Monitoring Bericht November 2022

Auch der November war geprägt von den leider allzu häufigen, breitbandigen Überhorizont Radaren (OTHR). So waren die bekannten iranischen OTHR auf 10m fast täglich zu anzutreffen, nicht nur auf den "angestammten" Frequenzen sondern zunehmend "mal hier, mal dort".

Vor allem auf 15m war das britische OTHR aus Zypern oft aktiv. Ebenso OTHR aus China, letztere vielfach auch im 20m und 40m Band. Und wie gehabt beeinträchtigte uns das russische Contayner Radar auch im November täglich, vereinzelt gleich mehrere tx gleichzeitig im gleichen Band.

Vereinzelt war auch ein Meereswellenradar zu beobachten.

Auch das LINK11 SLEW auf 7089.8 kHz (CF)und das LINK11 CLEW auf 7159.0 kHz (SSB oder DSB/ISB Mode) wurden im November ebenfalls fast täglich gehört. Beides sind bekannte NATO Systeme.

Ausserdem fand man täglich zahlreiche verschiedene digitale Emissionen in FSK, PSK oder OFDM. So gehören u.a. die FSK auf 7054 kHz und 7193 kHz zu den täglichen "Stammgästen".

Ausser Radio Ethiopia auf 7110 kHz waren keine Rundfunksender anzutreffen.

HB9CET ϟ

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** Peole´s Republic of China | **RF** = Radio frequency = VFO | **SH** = Shift (Hz) |**sps** = sweeps per second | **TDoA** Time difference of arrival | **ui** = unid = 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
7001.7	1754	18	11			X		ca 3kHz	7000.0 kHz USB: Burst signal; Hybrid ser/par with FSK Intro 40Bd 324Hz
7002.00	1317	22	11			N0N			Long lasting carrier
7002.0	1943	29	11			FMOP	40 sps	12k0E	OTHR; Contayner
7004.8	1726 1314	01 19	11			G1D PSK8	2400 Bd	ca 2k4	short bursts; 1800 Hz single tone modem MIL 188-xxx often
7005.0	2301 1521	01 23	11			J3E-L			LSB; unid language, maybe village radio from Indonesia often
7006.5	0817	30	11	RUS		F1B	50 Bd	250H	FSK
7008.0	1012	29	11			J7D	12x120 Bd	2k60E	CIS12; PSK; additional carrier at 7006.0 kHz
7010.0	1501	22	11			J3E-L			LSB; unid language, maybe village radio from Indonesia; weak often
7015.0	1439	07	11			J7D	12x120 Bd	2k60E	CIS12; PSK
7015.0	1319	21	11			J3E-L			LSB; unid language, maybe village radio from Indonesia
7015.5	1432	28	11			X		2k70E	CF: 7017.3 kHz: short bursts; unid
7022.0	1151	22	11			J7D		2k60E	CIS12: 13 tones only, (jammed)
7022.08	1157	22	11			A1N			Jammer, dashs and dots
7029.0	1436	22	11			J7D	12x120 Bd	2k60E	CIS12, PSK, weak
7030.0	1029 1025	09 29	11			F1B	75 Bd	250H	FSK; long lasting often
7054.0	2249	01	11			F1B	50 Bd	400H	FSK; ^{2}nd of 3527 kHz
7054.0	1452 1602	02 23	11			F1B	50 Bd	200H	FSK almost daily

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD / sps	SH / BW	DETAILS
7055.0 LSB	1239	27	11			J3E-L		ca 3k0E	RUS-UKR Radio War; Music daily
7057.0 USB	1814	18	11			J7D	12x120 Bd	2k60E	CIS12; PSK; strong often
7075.009	1503	07	11			A1N			Continuos group of dashes, long lasting often often
7087.0 USB	0926 1458	03 18	11			J7D	12x120 Bd	2k60E	CIS12; idling only
7089.8	0953 1449	01 28	11			G1D PSK-8	2400	ca 2k70E	LINK 11 SLEW long lasting daily
7108.0 LSB	1605	02	11			PSK-4	30x60 Bd	2k50E	CHN30 (PRC30); Burst system Preamble, Pilot tone at 450Hz often
7110.0	1439	23	11	ETH		A3E		ca 9k0E	BC: Radio Ethiopia almost daily
7111.0	1211	27	11			F1B	75 Bd	250H	FSK
7115.0	1438	23	11			Radra	50 sps	10k0E	OTHR; Bursts
7119.0	2318	01	11			J7D	12x120 Bd	2k60E	CIS12; weak, fading
7131.0	1723	02	11			Radar	50 sps	10k0E	OTHR; Bursts
7133.0	1737	10	11			FMOP	40 sps	12k0E	OTHR; Contayner
7140.0	1714	03	11			FMOP	40 sps	12k0E	OTHR; Contayner
7159.0 USB	1421 1501	01 28	11			G7D DQPSK	75 Bd	ca 2k40E	LINK11 CLEW SSB mode; 16 tones, tone spacing 110Hz often
7162.0	0814	30	11	RUS		F1B	50 Bd	250H	FSK
7188.0	2132	30	11			FMOP	40 sps	12k0E	OTHR; Contayner
7193.0	0950	01	11	RUS	RDL	F1B	50 Bd	200H	FSK
7193.0	0958	01	11	RUS	RDL	F1A		200H	CW-FSK
7196.0	1531	22	11			FMOP	40 sps	12k0E	OTHR; Contayner; strong
14119.0	1004	01	11			F1B	50 Bd	200H	FSK
14140.0	1431	21	11			FMOP	40 sps	12k0E	OTHR; Contayner
14169.0	0714	30	11			F1B	50 Bd	200H	FSK
14176.0	0725	30	11			F1B	50 Bd	200H	FSK
14200.0	1147	04	11			Radar		ca 6k	most likely Super Darn system
14201.7	1054	09	11		CHN	PSK	16x75 Bd	ca 2k20E	PRC 16; burst system, 16 tones
14292.0	0923	01				FSK		500H	
14298.5	1234	21	11			ARQ PSK	600 Bd	600H	DPRK PSK ARQ system often
14315.0	1633	04	11			Radar	66.66 sps	10k0E	OTHR; weak
14324.0	1040	09	11			Radar	50 sps	10k0E	OTHR
14334.3	1259 0925	21 24	11			F1B	50 Bd	250H	FSK
14340.0	1511	18	11			FMOP	2.9 sps	12k0E	Ocean wave radar
18060.0	0819	30	11	G		FMCW	50 sps	20k0E	OTHR; UK base Cyprus
18090.0	0959	20	11	G		FMCW	50 sps	20k0E	OTHR; UK base Cyprus
18107.0	0932	01	11			F1B	36+50 Bd	200H	CIS36-50
18132.0	0947	04	11			Radar		10k0E	OTHR; bursts
18175.0	1536	02	11	G		FMCW	50 sps	20k0E	OTHR; UK base Cyprus; long lasting partially in 17m band
21176.0	1210	01	11			FMOP	40 sps	12k0E	OTHR; Contayner
21180.0	1014	25	11			FMOP	40 sps	12k0E	OTHR; Contayner
21185.0	1315	22	11	G		FMCW	50 sps	20k0E	OTHR; UK base Cyprus
21186.0	1044	22	11			FMOP	40 sps	12k0E	OTHR: Contayner
21210.0	1431	23	11			Radar	12.5 sps	40k0E	OTHR; stopped at 1436z
21210.0	1200	27	11	G		FMCW	50 sps	20k0E	OTHR; UK base Cyprus
21290.0	1217	27	11	G		FMCW	50 sps	20k0E	OTHR; UK base Cyprus

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD / sps	SH / BW	DETAILS
21335.0	1016	03	11			Radar	66.66 sps	10k0E	OTHR; bursts
21370.0	0754	30	11	G		FMCW	50 sps	20k0E	OTHR; UK base Cyprus
21400.0	0931	02	11	G		FMCW	50 sps	20k0E	OTHR; UK base Cyprus
21420.0	1216	22	11			FMOP	40 sps	12k0E	OTHR; Contayner
21421.0	0910	25	11			FMOP	40 sps	12k0E	OTHR; Contayner
21435.0	1214	22	11	G		FMCW	50 sps	20k0E	OTHR; UK base Cyprus
21438.0	0937	01	11	RUS	RCV	A1A		10H	Area of Sevastopol daily
28000.0	1025	11	11			F3E			short traffic only; Russian language
28055.0	1033	11	11			F3E		ca 9k0E	Short traffic only; Taxi
28065.0	1122	04	11			F3E		ca 9k0E	Short traffic only; Taxi
28135.0	1240	07	11			F3E		ca 9k0E	short traffic only; Taxi
28145.0	1155	27	11			F3E		ca 9k0E	short traffic only; Taxi
28155.0	1252	07	11			F3E		ca 9k0E	short traffic only; Taxi
28165.0	1222	07	11			F3E		ca 9k0E	short traffic only; Taxi
28185.0	1238	07	11			F3E		ca 9k0E	short traffic only; Taxi
28195.0	1255	07	11			F3E		ca 9k0E	short traffic only; Taxi often
28200.0	1122	09	11			F3E		ca 9k0E	short traffic only; Taxi
28215.0	1000	04	11			F3E		ca 9k0E	short traffic only; Taxi
28600.0	0940	01	11	IRN		Radar	307 + 870 sps	ca 45k	OTHR; Bursts; long lasting often sweep rate alternating
28735.0	1259	07	11			F3E		ca 9k0E	short traffic only; Taxi
28815.0	1007	09	11			F3E		ca 9k0E	short traffic only; Taxi
28860.0	0943	01	11	IRN		Radar	150 + 313 sps	ca 50k	OTHR; Bursts; long lasting, sweep rate alternating often
28965.0	0938	02	11			F3E		ca 9k0E	short traffic only; Taxi
29070.0	0944	02				N0N			Long lasting carrier
29090.0	0958	29	11			FMCW	12.5 sps	40k0E	OTHR; long lasting
29325.0	1305	07	11			F3E		ca 9k0	short traffic only; Taxi
29400.0	1010	03	11	IRN ?		Radar	313 sps	45k0	OTHR; bursts, 313sps only
29690.0	1127	09	11			F3E		ca 9k0	short traffic only; Taxi

Errors and omissions excepted

Peter A. Jost / HB9CET
Leiter USKA Bandwacht
Friedheimstrasse 34b
CH 8057 Zürich
E-Mail: guard (at) uska.ch

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

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

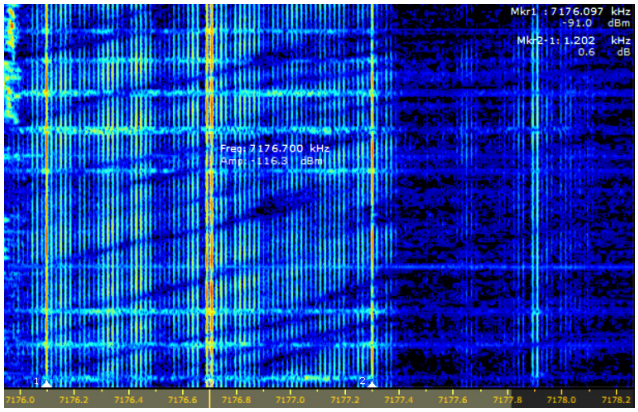
Frohe Festtage

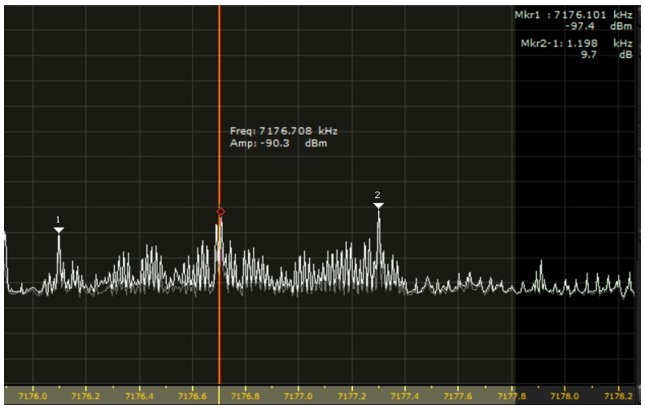
Joyeuses fêtes *Buone feste*

Happy Holidays

Unbekanntes Signal auf 7176.7 kHz (CF)

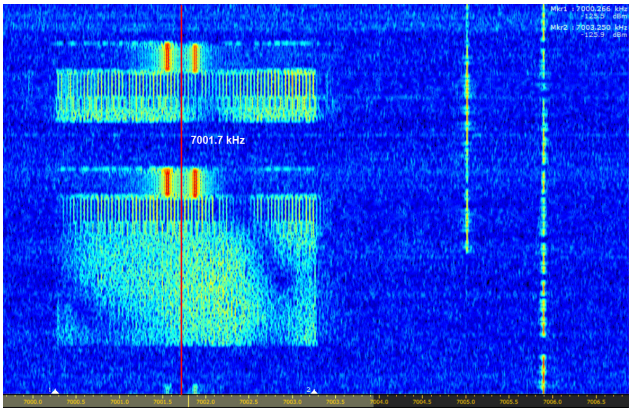
BW ca 1.2kHz

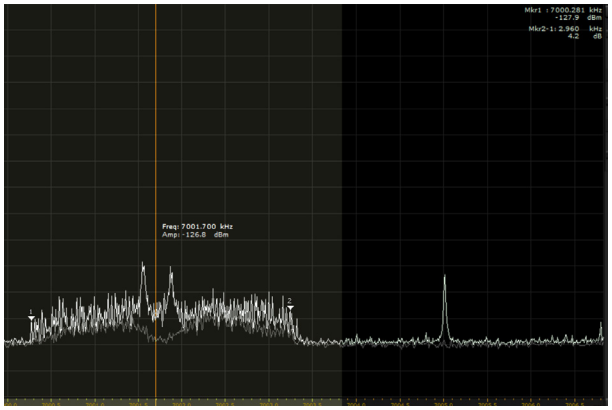


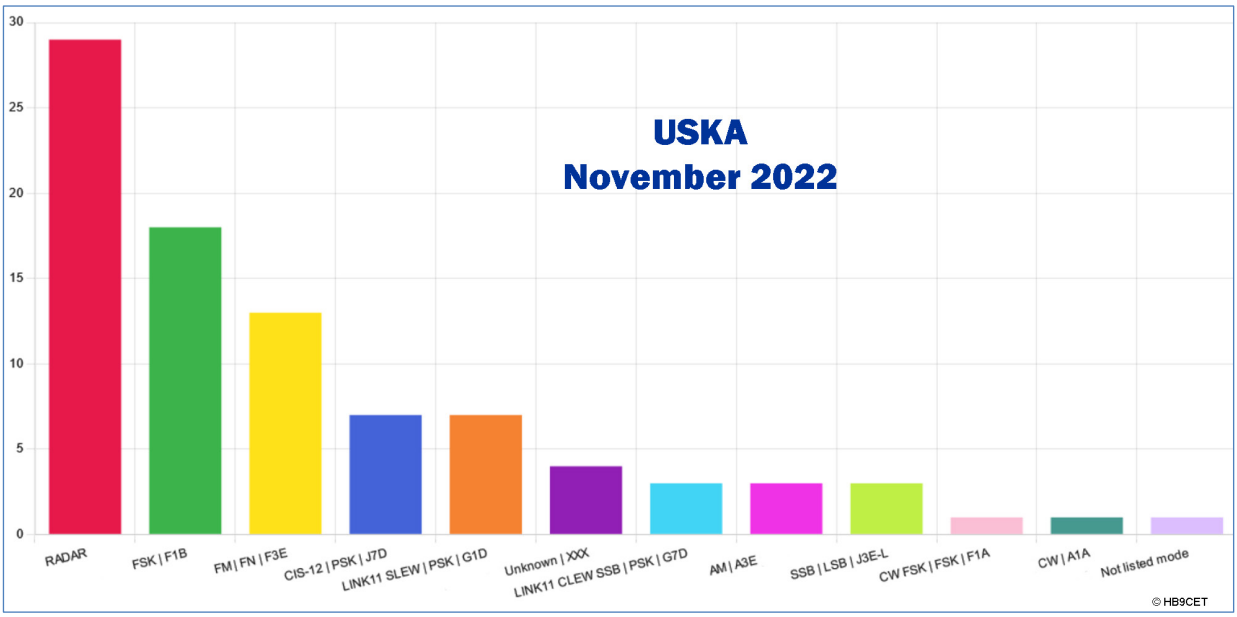


Unbekanntes Signal auf 7001.7 kHz (CF

Burst Signal; Hybrid ser/par, mit FSK Intro BW ca 3kHz







Monats Statistik November 2022