



## Monitoring Bericht Juli 2023

Auch der Juli widerspiegelte weitgehend die Beobachtungen des Vormonats. Wie gehabt, dominant die vorwiegend

militärischen Intruder (= Bandeindringlinge), vor allem das russische Contayner OTH, wie auch CIS-12 Emissionen.

HB9CET ↵

### Abbreviations:

**aka** = also known as | **BC** = Broadcast | **BD** = Baud, or also Burst duration | **BRI** = Burst repetition interval | **BW** = Bandwidth | **ca** = approximate | **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 | **PRC** = CHN People's Republic of China | **RF** = Radio frequency = VFO | **SH** = Shift (Hz) | **sps** = sweeps per second | **TDoA** Time difference of arrival | **ui** = unidentified | **x** or **xxx** is used for unknown/not classified.

**Digital transmissions:** Frequency mostly center frequency (CF); otherwise indicated (LSB or USB).

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD / sps	SH / BW	DETAILS
7000.0	2302 2300	14 31	07			J7D	12x120 Bd	2k70E	CIS12; very long lasting daily
7009.0	2310	31	07			FMOP	40 sps	12k0E	OTHR; Contayner
7021.8	1233	13	07			X	X	ca 2k6	unid digital signal, maybe MIL188-xxx
7024.0	2218	31	07			FMOP	40 sps	12k0E	OTHR; Contayner; strong ≥ 50dbm
7051.7	1439	06	07			X	X	1k20E	unid; maybe a tactical data link ?
7055.0 LSB	2224	27	07			J3E-L		ca 3k0E	RUS-UKR Radio War; Music daily
7064.0	0730	26	07			J7D	12x120 Bd	2k70E	CIS12; weak
7176.0	0924	26	07			J7D	12x120 Bd	2k70E	CIS12; weak
7186.0	1453	31	07			J7D	12x120 Bd	2k70E	CIS12; idling only
14001.8	1415	28	07			G1D PSK-8	2400 Bd	2k40E	STANAG 4285; short bursts only, often
14002.0	1417	28	07			F1B	50 Bd	850H	FSK
14008.0	1411 0842	06 12	07			F1B	50 Bd	250H	FSK often
14019.0	1544	11	07			FMOP	40 sps	12K0E	OTHR; Contayner
14023.0	1443	28	07			X	X	ca 2k0	unknow, long lasting, maybe a tactical data link ?
14064.0	1535	11	07			FMOP	40 sps	12K0E	OTHR; Contayner
14068.0	0806	13	07			F1B	75 Bd	500H	FSK
14098.3	0739	01	07			ARQ PSK		1k20E	DPRK PSK ARQ system often
14108.0	0638	06	07		MWD3	A1A			CW; groupes of 5, encrypted often
14142.0	1652	29	07			FMOP	40 sps	12K0E	OTHR; Contayner
14152.0	0901	28	07			FMOP	40 sps	12K0E	OTHR; Contayner
14155.0	1627	05	07			FMOP	40 sps	12K0E	OTHR; Contayner
14167.0	1559	30	07			FMCW	50 sps	10k0E	OTHR; bursts
14192.0	1301 1657	01 29	07			F1B	50 Bd	200H	FSK; TDoA: area of Moscow very long lasting daily
14198.5	1206 1211	05 13	07			ARQ FSK / PSK	600 1200 Bd	600H 1k20	DPRK ARQ system often
14200.0	1433	12	07			FMOP	40 sps	12K0E	OTHR; Contayner
14202.0	0647	11	07			FMOP	40 sps	12K0E	OTHR; Contayner
14292.0	0841	05	07			F1B	100 Bd	500H	FSK
14298.5	1221	13	07			ARQ FSK	600 Bd	600H	DPRK ARQ system often



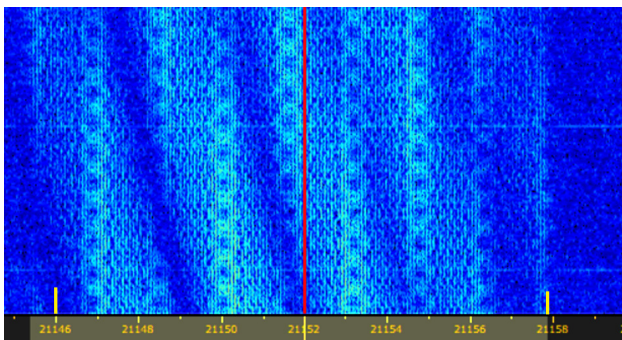
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD / sps	SH / BW	DETAILS
14303.4	0811	01	07			ARQ PSK	X	1.2k	DPRK ARQ system often
14318.0	0736	01	07			FMOP	40 sps	12KOE	OTHR; Contayner
21000.0	1211	05	07			J3E-U		ca 2k70E	Spanish, Fishermen almost daily
21104.0	0915	28	07			FMCW	50 sps	10kOE	OTHR; bursts
21152.0	1706	11	07			X	X	ca 12 k	unid Signal; probably jammer?
21161.0	0738	11	07			FMOP	40 sps	12KOE	OTHR; Contayner
21169.0	0847	13	07			FMOP	40 sps	12KOE	OTHR; Contayner
21174.0	0851	12	07			FMOP	40 sps	12KOE	OTHR; Contayner; weak, fading
21290.0	0727	11	07	G		FMCW	25 sps	20kOE	OTHR; UK base Cyprus
21385.0	0823	05	07	G		FMCW	50 sps	20kOE	OTHR; UK base Cyprus
21395.0 USB	1348	12	07			J7D MFSK-8	8x 125 Bd	1k75	ALE MIL188-141A
21438.0	0854	12	07	RUS	RCV	A1A		10H	Area of Sevastopol; since years daily
28860.0	0819	01	07	IRN			150 + 313 sps	ca 45k	OTHR; Bursts; long lasting, sweep rate alternating almost daily
28960.0	1221	05	07	IRN			150 + 313 sps	ca 45k	OTHR; Bursts; long lasting, sweep rate alternating almost daily
29275.0	0836	07	07	G		FMCW	50 sps	20kOE	OTHR; UK base Cyprus
29450.0	0751	01	07	IRN		OTHR	150+ 313 sps	ca 45k0	OTHR; Bursts: sweep rate alternating
29524.99	1301	01	07			F1B	81.9 Bd	ca 140Hz	FSK, oceanographic measuring buoy

Errors and omissions excepted

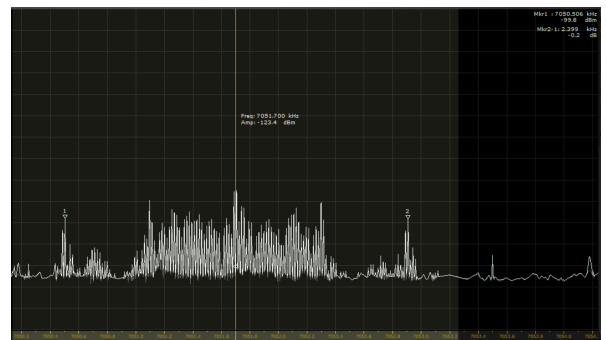
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**USKA Monitoring System (Intruder watch)**  
<https://www.uska.ch>

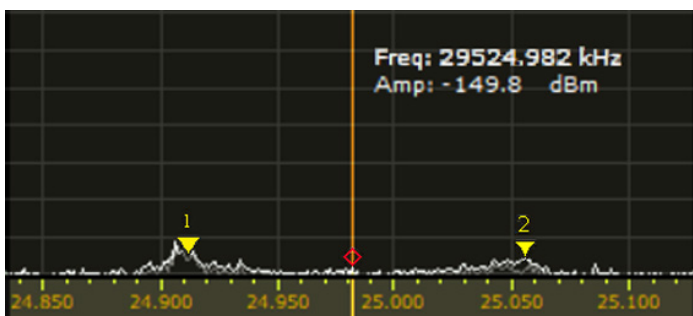
Member of IARU Monitoring System R1  
<https://www.iaru-r1.org/spectrum/monitoring-system/>



21152.0 kHz CF: Nicht identifiziertes Signal, ev. Jammer



7051.7 kHz CF: Nicht identifiziertes Signal



29524.9 kHz CF: F1B 81.9Bd, 140Hz Shift

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[13:46:13] [FRQ 21395.00] [To: BN2 ] [His BER: 2]
[13:47:12] [FRQ 21395.00] [Call] [From: AN1 ] [To: BN2] [His BER: 0]
[13:48:12] [FRQ 21395.00] [To: BN2 ] [His BER: 4]
[13:49:15] [FRQ 21395.00] [To: BN2 ] [His BER: 0]
[13:50:15] [FRQ 21395.00] [Call] [From: AN1 ] [To: BN2] [His BER: 4]
[13:51:14] [FRQ 21395.00] [Call] [From: AN1 ] [To: BN2] [His BER: 1]
[13:52:13] [FRQ 21395.00] [Call] [From: AN1 ] [To: BN2] [His BER: 1]
[13:53:11] [FRQ 21395.00] [Call] [From: AN1 ] [To: BN2] [His BER: 11]
[13:54:12] [FRQ 21395.00] [Call] [From: AN1 ] [To: BN2] [His BER: 14]
[13:55:10] [FRQ 21395.00] [Call] [From: AN1 ] [To: BN2] [His BER: 5]
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21395.0 kHz USB: ALE MIL 188-141A, mit Kiwi rx decodiert

Die Software des Kiwi SDR hat einen effizienten  
 ALE 2G Decoder integriert.