Monitoring Report October 2019

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
80m, 60m and 30m band for information only!									
3510.0 USB		03	10			XXX		ca.. 3k	unid Chirps; ca 450Hz spacing; daily
3520.0	2241	01	10			G1D	2400	2k7	Stanag 4285
3525.0 USB	0848	10	10			G1D	2400	2k7	LINK 11 SLEW
3525.0 USB	1009	24	10			DQPSK	14x75	ca. 2k5	LINK 11 CLEW, ESB mode
3527.0	2243	01	10			F1B	50	200	daily
3532.0	2202	08	10			DQPSK	14x75	~6k1	LINK 11 CLEW, DSB mode; often
3548.0 USB	2158	10	10			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D
3548.0	2240 2249	29 29	10			F1A F1B	17 wpm 50	200	Letters and figures often
3550.8	2221	28	10			G1D PSK8	2400	2k7	MIL 188-110A (D2) mod (Hybrid) preamble 4 tones; PSK4 75Bd 450Hz spacing often
3552.0	2202	19	10			F1B	75	250	
3578.0	22129	29	10			G1D	2400	2k7	STANAG 4285
3581.8	2246	01	10			G1D	2400	2k7	STANAG 4285 almost daily
3608.0	2207	09	10			F1B	50	200	almost daily
3610.0	2247 2219	01 27	10			DQPSK	14x75	ca 6k1	LINK 11 CLEW, DSB mode often
3631.0 USB	2106	23	10			G1D PSK8	2400	2k7	MIL 188-110A (D2) mod (Hybrid) preamble 4 tones; PSK4 75Bd 450Hz spacing
3640.0	1336	20	10		XSS	MFSK8	125	1750	ALE; MIL 188-141A;
3649.0	2158	10	10			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D
3687.0	2158	10	10			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D; idling
3687.0	2158	10	10			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D; idling
3715.0	2249	01	10			G1D	2400	2k7	STANAG 4285 almost daily
3735.0	2140	04	10		123	MFSK8	125	1750	ALE; MIL 188-141A; To: FN01
3741.5	2223	15	10			F1B	50	200	often
3745.8	2208	09	10			G1D PSK8	2400	2k7	MIL 188-110A D2 mod (Hybrid); preamble 4 tones; PSK4 75Bd 450Hz spacing
3750.0	2253	01	10			DQPSK?	2x2400 ?	ca. 5k9	Burst Emission; DSB ; each Side-band appx 2k4 wide (Link11 SLEW ?)
5360.0 USB	1003	29	10			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
5361.8 USB	1749	01	10	DNK		G1D	2400	2k7	STANAG 4285; reported as Danish Navy in Aarhus
6985.0	2216	28	10			FMOP	10 sps	160k	OTHR (6905 - 7065kHz) partially in 40m band
6999.8	2152	18	10			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D partially in 40m band
7000.0 USB	2253	30	10			G1D	2400	2k7	MIL 188-141B App. C; BW1 (PSK8)
7000.9	0937	18	10	RUS		OFDM60	30.0	ca. 2.76k	PSK4; spacing 44.45Hz; pilottone partially in 40m band
7016.0	1713	08	10			F1B	75	250	CIS 75/250; TDoA: Area of Moscow
7022.0	1003	21	10			J7D	12x120	2k7	CIS12 (idling)
7024.0	1328	15	10			F1B	75	250	CIS 75/250; TDoA: Area of Samara
7030.0	2137	04	10			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D

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7032.0	1013	01	10			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D
7039.2	2216	18	10		F	A1A			Vladivostok
7039.4	2216	18	10		M	A1A			Magadan
7043.0	2138	30	10			F1B	75	200	
7047.8	1033	25	10			G1D	2400	2k7	STANAG 4285 600bps/long
7051.0	1004	09	10			J7D	12x120	2k7	PSK-4; CIS12; aka AT3104D
7051.0	0731	24	10			F1B	50	200	
7062.0	1941	21	10	RUS		FMOP	40 sps	ca. 12k	OTHR; Contayner 29B6
7064.0	0934	02	10			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D
7078.0	1300	24	10			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D
7080.0	1715	09	10			F1B	50	200	often
7088.0	1013	19	10			F1B	75	200	often
7102.0	1944	21	10	RUS		FMOP	40 sps	ca. 12k	OTHR; Contayner 29B6
7111.0 LSB	2054	23	10			OFDM30 PSK-4	30x60Bd	ca. 2k5	CHN-30 Burst system; tone spacing 75 Hz Preamble 4x PSK4 60Bd; spacing 600Hz; Pilottone at 450Hz
7114.0	1716	09	10			F1B	50	200	
7114.0	0833	10	10			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
7118.0	1931	24	10			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
7121.0 LSB	1725	08	10			OFDM30 PSK-4	30x60Bd	ca. 2k5	CHN-30 Burst system; tone spacing 75 Hz Preamble 4x PSK4 60Bd; spacing 600Hz; Pilottone at 450Hz
7121.0	2145	23	10		811001	MFSK8	125	1750	ALE; MIL 188-141A
7122.0	1324 1403	09 15	10 15		RDL	F1B F1A	50	200	almost daily
7134.0	1732	08	10			F1B	75	200	
7137.0	2148	09	10			F1B	50	200	CIS 50/200
7140.0	1527	01	10	ERI	VOBM 1	A3E		ca. 9k	BC often
7142.0 USB	0907	18	10			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
7146.0	0812	29	10			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
7172.0	0944	02	10			FMOP	2.6 sps	30k	OTHR (380ms)
7176.0	2221	02	10			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
7180.0	1525	01	10	ERI	VOBM 2	A3E		ca. 9k	BC almost daily
7186.0	2153	08	10			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
7186.0	0947	18	10			J7D	12x120	2k7	PSK-4; CIS12 aka AT3104D
7188.0	0744	24	10			F1B	XX	250	
7192.0 USB	2057	08	10			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
7192.0	1722	09	10			F1B	75	250	CIS 75/250 almost daily
7197.0	2202	10	10	TUR	var	MFSK8	125	1750	ALE; MIL 188-141A; Network daily
7198.4	2133	08	10	CHN		PSK4	8x75	2250	PRC 4+4 – 8 x 75 Bd; Bursts
7200.0	0815	02	10	RUS		FMOP	40 sps	ca. 12k	OTHR; Contayner 29B6
7200.0	1323	07	10			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
10110.0	2143	30	10			FMCW	50 sps	20k	OTHR
10122.0	2147	30	10			DQPSK	14x75	ca. 6k1	LINK 11 CLEW, DSB (Bild)
14005.0	1018	23	10			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
14008.0	0908	04	10			F1B	50	500	almost daily
14029.0	1035	22	10			J7D	12x120	2k7	CIS12
14047.0	0956	02	10	RUS		FMOP	40 sps	ca. 12k	OTHR; Contayner 29B6
14052.0	0915	04	10			FMOP	66.66 sps	ca. 10k	OTHR; Foghorn
14095.0	0849	15	10			FMOP	10 sps	40k	OTHR; long lasting

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
14100.0 USB	0916	10	10			OFDM60	35.55	ca. 2.79k	PSK4; spacing 44.45Hz; pilottone
14108.0	1001	02	10	RUS		FMOP	40 sps	ca. 12k	OTHR; Contayner 29B6
14120.0	0852	15	10			FMOP	10 sps	160k	OTHR
14133.0	1015	01	10			F1B	75	250	
14155.0	0932	15	10			FMOP	66.66 sps	ca. 10k	OTHR; Foghorn
14164.0	0946	28	10			FMOP	66.66 sps	ca. 10k	OTHR; Foghorn
14165.0	0838	22	10			FMOP	66.66 sps	ca. 10k	OTHR; Foghorn
14168.0	1028	21	10	RUS		FMOP	40 sps	ca. 12k	OTHR; Contayner 29B6
14180.0	0901	15	10			FMOP	66.66 sps	ca. 20k	OTHR; Foghorn
14190.0	1003	15	10	RUS		FMOP	40 sps	ca. 12k	OTHR; Contayner 29B6
14225.0	0912	15	10			FMOP	66.66 sps	ca. 10k	OTHR; Foghorn;
14240.0	0913	15	10			FMOP	66.66 sps	ca. 10k	OTHR; Foghorn
14248.0	0927	05	10			FMOP	10 sps	40k	OTHR; long lasting
14253.0	0944	28	10			FMOP	66.66 sps	ca. 10k	OTHR; Foghorn
14261.0	0805	24	10			R3E		2k0	letters and figures; english
14264.0	0941	19	10			FMOP	XX	ca. 10k	OTHR; few short bursts only
14266.0	1008	23	10			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
14266.0	0807	24	10			FMOP	XX	ca. 10k	OTHR; few short bursts only
14300.0 USB	1021	10	10			OFDM60	35.55	ca. 2.78k	spacing 44.45Hz; pilottone often
14300.0 USB	1052	23	10			OFDM76	30	ca. 2.8k	spacing 44.45Hz; pilottone often
14301.0	0935	19	10			FMOP	10 sps	160k	OTHR
14305.0	0940	31	10			FMOP	66.66 sps	ca. 10k	OTHR; Foghorn
14323.0	0923	28	10			FMOP	66.66 sps	ca. 10k	OTHR; Foghorn
14324.3	1312	09	10			A1A			encrypted, letters and figures
14325.0	0851	15	10			FMOP	66.66 sps	ca. 10k	OTHR; Foghorn
14330.0	0919	20	10			FMOP	66.66 sps	ca. 10k	OTHR; Foghorn
14331.0	0904	05	10			FMOP	66.66 sps	10k	OTHR; Bursts; BD 3.8s BRI 45s Foghorn
14340.0	0907	15	10			FMOP	10 sps	160k	OTHR
14340.0	0838	24	10			FMOP	66.66 sps	ca. 10k	OTHR; Bursts; Foghorn
18060.0	0821	02	10			FMCW	50 sps	20k	OTHR; TDoA: Cyprus
18080.0	0738	23	10	TWN		A3E		ca. 9k	BC: Sound of Hope and Jammer daily
18107.0	1523 0941	01 24	10	RUS	RDL	F1B F1A	36/50	200	CIS 36-50; almost daily TDoA: area of Moscow
18168.0	0846	22	10	RUS		FMOP	40 sps	ca. 12k	OTHR; Contayner 29B6 partially in 17m band.
18170.0	1120	10	10			FMCW	50 sps	20k	OTHR; partially in 17m band
21230.0	0954	30	10			FMCW	25 sps	20k	OTHR; TDoA: Cyprus
21438.0	1018	01	10	RUS	RCV	A1A			Letters + figures daily
28000.0	0955 0947	05 19	10	IRN		XXX	307+ 870 sps	ca. 45k	OTHR; Bursts; long lasting
28198.0	1012	01	10	IRN		XXX	226+ 333 sps	ca. 45k	OTHR; Bursts; long lasting
28860.0	1027 0957	01 19	10	IRN		XXX	150 + 313 sps	ca. 45k	OTHR; Bursts; almost daily long lasting

Errors and omissions excepted

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

BC = Broadcast // **BD** = Baud, or also Burst duration // **BRI** = Burst repetition interval // **SH** = Shift or Spacing (Hz)
BW = Bandwidth // **OTHR** = over the horizon radar // **FMCW** = frequency modulated continuous wave //

FMOP = frequency modulated on pulse // **sps** = sweeps per second // **vd** = various dates // **vt** = various times
DF = Direction finding (radio location) // **TDoA** Time difference of arrival // **aka** = also known as // **ca** = approximate

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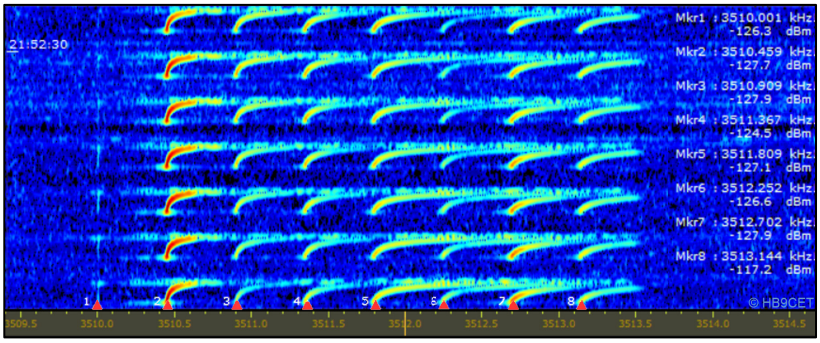
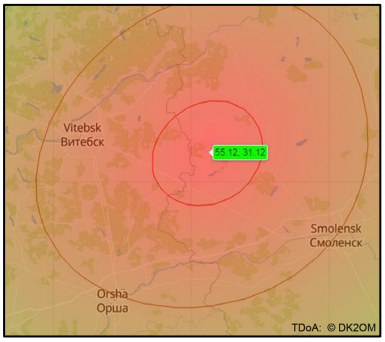
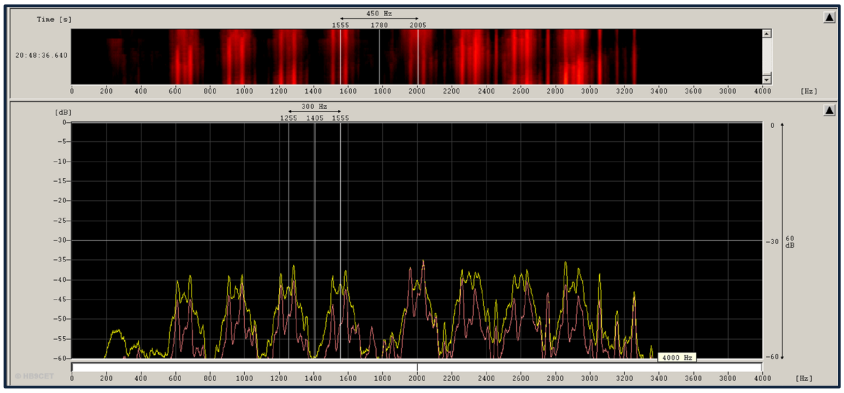
Mysteriöses Chirp Signal





Seit anfangs Oktober ärgert uns auf 3510 kHz ein eigenartiges Chirp Signal, dessen Sinn und Zweck bislang unklar ist. Eine Standortbestimmung mittels TDoA (Time Difference of Arrival) zeigt in die Region von Smolensk-Vitebsk (RUS).

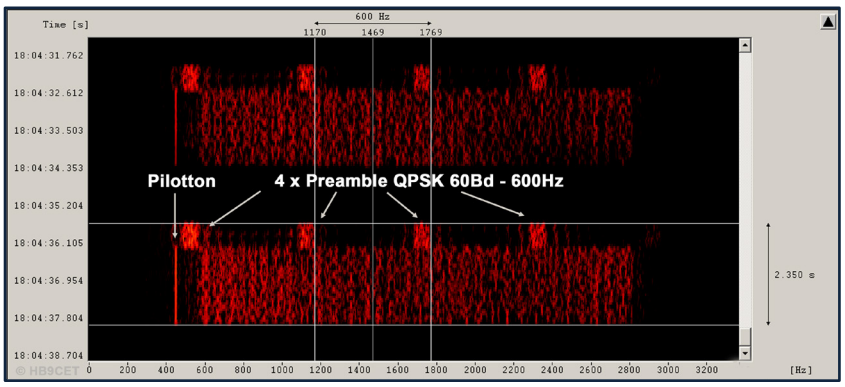
Lange nicht gehörte sind wieder da



CHN 4+4 Modem

Zwei Gruppen a je 4 Töne,
PSK-4 moduliert, 75Bd.
Spacing: 300Hz; 450Hz zwischen dem vierten und fünften Ton.

Mehrfach im 40m Band beobachtet
Herkunft mutmasslich China (CHN)



CHN 30 Ton Modem

OFDM 30 60Bd
4x Preamble 60Bd mit 600Hz spacing
Pilot Ton bei 450Hz(

Mehrfach im 40m Band beobachtet
Herkunft mutmasslich China (CHN)

Analysen mit W-Code 10.0 von Wavecom Elektronik AG; Screenshot Perseus SDR; TDoA mit Kiwi SDR