



Monitoring System

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The monthly newsletter for Region 1

August 2015

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Acknowledgements

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Part 1: News and Infos

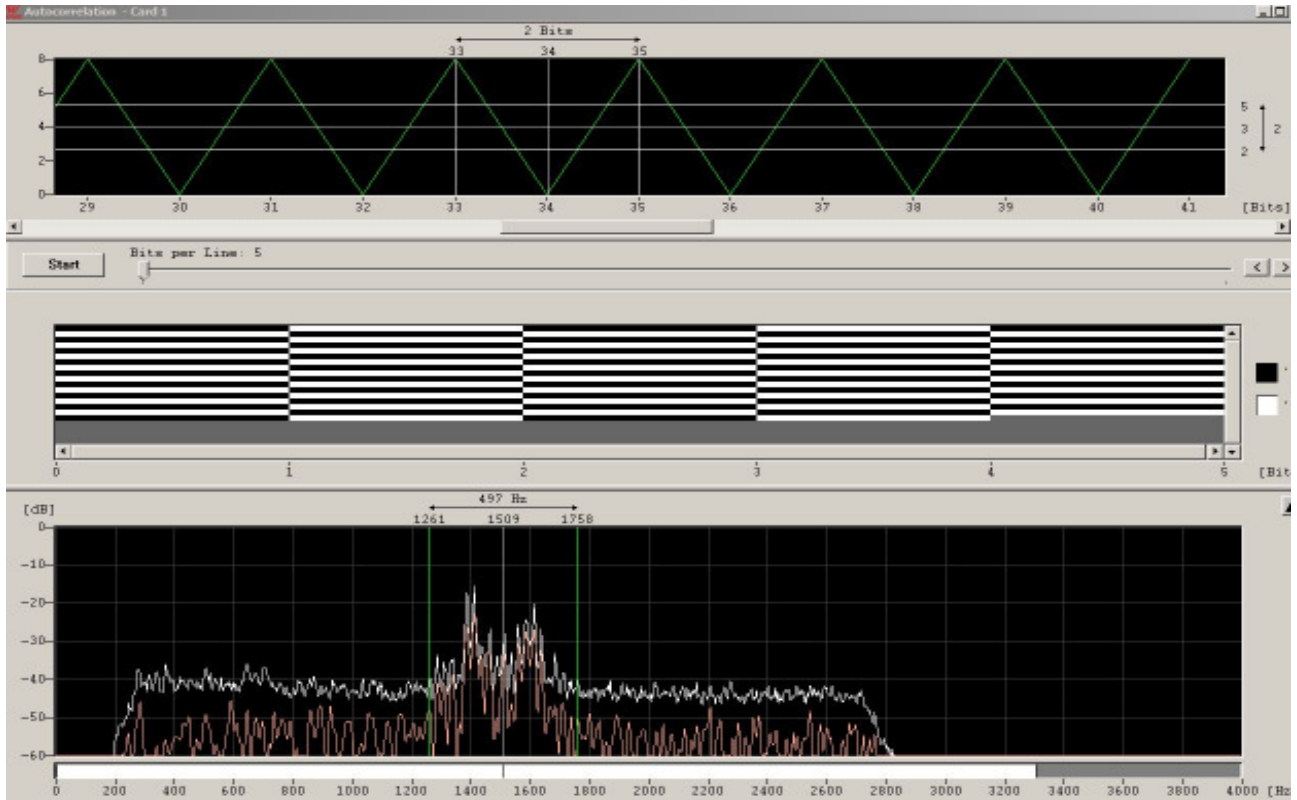
1. Russian OTH radar Gorodezh on 14 MHz

The Russian OTH radar in Gorodezh (near Nizhny Novgorod) was daily causing strong QRM and often with splatters on 14 MHz.

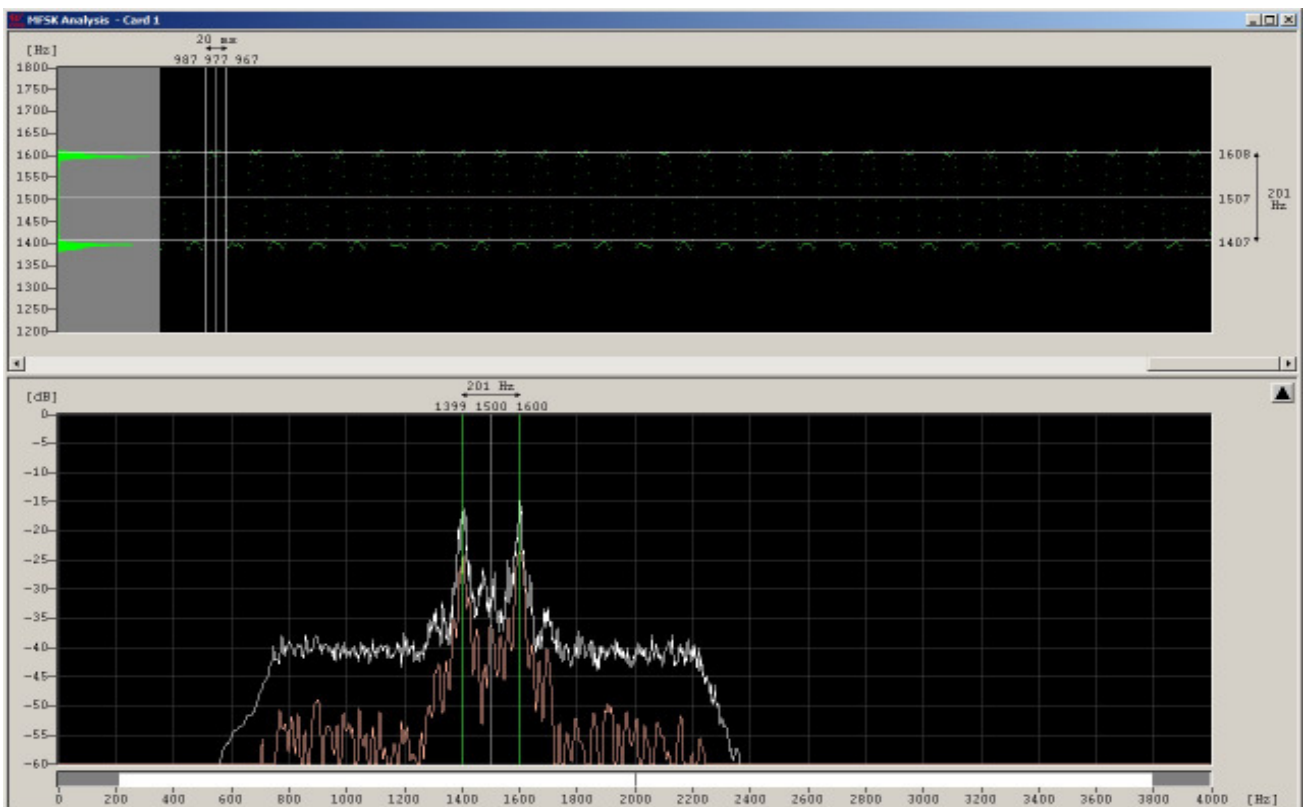
2. Russian MIL traffic increased

Russian MIL traffic on 7 and 14 MHz increased. Modes: A1A (CW), F1B and PSK.

The Russian Navy on 14192.0 on F1B was active very often. Screenshot on 14192.0 by DK2OM with W-Code. Showing the idling F1B with ACF = 2 (ACF = auto correlation frequency). ACF 2 means that the system is only switching between mark and space without any information.



The same signal analysed by MFSK analysis. 50 Bd – 200 Hz shift



3. OTH radars 10 MHz

OTH radars from Cyprus and Turkey often disturbed the 10 MHz-band with 50sps and 20 kHz wide signals.

4. Fishery traffic now on 1.8 MHz

I found Spanish fishermen on 1810.0 MHz on USB several times. Now we have Spanish fishermen on all HAM-bands (shared and exclusive)!

5. Beacon "V" on 7027.5 kHz

The beacon "V" on 7027.5 kHz was transmitting on CW daily and all day. Location: Almaty, Kazakhstan..

6. SL0FRO with CW-trainee

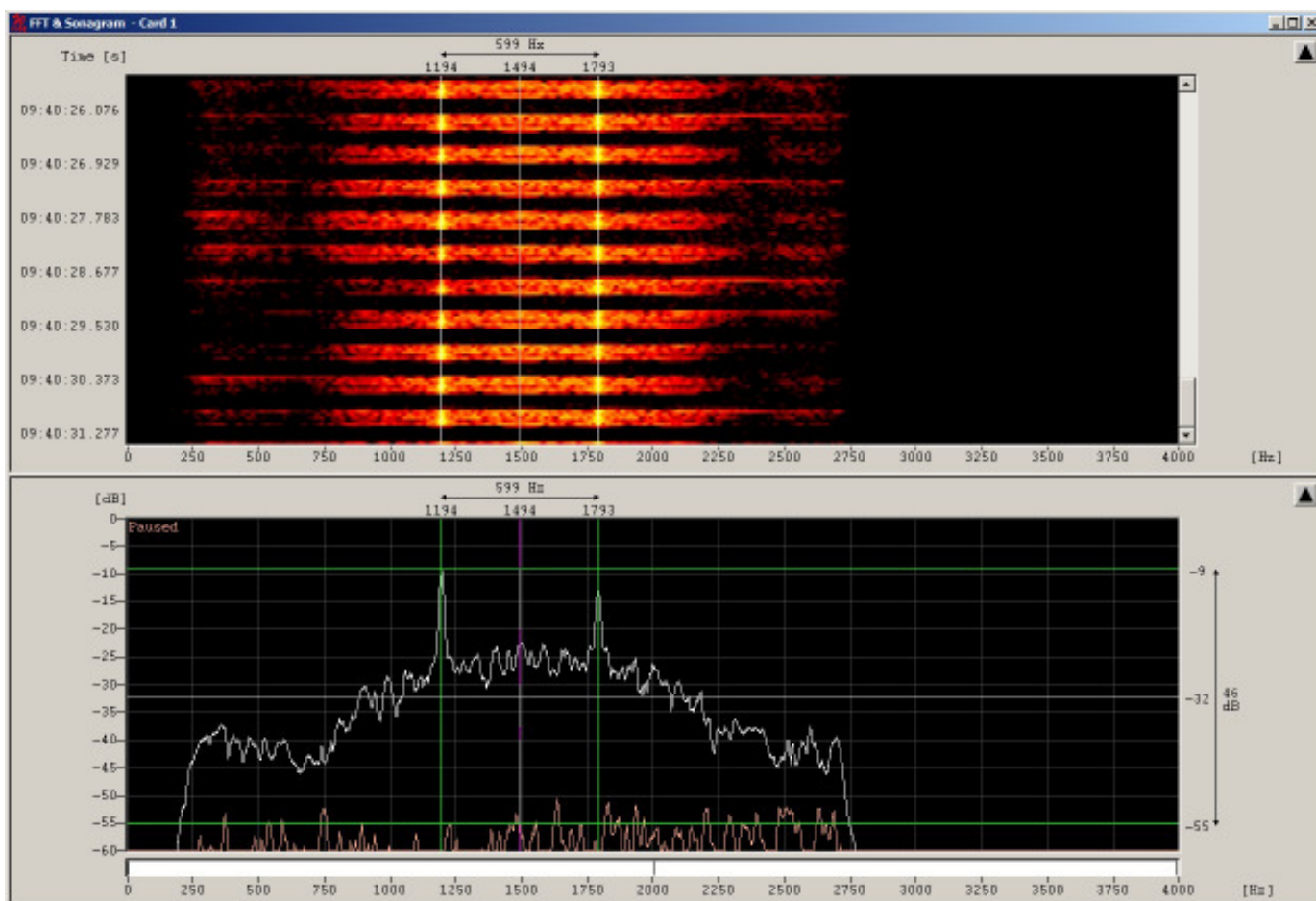
SL0FRO from Sweden was still transmitting on 7088.820 kHz with CW-lessons. **Just for info only!**

7. North-Korean diplo traffic on 14 MHz

North-Korean diplo traffic was audible on 14109.5 kHz with the system DPR-FSK 600 (F1B 600 Bd and 600 Hz shift ARQ bursts). Location: DPRK embassy Moscow

The Wavecom screenshot (by DK2OM) is showing the bursts on the sonagram and the FFT-display.

soundfile: <http://www.iarums-r1.org/iarums/sound/10133dprk.wav>



8. Time signal from Helsinki on 25000.0 kHz (calibration help)

If you want to calibrate your receiver, you can use the time signals from the University of Helsinki.

The signals are transmitted in A3E (AM), carrier on 25000.0 and time dots on the upper and lower sidebands +/- 1kHz. **Just for info!**

9. Monitoring on the upper bands

Observing 18, 21 and 28 MHz was not very successful, because the bands were often in very poor conditions. The link below is very helpful if you need an overview about the ionospheric situation:

<http://www.swpc.noaa.gov/communities/radio-communications>

10. Homepage IARU Region 1

Homepage IARUMS Region 1 <http://www.iaru-r1.org/>

Homepage IARUMS Region 2 <http://www.iarums-r1.org>

Homepage IARUMS Region 3 <http://www.iaru-r2.org/>

Homepage IARUMS Region 3 <http://iaru-r3.org/iaru-region-3-monitoring-system-newsletter/>

Intruderlogger Region 1 <http://peditio.net/intruder/bluechat.cgi>

ITU-Monitoring Reports – now here:

<http://www.itu.int/en/ITU-R/terrestrial/monitoring/Pages/Regular.aspx>

Part 2: Detailed reports of the national Co-ordinators

DD = day *** MM = month *** dly = daily *** vt = various times *** vd = various days *** BD = Baud *** SH = shift *** SP = spacing *** Mode = mode of transmission *** A3E = AM *** A1A = CW *** J3E-U = USB *** J3E-L = LSB *** FSK (F1B) = frequency shift keying *** PSK = phase shift keying *** OFDM = orthogonal frequency division multiplex
ALE (MIL-188-141A) = automatic link establishment *** MUX = multiplex *** **Ui (unid)** = unidentified *** **Illicit** = illegal
UiILL = unidentified illegal *** **BC** = broadcast *** **MIL** = military *** **PTR** = printer *** **NGO** = non governmental organization *** **ITU** = ITU country abbreviation *** **PRC** = People's Republic of China *** **PLA** = People's Liberation Army *** **MFA** = Ministry of Foreign Affairs *** **MOI** = Ministry of Interior *** **MOPO** = Ministry of Public Order *** **IARUMS** = IARU Monitoring System *** **UTC** = Universal Time Coordinated *** **pps** = pulses per second (earlier radar systems) *** **sps** = sweeps/sec (radar systems) *** **FMCW** = frequency modulated continuous wave (OTH and coastal Radars)
5BL = cyrillic 5 lettergroups

ARSK MONITORING OVERVIEW FOR AUGUST 2015

Radio Hargeisha remained on 7,120 kHz with broadcasts.
 Propagation was not very good but some local or Central African intruders were observed on 7,000 and 7075 kHz.

E/H.M. Alleyne, 5Z4NU

ARSK National IARUMS Co-ordinator

ARSK – Kenya – 5Z4NU (Ted)

H'd by	kHz	UTC	dd	mm	ITU	Identity	MODE	Details
ARSK	7.000.00	vt	dly	09	E. Africa	?	J3Eu	Unidentified, KiSwahili, East Africa. Possibly military.
ARSK	7,075.00	vt	dly		E. Africa	?	J3Eu	Unidentified language
ARSK	7,120.00	vt	dly		Rep.of Somalia	Hargeisha	A3E	Broadcast

DARC 1 – Germany – DG0JBJ (Mario) – OTH radar intrusions

DG0JBJ (Mario) observed **31** OTH radars on 20 m, **28** OTH radars on 15 m and **11** OTH radars on 10 m in August 2015. A Chinese OTH radar often appeared on the 80 m-band in Region 3.

DARC 2 – Germany - DK2OM (Wolf)

FSK transmissions -> center frequency between mark and space

PSK transmissions -> center frequency - ALE (MIL188-141A) -> USB frequency

exclusive bands -> black – shared bands -> blue - voice traffic -> green - BC -> red

SH = shift --- SP = spread (radar) – SPS = sweeps/sec (radar)

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	1810,0	2034	20	08	E		USB			Spanish fishery
DK2OM	1812,0	1950	04	08	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – no carrier - daily, all day
DK2OM	1852,0	2058	08	08	I	IPP	USB			Palermo Radio, weather reports
DK2OM	1855,0	2032	05	08	I	IQP	USB			San Benedetto Radio, weather reports
DK2OM	1876,0	2032	05	08	I	IQN	USB			Lampedusa Radio, weather reports
DK2OM	1880,0	---	--	08	BEL		PSK8	2400	2400	Stanag4285 – 600 bps long – area of Brugge – Belgium - daily
DK2OM	1888,0	2031	05	08	I	IPD	USB			Civitavecchia Radio, weather reports
DK2OM	1896,5	---	--	08	D		PSK8	2400	2400	Stanag4285 – 600 bps long – German Navy
DK2OM	1925,0	2030	05	08	I	IPL	USB			Livorno Radio, weather reports – daily, vt
DK2OM	3500,0	vt	dly	08	TUR		FSK8	120	1750	ALE, “201” - Turkish Red Crescent – legal!
DK2OM	3500,0	1518	17	08	E		USB			Spanish fishery – daily, all day

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3500,0	1620	04	08	G		USB			UK fishery
DK2OM	3500,0	1420	05	08			USB			Scandinavians – North Sea
DK2OM	3500,0	1917	17	08	HOL		USB			Dutch fishery – daily, various times
DK2OM	3500,0	2014	19	08	E		USB			Spanish fishery with scrambler CRY 2002
DK2OM	3501,2	2010	23	08	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3503,5	vt	dly	08	G	no ITU	FSK8	125	1750	ALE – “XSS” “XPU” “XJR” – British MIL Tascomm – vt, daily - legal!
DK2OM	3504,0	2038	05	08	I		USB			Italian pirates
DK2OM	3504,0	1945	31	08	RUS		F1B	75	250	CIS-75-250 - Moscow
DK2OM	3510,0	1735	17	08	E		USB			Spanish fishery
DK2OM	3520,0	1817	28	08	CIS		USB			woman with MSGs in Russian voice
DK2OM	3530,0	1628	05	08	HOL		USB			Dutch fishery
DK2OM	3530,0	2100	06	08	E		USB			Spanish fishery
DK2OM	3531,0	2013	02	08	RUS	REA4	N0N			unclean carrier - RUS airforce Moscow, ident: 1940 utc - daily
DK2OM	3532,0	1943	22	08	CHN		PSK2	60	2400	PRC 30 tone modem – LSB mode – LSB QRG - pilotone 450 Hz
DK2OM	3534,5	vt	dly	08	HOL		FSK8	125	1750	ALE, “A03” “A15” “A10”
DK2OM	3535,0	1958	28	08	E		USB			Spanish fishery – also 31.08.2015 at 2025 utc
DK2OM	3540,0	2031	08	08	E		USB			Spanish fishery – sometimes with voice scrambler CRY 2001 – very often
DK2OM	3540,0	2125	24	08	F		USB			French fishery
DK2OM	3541,0	2140	24	08	RUS		F1B	75	250	CIS-75-250 - Moscow
DK2OM	3550,0	vt	vd	08	ALG	no ITU	FSK8	125	1750	ALE, “TU50” “TU52” “FN50”
DK2OM	3550,0	2020	05	08	E		USB			Spanish fishery
DK2OM	3553,8	ady	dly	08	TUR		PSK8	2400	2400	Stanag4285 – 600 bps long -TUR MIL - Ankara – daily, all day - legal operation
DK2OM	3565,0	1950	31	08	G		PSK8	2400	2400	Stanag4285 – 600 bps long - Aberdeem
DK2OM	3567,0	vt	dly	08	CHN ?	no ITU	FSK8	125	1750	ALE, “103” “106”
DK2OM	3569,0	2000	26	08	RUS		F1B	50	200	CIS-50-200 – St. Peterburg
DK2OM	3570,5	1924	28	08	BLR		F1B	81	250	system 81 - idle - Minsk
DK2OM	3576,4	ady	dly	08	I	IZ3DVW	A1A			uncoordinated beacon
DK2OM	3585,0	2016	01	08	TWN	HLL	F1C			120 rpm, IOC 576, WX-fax - daily - legal!
DK2OM	3586,0	1930	06	08	G		PSK2A	40	40	encrypted – every evening Great Britain – purpose unknown
DK2OM	3587,0	vt	vd	08	E	no ITU	FSK8	125	1750	ALE, “TVV” “TXX” - Spanish Guardia Civil
DK2OM	3590,0	vt	dly	08	PAK	no ITU	FSK8	125	1750	ALE, “KW” “KHAIBAR” – Pakistan navy
DK2OM	3590,0	2034	01	08	E		USB			Spanish fishery – also with scrambler CRY 2001 – very often
DK2OM	3590,0	1910	19	08	RUS		PSK2	120	2600	AT3004D – submode idle - Kaliningrad
DK2OM	3595,0	vt	dly	08	D		FSK8	125	1750	ALE – German customs
DK2OM	3595,0	2014	20	08	RUS		USB			woman in Russian voice – often spelling figures - St. Peterburg
DK2OM	3596,0	vt	dly	08	D, S, HRV		FSK8	125	1750	ALE, “DK3CW” “SA6CBK” “9A0PZ” – just for info!
DK2OM	3599,0	1941	10	08	RUS		PSK2A	12	2600	AT3004D – Far East Russia – also: 23.08.2015 at 1005 utc
DK2OM	3617,0	vt	dly	08	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” – HAM-ALE - just for info
DK2OM	3622,5	2015	01	08	J	JMH	F1C			Tokyo Meteo – 120 rpm – IOC576 – daily, legal!!!
DK2OM	3640,0	vt	vd	08	G		FSK8	125	1750	ALE, “XSS” - British MIL Tascomm – just for info!

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3642,0	1440	14	08	CHN		A1A			endless slip – DKG6 de 3A7D Chinese military – daily, all day
DK2OM	3649,0	vt	vd	08	ALG	no ITU	FSK8	125	1750	ALE, “BI20” PA20”
DK2OM	3650,0	1427	03	08	CHN		FMCW		45k	Chinese OTH radar – 43 sps 3650 – 3695 kHz
DK2OM	3655,0	1045	27	08	CHN		FMCW		51k	Chinese OTH radar – 43 sps – 3655 – 3706 kHz
DK2OM	3662,0	vt	vd	08	FEa		A1A			endless slip – RA5J de BP2S
DK2OM	3675,0	1302	24	08	CHN		FMCW		57k	Chinese OTH radar – 43 sps – 3675 – 3732 kHz
DK2OM	3678,0	1828	14	08	CHN		FMCW		52k	Chinese OTH radar – 43 sps 3678 – 3730 kHz
DK2OM	3690,0	1516	04	08	CHN		FMCW		42k	Chinese OTH radar – 43 sps – 3690 – 3732 kHz
DK2OM	3697,0	1432	14	08	FEa		F1B	200	850	Far East
DK2OM	3704,5	1447	14	08	FEa	D63	A1A			D63 – UA63 - UA53A3 – UT7NA3AAU – QRN!
DK2OM	3720,0	vt	dly	08	S		FSK8	125	1750	ALE, “YU” “YT” “YV” “DZ” – Swedish MIL
DK2OM	3751,5	vt	dly	08	POL	no ITU	FSK8	125	1750	ALE, “IZ3” “MI3”
DK2OM	3756,0	ady	dly	08	RUS		A3E			RUS MIL – channel marker – Tuapse – East Black Sea – night QRG
DK2OM	3758,0	1516	04	08	CHN		FMCW		40k	Chinese OTH radar – 43 sps – 3758 – 3798 kHz
DK2OM	3761,5	vt	vd	08	POL	no ITU	FSK8	125	1750	ALE, “NI9” “PL7” “AB2” – Polish MIL
DK2OM	3767,0	1930	02	08	RUS		PSK2A	120	2600	AT3004D – traffic and submode idle - Kaliningrad
DK2OM	3777,0	1441	14	08	FEa		A1A			“M8JF de RIS9” – endless slip – revd via JA
DK2OM	3791,0	vt	vd	08	D	DK0ESD	FSK8	125	1750	ALE, “DK0ESD” – daily just for info!
DK2OM	3797,0	1443	14	08	FEa		A1A			“M8JF de RIS9” – endless slip – revd via JA
DK2OM	6980,0	1840	04	08	CHN		FMCW		108k	Chinese OTH radar – 43 sps - 6980 – 7088 kHz
DK2OM	6999,0	vt	dly	08			FSK8	125	1750	ALE, “537” “725” – signal center = 7000.625 kHz
DK2OM	7000,0	vt	dly	08	?	no ITU	FSK8	125	1750	ALE, “210” “20989” “2205” “203”
DK2OM	7000,0	0925	21	08	INS		USB LSB			Indonesian pirates – daily – all day - audible in Europe in the evenings
DK2OM	7000,0	2010	03	08	E		USB			Spanish fishery
DK2OM	7000,0	0605	11	08	I		USB LSB			Italian pirates talking about the sea – also 11.08.2015 at 1600 utc
DK2OM	7000,5	1833	13	08	RUS		PSK2	120	2600	AT3004D – modem idle - Moscow
DK2OM	7001,5	---	--	08	ALG		PSK4A	62.5	1750	Clover 2000 – 8 x 62.5 Bd – Algeria – daily, vt
DK2OM	6998.5	0809	04	08	POL		FSK8 PSK8	125 2400	1750 2400	ALE, “ZI3” “OL1” “OD6” “SZ4” and MIL-188-110A - until 7001.000 kHz – Polish MIL
DK2OM	7005,0	1306	24	08	INS		USB LSB			Indonesian pirates
DK2OM	7010,0	1523	22	08	INS		USB LSB			Indonesian and Philippine pirates
DK2OM	7012,0	1833	14	08	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7012 – 7044 kHz
DK2OM	7015,0	1527	22	08	INS		USB LSB			Indonesian pirates
DK2OM	7015,0	0650	07	08	RUS	RLO	A1A			RLO – RIT – RUS MIL – reported by JM
DK2OM	7018,0	---	--	08	RUS	REA4	F1B	100	1000	mostly idling – Russian airforce Moscow – ident at full hour + 40 min.

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	7020,0	1426	18	08	INS		USB LSB			Indonesian pirates
DK2OM	7025,0	1528	22	08	INS		USB LSB			Indonesian pirates
DK2OM	7027,5	1950	10	08	KAZ	„V“	A1A			beacon “V” - Almaty
DK2OM	7030,0	1843	18	08	RUS		PSK2A	120	2600	AT3004D – Far East-Russia – also: 22.08.2015 at 1525 utc
DK2OM	7030,0	1637	25	08	INS		LSB			Indonesian pirates
DK2OM	7035,0	1529	22	08	INS		USB LSB			Indonesian pirates
DK2OM	7035,0	1824	25	08	RUS		PSK2	120	2600	AT3004D – modem idle -
DK2OM	7039,2	----	--	08	RUS	F	A1A			Cluster beacon - Vladivostok RUS Navy - “RJS” – now on 7509.2 kHz
DK2OM	7039,3	1854	10	08	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC” - daily
DK2OM	7039,4	1854	10	08	RUS	M	A1A			Cluster beacon – Magadan RUS Navy – „RTS“
DK2OM	7040,0	vt	dly	08	F	F6BAZ	FSK8	125	1750	ALE, “F6BAZ” – just for info
DK2OM	7040,0	ady	dly	08	I		A1A			IZ3DVW – uncoordinated and unwanted beacon
DK2OM	7040,0	1052	27	08	INS		USB LSB			Indonesian pirates
DK2OM	7040,5	vt	dly	08	HRV		FSK8	125	1750	ALE, “9A5EX” “9A0ALE” – just for info
DK2OM	7042,0	1940	21	08	RUS		PSK2	120	2600	AT3004D – modem idle - Smolensk – disturbing PSK31
DK2OM	7047,37	vt	vd	08	D		FSK8	125	1750	ALE, “DL0NOT” – just for info!
DK2OM	7049,5	2014	09	08	HRV	9A0ALE G M1DFO F F6BAZ	FSK8	1250	1750	Amateur ALE, just for info! daily – various times
DK2OM	7050,0	1927	06	08	CIS		LSB			Russian music
DK2OM	7050,0	0928	21	08	INS		USB			Indonesian pirates
DK2OM	7051,0	2013	09	08	RUS		F1B	50	200	CIS-50-200 – also: 16.08.2015 at 2100 utc - Sevastopol
DK2OM	7055,5	vt	vd	08	MEa	no ITU	FSK8	125	1750	ALE, “111” “132” “133” - Kaukasus
DK2OM	7070,0	vt	vd	08	GEO	no ITU	FSK8	125	1750	ALE, “MV” “244” “686” “334” “204” “571” – daily active
DK2OM	7080,0	1939	10	08	CHN		FMCW		30k	Chinese OTH radar – 43 sps – 7080 – 7110 kHz
DK2OM	7088,8	1325	04	08	S	SL0FRO	A1A			7088.820 - cw-trainee, Sweden – kHz – SL0FRO - just for info!
DK2OM	7089,8	vt	vd	08	TUR		PSK8	2400	2400	Link11 - SLEW – aircraft – west of Cyprus
DK2OM	7092,0	vt	vd	08			FSK8	125	1750	ALE, “3014”
DK2OM	7099,5	vt	dly	08	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” “9A5EX1P” “9A0OS” – daily - just for info!
DK2OM	7102,0	vt	dly	08	HRV SUI D	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” “9A2KS” “HB9MHB” “9A0ZG” “9A4OS” “DK0ESD” – just for info!
DK2OM	7110,0	vt	dly	08	HRV	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” – just for info
DK2OM	7110,0	vt	dly	08			FSK8	125	1750	ALE, “1101” “1112”
DK2OM	7114,0	0912	11	08	RUS		PSK2A	120	2600	AT3004D – Far East Russia
DK2OM	7118,0	1846	18	08	RUS		F1B	75	500	CIS-75-500 – Far East Russia
DK2OM	7120,0	vt	vd	08	SOM		A3E			Radio Hargaysa – Somalia – daily – even audible in Australia and Japan
DK2OM	7122,0	2014	01	08	FEa	V	A1A			endless slip “V”
DK2OM	7123,0	1505	26	08	RUS		PSK2A	12	2600	AT3004D – Far East-Russia
DK2OM	7137,0	vt	dly	08	TWN	no ITU	FSK8	125	1750	LSB – ALE , “ACCENT” “ABLAZE” “ABOUND” “AGHAST” “ARTIST” “ANYWAY” “ABJECT” “ADROIT” – Taiwanese navy – daily – various times - tnx for

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										info: DL8AAM
DK2OM	7143,0	1936	10	08	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7143 – 7175 kHz
DK2OM	7155,0	1822	25	08	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7155 – 7187 kHz
DK2OM	7156,0	1830	14	08	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7156 – 7188 kHz
DK2OM	7156,0	1843	04	08	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7156 – 7188 kHz
DK2OM	7160,0	1904	30	08	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7160 – 7192 kHz via VK
DK2OM	7162,0	1924	27	08	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7162 – 7194 kHz
DK2OM	7162,0	1920	17	08	RUS		F1B	75	250	CIS-75-250 - Moscow
DK2OM	7163,0	vt	vd	08	UKR		A3E			encrypted MSGs - SZRU in Rivne
DK2OM	7174,0	1920	16	08	RUS		F1B	75	200	CIS-75-200 – Far East Russia
DK2OM	7175,0	1740	15	08	ERI		A3E/BC		9k	BC – unstable carrier – Voice of Broad Masses - Eritrea
DK2OM	7176,0	1425	03	08	RUS		PSK2A	120	2600	AT3004D – Far East Russia
DK2OM	7176,0	0915	11	08	RUS		F1B	40.5	500	system “Frost 1” - Far East Russia
DK2OM	7179,0	0035	28	08	TUN		USB			voice scrambler Harris AVS
DK2OM	7183,0	vt	dly	08	SUI		FSK8	125	1750	ALE, “HB9MHB” – just for info!
DK2OM	7185,5	vt	dly	08	D HRV		FSK8	125	1750	ALE, “9A5EX” “DK0ESD” just for info - daily
DK2OM	7197,0	vt	dly	08	TUR	no ITU	FSK8	125	1750	ALE, “8241” “206102” “8151” “3021” “3761” “8021” “8141” “3061” “3241” “8411” – Turkish organisations and Turkish Civil Defense - source: DL8AAM – daily, various times
DK2OM	7200,0	1816	09	08	IRN		A3E/BC		9k	IRIB Tehran – 1720 – 1820 utc
DK2OM	7205,0	2020	24	08	F	RFI	A3E/BC		38k	Radio France International splattering 7185 – 7225 kHz – 2000 – 2200 utc
DK2OM	10100,8	ady	dly	08	D		F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10101,0	0545	22	08	MRC		USB LSB			Moroccan fishery - daily
DK2OM	10110,0	vt	dly	08	SNG	no ITU	FSK8	125	1750	ALE, “CN6” “68” – Singapore Navy - Changi Naval Base
DK2OM	10113,0	vt	vd	08	TUN	no ITU	FSK8	125	1750	ALE, “TUD” “STAT5” “STAT154”
DK2OM	10114,0	vt	dly	08		no ITU	FSK8	125	1750	ALE, “BSF” “ZEN” “CM2OR2”
DK2OM	10114,8	0739	18	08	RUS		F1B	100	1000	CIS14 – Moscow - daily
DK2OM	10115,0	vt	vd	08		no ITU	FSK8	125	1750	ALE, “2001” “2002”
DK2OM	10116,5	vt	vd	08	AFS		F7D	54.3	2120	MHF50 – 33 tones - South African navy
DK2OM	10118,0	0755	19	08	RUS		F1B	75	250	CIS-75-250 - Moscow
DK2OM	10120,0	vt	dly	08		no ITU	FSK8	125	1750	ALE, “9066” “9067” “8001” “2001”
DK2OM	10120,0	0728	06	08	RUS		PSK2A	120	2600	AT3004D – Moscow
DK2OM	10123,0	vt	dly	08	ALG	no ITU	FSK8	125	1750	ALE, “CM3” “COF” “BSF” “CM2” “ESA”
DK2OM	10129,0	vt	dly	08	ALG	no ITU	FSK8	125	1750	ALE, “CM1” “CTF” “772”
DK2OM	10130,0	vt	dly	08	MRC		FSK8	125	1750	Thales 3000 – West Sahara – daily - vt
DK2OM	10130,0	vt	vd	08	Af	no ITU	FSK8	125	1750	ALE, – West Africa
DK2OM	10130,0	1520	22	08	CHN		FMCW		50k	Chinese OTH radar – 43 sps – 10130 – 10180 kHz
DK2OM	10135,0	1440	28	08	TUR		FMCW		20k	OTH radar West-Turkey – 50 sps
DK2OM	10136,0	vt	dly	08	ALG	no ITU	FSK8	125	1750	ALE, “CM3” “BLD” “CNC” “TF2”
DK2OM	10136,0	ady	dly	08	RUS		F1B	50	200	Chita – all day
DK2OM	10140,0	vt	vd	08	CHN		FSK8	125	1750	ALE, “205” “201” “LT”

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
					?					
DK2OM	10140,0	1421	12	08	TUR		FMCW		20k	OTH radar West-Turkey – 50 sps
DK2OM	10142,0	1630	17	08	E		USB			Spanish fishery with voice scrambler CRY 2001
DK2OM	10144,0	ady	dly	08	D	DK0WCY	A1A			10143.986 kHz - DK0WCY – German aurora beacon – just for info!
DK2OM	10145,0	1713	17	08	TUR		FMCW		20k	OTH radar 50 sps – West Turkey
DK2OM	10145,5	vt	dly	08	HRV S / D F / G	9A5EX	FSK8	125	1750	ALE, “9A5EX” “SM5VRH” “DK0ESD” “F6BAZ” “MIDFO” - just for info - daily
DK2OM	13963,0	1300	16	08	RUS		FMCW		900k	OTH radar Contayner - 50 sps – Nizhny Novgorod – splattering +/- 450 kHz
DK2OM	14000,0	1950	06	08	B		USB			pirates in French voice – Belo Horizonte
DK2OM	14001,5	1507	16	08			USB			unid pirates, possibly N. Africa
DK2OM	14008,0	0805	05	08	RUS		F1B	50	250	CIS-50-250 – Moscow – also: 09.08-2015 at 1015 utc
DK2OM	14010,0	2120	13	08	FEa		LSB			Far East pirates
DK2OM	14026,0	0845	01	08	RUS		PSK2A	120	2600	AT3004D – traffic and submode idle - Moscow – also 27.07.2015 at 0929 utc
DK2OM	14045,0	1635	14	08			A3E/BC		9k	Radio Free Asia from 13675 kHz (1500 1700 utc) -
DK2OM	14050,0	0823	08	08	RUS		F1B	50	200	CIS-50-200 - Novosibirsk
DK2OM	14051,0	0800	05	08	RUS		F1B	75	200	Vladivostok
DK2OM	14052,0	1005	24	08	RUS		PSK2A	120	2600	AT3004D - Chelyabinsk
DK2OM	14055,0	0813	21	08	CHN		FMCW			Chinese broadband OTHR – 14055 – 14215 kHz – 10 sps (120 sec bursts every 120 sec)
DK2OM	14086,0	0919	11	08	CHN		FMCW		160k	Chinese broadband OTHR – 14086 – 14246 kHz – 10 sps
DK2OM	14100,0	vt	dly	08	ALG	no ITU	FSK8	125	1750	ALE, “6206” – “6204” - “6202” “6207” “6217” “MTL” “III” – Mauritanian border – daily, all day
DK2OM	14105,0	---	--	08	F		FMCW		20k	French burst radar, 6 sps, similar Codar sounding, South France
DK2OM	14108,0	1850	06	08	RUS		FMCW		13k	OTH radar Contayner - 50 sps – Nizhny Novgorod
DK2OM	14108,0	0835	25	08	RUS		A1A			ZM8S and 7BGK – encrypted traffic – RUS MIL Moscow with St. Petersburg
DK2OM	14109,0	vt	vd	08	POR	HAM	FSK8	125	1750	ALE, “CT2IXQ” “DK0ESD” “HB9MHB” – just for info!
DK2OM	14109,0	vt	dly	08	RUS	RV3APM	FSK8	120	1750	ALE, “RV3APM” – just for info!
DK2OM	14109,5	0847	19	08	RUS		F1B	600	600	DPRK-FSK 600 – emba Moscow
DK2OM	14112,0	1837	15	08	RUS		FMCW		13k	OTH radar Contayner - 50 sps Nizhny Novgorod
DK2OM	14113,0	0927	17	08	RUS		FMCW		13k	OTH radar Contayner - 50 sps Nizhny Novgorod
DK2OM	14120,0	0932	06	08	RUS		FMCW		13k	OTH radar Contayner - 50 sps – Nizhny Novgorod
DK2OM	14125,0	1614	05	08	RUS		FMCW		20k	OTH burst radar Contayner - 10 sps – Nizhny Novgorod
DK2OM	14133,0	0841	29	08	RUS		FMCW		13k	OTH radar Contayner - 50 sps - Nizhny Novgorod
DK2OM	14135,0	0640	11	08	RUS		FMCW		13k	OTH radar Contayner - 50 sps - Nizhny Novgorod – also 30.08.2015 at 0750 utc
DK2OM	14138,0	1651	20	08	RUS		FMCW		20k	OTH burst radar Contayner - 10 sps - Nizhny Novgorod
DK2OM	14150,0	1427	28	08	RUS		FMCW		13k	OTH radar Contayner - 50 sps - Nizhny Novgorod
DK2OM	14151,5	1251	21	08	E		USB			Galician fishery – reported by Paulo
DK2OM	14160,0	0822	10	08	RUS		F1B	75	250	CIS-75-250 - Moscow

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	14162,0	0932	18	08	E		USB			Spanish fishermen – reported by Paulo
DK2OM	14171,0	0711	04	08	RUS		PSK2A	120	2600	AT3004D – Moscow – also: 18.08.2015 at 1310 utc
DK2OM	14172,0	0800	19	08	RUS		F1B	75	500	CIS-75-500 - Moscow
DK2OM	14185,9	0930	17	08	RUS		F1B	50	500	CIS-50-500 – 14185,870 kHz – Far East Russia
DK2OM	14192,0	0849	01	08	RUS		F1B	50	200	CIS-50-200 - RUS navy Kaliningrad
DK2OM	14192,0	1006	07	08	RUS		F1B	50	500	CIS-50-500 – RUS navy Kaliningrad – even audible in Japan
DK2OM	14192,0	0903	27	08	RUS		F1B	50	200	CIS-50-200 – RUS navy Kaliningrad
DK2OM	14192,0	0736	04	07	RUS		F1B	75	200	CIS-75-200 – RUS Navy Kaliningrad
DK2OM	14192,0	0840	08	08	RUS		F1B	62.42	500	async. - ACF 5 - RUS Navy Kaliningrad
DK2OM	14205,0	vt	dly	08	CHN ?	no ITU	FSK8	125	1750	ALE, “505” “822” – 60 deg. from DL - CHN ?
DK2OM	14210,8	0752	04	08	RUS		F1B	40.5	500	CIS-40.5-500 = system Frost 1 – Moscow
DK2OM	14221,0	2030	dly	08	KGZ		F1B	50	200	CIS-50-50 - Bishkek – daily
DK2OM	14234,9	0759	04	08	RUS		F1B	40.5	500	CIS-40.5-500 = system Frost 1 - Moscow
DK2OM	14240,0	0831	10	08	RUS		F1B	75	250	CIS-75-250 - Irkutsk
DK2OM	14240,0	0818	28	08	RUS		F1B	50	250	CIS-50-250 - Irkutsk
DK2OM	14260,0	vt	dly	08	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14263,0	1357	06	08	RUS		FMCW		13k	OTH radar Contayner - 50 sps - Nizhny Novgorod
DK2OM	14265,0	vt	vd	08	TUR	no ITU	FSK8	125	1750	ALE, “526”
DK2OM	14280,0	1005	Wed.	08	UKR		A3E			female voice with encrypted msgs – figures – “SZRU” = Foreign Intelligence Service of Ukraine in Rivne – every Wednesday at 1005 utc
DK2OM	14280,0	0928	20	08	RUS		FMCW		20k	OTH burst radar Contayner - 10 sps - Nizhny Novgorod
DK2OM	14285,0	0924	20	08	CHN		FMCW		15k	Chinese OTH burst radar – 83 sps – 3 sec bursts
DK2OM	14292,0	1219	13	08	RUS	TQ9C	A1A			TQ9C – CMC3 – 5 letter/figure groups – reported by Paulo
DK2OM	14295,0	vt	dly	08	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14295,6	0850	01	08	TJK		A3E		9k	3 rd from Radio Tajik on 4765 kHz – daily, all day – exact (14295,590 kHz on Aug. 27 th)
DK2OM	14298,0	0802	19	08	AFG		F1B	189	1200	Kabul
DK2OM	14299,8	0810	30	08	CHN		OFDM	44.44	2200	OFDM39-PSK4B - China
DK2OM	14301,8	1513	04	08	CHN		PSK2	75	2200	PRC 16 tone modem – USB mode – pilottone 450 Hz - China – Shanghai – daily – all day - audible worldwide
DK2OM	14308,0	0803	04	08	RUS		F1B	50	250	CIS-50-250 - Moscow
DK2OM	14322,0	vt	dly	08	CHN	no ITU	FSK8	125	1750	ALE, “402”
DK2OM	14328,0	vt	dly	08	CHN	no ITU	FSK8	125	1750	ALE, “139” “534” “772” – West China
DK2OM	14330,0	vt	dly	08			FSK8	125	1750	ALE, “BV4”
DK2OM	14334,0	vt	vd	08	CHN	no ITU	FSK8	125	1750	ALE, “249” “255” “763”
DK2OM	14340,0	1434	03	08	RUS		FMCW		13k	OTH radar Contayner - 50 sps – Nizhny Novgorod – many splatters
DK2OM	14344,7	1700	09	08	CHN		PSK8	2400	2400	modified MIL-188-110A - 600 bps short – 14344.650 kHz – daily, all day
DK2OM	14346,0	1004	07	08	HRV RUS D		FSK8	125	1750	ALE, “9A0ZG” “RX3ARZ” “DK0ESD” – just for info – various times, daily
DK2OM	14346,0	vt	dly	08	THA	HS0ZEA	A1A			HS0ZEA beacon – 14345.950

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										kHz - every 5 minutes – just for info!
DK2OM	18070,0	0909	27	08	CYP		FMCW		20k	OTH radar Cyprus - 50 sps
DK2OM	18080,0	0650	04	08	TWN CHN		A3E/BC		9k	Sound of Hope / Taiwan and Chinese mainland BC jammer - daily
DK2OM	18090,0	1020	13	08	CYP		FMCW		20k	OTH radar Cyprus - 25 sps
DK2OM	18100,0	vt	vd	08	MRC	no ITU	FSK8	125	1750	ALE, "CD" "C3" "R3" "G3" "E4" "E5" "Z2" "FORD" – daily, various times
DK2OM	18106,0	vt	vd	08	POR	CT2GOY	FSK8	125	1750	ALE, "CT2GOY" – just for info!
DK2OM	18107,0	vt	vd	08	RUS	RDL	F1B	50	200	CIS-50-50 - Moscow – idle and traffic – Russian navy – various days and times – legal operation
DK2OM	18117,5	vt	vd	08	POR	CT2IXQ	FSK8	125	1750	ALE, "CT2IXQ" – just for info
DK2OM	18140,0	vt	dly	08	SRB	YU1BI	FSK8	125	2600	ALE, "YU1BI" – just for info!
DK2OM	21000,0	1405	31	08	SDN		USB			MFA Sudan – Khartoum with emba Yemen – voice traffic
DK2OM	21000,0	1550	15	08	VTN		USB			pirates from Vietnam
DK2OM	21000,0	1700	03	08	B		USB			Brazilian pirates – Rio de Janeiro with North Brazil
DK2OM	21000,0	1945	04	08	MRC		USB			Moroccan fishery
DK2OM	21001,0	2100	11	08	CHL		USB			pirates in Spanish voice – Chilean coast
DK2OM	21002,2	---	--	08	SDN	!0000 !9999	F1B	100	170	21002.15 kHz - Pactor 1 encrypted – MFA Sudan – Khartoum with emba Yemen – daily, vt - also 16.07.2015 at 1615 utc
DK2OM	21096,0	vt	dly	08	INS	YD00XH	FSK8	125	1750	ALE, "YD00XH3" – daily, various times - just for info!
DK2OM	21131,0	vt	vd	08	CHN	no ITU	FSK8	125	1750	ALE, "A92" "L02" – Chinese diplo
DK2OM	21140,9	0717	31	08	GEO		PSK8A	2400	2400	Stanag4538 – GEO MIL with AFG - daily
DK2OM	21145,0	vt	dly	08	MRC	no ITU	FSK8	125	1750	ALE, "B301", "C3", "IR4" "T4" "E4" "A2" "CD" "K3" "KB2" "J5" "GS4" "R3" – various times, daily
DK2OM	21145,8	ady	dly	08	I	IZ3DVW	A1A			IZ3DVW beacon – 21145,75 kHz - not coordinated with IARU
DK2OM	21190,0	---	--	08	RUS		F1B	100	1000	harmonic from 10595 kHz - Moscow - daily
DK2OM	21200,0	---	--	08	INS		PSK	100	1300	Pactor 3 mailbox - Indonesia
DK2OM	21296,0	0839	19	08	AUS		FMC		10k	Australian OTH radar JORN – 2.3 and 2 sec bursts - 30 and 32 sps – intro tones
DK2OM	21318,5	---	--	08	GUI		F1B burst	600	600	DPRK-FSK 600 – Conakry North Korean emba – 21318.549 kHz
DK2OM	21346,0	ady	dly	08	THA	HS0ZEA	A1A			beacon "HS0ZEA" – just for info!
DK2OM	21400,0	---	--	08	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow - daily
DK2OM	21409,5	---	--	08	RUS		F1B	100	2000	F1B 100 / 2000 - CIS14 – harmonic from 10704.75 - Jekaterinburg, RUS - daily
DK2OM	21436,0	---	--	08	RUS		PSK2A	120	5200	AT3004D – harmonic from 10718.0 kHz - Sevastopol
DK2OM	21438,0		04	08	RUS	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol - daily
DK2OM	21446,0	ady	dly	08	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
DK2OM	25000,0	0940	21	08	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day
DK2OM	28000,0	---	--	08	CIS		F3E			28000 – 29700 only few CIS taxi nets

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	28000,0	---	--	08	B		A3E			Brazilian CBers – 28000 – 28315 – no change
DK2OM	28025,0	---	--	08	POR		F1B	51	300	F1B bursts - 28100.160 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28030,0	vt	vd	08	POR		F1B	51	340	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28045,0	---	--	08	POR		F1B	51	280	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28050,0	---	--	08	POR		F1B	51		F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28051,5	vt	dly	08	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28060,0	vt	vd	08	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28065,0	---	--	08	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28065,6	---	--	08	GAB		A3E		980	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon – daily and all day
DK2OM	28075,0	---	--	08	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28085,0	vt	vd	08	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28100,0	0905	01	08	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps – splattering +/- 300kHz
DK2OM	28100,2	---	--	08	POR		F1B	51	250	F1B bursts - 28100.780 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28102,1	---	--	08	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28125,0	---	--	08	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28146,0	vt	vd	08	ARG B		FSK8	125	1750	ALE, “LU8EX” “PY2TI” “DL1” – just for info!
DK2OM	28195,0	1546	09	08	CIS		F3E			CIS taxi
DK2OM	28200,0	vt	vd	08	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28224,4	---	--	08	GAB		A3E			carrier and dots +/- 770 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28225,0	1544	09	08	CIS		F3E			CIS taxi
DK2OM	28249,6	1604	04	08	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28250,5	---	--	08	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28275,1	---	--	08	AF		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28312,5	vt	vd	08	POR	CT2IXQ	FSK8	125	1750	ALE. “CT2IXQ” – just for info
DK2OM	28315,0	vt	dly	08	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28345,1	---	--	08	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	28435,0	----	--	08	E		F1B	81.9	140	Datawell-buoy "Waverider" – 28435.040 kHz – Costa del Sol – Malaga
DK2OM	28459,8	----	--	08	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28459,9	---	--	08	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28499,8	---	--	08	MEa		F1B	81.9	140	Datawell-buoy "Waverider" – 28499.875 kHz – Persian Gulf
DK2OM	28701,1	---	--	08	GAB		A3E		1056	carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28751,2	---	--	08	GAB		A3E		1080	carrier and dots +/- 540 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28845,5	---	--	08	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28901,1	---	--	08	GAB		A3E		1056	carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	29250,0	----	--	08	E		F1B	81.9	140	Datawell-buoy "Waverider" – 29249.880 kHz – Fuerteventura - daily, all day
DK2OM	29375,0	----	--	08	I		F1B	81.9	140	Datawell-buoy "Waverider" – 29374.898 kHz – Gallipoli, South Italy - daily, all day
DK2OM	29387,5	---	--	08	IND		F1B	81.9	140	Datawell-buoy "Waverider" – 29387.460 kHz – Indian NW coast, close to Pakistan - daily, all day
DK2OM	29400,0	---	--	08	USA		F1B	81.9	140	Datawell-buoy "Waverider" – 29400.070 kHz - USA north-east coast – NY daily, all day
DK2OM	29450,0	---	--	08	MRC		F1B	81.9	140	Datawell-buoy "Waverider" – 29449.870 kHz - area of El Aaiun – Morocco - daily, all day
DK2OM	29500,0	---	--	08	G		F1B	81.9	140	Datawell-buoy "Waverider" – area of Gibraltar – daily, all day
DK2OM	29525,0	---	--	08	MRC		F1B	81.9	140	Datawell-buoy "Waverider" – 29524.990 kHz - Agadir - Morocco – daily, all day
DK2OM	29625,0	---	--	08	USA		F1B	81.9	140	Datawell-buoy "Waverider" – 29625.024 kHz - USA north-east coast – daily, all day

IRTS – Ireland – EI9GSB (Lisa)

KARS – Kuwait – 9K2RR (Faisal)

MRASZ – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	3504,0	1727	29	8			F1B	250	
MRASZ	3590,0	1924	19	8			USB		scrambler ?
MRASZ	3595,0	1921	19	8			USB		russian male, numbers
MRASZ	3619,0	1925	24	8			F1B	200	
MRASZ	3738,0	1927	24	8			F1B	250	
MRASZ	7005,0	1632	25	8			LSB		ui male

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	7011,4	1817	22	8			USB		changeable two tone, Δ f = 300 Hz
MRASZ	7016,0	1738	5	8			F1B	250	
MRASZ	7020,0	1815	2	8			F1B	250	
MRASZ	7027,5	1813	2	8			A1A		slow "V" string, hrd on: 5,7,8,19,24,29
MRASZ	7045,0	1919	24	8			F1B	200	
MRASZ	7050,0	vt	dly	8			LSB		chaos, russian music
MRASZ	7051,0	2057	19	8			F1B	200	
MRASZ	7055,0	vt	dly	8			LSB		chaos, russian music
MRASZ	7070,0	1450	11	8			LSB		music, whistling
MRASZ	7075,0	1810	2	8			LSB		music
MRASZ	7093,8	0912	20	8			N0N		
MRASZ	7120,0	1715	2	8	SOM		A3E		R. Harg.hrd: 5,7,8,9,22,25,26
MRASZ	7147,0	1826	22	8			F1A		"QSW K QRJ 2 ZNA ZBO" "OK SK"
MRASZ	7147,6	1823	22	8			A1A		"RPT K" "RPT K"
MRASZ	7162,0	0929	16	8			F1B	250	hrd on: 20, 22
MRASZ	7163,0	0914	20	8	UKR		A3E		"624 624 624" "813 813 55..." (SZRU)
MRASZ	7164,5	1915	19	8			F1B	250	
MRASZ	7178,0	1646	25	8			A1A		deliberate interference, dotter
MRASZ	7200,0	1817	2	8			A3E		splatter down 10 kHz
MRASZ	7200,0	1751	26	8			A3E		splatter 5 kHz down, hrd on: 29
MRASZ	10114,7	0748	12	8			F1B	1000	
MRASZ	14060,0	1357	23	8			USB		ui male
MRASZ	14108,0	0758	12	8			A1A		"de W2Q8 QTC 1 PB M...."
MRASZ	14127,0	1833	7	8			F1B	200	
MRASZ	14130,0	0832	30	8			OTHR		14110-14160 kHz
MRASZ	14142,0	1833	7	8			F1B	200	
MRASZ	14152,0	1811	8	8			F1B	200	
MRASZ	14155,7	1316	11	8			A1A		deliberate interference, dotter
MRASZ	14192,0	1832	7	8			F1B	500	hrd: 8,9,11,12,14,19,20,22,23,24,
MRASZ	14202,0	1831	7	8			F1B	200	hrd: 8
MRASZ	14232,0	1830	22	8			F1B	1000	
MRASZ	14274,0	1829	22	8			N0N		
MRASZ	14295,1	vt	dly	8	TJK		A3E		R.Tajikistan, 3rd. Harm.
MRASZ	14299,0	1511	14	8			A3E		
MRASZ	14301,7	1711	5	8	CHN		PSK2		hrd on: 9,12
MRASZ	18107,0	1910	19	8			N0N		
MRASZ	18109,0	1909	19	8			PSK2		AT3004D
MRASZ	18140,0	1836	7	8			OTHR		18120-18150 kHz
MRASZ	21100,0	1837	7	8			A3E		mixed stations, also on 21364 kHz
MRASZ	21200,0	0931	30	8			OTHR		

OEVSU – Austria – OE3GSA (Gerd)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
oevsu	7012.5	0440	21	08	unid	unid	A1A			Dots 2sec interval
oevsu	7120.0	1530	02	08	unid	unid	N0N			
oevsu	7180.0	0705	07	08	unid	unid	N0N			
oevsu	10130.0	1910	13	08	unid		J3Eu			Group – one called mohammed
oevsu	14295.0	1859	13	08	TJK		A3E			Still here (ex 4765)
oevsu	28550.0	0934	07	08	unid	unid	FMCW			OTHR

PZK – Poland – SP9BRP (Jan)

REF 1 – France – F5MIU (Francis)

REF 2 – France – F5JBR (Andre)

REP – Portugal – CT4AN (Jose Francisco)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3505	08.03	10	08	E		J3E-U			Fishermen
REP	3545	19.12	02	08			J3E-U			Unid language fishery
REP	7000	08.24	31	08	E		J3E-U			Spanish fishery
REP	7012	07.23	04	08	E		J3E-U			Fishermen talking with family
REP	7045	21.20	09	08	E		J3E-U			Fishermen
REP	7152	18.50	17	08	RUS		F1B	75	250	CIS 75 encrypted, Russia
REP	7162	22.01	18	08	RUS		F1B	75	250	CIS 75 encrypted, Russia
REP	10100	23.11	09	08			A3E			YL Number Station - 5 letters
REP	10110	23.57	09	08			A1A			Number Station – 6 digit
REP	10130	12.02	11	08	MRC		J3E-U			Many fishermen
REP	10130	17.43	12	08			FMCW			OTH radar
REP	10134	16.31	13	08			J3E			Arabic language fishery
REP	14005	14.05	12	08			F1B	75	500	Unid FSK
REP	14010	07.38	18	08	RUS		F1B	50	250	F1B system
REP	14115	10.07	17	08			FMCW			OTH radar 50sps/20kHz
REP	14122	14.45	19	08			FMCW			OTH radar, unstable tx
REP	14130	19.26	25	08			FMCW			OTH burst radar
REP	14133	08.39	26	08			FMCW			OTH burst radar
REP	14135	06.49	11	08			FMCW			OTH radar 50sps/15kHz
REP	14135	12.12	13	08			FMCW			Short burst OTH radar
REP	14151	10.43	21	08	E		J3E-U			Spanish fishery, Galícia
REP	14160	20.20	23	08			H2B			Unid ALE transmissions
REP	14162	09.29	18	08	E		J3E-U			Spanish fishery, Galícia
REP	14172	09.06	19	08	RUS		F1B	75	500	CIS 75 encrypted, Russia
REP	14192	12.06	14	08	RUS		F1B	50	250	Encrypted FSK
REP	14192	09.24	18	08	RUS		F1B	50	500	CIS 50 encrypted, Russia, 24/7
REP	14220	08.27	26	08			FMCW			OTH burst radar
REP	14240	09.22	18	08	RUS		F1B	50	200	CIS 50 encrypted, Russia
REP	14242	10.53	28	08	RUS		F1B	50	250	CIS 50 (T-600 modem) enc. Russia
REP	14280	10.27	23	08			FMCW			OTH “burst” radar
REP	14292	12.15	13	08			A1A			Numbers station, five number/letters
REP	18110	18.09	08	08	B		J3E-U			Intruders
REP	21005	15.45	13	08	RUS		F1B	100	150	vocoder "Yakhta"
REP	21025	08.17	19	08			FMCW			OTH radar 20kHz
REP	28170	12.51	03	08			F3E			CIS taxis
REP	28195	14.40	01	08			F3E			YL taxi dispatcher
REP	28265	11.22	10	08			F3E			CIS taxi dispatchers
REP	28475	16.05	05	08	P		A3E			Portuguese fishermen
REP	28500	15.13	17	08	MRC		F1B	82	140	Buoy outside the port of Tanger
REP	28815	16.58	16	08			F3E			CIS taxi dispatcher
REP	29125	10.19	20	08	RUS		F3E			Taxi dispatcher
REP	29265	16.25	12	08			FMCW			OTH radar 20kHz
REP	29690	12.17	02	08			J3E-U			Far East fishermen

RSGB - Great Britain – M0VRR (Vaughan)

SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	7000,0	1515-1545	19.	8		UiMUX	PSK2	120	2600	
SRAL	7006,4	1130-1140/	26.	8		UiCarr/ CW	N0N/ F1A			
SRAL	7006,5	0730-1115	4. 10.	8		UiPTR	F1B		250/500	
SRAL	7006,5	1020-1200	13.	8		UiCW	A1A			MR 5BL
SRAL	7008,0	0735-0800/	31.	8		UiPTR	F1B		250	
SRAL	7011,4	0430-	dly	8		UiTone	A2		1200/	2-tone, once J3E-u russ.

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
		1930							900	Vox 7009 kHz on same TX
SRAL	7012,5	0745	7.	8		UiPTR	F1B		250	
SRAL	7018,75	0320-1930	*	8		UiPTR	F1A/NON		250	Days: 5. 11. 13. 31. NON on 7018,625 kHz, MR 5BL
SRAL	7020,0	0200-1930	*	8	RUS	UiPTR	F1B		250	Days: 1. 2. 8. 14. 16.
SRAL	7021,0	1530-1800	17.	8		UiMUX	PSK2	120	2600	
SRAL	7025,0	0750-1500	1. 6.	8		UiPTR	F1B		200	
SRAL	7027,5	1400-2400	dly	8	UZB	V	A1A			Khiva
SRAL	7040,0	0700-1445	22. 23.	8		UiCarr	NON			
SRAL	7042,0	0400-2015	*	8		UiMUX	PSK2	120	2600	Days: 21. 22. 24.
SRAL	7051,0	2330-0600	dly	8		UiPTR	F1B		250	
SRAL	7056,0	0410-0430	22. 23.	8		KNLZ	A1A			
SRAL	7058,0	1000-1200	2.	8		UiPTR	F1B		250	
SRAL	7060,0	0430-1330	*	8		UiMUX	PSK2	120	2600	Days: 2. 4. 24. 26.
SRAL	7076,0	0645-0735	8.	8		UiPTR	F1B		250	
SRAL	7079,0	1400-1430	7.	8		UiPTR	F1B			
SRAL	7086,5	1150-1220	13.	8		UiPTR	F1B			
SRAL	7090,5	0330-1430	1. 9.	8		UiMUX	PSK2	120	2600	Additional carrier 7088,5 kHz
SRAL	7091,5	1600	9.	8		UiPTR	F1B			
SRAL	7093,5	0825-1155	12.	8		UiMUX	PSK2	120	2600	
SRAL	7105,0	1245	4.	8		UiPTR	F1B		200	
SRAL	7111,0	0320-1850/	1.	8	RUS	UiPTR	F1B		250	
SRAL	7116,6	0330-2000	*	8		UiCarr	NON			Days: 7. – 10. 13.
SRAL	7120,0	1500-1900/	dly	8	SOM	R.Hargeis a	A3E			
SRAL	7122,0	1400-2400	1.- 8.	8	UZB	V	A1A			// 7027,5 kHz
SRAL	7125 A	0750-1910	*	8		UiPTR	F1B			Days: 16. 22. 23. Unstable fq
SRAL	7126,0	0430-0500	11.	8		UiCW	A1A			xxx- msg
SRAL	7133 A	1720-1820	17.	8	IRN	IRIB	A3E?			Spur. // 7200,0 kHz
SRAL	7151,0	0805-1015	16. 29.	8		UiMUX	PSK2	120	2600	
SRAL	7158,0	1445	22.	8		A7MT	A1A			
SRAL	7162,0	0330-2000	*	8		UiPTR	F1B		250	Days: 1. 16. – 23. 25.
SRAL	7163,9	1350-1515/	31.	8		UiCarr	NON			
SRAL	7172,0	1115	1.	8		UiCW	A1A			MR 5BL
SRAL	7175,0	1530-1806/	*	8	ERI	VoBME2	A3E			Days: 1. 10. 15. 17. 22. 29. 30. +Jamming
SRAL	7179,0	1315-1330	6.	8		UiMUX	PSK2	120	2600	
SRAL	7181,6	1400-0645	*	8		UiCarr	NON			Days: 1. 14. 15. 21. 22.
SRAL	7186,0	0300-2400	4. 5. 15.	8		UiMUX	PSK2	120	2600	
SRAL	7188,0	0430	23.	8		UiMUX	PSK2	120	2600	
SRAL	7198,0	1700-	21.	8		UiMUX	PSK2	120	2600	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
		1800								
SRAL	7198,0	1330-1500	22. 23.	8		UiPTR	F1B		250	
SRAL	7199,0	0400-1915	16. – 22.	8		UiPTR	F1B		250	
SRAL	7200,0	/1720-1820/	dly	8	IRN	IRIB	A3E			German PX
SRAL	7200,0	/1000-1300/	dly	8	CHN	CNR1	A3E			Used as jammer
SRAL	14005,0	0900	7.	8		UiMUX	PSK2	120	2600	
SRAL	14008,0	0810-1220	3. 5. 13.	8		UiPTR	F1B		200	
SRAL	14056,0	1130-1222/	5.	8		UiPTR	F1B		200	
SRAL	14064,0	0815	13.	8		UiPTR	F1B			
SRAL	14141,0	0925-1000	15.	8	RUS	UiPTR	F1B		500	
SRAL	14177,0	0925-1005	10. 15.	8	RUS	UiPTR	F1B		500	
SRAL	14192,0	0700-1930	*	8	RUS	UiPTR	F1B		200/500	Days: 1. – 23.
SRAL	14204,0	0950	12.	8		UiMUX	PSK2	120	2600	
SRAL	14221,0	0230-0600/	dly	8	KGZ	UiPTR	F1B		250	
SRAL	14235,0	0600-0615/	11.	8		438	A3E			Synth. VOX
SRAL	14242,0	0810	15.	8		UiMUX	PSK2	120	2600	
SRAL	14272,0	1530-1605	4.	8		UiCW	A1A			MR 5BL
SRAL	14289,0	0825	4.	8		UiPTR	F1B/ NON		500	
SRAL	14292,0	1120	16.	8		UiPTR	F1B			
SRAL	14295,2	h24	dly	8	TJK	R Tojikiston	A3E			3f 4765,07 kHz, Yangiyul TX
SRAL	14 MHz	0600-1830	*	8	RUS	29B6	FMCW			50Hz / 15 kHz, days: 5. 6. 9. 11. 14. 15. 17. 26. 29. 30.
SRAL	14 MHz	0430-1840	*	8	RUS	UiOTHR	FMCW			10Hz / 15 kHz, 30 sec bursts, days: 6. 7. 9. 13. 22. 30.
SRAL	18080,0	0600-0820	*	8	CHN	CNR1	A3E+			Days: 3. 4. 7. 9. 11. 13. Used as jammer
SRAL	18 MHz	0800-1800	*	8	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, days: 8. 13. 22. 23. 26.
SRAL	21 MHz	0915	13.	8	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz
SRAL	21438,0	1230-1330	9.	8	RUS	RCV	A1A			
SRAL	28 MHz	0945	1.	8	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz – 300 kHz
SRAL	28 MHz	1240	9.	8	RUS	Taxi disp.	F3E			1 report

USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	3552.0 VFO USB	2223	01	08			PSK8	2400	~2k4	Stanag 4285; often
USKA	7000.0	2109	05	08			MFSK8	125	1750	MIL 188-141A
USKA	7000.0	1234	09	08			NON			long lasting carrier often
USKA	7009.0	2225	03	08			J7D	12x120	2k7	PSK-2: CIS12 – AT3004D
USKA	7018.625	2254	10	08			NON			long lasting carrier
USKA	7020.0	2209	01	08			F1B	75	250	often
USKA	7020.0	2239	10	08			J3E-U			unident language
USKA	7027.5	2228	03	08		V	A1A			Beacon ID "V" almost daily
USKA	7030.0	1930	28	08			FMOP	50 sps	~13k	

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7039.4	2241	01	08	RUS	M	A1A			Beacon M Magadan daily
USKA	7050.0	2143	02	08			J3E-L		≥ 3k3	Music, Voice; sounds Russian
USKA	7051.0	2214	01	08			F1B	50	200	CIS 50-50 almost daily
USKA	7060.0	1615	04	08			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7079.509	2044	05	08			N0N			long lasting carrier, slightly drifting
USKA	7090.5	0454	09	08			J7D	12x120	2k7	PSK-2: CIS12 – AT3004D
USKA	7092.0	0445	09	08			F1B	50	200	often
USKA	7120.0	1835	05	08	SOM		A3E			Radio Hargaysa (back) daily
USKA	7122.0	2229	03	08		V	A1A			Beacon V almost daily
USKA	7162.0	2217	15	08			F1B	75	250	
USKA	7162.0	2251	16	08			F1B	75	250	often
USKA	7177.0	2204	10	08			F1B	50	200	
USKA	7184.0 VFO USB	1921	04	08			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D with carrier at 7184.0
USKA	7197.0	2235	15	08			MFSK8	125	1750	MIL 188-141A daily
USKA	7200.0	1241	09	08	MYA		A3E		~20k	BC lower sideband down to 7190 maybe 2 different TX !
USKA	7200.0	2234	28	08	IRN		A3E		~10k	BC IRIB, voice of I.R. Iran; lower sideband down to 7195 daily
USKA	10108.0	1310	06	08		RDL	F1B	36 + 50	200	CIS 36-50
USKA	10120.0	1331	12	08			FMCW	50 sps	20 k	OTHR
USKA	10129.0	0441	09	08			FMOP	50	~13k	OTHR
USKA	14000.0	2137	02	08			J3E-U			Voice, asian accent
USKA	14008.0	0804	17	08			F1B	50	250	often
USKA	14064.0	1311	06	08			F1B	75	250	
USKA	14064.0	1642	10	08			MFSK8	125	1750	MIL 188-141A To: 184 Link Quality Analyzis
USKA	14109.0	1356	06	08			FMCW	50	~13k	OTHR
USKA	14116.0	1029	17	08			FMCW	50	~13k	OTHR
USKA	14120.0	1335	12	08			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	14160.0	0756	13	08			F1B	50	250	
USKA	14169.0	0838	18	08			F1B	50	200	
USKA	14192.0	2137	02	08			F1B	50	200	CIS 50-50 daily
USKA	14192.0	1709	07	08			F1B	50	500	CIS 50-50 daily
USKA	14192.5	1423	07	08			?		2k7	maybe OFDM or PSK8 emission too weak for analyzis
USKA	14221.0	2134	02	08			F1B	50	200	often
USKA	14240.0	1313	06	08			F1B	75	250	
USKA	14240.0	0841	18	08			F1B	50	250	
USKA	14262.0	1316	06	08			FMCW	50	~13k	OTHR
USKA	14292.0	1128 - 1140	14	08			A1A			groups of 5 (no ham) often
USKA	14294.0	2203	02	08			OFDM			
USKA	14295.1	1847	04	08	TJK		A3E			BC: 3 rd of Radio Tajik at 4765 kHz daily
USKA	14300.0 VFO USB	2238	01	08			BPSK	16x75	2k2	Burst system; 16 tones, tone spacing appx 104Hz; 2 pilottones daily
USKA	18150.0	0759	13	08			F1B	100	1000	Harmonic of 9075 often
USKA	21000.0	0911	04	08			FMCW	50	20k	OTHR
USKA	21007.5	1724	08	08			J3E-L			unident language (sounds asian)
USKA	21170.0	1341	12	08			FMOP	80ms	40k	OTHR 80ms = 12.5 sweeps/s
USKA	21295.0	0858	04	08			FMOP	25 sps	~10k	OTHR, short bursts only
USKA	21448.45	0902	14	08			F1B	600	600	ARQ system often

Veron 1 – Netherlands – PA2GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	DETAILS
VERON	7120,0	18.20	18	8	SOM	R.Har	A3E			music
VERON	7162,0	18.22	18	8	RUS	UiPtr	F1B		250	Ptr
VERON	7200,0	18.09	24	8	IRN	IRIB	A3E			German speech, splattering to 7198 KHz
VERON	10103,0	08.48	7	8	CIS	UiCW	F1A			Proc's/5BL
VERON	10108,0	08.42	5	8	CIS	UiCW	F1A			XXX XXX (followed)

										by Car/Revs/Ptr)
VERON	10108,0	08.42	5	8	CIS	UiPTR	F1B			Carrier/Revs/Ptr
VERON	10111,0	09.08	3	8		UiPTR	F1B			Idling
VERON	14000,0	18.19	18	8	RUS	UiMOD				14000-14300 KHz floor noise
VERON	14008,0	07.44	2	8	RUS	UiPtr	F1B		200	Ptr, Moscow
VERON	14008,0	11.30	5	8	RUS	UiPtr	F1B		200	Ptr, vy bad signal, Moscow
VERON	14008,0	09.06	3	8	CIS	UiPTR	F1B			Carrier/Revs/Ptr (also at 06/08)
VERON	14108,0	09.07	14	8	CIS	ZM8S	A1A			Calls (to 7T2N Z8NS BGK7)
VERON	14116,0	18.18	18	8		OTHR	FMCW			radar
VERON	14118,0	08.23	5	8		OTHR	FMCW			radar
VERON	14120,0	09.28	6	8		OTHR	FMCW			radar
VERON	14128,0	10.34	14	8		OTHR	FMCW			radar
VERON	14141,0	10.33	27	8	RUS	UiPtr	F1B		500	Ptr
VERON	14158,0	15.43	5	8		OTHR	FMCW			radar
VERON	14160,0	09.45	10	8	RUS	UiPtr	F1B		200	Ptr
VERON	14160,0	09.22	10	8		UiPTR	F1B			Ptr
VERON	14172,0	07.37	12	8	RUS	UiMUX	PSK2			12 MPSK AT3004D
VERON	14180,0	11.55	5	8		OTHR	FMCW			radar
VERON	14192,0	10.50	14	8	RUS	UiPtr	F1B		500	Ptr, dly
VERON	14192,0	vt	vd	8	CIS	UiPTR	F1B			Revs/Ptr
VERON	14210,0	12.42	10	8		UiCAR	NON			strong carrier, S9++
VERON	14240,0	09.18	18	8	RUS	UiPtr	F1B		250	Ptr, Smolensk
VERON	14240,0	09.10	18	8		UiPTR	F1B			Ptr
VERON	14258,0	13.15	14	8		OTHR	FMCW			radar
VERON	18074,0	08.04	21	8		OTHR	FMCW			radar
VERON	21002,0	09.57	4	8		OTHR	FMCW			radar
VERON	21388,0	18.14	2	8	F.East	UiILL	J3e-U			Asian language, male voices

The monitoring team of IARU Region 1

credits:

Wavecom Elektronik – Buelach – Switzerland

German BNetzA Konstanz

Many thanks for your interest!

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