XXX		CA6K0E	XXX. Unid bursts. BW ca 6K0E. Possibly jamming the 14192 kHz CF RUS F1B
14194.1	12:06	17	08			XXX		CA2K20E	XXX. Unid digital bursts
14195.0	16:45	17	08	CHN		RADAR	66.7	10K0E	OTHR short bursts
14196.7	16:01	21	08			W7D	2400	2K40E	CHN OFDM 39. 39 tones. 44.44 Bd each; with pilot tone on 400 Hz
14198.5	06:07	03 vt*	08 vd*			G1D		1K20E	DPRK-PSK 1200 ARQ *Also on 19/08, vt
14198.5	12:02	04 vt*	08 vd*			F1D	600	600H	DPRK-FSK 600 ARQ *Often
14201.0	22:54	17	08	CHN		RADAR	66.7	10K0E	OTHR short bursts

**URE; Gaspar, EA6AMM**

<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>
14202.0	16:04	08	08	CHN		RADAR	50	10KOE	OTHR short bursts
14203.5	07:48	22	08			F1B	50	250H	Drifting
14207.0	12:07	20	08			RADAR	120	2K70E	CIS-12
14209.0	08:19	07	08	CHN		RADAR	50	10KOE	CHN OTHR
14212.0	10:54	20	08	RUS		RADAR	40	12KOE	OTHR Contayner
14213.0	09:33	03	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14213.0	13:29	09	08	RUS		RADAR	40	12KOE	OTHR Contayner
14216.0	14:00	07	08	RUS		RADAR	40	12KOE	OTHR Contayner
14217.0	05:55	10	08	RUS		RADAR	40	12KOE	OTHR Contayner
14218.0	15:23	19	08	CHN		RADAR	50	10KOE	OTHR short bursts; alternating 47.6 and 50 sps
14220.0	17:59	06	08	BIH		RADAR	50	10KOE	OTHR short bursts
14223.0	08:15	21	08	RUS		RADAR	40	12KOE	OTHR Contayner
14228.0	14:32	09	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14232.0	10:04	14	08	RUS		RADAR	40	12KOE	OTHR Contayner
14240.0	07:53 vt*	08 vd*	08			F1B	75	200H	*Also on 10/08, 0557 UTC
14240.0	09:07	17	08			J7D		2K70E	CIS-12
14240.0	07:20	22	08			F1B	50	250H	
14243.0	16:21	09	08	CHN		RADAR	50	10KOE	OTHR short bursts
14247.0	16:24	09	08	CHN		RADAR	50	10KOE	OTHR short bursts
14249.0	20:02 vt*	08 vd*	08	CHN		RADAR	50	10KOE	OTHR short bursts *Also on 27/08, 1502 UTC
14251.0	06:05 vt*	10 vd*	08	CHN		RADAR	667	10KOE	OTHR short bursts *Also on 10/08, 0621 UTC
14255.0	13:18	15	08	RUS		RADAR	40	12KOE	OTHR Contayner
14255.0	15:40	27	08	CHN		RADAR	50	10KOE	OTHR short bursts
14256.0	16:45	10	08	CHN		RADAR	41.7	10KOE	OTHR short bursts
14257.0	08:27	15	08	RUS		RADAR	40	12KOE	OTHR Contayner
14276.0*	13:05	02	08	RUS		RADAR	40	12KOE	OTHR Contayner. *Also on 14192 kHz CF. 2 simultaneous TX on 20m
14283.0	07:22	30	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14285.0	14:02	07	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14286.0	14:34	15	08	CHN		RADAR	50	10KOE	OTHR short bursts
14294.0	15:25	27	08	CHN		RADAR	50	10KOE	OTHR short bursts
14297.0	18:08	02	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14297.0	16:13	10	08	CHN		RADAR	50	10KOE	OTHR short bursts
14298.0	16:25	09	08	CHN		RADAR	50	10KOE	OTHR short bursts
14298.0	22:31	11	08	CHN		RADAR	41.7	10KOE	OTHR short bursts
14298.0	16:12 vt*	14 vd*	08	CHN		RADAR	66.7	10KOE	OTHR short bursts *Also on 16/08, 1236 UTC
14298.5	12:36 vt*	02 vd*	08			F1D	600	600H	DPRK-FSK 600 ARQ *Almost daily
14298.5	12:19 vt*	17 vd*	08			G1D		1K20E	DPRK-PSK 1200 ARQ *Also on 19/08, vt
14302.0	13:48	08	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14302.0	17:23 vt*	10 vd*	08	CHN		RADAR	50	10KOE	OTHR short bursts *Also on 21/08, 1626 UTC
14306.0	15:33	16	08	CHN		RADAR	50	10KOE	OTHR short bursts
14307.0	15:16	12	08	CHN		RADAR	66.7	10KOE	OTHR short bursts

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14312.0	19:46	02	08	CHN		RADAR	50	10KOE	OTHR short bursts
14315.0	15:07	19	08	CHN		RADAR	50	10KOE	OTHR short bursts; alternating 47.6 and 50 sps
14315.0 USB	21:33	27	08			J7D		1K75E	MIL-188-141A ALE
14318.0	21:41	27	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14319.0	19:38	18	08	CHN		RADAR	41.7	10KOE	OTHR short bursts alternating 41.7 sps and 48 sps
14326.0	14:53	07	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14328.0	15:36	25	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14333.0	22:00	31	08	CHN		RADAR	50	10KOE	OTHR short bursts
14336.0	18:26	03	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14342.0	16:25	09	08	CHN		RADAR	50	10KOE	OTHR short bursts
14343.0	20:51 vt*	21 vd*	08	CHN		RADAR	50	10KOE	OTHR short bursts *Also on 24/08, 1730 UTC
14344.0	16:00	06	08	CHN		RADAR	50	10KOE	OTHR short bursts
14345.0	13:28 vt*	09 vd*	08	CHN		RADAR	66.7	10KOE	OTHR short bursts *Also on 11 and 18/08, vt
14347.0	19:27	10	08	CHN		RADAR	41.7	10KOE	OTHR short bursts
14347.0	08:40	19	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14349.0	15:38	27	08	CHN		RADAR	50	10KOE	OTHR short bursts
14351.0	15:33	08	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14352.0	14:58	16	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
14370.0	14:34	09	08	RUS		RADAR	40	12KOE	OTHR Contayner. Splatter to 14340 kHz
18060.0	13:54	18	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus
18065.0	10:15	04	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus
18075.0*	17:18	08	08			XXX		CA8KOE	XXX. Unid bursts. *Also on 18100 kHz CF. Jammer. Same bursts as on 14192 kHz CF.
18085.0	10:48	20	08			XXX		CA3KOE	XXX: continuous signal with center carrier
18086.0	17:49	15	08	RUS		RADAR	40	12KOE	OTHR Contayner
18100.0	15:53	08	08			XXX		600H	XXX. Unid continuous signal
18100.0	11:40 vt*	19 vd*	08			XXX		CA8KOE v BW**	XXX. Unid bursts. Jammer *Also on 22 and 30/08, vt. **Various BW
18116.0	06:08	14	08	CHN		RADAR	50	10KOE	OTHR short bursts
18120.0	06:13	10	08	CHN		RADAR	50	10KOE	OTHR short bursts
18142.0	11:03	20	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
18153.0	06:10	10	08	CHN		RADAR	50	10KOE	OTHR short bursts
18158.0	14:17	14	08	RUS		RADAR	40	12KOE	OTHR Contayner
18162.0	13:37	14	08	RUS		RADAR	40	12KOE	OTHR Contayner
18164.0	16:17	08	08	CHN		RADAR	41.7	10KOE	OTHR short bursts
18170.0	06:09	10	08	RUS		RADAR	40	12KOE	OTHR Contayner
18172.0	12:40	03	08	RUS		RADAR	40	12KOE	OTHR Contayner
18173.0	17:50	31	08	RUS		RADAR	40	12KOE	OTHR Contayner
18175.0	15:51	06	08	G		RADAR	25	20KOE	OTHR. UK SBA, Cyprus
18175.0	11:27	13	08	RUS		RADAR	40	12KOE	OTHR Contayner. Splatter to 18165 kHz
18180.0	14:40	25	08	RUS		RADAR	40	12KOE	OTHR Contayner. Spurious to 18130 kHz.
21040.5	08:51	19	08			XXX	125	600H	XXX. Unid continuous signal with center carrier.
21090.0	06:54	30	08	CHN		RADAR	41.7	10KOE	OTHR short bursts

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21095.0	13:20	22	08			XXX		CA8KOE	XXX. BW ca 8KOE. Jammer
21101.0	11:43	10	08	CHN		RADAR	41.7	10KOE	OTHR short bursts
21108.0*	07:19	18	08	RUS		RADAR	40	12KOE	OTHR Contayner. *Also on 21370 kHz CF. 2 simultaneous TX on 15m
21118.0	06:11	17	08	CHN		RADAR	62.5	10KOE	OTHR short bursts
21127.0*	15:44	21	08	RUS		RADAR	40	12KOE	OTHR Contayner. *Also on 21415 kHz CF. 2 simultaneous TX on 15m
21141.0	06:16	03	08	CHN		RADAR	50	10KOE	OTHR short bursts
21141.0	10:52	13	08			XXX		CA2K50E	XXX. Unid continuous digital signal. BW ca 2K50E (+ splatter). Jammer
21151.5	17:12 vt*	10 vd*	08			XXX		CA8KOE	Unid continuous signal. BW ca 8KOE. Jammer. *Also on 11/08, 1858 UTC
21153.0	06:07 vt*	17 vd*	08	CHN		RADAR	66.7	10KOE	OTHR short bursts *Also on 21/08, 0743 UTC
21159.0	13:21	18	08	RUS		RADAR	40	12KOE	OTHR Contayner
21162.0	06:16	10	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
21165.0	09:07	14	08	CHN		RADAR	50	10KOE	OTHR short bursts
21165.0*	07:47	21	08	RUS		RADAR	40	12KOE	OTHR Contayner. *Also on 21410 kHz CF. 2 simultaneous TX on 15m
21170.0	20:11 vt*	09 vd*	08	RUS		RADAR	40	12KOE	OTHR Contayner *Also on 18/08, 1223 UTC
21170.0	07:29	18	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus
21172.0	08:41	09	08	RUS		RADAR	40	12KOE	OTHR Contayner
21172.0	09:09	17	08	RUS		RADAR	40	12KOE	OTHR Contayner
21172.0	06:51	30	08	CHN		RADAR	47.6	10KOE	OTHR short bursts
21173.0	06:46	30	08	RUS		RADAR	40	12KOE	OTHR Contayner
21174.0	16:27	09	08	RUS		RADAR	40	12KOE	OTHR Contayner
21179.0	17:14	13	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
21180.0	07:38	15	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
21187.0	07:41	21	08	CHN		RADAR	50	10KOE	OTHR short bursts
21194.0	06:15	22	08	CHN		RADAR	50	10KOE	OTHR short bursts
21200.0	15:32	26	08	CHN		RADAR	83.3	10KOE	OTHR short bursts (1 burst every 4 sec)
21229.0	06:50	30	08	CHN		RADAR	50	10KOE	OTHR short bursts
21234.0	07:34	15	08	CHN		RADAR	50	10KOE	OTHR
21277.0	08:06	20	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
21280.0	14:42	09	08	RUS		RADAR	40	12KOE	OTHR Contayner
21285.0	14:45	27	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus
21292.0	11:05	13	08	CHN		RADAR	41.7	10KOE	OTHR short bursts
21299.0	17:12	13	08	CHN		RADAR	50	10KOE	OTHR short bursts
21306.0	07:23 vt*	18 vd*	08	CHN		RADAR	66.7	10KOE	OTHR short bursts *Also on 20/08, 0739 UTC
21310.0	05:59 vt*	16 vd*	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus *Also on 17/08, 0801 UTC
21320.0	08:09	10	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus
21324.0	07:36	15	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
21329.0	06:47	30	08	CHN		RADAR	41.7	10KOE	OTHR short bursts
21330.0	13:17	22	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus
21341.0	09:12	14	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
21346.0	06:03	16	08	CHN		RADAR	41.7	10KOE	OTHR short bursts

**URE; Gaspar, EA6AMM**

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21351.0	09:05 vt*	14 vd*	08	CHN		RADAR	66.7	10KOE	OTHR short bursts *Also on 20/08, 0809 UTC
21353.0	06:22	12	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
21356.0	19:32	18	08	RUS		RADAR	40	12KOE	OTHR Contayner
21358.0	07:14	25	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
21361.0	08:12	20	08	CHN		RADAR	50	10KOE	OTHR short bursts
21365.0	07:17 vt*	15 vd*	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus *also on 16/08, 1348 UTC
21370.0	07:20	18	08	RUS		RADAR	40	12KOE	OTHR Contayner
21375.0	18:03 vt*	08 vd*	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus *Also on 15/08, 0829 UTC
21377.0	09:12	17	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
21378.0	17:52	18	08	RUS		RADAR	40	12KOE	OTHR Contayner
21380.0	10:12	13	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus
21386.0	07:50	16	08	CHN		RADAR	50	10KOE	OTHR
21387.0*	17:40	24	08	RUS		RADAR	40	12KOE	OTHR Contayner. *Also on 21415 kHz CF. <i>2 simultaneous TX on 15m</i>
21390.0	06:01	16	08	CHN		RADAR	41.7	10KOE	OTHR short bursts
21390.0	15:41	21	08	CHN		RADAR	50	10KOE	OTHR short bursts
21397.0	11:03	13	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
21400.0	08:45 Vt*	09 vd*	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus *Also on 14/08, 1508 UTC
21408.0*	12:24	18	08	RUS		RADAR	40	12KOE	OTHR Contayner. *Also on 21170 kHz CF. <i>2 simultaneous TX on 15m</i>
21410.0	06:55 vt*	18 vd*	08	RUS		RADAR	40	12KOE	OTHR Contayner *Also on 21/08, 0748 UTC
21414.0	09:27	06	08	RUS		RADAR	40	12KOE	OTHR Contayner
21414.0	15:26	26	08	RUS		RADAR	40	12KOE	OTHR Contayner
21415.0	15:33 vt*	21 vd*	08	RUS		RADAR	40	12KOE	OTHR Contayner *also on 24/08, 1741 UTC
21429.0	14:45	25	08	CHN		RADAR	50	10KOE	OTHR short bursts
21431.0	06:58	18	08	CHN		RADAR	66.7	10KOE	OTHR short bursts
21438.0	09:28 vt*	06 vd*	08	RUS	RCV	A1A			RUS navy QTC. "RCV" *Very often
21440.0	06:18	12	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus
21446.0	07:38	21	08	CHN		RADAR	50	10KOE	OTHR short bursts
28050.0	06:31	03	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus
28160.0	08:06	22	08	G		RADAR	25	20KOE	OTHR. UK SBA, Cyprus
28370.0	06:59	30	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus
28430.0	12:05	20	08	G		RADAR	25	20KOE	OTHR. UK SBA, Cyprus
28500.0	17:55	15	08	IRN		RADAR	870	45KOE	OTHR. 870 sps bursts only. From 1800 UTC on: alternating 307 and 870 sps bursts
28500.0	06:46	16	08	IRN		RADAR	307	45KOE	OTHR. Alternating 307 ans 870 sps bursts
28530.0	07:52	20	08	G		RADAR	25	20KOE	OTHR. UK SBA, Cyprus
28540.0	06:52	24	08	IRN		RADAR	307	45KOE	OTHR. Alternating 150 and 313 sps bursts
28730.0	08:00	20	08	G		RADAR	25	20KOE	OTHR. UK SBA, Cyprus
28760.0	09:49	18	08	G		RADAR	25	20KOE	OTHR. UK SBA, Cyprus
28860.0	06:04 vt*	03 vd*	08	IRN		RADAR	150	45KOE	OTHR. Alternating 150 and 313 sps bursts *Very often.
29000.0	14:50	20	08	IRN		RADAR	307	45KOE	OTHR. Alternating 307 and 870 sps bursts

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29070.0	11:00	20	08	G		RADAR	25	20KOE	OTHR. UK SBA, Cyprus
29300.0	07:57	20	08	IRN		RADAR	307	45KOE	OTHR. Alternating 307 and 870 sps bursts
29330.0	07:20	25	08	G		RADAR	25	20KOE	OTHR. UK SBA, Cyprus
29365.0	15:35	21	08	G		RADAR	50	20KOE	OTHR. UK SBA, Cyprus
29500.0	07:00	18	08	IRN		RADAR	307	45KOE	OTHR. Alternating 307 and 870 sps bursts
29550.0	15:31	27	08	IRN		RADAR	150	45KOE	OTHR. Alternating 150 and 313 sps bursts
29655.0	08:57	22	08	G		RADAR	25	20KOE	OTHR. UK SBA, Cyprus

**USKA; Peter, HB9CET**

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7000.0	1345 0853	01 02	08			J7D	12x 120 Bd	2k70E	CIS12
7008.0	1225	24	08			J7D	12x 120 Bd	2k70E	CIS12; idling
7008.0	2123	31	08			FMOP	40 sps	12k0E	OTHR; Contayner
7010.0	0708	16	08			J7D	12x 120 Bd	2k70E	CIS12
7018.9	0725	18				NON			Long lasting carrier; fading
7023.0 <b>LSB</b>	2039	21	08			PSK-4	30x 60 Bd	2k50E	CHN30 (aka PRC30); burst system; Pilot tone at 450Hz
7025.0	0540	20	08			F1B	36/50 Bd	200H	CIS 36-50
7027.0	2259	07	08			FMOP	40 sps	12k0E	OTHR; Contayner; strong $\geq$ 50dbm
7032.0	0919	24	08			J3E-U		ca 3k50E	RUS-UKR Radiowar: Hate chants
7033.0	2155 2252	03 08	08			X	X	ca 1k5	tones only, spacing 100Hz
7039.0	0930	16	08			F1B	50 Bd	400H	
7055.0 <b>LSB</b>	1208 1826	25 30	08			J3E-L		ca 3k0E	RUS-UKR Radio War; Music almost daily
7060.0	2047 0955	03 31	08			J7D	12x 120 Bd	2k70E	CIS12; very long lasting
7064.0	0851	02	08			J7D	12x 120 Bd	2k70E	CIS12; weak
7085.0	2126	31	08			FMOP	40 sps	12k0E	OTHR; Contayner
7088.0	1146	03	08			F1B	75 Bd	200H	FSK
7089.8 (7088.0 USB)	1907 0535	17 20	08			G1D PSK-8	2400	ca 2k70E	LINK 11 SLEW
7093.0	2255	07	08			FMOP	40 sps	12k0E	OTHR; Contayner
7102.0	0903 0951	24 26	08			F1B	75 Bd	200H	FSK; strong; long lasting
7108.0 <b>LSB</b>	2259	08	08			PSK-4	30x 60 Bd	2k50E	CHN30 (aka PRC30); burst system; Pilot tone at 450Hz; weak, fading
7114.0	2103	21	08			F1B	50 Bd	200H	FSK
7135.0	2041 1444	20 21	08			F1B	50 Bd	200H	FSK often
7135.0	1453	21	08			F1A		200H	CW-FSK
7144.0 <b>LSB</b>	2126	23	08			PSK-4	30x 60 Bd	2k50E	CHN30 (aka PRC30); burst system; Pilot tone at 450Hz
7155.0 <b>LSB</b>	2307 1621	08 27	08			PSK-4	30x 60 Bd	2k50E	CHN30 (aka PRC30); burst system; Pilot tone at 450Hz

**USKA; Peter, HB9CET**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7159.0	2143	16	08			G7D QPSK	75 Bd	ca 2k50E	LINK11 CLEW SSB mode; often 16 tones spacing 110Hz
7159.0	0753	30				G1D PSK-8A	2400	ca 2k70E	MIL 188-x sequence
7171.0 <b>LSB</b>	2035 2154	21 24	08			PSK-4	30x 60 Bd	2k50E	CHN30 (aka PRC30); burst system; Pilot tone at 450Hz daily
7179.0	1405	17	08			F1B	75 Bd	200H	FSK
7200.0	1205	25	08			A3E		ca 9k0E	BC: National Unity Radio daily (Clandestine)
14000.0	1427	08	08		CRI	A3E			China Radio International. intermodulation from 13855 + 13710 kHz daily
14001.0	0941	24	08			J7D	12x 120 Bd	2k70E	CIS12; unclean signal
14008.0	0943	31	08			F1B	50 Bd	250H	FSK; almost daily
14023.0	0832	21	08			X	X	ca 3k0	bursts; unknown, long lasting often
14026.0	1415 0957	08 17	08			J7D	12x 120 Bd	2k70E	CIS12 often
14085.0	0845	08	08			FMOP	40 sps	12K0E	OTHR; Contayner
14098.7	0836	19	08			ARQ PSK	1200	1k20E	DPRK PSK ARQ system (sometimes 600Bd FSK 600Hz) often
14117.0	2202	24	08			FMCW	66.66 sps	10k0E	OTHR, bursts
14121.0	0840	06	08			FMOP	40 sps	12K0E	OTHR; Contayner
14124.0	0947	12	08			FMOP	40 sps	12K0E	OTHR; Contayner
14152.0	1210	24	08			FMOP	40 sps	12K0E	OTHR; Contayner
14162.0	0842	08	08			J7D	12x 120 Bd	2k70E	CIS12; idling
14164.0	0835	02	08			FMOP	40 sps	12K0E	OTHR; Contayner
14172.0	2146	24	08			FMOP	40 sps	12K0E	OTHR; Contayner
14190.0	1437	24	08			FMOP	40 sps	12K0E	OTHR; Contayner
14192.0	1109 0842	01 19	08			F1B	50 Bd	200H	FSK; almost daily
14192.0	2141	13	08			FMOP	40 sps	12K0E	OTHR; Contayner
14207.0	1548	20	08			J7D PSK2-A	12x 120 Bd	2k70E	CIS12;
14240.0	0951	17	08			J7D	12x 120 Bd	2k70E	CIS12
14245.0	2131	13	08			FMOP	40 sps	12K0E	OTHR; Contayner
14265.0	1558	31	08			FMCWP	50 sps	10k0E	OTHR; bursts
14298.5	1419	08	08			ARQ FSK	600 Bd	600H	DPRK FSK ARQ system often
14302.0	1425	08	08			FMCW	66.66 sps	10k0E	OTHR; bursts
14343.0	2056	21	08			FMCW	50 sps	10k0E	OTHR; short bursts
14352.0	1514	16	08			FMCW	66.66 sps	10k0E	OTHR, bursts; partially in 20m band.
18100.0	1442	08	08			X	X	600H	unid signal
18108.0	0733	06	08			FMCW	50 sps	10k0E	OTHR; continuos
18166.0	2135	24	08			FMCW	66.66 sps	10k0E	OTHR, bursts; partially in 17m band
18172.0	1158	03	08			FMOP	40 sps	12K0E	OTHR; Contayner, partially in 17m band

**USKA; Peter, HB9CET**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
18175.0	1409	24	08	G		FMCW	50 sps	20kOE	OTHR; UK base Cyprus partially in 17m band
21095.0	1335	24	08			X	X	ca 6 kHz	unid signal, maybe jammer?
21127.0	1548	21	08			FMOP	40 sps	12kOE	OTHR; Contayner
21139.0	0903	09	08			FMCW	66.66 sps	10kOE	OTHR; bursts
21169.0	1016	21	08			FMCW	48sps	10kOE	OTHR; bursts
21172.0	0943	17	08			FMOP	40 sps	12kOE	OTHR; Contayner
21229.0	0749	30	08			FMCW	50 sps	10kOE	OTHR, short bursts
21270.0	0956	16	08	G		FMCW	25 sps	20kOE	OTHR; UK base Cyprus
21285.0	1117	27	08	G		FMCW	50 sps	20kOE	OTHR; UK base Cyprus
21307.0	0928	24	08			FMCW	66.66 sps	10kOE	OTHR; short bursts
21348.0	0854 0905	19 21	08			FMCW	50 sps	10kOE	OTHR; short bursts
21365.0	1352	16	08	G		FMCW	50 sps	20kOE	OTHR; UK base Cyprus
21368.0	0930	31	08			FMCW	66.66 sps	10kOE	OTHR; short bursts
21377.0	0947	17	08			FMCW	66.66 sps	10kOE	OTHR; short bursts
21390.0	0832 1345	10 24	08	G		FMCW	50 sps	20kOE	OTHR; UK base Cyprus often
21397.0	1104	13	08			FMCW	66.66 sps	10kOE	OTHR; short bursts
21400.0	0900	09	08	G		FMCW	50 sps	20kOE	OTHR; UK base Cyprus
21412.0	1404	21	08			FMCW	50 sps	10kOE	OTHR
21415.0	1538	21	08			FMOP	40 sps	12kOE	OTHR; Contayner
21415.0	0756	30	08			FMCW	48 sps	10kOE	OTHR, short bursts
21418.0	0901	21	08			FMOP	40 sps	12kOE	OTHR; Contayner
21438.0	0836	02	08	RUS	RCV	A1A		10H	Area of Sevastopol; since years daily
28800.0	0611	20	08	IRN		OTHR	307 + 870 sps	45k0	OTHR; bursts; sweep rate alternating often
28860.0	0839 0600	06 20	08	IRN			150 + 313 sps	ca 45k	OTHR; bursts; long lasting, sweep rate alternating almost daily
29100.0	1527	20	08	IRN		OTHR	150+ 313 sps	ca 45k0	OTHR; bursts: sweep rate alternating often
29500.0	0917	08	08	IRN		OTHR	150+ 313 sps	ca 45k0	OTHR; bursts: sweep rate alternating often

**VERON; Ruud, PG1R. Credits to observers: Dick PA0GRU; Arie PA3CNK, Rene PA3EQO**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3653.0	0952	25	08	RUS		F1B			Revs/UiPtr; shared band
3708.0	1934	29	08	RUS		FiB			Revs/UiPtr; shared band
7032.0	0530	15	08			J3E-U			Patriotic songs; Russian or Ukrainian language; reported by PA0SIM
7050.0	1515	13	08	UKR/ RUS		J3E-L		2K70E	UKR-RUS radiowar; slogans; many other days
7055.0	1403	26	08	UKR/ RUS		J3E-L		2K60E	UKR-RUS radiowar; slogans in loop; S4; many other days
7060.0	1551	26	08	RUS		J7D		2K70E	CIS-12; 12 channel PSK

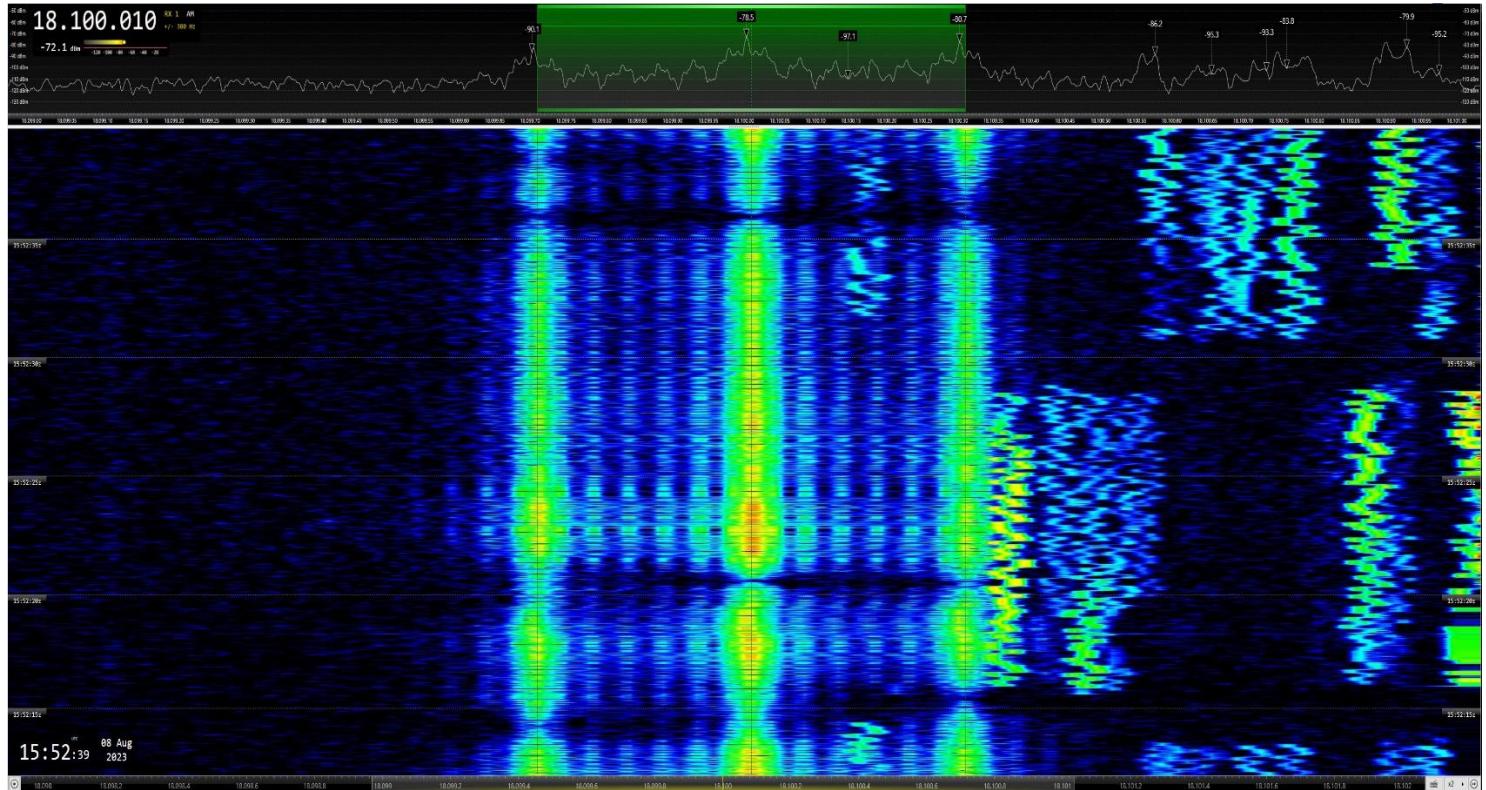
**VERON; Ruud, PG1R. Credits to observers: Dick PA0GRU; Arie PA3CNK, Rene PA3EQO**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7102.0	0955	26	08	RUS		F1B		200H	UiPtr
7102.0	1933	29	08	RUS		F1B			UiPtr
7116.0	1940	25	08	RUS		F1B			UiPtr
7120.0	0946	29	08	RUS		F1B			Revs/UiPtr
14008.0	0943	26	08	RUS		F`B			Carr/Revs/UiPtr
14108.0	0930	23	08	RUS	3PBP	A1A			Mil tfc; qtc
14192.0	1755	28	08	RUS		F1B		400H	UiPtr; S6
14220.0	0935	29	08			NON			Long lasting carrier
14250.0	1401	15	08	RUS		RADAR	40	12K0E	OTHR; TDoA nr Letland border
14266.0	0940	29	08						UiBC; music & speech; splattering
14334.0	0946	26	08	RUS		F1B			Revs/UiPtr
21105.0	0930	31	08	RUS		RADAR	40	12K0E	OTHR Contayner
21245.0	0930	30	08			RADAR			
21390.0	0935	30	08	G		RADAR			OTHR; TDoA 37N 31E; Cyprus
28370.0	0705	30	08	G		RADAR	50	20K0E	OTHR; UK Air Base Cyprus

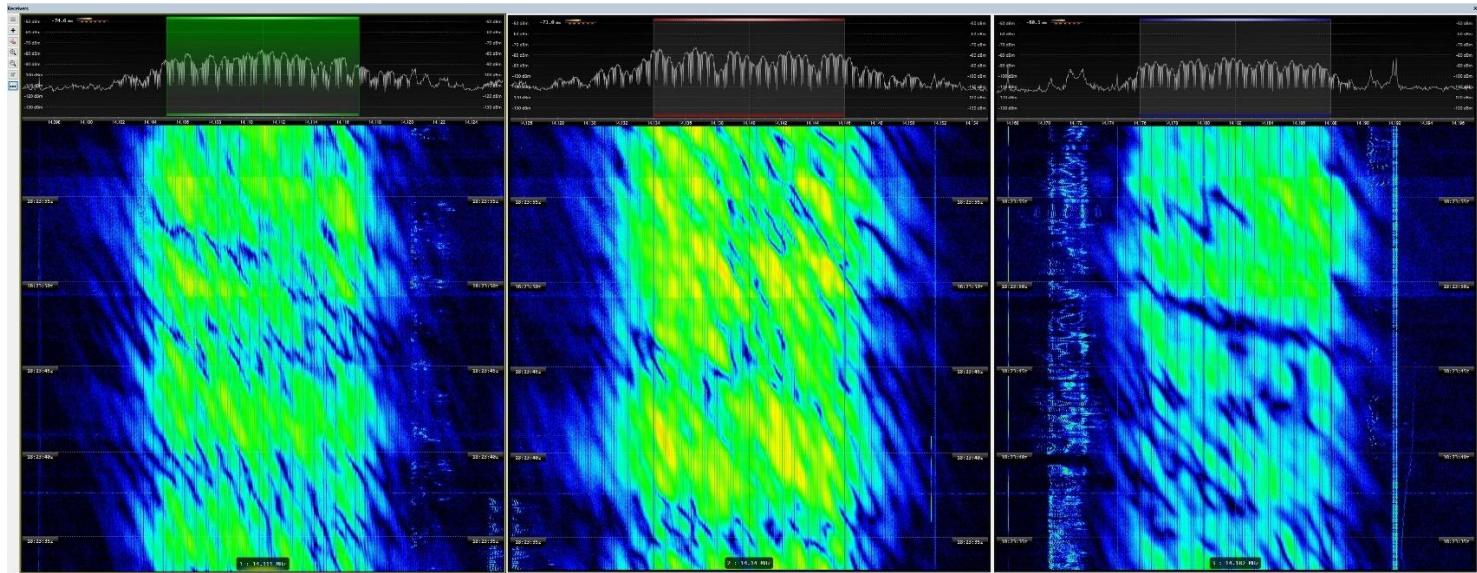
Contact: Gaspar Miró, EA6AMM, [ea6amm@iaru-r1.org](mailto:ea6amm@iaru-r1.org)

IARUMS R1 Coordinators: <https://www.iaru-r1.org/spectrum/monitoring-system/iarums-region-1-coordinators/>

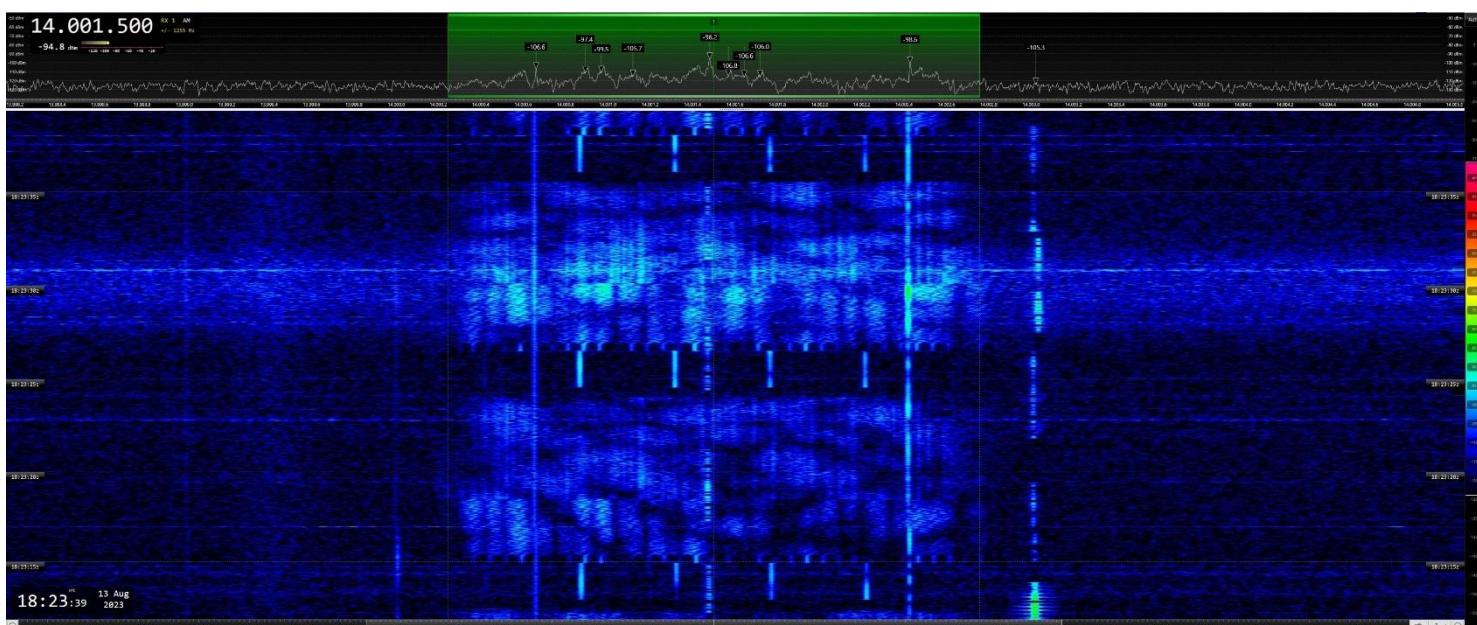
Visit our website: <https://www.iaru-r1.org/about-us/committees-and-working-groups/iarums/>



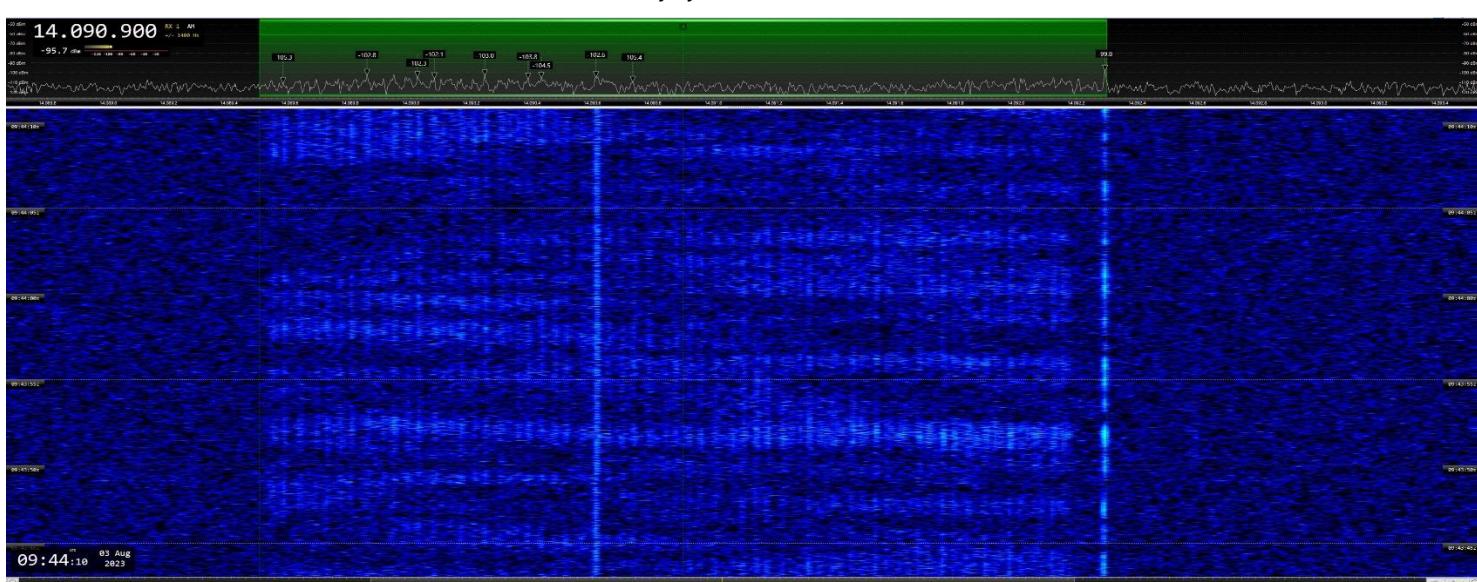
18100 kHz CF: FSK-3. Shift = 600 Hz. Bd = 300. RUS



OTHR Contayner. RUS. BW = 12K0E. 40 sps 3 simultaneous transmissions in the 20 m band: 14111 kHz CF + 14140 kHz CF + 14182 kHz CF



14001.5 kHz CF: Israeli navy hybrid modem. G1D. BW = 2K40E. 2400 Bd



14091 kHz CF: OFDM. CIS-60, a.k.a RUS High Dara Rate modem

